

**BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL
SOUTHERN ZONE AT CHENNAI**

APPEAL NO. 18 OF 2017

BETWEEN:

Smt. Sridevi Datla

...APPELLANT

AND

Union of India & Others

...RESPONDENTS

LIST OF DOCUMENTS REFERRED BY THE RESPONDENT NO. 4

S. No.	Date of Document	Description of the Document	Page No.
1.	08.07.2021	Counter Affidavit of the Respondent No. 4	1 TO 46
2.	20.05.2015	Copy of the G.O. Rt. No. 63 of Dept. of I & I, Govt. of AP approving establishment of Respondent No. 4 - ANNEXURE R-1	47 TO 49
3.	27.01.2016	Copy of Confirmation of the Project Site by the Ministry of Civil Aviation vide proceedings No. AV.20015/1112015/AD - ANNEXURE R-2	50 TO 52
4.	17.11.2018	Copy of the Request for Proposal inviting Applications for Development of the Greenfield Airport at Bhogapuram - ANNEXURE R-3	53 TO 144
5.	30.03.2020	Copy of the Acceptance of the Bid for Development of the Greenfield Airport by M/s GMR vide G.O. Ms. No. 18 - ANNEXURE R-4	145 TO 147
6.	14.09.2006	Copy of the EIA Notification prescribing the procedures to be followed for Environmental Clearance - ANNEXURE R-5	148 TO 220
7.	10.04.2015	Copy of the S.O. 996 (E) of the Ministry of Environment, Forest and Climate Change amending Para 7 of the EIA Notification - ANNEXURE R-6	221 TO 223
8.	05.05.2010	A Copy of the EIA Airport Manual - ANNEXURE R-7	224 TO 342
9.	28.03.2016	A Copy of the Presentation made by the Answering Respondent to the EAC - ANNEXURE R-8	343 TO 377
9.	04.05.2016	Copy of TOR Letter vide F. No. 10-21/2016-IA. III - ANNEXURE R-9	378 TO 381
10.	14.04.2017	A Copy of the Letter addressed to the EAC by the Answering Respondent - ANNEXURE R-10	382 TO 396

Date: 08.07.2021

Place: VIJAYAWADA

COUNSEL FOR RESPONDENT NO. 4

**BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL
SOUTHERN ZONE AT CHENNAI**

APPEAL NO. 18 OF 2017

BETWEEN:

Sridevi Datla
Aged about 47 years,
W/o. DRSS Kumar Varma,
R/o. Door No. 10-37-11,
Ramanagar, Visakhapatnam,
Andhra Pradesh - 530002

...APPELLANT

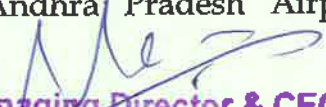
VERSUS

1. UNION OF INDIA
Through the Secretary,
Ministry of Environment Forest and Climate Change
Indira Paryavaran Bhawan,
Jor Bagh, New Delhi - 110003
2. STATE OF ANDHRA PRADESH
Through the Chief Secretary,
Secretariat Building,
Velagapudi, Guntur District
3. ANDHRA PRADESH POLLUTION CONTROL BOARD
Through the Member Secretary,
D. No. 33-26-14 D/2,
Near Sunrise Hospital,
Pushpa Hotel Centre,
Chalamvari Street,
Kasturibaipet, Vijayawada - 520 008
4. BHOGAPURAM INTERNATIONAL AIRPORT CORPORATION LTD.,
Through the Managing Director,
APADCL, AVSR BHAVAN,
Opp: MYMART, Super Market,
Kanooru, Vijayawada

...RESPONDENTS

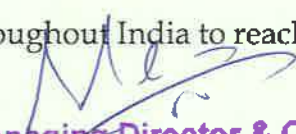
**COUNTER AFFIDAVIT FILED BY THE RESPONDENT NO. 4, BHOGAPURAM
INTERNATIONAL AIRPORT CORPORATION LTD.**

I, V. N. Bharat Reddy S/o V. Sivaji Reddy, aged 44 years, Managing Director,
of Respondent No.4 herein presently known as Andhra Pradesh Airports


Managing Director & CEO
Andhra Pradesh Airports Development Corp : Ltd.
Vijayawada

Development Corporation Limited, having Regd. Off. at 2nd Floor and 3rd Floor, AVSR Bhavan Kanuru, Vijayawada, Andhra Pradesh, 520007, do hereby solemnly affirm and state on oath as follows:

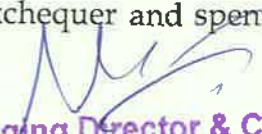
1. I submit that I am the Managing Director of the 4th Respondent herein, presently and now known as Andhra Pradesh Airports Development Corporation Limited ("Project Proponent" / "Answering Respondent" / "APADCL") and as such I am well acquainted with the facts of the case.
2. I say that I have read and understood the contents of the above Appeal along with the Annexures thereto and I am filing the present Affidavit dealing with the contentions raised by the Appellant.
3. At outset, I deny each and every statement in the said Appeal to the extent the same is inconsistent with the case set out by me. I say that nothing in this Affidavit shall be construed as an admission of any of the statements made in the Appeal unless any statement is specifically admitted. I say that no statement shall be deemed to be admitted for want of a specific traverse.
4. The present appeal filed by the Appellant does not raise any environmental issues or any questions substantially relating to the environment. The present appeal has been filed essentially because the Appellant's lands have been acquired in accordance with law. The Appellant did take her chances by challenging the Land Acquisition proceedings before the Hon'ble High Court of Andhra Pradesh. The present round of litigation is nothing but an attempt to stall a project of great public importance which is imperative and highly essential, not only to the people of the State of Andhra Pradesh ("State of AP") but also to various other people commuting throughout India to reach at


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various places in the State of AP. The present airport project is essentially an infrastructural project meant for the benefit of larger public and sub serves a greater public interest and public good.

As against this, the Appellant herein is only vying for her private interest, having lost her land and the challenge to the land acquisition. The Greenfield airport developed by the Answering Respondent is meant and intended to be a public service project with an object to sub serve the greater public good. Apart from employment generation, earning of revenue and large number of direct as well as indirect employment, the said project will ensure development of the region in the State. The setting up of the airport will in turn not only give rise and boost the tourism, the State of AP being a famous pilgrimage area, it will also give impetus to the tourism economy including for buses, tourists, taxis, shops and establishments and various other sectors.

5. It is respectfully submitted that this project was first planned and decided in the year 1997 pursuant to which the State Government of AP commenced the search to locate the alternate site for development of an international greenfield airport near Vishakhapatnam.
6. The State of AP and the Boghapuram International Airport Corporation Ltd have spent as on date for the purpose of locating the site, conceiving, planning, the airport, engaging the GreenclIndia, for carrying out prefeasibility study, for undertaking and carrying out hydrological studies , for undertaking and carrying out EIA study as well as EMP, the land acquisition proceedings, the litigations thereto, for the purpose of seeking EC to the project and for undertaking and carrying out all other requirements in aid of and pursuant to making the project a reality and as on date have spent and amount of Rs.1100 cr approx. All these amounts have been spent out of public exchequer and spent for


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public purpose in fact a greater public purpose which will subserve a larger public interest and meant for the benefit of people living not only in the region, in the State but all over the country and abroad.

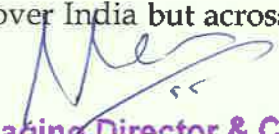
7. The appeal memo as filed by the Appellant simply deserves to be rejected *in-limine* as it is devoid of any correct facts and rather is full of averments based on newspaper reports. It is humbly submitted that newspaper reports cannot be a basis for any challenge for adjudication of a matter before the court of law or tribunal. The Appellant has made incorrect averments about the project, its location, and the allegation regarding interlinking of projects. According to the Appellant as alleged, the airport and the interlinking project are to come up over land covering 15000 acres. This is a rank false statement brazenly made to mislead this Hon'ble Tribunal and create prejudices. The fact of the matter is that the State of AP never even acquired 15000 acres of land, as has been alleged. The total land acquired in these proceedings, acquired is 1332.52-acre Patta Land and the remaining land incidentally belongs to State of AP. The total land earmarked for the said project including Phase-1; Phase-2; Phase-3 as well as MRO and aviation academy is 2203.26Ac.approx. The allegations regarding any interlinking projects as alleged are emphatically denied.
8. In the first place the Appellant has failed to show anything except raising completely frivolous points while challenging the mega project like that of the Bhoghapuram International Airport. The State of AP is very much concerned about the environment and environmental issues and having due regard to this, Pre-Feasibility Report (PFR) was carried out and discussed in detail (as shown in paras below), and only after considering the PFR and all other material aspects the State of AP decided to go ahead for the airport and secured necessary permissions.


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9. The Appellant's basic motive and intent in objecting to this project is in the background of her losing the land which she earlier owned and, in that process, in order to stall the project, she has raised frivolous challenges to a project of great public importance without going into the factual aspects of the matter. The Appellant's appeal, in so far as the averments are concerned, is based on 'ifs' and 'buts' and newspaper reports. The grounds are casually raised without actually finding out whether the entire process has been completed by the Answering Respondent.
10. The State of AP as well as the Answering Respondent have the highest regard for environmental matters. They have ensured that each and every study has been carried out in accordance with law and necessary permissions have been obtained duly complying with the provisions of various statutes. The Appellant in the present case is only interested in obstructing the undertaking and execution of the project only on the ground that she had to forego some of her land in the land acquisition proceedings.

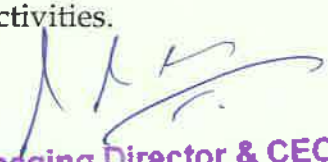
I. THE AIRPORT PROJECT AND ITS IMPORTANCE:

11. The need for a new airport was recognised by Government of Andhra Pradesh ("State Government"/ "Respondent No.2") to help provide reliable and seamless air connectivity to regional, national and international destinations and to make the State of Andhra Pradesh ("State of AP") a preferred destination for investment in aviation and allied businesses by creating airports as hubs of economic activity.
12. The project is essentially meant as an important infrastructure project aimed at boosting the State economy via tourism and overall development of the region. The area in question comprises famous temples and on account of which, the region is the most important pilgrimage centres as considered by many not only all over India but across

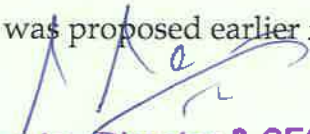

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the world. Some of these areas and sites are top places of religious and spiritual attraction which are visited by many people across the globe. Having an airport in this region will indeed, help connect all other temples not only those lying close to the coast line of Bay of Bengal besides the enchanting eastern ghats but also all over AP and nearby areas. The State of AP while considering the importance of the project as also the need for the same, had borne in mind the environmental requirements and ecological considerations and it is for this reason that the State had after carefully choosing the site which was earlier short listed for a naval aerodrome and base as proposed, decided to do all studies including a pre-feasibility study containing all aspects of the matter and it is only thereafter that the site came to be finalised.

13. The economic and industrial development of a region play an important role in the growth of air traffic. Therefore, as part of the study, various economic parameters including sector-wise gross domestic product, demographics of State of AP and the industrial development in the region were analyzed prior to finalization of the decision to set up a new airport. After the bifurcation of the States of Telangana and State of AP, initiatives undertaken by the State Government were found to have significant focus on facilitating socioeconomic development and growth. Various policy measures have been announced to enable establishing State of AP as an industrial and manufacturing center, including a logistics hub in view of three deep draft ports. The direct employment during operation phase in proposed project will be about 4,000 people. However indirect employment will be around 7,500 to 10,000 people who will be employed in various allied services. During construction phase, 2,000-2,500 labors and supervisors will be employed in various construction, transportation and storage activities.


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14. Answering Respondent was originally incorporated as Bhogapuram International Airport Corporation Ltd by State Government on 31.05.2015, as a part of the Department of Infrastructure and Investment. State Government approved the establishment of an international airport for public use at Bhogapuram Mandal, Vizianagaram District and designated answering Respondent as a project proponent for the purposes of the construction, operations and maintenance of the Project vide G.O. RT No. 63 dated 20.05.2015 ("May 2015 GO"). The May 2015 GO provides for incorporation of answering Respondent as Project Proponent and implementation of the Bhogapuram Aerotropolis Project, comprising an International Airport, Aviation Academy and Maintenance, Repair and Overhaul ("MRO") facility. A true copy of 20.05.2015 GO is attached herewith as ANNEXURE R-1.
15. Pertinently, prior to the selection of Bhogapuram, various alternate sites were studied and considered, Airport Authority of India in 2007-08 studied four sites i.e., Sabbavaram, Atchutapuram, Bhogapuram and Koruprolu (S.Rayvaram) out of which shortlisted site near Koruprolu (S. Rayvaram) were found suitable for proposed development. The Project Site being equidistant from Vishakapatnam and Vizianagaram, hence, the identification of the Project Site was taken after due consideration of the following essential aspects of public interest:
- a. minimizing land acquisition cost and utilization of maximum government land,
 - b. avoiding approved residential layouts, education institutes, resorts, forest land, estuary, river with back water, mangroves,
 - c. does not fall within ecologically sensitive zone and coastal regulation zone area.
16. The demarcation of land for site was done after a proper selection was done and undertaken. Indeed, it is a matter of record that this very site was proposed earlier for a


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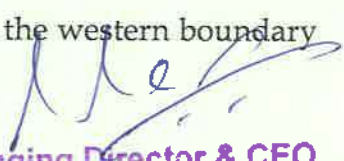
naval aerodrome (military purposes) as it was then found to be an appropriate site for having an aerodrome. The State of AP, apart from the pre-feasibility report, which was carried out as stated hereinafter had also done a hydrological study through Hydrology Department of Andhra University, Visakhapatnam and had taken account of Coastal Regulation Zone areas including all relevant and material aspects as are required while doing a government project of such magnitude and importance. It is pertinent to mention here that the said hydrology report confirms that the nearest point of proposed airport from the high tide line or coastal line was at a minimum distance of 671 m. Hence, there shall be no effect on the coastal environment.

17. The proposed project is for the development of Greenfield International Airport, Bhogapuram International Airport ("**Bhogapuram International Airport**")/ "**Bhogapuram Airport Project**") at Tehsil Bhogapuram, Vizianagaram District, Andhra Pradesh. The Environmental Clearance dated 14.08.2017 ("**EC**") issued by the Ministry of Environment, Forest and Climate Change (hereinafter "**MoEF & CC**"), Respondent No.1 herein, is for the development of the Bhogapuram Airport Project-Phase 1. At the outset, it is to be noted that, the Bhogapuram Airport Project at Bhogapuram is in replacement of the civilian operations presently being permitted at Visakhapatnam airport which is a defence airport.
18. The selected site was confirmed vide Notice of Ministry of Civil Aviation bearing No. AV.20015/1112015/AD dated 27.01.2016. A true copy of the Site Clearance dated 27.01.2016 issued by Ministry of Civil Aviation is attached herewith as **ANNEXURE R-2**.
19. After the Site Clearance for Bhogapuram Mandal by Ministry of Civil Aviation, Govt. of India, a pre-feasibility report for development of the Bhogapuram International Airport


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was prepared by GreenIndia Consulting Private Limited ("Greencindia"), an Environmental Consultant, duly accredited with Quality Council of India (NABET-QCI) since 2010. The Pre-Feasibility Report demonstrates the compelling need and benefits for the State of AP and its people from the phased development of a new airport and the contribution to local and regional economy.

20. As is seen from the aforesaid, whenever a project is to be executed by a State Government, especially such large infrastructural projects for the benefit of public at large, a proper study is undertaken which indeed was done in the present case also, including appointment of an environmental consultant. There were several things, several matters at the stage when the project was initially conceived namely, different phases of airport expansion, approach road, MRO, Aviation Academy etc. When all these matters were placed before the State Government, the State Government decided to proceed with the Bhogapuram Airport Project over an area of 2004.52 acres approx. of land being the Project Site, along with approach road having 119.00 plus 80.00 acres of land for other purposes.
21. The Project Site lies on the border of Visakhapatnam and Vizianagaram districts, in East-West Direction, East of NH-5 and West of sea coast. The Project Site is approximately 45 kms from Visakhapatnam (in North East direction) through NH-5 and 25 kms from Vizianagaram (in south East direction) via NH-43. The approach to the site is through four-lane NH-5. The site has Bay of Bengal on the east side which is about 1.5km from the eastern boundary of the site and NH-5 is about 1.5 km from the western boundary of the site.


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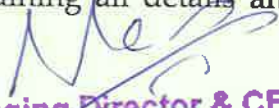
22. The land-type of the Bhogapuram International Airport as on date of finalization of the Environmental Impact Assessment Report dated February 2017 ("EIA Report"), are as follows:

Land type	Area in Hectare	Percentage
Built-up	3.5	0.4
Agricultural	53.0	6.2
Plantation	542.1	63.1
Open scrub	252.8	29.4
Water body	7.9	0.9
Total	859.4 (2123.6236 Acres)	100

Note - 1 Hectare = 2.47105 Acres

As the table above would show, the Project Site does not comprise forest land and involves some private land and government land to minimize land acquisition and displacement of persons.

23. Out of the aforesaid 2123.6236 acres, Patta land is 1332.52 acres and government land is 671.50 acres. In respect of Patta land, necessary land acquisition process is nearly completed and approximately Rs. 848 crores have been paid to the account of District Collector, Vizianagaram towards land acquisition and resettlement and rehabilitation.
24. That the Answering Respondent, as Project Proponent, duly submitted Form 1 for Phase 1 developments with MoEF & CC on 27.02.2016 for the purpose of obtaining the EC. It may be noted that Form 1 was prepared well in advance containing all details and


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thereafter was submitted. There was no suppression of material information as alleged. Any explanation not found in the Form 1, the reasons for the same are dealt in the subsequent paragraphs of this affidavit.

25. After obtaining the EC, Request for Qualification dated July 2018 ("RFQ") was issued by answering Respondent. The Bhogapuram International Airport is proposed to be developed as a PPP project under a Design, Build, Finance, Operate and Transfer (DBFOT) concession framework, in phased manner, with a concession period of 66+33 years with premium as the bidding parameter. A true copy of the RFQ issued by answering Respondent is annexed herewith as **ANNEXURE R-3**.
26. The demarcation of the Greenfield International Airport into different phases is based on operational yardsticks and airport business. The Bhogapuram International Airport is expected to handle 6 million passengers per annum (MPPA) in Phase 1, 12 MPPA in phase 2 and 18 MPPA in phase 3.
27. It is important to note in this regard that the scope of the Bhogapuram Airport Project is limited only to an airport. The State Government, vide G.O.Ms. 18 dated 30.03.2020 ("March 2020 GO") clarified the scope of the Bhogapuram Airport Project as follows:

the land parcel to be assigned to the developer for development of New Greenfield International Airport at Bhogapuram, Vizianagaram district shall be restricted to Acre 2,203.26 which will be detailed in the Concession Agreement.

A true copy of the March 2020 GO dated 30.03.2020 is attached herewith as **ANNEXURE R-4**.


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28. Pertinently global tenders were floated for international bidding and out of all the bidders Respondent No. 5 was the highest bidder (H1) and Concession Agreement was executed with Respondent No. 5 on 12.06.2020.

II. CHRONOLOGY OF EVENTS:

29. A brief chronology of events culminating in the grant of the EC is set out below for the convenient adjudication by this Hon'ble Tribunal. Further, only after following the procedure prescribed by law in terms of the EIA Notification of 14.09.2006 ("EIA Notification") and Environment Impact Assessment Guidance Manual Airports, February 2010 ("EIA Airport Manual") the EC came to be granted. It is important to note that EIA Notification was amended vide GO No. 996 issued by MoEF & CC amending para 7 of EIA Notification ("GO 996 of 2015"). A true copy of the EIA Notification, GO 996/2015 and EIA Airport Manual are attached as ANNEXURE R-5, R-6 and R-7 respectively.

DATE	PARTICULARS
1997	Respondent No.2 herein (State Government of Andhra Pradesh), commenced its search to locate an alternate site for development of an International Greenfield Airport near Visakhapatnam.
14.09.2006	Environment Impact Assessment Notification was issued under the Environment Protection Act, 1986.
2007-2008	Airport Authority of India (AAI) recommended the sites Koruprolu (S.Rayvaram) and Bhogapuram, which were found to be suitable for proposed development after studying four alternative locations namely Sabbavaram, Atchutapuram, Bhogapuram and Koruprolu (S.Rayvaram). As per AAI recommendation, State Government has decided to develop the proposed airport near Bhogapuram, keeping in view the following:


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	a. Minimizing land acquisition cost as far as possible. b. Avoiding villages / habited area to the extent possible c. Reduce resettlement cost / displacement of population and utilizing maximum Government land d. Avoiding approved residential layouts e. Avoiding built up areas / educational institutions / resorts f. Avoiding forest land, estuary, river with back-water, mangrove and does not fall within any eco-sensitive zone. g. Avoiding CRZ areas.
06.06.2012	Notification issued by Respondent No.1 amending the Notification 18.07.2007 bearing S.O. No. 1174(E). The Envirotech East Pvt. Ltd. (Envirotech) was substituted.
24.09.2012	Memorandum of Understanding executed between Greencindia and Envirotech intimating regarding approval of reaccreditation as EIA Consultant Organization.
28.07.2014	Letter issued by National Accreditation Board for Education and Training (NABET) to Director, Greencindia.
02.06.2014	State of Andhra Pradesh divided into States of Telangana and Andhra Pradesh.
10.04.2015	GO 996/2015 issued by MoEF & CC amending para 7 of EIA Notification. In terms of the same, submission of application for grant of environment clearance results in deemed approval of Standard Terms of Reference ("TOR").
20.05.2015	GO issued by State of Andhra Pradesh on the proposed greenfield airport ("GO May 2015").
31.08.2015	Land acquisition proceedings commenced vide Notification bearing No. 2316/2015/G3 u/s. 11(1) of Right to Fair Compensation Act.
2015	Various Writ Petitions filed challenging above notification for acquisition of land.


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25.01.2016	Hon'ble High Court of Judicature at Hyderabad passed an order directing that petitioner shall not be dispossessed pending final disposal of the Writ Petition.
27.02.2016	The Project Proponent, being Bhogapuram International Airport Corporation Limited (subsequently changed to APADCL), answering Respondent herein, submitted Online Application Form 1 with Draft Terms of Reference and PFR.
10.03.2016	Submission of TOR and PFR acknowledged by the Member Secretary, MoEF & CC.
28.03.2016 29.03.2016	Agenda 4.2.5 in the Minutes of 4 th Meeting conducted by the Expert Appraisal Committee ("EAC") regarding finalization of the TOR. EAC finalized the TOR in addition to Standard TOR provided by the Respondent 1 for Airport Sector for the preparation of EIA-EMP report. Minutes of the Meeting (MoM) were uploaded in the Respondent 1 website after the meeting.
04.05.2016	Letter issued by the MOEF&CC to the answering Respondent regarding finalized TOR and for preparation of Environment Impact Assessment/ Environment Management Plan Report.
09.06.2016	Order issued by Respondent No.2 regarding acquisition of land and approval of package of higher compensation for payment to landowners.
20.08.2016	Water Resources Department, Vijayawada, Government of AP issued Order regarding submission of Rehabilitation and Resettlement Scheme and approval under Section 18 of the Act 2013.
11.12.2016	Public Notice given through newspapers, in "The Hindu" and "Eenadu", by Respondent No.3, APCB, giving 30-days' notice that public hearing would be conducted on 11.01.2017.
11.01.2017	Public Hearing/ public consultation was conducted in relation to questions issues objections regarding the project. It is important to note that public hearing took place under supervision of following senior and responsible officers: Sri. Vivek Yadav, I.A.S., Collector & District Magistrate, Vizianagaram District


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	Sri. Shrikesh B. Latkar, I.A.S., Joint Collector & Addl. & District Magistrate, Vizianagaram District. Sri. K.L.P. Kumar, Environmental Engineer, APPCB, Regional Office, Vizianagaram. Sri. Pathivada Narayana Swamy, Member of Legislative Assembly, Nellimarla Constituency, Vizianagaram Sri. S. Srinivasa Murthy, Revenue Divisional Officer && Sub- Divisional Magistrate, Vizianagaram Sri D. Laxma Reddy, Tahsildar, Bhogapuram Mandal, Vizianagaram District (The issues that were raised and responses are set out in Chapter 7 of the EIA Report.)
20.02.2017	The Environment Impact Assessment Report was submitted online to MOEF&CC.
13.04.2017	15thEAC Meeting conducted by MoEF&CC . Agenda 15.4.1 of the meeting -Development of Greenfield International Airport at Tehsil Bhogapuram, District Vizianagaram, Andhra Pradesh by M/s Bhogapuram International Airport Corporation Ltd - Environmental Clearance [10-21/2016-IA.III; IA/ AP/MIS/50659/2016] for Environment Impact Assessment Appraisal.
14.04.2017	Project Proponent submitted the response based on the queries raised on 13.04.2017 meeting by the EAC. It is important to note that EAC did not mechanically accept the submission and further queries on land acquisition and resettlement and rehabilitation were raised by EAC. These were subsequently addressed by Project Proponent before grant of EC.
14.08.2017	The EC was granted by Respondent No.1 to Project Proponent, answering Respondent with several conditions, herein.
13.09.2017	Public Notice issued in The Hindu, Vishakhapatnam by the Project Proponent.
13.11.2017	Appellant preferred present Appeal bearing Appeal No. 18/2020 before Ld. National Green Tribunal against grant of EC.


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III. ENVIRONMENTAL CLEARANCE - BACKGROUND:

30. The Project Proponent submitted Online Application Form 1 on 27.02.2016 along with draft TOR and PFR. The Project Proponent duly engaged the consultant Greencindia, (QCI & NABET approved) which had already prepared PFR, as stated above. The baseline data was collected by the Greencindia through Envirotech (a MOEF&CC approved lab) during the summer season (March 2016 - May, 2016), as per the EIA Notification and EIA Airport Manual.
31. After all requisite the documents, information, other material as required under EIA Notification including compliance of requirements of EIA Airport Manual which were submitted to the MoEF and on consideration of all relevant material, including public hearing minutes, issues raised therein and responses given, the documentation, plans, reports, maps and representation and in compliance of due process and procedure by the EAC, the EC was issued by the MOEF&CC for the proposed project imposing various conditions. The above process is in complete compliance with the

IV. PARAGRAPH-WISE REPLY TO THE APPEAL:

32. The contents of paragraphs I to III are matter of record and do not warrant any reply.

REPLY TO FACTS IN BRIEF:

33. The contents of paragraph 1 are denied for want of knowledge. It is emphatically denied that Appellant was denied opportunity of attending the public hearing relating to land acquisition proceedings. It is emphatically denied that answering Respondent was responsible for such alleged detention of Appellant.


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34. The contents of paragraph 2 are matter of record and do not warrant any reply.
35. The contents of paragraph 3 are matter of record and do not warrant any reply. It is however clarified that the scope of the Bhogapuram Airport Project in question is limited to only an airport. The MRO and Aviation Academy, as described in paragraphs below, would be subject to passenger and flight traffic.
36. The contents of paragraph 4 are emphatically denied. It is denied that the EC is liable to be set aside. It is submitted that after detailed and extensive study by the EIA Consultant and detailed analysis by EAC and in compliance to EIA Notification, 2006, the EC has been granted by the Respondent 1. The entire process has taken about 1 year 6 months from the date of submission of Form 1 application to grant of EC which demonstrates, due application of mind and careful consideration to all aspects of environment assessment. It is submitted that for the reasons stated in the paragraphs below, the Appeal may be dismissed.

ALLEGATIONS RE:

A. CONCEALMENT OF MATERIALS FACTS BY PROJECT PROPONENT:

37. The contents of paragraph 5 are wrong and emphatically denied. The contents of paragraph 5 in so far as the same relate to news reports on interlinked project, the same are emphatically denied. The Appellant is seeking to mislead this Hon'ble Tribunal by relying on news reports rather than authentic government records. Further, the allegations of 'interlinked project' are bald assertions and vague. There is no interlinked project and the allegation of 15,000 acres is patently false and has been asserted by the Appellant deliberately, only to mislead the court and misrepresent facts of the case, relating to land usage for the complete project. It is submitted that Appellant is seeking


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to create a wrong impression of a large project merely because of the word 'Aerotropolis' being used, even well-defined on the scope of its developments.

38. It is relevant to note that as stated above, the total area required for the Bhogapuram Airport Project which is being designed for Airbus A380 is capped at 2203.26 acres of land. Out of the said total area, an area of 2004.52 Acres (811.21 Ha) has been earmarked for phase 1 of the Bhogapuram Airport Project along with an Approach Road of 119 Acres. The Land Use details are as follows:

Construction	Area (m2)	Area (ha)
Airside pavements	13,64,000	136.38
City side pavements	1,74,015	17.40
Buildings	1,25,453	12.54
Green Belt	14,16,400	141.64
Open and Landscape area	36,16,000	361.60
Solar Power	14,16,000	141.64
TOTAL	81,11,896	811.20

39. The airport is initially being designed with a level of service adequate to satisfy the demand of 6 million passengers per annum. The Phase 2 and phase 3 of the Bhogapuram International Airport would be designed and developed once the passenger traffic increases and to meet the demand for 12 million passengers per annum and 18 million passengers respectively. It is also relevant to mention here that other facilities which are part and parcel of a greenfield i.e., MRO and an aviation academy would also be developed subsequently in the 2nd and 3rd phase once the air traffic/number of airplanes


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etc. increase. It is also relevant to mention that a separate/fresh environment clearance would be required for each additional phase depending on the scope of expansion. The averment that 15,000 acres of land is required for the Bhogapuram Airport Project is baseless and a figment of imagination and thus denied.

40. The total land meant for Bhogapuram Airport Project is given below, not 15,000 acres as alleged by the Appellant. The relevant entry of Form-I provides:

at Part I, Sl. No.3:

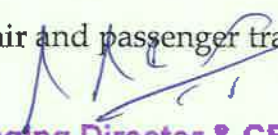
2004.52 Acre for Phase-1 along with approach road of 119 Acre. 1567 Acre area also will be utilized for commercial area development. ha.

At Part III, Sl No. 1.1:

About 2004.54 Acres out of 3645.79 Acre land is required for the Proposed Airport for Phase-1.

Therefore, the Bhogapuram Airport Project does not contemplate 15,000 acres.

41. The Appellant's averments and its interpretation of the GO May 2015 is completely erroneous and misplaced. The Appellant is misrepresenting and misreading the said GO only to mislead. The said GO May 2015 provides for airport, MRO and Aviation Academy. MRO is maintenance, repair and overhaul facility which is integral and essential for smooth running and operation of an airport. Such facility within the vicinity of an airport ensures due, proper and immediate repairs or overhauls of the aircrafts as and when the need arises, without causing any delays and also voids public inconvenience. Similarly, the Academy is for the purposes of training the airlines staff such as pilots, air hostesses etc. Airports at Hyderabad, Delhi etc. all have such facilities. However, as stated above, the said facilities would only be developed in the 2nd and 3rd phase of the project, if the need arises on account of increased air and passenger traffic,


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and also only at the option of Respondent No.5, as Concessionaire under the Concession Agreement. The present appeal concerns only with the EC granted for the phase 1 of the Bhogapuram Airport Project and the said facilities as stated in GO May 2015 do not form part of phase 1.

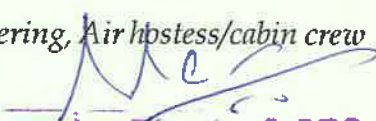
42. The aviation academy is envisaged as a state-of-the-art facility providing courses in pilot training, ground training, flying training, simulator training, instrument rating course, ATC course, Aircraft maintenance engineering, Air hostess/cabin crew etc. However, the development of this facility would be at the discretion of the airport developer, i.e., Respondent No.5. Therefore, it is wrong and misleading to suggest that the Bhogapuram Airport Project contemplates projects apart from the Greenfield Airport and related/ ancillary facilities. This has been duly captured in the EIA Report which states at para 2.4.2.6 and 2.4.2.7:

2.4.2.6 MAINTENANCE REPAIR AND OVERHAUL (MRO) FACILITY

BIA will have a provision for a Maintenance Repair and Overhaul (MRO) complex in future. The MRO facility will provide full Aircraft base maintenance service infrastructure. It will cater to the maintenance needs of the regional and global Airline customers. No space is reserved for this facility in phase-1 because of the insufficient traffic and presence of other MRO facilities at Hyderabad and Bangalore airports in the vicinity of BIA. However, in phase-2, an area of 1,00,000 m² has been reserved for the development of this facility which is at the discretion of the developer near the cargo area.

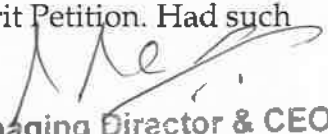
2.4.2.7 AVIATION ACADEMY

BIA will have a provision for an aviation academy. The aviation academy will be a state of the art facility providing courses in pilot training, ground training, flying training, simulator training, instrument rating course, ATC course, Aircraft maintenance engineering, Air hostess/cabin crew


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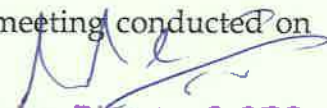
etc. The academy would conduct courses accredited by Airport Council International (ACI), International Air Transport Association (IATA), International Civil Aviation Organization (ICAO), Directorate General of Civil Aviation (DGCA), Bureau of Civil Aviation Security (BCAS) etc. An area of 30,000 m² is reserved for development of the aviation academy and its associated infrastructure. However, the development of this facility would be at the discretion of the developer.

43. The contents of paragraph 6 are wrong and denied. It is emphatically denied that there has been any concealment or non-disclosure of any material fact in Form 1. Project Proponent, based on TORs, prepared the EIA Report specifying all the relevant details about the pending litigation and status of the Bhogapuram Airport Project in the EIA Report. In any Governmental organisation or Department, there is a systematic procedure about preparation of a file and putting up the same for seeking approval. In the present case also the officials of the State Government and the Corporation, after preparing Form 1 put up the same for approval. When this process of preparation of Form 1 and its approval for being filed was on going, a Writ Petition came to be filed before the Andhra Pradesh High Court concerning the challenge to the Land Acquisition by the Petitioner herein. It is apparent that no purpose would be served in the alleged so-called suppression of the information related to a pending Writ Petition challenging land acquisition. It is but obvious that the preparation of Form 1, as well as seeking the approval and the subsequent rather simultaneous development of a Writ Petition having been filed must have coincided and that is how the information as regards pending Petition was not mentioned in Form 1. This was neither deliberate nor due to any carelessness but the only possible reason as to how it must have skipped the corporation's notice while filing Form 1 is on account of the fact that the section dealing with and filing of Form 1 was not aware of the pendency of the Writ Petition. Had such


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a thing been known to the Respondent, the same obviously would have been disclosed in Form 1.

44. I further state that a presentation was made to the Hon'ble Expert Appraisal Committee (Infra - 2) before fixing the terms of reference. I state that it was at this stage, it was clearly mentioned that while dealing with land documents, the pendency of the matters including WP No. 4768/2012; WPMP No.11695 in WP No. 9250/2012, as also the Orders passed by the Hon'ble High Court of Andhra Pradesh were all brought to the notice of the EAC including in the land documents. I state that as mentioned earlier, while submitting Form 1, this information was not available with the official at the desk dealing with submission of the said form, however, when the presentation was made for the ToR this fact was clearly mentioned. It is after going through this presentation that the EAC has incorporated additional conditions pertaining to the very same aspect as regards pending litigations. A copy of the presentation dated 28.03.2016, made by the Answering Respondent to the EAC is annexed hereto and marked as **Annexure R-8**.
45. In any event of the matter, apart from the fact that this being not a suppression, as it has been made clear from the above para this fact was subsequently disclosed in the presentation and that is how a special condition in the ToR letter dated 04.05.2016 came to be incorporated seeking details about the pending Writ Petition. It is emphatically denied that there has been any suppression by or on behalf of the Respondent herein. A true copy of TOR Letter bearing F.No.10-21/2016-IA.1II dated 04.05.2016 is attached as **ANNEXURE R-9**.
46. The contents of paragraph 7 are wrong and denied. It is emphatically denied that there has been any concealment or non-disclosure of any material fact in Form 1, wilful or otherwise. Pertinently, the EAC, after detailed deliberations in meeting conducted on


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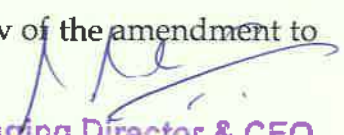
13.04.2017, recommended the environmental clearance for the Bhogapuram Airport Project with stipulated specific conditions which reads as under:

"This Environment Condition is subject to final order of the Hon'ble High Court of Judicature at Hyderabad in W.P. 34090, 32879, 32956 and 33034 of 2015".

47. Pertinently, substantial payment for the overall land acquisition has already been completed. Further the landowners have handed over their land upon completion of the acquisition proceedings. Further, regarding resettlement and rehabilitation, the Respondent No. 2 has already developed Gudepuvalasa village with complete infrastructure and another at Polipalli Village is nearing completion, as R&R Colonies.

B. BASELINE STUDIES CONDUCTED BEFORE THE TERMS OF REFERENCE WERE GRANTED TO THE PROJECT PROPONENT BY MOEF&CC:

48. The contents of paragraph 8 are matter of record and do not warrant any reply.
49. The contents of paragraph 9 are denied, save and except the letter memo sent by MoEF & CC stating additional TOR to the standard conditions was for the purpose of consideration of the EIA report. It is fundamental that preparation for undertaking of EIA Study commences after filing the application online in accordance with EIA Notification.
50. The contents of paragraph 10 are wrong and denied. It is emphatically denied that Project Proponent could start baseline study only after 30 days from date of submission of Form 1. The baseline data was collected in compliance to the Standard TOR specified by MoEF & CC in the EIA Airport Manual. This was also in view of the amendment to


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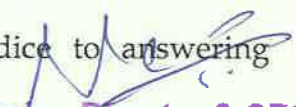
paragraph 7 of the EIA Notification in terms of the GO 996/2015, which provides for deemed approval of TOR:

"Standard TOR developed by the Ministry in consultation with the sector specific Expert Appraisal Committees shall be the deemed approved TOR for the projects or activities."

51. The contents of paragraph 11 are wrong and denied. EIA Notification was amended vide GO 996/2015 and paragraph 7(i) of the EIA Notification was amended to provide for deemed approval, as stated hereinabove.
52. The contents of paragraph 12 are wrong and emphatically denied. Paragraph 7(i) of the EIA as amended by GO 996/2015 does not mandate that baseline studies should be conducted after express approval of TOR. Such an interpretation defeats the provision of deemed approval in the amended paragraph 7(i). It is emphatically denied that there was callousness or haste in the commencement of baseline studies. As stated above, baseline studies were conducted in the period March to May 2016 in light of deemed approval of the standard TOR pursuant to GO 996/2015. Therefore, Appellant's allegation that there was non-application of mind is patently erroneous.

C. INADEQUATE AND FAULTY ENVIRONMENT IMPACT ASSESSMENT; NON-COMPLIANCE WITH TOR WITH NO DETAILS OF ECO-SENSITIVE SITES WITHIN STUDY AREA:

53. The contents of paragraph 13(i) are wrong and emphatically denied. It is emphatically denied that the EIA Report is grossly inadequate in setting out details of environmental sensitive places. It is emphatically denied that EAC has recommended identification of environmental sensitive places only within 10 kms. It is further denied that EAC specifying identification of sensitive places within 10 kms is wrong. Appellant is deliberately misstating facts with an intention to cause prejudice to answering


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Respondent. It is emphatically denied that EIA Report only has details of forests and water bodies within 15 km radius without details. It is emphatically denied that details of other environmentally sensitive structures such as educational institutions, health centres are not provided as per EIA notification and EIA Airport Manual

54. As per the EIA Airport Manual, Study Area is "project area and area 10 km around its boundary". As per Section 2.1 of the EIA Airport Manual, the following details are to be shown:

- *A map of the study area (project area and area 10 km around its boundary) delineating the major topographical features such as land use, drainage, a location of habitats is to be given. Major constructions including roads, railways, pipelines, major industries if any in the area are to be marked clearly.*
- *A map of the study area covering aerial distance of 15 km from the proposed project boundary delineating environmental sensitive areas as specified in Form I of EIA notification 2006 as amended 2009 is to be shown.*

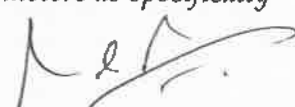
55. It is humbly submitted that the Answering Respondent, had made a presentation on 28.03.2016 to the EAC for TORs, wherein Answering Respondent presented the land use pattern of the study area (10 KM radius) and environmentally sensitive locations within 15 KM radius to the EAC members. During the said TOR presentation Air, Water, Noise, Soil and its location were also presented to the EAC members along with Standard TORs for the Airport Project. The requirement given in the TOR by the EAC after the EAC meeting which discusses the draft TOR is for 10 KM radius and is emphasising the sector specific requirements in addition to standard TOR. This is mainly due to the fact that the impact assessment requirements for airports on environmental factors like air, noise, water, land, soil and biological etc. is limited to Project Site and Study Area, as defined in paragraph 52 above. Hence the additional TOR specified by the requirement of


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Toposheet by MOEF & CC of the study area of radius 10 km is the outcome of the application of proper judicious mind by the EAC.

56. The Appellant has wrongly construed EAC's emphasis on 10 kms to mean that details and study of 15 km aerial distance is not required. The details of the environment sensitive features within 15 Kms aerial distance for the parameters specified at column 9 (III) for Form I is a standard requirement as per EIA Airport Manual which has already been complied with and accordingly been undertaken and carried out and produced in the EIA Report.
57. The contention raised by the Appellant virtually suggesting that the EAC is given a go by 15 km requirements is completely devoid of any substance. Apart from being fundamentally wrong, the Appellant has in sheer confusion, confounded in the appeal memo raising the contention without considering that the preparation of the Toposheet and undertaking of impact assessment study are two different requirements under the EIA Notification and the EIA Airport Manual.
58. It is submitted that Appellant's attempt to place such an interpretation is wrong and misleading. The significance of 10 km and 15 km is set out in the EIA Airport Manual in Chapter 4 at paragraph 4.1 as follows:

Primary data through measurements and field surveys; and secondary data from secondary sources are to be collected in the study area within 10 km radius from Aerodrome Reference Point (ARP). Primary data should cover one season other than monsoon and secondary data is to cover one full year. The basis for selection of these criteria is that the aircraft gains a height of 1000ft in this area below which noise and air pollution are generated maximum during its take off stage. Secondary data should be collected within 15 km aerial distance for the parameters as specifically mentioned at column 9 (III) of Form I of EIA Notification, 2006.

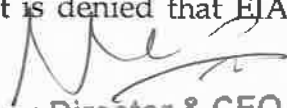

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Therefore, the emphasis is on impact within the 10 km radius as maximum impact is observed within this area. The Project Proponent had already submitted the details of the Environmentally Sensitive features within 15 Km aerial distance for the parameters specified at column 9 (III) for Form I.

59. Furthermore, it is submitted that the Project Proponent had submitted the toposheet of the study area (project area and area 10 km around its boundary) delineating the major topographical features such as land use, drainage, a location of habitats, major constructions including roads, railways, pipelines, major industries in accordance with the EIA Airport Manual in the EIA Report at page between 3.1 and 3.2. Furthermore, Project Proponent has also submitted the "*map of the study area covering aerial distance of 15 km from the proposed project boundary delineating environmental sensitive areas as specified in Form I of EIA notification 2006 as amended 2009*" in accordance with the EIA Airport Manual in the EIA Report at page between 3.5 and 3.6. The requirements mentioned in the EIA Airport Manual is complied with and there is no deviation in the process.
60. Furthermore, as per the EIA Airport Manual, chapter 4, section 4.7 Socio-Economic Environment Project Proponent is required to study the socioeconomic aspects of people in the Study Area. The same has been carried out by Project Proponent. The reference to educational institutions (Table 3-43) and health centres (Table 3-44) is erroneous and misleading since the impact analysis has been carried out in the EIA Report chapter 4 for the entire study area as per the EIA Airport Manual.

D. INADEQUATE NOISE IMPACT STUDY:

61. The contents of paragraph 13(ii) are wrong and emphatically denied. It is denied that EIA Report is grossly inadequate in terms of noise monitoring. It is denied that EIA


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Report need to show funnel path. It is emphatically denied that noise monitoring as mandated by EIA Notification, or EIA Airport Manual has not been carried out. It is denied in this regard that CPCB Guidelines cannot be used for noise monitoring and that the same are only for operating airport. Further, it is emphatically denied that only two locations for noise monitoring stations, N6 and N2 were selected based on the runway.

62. The EIA Airport Manual defines the expression 'Approach Funnel' as follows:

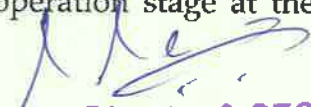
"A specified airspace around a nominal approach path within which an aircraft approaching to land is considered to be making a normal approach"

It is a defined path of aircraft for its landing (approach) and take-off (departure) on the orientation of both runway ends. The actual arrival and departures flight paths will be defined by Air Navigation Service Provider as per DGCA Requirements once the runway is ready with navigational instruments and procedures. The EIA Report (Page 2-3) Figure 2.3 and Table 2.2 clearly indicates the runway orientation (which one end is 100 degree and other end 280 degree).

63. As submitted in paragraphs above, the importance of monitoring in the flight path and funnel, as stated in the EIA Airport Manual is that - *The basis for selection of these criteria is that the aircraft gains a height of 1000ft in this area below which noise and air pollution are generated maximum during its take off stage.* The funnel area is only for landing and take-off at the end of runways and is not applicable at other areas of the Project Site. The proposed runway is marked by the Project Proponent in the Figure 2.3 (Page 2-3) and the noise monitoring points N2 and N6 are selected below the take off stage of both the runway end and shown in the EIA report between p.3-21 and p.3-22.


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64. As per TORs, the noise base line data were monitored in the funnel areas of the flight path. The funnel area monitoring locations are N2 and N6, shown clearly in the EIA Report with the required data which are in compliance with the TOR. The EIA Report clearly indicate the predicted noise levels, due to the aircraft in the approach funnels as contours, for the noise impact assessment during aircraft operation. The figures depict the Predicted Noise Level of Airport on Surrounding Areas due to aircraft operation and operation of DG sets. There is no comparison between both the maps as the noise parameters and the noise source are different (for aircraft - LDN and for DG Sets).
65. Appellant has wrongly relied on prediction model in Fig. 4-11 as the same relates to DG sets and not aircrafts. The response to Appellant's contentions relating to noise impact are as follows:
- a. The Appellant's contention that the EIA Report is based on CPCB Guidelines which are not applicable to proposed airports and only to existing operational airports is incorrect and denied. Para 5.7 of the EIA Airport Manual provides for comparison of monitoring results with CPCB standards. The CPCB's Noise (Regulation and Control) Rules, 2000 sets the industrial noise levels within the overall boundary of "Airport", as day time 75 db (A) Leq and night time 70 db (A) Leq. Whereas the CPCB guidelines on 'Requirement and Procedure for Monitoring Ambient Noise Level due to "Aircrafts"' specify the requirement and procedure for monitoring ambient noise levels due to aircraft operation during take-off and landing. The said CPCB guidelines make no distinction between the monitoring criteria for operational or proposed airports. Accordingly, the noise impact study has been rightly carried out as per the CPCB guidelines to ascertain the noise metric while predicting the noise levels from aircraft during operation stage at the airport and its funnel areas.


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- b. Further, the Appellant's allegations regarding the noise impact prediction models are also entirely misplaced. Fig 4.10 in the EIA Report depicts the predicted noise contours from aircraft operation. While calculating aircraft noise contour, only aircraft noise is taken into consideration and other noise sources are considered as background noise.
- c. Fig 4.11 of the EIA Report depicts DG sets Predicted Noise Level of Airport on Surrounding Areas which has been presented by an isophones map with 5 dBA intervals. The noise source considered here is DG sets during operation stage. The isophones map shows the noise dispersion from DG set and same is clearly mentioned at page 4-20 of the EIA Report. Thus, there is no comparison between both the maps shown at Fig. 4.10 and 4.11 as the noise parameters are different.
- d. The Appellant's contention that the noise monitoring was not carried out as per the CBCP guidelines for a continuous period of 7 days is misleading and incorrect. The noise monitoring has been carried out as per the EIA Airport Manual. As per Section 4.5 of the EIA Airport Manual:

"Baseline data on noise survey is collected in the project area on a given day during study period at a given location covering residential, commercial and silence zones continuously for 24hrs, at hourly intervals."

- 66. In compliance with this stipulation, the noise monitoring was carried out. The same is also clear from para 3.10.3 of the EIA Report which states that:

"The noise level was recorded continuous for 24 hours at an interval of 1 hour. The hourly average computed from the noise reading taken at every 5 minutes interval."

- 67. In conclusion, the noise impact study reveals that the present noise level is not exceeding the standard level stipulated in the Noise Pollution (Regulation and Control) Rules, 2000. The Leq was recorded in the range of 52.81 dB(A) at Gollapalem, N6, to 56.61dB(A)


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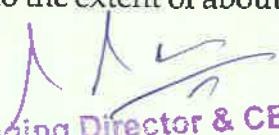
near Bhogapuram, N3, during daytime and 35.06 dB(A) at Mukkam, N7, to 37.55 dB(A) near NH-5, N1, during night time. Clearly, noise impact study was carried out in terms of the existing applicable norms, unit of measurement and the noise levels in the study area are well within the prescribed limits.

E. CLARITY REGARDING WATER REQUIREMENT:

68. The contents of paragraph 13(iii) are wrong and emphatically denied. It is wrong and denied that availability of water at Vizianagaram has not been studied. It is denied that the water balance diagram at figure 2-5 and 2-6 of the EIA Report are misleading. It is emphatically denied that information has not been provided regarding source of 210 KLD requirement. It is further denied that zero waste has no logical reasoning.
69. The impact on water environment during construction and operation are well addressed along with their impact rating given during both construction and operation phase in the EIA Report (Page - 4-21 to 4.23) which is in accordance to the EIA Airport Manual. About 1733 KLD of water (1663 KLD for civil work and 70 KLD for domestic use) will be required for construction purposes during the period of construction. The water requirement will be met by private water tankers.
70. About 647.9 KLD of water will be required for operation stage in which the freshwater demand of about 153.9 KLD will be met from water supply from the Vizianagaram Municipal Corporation and about 494 KLD will be met through recycled water (which is for Terminals 210.7 KLD and Landscaping 283.3 KLD).


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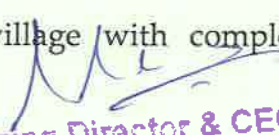
71. It is to be noted that the Central Ground water Board ("CGWB") assess the ground water resources in units i.e., blocks/talukas/mandals/watersheds. These assessment units are categorized for ground water development based on two criteria -
- Stage of ground water development, and
 - Long-term of pre and post monsoon water levels.
72. The long-term ground water level trends are computed generally for the period of 10 years and categories as given below.
- 'Safe' areas which have ground water potential for development;
 - 'Semi-critical' areas where cautious groundwater development is recommended;
 - 'Critical' areas; and 'Over-exploited' areas, where there should be intensive monitoring and evaluation and future ground development be linked with water conservation measures.
73. The contents of paragraph 13(iii) are wrong and emphatically denied. There are large water bodies in and around Vizianagaram town, hence, supply of water for the Bhogapuram Airport Project will not affect or compromise the interest of the people of Vizianagaram town.
74. The water balance diagrams are explained as follows:
- The water balance diagrams are indicative of analysis for the monsoon and non-monsoon scenarios (page 2-16) figure 2-5 & 2-6. The basis for water estimation is based on Water Consumption in Litres Per Capita Daily (LPCD) estimation, which includes Fresh and Recycled.
 - The estimated Terminal recycled water requirement as per LPCD is 210.7 KLD and is given in the table 2-4 (Page 2-15). The 210.7 KLD shall be obtained from treated water storage tanks.
 - The water balance of Fig 2.6 is taking account of rainwater availability of monsoon season for the landscaping hence, the landscaping water is reduced to the extent of about 65%.


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- d. The final estimated water calculation has been given in Table 2-4 (Page 2-15). The water demand and balance has been estimated holistically taking account of monsoon and non-monsoon seasons and focusing all possible water conservation and reuse.
- 75. The Project Proponent is also committed to setup a 415 KLD Sewage Treatment Plant to treat the wastewater and to ensure zero effluent discharge from the Airport. The treated water would be reused for HVAC, flushing, landscaping, road washing and water sprinkling.

F. NO REHABILITATION AND RESETTLEMENT PLAN IN THE ENVIRONMENT IMPACT ASSESSMENT:

- 76. The Socio- Economic Environment studies have been adequately carried out as per EIA Airport Manual and detailed in EIA Report with the social impact of the airport also been covered well. The socio-economic study and Rehabilitation & Resettlement ("R&R") action plans by the answering Respondent were dealt with in the EIA Report along with summary of the entitlement matrix as per LAAR Act, 2013 for Home oustees, has also been provided in the EIA Report. The Project Proponent addressed the issues related to Land and R&R during public hearing and addressed the same in EIA Report.
- 77. As submitted in paragraph above, approximately Rs. 848 crores has been paid to the account of District Collector, Vizianagaram towards land acquisition and resettlement and rehabilitation.
- 78. Pertinently, substantial payment for the overall land acquisition has already been completed. Further the landowners have handed over their land upon completion of the acquisition proceedings. Further, regarding resettlement and rehabilitation, the Respondent No. 2 has already developed Gudepuvalasa village with complete


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infrastructure and another Polipalli village as R&R Colonies is under development which is expected to be completed soon.

G. BASELINE DATA COLLECTED BY COMPANY NOT ACCREDITED BY QCI/ NABET:

79. The contents of paragraph 13 (v) are wrong and denied. It is emphatically denied that Envirotech does not have necessary accreditation from QCI/NABET. Greencindia is an environmental consultancy organization which has been accredited by QCI-NABET, as an EIA consultancy organization for the preparation and presentation of Environmental Impact Assessment to the EAC members for each EIA Sectors. The company is accredited with QCI-NABET since 2010 for many sectors including airport sector. The GCPL has signed MoU with Envirotech for environmental monitoring, (details provided in the EIA Report. Annex 11.2). The Envirotech is MOEF&CC accredited agency for environmental monitoring (details provided in the EIA Report. Annex 11.1)
80. It is submitted that for performing environment monitoring, the laboratory should be recognised from MOEF&CC as per the Guidelines for Recognition of Environmental Laboratories under the Environment (Protection) Act, 1986 published by the Central Pollution Control Board.

H. NON-APPLICATION OF MIND:

81. The contents of paragraph 14 are wrong and emphatically denied. It is denied that EAC has not appraised the Bhogapuram Airport Project in the 'true sense' – it is submitted that such an allegation is bald, vague and reckless. It is denied that the EAC has only taken a cursory look at the Bhogapuram Airport Project details. Minutes of Meeting of 13.04.2017 – 14.04.2017 ("EAC MoM") relied upon by Appellant itself shows the

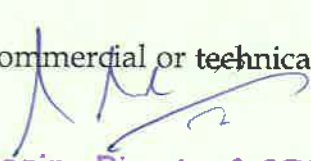

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sequence of events and various issues identified independently by EAC and separately during public hearing. The Appellant is selectively reading portions of the EAC MoM to prejudice this Hon'ble Tribunal. The relevant portion of EAC MoM is set out below for better clarity:

"The Committee deliberated upon the issues raised during the Public Hearing/Public Consultation meeting conducted by the Maharashtra State Pollution Control Board on 11.01.2017. The issues were raised regarding compensation for land, rehabilitation and resettlement, employment to local, maintenance of green belt, promotion of agro products in the area, welfare activities such as Health, education etc, change in name of the proposed airport, plan for rain water harvesting and recharging, skill development program for locals, etc. The Committee noted that issues raised during public hearing have not been responded satisfactorily. The project authority vide letter dated 14.4.2017 has submitted the revised point wise response of PH to the Committee. The Committee noted that issues have satisfactorily been responded by the project authority and suggested to incorporate in the final EIA-EMP report."

Hence, it is clear from the above that, the EAC specifically asked for information pertaining to the aspects raised at the Public Hearing. This therefore shows that, the EAC had very much considered, each and every objection raised at the Public Hearing and the response given by the Project Proponent. The very fact that a response is called for again on specific points, despite the same having been dealt with earlier, shows that there was proper application of mind by the EAC to the objections raised at the Public Hearing as well as responses given by the Project Proponent. A copy of the said letter dated 14.04.2017 is attached hereto and marked as **Annexure R-10**.

82. The contents of paragraph 15 are wrong and emphatically denied. It is emphatically denied that there are no reasons for grant of EC. It is denied that detailed scrutiny has not been undertaken and reasons for grant of EC is not provided. It is submitted that role of EAC is for project appraisal for grant of EC and not for commercial or technical

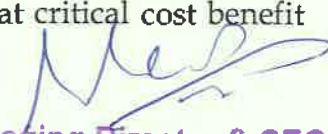

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viability of the project, which Cabinet may provide. EAC MoM records independent application of mind by EAC and since in the expert opinion of EAC, there is no adverse environmental impact, EAC has recommended grant of EC.

83. The EAC deliberated upon the issues raised during the public hearing conducted on 11.01.2017. The various issues raised in relation to compensation for land, rehabilitation and resettlement, employment to the local, maintenance of the green belt, promotion of agro-products in the area, welfare activities such as health, education etc., change in the name of the proposed airport, plan for rainwater harvesting and recharging, skill development programme for locals, etc. EAC MoM also notes that issues raised during public hearing were not satisfactorily responded to by the Project Proponent. Project Proponent thereafter submitted revised point-wise response to public hearing and only thereafter, EAC considered the same. Therefore, it is wrong to suggest that there has been no application of mind by EAC.
84. The mandate under the EIA Notification, paragraph (IV)(i) is that the EAC “....shall make categorical recommendations to the regulatory authority concerned either for grant of prior environmental clearance on stipulated terms and conditions, or rejection of the application for prior environmental clearance, together with reasons for the same.” It is submitted that the same has been duly complied with by the EAC in EAC MoM.

I. PUBLIC HEARING ISSUES NOT SCRUTINIZED:

85. The contents of paragraphs 16 and 17, relating to public hearing, are wrong and emphatically denied. It is emphatically denied that EAC MoM does not reflect issues raised during public hearing. It is denied that the issues raised by Mr. E.A.S. Sarma, Former Secretary, Government of India are not mentioned or that critical cost benefit


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analysis has not been conducted. It is emphatically denied that EIA studies are inadequate or improper. It is emphatically denied that public consultation is treated as a mere formality.

86. The reference to Maharashtra State Pollution Control Board is clearly a typographical error. As stated in paragraphs above, the queries/ concerns raised during public consultation have been specifically identified and looked into by the EAC. As the issue is the same as raised in paragraphs above, the same are reiterated and not repeated for sake of brevity.
87. The concerns raised by Mr. E.A.S. Sarma, Former Secretary, Government of India, have been duly responded to by the Project Proponent and action plan on the basis of the same were identified. The issues identified relating to adequate study for site selection, displacement of local population and impact of the Bhogapuram Airport Project on water consumption in the region have been dealt with in the EIA Report in the respective chapters. Chapter 5 has analysed alternative sites, chapters 2, 3 and 4 have analysed impact on water consumption and chapter 7 addresses impact on local population.
88. Further as stated in the above para 81, the EAC specifically asked for information pertaining to the aspects raised at the Public Hearing. This therefore shows that, the EAC had very much considered, each and every objection raised at the Public Hearing and the response given by the Project Proponent. The very fact that a response is called for again on specific points, despite the same having been dealt with earlier, shows that public hearing issues were satisfactorily scrutinized by the EAC.


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Andhra Pradesh Airports Development Corporation
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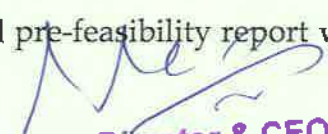
J. PROJECT RECOMMENDED IN EXTREME HASTE:

89. The contents of paragraph 18 are wrong and emphatically denied. It is emphatically denied that various issues were raised which has not been captured in the EAC MoM or separately by the EAC. It is emphatically denied that there is a larger project for a Bhogapuram Aerotropolis and it is emphatically denied that there is an integrated project beyond the Bhogapuram International Airport. It is submitted that the contentions are self-contradictory as Appellant contends that:

"These include the issue regard the fact that the proposed green field airport was part of larger Bhogapuram Aerotropolis Project, wherein it was highlighted that the Draft EIA report does not refer anywhere to the integrated project and the impact of the entire project as a whole has not been studied. Further, it is important to highlight that the EAC had discussed the project in question on 13.04.2017, however, no discussion regarding the response has been recorded in the EIA. "

On the one hand, Appellant is raising contentions about a non-existent integrated project and then that EAC fails to address the same and finally that EAC discusses it however EIA Report does not capture the same.

90. It is emphatically denied that the Bhogapuram Airport Project was recommended in haste. It is necessary to understand that a Government project is first conceived, then planned, designed, and by the time it is executed takes several years. A project of this magnitude and importance, apart from various clearances and approvals, requires numerous studies all of which were undertaken. This is a project which was conceived and planned in the year 1997. Today in the year 2021 the Environmental Clearance which was obtained in the year 2017 is still under challenge. It is also required to be appreciated that the pre-feasibility study was commenced by the State of AP in the year 2015, apart from that the online application Form 1 with draft ToRs and pre-feasibility report was


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submitted in February 2016, and the EC was granted in August 2017. It is respectfully submitted that if a project of this magnitude takes several years and decades then obviously the cost for execution of the project goes phenomenally high and all this is borne by the public exchequer. Indeed, the requirement of Article 14 of reasonableness of Government action ought to be read as meaning quick and reasonable dispatch of government business within a time bound period and action so that the public money is not expended on the escalation of the project which takes place on account of delay. The allegation of haste which have been very casually made are emphatically denied and it is respectfully stated that the project has been planned conceived, considered and EC has been granted after considering all relevant and material parameters required for taking the decision. It is emphatically denied that the sincerity of the EAC is to be questioned merely because more than one project was scrutinised. Such an allegation against the EAC is uncalled for, unwarranted and vexatious and liable to be struck down.

91. The final EIA report was submitted to MOEF&CC online on 20.02.2017 after the compilation of public hearing responses. Thereafter, the Ministry listed the Bhogapuram Airport Project for EIA Appraisal on 13.04.2017 which is about 2 months from the date of upload of the EIA. The 15th EAC agenda wherein EAC has asked for the requisite documents such as EIA Report, summary etc. at least one week prior to the meeting and accordingly the documents were made available to the EAC. Hence, the EAC members had sufficient time to review all the relevant documents, deliberate and analyse the Bhogapuram International Airport's environmental feasibility. The entire process has taken about 1 year 6 months from the date of submission of Form 1 application to grant of EC which demonstrates, due application of mind and careful consideration to all aspects of environment assessment.


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 Vijayawada

92. It is submitted that, EIA Notification specifically provides at paragraph (IV)(iii) as follows:

"The appraisal of an application be shall be completed by the Expert Appraisal Committee or State Level Expert Appraisal Committee concerned within sixty days of the receipt of the final Environment Impact Assessment report and other documents or the receipt of Form 1 and Form 1 A, where public consultation is not necessary and the recommendations of the Expert Appraisal Committee or State Level Expert Appraisal Committee shall be placed before the competent authority for a final decision within the next fifteen days. The prescribed procedure for appraisal is given in Appendix V "

It is important to note that there is an urgency to grant approval or reject the same as time is of the essence in infrastructure projects. Therefore, there is a mandate under law for expeditious disposal of applications for grant of environment clearance. It is therefore not permissible for Appellant to contest that decision in haste when the EAC was following the law. The EAC has not violated the EIA Notification or any other law in recommending the grant of EC to the Project Proponent.

K. VIOLATION OF GREENFIELD AIRPORTS POLICY OF THE MINISTRY OF CIVIL AVIATION:

93. The contents of paragraph 20 and 21, relating to Greenfields Airport Policy are wrong and emphatically denied. It is emphatically denied that the Bhogapuram International Airport is in violation of the Greenfields Airport Policy. The Bhogapuram International Airport is in replacement of the civilian operations presently being permitted at Visakhapatnam airport which is a defence airport. As the existing Visakhapatnam airport is a defence airport and that the civil operations will be closed once the Bhogapuram International Airport commences its operations, the said condition shall not be applicable in any manner.


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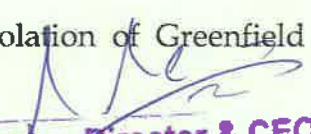
94. The Bhogapuram International Airport is as an alternative to Visakhapatnam Civil Enclave (a Naval Airbase) and is planned by State Government due to the following draw-backs of the Vishakhapatnam Airport:

- a. Present runway 10-28 in Vishakhapatnam Airport is uni-directional,
- b. There is no possibility of expansion of present airbase due to lack of land availability,
- c. Safety of naval and military establishment,
- d. Water logging,
- e. Restrictions for commercial operations due to naval operations,
- f. Airport is unable to handle expected increase in traffic due to overall development of IT sector / Electronic sector / Industries / Tourism / real estate in and around Visakhapatnam and Vizianagaram.

95. There is no prohibition and the Ministry of Civil Aviation itself granted site clearance. The restriction of 150 kms as per the National Civil Aviation Policy, 2016 is to ensure the viability of the greenfield airport projects being developed on PPP model. The present airport at Vishakhapatnam is a naval air base with several operational constraints. Further, there is no prohibition in terms of the Greenfield Airport Policy in terms of setting up another airport within 150 kms. It is submitted that even the paragraph relied by the Appellant states:

In case a greenfield airport is proposed to be set up within 150 Km of an existing civilian airport, the impact on the existing airport would be examined. Such cases would be decided by the Government on a case-to-case basis.

96. In the present case, since the existing Visakhapatnam airport is a defence airport and that the civil operations will be closed once the Bhogapuram International Airport commences its operations, the said restriction of 150 KM does not apply. This has been completely misconstrued by the Appellant stating to be in violation of Greenfield Airports Policy of the Ministry of Civil Aviation.


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 Andhra Pradesh Airports Development Corp : Ltd.
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V. REPLY TO GROUNDS:

97. The Grounds of appeal sought to be raised by Appellant are wrong and emphatically denied in its entirety.
98. The contents of Ground A are wrong, incorrect and denied. It is emphatically denied that the EAC has not appraised the Bhogapuram Airport Project as required under the EIA Notification. It is emphatically denied that the appraisal is a mere formality and has been done in haste. It is further denied that aspects of ecology, environment, socio-economy and sustainability have not been considered by the EAC. It is denied that the Bhogapuram Airport Project has not been appraised in accordance with precautionary principles and sustainable development. It is submitted that EAC has applied its mind and in fact, as the EAC MoM in paragraphs above would show, directed the Project Proponent to further clarify issues relating to public hearing. The various mitigation measures added by EAC demonstrate that precautionary principles and sustainable development is overarching in the grant of the EC.
99. The contents of Ground B are wrong, incorrect and denied. It is emphatically denied that there has been any concealment by the Project Proponent. It is emphatically denied that there has been concealment in Form F1 relating to litigation or on the alleged interconnected project. It is denied that the judgment of this Hon'ble Tribunal in *Deboditya Sinha & Ors. V. Union of India* is applicable in the present case, as there is no concealment. It is submitted that the Bhogapuram Airport Project is not an interconnected project and is not for 15,000 acres as alleged. As submitted in the paragraphs above, the Bhogapuram Airport Project is confined to the Greenfield Airport and is over an area of 2,000 acres with 119 acres for an approach road. Further, there has been no concealment on litigation

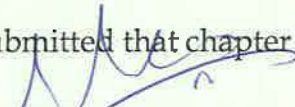

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and the same is disclosed in the EIA Report as well as duly acknowledged by the EAC. The EC itself acknowledges that the EC is subject to the outcome of the pending writ petitions.

100. The contents of Ground C are wrong, incorrect and denied. It is emphatically denied that baseline studies commenced prior to grant of TOR. It is emphatically denied that the judgment of this Hon'ble Tribunal in *T. Mohana Rao v. MOEF* on commencement of baseline studies prior to grant of TOR is applicable. It is submitted that GO 996/2015 amended paragraph 7 of the EIA Notification providing for a deemed approval of standard TOR. Therefore, it was permissible for baseline studies to commence once deemed approval of standard TOR was granted. It is submitted that in accordance with GO 996/205, additions made to the standard TOR were anyway considered by the Project Proponent and the EIA Consultant and the same has been duly captured in Annex 1.1, on TOR Compliance.

101. The contents of Ground D are wrong, incorrect and denied. It is emphatically denied that TORs have not been complied with and that the EIA Report is grossly inadequate. It is submitted that the EIA report specifically captures TOR compliance in Annex 1.1. Further, EIA Report addresses substantive issues raised in terms of compliances under EIA Notification and EIA Airport Manual. It is submitted that the facts of the case of *Sarpanch, Gram Panchayat, Tiroda v. MOEF (2011 SCCOnline NGT 10)* are not applicable in the present case. It is submitted that baseline studies were carried out correctly in compliance with the EIA Notification. Based on the same, and requirements under EIA Notification and EIA Airport Manual, the EIA Report has been prepared.

102. The contents of Ground E are wrong, incorrect and denied. It is emphatically denied that social impact and resettlement and rehabilitation is missing. It is submitted that chapter


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7 of the EIA Report is devoted extensively to the issues of social impact and resettlement and rehabilitation.

103. The contents of Ground F are wrong, incorrect and denied. It is emphatically denied that EAC has not appraised the Bhogapuram Airport Project as required under the EIA Notification. It is emphatically denied that the appraisal is a mere formality and has been done in haste. It is denied that TORs have not been complied. It is submitted that baseline studies had commenced correctly in view of GO 996/2015. Further, application of mind by EAC is also demonstrated from the additional terms included in the TOR. Therefore, the principle laid down by this Hon'ble Tribunal in *Sarpanch, Gram Panchayat, Tiroda v. MOEF (2011 SCCOnline NGT 10)* is not applicable in the present case.

104. The contents of Ground G are wrong, incorrect and denied. It is emphatically denied that the Bhogapuram Airport Project is in violation of the Greenfield Airport Policy of Ministry of Civil Aviation. It is submitted that the present airport at Vishakapatnam is a naval air base with several operational constraints. Further, there is no prohibition in terms of the Greenfield Airport Policy in terms of setting up another airport within 150 kms. It is submitted that even the paragraph relied by the Appellant states:

In case a greenfield airport is proposed to be set up within 150 Km of an existing civilian airport, the impact on the existing airport would be examined. Such cases would be decided by the Government on a case-to-case basis.

Therefore, there is no prohibition and the Ministry of Civil Aviation itself granted site clearance.

105. The contents of Ground H are wrong, incorrect and denied. It is emphatically denied that EAC has not given reasons for the Bhogapuram Airport Project. It is denied that cases relied by Appellant are applicable. It is submitted that EAC has duly appraised the


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Bhogapuram Airport Project and based on the presentation made by the Project Proponent, its responses to queries/ concerns of EAC and the EIA Report, has duly recommended grant of EC.

106. The contents of Ground I are wrong, incorrect and denied. It is emphatically denied that there is no response from EAC on issues raised during the public hearing. It is submitted that the EIA Report, chapter 7 has exhaustively dealt with the issues raised in the public hearing. The EAC, in the EAC MoM had specifically directed the Project Proponent to deal with issues raised in the public hearing. This is captured as below:

The Committee noted that issues raised during public hearing have not been responded satisfactorily. The project authority vide letter dated 14.4.2017 has submitted the revised point wise response of PH to the Committee. The Committee noted that issues have satisfactorily been responded by the project authority and suggested to incorporate in the final EIA-EMP report."

Therefore, the EAC has adequately addressed the issues raised in the public hearing and the same have been captured in the EAC MoM.

107. The contents of Ground J are wrong, incorrect and denied. It is emphatically denied that EAC has not considered precautionary principles and sustainable development. The various mitigation measures added by EAC demonstrate that precautionary principles and sustainable development is overarching in the grant of the EC.

108. The contents of Ground K are wrong, incorrect and denied. It is emphatically denied that the EC is in violation of precautionary principles and sustainable development. It is further denied that the EC is in violation of Article 21 and suffers from arbitrariness. It is submitted that the allegation is vague and ambiguous. It is submitted that the EIA Report has duly considered parameters in terms of the EIA Notification and EIA Airport Manual as stated in paragraphs above. Further, EAC has taken these factors into consideration and after applying its independent mind and seeking further responses


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from the Project Proponent, recommended grant of EC. It is to be noted that EC has been granted after additional conditions for compliance were imposed on Project Proponent

109. The contents of paragraph 23 are legal and do not warrant any reply.
110. The relief for interim prayer is wrong and emphatically denied. Appellant has not demonstrated any ground for grant of interim relief. Appellant has failed to even demonstrate a prima facie case against the EC. It is submitted that balance of convenience is in favour of Respondents and against Appellant. Irreparable harm and prejudice would be caused to Respondents if the Bhogapuram Airport Project is not allowed to continue.

I say that therefore in light of the above submissions, it is respectfully prayed that the Hon'ble Tribunal be pleased to dismiss the present Appeal.


Managing Director & CEO DEPONENT
 Andhra Pradesh Airports Development Corp : Ltd.
 Vijayawada

I the above deponent state that the contents of the aforesaid affidavit are true and correct to the best of my knowledge and belief and nothing has been concealed therefrom.

Solemnly Verified on this day of 8th day of July 2021, at Vijayawada.


 DEPONENT
Managing Director & CEO
 Andhra Pradesh Airports Development Corp : Ltd.
 Vijayawada

GOVERNMENT OF ANDHRA PRADESH
Abstract

Infrastructure & Investment Department - Development of Greenfield airport at Bhogapuram in Vizianagaram District - Proposal for formation of an SPV named Bhogapuram International Airport Company Limited (BIACL) for speedy implementation of Bhogapuram Aerotropolis project - Orders - Issued.

INFRASTRUCTURE & INVESTMENT (AIRPORTS) DEPARTMENT

G.O.RT.No. 63

Dated.20.05.2015

Read the following:

1. Govt. Letter No.70/Airports/A2/2015, Dated.4.3.2015.
2. Lr.No.INCAP/P/Greenfield Airports-Bhogapuram/97/2015, Dated.02.04.2015 received from the VC & MD, INCAP, Hyderabad.

ORDER:

In the reference 1st read above, Government have designated the Vice Chairman & Managing Director, Infrastructure Corporation of Andhra Pradesh Limited (INCAP) as project proponent for developing the four Greenfield Airports at Bhogapuram (Vizianagaram District), near Visakhapatnam, Kuppam (Chittoor District), Oravakallu (Kurnool District), Dagadarthi (Nellore District).

2. In the reference 2nd read above, the VC & MD, INCAP has informed that it is envisaged to develop modern Aviation infrastructure in the newly formed state of Andhra Pradesh and that development of Greenfield Aerotropolis with International airport, MRO facilities and Aviation academy at Bhogapuram in Vizianagaram District near Visakhapatnam is planned as part of this initiative. He has also informed that INCAP had submitted documents to the Ministry of Civil Aviation (MoCA) with a request to communicate the site clearance for development of the Greenfield International airport in Bhogapuram in Vizianagaram district at the earliest and the site clearance is yet to be accorded by the MoCA.

3. The VC & MD, INCAP has requested for formation of Special Purpose Vehicle (SPV) to expedite project related approvals/Clearances and obtain land for project purposes. The proposal includes creation of a new company in the name of Bhogapuram International Airport Company Limited (BIACL) under the Companies Act, 2013, which will be responsible for speedy implementation of Bhogapuram Airport and will be 100% owned by Government of Andhra Pradesh (GoAP).

4. In the reference 2nd read above, the VC & MD, INCAP has informed that once the preparatory phase and the bidding process is completed, the SPV can be transferred through divesting majority stake to successful bidder/consortium for project implementation and Government may retain minority stake through equity (equivalent of land cost or other means) along with other Government entities like Airports Authority of India (AAI) etc., as deemed fit at that time. The authorized share capital of the company is proposed to be INR 5,00,00,000 (Rupees Five Crores Only) divided into 50,00,000 (Fifty Lakhs Only) equity shares of INR 10 (Rupees 10 only) each.

Contd., 2 P

-2-

5. The proposed Bhogapuram International Airport Company Limited (BIACL) is responsible for carrying out various activities prior to commencement of actual field work by a successful bidder/consortium. Key activities to be pursued by BIACL are as follows -

- a) To undertake preparation of Feasibility Report, Detailed Project Report, Environment Impact Assessment Report etc. to assess the Technical feasibility and financial viability of the Project.
- b) Getting clearances/approvals from various Government departments/agencies required to start an airport, such as site clearances, environmental clearances, Ministry of Defence (MoD) approval and DGCA clearance etc.
- c) Structure the Project for implementation through PPP, based on independent market and technical/ financial studies.
- d) To facilitate competitive and transparent bidding through preparation of bid document (RFQ and RFP), bids evaluation and award of the Project.

6. The day to day administration and discharge of the assigned duties of the SPV is to be done through a Chief Executive Officer to be appointed by Government of Andhra Pradesh and other supporting staff on need basis.

7. After careful examination, Government hereby issue the following orders on development of the Greenfield airport at Bhogapuram in Vizianagaram District,

i. An SPV named Bhogapuram International Airport Company Ltd., (BIACL) under Companies Act 2013, which shall be 100% owned by Government of Andhra Pradesh is formed for speedy implementation of Bhogapuram Aerotropolis Project comprising International Airport, Maintenance, Repair and Overhaul (MRO) facility and an Aviation Academy.

ii. The authorized share capital of the SPV company shall be Rs.5,00,00,000/- (Rupees Five Crores only), divided into Rs.50,00,000/- (Rupees Fifty Lakhs only) equity shares of Rs.10/- each.

iii. A Board of Directors of the SPV is constituted with the following members.

- a) Secretary, Energy, Infrastructure & Investment Department, Government of Andhra Pradesh
- b) Principal Secretary, Transport Roads and Buildings Department, Government of Andhra Pradesh
- c) Principal Secretary, Revenue (Assignment) Department, Government of Andhra Pradesh
- d) Secretary, Finance Department, Government of Andhra Pradesh
- e) Vice Chairman & Managing Director, INCAP
- f) VC&MD, Andhra Pradesh Industrial Infrastructure Corporation (APIIC)
- g) District Collector, Vizianagaram.

Contd., 3 P

-3-

8. The Vice Chairman & Managing Director, INCAP shall take further action.

(BY ORDER AND IN THE NAME OF THE GOVERNOR OF ANDHRA PRADESH)

AJAY JAIN
SECRETARY TO GOVERNMENT

To
The Vice Chairman & Managing Director,
Infrastructure Corporation of Andhra Pradesh, Hyderabad.

The all the Directors of the Board,
The Accountant General, Andhra Pradesh, Hyderabad.

Copy to:

The Principal Secretary to Chief Minister,
The Finance Department,
The Law Department,
PS to Secretary to Government, I&I Department.

//Forwarded::By Order//

SECTION OFFICER

MOST IMMEDIATE

No. AV.20015/111/2015-AD
Government of India
Ministry of Civil Aviation
AD Section

Safdarjung Airport, New Delhi.
Dated 27.01.2016

To,

✓ Shri K.Sambasiva Rao,
Vice Chairman & Managing Director,
Infrastructure Corporation of Andhra Pradesh Ltd.,
#10-2-1, III Floor, FDC Complex, AC Guards,
Hyderabad-500028.

Sub: Granting of site clearance for setting up of a Greenfield airport in Andhra Pradesh State - Dagadarthi Mendal, Nellore Dist., Bhogapuram in Vizianagaram District near Visakhapatnam and Oravakallu in Kurnool District - regarding.

Sir,

I am directed to refer to Chief Minister, Andhra Pradesh's D.O. letter dated 14.01.2016 and your letter no. INCAP/P/GF Airport-Bhogapuram/97/2015, INCAP/P/GF Airport-Nellore/456/2015 and INCAP/P/GF Airport-Oravakallu/110/2015 dated 20.04.2015 regarding setting up of a Greenfield airport in Bhogapuram in Vizianagaram District near Visakhapatnam, Dagadarthi Mendal, Nellore Dist., and Oravakallu in Kurnool District respectively and to enclose herewith the site clearance certificate for your information and necessary action.

2. You are requested to proceed with preparation of Techno Economic Feasibility Report (TEFR)/Detailed Project Report (DPR) and 15 copies of the same along with application for seeking grant of 'in-principle' approval may please be provided to this Ministry immediately for further necessary action.

Yours faithfully,


(U.K. Bhatia) 27/1/16

Under Secretary to the Govt. of India
Tele-24640217

Copy for information to:

- ✓ 1. The Secretary, Ministry of Defence, South Block, New Delhi.
2. The DGCA, Opposite Safdarjung Airport, New Delhi.
3. The Chairman, Airports Authority of India, Safdarjung Airport, New Delhi.



Under Secretary to the Govt. of India

SN/ Forwarded to M.D, BIACL for further action as per above instruction.

 01/02/2016
A.M.C. S.A.

Government of India
Ministry of Civil Aviation



GRANT OF SITE CLEARANCE APPROVAL

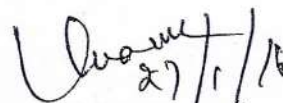
Application Number: AV.20015/111/2015-AD
Name of Applicant: Infrastructure Corporation of Andhra Pradesh (INCAP)
Address : #10-2-1, III Floor,
FDC Complex, AC Guards,
Hyderabad-500028.

Decision: The competent authority has granted the site clearance for setting up of a Bhogapuram International Greenfield Airport for public use in Vizianagaram District, near Visakhapatnam subject to the following conditions and the conditions imposed by Ministry of Defence vide their letter no. 2(12)/2015/D(Air-II) dated 15.12.2015, conditions imposed by Directorate General of Civil Aviation vide their U.O. No. AV.20011/05/2015-AL dated 22.12.2015 and compliance of the observations of Airports Authority of India vide No.AAI/04/78/2015-AR-(P)/825 dated 09.06.2015 and for International operations including the provisions of Airports Infrastructure Policy, 1997/Greenfield Airport Policy 2008.

Conditions of site clearance

- (i) The proposal for setting up of Greenfield Airport at Bhogapuram is approved with the condition that scheduled commercial operations at the civil enclave at the existing Vizag Naval Airfield (INS Dega) are stopped once the operation of Greenfield airports at Bhogapuram starts, for a period of 30 years.
- (ii) Consequent upon the above, if any compensation is to be given to the AAI for closure of Civil Enclave, it may be given in the form of suitable equity in new Airport in consultation with the State Government/Promoter. The project proponents may prepare TEFR accordingly.

- (iii) The other Terms & Conditions stipulated in the clearance given by MoD will also be fully met, particularly those relating to airspace coordination.
- (iv) A detailed OLS survey is required to be conducted to ascertain exact locations of obstacles, their infringement and their effect on safety of aircraft operations as mentioned by Directorate General of Civil Aviation (DGCA).
- (v) Mitigation of obstacles in approach funnel, removal of HT Line, LT Lines & High Masts etc. should be done as mentioned by Airports Authority of India (AAI).
- (vi) Required security clearance should be obtained through MHA/IB and the other agencies for the foreign Nationals/Indian representatives to be employed by the company in India.
- (vii) No Objection from other concerned Government Organizations/Agencies as required.
- (viii) The validity of this NOC is five years from the date of issue. If the construction for which NOC has been issued does not complete within five years of issue or found to be in deviation from original proposal the NOC shall be deemed null and void. It will be the responsibility of the applicant to obtain fresh NOC for the proposal.


(U.K. Bhatia)

Under Secretary to the Govt. of India
Tele-24640217

Date: 27.01.2016



Andhra Pradesh Airports Development Corporation Limited (APADCL)

Request For Qualification (RfQ)

Notice No. 2/ APADCL/ BIA/ RFQ Notification/ 2018/ dated 17th July 2018

Volume 1: Instructions to Bidder

Development, Operation and Maintenance of Greenfield International Airport at Bhogapuram,
Vizianagaram District, Andhra Pradesh

July 2018

Andhra Pradesh Airports Development Corporation Limited (APADCL)
10-2-1, 1st Floor, FDC complex,
AC Guards, Hyderabad – 500 028, India



	Andhra Pradesh Airports Development Corporation Limited (APADCL) (Under the control of Energy, Infrastructure & Investment Dept., GoAP) # 10-2-1, 1st Floor, FDC Complex, AC Guards, Hyderabad – 500 028, India	
Request for Qualification (“RfQ”)	Development and Operation/Maintenance of Greenfield Airport at Bhogapuram, Vizianagaram District, Andhra Pradesh	
RfQ No. 2/ APADCL/ BIA/ RFQ Notification/ 2018 dated 17th July 2018		
Andhra Pradesh Airports Development Corporation Limited (APADCL) invites Applications from suitable Applicants for development, operation and maintenance of greenfield international airport at Bhogapuram, Vizianagaram District, Andhra Pradesh. The RfQ can be downloaded from the website: www.apadcl.com. The last date for submission of Applications is 24th August 2018 before 15:00 hours IST. Opening of Applications is scheduled at 16:00 hours IST on 24th August 2018 at APADCL. All other details including any date extensions, clarifications, amendments, corrigenda etc., will be uploaded only to the website of APADCL and will not be published in newspapers. Hence, Applicants shall regularly visit the website of APADCL to keep themselves updated.		
Sd/- [Managing Director]		
For any queries please send e-mail to: ceo-apadcl@ap.gov.in		



DISCLAIMER

The information contained in this Request for Qualification document (“**RfQ**”) or subsequently provided to Applicant(s), whether verbally or in documentary or any other form, by or on behalf of the Authority or any of its employees or advisors, is provided to Applicant(s) on the terms and conditions set out in this RfQ and such other terms and conditions subject to which such information is provided.

This RfQ is not an agreement and is neither an offer nor invitation by the Authority to the prospective Applicants or any other person. The purpose of this RfQ is to provide interested parties with information that may be useful to them in the formulation of their application for qualification pursuant to this RfQ (“**Application**”). This RfQ includes statements, which reflect various assumptions and assessments arrived at by the Authority in relation to the Project. Such assumptions, assessments and statements do not purport to contain all the information that each Applicant may require. This RfQ may not be appropriate for all persons, and it is not possible for the Authority, its employees or advisors to consider the investment objectives, financial situation and particular needs of each party who reads or uses this RfQ. The assumptions, assessments, statements and information contained in this RfQ may not be complete, accurate, adequate or correct. Each Applicant should therefore, conduct its own investigations and analysis and should check the accuracy, adequacy, correctness, reliability and completeness of the assumptions, assessments, statements and information contained in this RfQ and obtain independent advice from appropriate sources.

Information provided in this RfQ to the Applicant(s) is on a wide range of matters, some of which may depend upon interpretation of law. The information given is not intended to be an exhaustive account of statutory requirements and should not be regarded as a complete or authoritative statement of law. The Authority accepts no responsibility for the accuracy or otherwise for any interpretation or opinion on law expressed herein.

The Authority, its employees and advisors make no representation or warranty and shall have no liability to any person, including any Applicant or Bidder, under any law, statute, rules or regulations or tort, principles of restitution or unjust enrichment or otherwise for any loss, damages, cost or expense which may arise from or be incurred or suffered on account of anything contained in this RfQ or otherwise, including the accuracy, adequacy, correctness, completeness or reliability of the RfQ and any assessment, assumption, statement or information contained therein or deemed to form part of this RfQ or arising in any way with pre-qualification of Applicants for participation in the Bidding Process.



The Authority also accepts no liability of any nature whether resulting from negligence or otherwise howsoever caused arising from reliance of any Applicant upon the statements contained in this RfQ.

The Authority may, in its absolute discretion but without being under any obligation to do so, update, amend or supplement the information, assessment or assumptions contained in this RfQ.

The issue of this RfQ does not imply that the Authority is bound to select and shortlist pre-qualified Applications for Bid Stage or to appoint the selected Bidder or Concessionaire, as the case may be, for the Project and the Authority reserves the right to reject all or any of the Applications or Bids without assigning any reasons whatsoever.

The Applicant shall bear all its costs associated with or relating to the preparation and submission of its Application including but not limited to preparation, copying, postage, delivery fees, expenses associated with any demonstrations or presentations which may be required by the Authority or any other costs incurred in connection with or relating to its Application. All such costs and expenses will remain with the Applicant and the Authority shall not be liable in any manner whatsoever for the same or for any other costs or other expenses incurred by an Applicant in preparation or submission of the Application, regardless of the conduct or outcome of the Bidding Process.



Glossary	
APIDEA Act	Means the Andhra Pradesh Infrastructure Development Enabling Act, 2001 and addendum (s)
Addendum	As defined in Clause 2.10.1
Aggregate Experience Score	As defined in Clause 3.5.1
Airport	As defined in Clause 1.1.3
Applicant(s)	As defined in Clause 1.2.1
Application	As defined in the Disclaimer
Application Due Date	As defined in Clause 1.1.8
Associate	As defined in Clause 2.2.9
Authority	As defined in Clause 1.1.3
ACI	Airports Council International
AIF Regulations	Securities and Exchange Board of India (Alternative Investment Funds) Regulations, 2012 and the subsequent amendments thereto.
AIF	Alternative Investment Fund as defined in regulation 2(1)(b) of of AIF Regulations
ASQ	Airport Service Quality as measured through ACI survey
Bids	As defined in Clause 1.2.3
Bid Due Date	As defined in Clause 1.2.3
Bid Security	As defined in Clause 1.2.4
Bidders	As defined in Clause 1.1.4
Bidding Documents	As defined in Clause 1.2.3
Bidding Process	As defined in Clause 1.2.1
Bid Stage	As defined in Clause 1.2.1
BOLT	Build, Own, Lease, Transfer
BOO	Build, Own, Operate
BOOT	Build, Own, Operate and Transfer
BOT	Build, Operate and Transfer
Concessionaire	As defined in Clause 1.1.5
Concession Agreement	As defined in Clause 1.1.5
Conflict of Interest	As defined in Clause 2.2.1(c)
Consortium	As defined in Clause 2.2.1(a)
DBFOT	As defined in Clause 1.1.3
Eligible Experience	As defined in Clause 3.2.1
Eligible Projects	As defined in Clause 3.2.1
Estimated Project Cost	As defined in Clause 1.1.7
FAR	Floor Area Ratio (Gross Floor Area) / (area of the plot)
Financial Capacity	As defined in Clause 2.2.2 (B)
Government	As defined in Clause 1.1.1
Highest Bidder	As defined in Clause 1.2.8
Jt. Bidding Agreement	As defined in Clause 2.2.6 (g)
Lead Member	As defined in Clause 2.2.6 (c)



LOA	Letter of Award
Member	Member of a Consortium
Mppa	Million passengers per annum
MRO	Maintenance, repair and overhaul
OECD	Organisation for Economic Co-operation and Development
O&M Experience	As defined in Clause 2.2.2 (C)
O&M Member	As defined in Clause 2.2.2 (C)
Net Worth	As defined in Clause 2.2.4 (ii)
PPP	As defined in Clause 1.1.3
Project	As defined in Clause 1.1.3
Qualification	As defined in Clause 1.2.1
Qualification Stage	As defined in Clause 1.2.1
Re. or Rs. or INR	Indian Rupee
Revenue Share	As defined in Clause 1.2.8
RfP or Request for Proposals	As defined in Clause 1.2.1
RfQ	As defined in the Disclaimer
SPV	As defined in Clause 2.2.6
Technical Capacity	As defined in Clause 2.2.2 (A)

The words and expressions beginning with capital letters and defined in this document shall, unless repugnant to the context, have the meaning ascribed thereto herein.



INVITATION FOR QUALIFICATION



1. INTRODUCTION

1.1 Background

- 1.1.1 The Government of Andhra Pradesh (**“Government”**) is interested in expanding the air connectivity across the state of Andhra Pradesh (**“State”**). Pursuant thereto, the Government is developing greenfield airports in the State to provide reliable and seamless air connectivity across the State in order to facilitate tourism and hinterland logistics by linking places of industry, tourism and other major areas in the State.
- 1.1.2 The Government has approved the State Civil Aviation Policy aimed at development of new airports, expansion of existing airports, increasing frequency of flights to new and existing airports by offering suitable incentives and improving multi-modal connectivity.
- 1.1.3 Andhra Pradesh Airports Development Corporation Limited (**“Authority”**) setup by the government order dated 24 November 2017 bearing number G.O.Ms. No. 30, E-I&I (Airports) Department, is the nodal agency of the Energy, Infrastructure and Investment Department of the Government and is engaged in facilitating the development of airport infrastructure projects in the State. The Government has appointed the Authority to develop, operate and maintain a greenfield airport at Bhogapuram in Vizianagaram district (**“Airport”**) through Public-Private Partnership (**“PPP”**) on design, build, finance, operate and transfer (**“DBFOT”**) basis (**“Project”**). The Authority, has therefore, decided to carry out the bidding process for selection of the Bidder to whom the Project may be awarded. Brief particulars of the Project and location are as follows:

Name of the Project	Terminal capacity (in millions per	Indicative Project Cost (In INR cr.)
Development, operation and maintenance of greenfield airport at Bhogapuram, Vizianagaram District, Andhra Pradesh	Phase 1 – 6 mppa Phase 2 – 12 mppa Phase 3 – 18 mppa	Phase 1 - 2,302.51 Phase 2 – 989.58 Phase 3 – 917.01

The Project is proposed to be developed in 3 (three) phases in the above manner to cater to the needs of the expected passenger traffic. The terminal building(s) of the Airport shall be built keeping in mind the goals of efficiency, flexibility, sustainability and economy. The Project shall have a separate cargo complex in order to cater to the growing need for air cargo facilities. The Authority also envisages development of the Airport as a hub for MRO activities in India. The Concessionaire shall also operate an aviation training institute in accordance with the provisions of the agreement to be entered into with the Concessionaire in the form provided by the Authority as part of the Bidding Documents pursuant hereto.



- 1.1.4 To develop the Project, the Authority intends to pre-qualify and shortlist suitable Applicants (**“Bidders”**) who will be eligible for participation in the Bid Stage, for awarding the Project through an open competitive bidding process in accordance with the procedure set out herein.
- 1.1.5 The selected Bidder, who is either a company incorporated under the Companies Act, 1956 or the Companies Act, 2013 (as the case may be) or undertakes to incorporate an SPV in accordance with the Bidding Documents as such prior to execution of the concession agreement (**“Concessionaire”**) shall be responsible for designing, engineering, financing, procurement, construction, operation and maintenance and transfer of the Project under and in accordance with the provisions of a concession agreement (**“Concession Agreement”**) to be entered into between the Concessionaire and the Authority in the form provided by the Authority as part of the Bidding Documents pursuant hereto.
- 1.1.6 The scope of work will broadly include the designing, financing, construction and development of the air-side, terminal and land-side infrastructure (car parking, retail area and such other activities as defined in the Concession Agreement) for the Project and the operation and maintenance thereof in accordance with the Concession Agreement and applicable laws.
- 1.1.7 Indicative capital cost of the Project (**“Estimated Project Cost”**) will be revised and specified in the Bidding Documents of the Project. The assessment of actual costs, however, will have to be made by the Applicants.
- 1.1.8 The Authority shall receive Applications pursuant to this RfQ in accordance with the terms set out herein as modified, altered, amended and clarified from time to time by the Authority, and all Applications shall be prepared and submitted in accordance with such terms on or before the date specified in Clause 1.3 for submission of Applications (**“Application Due Date”**)



1.2 Brief description of the Bidding Process

- 1.2.1 The Authority has adopted a two-stage process (collectively referred to as the “**Bidding Process**”) for selection of the Bidder for award of the Project. The first stage (“**Qualification Stage**”) of the process involves qualification (“**Qualification**”) of interested person(s) who may participate under APIDEA Act participants and make an Application in accordance with the provisions of this RfQ (“**Applicant**”, which expression shall, unless repugnant to the context, include the Members). Along with the Application, the Applicant shall pay to the Authority non- refundable sum of INR 10,00,000 (Ten lakhs) as the cost of the RfQ process on the date specified in Clause 1.3. by way of a demand draft issued by any of the Nationalized/Scheduled Banks in India in favour of the ‘*Managing Director, APADCL*’ and payable at Hyderabad (“**Demand Draft**”) towards fee for the bidding process along with the Application. The Techno Economic Feasibility Report (“**Techno Economic Feasibility Report**” or “**TEFR**”) can be obtained from the Authority on payment of a non-refundable fee of Rs. 2,00,000/- (Rupees two lakh only) by way of a demand draft issued by any of the Nationalized/Scheduled Banks in India in favour of the ‘*Managing Director, APADCL*’, payable at Hyderabad.

At the end of this stage, the Authority expects to announce a short list of suitable pre-qualified Applicants who shall be eligible for participation in the second stage of the Bidding Process (“**Bid Stage**”) comprising Request for Proposals (“**Request for Proposals**” or “**RfP**”).

Government of India has issued guidelines as set out in Appendix-V for qualification of bidders seeking to acquire stakes in any public sector enterprise through the process of disinvestment. These guidelines shall apply *mutatis mutandis* to this Bidding Process. The Authority shall be entitled to disqualify an Applicant in accordance with the aforesaid guidelines at any stage of the Bidding Process. The Applicants must satisfy themselves that they are qualified to apply, and should give an undertaking to this effect in the form as set out in Appendix-I.

- 1.2.2 In the Qualification Stage, the Applicants would be required to furnish all the information specified in this RfQ. Only those Applicants that are pre-qualified and short listed by the Authority shall be invited to submit their Bids for the Project in the Bid Stage. The Applicants are, therefore, advised to visit the site and familiarize themselves with the Project.
- 1.2.3 In the Bid Stage, the Bidders will be called upon to submit their financial offers (“**Bids**”) in accordance with the RfP and other documents to be provided by the Authority (collectively the “**Bidding Documents**”). The Bid shall be valid for a period of not less than 180 (one hundred and eighty) days from the date specified in Clause 1.3 for submission of bids (“**Bid Due Date**”).



- 1.2.4 In terms of the RfP, a Bidder will be required to deposit, along with its Bid, a bid security of Rs 11, 60,00,000 (Rupees Eleven Crore and Sixty Lakhs) ("**Bid Security**") specified in the Bidding Documents, refundable no later than 60 (Sixty) days from the Bid Due Date, except in the case of the selected Bidder whose Bid Security shall be retained till it has provided a Performance Security under the Concession Agreement. The Bidders shall provide the Bid Security in the form of a bank guarantee acceptable to the Authority and the validity period of the Bid Security shall not be less than 180 (one hundred and eighty) days from the Bid Due Date, inclusive of a claim period of 60 (sixty) days, and may be extended as may be mutually agreed between the Authority and the Bidder from time to time. The Bid shall be summarily rejected if it is not accompanied by the Bid Security.
- 1.2.5 During the Bid Stage, Bidders are invited to examine the Project in greater detail, and to carry out, at their cost, such studies as may be required for submitting their respective Bids for award of the concession including implementation of the Project.
- 1.2.6 As part of the Bidding Documents, the Authority will provide a draft Concession Agreement and a feasibility report prepared by the Authority/its consultants and other information pertaining/ relevant to the Project available with it to qualified applicants.
- 1.2.7 Bids may be invited for the Project on the basis of a percentage of the annual gross revenue from the 10th (tenth) anniversary of date of commercial operations of the Project till the end of concession period ("**Revenue Share**") to be paid to the Authority as per the terms and conditions set out in the Concession Agreement. The concession period and other terms are pre-determined, and will be indicated in the draft Concession Agreement forming part of the Bidding Documents. The Revenue Share shall constitute the sole criterion for evaluation of Bids. The Project shall be awarded to the Bidder quoting the highest Revenue Share. In this RfQ, the term "**Highest Bidder**" shall mean the Bidder who is offering the highest Revenue Share.

The bid parameters for the RfP stage are subject to change based on detailed financial assessment, project structuring and approvals.

- 1.2.8 Generally, the Highest Bidder shall be the selected Bidder. The remaining Bidders shall be kept in reserve and may, in accordance with the process specified in the RfP, be invited to match the Bid submitted by the Highest Bidder in case such Highest Bidder withdraws or is not selected for any reason. In the event that none of the other Bidders match the Bid of the Highest Bidder, the Authority may, in its discretion, invite fresh Bids from the remaining Bidders or annul the Bidding Process, as the case may be.



- 1.2.9 The Concessionaire shall, in consideration of its investment a be entitled to levy and charge fee from users of the Project in accordance with applicable laws.
- 1.2.10 Interested applicants are requested to visit authority's website: www.apadcl.com for correspondence on the Project.
- 1.2.11 Further and other details of the process to be followed at the Bid Stage and the terms thereof will be spelt out in the Bidding Documents.
- 1.2.12 Any queries or request for additional information concerning this RfQ shall be submitted in writing or by fax and e-mail to the officer designated in Clause 2.13.3 below. The envelopes/ communications shall clearly bear the following identification/ title: **“Queries/ Request for Additional Information: RfQ for Development, Operation and Maintenance of Greenfield Airport on Public Private Partnership Basis at Bhogapuram in Andhra Pradesh”**.



1.3 Schedule of Bidding Process

The Authority shall endeavor to adhere to the following schedule:

Event Description		
	Qualification Stage	Date
1.	Last date for receiving queries	26 th July 2018
2.	Pre-Application Conference	06 th August 2018
3.	Authority response to queries latest by	17 th August 2018
4.	Application Due Date	24 th August 2018
5.	Announcement of qualified Applicants	1 st September 2018

	Bid Stage	Estimated Date
1.	Last date for receiving queries	To be specified
2.	Pre-Bid meeting – 1	To be specified
3.	Authority response to queries latest by	To be specified
4.	Pre-Bid meeting – 2	To be specified
5.	Bid Due Date	To be specified
6.	Opening of Bids	On Bid Due Date
7.	Letter of Award (LOA)	Within 30 (thirty) days of Bid Due Date
8.	Validity of Bids	180 (one hundred eighty) days of Bid Due Date
9.	Signing of Concession Agreement	Within 30 (thirty) days of award of LOA



2. INSTRUCTIONS TO APPLICANTS

A. GENERAL

2.1 Scope of Application

2.1.1 The Authority wishes to receive Applications for Qualification in order to shortlist experienced and capable Applicants for the Bid Stage.

2.1.2 Shortlisted Applicants may subsequently be invited to submit the Bids for the Project.

2.2 Eligibility of Applicants

2.2.1 For determining the eligibility of Applicants for their Qualification hereunder, the following shall apply:

- (a) The Applicant for pre-qualification may be a single entity or a group of entities (the “**Consortium**”), coming together to implement the Project. However, no Applicant applying individually or as a member of a Consortium, as the case may be, can be member of another Applicant. The term Applicant used herein would apply to both a single entity and a Consortium.
- (b) An Applicant may be a natural person, private entity, AIF or any combination of them with a formal intent to enter into an agreement or under an existing agreement to form a Consortium. A Consortium shall be eligible for consideration subject to the conditions set out in Clause 2.2.6 below.
- (c) An Applicant shall not have a conflict of interest (“**Conflict of Interest**”) that affects the Bidding Process. Any Applicant found to have a Conflict of Interest shall be disqualified. An Applicant shall be deemed to have a Conflict of Interest affecting the Bidding Process, if:
 - (i) the Applicant, its Member or Associate (or any constituent thereof) and any other Applicant, its Member or any Associate thereof (or any constituent thereof) have common controlling shareholders or other ownership interest; provided that this disqualification shall not apply in cases where the direct or indirect shareholding of an Applicant, its Member or an Associate thereof (or any shareholder thereof having a shareholding of more than 20% (twenty per cent) of the paid up and subscribed share capital of such Applicant, Member or Associate, as the case may be) in the other Applicant, its



Member or Associate is less than 20% (twenty per cent) of the subscribed and paid up equity share capital thereof; provided further that this disqualification shall not apply to any ownership by the Airports Authority of India, a bank, insurance company, pension fund or a public financial institution referred to in section 2(72) of the Companies Act, 2013. For the purposes of this Clause 2.2.1(c), indirect shareholding held through one or more intermediate persons shall be computed as follows: (aa) where any intermediary is controlled by a person through management control or otherwise, the entire shareholding held by such controlled intermediary in any other person (“**Subject Person**”) shall be taken into account for computing the shareholding of such controlling person in the Subject Person; and (bb) subject always to sub-clause (aa) above, where a person does not exercise control over an intermediary, which has shareholding in the Subject Person, the computation of indirect shareholding of such person in the Subject Person shall be undertaken on a proportionate basis; provided, however, that no such shareholding shall be reckoned under this sub-clause (bb) if the shareholding of such person in the intermediary is less than 26% (twenty six per cent) of the subscribed and paid up equity shareholding of such intermediary;

- (ii) a constituent of such Applicant is also a constituent of another Applicant; or
- (iii) such Applicant, or any Associate thereof receives or has received any direct or indirect subsidy, grant, concessional loan or subordinated debt from any other Applicant, or any Associate thereof or has provided any such subsidy, grant, concessional loan or subordinated debt to any other Applicant, its Member or any Associate thereof; or
- (iv) such Applicant has the same legal representative for purposes of this Application as any other Applicant; or
- (v) such Applicant, or any Associate thereof has a relationship with another Applicant, or any Associate thereof, directly or through common third party/ parties, that puts either or both of them in a position to have access to each other’s information about, or to influence the Application of either or each other; or
- (vi) such Applicant, or any Associate thereof has participated as a consultant to the Authority in the preparation of any documents, design or technical specifications of the Project.



- (d) An Applicant shall be liable for disqualification if any legal, financial or technical adviser of the Authority in relation to the Project is engaged by the Applicant, its Member or any Associate thereof, as the case may be, in any manner for matters related to or incidental to the Project. For the avoidance of doubt, this disqualification shall not apply where such adviser was engaged by the Applicant, its Member or Associate in the past but its assignment expired or was terminated 6 (six) months prior to the date of issue of this RfQ. Nor will this disqualification apply where such adviser is engaged after a period of 3 (three) years from the date of commercial operation of the Project.

Explanation:

In case an Applicant is a Consortium, then the term Applicant as used in this Clause 2.2.1, shall include each Member of such Consortium.

- 2.2.2 To be eligible for pre-qualification and shortlisting, an Applicant shall fulfill the following conditions of eligibility:

(A) Technical Capacity:

For demonstrating technical capacity and experience (“**Technical Capacity**”), the Applicant shall over the past 10 (ten) financial years preceding the Application Due Date have:

- (i) paid for, or received payments for, construction of Eligible Projects; and/or
- (ii) paid for development of Eligible Project(s) in Category 1 and/or Category 2 specified in Clause 3.2.1; and/or
- (iii) collected and appropriated revenues from Eligible Project(s) in Category 1 and/or Category 2 specified in Clause 3.2.1, such that the sum total of the above is equal to or more than INR 4,724,00,00,000 (Rupees Four Thousand Seven Hundred and Twenty Four Crores only) (“Threshold Technical Capacity”)

(B) Financial Capacity:

The Applicant shall have a minimum Net Worth (“**Financial Capacity**”) of Rs. 5,90,00,00,000/- (Rupees Five Hundred and Ninety Crores only) at the close of the preceding financial year.



OR

The Applicant (In case of Fund) should have a minimum ACI of INR 5,90,00,00,000/- (Rupees Five Hundred and Ninety Crores only) at the close of the preceding financial year.

In case of a Consortium, the combined Technical Capacity and Net Worth of those Members who have and shall continue to have an equity shares of at least 26% (twenty six per cent) each in the SPV, should satisfy the above conditions of eligibility; provided that each such Member shall, for a period of 7 (seven) years from the date of commercial operation of the Project, hold equity share capital not less than 26% (twenty six per cent) of the subscribed and paid up equity of the SPV.

(C) O&M Experience :

- (i) An Applicant shall be eligible under this RfQ only if it has equivalent O&M Experience of its own or includes a Member (**“O&M Member”**), having O&M Experience, who shall be a member of the Consortium for a period of 5 (Five) years from the date of commercial operation of the Project. In the event, the Applicant does not have the requisite O&M Experience, it shall be eligible under this RfQ upon entering into an O&M agreement with an entity (**“Airport Operator”**), having the O&M Experience, who shall be responsible for performing the O&M obligations at the Airport in accordance with the provisions of the Concession Agreement. For the avoidance of doubt, the Airport Operator shall commit to operate the Airport for a period of not less than 5 (five) years from the date of commercial operations of the Project, failing which the Concession Agreement shall be terminated.
- (ii) The Applicant, either of its own or through O&M Member in case of a Consortium or through an agreement with the Airport Operator shall have an experience of an Eligible Project that qualifies under Clause 2.2.2 (C) (iii) (**“O&M Experience”**) satisfying the following requirements:
 - (aa) The entity claiming O&M Experience shall have been operated an Eligible Project for a period of 3 (three) consecutive years (**“Three Year Period”**) in the last 5 (five) calendar years preceding the Application Due Date;
 - (bb) The entity claiming O&M Experience shall have achieved a passenger throughput of not less than 5 (five) mppa in any one year of such Three Year Period; and
 - (cc) Such Eligible Project shall have ASQ rating of 4.5 or more out of 5.0 or Skytrax



ranking in the first 100 (hundred) (i.e. in between 1 to 100) in the year in which the passenger throughput is not less than 5 (five) mppa. For the purposes of this RfQ, ASQ or Skytrax ranking shall mean the overall ranking of the Eligible Project (a) for the relevant year as issued by Skytrax; or (b) quarters of the relevant year as issued by ACI, as the case may be.

- (iii) For a project to qualify as an Eligible Project for O&M Experience under Clause 2.2.2 (C) (iii), it should be an airport providing non- discriminatory access to users in pursuance of its charter, concession or contract; and
 - (aa) the entity claiming experience should have held, in the company owning the Eligible Project, more than 50% (fifty per cent) equity during the entire period for which O&M Experience is being claimed; or
 - (bb) the entity claiming experience should have held, in the company that the Eligible Project has been leased out, more than 50% (fifty per cent) equity during the entire period for which O&M Experience is being claimed; or
 - (cc) the entity claiming experience should have held, in the company operating the Eligible Project, more than 50% (fifty per cent) equity during the entire period for which Eligible Experience is being claimed; or
 - (dd) the entity claiming experience should have been the operator of the Eligible project.
 - (iv) The Applicant shall ensure that one or more of the Key Managerial Personnel of the Airport Operator have the cumulative experience of at least 10 (ten) years as head of airport operations or an equivalent position for an Eligible Project as set out in Clause 2.2.2 (C)(iii) of an airport, which satisfies the conditions as set out in Clause 2.2.2 (C)(ii) (bb) and Clause 2.2.2(C)(ii)(cc).
- 2.2.3 In the event, the selected Bidder has entered into an O&M agreement with the Airport Operator, the selected Bidder shall upon prior written approval of the Authority, be allowed to change the Airport Operator, prior to the execution of the Concession Agreement, provided that the substitute shall continue to meet the O&M Experience and upon submission of the revised O&M agreement prior to execution of the Concession Agreement.
- 2.2.4 The Applicants shall enclose with its Application, to be submitted as per the format at



Appendix-I, complete with its Annexes, the following:

- (i) Certificate(s) from statutory auditors¹ of the Applicant or its Associates or the concerned client(s) stating the payments made/received or works commissioned, as the case may be, during the past 10 (ten) financial years preceding the Application Due Date in respect of the projects specified in Clause 2.2.2 (A) above. In the event a particular job/ contract has been jointly executed by the Applicant (as part of a Consortium), it should further support its claim for the share in work done for that particular job/ contract by producing a certificate from the statutory auditor of the client; and
- (ii) certificate(s) from statutory auditors of the Applicant or its Associates specifying the Net Worth of the Applicant, as at the close of the preceding financial year, and also specifying that the methodology adopted for calculating such Net Worth conforms to the provisions of this Clause 2.2.4 (ii).

For the purposes of this RfQ, net worth (“**Net Worth**”) shall mean the aggregate value of the paid up share capital and all reserves created out of the profits and securities premium account, after deducting expenditure and miscellaneous expenditure not written off, as per the audited balance sheet, but does not include reserves created out of revaluation of assets, write back of depreciation and amalgamation.

In case of Funds: In addition to Net Worth as set out under clause 2.2.4, Funds may also qualify on the basis of minimum investible funds (i.e. immediately available funds for investment and callable capital) subject to the limits of investment in a single investee entity (in the relevant jurisdiction for a Foreign Investment Fund, or the maximum permissible investment limit for an AIF) (as per SEBI Alternative Investment Funds Regulations, 2012), as applicable (“ACI”).

- (iii) In case of Funds and using ACI, ACI would be considered as per the certificate issued by statutory auditor (or such other certificate as filed with the regulator in the relevant

¹In case duly certified audited annual financial statements containing explicitly the requisite details are provided, a separate certification by statutory auditors would not be necessary in respect of Clause 2.2.3 (a). In jurisdictions that do not have statutory auditors, the firm of auditors which audits the annual accounts of the Applicant may provide the certificates required under this RfQ.



jurisdiction) not older than 3 months prior to the application deadline.

- 2.2.5 The Applicant should submit a Power of Attorney as per the format at Appendix-II, authorising the signatory of the Application to commit the Applicant. In the case of a Consortium, the Members should submit a Power of Attorney in favour of the Lead Member as per format at Appendix-III.
- 2.2.6 Where the Applicant is a single entity, it may be required to form an appropriate special purpose vehicle, incorporated under the Companies Act, 2013 (“**SPV**”), to execute the Concession Agreement and implement the Project. In case the Applicant is a Consortium, it shall, in addition to forming an SPV, comply with the following additional requirements:
- (a) Number of Members shall not exceed 6 (six) but information sought in the Application may be restricted to 4 (four) members in the descending order of their equity contribution;
 - (b) subject to the provisions of sub-clause (a) above, the Application should contain the information required for each member of the Consortium;
 - (c) Members shall nominate one member as the lead member (“**Lead Member**”), who shall have an equity share holding of at least 26% (twenty six per cent) of the paid up and subscribed equity of the SPV and also holding the highest equity stake amongst all other Members. In the event of two or Members holding the highest equal equity stake, the bidding Consortium shall clearly indicate in the Application which Member is to be considered the Lead Member and the Member so indicated or named shall be the Lead Member. The nomination(s) shall be supported by a Power of Attorney, as per the format at Appendix-III, signed by all the other members of the Consortium;
 - (d) the Application should include a brief description of the roles and responsibilities of individual members, particularly with reference to financial, technical and O&M obligations.;
 - (e) an individual Applicant cannot at the same time be Member applying for Qualification. Further, a Member of a particular Consortium cannot be Member of any other Consortium applying for Qualification;
 - (f) the Members shall form an SPV to execute the Project, if awarded to the



Consortium;

- (g) the Members shall enter into a binding Joint Bidding Agreement, substantially in the form specified at Appendix-IV (“**Jt. Bidding Agreement**”), for the purpose of making the Application and submitting a Bid in the event of being short listed. The Jt. Bidding Agreement, to be submitted along with the Application, shall, *inter alia*:
- (i) convey the intent to form an SPV with shareholding/ ownership equity commitment(s) in accordance with this RFQ, which would enter into the Concession Agreement and subsequently perform all the obligations of the Concessionaire in terms of the Concession Agreement, in case the concession to undertake the Project is awarded to the Consortium;
 - (ii) clearly outline the proposed roles and responsibilities, if any, of each Member;
 - (iii) commit the minimum equity stake to be held by each Member;
 - (iv) commit that each of the Members, whose experience will be evaluated for Technical Capacity and Net Worth/ ACI for the purposes of this RfQ, shall subscribe to 26% (twenty six per cent) or more of the paid up and subscribed equity of the SPV and shall further commit that each such Member shall, for a period of 7 (seven) years from the date of commercial operation of the Project, hold equity share capital not less than 26% (twenty six per cent) of the subscribed and paid up equity share capital of the SPV; and
 - (v) commit that the O&M Member, shall be a part of the Consortium for a period of 5 (Five) years from the date of commercial operation of the Project



- (vi) commit that Members whose experience has been evaluated for Technical Capacity and Net Worth/for the purposes of this RfQ, shall collectively hold at least 51% (fifty one per cent) of the subscribed and paid up equity of the SPV at all times until the seventh anniversary of the commercial operation date of the Project; and
- (vii) include a statement to the effect that all Members shall be liable jointly and severally for all obligations of the Concessionaire in relation to the Project until the date of commercial operations of the Project is achieved in accordance with the Concession Agreement; and except as provided under this RfQ and the Bidding Documents, there shall not be any amendment to the Jt. Bidding Agreement without the prior written consent of the Authority.

2.2.7 Any entity which has been barred by the Central/ State Government, or any entity controlled by it, from participating in any project (BOT or otherwise), and the bar subsists as on the date of Application, would not be eligible to submit an Application, either individually or as Member.

2.2.8 An Applicant including any Member or Associate should, in the last 3 (three) years, have neither failed to perform on any contract, as evidenced by imposition of a penalty by an arbitral or judicial authority or a judicial pronouncement or arbitration award against the Applicant, Member or Associate, as the case may be, nor has been expelled from any project or contract by any public entity nor have had any contract terminated by any public entity for breach by such Applicant, Member or Associate. Provided, however, that where an Applicant claims that its disqualification arising on account of any cause or event specified in this Clause 2.2.8 is such that it does not reflect (a) any malfeasance on its part in relation to such cause or event; (b) any wilful default or patent breach of the material terms of the relevant contract; (c) any fraud, deceit or misrepresentation in relation to such contract; or (d) any rescinding or abandoning of such contract, it may make a representation to this effect to the Authority for seeking a waiver from the disqualification hereunder and the Authority may, in its sole discretion and for reasons to be recorded in writing, grant such waiver if it is satisfied with the grounds of such representation and is further satisfied that such waiver is not in any manner likely to cause a material adverse impact on the Bidding process or on the implementation of the Project.

2.2.9 In computing the Technical Capacity and Net Worth/of the Applicant/ Members under Clauses 2.2.2 and 3.2, the Technical Capacity and Net Worth/ ACI of their respective Associates would also be eligible hereunder. For purposes of this RfQ, Associate means,



in relation to the Applicant/ Member, a person who controls, is controlled by, or is under the common control with such Applicant/ Member (“**Associate**”). As used in this definition, the expression “control” means, with respect to a person which is a company or corporation, the ownership, directly or indirectly of more than 50% (fifty percent) of the voting shares of such person; or and with respect to a person which is not a company or corporation, the power to direct the management and policies of such person by operation of law.

2.2.10 The following conditions shall be adhered to while submitting an Application:

- (a) Applicants should attach clearly marked and referenced continuation sheets in the event that the space provided in the prescribed forms in the Annexes is insufficient. Alternatively, Applicants may format the prescribed forms making due provision for incorporation of the requested information;
- (b) information supplied by an Applicant (or other Members if the Applicant is a Consortium) must apply to the Applicant, Member or Associate named in the Application and not, unless specifically requested, to other associated companies or firms. Invitation to submit Bids will be issued only to Applicants whose identity and/ or constitution is identical to that at qualification;
- (c) in responding to the qualification submissions, Applicants should demonstrate their capabilities in accordance with Clause 3.1 below; and
- (d) in case the Applicant is a Consortium, each Member should substantially satisfy the qualification requirements to the extent specified herein.

2.2.11 While Qualification is open to persons from any country, the following provisions shall apply;

- (a) Where, on the date of the Application, not less than 15% (fifteen per cent) of the aggregate issued, subscribed and paid up equity share capital in an Applicant or its Member is held by persons resident outside India or where an Applicant or its Member is controlled by persons resident outside India; or



- (b) if at any subsequent stage after the date of the Application, there is an acquisition of not less than 15% (fifteen per cent) of the aggregate issued, subscribed and paid up equity share capital or control, by persons resident outside India, in or of the Applicant or its Member; or
- (c) if the Applicant or any of its Members do not have the requisite O&M Experience as set out in Clause 2.2.2(C) and enter into an agreement with the Airport Operator for such O&M Experience;

then the Qualification of such Applicant or in the event described in sub-clause (b) and/or sub-clause (c) above, the continued Qualification of the Applicant and/or Airport Operator shall be subject to approval of the Authority from national security and public interest perspective. The decision of the Authority in this behalf shall be final and conclusive and binding on the Applicant.

The holding or acquisition of equity or control, as above, shall include direct or indirect holding/ acquisition, including by transfer, of the direct or indirect legal or beneficial ownership or control, by persons acting for themselves or in concert and in determining such holding or acquisition, the Authority shall be guided by the principles, precedents and definitions contained in the Securities and Exchange Board of India (Substantial Acquisition of Shares and Takeovers) Regulations, 2011, or any substitute thereof, as in force on the date of such acquisition.

The Applicant shall promptly inform the Authority of any change in the shareholding, as above, and failure to do so shall render the Applicant liable for disqualification from the Bidding Process.

- 2.2.12 Notwithstanding anything to the contrary contained herein, in the event that the Application Due Date falls within 4 (four) months of the closing of the latest financial year of an Applicant, it shall ignore such financial year for the purposes of its Application and furnish all its information and certification with reference to the 10 (ten) years or 5 (five) years or 3 (three) years or 1(one) year , as the case may be, preceding its latest financial year. For the avoidance of doubt, financial year shall, for the purposes of an Application hereunder, mean the accounting year followed by the Applicant in the course of its normal business.



2.3 Change in composition of the Consortium

- 2.3.1 No change in the Consortium members is allowed once the Applications have been submitted till the selection of the Concessionaire.

2.4 Number of Applications and costs thereof

- 2.4.1 No Applicant shall submit more than one Application for the Project. An Applicant applying individually or as a Member shall not be entitled to submit another application either individually or as a Member of any other Consortium, as the case may be.
- 2.4.2 The Applicants shall be responsible for all of the costs associated with the preparation of their Applications and their participation in the Bid Process. The Authority will not be responsible or in any way liable for such costs, regardless of the conduct or outcome of the Bidding Process.

2.5 Site visit and verification of information

Applicants are encouraged to submit their respective Applications after visiting the Project site and ascertaining for themselves the site conditions, traffic, location, surroundings, climate, availability of power, water and other utilities for construction, access to site, handling and storage of materials, weather data, applicable laws and regulations, and any other matter considered relevant by them.

2.6 Acknowledgement by Applicant

- 2.6.1 It shall be deemed that by submitting the Application, the Applicant has:
- (a) made a complete and careful examination of the provisions of the RfQ;
 - (b) received all relevant information requested from the Authority;
 - (c) accepted the risk of inadequacy, error or mistake in the information provided in the RfQ or furnished by or on behalf of the Authority relating to any of the matters referred to in Clause 2.5 above; and
 - (d) agreed to be bound by the undertakings provided by it under and in terms hereof.
- 2.6.2 The Authority shall not be liable for any omission, mistake or error in respect of any of the above or on account of any matter or thing arising out of or concerning or relating to the RfQ or the Bidding Process, including any error or mistake therein or in any information or data



given by the Authority.

2.7 Right to accept or reject any or all Applications

- 2.7.1 Notwithstanding anything contained in this RfQ, the Authority reserves the right to accept or reject any Application and to annul the Bidding Process and reject all Applications/ Bids, at any time without any liability or any obligation for such acceptance, rejection or annulment, and without assigning any reasons therefore. In the event that the Authority rejects or annuls all the Applications and/or Bids, it may, in its discretion, invite all Applicants and/or Bidder to submit fresh Application and/or Bids hereunder.
- 2.7.2 The Authority reserves the right to reject any Application and/or Bid if:
- (a) at any time, a material misrepresentation is made or uncovered, or
 - (b) the Applicant does not provide, within the time specified by the Authority, the supplemental information sought by the Authority for evaluation of the Application.

If the Applicant/Bidder is a Consortium, then the entire Consortium may be disqualified/ rejected. If such disqualification/ rejection occurs after the Bids have been opened and the Highest Bidder gets disqualified/ rejected, then the Authority reserves the right to:

- (i) invite the remaining Bidders to match the Highest Bidder/ submit their Bids in accordance with the RfP; or
 - (ii) take any such measure as may be deemed fit in the sole discretion of the Authority, including annulment of the Bidding Process.
- 2.7.3 In case it is found during the evaluation or at any time before signing of the Concession Agreement or after its execution and during the period of subsistence thereof, including the concession thereby granted by the Authority, that one or more of the qualification conditions have not been met by the Applicant, or the Applicant has made material misrepresentation or has given any materially incorrect or false information, the Applicant shall be disqualified forthwith if not yet appointed as the Concessionaire either by issue of the LOA or entering into of the Concession Agreement, and if the Applicant/SPV has already been issued the LOA or has entered into the Concession Agreement, as the case may be, the same shall, notwithstanding anything to the contrary contained therein or in this RfQ, be liable to be terminated, by a communication in writing by the Authority to the Applicant, without the Authority being liable in any manner whatsoever to the Applicant and without prejudice to any other right or remedy which the Authority may have under this RfQ, the Bidding



Documents, the Concession Agreement or under applicable laws.

- 2.7.4 The Authority reserves the right to verify all statements, information and documents submitted by the Applicant in response to the RfQ. Any such verification or lack of such verification by the Authority shall not relieve the Applicant of its obligations or liabilities hereunder nor will it affect any rights of the Authority thereunder.



B. DOCUMENTS

2.8 Contents of the RfQ

This RfQ comprises the disclaimer set forth hereinabove, the contents as listed below, and will additionally include any Addenda issued in accordance with Clause 2.10.

Invitation for Qualification

- Section 1. Introduction
- Section 2. Instructions to Applicants
- Section 3. Criteria for Evaluation
- Section 4. Fraud & Corrupt Practices
- Section 5. Pre Application Conference
- Section 6. Miscellaneous

Appendices

- I. Letter comprising the Application
- II. Power of Attorney for signing of Application
- III. Power of Attorney for Lead Member of Consortium
- IV. Joint Bidding Agreement for Consortium
- V. Guidelines of the Department of Disinvestment
- VI. Information Memorandum of the Project
- VII. Format for Security Clearance



2.9 Clarifications

- 2.9.1 Applicants requiring any clarification on the RfQ may notify the Authority in writing or by fax and e-mail in accordance with Clause 1.2.12. They should send in their queries before the date specified in the schedule of Bidding Process contained in Clause 1.3. The Authority shall endeavour to respond to the queries within the period specified therein, but no later than 15 (fifteen) days prior to the Application Due Date. The responses will be sent by fax and/or e-mail. The Authority will forward all the queries and its responses thereto, to all purchasers of the RfQ without identifying the source of queries.
- 2.9.2 The Authority shall endeavour to respond to the questions raised or clarifications sought by the Applicants. However, the Authority reserves the right not to respond to any question or provide any clarification, in its sole discretion, and nothing in this Clause 2.9 shall be taken or read as compelling or requiring the Authority to respond to any question or to provide any clarification.
- 2.9.3 The Authority may also on its own motion, if deemed necessary, issue interpretations and clarifications to all Applicants. All clarifications and interpretations issued by the Authority shall be deemed to be part of the RfQ. Verbal clarifications and information given by Authority or its employees or representatives shall not in any way or manner be binding on the Authority.

2.10 Amendment of RfQ

- 2.10.1 At any time prior to the deadline for submission of Application, the Authority may, for any reason, whether at its own initiative or in response to clarifications requested by an Applicant, modify the RfQ by the issuance of Addendums.
- 2.10.2 Any Addendum thus issued, will be uploaded on the Authority's website www.apadcl.com.
- 2.10.3 In order to afford the Applicants a reasonable time for taking an Addendum into account, or for any other reason, the Authority may, in its sole discretion, extend the Application Due Date.



C. PREPARATION AND SUBMISSION OF APPLICATION

2.11 Language

The Application and all related correspondence and documents in relation to the Bidding Process shall be in English language. Supporting documents and printed literature furnished by the Applicant with the Application may be in any other language provided that they are accompanied by translations of all the pertinent passages in the English language, duly authenticated and certified by the Applicant. Supporting materials, which are not translated into English, may not be considered. For the purpose of interpretation and evaluation of the Application, the English language translation shall prevail.

2.12 Format and signing of Application

2.12.1 The Applicant shall provide all the information sought under this RfQ. The Authority will evaluate only those Applications that are received in the required formats and complete in all respects. Incomplete and /or conditional Applications shall be liable to rejection.

2.12.2 The Applicant shall prepare 1 (one) original set of the Application (together with originals/ copies of documents required to be submitted along therewith pursuant to this RfQ) and clearly marked "ORIGINAL". In addition, the Applicant shall submit 1 (one) copy of the Application, along with documents required to be submitted along therewith pursuant to this RfQ, marked "COPY". The Applicant shall also submit soft copy of its duly filled application which form part of this RfQ in a pen-drive along with the Application. In the event of any discrepancy between the original and the copy, the original shall prevail.

2.12.3 The Application and its copy shall be typed or written in indelible ink and signed by the authorised signatory of the Applicant who shall also initial each page in blue ink. In case of printed and published Documents, only the cover shall be initialed. All the alterations, omissions, additions or any other amendments made to the Application shall be initialed by the person(s) signing the Application. The Application shall contain page numbers and shall be bound together in hard cover.



2.13 Sealing and Marking of Applications

2.13.1 The Applicant shall submit the Application in the format specified at Appendix-I, together with the documents specified in Clause 2.13.2, and seal it in an envelope and mark the envelope as “APPLICATION”. The Applicant shall seal the original and the copy of the Application, together with their respective enclosures, in separate envelopes duly marking the envelopes as “ORIGINAL” and “COPY”. The envelopes shall then be sealed in an outer envelope which shall also be marked in accordance with Clauses 2.13.2 and 2.13.3.

2.13.2 Each envelope shall contain:

- (i) Application in the prescribed format (Appendix-I formats) along with Annexes and supporting documents;
- (ii) Power of Attorney for signing the Application as per the format at Appendix- II;
- (iii) if applicable, the Power of Attorney for Lead Member of Consortium as per the format at Appendix-III;
- (iv) copy of the Jt. Bidding Agreement, in case of a Consortium, substantially in the format at Appendix-IV;
- (v) copy of Memorandum and Articles of Association, if the Applicant is a body corporate, and if a partnership then a copy of its partnership deed;
- (vi) soft copy of the Application in 2 pen-drives; and
- (vii) copies of Applicant’s duly audited balance sheet and profit and loss account for the preceding five years.

Each of the envelopes shall clearly bear the following identification:

“Application for Qualification: Development of Greenfield Airport Project on Public Private Partnership Basis at Bhogapuram in Andhra Pradesh”

and shall clearly indicate the name and address of the Applicant. In addition, the Application Due Date should be indicated on the right hand corner of each of the envelopes.



2.13.3 Each of the envelopes shall be addressed to:

Designation: Managing Director,
Address: Andhra Pradesh Airport Development Corporation Limited
(APADCL), #10-2-1, 1st Floor, FDC Complex, AC Guards,
Hyderabad – 500 028, INDIA
Tel. No: +91-40-2380 3753/69
Email Address: mdapadcl@gmail.com
For queries: ceo-apadcl@ap.gov.in

2.13.4 If the envelopes are not sealed and marked as instructed above, the Authority assumes no responsibility for the misplacement or premature opening of the contents of the Application and consequent losses, if any, suffered by the Applicant.

2.13.5 Applications submitted by fax, telex, telegram or e-mail shall not be entertained and shall be rejected.

2.14 Application Due Date

2.14.1 Applications should be submitted before 1500 hours IST on the Application Due Date, at the address provided in Clause 2.13.3 in the manner and form as detailed in this RfQ. A receipt thereof should be obtained from the person specified in Clause 2.13.3.

2.14.2 The Authority may, in its sole discretion, extend the Application Due Date by issuing an Addendum in accordance with Clause 2.10 uniformly for all Applicants.

2.15 Late Applications

2.15.1 Applications received by the Authority after the specified time on the Application Due Date shall not be eligible for consideration and shall be summarily rejected.

2.16 Modifications/substitution/withdrawal of Applications

2.16.1 The Applicant may modify, substitute or withdraw its Application after submission, provided that written notice of the modification, substitution or withdrawal is received by the Authority prior to the Application Due Date. No Application shall be modified, substituted or withdrawn by the Applicant on or after the Application Due Date.



2.16.2 The modification, substitution or withdrawal notice shall be prepared, sealed, marked, and delivered in accordance with Clause 2.13, with the envelopes being additionally marked “MODIFICATION”, “SUBSTITUTION” or “WITHDRAWAL”, as appropriate.

2.16.3 Any alteration/modification in the Application or additional information supplied subsequent to the Application Due Date, unless the same has been expressly sought for by the Authority, shall be disregarded.

D. EVALUATION PROCESS

2.17 Opening and Evaluation of Applications

2.17.1 The Authority shall open the Applications at 1600 hours IST on the Application Due Date, at the place specified in Clause 2.13.3 and in the presence of the Applicants who choose to attend.

2.17.2 Applications for which a notice of withdrawal has been submitted in accordance with Clause 2.16 shall not be opened.

2.17.3 The Authority will subsequently examine and evaluate Applications in accordance with the provisions set out in Section 3.

2.17.4 Applicants are advised that qualification of Applicants will be entirely at the discretion of the Authority. Applicants will be deemed to have understood and agreed that no explanation or justification on any aspect of the Bidding Process or selection will be given.

2.17.5 Any information contained in the Application shall not in any way be construed as binding on the Authority, its agents, successors or assigns, but shall be binding against the Applicant if the Project is subsequently awarded to it on the basis of such information.

2.17.6 The Authority reserves the right not to proceed with the Bidding Process at any time without notice or liability and to reject any or all Application(s) without assigning any reasons.

2.17.7 If any information furnished by the Applicant is found to be incomplete, or contained in formats other than those specified herein, the Authority may, in its sole discretion, exclude the relevant project from computation of the Aggregate Experience Score of the Applicant.



2.17.8 In the event that an Applicant claims credit for an Eligible Project, and such claim is determined by the Authority as incorrect or erroneous, the Authority shall reject such claim and exclude the same from computation of the Aggregate Experience Score and may also, while computing the Aggregate Experience Score of the Applicant, make a further deduction equivalent to the claim rejected hereunder. Where any information is found to be patently false or amounting to a material misrepresentation, the Authority reserves the right to reject the Application and/or Bid in accordance with the provisions of Clauses 2.7.2 and 2.7.3.

2.18 Confidentiality

2.18.1 Information relating to the examination, clarification, evaluation, and recommendation for the short listed pre-qualified Applicants shall not be disclosed to any person who is not officially concerned with the process or is not a retained professional advisor advising the Authority in relation to, or matters arising out of, or concerning the Bidding Process. The Authority will treat all information, submitted as part of Application, in confidence and will require all those who have access to such material to treat the same in confidence. The Authority may not divulge any such information unless it is directed to do so by any statutory entity that has the power under law to require its disclosure or is to enforce or assert any right or privilege of the statutory entity and/ or the Authority or as may be required by law or in connection with any legal process.

2.19 Tests of responsiveness

2.19.1 Prior to evaluation of Applications, the Authority shall determine whether each Application is responsive to the requirements of the RfQ. An Application shall be considered responsive only if:

- (a) it is received as per format at Appendix-I
- (b) it is received by the Application Due Date including any extension thereof pursuant to Clause 2.14.2;
- (c) it is signed, sealed, bound together in hard cover, and marked as stipulated in Clauses 2.12 and 2.13;
- (d) it is accompanied by the Power of Attorney as specified in Clause 2.2.5, and in the case of a Consortium, the Power of Attorney as specified in Clause 2.2.6(c);



- (e) it contains all the information and documents (complete in all respects) as requested in this RfQ;
- (f) it contains information in formats same as those specified in this RfQ;
- (g) it contains certificates from statutory auditors^{\$} in the formats specified at Appendix-I of the RfQ for each Eligible Project;
- (h) it is received on or before the date specified in Clause 1.3 and contains a demand draft towards the cost of the RfQ document or an attested copy of the receipt for payment to Authority towards the cost of the RfQ document and TEFRR document;
- (i) it is accompanied by the Jt. Bidding Agreement (for Consortium), specific to the Project, as stipulated in Clause 2.2.6 (g);
- (j) it does not contain any condition or qualification; and
- (k) it is not non-responsive in terms hereof.

2.19.2 The Authority reserves the right to reject any Application which is non-responsive and no request for alteration, modification, substitution or withdrawal shall be entertained by the Authority in respect of such Application.

2.20 Clarifications

2.20.1 To facilitate evaluation of Applications, the Authority may, at its sole discretion, seek clarifications from any Applicant regarding its Application. Such clarification(s) shall be provided within the time specified by the Authority for this purpose. Any request for clarification(s) and all clarification(s) in response thereto shall be in writing by way of e-mail.

2.20.2 If an Applicant does not provide clarifications sought under Clause 2.20.1 above within the prescribed time, its Application shall be liable to be rejected. In case the Application is not rejected, the Authority may proceed to evaluate the Application by construing the particulars requiring clarification to the best of its understanding, and the Applicant shall be barred from subsequently questioning such interpretation of the Authority.

^{\$} In case duly certified audited annual financial statements containing the requisite details are provided, a separate certification by statutory auditors would not be necessary in respect of Clause 2.19.1 (g). In jurisdictions that do not have statutory auditors, the firm of auditors which audits the annual accounts of the Applicant may provide the certificates required under this RfQ.



E. QUALIFICATION AND BIDDING

2.21 Shortlisting and notification

After the evaluation of Applications, the Authority would announce a list of shortlisted pre-qualified Applicants as Bidders who will be eligible for participation in the Bid Stage. At the same time, the Authority would notify the other Applicants that they have not been shortlisted. The Authority will not entertain any query or clarification from Applicants who fail to qualify.

2.22 Submission of Bids

The Bidders will be requested to submit a Bid in the form and manner to be set out in the Bidding Documents.

Only pre-qualified Applicants shall be invited by the Authority to submit their Bids for the Project. The Authority is likely to provide a comparatively short time span for submission of the Bids for the Project. The Applicants are therefore advised to visit the site and familiarise themselves with the Project by the time of submission of the Application. No extension of time is likely to be considered for submission of Bids pursuant to invitation that may be issued by the Authority.

2.23 Proprietary data

All documents and other information supplied by the Authority or submitted by an Applicant to the Authority shall remain or become the property of the Authority. Applicants are to treat all information as strictly confidential and shall not use it for any purpose other than for preparation and submission of their Application. The Authority will not return any Application or any information provided along therewith.

2.24 Correspondence with the Applicant

Save and except as provided in this RfQ, the Authority shall not entertain any correspondence with any Applicant in relation to the acceptance or rejection of any Application.

3. CRITERIA FOR EVALUATION

3.1 Evaluation parameters

3.1.1 Only those Applicants who meet the eligibility criteria specified in Clause 2.2.2 above shall qualify for evaluation under this Section 3. Applications of firms/ consortia who do not meet the prescribed criteria shall be rejected.

3.1.2 The Applicant's competence and capability is proposed to be established by the following parameters:

(a) Technical Capacity; and

(b) Financial Capacity

3.2 Technical Capacity for purposes of evaluation

3.2.1 Subject to the provisions of Clause 2.2, the following categories of experience would qualify as Technical Capacity and eligible experience ("**Eligible Experience**") in relation to eligible projects as stipulated in Clauses 3.2.3 and 3.2.4 ("**Eligible Projects**"):

Category 1: Project experience on Eligible Projects in airports sector that qualify under Clause 3.2.3

Category 2: Project experience on Eligible Projects in core sector that qualify under Clause 3.2.3

Category 3: Construction experience on Eligible Projects in airports sector that qualify under Clause 3.2.4

Category 4: Construction experience on Eligible Projects in core sector that qualify under Clause 3.2.4

For the purpose of this RfQ,

(a) airports sector would include the terminal building, cargo facilities, runway, ATC tower, MRO facilities and all project assets necessary for and associated with operation and expansion of the airport, and shall also include city side development.

- (b) core sectors would be deemed to include power (generation/transmission/distribution), information technology (IT) parks, ports, highways & bridges, expressways, railways (including metro rail), industrial parks/ estates, logistic parks and real estate development provided further that in case of real estate development, the following categories of projects shall only be evaluated as Eligible Projects:
- (i) development of a commercial real estate project at a single site with a minimum built up area of 150,000 (one hundred and fifty thousand) square metres; and/or
 - (ii) development of a residential or a residential cum commercial real estate project at a single site with a minimum built up area of 300,000 (three hundred thousand) square metres; and/or
 - (iii) development of a residential township with a minimum area of 100 (hundred) acres and a minimum built up area of 300,000 (three hundred thousand) square metres.

Built up area shall have the meaning as ascribed in the laws of the corporation.

3.2.2 Eligible Experience in respect of each category shall be measured only for Eligible Projects.

3.2.3 For a project to qualify as an Eligible Project under Category 1 and 2:

- (a) It should have been undertaken as a PPP project on DBFOT, BOT, BOLT, BOO, BOOT or other similar basis for providing its output or services to a public sector entity or for providing non-discriminatory access to users in pursuance of its charter, concession or contract, as the case may be. For the avoidance of doubt, a project which constitutes a natural monopoly such as an airport or port should normally be included in this category even if it is not based on a long-term agreement with a public entity;
- (b) the entity claiming experience should have held, in the company owning the Eligible Project, either directly or indirectly, a minimum of 26% (twenty six per cent) equity from the date of signing of the Concession Agreement till date of commercial operations of the Eligible Project for which Eligible Experience is being claimed; and should have been designated as the lead member for such Eligible Project,
- (c) the capital cost of the project should be equal to or more than INR 270,00,00,000/- (Rupees Two hundred and seventy crore only);

- (d) the entity claiming experience shall, during the last 10 (ten) financial years preceding the Bid Due Date, have (i) paid for development of the project (excluding the cost of land); and (ii) collected and appropriated the revenues from users availing of non-discriminatory access to or use of fixed project assets, such as revenues from highways, airports, ports and railway infrastructure, but shall not include revenues from sale or provision of goods or services such as electricity, gas, petroleum products, telecommunications or fare/freight revenues and other incomes of the company owning the Project.

Provided that in case of real estate development, the following conditions shall apply:

- (i) the entity claiming experience should have taken overall responsibility for design, engineering, financing, risk management and construction of the Eligible Project;
- (ii) the entity claiming experience should have held, in the company owning the Eligible Project, a minimum of 26% (twenty six per cent) equity and should have been designated the lead member for such Eligible Project, from the date of signing of the concession agreement till date of commercial operations of the Eligible Project for which the Eligible Experience is claimed;
- (iii) the capital cost for the Eligible Projects with the minimum built-up area as set out in Clause 3.2.1 shall be deemed to be INR 270,00,00,000/- (Rupees Two hundred and seventy crores). For the avoidance of doubt, the deemed capital cost for Eligible Projects with a built-up area greater than the minimum areas specified in Clause 3.2.1 shall be calculated on a pro-rata basis; and
- (iv) The Eligible Project shall have been commissioned for use.

For example, a project having an estimated capital cost of INR 5,000,00,00,000/- (Rupees five thousand crores only) shall be eligible under this Clause 3.2.3 if (a) the total capital expenditure incurred is equal to or more than INR 270,00,00,000/- (Rupees two hundred and seventy crore only) ; and (b) such part of the project for which the capital expenditure is being claimed has been commissioned for use.

3.2.4 For a project to qualify as an Eligible Project under Category 3 and 4:

- (a) the Bidder should have undertaken overall responsibility for engineering and construction of the Eligible Project;
- (b) the Bidder or its Associate claiming construction experience should have held more than 50% (fifty per cent) of the paid up and subscribed share capital of the company constructing the Eligible Project; and
- (c) the Applicant should have paid for execution of its construction works or received payments from its client(s) for construction works executed, fully or partially, during the 10 (ten) financial years immediately preceding the Bid Due Date, and only the payments (gross) actually made or received, as the case may be, during such 10 (ten) financial years shall qualify for purposes of computing the Experience Score. However, total payments/receipts for a particular Eligible Project of less than INR 270,00,00,000/- (Rupees two hundred and seventy crore only) shall not be reckoned as payments/receipts for Eligible Projects. For the avoidance of doubt, construction works shall not include supply of goods or equipment except when such goods or equipment form part of a turn-key construction contract/ EPC contract for the project. Further, the cost of land shall not be included hereunder.

3.2.5 The Applicant shall quote experience in respect of a particular Eligible Project under any one category only even though the Applicant (either individually or along with a Member) may have multiple role in the cited project. Double counting for a particular Eligible Project shall not be permitted in any form.

3.2.6 Subject to the provisions of Clause 3.2.7, a Bidder's experience shall be measured and stated in terms of a score ("**Experience Score**"). The Experience Score for an Eligible Project in a given category would be the eligible payments and/or receipts specified in Clause 2.2.2 (A), divided by one crore and then multiplied by the applicable factor in Table 3.2.6 below. In case the Bidder has experience across different categories, the score for each category would be computed as above and then aggregated to arrive at its Experience Score.

Table 3.2.6: Factors for Experience across categories

Categories	Factor
Category 1	1.25
Category 2	1.0
Category 3	0.75
Category 4	0.50

3.2.7 The Experience Score determined in accordance with Clause 3.2.6 in respect of an Eligible Project situated in a country which is a member of the OECD shall be further multiplied by a factor of 0.5 (zero point five) and the product thereof shall be the Experience Score for such Eligible Project.

3.2.8 Experience for any activity relating to an Eligible Project shall not be claimed by 2 (two) or more Members of the Consortium. In other words, no double counting by a Consortium in respect of the same experience shall be permitted in any manner whatsoever.

3.3 Details of Experience

3.3.1 The Applicants must provide the necessary information relating to Technical Capacity as per format at Annex-II of Appendix-I.

3.3.2 The Applicant should furnish the required Project-specific information and evidence in support of its claim of Technical Capacity, as per format at Annex-IV of Appendix-I.

3.3.3 The Applicant should furnish the details of Eligible Experience for the last 10 (ten) financial years immediately preceding the Application Due Date.

3.3.4 The Applicant should provide the necessary information relating to O&M Experience as per the format at Annexure-V of Appendix-I.

3.4 Financial information for purposes of evaluation

- 3.4.1 The Application must be accompanied by the Audited Annual Reports of the Applicant (of each Member in case of a Consortium) for the last 5 (five) financial years, preceding the date on which the Application is made.
- 3.4.2 In case the annual accounts for the latest financial year are not audited and therefore the Applicant cannot make it available, the Applicant shall give an undertaking to this effect and the statutory auditor shall certify the same. In such a case, the Applicant shall provide the Audited Annual Reports for 5 (five) years preceding the year for which the audited annual report is not being provided.
- 3.4.3 The Applicant must establish the minimum Net Worth/ ACI specified in Clause 2.2.2 (B), and provide details as per format at Annex-III of Appendix-I.

3.5 Qualification of Applicants

- 3.5.1 The credentials of Applicants shall be measured in terms of their Experience Score as specified in Clause 3.2.6. The sum total of the Experience Scores for all Eligible Projects shall be the 'Aggregate Experience Score' of a particular Applicant. In case of a Consortium, the Aggregate Experience Score of each of its Members, who have an equity share of at least 26% (twenty six per cent) in such Consortium, shall be summed up for arriving at the combined Aggregate Experience Score of the Consortium.
- 3.5.2 The Applicants shall then be ranked on the basis of their respective Aggregate Experience Scores and short-listed for submission of Bids. The Authority expects to short-list upto 6 (six) pre-qualified Applications for participation in the Bid Stage. The Authority, however, reserves the right to increase the number of short-listed pre-qualified Applications by adding additional Applicant.
- 3.5.3 The Authority may, in its discretion, maintain a reserve list of pre-qualified Applicants who may be invited to substitute the short-listed Applicants in the event of their withdrawal from the Bidding Process or upon their failure to confirm to the conditions specified herein; provided that a substituted Applicant shall be given at least 30 (thirty) days to submit its Bid.

4. FRAUD AND CORRUPT PRACTICES

- 4.1 The Applicants and their respective officers, employees, agents and advisers shall observe the highest standard of ethics during the Bidding Process. Notwithstanding anything to the contrary contained herein, the Authority may reject an Application without being liable in any manner whatsoever to the Applicant if it determines that the Applicant has, directly or indirectly or through an agent, engaged in corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice in the Bidding Process.
- 4.2 Without prejudice to the rights of the Authority under Clause 4.1 hereinabove, if an Applicant is found by the Authority to have directly or indirectly or through an agent, engaged or indulged in any corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice during the Bidding Process, such Applicant shall not be eligible to participate in any tender or RfQ issued by the Authority during a period of 2 (two) years from the date such Applicant is found by the Authority to have directly or indirectly or through an agent, engaged or indulged in any corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice, as the case may be.
- 4.3 For the purposes of this Section 4, the following terms shall have the meaning hereinafter respectively assigned to them:
- (a) **“corrupt practice”** means (i) the offering, giving, receiving, or soliciting, directly or indirectly, of anything of value to influence the actions of any person connected with the Bidding Process (for avoidance of doubt, offering of employment to, or employing, or engaging in any manner whatsoever, directly or indirectly, any official of the Authority who is or has been associated in any manner, directly or indirectly, with the Bidding Process or the LOA or has dealt with matters concerning the Concession Agreement or arising therefrom, before or after the execution thereof, at any time prior to the expiry of one year from the date such official resigns or retires from or otherwise ceases to be in the service of the Authority, shall be deemed to constitute influencing the actions of a person connected with the Bidding Process); or (ii) save and except as permitted under sub-clause (d) of Clause 2.2.1, engaging in any manner whatsoever, whether during the Bidding Process or after the issue of the LOA or after the execution of the Concession Agreement, as the case may be, any person in respect of any matter relating to the Project or the LOA or the Concession Agreement, who at any time has been or is a legal, financial or technical adviser of the Authority in relation to any matter concerning the Project;

- (b) “**fraudulent practice**” means a misrepresentation or omission of facts or suppression of facts or disclosure of incomplete facts, in order to influence the Bidding Process;
- (c) “**coercive practice**” means impairing or harming or threatening to impair or harm, directly or indirectly, any person or property to influence any person’s participation or action in the Bidding Process;
- (d) “**undesirable practice**” means (i) establishing contact with any person connected with or employed or engaged by the Authority with the objective of canvassing, lobbying or in any manner influencing or attempting to influence the Bidding Process; or (ii) having a Conflict of Interest; and
- (e) “**restrictive practice**” means forming a cartel or arriving at any understanding or arrangement among Applicants with the objective of restricting or manipulating a full and fair competition in the Bidding Process.

5. PRE-APPLICATION CONFERENCE

- 5.1 A Pre-Application conference of the interested parties shall be convened at the designated date, time and place. In case the Pre-Application conference is an unscheduled holiday, the same will be held in the next working day at the same time and place. Only those applicants who have made payment towards the cost of TEF, shall be allowed to participate in the Pre-Application conference. A maximum of five (5) representatives of each Applicant shall be allowed to participate on production of authority letter from the Applicant.
- 5.2 During the course of Pre-Application conference, the Applicants will be free to seek clarifications and make suggestions for consideration of the Authority. The Authority shall endeavour to provide clarifications and such further information as it may, in its sole discretion, consider appropriate for facilitating a fair, transparent and competitive Bidding Process.

6. MISCELLANEOUS

- 6.1 The Bidding Process shall be governed by, and construed in accordance with, the laws of India and the Courts at Vishakhapatnam, Andhra Pradesh shall have exclusive jurisdiction over all disputes arising under, pursuant to and/ or in connection with the Bidding Process.
- 6.2 The Authority, in its sole discretion and without incurring any obligation or liability, reserves the right, at any time, to;
- (a) suspend and/ or cancel the Bidding Process and/ or amend and/ or supplement the Bidding Process or modify the dates or other terms and conditions relating thereto;
 - (b) consult with any Applicant in order to receive clarification or further information;
 - (c) pre-qualify or not to pre-qualify any Applicant and/ or to consult with any Applicant in order to receive clarification or further information;
 - (d) retain any information and/ or evidence submitted to the Authority by, on behalf of, and/ or in relation to any Applicant; and/ or
 - (e) independently verify, disqualify, reject and/ or accept any and all submissions or other information and/ or evidence submitted by or on behalf of any Applicant.
- 6.3 It shall be deemed that by submitting the Application, the Applicant agrees and releases the Authority, its employees, agents and advisers, irrevocably, unconditionally, fully and finally from any and all liability for claims, losses, damages, costs, expenses or liabilities in any way related to or arising from the exercise of any rights and/ or performance of any obligations hereunder and the Bidding Documents, pursuant hereto, and/ or in connection with the Bidding Process, to the fullest extent permitted by applicable law, and waives any and all rights and/ or claims it may have in this respect, whether actual or contingent, whether present or in future.

Appendices

APPENDIX-I

Letter Comprising the Application for Qualification

(Refer Clause 2.13.2)

Dated:

To,

Managing Director,
Andhra Pradesh Airports Development Corporation Limited (APADCL),
#10-2-1, 1st Floor, FDC Complex, AC Guards, Hyderabad - 500028
India

Sub: Application for qualification for Development of Greenfield International Airport on Public Private Partnership Basis at Bhogapuram in Andhra Pradesh

Dear Sir,

1. With reference to your RfQ document dated ¹, I/we, having examined the RfQ document and understood its contents, hereby submit my/our Application for Qualification for the aforesaid project. The Application is unconditional and unqualified.
2. I/We acknowledge that the Authority will be relying on the information provided in the Application and the documents accompanying such Application for qualification of the Applicants for the aforesaid project, and we certify that all information provided in the Application and in Annexes I to IV is true and correct; nothing has been omitted which renders such information misleading; and all documents accompanying such Application are true copies of their respective originals.
3. This statement is made for the express purpose of qualifying as a Bidder for the development, construction, operation and maintenance of the aforesaid Project.
4. I/We shall make available to the Authority any additional information it may find necessary or require to supplement or authenticate the Qualification statement.

¹ All blank spaces shall be suitably filled up by the Applicant to reflect the particulars relating to such Applicant.

5. I/We acknowledge the right of the Authority to reject our Application without assigning any reason or otherwise and hereby waive, to the fullest extent permitted by applicable law, our right to challenge the same on any account whatsoever.
6. I/We certify that in the last three years, we/ any of the Consortium Members or our/ their Associates have neither failed to perform on any contract, as evidenced by imposition of a penalty by an arbitral or judicial authority or a judicial pronouncement or arbitration award, nor been expelled from any project or contract by any public authority nor have had any contract terminated by any public authority for breach on our part.
7. I/We declare that:
 - (a) I/We have examined and have no reservations to the RfQ document, including any Addendum issued by the Authority;
 - (b) I/We do not have any conflict of interest in accordance with Clauses 2.2.1(c) and 2.2.1(d) of the RfQ document;
 - (c) I/We have not directly or indirectly or through an agent engaged or indulged in any corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice, as defined in Clause 4.3 of the RfQ document, in respect of any tender or request for proposal issued by or any agreement entered into with the Authority or any other public sector enterprise or any government, Central or State; and
 - (d) I/We hereby certify that we have taken steps to ensure that in conformity with the provisions of Section 4 of the RfQ document, no person acting for us or on our behalf has engaged or will engage in any corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice.
8. I/ We understand that you may cancel the Bidding Process at any time and that you are neither bound to accept any Application that you may receive nor to invite the Applicants to Bid for the Project, without incurring any liability to the Applicants, in accordance with Clause 2.17.6 of the RfQ document.
9. I/ We believe that we/ our Consortium/ proposed Consortium satisfy(s) the Net Worth criteria and meet (s) all the requirements as specified in the RfQ document and are/ is qualified to submit a Bid.

10. I/We declare that we/ any Member, or our/ its Associates are not a Member of a/ any other Consortium applying for Qualification.
11. I/We certify that in regard to matters other than security and integrity of the country, we/any Member of the Consortium or any of our/ their Associates have not been convicted by a Court of Law or indicted or adverse orders passed by a regulatory authority which could cast a doubt on our ability to undertake the Project or which relates to a grave offence that outrages the moral sense of the community.
12. I/We further certify that in regard to matters relating to security and integrity of the country, we/any Member of the Consortium or any of our/ their Associates have not been charge-sheeted by any agency of the Government or convicted by a Court of Law.
13. I/We further certify that no investigation by a regulatory authority is pending either against us/ any Member of the Consortium or against our/ their Associates or against our CEO or any of our directors/ managers/ employees.
14. I/ We further certify that we are qualified to submit a Bid in accordance with the guidelines for qualification of bidders seeking to acquire stakes in Public Sector Enterprises through the process of disinvestment issued by the GOI vide Department of Disinvestment OM No. 6/4/2001-DD-II dated 13th July, 2001 which guidelines apply *mutatis mutandis* to the Bidding Process. A copy of the aforesaid guidelines form part of the RFQ at Appendix-V thereof.
15. I/We further certify that we/ any Member or any of our/ their Associates are not barred by the Central Government or any entity controlled by it, from participating in any project (BOT or otherwise), and no bar subsists as on the date of Application.
16. I/ We undertake that in case due to any change in facts or circumstances during the Bidding Process, we are attracted by the provisions of disqualification in terms of the provisions of this RfQ, we shall intimate the Authority of the same immediately.
17. The Statement of Legal Capacity as per format provided at Annex-VI in Appendix-I of the RfQ document, and duly signed, is enclosed. The power of attorney for signing of application and the power of attorney for Lead Member of consortium, as per format provided at Appendices II and III respectively of the RfQ, are also enclosed.

18. I/We understand that the selected Bidder shall either be an existing Company incorporated under the Indian Companies Act, 1956, or the Indian Companies Act, 2013 (as the case may be) or shall incorporate as such prior to execution of the Concession Agreement.
19. I/ We hereby confirm that we are in compliance of/ shall comply with the O&M requirements as specified in Clause 2.2.2.
20. I/ We hereby irrevocably waive any right or remedy which we may have at any stage at law or howsoever otherwise arising to challenge or question any decision taken by the Authority in connection with the selection of Applicants, selection of the Bidder, or in connection with the selection/ Bidding Process itself, in respect of the above mentioned Project and the terms and implementation thereof.
21. I/ We agree and undertake to abide by all the terms and conditions of the RfQ document.
22. I/ We certify that in terms of the RFQ, my/our Network is Rs. (Rupees in words) and the Aggregate Experience Score is (number in words).
23. We agree and undertake to be jointly and severally liable for all the obligations of the Concessionaire under the Concession Agreement till occurrence of Financial Close in accordance with the Concession Agreement.

In witness thereof, I/ we submit this application under and in accordance with the terms of the RFQ document.

Yours faithfully,

Date: (Signature, name and designation of the Authorised Signatory)
Place: Name and seal of the Applicant/ Lead Member

ANNEX-I**Particulars of the Applicant**

1.
 - (a) Name:
 - (b) Country of incorporation:
 - (c) Address of the corporate headquarters and its branch office(s), if any, in India:
 - (d) Date of incorporation and/ or commencement of business:
2. Brief description of the Company including details of its main lines of business and proposed role and responsibilities in this Project:
3. Details of individual(s) who will serve as the point of contact/ communication for the Authority:
 - (a) Name:
 - (b) Designation:
 - (c) Company:
 - (d) Address:
 - (e) Telephone Number:
 - (f) E-Mail Address:
 - (g) Fax Number:
4. Particulars of the Authorised Signatory of the Applicant:
 - (a) Name:
 - (b) Designation:
 - (c) Address:
 - (d) Phone Number:
 - (e) Fax Number:
5. In case of a Consortium:
 - (a) The information above (1-4) should be provided for all the Members of the Consortium.
 - (b) A copy of the Jt. Bidding Agreement, as envisaged in Clause 2.2.6 (g) should be attached to the Application.

- (c) Information regarding the role of each Member should be provided as per table below:

Sl. No.	Name of Member	Role {Refer Clause 2.2.6 (d)} ^β	Percentage of equity in the Consortium {Refer Clauses 2.2.6 (a), (c) & (g)}
1.			
2.			
3.			
4.			

- (d) The following information shall also be provided for each Member of the Consortium:

Name of Applicant/ Member of Consortium:

No.	Criteria	Yes	No
1.	Has the Applicant/ constituent of the Consortium been barred by the [Central/ State] Government, or any entity controlled by it, from participating in any project (BOT or otherwise)?		
2.	If the answer to 1 is yes, does the bar subsist as on the date of Application?		
3.	Has the Applicant/ constituent of the Consortium paid liquidated damages of more than 5% (five per cent) of the contract value in a contract due to delay or has been penalised due to any other reason in relation to execution of a contract, in the last three years?		

6. In the event, the Application has entered into an O&M agreement with the Airport Operator, details of the Airport Operator to be provided.
7. A statement by the Applicant and each of the Member (where applicable) or any of their Associates disclosing material non-performance or contractual non-compliance in past projects, contractual disputes and litigation/ arbitration in the recent past is given below.

ANNEX – II

Technical Capacity of the Applicant[@]*(Refer to Clauses 2.2.2(A), 3.2 (except 3.2.4) and 3.3 of the RfQ)*

Bidder type [#]	Member Code [¥]	Project Code ^{¥¥}	Category ^{\$}	Experience [£] (Equivalent INR)			Applicable factor as per Clause 3.2.6 (8)	Experience Score [£] £ (9)
				Payments made/ received for construction of Eligible Projects in Categories 3 and 4 As per clause 3.2.1 (5)	Payments made for development of Eligible Projects in Categories 1 and 2 As per clause 3.2.1 (6)	Revenues appropriated from Eligible Projects in Categories 1 and 2 As per clause 3.21. (7)		
Single entity Bidder		A						
		B						
		C						
		D						
Consortium Member 1		1a						
		1b						
		1c						
		1d						
Consortium		2a						

Category 1: Project experience on Eligible Projects in airports sector that qualify under Clause 3.2.3

Category 2: Project experience on Eligible Projects in core sector that qualify under Clause 3.2.3

Category 3: Construction experience on Eligible Projects in airports sector that qualify under Clause 3.2.4

Category 4: Construction experience on Eligible Projects in core sector that qualify under Clause 3.2.4

- a) airports sector would include the terminal building, cargo facilities, runway and all project assets necessary for and associated with operation and expansion of the airport, and shall also include city side development
- (b) core sectors would be deemed to include power (generation/transmission/distribution), information technology (IT) parks, ports, highways & bridges, expressways, railways (including metro rail), industrial parks/ estates, logistic parks and real estate development provided further that in case of real estate development, the following categories of projects shall only be evaluated as Eligible Projects:
 - (i) development of a commercial real estate project at a single site with a minimum built up area of 150,000 (one hundred and fifty thousand) square metres; and/or
 - (ii) development of a residential or a residential cum commercial real estate project at a single site with a minimum built up area of 300,000 (three hundred thousand) square metres; and/or
 - (iii) development of a residential township with a minimum area of 100 (hundred) acres and a minimum built up area of 300,000 (three hundred thousand) square metres.

Factors for Experience across categories

Categories	Factor
Category 1	1.25
Category 2	1.0
Category 3	0.75
Category 4	0.50

@ Provide details of only those projects that have been undertaken by the Applicant under its own name and/ or by an Associate specified in Clause 2.2.9 and/ or by a project company eligible under Clause 3.2.3(b). In case of Categories 1 and 2, include only those projects which have an estimated capital cost exceeding the amount specified in Clause 3.2.3(c) and for Categories 3 and 4, include only those projects where the payments made/received exceed the amount specified in Clause 3.2.4. In case the Application Due Date falls within 3 (three) months of the close of the latest financial year, refer to Clause 2.2.12.

#An Applicant consisting of a single entity should fill in details as per the row titled Single entity Applicant and ignore the rows titled Consortium Member. In case of a Consortium, the row titled Single entity Applicant may be ignored. In case credit is claimed for an Associate, necessary evidence to establish the relationship of the Applicant with such Associate, in terms of Clause 2.2.9, shall be provided.

¥Member Code shall indicate NA for Not Applicable in case of a single entity Applicant. For other Members, the following abbreviations are suggested viz. AO means Airport Operator, LM means Lead Member, TM means Technical Member, FM means Financial Member, OMM means Operation & Maintenance Member, OM means Other Member. Bidders shall clearly indicate the Member Code.

¥¥Refer Annex-IV of this Appendix-I. Add more rows if necessary.

\$ Refer Clause 3.2.1.

£In the case of Eligible Projects in Categories 1 and 2, the figures in columns 6 and 7 may be added for computing the Experience Score of the respective projects. In the case of Categories 3 and 4, construction shall not include supply of goods or equipment except when such goods or equipment form part of a turn-key construction contract/ EPC contract for the project. In no case shall the cost of land and expenditure on repairs and maintenance be included while computing the Experience Score of an Eligible Project. In case the Eligible Project belongs to the real estate sector, (a) mention the built-up area (in square metres) of the project developed at a single site or the total area in acres along with the built-up area for a township project; (b) the deemed capital cost is as per proviso (iii) to Clause 3.2.3 and (c) provide an occupancy certificate issued by the competent authority certifying completion of the Eligible Project.

\$\$ For conversion of US Dollars to Rupees, the rate of conversion shall be Rupees 60 (sixty) to a US Dollar. In case of any other currency, the same shall first be converted to US Dollars as on the date 60 (sixty) days prior to the Application Due Date, and the amount so derived in US Dollars shall be converted into Rupees at the aforesaid rate. The conversion rate of such currencies shall be the daily representative exchange rates published by the International Monetary Fund for the relevant date.

££ Divide the amount in the Experience column by one crore and then multiply the result thereof by the applicable factor set out in Table 3.2.6 to arrive at the Experience Score for each Eligible Project. In the case of an Eligible Project situated in an OECD country, the Experience Score so arrived at shall be further multiplied by 0.5, in accordance with the provisions of Clause 3.2.7, and the product thereof shall be the Experience Score for such Eligible Projects.

ANNEX-III
Financial Capacity of the Applicant
(Refer to Clauses 2.2.2 (B) and 3.4 of the RFQ)
(In Rs. crore^{\$\$})

Applicant type \$	Member Code [£]	Proposed Equity Shareholding in Consortium (%)	Net Cash Accruals					Net worth/ in (INR Crores)
			Year 1 1 (4)	Year 2 2 (5)	Year 3 3 (6)	Year 4 4 (7)	Year 5 5 (8)	Year 1 (9)
(1)	(2)	(3)						
Single entity Bidder								
Consortium Member 1								
Consortium Member 2								
TOTAL								

Name & address of Applicant's Bankers:

^{\$} An Applicant consisting of a single entity should fill in details as per the row titled Single entity Bidder and ignore the rows titled Consortium Members. In case of a Consortium, row titled Single entity Applicant may be ignored.

[£]For Member Code, see instruction 4 at Annexure-IV of this Appendix-I.

[€]The Applicant should provide details of its own Financial Capacity or of an Associate specified in Clause 2.2.9.

^{\$\$} For conversion of other currencies into rupees, see note below Annexure-II of Appendix-I.

Instructions:

1. The Applicant/ its constituent Consortium Members shall attach copies of the balance sheets, financial statements and Annual Reports for 5 (five) years preceding the Bid Due Date. The financial statements shall:
 - (a) reflect the financial situation of the Applicant or Consortium Members and its/their Associates where the Applicant is relying on its Associate's financials;
 - (b) be audited by a statutory auditor;
 - (c) be complete, including all notes to the financial statements; and
 - (d) correspond to accounting periods already completed and audited (no statements for partial periods shall be requested or accepted).
2. Net Cash Accruals shall mean Profit After Tax + Depreciation
3. Net Worth shall mean the aggregate value of the paid-up share capital and all reserves created out of the profits and securities premium account, after deducting the aggregate value of the accumulated losses, deferred expenditure and miscellaneous expenditure not written off, as per the audited balance sheet, but does not include reserves created out of revaluation of assets, write back of depreciation and amalgamation.
4. Year 1 will be the latest completed financial year, preceding the Application. Year 2 shall be the year immediately preceding Year 1 and so on. In case the Application Due Date falls within 3 (three) months of the close of the latest financial year, refer to Clause 2.2.12.
5. In the case of a Consortium, a copy of the Jt. Bidding Agreement shall be submitted in accordance with Clause 2.2.6 (g) of the RfQ document.
6. The Applicant shall provide an Auditor's Certificate specifying the net worth of the Applicant and also specifying the methodology adopted for calculating such net worth in accordance with Clause 2.2.4 (ii) of the RfQ document.
7. In case of ACI, the applicant shall provide certificate (specifying methodology adopted) issued by statutory auditor (or such other certificate as filed with the regulator in the relevant jurisdiction) not older than 3 months prior to the application deadline.
8. The Bidder shall also provide the name and address of its Bankers.



ANNEX-IV
Details of Eligible Projects

(Refer to Clauses 2.2.2 (A), 3.2 and 3.3 of the RfQ)

Project Code:

Member Code:

Item (1)	Refer Instructions	Particulars of the Project
Name & nature (DBFOT, BOT, Lease, EPC		(
Category	5	
Sector	6	)
Year-wise (a) Amount paid for or payments received for construction of Eligible Project(s) in Category 3 and 4 as specified in Clause 3.2.1 (b) payments made for development of Eligible Project(s) in Category 1&2 specified in Clause 3.2.1 and/ or (c) revenues appropriated. In case of Eligible Project in the Real Estate Sector, indicate the built-up area (in sq metres) of the projects developed at a single site In case of township projects, the developed area in acres along with the built up area to be mentioned.	7	
Entity for which the project was constructed/ developed	8	
Location (City, Country)		
Project cost	9	
Date of commencement of project/ contract		
Date of completion/ commissioning, as Applicable	10	
Equity shareholding (with period during which equity was held)	11	
Whether credit is being taken for the Eligible Experience of an Associate (Yes/ No) If, yes provide details of the same.	16	

**Instructions:**

1. Applicants are expected to provide information in respect of each Eligible Project in this Annexure. The projects cited must comply with the eligibility criteria specified in Clause 3.2.3 and 3.2.4 of the RfQ, as the case may be. Applicants should also refer to the Instructions below.
2. For a single entity Applicant, the Project Codes would be a, b, c, d etc. In case the Applicant is a Consortium then for Member 1, the Project Codes would be 1a, 1b, 1c, 1d etc., for Member 2 the Project Codes shall be 2a, 2b, 2c, 2d etc., and so on.
3. A separate sheet should be filled for each Eligible Project.
4. Member Code shall indicate NA for Not Applicable in case of a single entity Bidder. For other Members, the following abbreviations are suggested viz. LM means Lead Member and OM means Other Member. In case the Eligible Project relates to an Associate of the Applicant or its Member, write “Associate” along with Member Code.
5. Refer to Clause 3.2.1 of the RfQ for category number.
6. Mention the sector to which the Eligible Project belongs – viz. airport, highways, expressways, power (generation/transmission/distribution), ports, railways and metro rail.
7. The total payments received/ made for each Eligible Project are to be stated in Annexure- II of this Appendix-I. The figures to be provided here should indicate the break-up for the past 10 (ten) financial years. Year 1 refers to the financial year immediately preceding the Application Due Date; Year 2 refers to the year before Year 1, Year 3 refers to the year before Year 2, and so on (Refer Clause 2.2.12). For Categories 1 and 2, expenditure on development of the project and/or revenues appropriated, as the case may be, should be provided, but only in respect of projects having an estimated capital cost exceeding the amount specified in Clause 3.2.3(c). In case of Categories 3 and 4, payments made/ received only in respect of construction should be provided, but only if the amount paid/received exceeds the minimum specified in Clause 3.2.4. Payment for construction works should only include capital expenditure, and should not include expenditure on repairs and maintenance.

In case of Eligible Project in the Real Estate Sector, instead of the capital expenditure incurred mention the built-up area (in sq metres) of the projects developed at a single site or in case of township projects, the developed area in acres along with the built up area as per Clause 3.2.1.
8. In case of projects in Categories 1 and 2, particulars such as name, address and contact details of owner/ Authority/ Agency (i.e. concession grantor etc.) may be provided. In case of projects in Category 3 and 4, similar particulars of the client need to be provided.
9. Provide the estimated project cost of Eligible Project. Refer to Clauses 3.2.3 and 3.2.4.
10. For Categories 1 and 2, the date of commissioning of the project, upon completion, should be indicated. In case of Category 3 and 4, date of completion of construction should be indicated. In the case of projects under construction, the likely date of completion or commissioning, as the case may be, shall be indicated.



11. For Categories 1, 2, 3 & 4 the equity shareholding of the Bidder, in the company owning the Eligible Project, held continuously during the period for which Eligible Experience is claimed, needs to be given (Refer Clause 3.2.3 and 3.2.4).
12. Experience for any activity relating to an Eligible Project shall not be claimed by two or more Members of the Consortium. In other words, no double counting by a consortium in respect of the same experience shall be permitted in any manner whatsoever.
13. Certificate from the Applicant's statutory auditor^{\$} or its respective clients must be furnished, substantially as per format in Schedule 1 for each Eligible Project. In jurisdictions that do not have statutory auditors, the auditors who audit the annual accounts of the Applicant / Member/ Associate may provide the requisite certification.
14. If the Applicant is claiming experience under Categories 1 & 2[£], it should provide a certificate from its statutory auditor, substantially in the format Schedule 2 for Category 1 and 2 projects separately.
15. If the Bidder is claiming experience under Category 3 and 4 ☐, it should provide a certificate from its statutory auditors or the client, substantially in the Schedule 3.
16. In the event that credit is being taken for the Eligible Experience of an Associate, as defined in Clause 2.2.9, the Applicant should also provide a certificate from Statutory Auditor / Company Secretary substantially as per the format in Schedule 4.
17. It may be noted that in the absence of any detail in the above certificates, the information would be considered inadequate and could lead to exclusion of the relevant project in computation of Experience Score[&].

^{\$} In case duly certified audited annual financial statements containing the requisite details are provided, a separate certification by statutory auditors would not be necessary.

[£] Refer Clause 3.2.1 of the RfQ.

☐ Refer Clauses 3.2.1 and 3.2.4 of the RfQ.

[&] Refer Clause 3.2.6 of the RfQ.



Schedule 1: Certificate from the Statutory Auditor regarding Development Experience in Eligible projects^Φ

Based on its books of accounts and other published information authenticated by it, this is to certify that (name of the Applicant/Member/Associate) is/ was an equity shareholder in (title of the project company) and holds/ held Rs. cr. (Rupees Crore of equity (which constitutes%[€] of the total paid up and subscribed equity capital) of the project company from (date) to (date)[¥]. The project was commissioned on (date of commissioning of the project).

We further certify that the total estimated capital cost of the project is Rs. cr. (Rupees Crore), of which Rs. cr. (Rupees Crore) of capital expenditure was incurred by the (name of the Applicant/ Member/ Associate) year-wise during the last 10 (ten) years preceding the Application Due Date, as mentioned below:

.....

The said project qualifies as Category 1/Category 2 project as per clause 3.2 of the RfQ.

^Φ Provide Certificate substantially in this this format. Attach Explanatory Notes to the Certificate, if necessary. In jurisdictions that do not have statutory auditors, the firm of auditors which audits the annual accounts of the Applicant or its Associate may provide the certificates required under this RfQ. Statutory auditor means the entity that audits and certifies the annual accounts of the company



**Schedule 2 (a): Certificate from the Statutory Auditor regarding Development Experience
in Eligible projects**

(In case of Category 1)

Based on its books of accounts and other published information authenticated by it, this is to certify that (name of the Applicant/Member/Associate) is/ was an equity shareholder in (title of the project company) and holds/ held Rs. cr. (Rupees Crore) of equity (which constitutes%[€] of the total paid up and subscribed equity capital) of the project company from (date) to (date)[¥]. The project was commissioned on (date of commissioning of the project).

We further certify that (name of the project), has been developed as a [commercial / residential] project with a built-up area of (in words) square metres spread over a site admeasuring (in words) square metres by (name of the Applicant/Member/Associate) at a single site located at (details of the site) during the period

The occupancy certificate for the project dated _____ issued by _____ (name of the competent authority) has been verified for the built up area in the supporting documents.

OR



Schedule 2 (b): Certificate from the Statutory Auditor regarding Development Experience in Eligible projects

(In case of Category 2)

Based on its books of accounts and other published information authenticated by it, this is to certify that (*name of the Applicant/Member/Associate*) is / was an equity

shareholder in (*title of the project company*) and holds/ held Rs. cr. (Rupees Crore) of equity (which constitutes% of the total paid up and subscribed equity capital) of the project company from (*date*) to(*date*)[¥]. The project was commissioned on (*date of commissioning of the project*).

We further certify that (*name of the project*), has been developed as a township project having a developed area of..... (in words) acres and builtup area of(in words) square metres, by (*name of the Applicant/Member/Associate*) at a single site located at (*details of the site*) during the period

The said project qualifies as *Category 2* project as per clause 3.2 of the RFQ.

The occupancy certificate for the project dated _____ issued by (*name of the competent authority*) has been verified for built up area in the supporting documents.

Name of the audit firm:

Seal of the audit firm:

Date:

(Signature, name and designation
of the authorised signatory)



**Schedule 3: Certificate from the Statutory Auditor/ Client regarding construction works
(In case of Category 3 and 4) ☐**

Based on its books of accounts and other published information authenticated by it, {this is to certify that (name of the Applicant/Member/Associate) was engaged by (name of the project company) to execute (name of project) for (nature of project)} ☐. The construction of the project commenced on (date) and the project was/ is likely to be commissioned on (date, if any). It is certified that (name of the Applicant / Member/ Associate) received/paid INR. cr. (Rupees Crore) by way of payment for the aforesaid construction works.

We further certify that the total estimated capital cost of the project is INR. cr. (Rupees Crore), of which the Applicant Member/Associate received/paid INR. (Rupees Crore), in terms of Clauses 3.2.1 and 3.2.4 of the RfQ, during the past ten financial years as per year-wise details noted below:

.....

.....

The said project qualifies as Category 3/category 4 project as per clause 3.2 of the RfQ.

{It is further certified that the payments/ receipts indicated above are restricted to the share of the Bidder who undertook these works as a partner or a member of joint venture/ consortium.}~

Name of the audit firm:

Seal of the audit firm:

(Signature, name and designation of the

Date:

authorised signatory)

(Rupees Crore), in terms of Clauses 3.2.1 and 3.2.4 of the RfQ, during the past ten financial years as per year-wise details noted below:

.....

.....

☐ Refer Clauses 3.2.1 and 3.2.4 of the RfQ.

~This certification should only be provided in case of jobs/ contracts, which are executed as part of a partnership/ joint venture/ consortium. The payments indicated in the certificate should be restricted to the share of Applicant in such partnership/ joint venture/ consortium. This portion may be omitted if the contract did not involve a partnership/ joint venture/ consortium. In case where work is not executed by partnership/ joint venture/ consortium, this paragraph may be deleted.

☐ Provide Certificate substantially as per this format only. Attach Explanatory Notes to the



Certificate, if necessary. Statutory auditor means the entity that audits and certifies the annual accounts of the company.

☐ In case the Bidder owned the Eligible Project and engaged a contractor for undertaking the construction works, this language may be modified to read: “this is to certify that (name of Applicant / Member/ Associate) held 26% or more of the paid up and subscribed share capital in the..... (name of Project company) when it undertook construction of the (name of Project) through (name of the contractor).cr.

**Schedule 4: Certificate from Statutory Auditor/ Company Secretary of the Applicant regarding Associate^{\$}**

Based on the authenticated record of the company, this is to certify that more than 50% (fifty per cent) of the subscribed and paid up voting equity of (name of the Applicant / Consortium Member/ Associate) is held, directly or indirectly[£], by (name of Associate/ Applicant / Consortium Member). By virtue of the aforesaid share-holding, the latter exercises control over the former, who is an Associate in terms of Clause 2.2.9 of the RfQ.

A brief description of the said equity held, directly or indirectly, is given below:

{Describe the share-holding of the Applicant / Consortium Member and the Associate. In the event the Associate is under common control with the Applicant / Consortium Member, the relationship may be suitably described and similarly certified herein.}

Name of the audit firm:

Seal of the audit firm: (Signature, name and designation of the authorised signatory). Date:

☐

^{\$} In the event that the Applicant/ Consortium Member exercises control over an Associate by operation of law, this certificate may be suitably modified and copies of the relevant law may be enclosed and referred to.

[£] In the case of indirect share-holding, the intervening companies in the chain of ownership should also be Associates i.e., the share-holding in each such company should be more than 50% (fifty per cent) in order to establish that the chain of “control” is not broken.



Annexure-V
O&M Experience of Bidder

(Refer to Clause 2.2.3)

PART A

(applicable in case single Applicant has O&M Experience on its own/O&M member in a Consortium/ Airport operator)

1. Name of entity claiming O&M Experience:
2. Name of the Entity whose experience is being claimed (if applicable):
3. Name of airport operated with location (mention city, country):
4. Period of operations (in the 5 (five) calendar years preceding the Bid Due Date):
5. Is O&M Experience being claimed by virtue of (refer to Clause 2.2.3)
 - a. having held more than 50% (fifty per cent) equity in the company owning the Eligible Project OR
 - b. having held more than 50% (fifty per cent) equity in the company to which the Eligible Project has been leased out OR
 - c. having held more than 50% (fifty per cent) equity in the company operating the Eligible Project OR
 - d. having been the Airport Operator.
6. Details of O&M Experience (in the 5 (five) calendar years preceding the Bid due date as applicable):



Sr. No	Year of Operation	Passenger Throughput in mppa	Annual Skytrax Ranking	Overall ASQ ranking – quarterly			
				Q1	Q2	Q3	Q4
1.							
2.							
3.							
4.							
5.							

Provide documentary evidence in support of above O&M experience from DGCA/MoCA/ civil aviation authority/ concessioning authority in case of Year of Operation and Passenger Throughput substantially as per format in Schedule 5 of Annex V of the RFQ and from relevant reports / certification issued by ACI / Skytrax as proof in case of overall annual ranking of the airport.

For the purposes of this RfQ, the ASQ or Skytrax ranking shall mean the overall ranking of the Eligible Project for the relevant year or quarters as issued by Skytrax or ACI, as the case may be.

In respect of O&M Experience, provide details of only those projects that have been undertaken by the Applicant under its own name or by its Associate as set out in Clause 2.2.3. In case the Applicant is taking credit of the O&M Experience of its Associate, it should also provide a certificate substantially as per the format in Schedule 4 of Annex IV.

In case the Applicant doesn't have O&M Experience on its own or the Consortium does not have an O&M member but would enter into an agreement with an Airport Operator at the time of submission of the Application, the Applicant / Lead Member of the Consortium should provide a Statement on inclusion of O&M Entity as per Part B of Annex V.

**PART B**

(applicable in case single Applicant /Consortium enters into an agreement with an Airport Operator)

(To be submitted on the letterhead of the Applicant / Lead Member of Consortium)

Ref. Date:

To,

.....
.....
.....

Dear Sir,

Subject: Statement on inclusion of O&M entity

We hereby confirm that we/the Consortium (constitution of which has been described in the Applicant) have entered into an agreement dated [●] ("**Agreement**") with (*insert name*) and have complied with the terms and conditions laid out in the Clause 2.2.2 (c) of this RfQ.

We agree and undertake that (*insert name*) will act as the O&M entity for the Project in accordance with clause 2.2.2 (c) of this RfQ and perform the O&M obligations as set out in the Concession Agreement, failing which the Concession Agreement shall be terminated.

We undertake that there shall no amendment to the Agreement without the prior written approval of the Authority.

Thanking you,

Yours faithfully,

(Signature, name and designation of the authorised signatory)

For and on behalf of.....

Notes:

1. A copy of the Agreement should be enclosed.
2. A legal opinion from the legal counsel of the Applicant/Consortium with respect to the authority of each of the parties to the Agreement to enter into the Agreement and the enforceability of the provisions thereof should be provided.



Schedule 5: Certificate from Statutory Authority (DGCA/ MoCA/ Civil aviation authority/ Concessioning Authority) regarding operation of Airports^Φ

This is to certify that (*name of the Bidder/Member/Associate/ Airport Operator*) is/ was an equity shareholder in (*title of the project company*) that has operated and maintained the _____ (*name of the airport*).

..... (*name of the Bidder/Member/Associate*) has been operating and maintaining the said airport from (through Contract dated between and) to The annual Passenger throughput for each of the years during the said period along with the Skytrax and ASQ rating as applicable is tabulated below:

Sr. No	Year of Operation	Passenger Throughput in mppa	Annual Skytrax Ranking	Overall ASQ ranking - quarterly			
				Q1	Q2	Q3	Q4
1.							
2.							
3.							
4.							
5.							

^Φ Provide Certificate substantially as per this format only. Attach Explanatory Notes to the Certificate, if necessary.



We further certify that (*name of the Bidder/Member/Associate*)has, at all times during the Period,

(strike off whatever is not applicable)

- ☐ held above fifty per cent in (*name of the company*), which owns the said airport.
- ☐ held above fifty per cent in (*name of the company*), to whom the said airport has been leased to.
- ☐ held above fifty per cent in (*name of the company*), which operates / operated the said airport on contract from the (*name of the company*), airport owner / developer / lessee.
- ☐ been the operator of the said airport.

Name of the audit firm:

Seal of the audit firm:

Date: (Signature, name and designation of the authorised signatory).

**ANNEX-VI****Statement of Legal Capacity**

(To be forwarded on the letterhead of the Applicant/Lead Member of Consortium)

Ref. Date: [●]

To,

The Managing Director,
Andhra Pradesh Airport Development Corporation Limited (APADCL),
#10-2-1, 1st Floor, FDC Complex, AC Guards, Hyderabad - 500028
India

Dear Sir,

We hereby confirm that we/ our members in the Consortium (constitution of which has been described in the application) satisfy the terms and conditions laid out in the RfQ document.

We have agreed that (insert Member's name) will act as the Lead Member of our Consortium.*

We have agreed that (insert individual's name) will act as our representative/ will act as the representative of the consortium on its behalf* and has been duly authorized to submit the RfQ. Further, the authorised signatory is vested with requisite powers to furnish such letter and authenticate the same.

Thanking you,

Yours faithfully, (Signature, name and designation of the authorised signatory)

For and on behalf of.....

* Please strike out whichever is not applicable.



APPENDIX-II
Power of Attorney for signing of Application
(Refer Clause 2.2.5)

Know all men by these presents, We..... (name of the firm and address of the registered office) do hereby irrevocably constitute, nominate, appoint and authorise Mr/ Ms (name), ... son/daughter/wife of and presently residing at, who is presently employed with us/ the Lead Member of our Consortium and holding the position of, as our true and lawful attorney (hereinafter referred to as the “Attorney”) to do in our name and on our behalf, all such acts, deeds and things as are necessary or required in connection with or incidental to submission of our application for qualification and submission of our bid for the Development of the Greenfield Airport on Public Private Partnership Basis at Bhogapuram in Andhra Pradesh proposed by the Andhra Pradesh Airport Development Corporation Limited (“Authority”) including but not limited to signing and submission of all applications, bids and other documents and writings, participate in Pre-Applications and other conferences and providing information/ responses to the Authority, representing us in all matters before the Authority, signing and execution of all contracts including the Concession Agreement and undertakings consequent to acceptance of our Application, and generally dealing with the Authority in all matters in connection with or relating to or arising out of our Application bid for the said Project and/ or upon award thereof to us and/or till the entering into of the Concession Agreement with the Authority.

AND we hereby agree to ratify and confirm and do hereby ratify and confirm all acts, deeds and things done or caused to be done by our said Attorney pursuant to and in exercise of the powers conferred by this Power of Attorney and that all acts, deeds and things done by our said Attorney in exercise of the powers hereby conferred shall and shall always be deemed to have been done by us.



IN WITNESS WHEREOF WE, ..., THE ABOVE NAMED PRINCIPAL HAVE
EXECUTED THIS POWER OF ATTORNEY ON THIS DAY OF, 20.....
For

(Signature, name, designation and address)

Witnesses:

- 1.
- 2.

(Notarised)

Accepted

..... (Signature)

(Name, Title and Address of the Attorney)

Notes:

- The mode of execution of the Power of Attorney should be in accordance with the procedure, if any, laid down by the applicable law and the charter documents of the executant(s) and when it is so required, the same should be under common seal affixed in accordance with the required procedure.
- Wherever required, the Applicant should submit for verification the extract of the charter documents and documents such as a board or shareholders' resolution/ power of attorney in favour of the person executing this Power of Attorney for the delegation of power hereunder on behalf of the Applicant.
- For a Power of Attorney executed and issued overseas, the document will also have to be legalised by the Indian Embassy and notarised in the jurisdiction where the Power of Attorney is being issued. However, the Power of Attorney provided by Applicants from countries that have signed the Hague Legislation Convention, 1961 are not required to be legalised by the Indian Embassy if it carries a conforming Apostille certificate.



APPENDIX-III

Power of Attorney for Lead Member of Consortium

(Refer Clause 2.2.5)

Whereas the Andhra Pradesh Airports Development Corporation Limited (“**Authority**”) has invited applications from interested parties for the Development of the Greenfield International Airport on Public Private Partnership Basis at Bhogapuram in Andhra Pradesh (the “**Project**”).

Whereas, ..., ..., ... and (collectively the “**Consortium**”) being Members of the Consortium are interested in bidding for the Project in accordance with the terms and conditions of the Request for Qualification document (RFQ), Request for Proposal (RFP) and other connected documents in respect of the Project, and

Whereas, it is necessary for the Members of the Consortium to designate one of them as the Lead Member with all necessary power and authority to do for and on behalf of the Consortium, all acts, deeds and things as may be necessary in connection with the Consortium’s bid for the Project and its execution.

NOW, THEREFORE, KNOW ALL MEN BY THESE PRESENTS

We, ...having our registered office at....., M/s.....having our registered office at, M/s. having our registered office at, and M/s..... having our registered office at, (hereinafter collectively referred to as the “**Principals**”) do hereby irrevocably designate, nominate, constitute, appoint and authorise M/s. having its registered office at, being one of the Members of the Consortium, as the Lead Member and true and lawful attorney of the Consortium (hereinafter referred to as the “**Attorney**”). We hereby irrevocably authorise the Attorney (with power to sub-delegate) to conduct all business for and on behalf of the Consortium and any one of us during the bidding process and, in the event the Consortium is awarded the concession/contract, during the execution of the Project and in this regard, to do on our behalf and on behalf of the Consortium, all or any of such acts, deeds or things as are necessary or required or incidental to the qualification of the Consortium and submission of its bid for the Project, including but not limited to signing and submission of all applications, bids and other documents and writings, participate in bidders and other conferences, respond to queries, submit information/ documents, sign and execute contracts and undertakings consequent to acceptance of the bid of the Consortium and generally to represent the Consortium



in all its dealings with the Authority, and/ or any other Government Agency or any person, in all matters in connection with or relating to or arising out of the Consortium's bid for the Project and/ or upon award thereof till the Concession Agreement is entered into with the Authority.

AND hereby agree to ratify and confirm and do hereby ratify and confirm all acts, deeds and things done or caused to be done by our said Attorney pursuant to and in exercise of the powers conferred by this Power of Attorney and that all acts, deeds and things done by our said Attorney in exercise of the powers hereby conferred shall and shall always be deemed to have been done by us/ Consortium.

IN WITNESS WHEREOF WE THE PRINCIPALS ABOVE NAMED HAVE EXECUTED THIS POWER OF ATTORNEY ON THIS DAY OF, 20.....

For (Signature)

..... (Name & Title)

For (Signature)

..... (Name & Title)

For (Signature)

..... (Name & Title)

Witnesses:

1.

2.

..... (Executants)

(To be executed by all the Members of the Consortium)

**Notes:**

- The mode of execution of the Power of Attorney should be in accordance with the procedure, if any, laid down by the applicable law and the charter documents of the executant(s) and when it is so required, the same should be under common seal affixed in accordance with the required procedure.
- Also, wherever required, the Applicant should submit for verification the extract of the charter documents and documents such as a board or shareholders' resolution/ power of attorney in favour of the person executing this Power of Attorney for the delegation of power hereunder on behalf of the Applicant.
- For a Power of Attorney executed and issued overseas, the document will also have to be legalised by the Indian Embassy and notarised in the jurisdiction where the Power of Attorney is being issued. However, the Power of Attorney provided by Applicants from countries that have signed the Hague Legislation Convention, 1961 are not required to be legalised by the Indian Embassy if it carries a conforming Apostille certificate.

APPENDIX-IV
Joint Bidding Agreement for the Consortium
(Refer Clause 2.13.2)

(To be executed on Stamp paper of appropriate value)

THIS JOINT BIDDING AGREEMENT is entered into on this the day of, 20.....

AMONGST

1. {..... Limited, a company incorporated under the Companies Act, 1956 or the Companies Act, 2013, as the case may be [¥]} and having its registered office at (hereinafter referred to as the “**First Part**” which expression shall, unless repugnant to the context include its successors and permitted assigns)

AND

2. {..... Limited, a company incorporated under the Companies Act, 1956 or the Companies Act, 2013, as the case may be} and having its registered office at (hereinafter referred to as the “**Second Part**” which expression shall, unless repugnant to the context include its successors and permitted assigns)

AND

3. {..... Limited, a company incorporated under the Companies Act, 1956 or the Companies Act, 2013, as the case may be} and having its registered office at (hereinafter referred to as the “**Third Part**” which expression shall, unless repugnant to the context include its successors and permitted assigns)}

AND

4. {..... Limited, a company incorporated under the Companies Act, 1956 or the Companies Act, 2013, as the case may be} and having its registered office at (hereinafter referred

[¥] A Bidder who is registered abroad may substitute the words, viz “a company registered under the Companies Act, 1956” by the words, viz “a company duly organised and validly existing under the laws of the jurisdiction of its incorporation”.

to as the “**Fourth Part**” which expression shall, unless repugnant to the context include its successors and permitted assigns)}³

The above mentioned parties of the FIRST, SECOND, {THIRD and FOURTH} PART are collectively referred to as the “**Parties**” and each is individually referred to as a “Party”

WHEREAS

- (A) The Andhra Pradesh Airport Development Corporation Limited and having its principal offices at [●] (hereinafter referred to as the “**Authority**” which expression shall, unless repugnant to the context or meaning thereof, include its administrators, successors and assigns) has invited applications (the “**Applications**”) by its Request for Qualification No. dated (the “**RFQ**”) for qualification of bidders development, operation and management of a greenfield International airport at Bhogapuram, Andhra Pradesh (“**Project**”) through public private partnership.
- (B) The Parties are interested in jointly bidding for the Project as members of a Consortium and in accordance with the terms and conditions of the RFQ document and other bid documents in respect of the Project, and
- (C) It is a necessary condition under the RFQ document that the members of the Consortium shall enter into a Joint Bidding Agreement and furnish a copy thereof with the Application.

NOW IT IS HEREBY AGREED as follows:

1. Definitions and Interpretations

In this Agreement, the capitalised terms shall, unless the context otherwise requires, have the meaning ascribed thereto under the RFQ.

2. Consortium

- 2.1 The Parties do hereby irrevocably constitute a consortium (the “**Consortium**”) for the purposes of jointly participating in the Bidding Process for the Project.

³ The number of Parties will be shown here, as applicable, subject however to a maximum of 4 (four).

- 2.2 The Parties hereby undertake to participate in the Bidding Process only through this Consortium and not individually and/ or through any other consortium constituted for this Project, either directly or indirectly or through any of their Associates.

3. Covenants

The Parties hereby undertake that in the event the Consortium is declared the selected Bidder and awarded the Project, it shall incorporate a special purpose vehicle (the “**SPV**”) under the Indian Companies Act, 2013 for entering into a Concession Agreement with the Authority and for performing all its obligations as the Concessionaire in terms of the Concession Agreement for the Project.

4. Role of the Parties

The Parties hereby undertake to perform the roles and responsibilities as described below:

- (a) Party of the First Part shall be the Lead Member⁴ of the Consortium and shall have the power of attorney from all Parties for conducting all business for and on behalf of the Consortium during the Bidding Process and until the Appointed Date under the Concession Agreement when all the obligations of the SPV shall become effective;
- (b) Party of the Second Part shall be {the Technical Member of the Consortium;}
- (c) Party of the Third Part shall be the Operations & Maintenance Member of the Consortium;
and
- (d) Party of the Fourth Part shall be the Other Member of the Consortium.}

5. Joint and Several Liability

The Parties do hereby undertake to be jointly and severally responsible for all obligations and liabilities relating to the Project and in accordance with the terms of the RFQ, RFP and the Concession Agreement, till such time as the Financial Close for the Project is achieved under and in accordance with the Concession Agreement.

⁴ If Lead Member is also the Financial Member.

6. Shareholding in the SPV

- 6.1 The Parties agree that the proportion of shareholding among the Parties in the SPV shall be as follows:

First Party:

Second Party:

Third Party:

Fourth Party:

- 6.2 The Parties undertake that a minimum of 26% (twenty six per cent) of the subscribed and paid up equity share capital of the SPV shall, at all times till the seventh anniversary of the date of commercial operation of the Project, be held by the Parties of the First and Second} Part whose experience and network have been reckoned for the purposes of qualification of Applicants for the Project in terms of the RFQ.
- 6.3 The Parties undertake that the O&M Member shall subscribe and hold at least 10% (ten per cent) of the subscribed and paid up equity shares in the SPV in terms of the Concession Agreement.
- 6.4 The Parties undertake that each of the Parties specified in Clauses 6.2 and 6.3 above shall, at all times between the commercial operation date of the Project and the seventh anniversary thereof, hold subscribed and paid up equity share capital of SPV equivalent to at least [5% (five per cent) of the Project Cost].
- 6.5 The Parties undertake that they shall collectively hold at least 51% (fifty one per cent) of the subscribed and paid up equity share capital of the SPV at all times until the seventh anniversary of the commercial operation date of the Project.
- 6.6 The Parties undertake that they shall comply with all equity lock-in requirements set forth in the Concession Agreement.

7. Representation of the Parties

Each Party represents to the other Parties as of the date of this Agreement that:

- (a) Such Party is duly organised, validly existing and in good standing under the laws of its incorporation and has all requisite power and authority to enter into this Agreement;

- (b) The execution, delivery and performance by such Party of this Agreement has been authorised by all necessary and appropriate corporate or governmental action and a copy of the extract of the charter documents and board resolution/ power of attorney in favour of the person executing this Agreement for the delegation of power and authority to execute this Agreement on behalf of the Consortium Member is annexed to this Agreement, and will not, to the best of its knowledge:
 - (i) require any consent or approval not already obtained;
 - (ii) violate any Applicable Law presently in effect and having applicability to it;
 - (iii) violate the memorandum and articles of association, by-laws or other applicable organisational documents thereof;
 - (iv) violate any clearance, permit, concession, grant, license or other governmental authorisation, approval, judgment, order or decree or any mortgage agreement, indenture or any other instrument to which such Party is a party or by which such Party or any of its properties or assets are bound or that is otherwise applicable to such Party; or
 - (v) create or impose any liens, mortgages, pledges, claims, security interests, charges or Encumbrances or obligations to create a lien, charge, pledge, security interest, encumbrances or mortgage in or on the property of such Party, except for encumbrances that would not, individually or in the aggregate, have a material adverse effect on the financial condition or prospects or business of such Party so as to prevent such Party from fulfilling its obligations under this Agreement;
- (c) this Agreement is the legal and binding obligation of such Party, enforceable in accordance with its terms against it; and
- (d) there is no litigation pending or, to the best of such Party's knowledge, threatened to which it or any of its Associate is a party that presently affects or which would have a material adverse effect on the financial condition or prospects or business of such Party in the fulfillment of its obligations under this Agreement.

8. Termination

This Agreement shall be effective from the date hereof and shall continue in full force and effect until the Financial Close of the Project is achieved under and in accordance with the Concession Agreement, in case the Project is awarded to the Consortium. However, in case the Consortium is either not qualified for the Project or does not get selected for award of the Project, the Agreement will stand terminated in case the Applicant is not qualified or upon return of the Bid Security by the Authority to the Bidder, as the case may be.

9. Miscellaneous

9.1 This Joint Bidding Agreement shall be governed by laws of {India}.

9.2 The Parties acknowledge and accept that this Agreement shall not be amended by the Parties without the prior written consent of the Authority.

IN WITNESS WHEREOF THE PARTIES ABOVE NAMED HAVE EXECUTED AND DELIVERED THIS AGREEMENT AS OF THE DATE FIRST ABOVE WRITTEN.

SIGNED, SEALED AND DELIVERED SIGNED, SEALED AND DELIVERED

For and on behalf of For and on behalf of

LEAD MEMBER by: SECOND PART by:

(Signature)

(Name)

(Designation)

(Address)

(Signature)

(Name)

(Designation)

(Address)

SIGNED, SEALED AND DELIVERED SIGNED, SEALED AND DELIVERED

For and on behalf of For and on behalf of

THIRD PART by: FOURTH PART by:

(Signature) (Signature)

(Name)(Name) (Designation) (Designation) (Address) (Address)

In the presence of:

1.

2.

Notes:

1. The mode of the execution of the Joint Bidding Agreement should be in accordance with the procedure, if any, laid down by the Applicable Law and the charter documents of the executant(s) and when it is so required, the same should be under common seal affixed in accordance with the required procedure.
2. Each Joint Bidding Agreement should attach a copy of the extract of the charter documents and documents such as resolution / power of attorney in favour of the person executing this Agreement for the delegation of power and authority to execute this Agreement on behalf of the Consortium Member.
3. For a Joint Bidding Agreement executed and issued overseas, the document shall be legalised by the Indian Embassy and notarized in the jurisdiction where the Power of Attorney has been executed.

APPENDIX-V

Guidelines of the Department of Disinvestment

(Refer Clause 1.2.1)

No. 6/4/2001-DD-II
Government of India
Department of Disinvestment

Block 14, CGO Complex
New Delhi.

Dated 13th July, 2001.

OFFICE MEMORANDUM

Sub: Guidelines for qualification of Bidders seeking to acquire stakes in Public Sector Enterprises through the process of disinvestment

Government has examined the issue of framing comprehensive and transparent guidelines defining the criteria for bidders interested in PSE-disinvestment so that the parties selected through competitive bidding could inspire public confidence. Earlier, criteria like net worth, experience etc. used to be prescribed. Based on experience and in consultation with concerned departments, Government has decided to prescribe the following additional criteria for the qualification/ disqualification of the parties seeking to acquire stakes in public sector enterprises through disinvestment:

- (a) In regard to matters other than the security and integrity of the country, any conviction by a Court of Law or indictment/ adverse order by a regulatory authority that casts a doubt on the ability of the bidder to manage the public sector unit when it is disinvested, or which relates to a grave offence would constitute disqualification. Grave offence is defined to be of such a nature that it outrages the moral sense of the community. The decision in regard to the nature of the offence would be taken on case to case basis after considering the facts of the case and relevant legal principles, by the Government of India.
- (b) In regard to matters relating to the security and integrity of the country, any charge- sheet by an agency of the Government/ conviction by a Court of Law for an offence committed by the bidding party or by any sister concern of the bidding party would result in disqualification. The decision in regard to the relationship between the sister concerns would be taken, based on the relevant facts and after examining whether the two concerns are substantially controlled by the same person/ persons.

- (c) In both (a) and (b), disqualification shall continue for a period that Government deems appropriate.
- (d) Any entity, which is disqualified from participating in the disinvestment process, would not be allowed to remain associated with it or get associated merely because it has preferred an appeal against the order based on which it has been disqualified. The mere pendency of appeal will have no effect on the disqualification.
- (e) The disqualification criteria would come into effect immediately and would apply to all bidders for various disinvestment transactions, which have not been completed as yet.
- (f) Before disqualifying a concern, a Show Cause Notice why it should not be disqualified would be issued to it and it would be given an opportunity to explain its position.
- (g) Henceforth, these criteria will be prescribed in the advertisements seeking Expression of Interest (EOI) from the interested parties. The interested parties would be required to provide the information on the above criteria, along with their Expressions of Interest (EOI). The bidders shall be required to provide with their EOI an undertaking to the effect that no investigation by a regulatory authority is pending against them. In case any investigation is pending against the concern or its sister concern or against its CEO or any of its Directors/ Managers/ employees, full details of such investigation including the name of the investigating agency, the charge/ offence for which the investigation has been launched, name and designation of persons against whom the investigation has been launched and other relevant information should be disclosed, to the satisfaction of the Government. For other criteria also, a similar undertaking shall be obtained along with EOI.

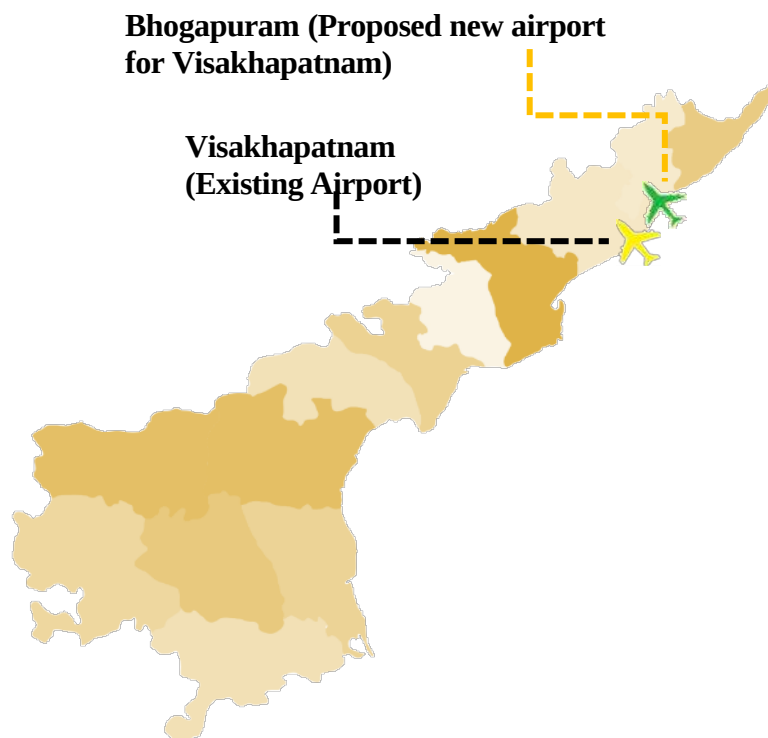
sd/- (A.K. Tewari)

Under Secretary to the Government of India

APPENDIX-VI

Information Memorandum

Bhogapuram is located in North- East to Vishakhapatnam (approximately 40 kilometers) in the Vizianagaram district of Andhra Pradesh. The location of the proposed airport is shown in the following map:



A few salient features of the project are shown below:

Table 1: Project phasing

Phase and Design Year	Passenger Traffic	Peak Hour Passengers (PHP)
I (2030)	6 Million	3, 457
II (2040)	12 Million	5, 383
III (2050)	18 Million	6, 790

Table 2: Projected passenger traffic at Bhogapuram Airport

Year	International pax (mn)	Domestic pax (mn)	Total pax (mn)
2021	0.2	2.9	3.1
2026	0.3	4.4	4.7
2031	0.4	6.2	6.6
2036	0.6	8.4	9

Table 3: Projected cargo traffic at Bhogapuram Airport

Year	Total (tonnes)
2021	5,358
2026	8,537
2031	12, 139
2036	16, 359

APPENDIX - VII

Annexure – D (As per MHA terminology)

Self-declaration for company and Director(s) for whom security clearance is sought

- a. Name & Address and registration number of the company

- b. Name and address of owners, promoters and directors of the company
 1. _____
 2. _____
 3. _____
 4. _____

- c. Is the company owners promoters or directors listed above, the subject of any
 1. Preventive detention proceedings (PSA/NSA etc) Yes/NO
 2. Criminal Proceedings Yes/NO

- d. If YES, please provide following details
 1. Detention/Case/FIR/Warrant Number
 2. Police Station/ District/Agency
 3. Section of Law
 4. Name and Place of Court

- e. The above mentioned details are in respect of both India and any other foreign country.

Note: The above self-declaration is required to be filled and signed by the authorized signatory of the company.

Annexure- B (As per MHA terminology)

Application Proforma for Security Clearance

I. Details in respect of Company/Firm (Indian/Foreign)

Sl No	Full Name of the Company and its Foreign Collaborator, if any	Date of Registration of the Company	Address of Head Office, Regional Offices and Registered Office	Previous Name of the Company, if any	Details of earlier approvals, if any (Ref No and Date)

II. Details in respect of Directors

Sl No	Full Name of Board of Directors	Present Position held with date (since when)	Date of Birth	Parentage	Present & Permanent Address	Nationality	Passport Nos. and Issue date, if any	Contact Address & telephone number

III. Details of Shareholders of applicant company (All firms/companies/entities/Individuals having shareholding more than 10%)

Sl No	Full Name	Parentage Father/Mother	Date of Birth	Permanent Address	Present Address	Present position held in the company, if any	Nationality (if holding Dual nationality, both must be clearly mentioned)	% of shares held in the company

IV. Details of Criminal cases, if any, against the Company/Director(s) as per Annexure

GOVERNMENT OF ANDHRA PRADESH
ABSTRACT

Infrastructure and Investment Department - Development of new International Greenfield Airport at Bhogapuram, Vizianagaram District on PPP model- Selection of H1 Preferred Bidder for issuance of LoA - Orders - Issued.

INFRASTRUCTURE & INVESTMENT (AIRPORTS) DEPARTMENT

G.O.Ms.No.18

Dated 30.03.2020.

Read the following:

1. From the MD &CEO, Andhra Pradesh Airports Development Corporation Limited, Letter.No.APADCL/BIA-RFP&CA/2019 /062, Dated 05.03.2019.
2. From the MD &CEO, Andhra Pradesh Airports Development Corporation Limited, Letter.No.APADCL/BIA-RFP&CA/2019 /066, Dated 12.03.2019.
3. From the MD &CEO, Andhra Pradesh Airports Development Corporation Limited, Letter.No.APADCL/BIA-RFP&CA/2019 /072, Dated 22.03.2019.
4. From the District Collector, Vizianagaram, Lr.No.2314/2015/G3, dated 08.01.2020.

ORDER

Government of Andhra Pradesh intends to develop the Aviation sector in the State by establishing new Greenfield Airports to increase the air connectivity and trigger economic development in the region. In order to accomplish, it has been planned to construct State-of-the-Art Greenfield International Airport at Bhogapuram in Vizianagaram district under PPP model of Design Build Finance Operate and Transfer (DBFOT). AP Airports Development Corporation Limited (APADCL) has appointed KPMG as Transaction Advisory Consultant for assisting APADCL in carrying out bidding process. The Andhra Pradesh Airports Development Corporation Limited (APADCL) issued RFP for development of New Greenfield International Airport at Bhogapuram, Vizianagaram District in an extent of 2703.26 acres under PPP mode. In response, two bids were received. Government re-examined the issue and decided to expand the scope of Bhogapuram Airport from a mere Airport to an integrated Airport with Aerotropolis, Aviation Training Institute and Maintenance Repairing and Overhauling (MRO) in a phased manner and therefore, the Managing Director, APADCL was directed to go for retendering as per APIDE Act, 2001 with revised scope of the Project vide Government letter No.257/Airports/A2/2016-7, dated 27.06.2018.

2. Accordingly, APADCL with the assistance of KPMG carried out two stage bidding process. RFQ was released on 17.07.2018. In response 7 applications were received from (1) National Investment and infrastructure Fund and Avi Alliance GMBH (2) Reliance Infrastructure Limited (3) I Investments Limited (4) GVK Airports Holdings Limited (5) GMR Airports Limited (6) Essel Infra Projects Limited and (7) DoIT-Smart Infrastructure India Pvt. Ltd. & Zurich Airport International AG. All the seven (7) applicants were qualified and were issued RFP document along with DCA on 17.11.2018.

3. In response to the RFP & DCA documents, only three (3) bids were received on with the following Per-Passenger Fee values by respective bidders:

- i. GMR Airports Ltd. - Rs.303/-
- ii. DoIT Smart Infrastructure India Pvt. Ltd. - Rs.261/-
- iii. GVK Airport Holdings & Mumbai International Airport Ltd. - Rs.207/-

4. In the references read above, the MD&CEO, APADCL submitted the evaluation report of the bids received as furnished by the Technical Committee and KPMG, the Transaction Advisor and recommended that the highest bidder, M/s GMR Airports Limited who has quoted the highest Per-Passenger Fee of Rs.303/- as against an internal benchmark of Rs.209/- may be awarded for the development of integrated New Greenfield International Airport at Bhogapuram with Aerotropolis, Aviation Training Institute and Maintenance Repairing and Overhauling (MRO).

5. Government after careful examination of the proposal of the MD&CEO, Andhra Pradesh Airports Development Corporation Limited, Vijayawada hereby order that

- a. the LoA for development of New Greenfield International Airport at Bhogapuram, Vizianagaram district under PPP mode shall be issued to M/s GMR Airports Limited (H1) preferred bidder who has quoted the highest Per-Passenger Fee of Rs.303/- as against an internal benchmark of Rs.209/- commencing from the 10th anniversary of commercial operations date of the commissioning of Airport.
- b. the land parcel to be assigned to the developer for development of New Greenfield International Airport at Bhogapuram, Vizianagaram district shall be restricted to Ac 2,203.26 which will be detailed in the Concession Agreement.

6. The MD, Andhra Pradesh Airports Development Corporation Limited is authorized to borrow an amount of Rs.280.00 crores from Financial Institutions with lesser rate of interest with Government guarantee for acquisition of balance land to an extent of Ac.362.55.

7. The MD, Andhra Pradesh Airports Development Corporation Limited shall take all necessary further action in the matter.

8. This order issues with the concurrence of Finance Department vide their U.O. No. FIN01-64030/21/2018-FMU - ENERGY - FIN, dated 30.03.2020.

R.KARIKAL VALAVEN
SPECIAL CHIEF SECRETARY TO GOVERNMENT

To
The MD, Andhra Pradesh Airports Development Corporation Limited, Vijayawada.
The CEO, Andhra Pradesh Airports Development Corporation Limited, Vijayawada.

Copy to

The District Collector & Magistrate, Vizianagaram for favour of information.

The Secretary, Department of Aviation, New Delhi for favour of information.

The Chairman, Airports Authority of India, New Delhi for favour of information.

The Finance (Expenditure) Dept.,

The Revenue (Assignments) Department.

The Municipal Administration (UBS) Department.

The GA (Cabinet) Dept.,

The P.S. to C.S to Govt.,

The P.S. to Prl. Advisor to Hon'ble CM.

The P.S. to Spl. C.S to Govt., I&I Department.

(C.No.17021/53/2018-Airports)

//Forwarded :: By Order//

SECTION OFFICER

रजिस्ट्री सं० डी० एल-33004/99

REGD. NO. D.L.-33004/99



भारत का राजपत्र

The Gazette of India

असाधारण
EXTRAORDINARY

भाग II—खण्ड 3—उप-खण्ड (ii)
PART II—Section 3—Sub-section (ii)

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NEW DELHI, THURSDAY, SEPTEMBER 14, 2006/BHADRA 23, 1928

पर्यावरण और वन मंत्रालय

अधिसूचना

नई दिल्ली, 14 सितम्बर, 2006

का.आ. 1533(अ).—केंद्रीय सरकार या केन्द्रीय सरकार द्वारा राज्य सरकार या संबंधित संघ राज्यक्षेत्र प्रशासन के परामर्श से गठित किए जाने वाले राज्य या संघ राज्यक्षेत्र स्तर पर्यावरण समाघात निर्धारण प्राधिकरण द्वारा इस अधिसूचना के प्रयोजन के लिए पर्यावरण (संरक्षण) अधिनियम, 1986 की धारा 3 की उपधारा (3) के अधीन संघ मंत्रिमंडल द्वारा 18 मई, 2006 को अनुमोदित राष्ट्रीय पर्यावरण नीति और अधिसूचना में विनिर्दिष्ट प्रक्रिया के उद्देश्यों के अनुसार जब तक पूर्व पर्यावरणीय अनापत्ति अभिलिखित नहीं हो जाती है, भारत के किसी भाग में, नई परियोजनाओं या क्रियाकलापों पर या इस अधिसूचना की अनुसूची में यथा उपवर्णित उनके सक्षम पर्यावरणीय समाघातों पर विद्यमान परियोजनाओं या क्रियाकलापों के विस्तार या आधुनिकीकरण पर कतिपय निर्बंधन और प्रतिषेध अधिरोपित करने के लिए, पर्यावरण (संरक्षण) नियम, 1986 के नियम 5 के उपनियम (3) के अधीन एक प्रारूप अधिसूचना भारत के राजपत्र, असाधारण, भाग 2, खंड 3, उपखंड (ii) में, का०आ० सं० 1324(अ), तारीख 15 सितंबर, 2005 द्वारा प्रकाशित की गई थी जिसमें उन सभी व्यक्तियों से, जिनके उनसे प्रभावित होने की संभावना है, उस तारीख से, जिसको उक्त अधिसूचना को अंतर्विष्ट करने वाले राजपत्र की प्रतियां जनता को उपलब्ध करा दी गई थीं, साठ दिन की अवधि के भीतर आक्षेप और सुझाव आमंत्रित किए गए थे ;

और उक्त अधिसूचना की प्रतियां 15 सितंबर, 2005 को जनता को उपलब्ध करा दी गई थीं ;

और ऊपर उल्लिखित प्रारूप अधिसूचना के उत्तर में प्राप्त सभी आपेक्षों और सुझावों पर केन्द्रीय सरकार ने सम्यक् रूप से विचार कर लिया है ।

अतः, अब केंद्रीय सरकार, पर्यावरण (संरक्षण) नियम, 1986 के नियम 5 के उपनियम (3) के खंड (घ) के साथ पठित पर्यावरण (संरक्षण) अधिनियम, 1986 की धारा 3 की उपधारा (1) और उपधारा (2) के खंड (v) द्वारा प्रदत्त शक्तियों का प्रयोग करते हुए, और अधिसूचना सं० का.आ. 60(अ), तारीख 27 जनवरी, 1994 को उन बातों के सिवाए अधिकांश करते हुए, जिन्हें ऐसे अधिक्रमण से पूर्व किया गया है या करने का लोप किया गया है, यह निर्देश देती है कि इसके प्रकाशन की तारीख से ही, नई परियोजनाओं या क्रियाकलापों का अपेक्षित संनिर्माण या इस अधिसूचना की अनुसूची में सूचीबद्ध विद्यमान परियोजनाओं या क्रियाकलापों का विस्तार या आधुनिकीकरण प्रक्रिया और या प्रौद्योगिकी में परिवर्तन सहित क्षमता में परिवर्धन करते हुए भारत के किसी भाग में, यथास्थिति, केन्द्रीय सरकार द्वारा या इस अधिसूचना में इसमें इसके पश्चात् विनिर्दिष्ट प्रक्रिया के अनुसार उक्त अधिनियम की धारा 3 के

¹ भारत का राज्यक्षेत्रीय सागर खंड और अन्य अधिक जोन सम्मिलित है।

अधीन केन्द्रीय सरकार द्वारा सम्यक् रूप से गठित राज्य स्तर पर्यावरण समाघात निर्धारण प्राधिकरण द्वारा पूर्व पर्यावरण अनापत्ति के पश्चात् ही किया जाएगा।

2. पूर्व पर्यावरणीय अनापत्ति की अपेक्षाएं (ई.सी.) :-

निम्नलिखित परियोजनाओं या क्रियाकलापों के लिए, परियोजना प्रबंधन द्वारा भूमि को अभिप्राप्त करने के सिवाय, कोई संनिर्माण कार्य या भूमि तैयार करने से पूर्व उक्त अनुसूची में प्रवर्ग 'ख' के अंतर्गत आने वाले विषयों के लिए संबंधित विनियामक प्राधिकरण से, जिसे अनुसूची में 'क' के अंतर्गत आने वाले विषयों के लिए इसमें इसके पश्चात् केन्द्रीय सरकार में पर्यावरण और वन मंत्रालय कहा गया है, और राज्य स्तर पर राज्य पर्यावरण समाघात निर्धारण प्राधिकरण कहा गया है, पूर्व पर्यावरणीय अनापत्ति अपेक्षित होगी जब परियोजना या क्रियाकलाप आरंभ किया जाता है।

- (i) इस अधिसूचना की अनुसूची में सूचीबद्ध सभी नई परियोजनाएं या क्रियाकलाप ;
- (ii) इस अधिसूचना की अनुसूची में सूचीबद्ध विद्यमान परियोजनाओं या क्रियाकलापों का, संबंधित क्षेत्र के लिए अर्थात् परियोजनाओं या क्रियाकलापों के लिए जो विस्तार या आधुनिकीकरण के पश्चात् अनुसूची में दी गई अधिकतम सीमाओं को पार कर लेते हैं, क्षमता में परिवर्धन सहित विस्तार या आधुनिकीकरण ;
- (iii) विनिर्दिष्ट रेंज से परे अनुसूची में सम्मिलित किसी विद्यमान विनिर्माणकर्ता यूनिट में उत्पाद मिश्रण में कोई परिवर्तन।

3. राज्य स्तर पर्यावरण समाघात निर्धारण प्राधिकरण :- (1) कोई राज्य स्तर पर्यावरण समाघात निर्धारण प्राधिकरण, जिसे इसमें इसके पश्चात् एसईआईएए कहा गया है, केन्द्रीय सरकार द्वारा पर्यावरण (संरक्षण) अधिनियम, 1986 की धारा 3 की उपधारा (3) के अधीन गठित किया जाएगा जिसमें तीन सदस्य होंगे जिसके अंतर्गत एक अध्यक्ष और एक सदस्य-सचिव, राज्य सरकार या संबंधित संघ राज्यक्षेत्र प्रशासन द्वारा नामनिर्देशित किए जाएंगे।

- (2) सदस्य-सचिव संबंधित राज्य सरकार या संघ राज्यक्षेत्र प्रशासन का सेवास्त अधिकारी होगा जो पर्यावरण विधियों से परिचित होगा।
- (3) अन्य दो सदस्य या तो वृत्तिक या विशेषज्ञ होंगे जो इस अधिसूचना के परिशिष्ट VI में दी गई पात्रता कसौटी को पूरा करते हों।
- (4) उमर उपपैरा (3) में विनिर्दिष्ट सदस्यों में से एक सदस्य जो पर्यावरण समाघात निर्धारण प्रक्रिया में विशेषज्ञ हो, एसईआईए का अध्यक्ष होगा।
- (5) राज्य सरकार या संघ राज्यक्षेत्र प्रशासन उपपैरा (3) से उपपैरा (4) में निर्दिष्ट सदस्यों और अध्यक्ष के नामों को केन्द्रीय सरकार को अग्रेषित करेगी और केन्द्रीय सरकार नामों के प्राप्ति की तारीख से तीस दिन के भीतर इस अधिसूचना के प्रयोजनों के लिए एसईआईए को एकाधिकरण के रूप में गठित करेगी।
- (6) गैर पदधारी सदस्य और अध्यक्ष की (प्राधिकरण को केन्द्रीय सरकार द्वारा गठित करने वाली अधिसूचना के प्रकाशन की तारीख से) तीन वर्षों की नियत पदावधि होगी।
- (7) एसईआईए के सभी विनिश्चय एकमत से होंगे और किसी बैठक में लिए जाएंगे।

4. परियोजना और क्रियाकलापों का प्रवर्गीकरण :-

- (i) सभी परियोजनाएं या क्रियाकलाप मुख्यतः दो प्रवर्गों में प्रवर्गीकृत हैं- प्रवर्ग 'क' और प्रवर्ग 'ख' सक्षम समाघात की स्थानिक सीमा और मानव स्वास्थ्य और प्राकृतिक तथा मानव निर्मित संसाधनों पर आधारित हैं।
- (ii) अनुसूची में प्रवर्ग 'क' के रूप में सम्मिलित सभी परियोजनाओं या क्रियाकलापों, जिसके अंतर्गत विद्यमान परियोजनाओं या क्रियाकलापों का विस्तार और आधुनिकीकरण तथा उत्पाद मिश्रण में परिवर्तन सम्मिलित है, के लिए, इस अधिसूचना के प्रयोजनों के लिए केन्द्रीय सरकार द्वारा गठित की जाने वाली किसी विशेषज्ञ आंकलन समिति की सिफारिशों पर भारत सरकार में पर्यावरण और वन मंत्रालय से पूर्व पर्यावरण अनापत्ति अपेक्षित होगी ;
- (iii) अनुसूची में प्रवर्ग 'ख' के रूप में सम्मिलित सभी परियोजनाओं या क्रियाकलापों, जिसके अंतर्गत पैरा 2 के उपपैरा (ii) में यथाविनिर्दिष्ट विद्यमान परियोजनाओं या क्रियाकलापों का विस्तार और आधुनिकीकरण या पैरा 2 के उपपैरा (iii) में यथाविनिर्दिष्ट उत्पाद मिश्रण में परिवर्तन भी हैं, किन्तु जिसमें वे सम्मिलित नहीं हैं जो अनुसूची में निश्चित की गई साधारण शर्तों को पूरा करते हैं, राज्य/संघ राज्यक्षेत्र पर्यावरण समाघात निर्धारण प्राधिकरण से पूर्व पर्यावरणीय अनापत्ति अपेक्षित होगी। एसईआईए का अपना विनिश्चय, इस इस अधिसूचना में गठित की जाने वाली किसी राज्य या संघ राज्यक्षेत्र स्तर विशेषज्ञ आंकलन समिति (एसईएसी) की सिफारिशों पर आधारित होगा। एसईआईए सम्यक् रूप से गठित एसईआईए या एसईएसी की अनुपस्थिति में, कोई प्रवर्ग 'ख' परियोजना प्रवर्ग 'क' परियोजना समझी जाएगी ;

5. **स्क्रीनिंग, विस्तारण और आंकलन समिति :-** केंद्रीय सरकार के स्तर पर वही विशेषज्ञ आंकलन समिति और राज्य या संघ राज्य स्तर पर राज्य विशेषज्ञ आंकलन समिति (जिन्हें इसमें इसके पश्चात् ईएसी और एसईएसी कहा गया है) क्रमशः प्रवर्ग 'क' और प्रवर्ग 'ख' परियोजनाओं या क्रियाकलापों की स्क्रीनिंग, विस्तारण और आंकलन करेगी। ईएसी और एसईएसी की प्रत्येक मास में कम से कम एक बार बैठक होगी।

- (क) ईएसी की संरचना परिशिष्ट VI में दी जाएगी। राज्य या संघ राज्यक्षेत्र स्तर पर एसईएसी का गठन संबंधित राज्य सरकार या संघ राज्यक्षेत्र प्रशासन के परामर्श से समान संरचना सहित गठन किया जाएगा।
- (ख) केंद्रीय सरकार, संबद्ध राज्य सरकार या संघ राज्यक्षेत्र प्रशासन की पूर्व सहमति से प्रशासनिक सुविधा और लागत के कारणों से एक या अधिक राज्य या संघ राज्यक्षेत्र के लिए एक एसईएसी का गठन कर सकेंगी।
- (ग) विशेषज्ञ आंकलन समिति और राज्य विशेषज्ञ आंकलन समिति तीन वर्ष की अवधि के लिए गठित की जाएगी।
- (घ) संबंधित विशेषज्ञ आंकलन समिति और राज्य विशेषज्ञ आंकलन समिति के प्राधिकृत सदस्य उस परियोजना या क्रियाकलाप के संबंध में जिसके लिए पूर्व पर्यावरणीय अनापत्ति मांगी गई है, को स्क्रीन करने या विस्तार करने या आंकलन के प्रयोजनों के लिए आवेदक को जो निरीक्षण के लिए आवश्यक सुविधाएं देना, कम से कम सात दिन की पूर्व सूचना देगे।
- (ङ) विशेषज्ञ आंकलन समिति और राज्य विशेषज्ञ आंकलन समिति संयुक्त दायित्व के सिद्धांत पर कृत्य करेगी। अध्यक्ष प्रत्येक मामले में सहमति बनाने का प्रयास करेगा और सहमति नहीं बन पाती है तो बहुमत का विचार माना जाएगा।

6. **पूर्व पर्यावरणीय अनापत्ति के लिए आवेदन (ईसी) :-** सभी मामलों में पर्यावरणीय अनापत्ति मांगने के लिए कोई आवेदन, परियोजना और/या क्रियाकलापों के लिए, जिससे आवेदन संबंधित है, आवेदक द्वारा स्थल पर किसी सन्निभेण क्रियाकलाप या भूमि की तैयारी के प्रारंभ के पूर्व, पूर्वक्षित स्थल (स्थलों) की पहचान के पश्चात् परिशिष्ट 2 में दिये गए हैं, यदि लागू हों, इससे संलग्न प्ररूप 1 और अनुपूरक प्ररूप 1क में किया जाएगा। आवेदक, उसके सिवाय, संनिभेण परियोजनाओं या क्रियाकलापों (अनुसूची की मद 8) के मामले में प्ररूप 1 और अनुपूरक प्ररूप 1क के अतिरिक्त पूर्व साध्यता परियोजना रिपोर्ट की एक प्रति, पूर्व साध्यता रिपोर्ट के स्थान पर धारणा योजना की एक प्रति आवेदन के साथ पेश करेगा।

7. (i) **नई परियोजनाओं के लिए पूर्व पर्यावरणीय अनापत्ति (ईसी) प्रक्रिया के प्रक्रम :-** नई परियोजनाओं के लिए पर्यावरणीय अनापत्ति प्रक्रिया में अधिकतम चार प्रक्रम समाविष्ट होंगे, जिनमें से सभी इस अधिसूचना में नीचे वर्णित विशिष्ट मामलों में लागू नहीं होंगे, ये चार प्रक्रम श्रृंखलाबद्ध क्रम में होंगे :-

- प्रक्रम (1) स्क्रीनिंग (केवल प्रवर्ग 'ख' परियोजनाओं और क्रियाकलापों के लिए)
- प्रक्रम (2) विस्तारण
- प्रक्रम (3) लोक परामर्श
- प्रक्रम (4) आंकलन

I. प्रक्रम (1) - स्क्रीनिंग :

प्रवर्ग 'ख' परियोजनाओं या क्रियाकलापों के मामले में, यह प्रक्रम परियोजना की प्रकृति और अवस्थिति विनिर्देश पर आधारित पर्यावरणीय अनापत्ति मंजूर करने से पूर्व उसके आंकलन के लिए कोई पर्यावरणीय समाघात निर्धारण रिपोर्ट तैयार करने के लिए यह अवधारण करने के लिए कि परियोजना या क्रियाकलाप के लिए आगे पर्यावरणीय अध्ययन करना अपेक्षित है या नहीं संबंधित राज्य स्तर विशेषज्ञ आंकलन समिति (एसईएसी) द्वारा प्ररूप 1 में पूर्व पर्यावरणीय अनापत्ति मांगने के लिए किसी आवेदन की संवीक्षा होगी। कोई पर्यावरणीय समाघात निर्धारण रिपोर्ट की अपेक्षा करने वाली परियोजनाओं को प्रवर्ग "ख1" कहा जाएगा और शेष परियोजनाओं को प्रवर्ग "ख2" कहा जाएगा और उसके लिए कोई पर्यावरणीय समाघात निर्धारण रिपोर्ट अपेक्षित नहीं होगी। मद 8ख के सिवाय परियोजनाओं के ख 1 या ख2 में प्रवर्गीकरण के लिए पर्यावरण और वन मंत्रालय समय-समय पर समुचित मार्गदर्शक सिद्धांत जारी करेगा।

II. प्रक्रम (2) विस्तारण :

(i) उस प्रक्रिया को निर्दिष्ट करता है जिसके द्वारा प्रवर्ग 'क' परियोजनाओं या क्रियाकलापों के मामले में विशेषज्ञ आंकलन समिति, और प्रवर्ग 'ख1' परियोजनाओं या क्रियाकलापों के मामले में, राज्य स्तर विशेषज्ञ आंकलन समिति, जिसके अंतर्गत विद्यमान परियोजनाओं या क्रियाकलापों के विस्तार और/या आधुनिकीकरण और/या उत्पाद मिश्रण में परिवर्तन के विस्तार, सौंपे जाने वाले विस्तृत और व्यापक कार्य अवधारित करने के लिए, उस परियोजना या क्रियाकलाप के संबंध में कोई पर्यावरणीय समाघात निर्धारण रिपोर्ट तैयार करने के लिए सभी सुसंगत पर्यावरणीय समुत्थानों को, जिसके लिए पूर्व पर्यावरणीय अनापत्ति ईप्सित की गई है, आवेदन सम्मिलित हैं। विशेषज्ञ आंकलन समिति या राज्य स्तर विशेषज्ञ आंकलन समिति विहित आवेदन प्ररूप 1/प्ररूप 1क में दी गई जानकारी के आधार पर सौंपे जाने वाले कार्य अवधारित करेगी, जिसके अंतर्गत आवेदक द्वारा सौंपे जाने वाले प्रस्थापित कार्य, किसी विशेषज्ञ आंकलन समिति या संबंधित राज्य स्तर आंकलन समिति के किसी सब ग्रुप द्वारा देखा गया कोई स्थल, यदि विशेषज्ञ आंकलन समिति या संबंधित राज्य स्तर विशेषज्ञ आंकलन समिति द्वारा आवश्यक समझा जाए, आवेदक द्वारा सुझाए गए सौंपे जाने वाले कार्य और अन्य सूचना जो विशेषज्ञ आंकलन समिति या राज्य स्तर विशेषज्ञ आंकलन समिति के पास उपलब्ध हो, सम्मिलित हैं। अनुसूची की मद 8 में प्रवर्ग ख के रूप में सूचीबद्ध सभी परियोजनाओं और क्रियाकलापों (संनिर्माण, नगरी/वाणिज्यिक काम्प्लेक्स/आवासन) के लिए विस्तार अपेक्षित नहीं होगा और उनका आंकलन प्ररूप 1/प्ररूप 1क और धारणा योजना के आधार पर किया जाएगा।

(ii) सौंपे गए कृत्यों को प्ररूप 1 की प्राप्ति के साठ दिनों के भीतर विशेषज्ञ आंकलन समिति या संबंधित राज्य स्तर विशेषज्ञ आंकलन समिति द्वारा आवेदक को प्रेषित किया जाएगा। अनुसूची के प्रवर्ग क हाइड्रोक्लेक्ट्रिक परियोजना मद 1 (ग) (i) के मामले में सौंपे गए कृत्यों को पूर्व संनिर्माण क्रियाकलापों के लिए अनापत्ति सहित प्रेषित किया जाएगा। यदि सौंपे गए कृत्यों को अंतिम रूप नहीं दिया गया है और प्ररूप 1 की प्राप्ति के साठ दिनों के भीतर आवेदक को प्रेषित किया जाता है तो आवेदक द्वारा सुझाए गए सौंपे जाने वाले कृत्य ईआईए अध्ययन के लिए अनुमोदित, अंतिम सौंपे गए कृत्यों के रूप में समझे जाएंगे। अनुमोदित सौंपे गए कृत्य, पर्यावरण और वन मंत्रालय तथा संबंधित राज्य स्तर पर्यावरण समाघात निर्धारण प्राधिकरण के लिए वेबसाइट पर प्रदर्शित किए जाएंगे।

(iii) इसी प्रक्रम पर संबंधित विशेषज्ञ आंकलन समिति या संबंधित राज्य स्तर विशेषज्ञ आंकलन समिति की सिफारिश पर संबंधित विनियामक प्राधिकरण द्वारा पूर्व पर्यावरणीय अनापत्ति के लिए आवेदनों को नामंजूर किया जा सकेगा। ऐसे नामंजूर किए जाने की दशा में, विनिश्चय को उसके कारणों सहित आवेदक को, आवेदन की प्राप्ति के साठ दिनों के भीतर लिखित में संसूचित किया जाएगा।

III प्रक्रम (3) लोक परामर्श

(i) “लोक परामर्श” उस प्रक्रिया को निर्दिष्ट करता है जिसके द्वारा स्थानीय प्रभावी व्यक्तियों और ऐसे अन्य व्यक्तियों की चिंताओं को, जिनका परियोजना या क्रियाकलापों के पर्यावरणीय समाघातों में न्यायसंगत आधार है, समुचित रूप में अभिकल्पित परियोजना या क्रियाकलाप में संबंधित सभी सामग्री को ध्यान में रखते हुए सुनिश्चित किया जाएगा। सभी प्रवर्ग “क” और प्रवर्ग “ख 1” परियोजनाएं या क्रियाकलाप निम्नलिखित के सिवाय लोक परामर्श करेंगे :-

(क) सिंचाई परियोजनाओं का आधुनिकीकरण (अनुसूची की मद 1(ग) (ii))।

(ख) संबंधित प्राधिकारियों द्वारा अनुमोदित औद्योगिक संपदाओं या पार्कों के भीतर अवस्थित सभी परियोजनाएं या क्रियाकलाप (अनुसूची की मद 7(ग)) और जिन्हें ऐसे अनुमोदन में अननुज्ञात नहीं किया जाता है।

(ग) सड़कों और राजमार्गों का विस्तार (अनुसूची की मद 7(घ)) जिनमें भूमि का कोई और अर्जन अंतर्बलित नहीं है।

(घ) सभी भवन/संनिर्माण परियोजनाएं/क्षेत्र विकास परियोजनाएं और नगरीय योजनाएं (मद 8)।

(ङ) सभी प्रवर्ग ख 2 परियोजनाएं और क्रियाकलाप।

(च) केन्द्रीय सरकार द्वारा यथा अवधारित राष्ट्रीय रक्षा और सुरक्षा से संबंधित सभी परियोजनाएं और क्रियाकलाप या जिसमें अन्य युक्तगत विचार अंतर्बलित हैं।

(ii) लोक परामर्श में साधारणतया दो घटक समाविष्ट होंगे :-

(क) स्थानीय प्रभावित व्यक्तियों की चिंताओं को सुनिश्चित करने के लिए परिशिष्ट 4 में विहित रीति में की जाने वाली स्थल पर या उसके निकट परिसर में जिला वार कोई लोक सुनवाई ;

(ख) परियोजना या क्रियाकलाप के पर्यावरणीय पहलुओं में कोई न्यायसंगत आधार रखने वाले अन्य संबंधित व्यक्तियों से लिखित में प्रतिक्रियाएं प्राप्त करना।

(iii) स्थल (स्थलों) पर या उसके निकट परिसर में सभी मामलों में लोक सुनवाई विनिर्दिष्ट रीति में संबंधित राज्य प्रदूषण नियंत्रण बोर्ड या संघ राज्यक्षेत्र प्रदूषण नियंत्रण समिति द्वारा की जाएगी और कार्यवाहियों को आवेदक से प्राप्त अनुरोध के पैंतालीस दिनों के भीतर संबंधित विनियामक प्राधिकरण को अग्रेषित किया जाएगा।

(iv) यदि संबंधित राज्य प्रदूषण नियंत्रण बोर्ड या संघ राज्य क्षेत्र प्रदूषण नियंत्रण समिति लोक सुनवाई नहीं करती है और लोक सुनवाई को विनिर्दिष्ट अवधि के भीतर पूरी नहीं करती है और/या लोक सुनवाई की कार्यवाहियों को विहित अवधि के भीतर यथाउपयुक्त संबंधित विनियामक प्राधिकरण को प्रेषित नहीं करती है तो विनियामक प्राधिकरण अन्य लोक अभिकरण या प्राधिकरण को, जो विनियामक प्राधिकरण का अधीनस्थ नहीं है, प्रक्रिया को पैंतालीस दिनों की और अवधि के भीतर पूरा करने के लिए लगाएगी।

(v) यदि ऊपर उपपरा (iii) के अधीन नामनिर्दिष्ट लोक अभिकरण या प्राधिकरण, संबंधित विनियामक प्राधिकरण को यह रिपोर्ट करता है, कि स्थानीय अवस्थिति के कारण लोक सुनवाई करना संभव नहीं है, तो किसी रीति में स्पष्ट रूप से अभिव्यक्त किए जाने वाले संबंधित स्थानीय व्यक्तियों के विचारों का समर्थन करेंगे। वह उस तथ्य की रिपोर्ट संबंधित विनियामक प्राधिकरण को ब्यौरेवार देगा जो रिपोर्ट पर और अन्य दिव्यसनीय सूचना पर सम्यक् रूप से विचार करने के पश्चात्, जिसका लोक परामर्श के लिए विनिश्चय किया गया है, उस दशा में जिसे लोक सुनवाई में सम्मिलित करने की आवश्यकता है, रिपोर्ट करेगा।

(vi) परियोजना या क्रियाकलापों के पर्यावरणीय पहलुओं में कोई न्यायसंगत आधार रखने वाले अन्य संबंधित व्यक्तियों से लिखित में प्रक्रिया अभिप्राप्त करने के लिए, संबंधित विनियामक प्राधिकरण और राज्य प्रदूषण नियंत्रण बोर्ड या संघ राज्यक्षेत्र प्रदूषण नियंत्रण समिति, आवेदक द्वारा परिशिष्ट 3क में दिए गए प्रारूप में तैयार की गई संक्षिप्त ईआईए रिपोर्ट को उनके वेबसाइट पर देते हुए ऐसे संबंधित व्यक्तियों से लोक सुनवाई की व्यवस्था के लिए किसी लिखित अनुरोध की प्राप्ति के सात दिनों के भीतर प्रतिक्रियाएं प्राप्त करेंगी। गोपनीय सूचना, जिसके अंतर्गत प्रकट न करने योग्य या विधिक रूप से विशेषाधिकार प्राप्त सूचना, जिसमें बौद्धिक संपदा अधिकार अंतर्बलित हैं, आवेदन में विनिर्दिष्ट स्रोत, वेबसाइट पर नहीं रखे जाएंगे। संबंधित विनियामक प्राधिकरण, परियोजना या क्रियाकलाप की बाबत विस्तृत प्रचार को सुनिश्चित करने के लिए अन्य समुचित मीडिया का उपयोग भी कर सकेगा। विनियामक प्राधिकरण, तथापि लोक सुनवाई की तारीख तक निरीक्षण के लिए प्रारूप ईआईए रिपोर्ट किसी संबंधित व्यक्ति से, सामान्य कार्यालय घंटों के दौरान अधिसूचित स्थान पर किसी लिखित अनुरोध पर उपलब्ध कराएगा। इस लोक परामर्श प्रक्रिया के भाग के रूप में प्राप्त सभी प्रतिक्रियाएं शीघ्रतम उपलब्ध साधन से आवेदक को अग्रेषित की जाएगी।

(vii) लोक परामर्श पूरा करने के पश्चात्, इस प्रक्रिया के दौरान अभिव्यक्त सभी सारवान पर्यावरणीय चिंताओं को संबोधित करेगा और प्रारूप ईआईए और ईएमपी में समुचित परिवर्तन करेगा। इस प्रकार तैयार की गई अंतिम ईआईए रिपोर्ट आवेदक के लिए संबंधित विनियामक प्राधिकरण को प्रस्तुत की जाएगी। आवेदक, लोक परामर्श के दौरान अभिव्यक्त की गई सभी चिंताओं को संबोधित करते हुए, प्रारूप ईआईए और ईएमपी की एक संक्षिप्त रिपोर्ट अनुकल्पतः प्रस्तुत करेगा।

IV प्रक्रम(4) - आंकलन :

(i) आंकलन से आवेदन और अन्य दस्तावेजों, ऐसे अंतिम ईआईए रिपोर्ट, लोक परामर्शों का निष्कर्ष, जिसके अंतर्गत लोक सुनवाई की कार्यवाहियां हैं, पर्यावरणीय अनापत्ति मंजूर करने के लिए संबंधित विनियामक प्राधिकरण को

आवेदक द्वारा प्रस्तुत की गई विशेषज्ञ आंकलन समिति या राज्य स्तर विशेषज्ञ आंकलन समिति द्वारा विस्तृत संवीक्षा अभिप्रेत है। यह आंकलन विशेषज्ञ आंकलन समिति या राज्य स्तर विशेषज्ञ आंकलन समिति द्वारा किसी कार्यवाही को, जिसमें आवेदक को आवश्यक स्पष्टीकरण प्रस्तुत करने के लिए व्यक्तिगत रूप से या किसी प्राधिकृत प्रतिनिधि को आमंत्रित किया जाता है, एक पारदर्शी रीति में किया जाएगा। इस कार्यवाही के निष्कर्ष पर विशेषज्ञ आंकलन समिति या संबंधित राज्य स्तर विशेषज्ञ आंकलन समिति संबंधित विनियामक प्राधिकरण को निश्चित निबंधनों और शर्तों पर पूर्व पर्यावरणीय अनापत्ति मंजूर करने के लिए या पूर्व पर्यावरणीय अनापत्ति के लिए आवेदन को नामंजूर करने के लिए उसके कारणों सहित स्पष्ट सिफारिशें करेगी।

(ii) सभी परियोजनाओं या क्रियाकलापों का आंकलन जो लोक परामर्श के लिए अपेक्षित नहीं है या कोई पर्यावरण समाघात निर्धारण रिपोर्ट प्रस्तुत करना अपेक्षित नहीं है, जैसा लागू हो विहित आवेदन प्ररूप 1 और प्ररूप 1क के आधार पर उपलब्ध सभी अन्य सुसंगत विधिमाम्य सूचना और दौर किए स्थल को, जहां विशेषज्ञ आंकलन समिति या संबंधित राज्य स्तर विशेषज्ञ आंकलन समिति द्वारा ऐसा करना आवश्यक समझा जाता है, कार्यान्वित किया जाएगा।

(iii) किसी आवेदन का आंकलन, विशेषज्ञ आंकलन समिति या संबंधित राज्य स्तर विशेषज्ञ आंकलन समिति द्वारा अंतिम पर्यावरण समाघात निर्धारण रिपोर्ट और अन्य दस्तावेजों की प्राप्ति या प्ररूप 1 या प्ररूप 1क के साठ दिनों के भीतर पूरा किया जाएगा, जहां लोक परामर्श आवश्यक नहीं है, वहां विशेषज्ञ आंकलन समिति या संबंधित राज्य स्तर विशेषज्ञ आंकलन समिति की सिफारिशों को सक्षम प्राधिकारी के समक्ष अगले पन्द्रह दिनों के भीतर अंतिम विनिश्चय के लिए रखा जाएगा। आंकलन की विहित प्रक्रिया परिशिष्ट V में दी गई है।

7. (ii) विद्यमान परियोजनाओं का विस्तार या आधुनिकीकरण या उत्पाद मिश्रण में परिवर्तन के लिए पूर्व पर्यावरणीय अनापत्ति प्रक्रिया,-

उस क्षमता के परे जिसके लिए इस अधिसूचना के अधीन पूर्व पर्यावरणीय अनापत्ति मंजूर की गई है, उत्पादन क्षमता में वृद्धि सहित या तो पट्टा क्षेत्र या खनन परियोजनाओं की दशा में उत्पादन क्षमता में वृद्धि सहित या इस अधिसूचना की अनुसूची में विहित अंतिम सीमा के परे कुल उत्पादन क्षमता में वृद्धि सहित विद्यमान यूनिट के आधुनिकीकरण के लिए, प्रक्रिया और/या प्रौद्योगिकी में परिवर्तन के माध्यम से या उत्पाद मिश्रण में किसी परिवर्तन के लिए पूर्व पर्यावरणीय अनापत्ति ईप्सित करने वाले सभी आवेदन प्ररूप 1 में किए जाएंगे और उन पर संबंधित विशेषज्ञ आंकलन समिति या राज्य स्तर विशेषज्ञ आंकलन समिति द्वारा साठ दिनों के भीतर विचार किया जाएगा, जो सम्यक् आवश्यक तत्परता से जिसके अंतर्गत ईआईए का तैयार किया जाना और लोक परामर्श भी है, विनिश्चय करेगी और आवेदन का तदनुसार पर्यावरणीय अनापत्ति मंजूर करने के लिए आंकलन किया जाएगा।

8. पूर्व पर्यावरणीय अनापत्ति मंजूर किया जाना या उसको खारिज किया जाना,-

(i) विनियामक प्राधिकरण, संबंधित ई ए सी या एस ई ए सी की सिफारिशों पर विचार करेगा और अपने विनिश्चय को आवेदक को विशेषज्ञ आंकलन समिति या संबंधित राज्य स्तर विशेषज्ञ आंकलन समिति की सिफारिशों की प्राप्ति के पैंतालीस दिनों के भीतर प्रेषित करेगा या अन्य शब्दों में अंतिम पर्यावरणीय समाघात निर्धारण रिपोर्ट की प्राप्ति के एक सौ पांच दिनों के भीतर प्रेषित करेगा और जहां पर्यावरणीय समाघात निर्धारण पूरे आवेदन की प्राप्ति के एक सौ पांच दिनों के भीतर अपेक्षित नहीं है वहां अपेक्षित दस्तावेज, नीचे उपबंधित के सिवाय प्रेषित करेगा।

(ii) विनियामक प्राधिकरण, सामान्यतः विशेषज्ञ आंकलन समिति या संबंधित राज्य स्तर विशेषज्ञ आंकलन समिति की सिफारिशों को स्वीकार करेगा। उन दशाओं में जहां विशेषज्ञ आंकलन समिति या संबंधित राज्य स्तर विशेषज्ञ आंकलन समिति की सिफारिशों से असहमत है, वहां विनियामक प्राधिकरण विशेषज्ञ आंकलन समिति या संबंधित राज्य स्तर विशेषज्ञ आंकलन समिति द्वारा विशेषज्ञ आंकलन समिति या संबंधित राज्य स्तर विशेषज्ञ आंकलन समिति की सिफारिशों की प्राप्ति के पैंतालिस दिनों के भीतर असहमति के कारणों का कथन करते हुए पुनर्विचार का अनुरोध करेगा। इस विनिश्चय की सूचना आवेदक को साथ-साथ प्रेषित की जाएगी। उसके पश्चात् विशेषज्ञ आंकलन समिति या संबंधित राज्य स्तर विशेषज्ञ आंकलन समिति, विनियामक प्राधिकरण के संप्रेक्षणों पर विचार करेगी और उस पर अपने विचार साठ दिनों की अवधि के भीतर पेश करेगी। विशेषज्ञ आंकलन समिति या संबंधित राज्य स्तर विशेषज्ञ आंकलन समिति के विचारों को ध्यान में रखने के पश्चात् विनियामक प्राधिकरण का विनिश्चय अंतिम होगा और संबंधित विनियामक प्राधिकरण को अगले तीस दिनों के भीतर आवेदक को प्रेषित किया जाएगा।

(iii) उस दशा में जहां विनियामक प्राधिकरण का विनिश्चय आवेदक को, ऊपर उपपैरा (i) या (ii) में, जहां लागू हो विनिर्दिष्ट अवधि के भीतर संसूचित नहीं किया जाता है, वहां आवेदक इस प्रकार अग्रसर हो सकेगा मानो मांगी गई पर्यावरण अनापत्ति मंजूर कर दी गई है या विशेषज्ञ आंकलन समिति या संबंधित राज्य स्तर विशेषज्ञ आंकलन समिति की अंतिम सिफारिशों के निबंधनों में विनियामक प्राधिकरण द्वारा नामंजूर कर दी गई है।

(iv) ऊपर पैरा (i) और (ii) के अधीन, जहां लागू हो, विनियामक प्राधिकरण द्वारा विनिश्चय के लिए विनिर्दिष्ट अवधि के अवसान पर, विनियामक प्राधिकरण का विनिश्चय और विशेषज्ञ आंकलन समिति या संबंधित राज्य स्तर विशेषज्ञ आंकलन समिति की अंतिम सिफारिशें लोक दस्तावेज होंगे।

(v) अन्य विनियामक प्राधिकरणों से परियोजनाओं या क्रियाकलापों, या संबंधित विनियामक प्राधिकरण द्वारा स्क्रीनिंग, विस्तारण या आंकलन या विनिश्चय पूर्व पर्यावरण अनापत्ति के लिए आवेदनों की प्राप्ति के पूर्व तब तक अपेक्षित नहीं होगी जब तक या तो ऐसी अनापत्ति किसी विधि की अपेक्षा का आवश्यक तकनीकी कारणों से कोई श्रृंखलाबद्ध आधार न हो।

(vi) जान बूझ कर छिपाना और/या मिथ्या प्रस्तुतीकरण या भ्रामक सूचना या आंकड़े देना जो स्क्रीनिंग, विस्तारण या आंकलन या आवेदन पर विनिश्चय के लिए सारवान हो, आवेदन को नामंजूर किए जाने या उस आधार पर मंजूर की गई पूर्व पर्यावरणीय अनापत्ति के रद्दकरण के लिए दायी बनाएगी। किसी आवेदन को नामंजूर करना या इस आधार पर पहले मंजूर की गई किसी पूर्व पर्यावरणीय अनापत्ति के रद्दकरण का विनिश्चय विनियामक प्राधिकरण द्वारा आवेदक की व्यक्तिगत सुनवाई करने के पश्चात् किया जाएगा और उसमें नैसर्गिक न्याय के सिद्धांतों का पालन किया जाएगा।

9. पर्यावरणीय अनापत्ति की विधिमान्यता,-

“पर्यावरणीय अनापत्ति की विधिमान्यता” से वह अवधि अभिप्रेत है जिससे विनियामक प्राधिकरण द्वारा मंजूर की गई पूर्व पर्यावरणीय अनापत्ति मंजूर की जाती है या आवेदक द्वारा यह समझा जा सकेगा कि वह ऊपर पैरा 7 के उपपैरा (iv) के अधीन परियोजना या क्रियाकलाप द्वारा उत्पादन प्रचालन आरंभ करने या संनिर्माण परियोजनाओं की दशा में (अनुसूची की मद 8) सभी संनिर्माण प्रचालन पूरा करते, जिसके के लिए पूर्व पर्यावरण अनापत्ति के लिए

आवेदन का निर्देश करता है, मंजूर की गई है। किसी परियोजना या क्रियाकलाप के लिए नदी घाटी परियोजनाओं (अनुसूची की मद 1(ग)) की दशा में दस वर्ष की अवधि के लिए, विशेषज्ञ आंकलन समिति या संबंधित राज्य स्तर विशेषज्ञ आंकलन समिति द्वारा यथा प्राक्कलित परियोजना की अवधि खनन परियोजनाओं के लिए अधिकतम तीस वर्षों के लिए और सभी अन्य परियोजनाओं और क्रियाकलापों की दशा में पांच वर्ष होगी। तथापि क्षेत्र विकास परियोजनाओं और नगरीय की दशा में (मद 8(ख)) विधिमान्य अवधि केवल ऐसे क्रियाकलापों तक सीमित होगी जहां तक किसी विकासकर्ता के रूप में आवेदक का उत्तरदायित्व है। इस विधिमान्यता की अवधि को संबंधित विनियामक प्राधिकरण द्वारा पांच वर्ष की अधिकतम अवधि तक बढ़ाया जा सकेगा, परन्तु यह तब जब कि कोई आवेदन आवेदक द्वारा विनियामक प्राधिकरण को संनिर्माण परियोजनाओं या क्रियाकलापों के लिए (अनुसूची की मद 8) अद्यतन प्ररूप 1 और अनुपूरक प्ररूप 1क सहित विधिमान्य अवधि के भीतर किया जाता है। इस बाबत विनियामक प्राधिकरण, यथास्थिति, विशेषज्ञ आंकलन समिति या राज्य स्तर विशेषज्ञ आंकलन समिति से भी परामर्श कर सकेगा।

10. पर्यवरणीय अनापत्ति को मानीटर करना,-

(i) परियोजना प्रबंधन के लिए प्रत्येक कलेंडर वर्ष की 1 जून और 1 दिसंबर को संबंधित विनियामक प्राधिकरण को निश्चित पूर्व पर्यावरणीय अनापत्ति के निबंधनों और शर्तों के संबंध में अनुपालन रिपोर्टों को अर्धवार्षिक रूप में हार्ड और सॉफ्ट प्रतियों में प्रस्तुत करना आज्ञापक होगा।

(ii) परियोजना प्रबंधन द्वारा प्रस्तुत की गई सभी ऐसी अनुपालन रिपोर्टें लोक दस्तावेज होंगी, उसकी प्रतियां संबंधित विनियामक प्राधिकरण को आवेदन पर किसी व्यक्ति को दी जाएंगी। ऐसी अंतिम अनुपालन रिपोर्ट संबंधित विनियामक प्राधिकरण की वेबसाइट पर भी दर्शित की जाएगी।

11. पर्यावरणीय अनापत्ति की अंतरणीयता,-

किसी आवेदक को किसी विनिर्दिष्ट परियोजना या क्रियाकलाप के लिए मंजूर की गई कोई पूर्व पर्यावरणीय अनापत्ति अंतरक द्वारा या अंतरिकी द्वारा आवेदन पर परियोजना या क्रियाकलाप को करने के हकदार किसी अन्य विधिक व्यक्ति को अंतरक द्वारा लिखित “अनापत्ति सहित” जो इसकी विधिमान्यता की अवधि के दौरान संबंधित विनियामक प्राधिकरण द्वारा उन्हीं निबंधनों और शर्तों के अधीन पूर्व पर्यावरणीय अनापत्ति आरंभ में मंजूर की गई थी और उसी विधिमान्यता अवधि के लिए अंतरित की जा सकेगी। ऐसे मामलों में विशेषज्ञ आंकलन समिति या संबंधित राज्य स्तर विशेषज्ञ आंकलन समिति को कोई निर्देश आवश्यक नहीं है।

12. लंबित मामलों के निपटान तक ई.आई.ए. अधिसूचना का प्रवर्तन,-

इस अधिसूचना के अंतिम प्रकाशन की तारीख से पर्यावरणीय समाघात निर्धारण की अधिसूचना सं० का.आ. 60(अ), तारीख 27 जनवरी, 1994 को, उन बातों के सिवाय, जिन्हें ऐसे अधिकरण से पूर्व किया गया है या करने से लोप किया गया है, उस सीमा तक अधिकांत किया जाता है कि पूर्व पर्यावरणीय अनापत्ति के लिए किए गए और इस अधिसूचना के अंतिम प्रकाशन की तारीख को लंबित सभी या कुछ प्रकार के आवेदनों को, परियोजनाओं या क्रियाकलापों को, उस सूची के सिवाय जिनमें अनुसूची 1 में पूर्व पर्यावरणीय अनापत्ति अपेक्षित है, इस अधिसूचना के किसी एक या सभी उपबंधों से छूट दे सकेगी या उक्त अधिसूचना के कुछ या सभी उपबंधों के प्रवर्तन को इस अधिसूचना के जारी करने की तारीख से एक वर्ष से अनधिक अवधि के लिए जारी रख सकेगी।

अनुसूची

(पैरा 2 और 7 देखें)

पूर्व पर्यावरणीय अनापत्ति की अपेक्षा वाली परियोजनाओं का क्रियाकलापों की सूची

क्र. सं.	परियोजना या क्रियाकलाप	अवसीमा सहित प्रवर्ग		शर्तें, यदि कोई हों
		क	ख	
1	खनन, प्राकृतिक संसाधन का निष्कर्षण और विद्युत उत्पादन विनिर्दिष्ट उत्पादन क्षमता के लिए)			
1	2	3	4	5
1(क)	खनिज का खनन	खनन पट्टा क्षेत्र का ≥ 50 हे० किसी भी खनन क्षेत्र का ध्यान दिए बिना ऐस्बेस्टस खनन	< 50 हेक्टेयर ≥ 5 हेक्टेयर खनन पट्टा क्षेत्र	साधारण शर्तें लागू होंगी टिप्पण खनिज पदार्थों के पूर्वक्षण (जिसमें ड्रिलिंग न हो) को छूट दी गई है बशर्त कि वास्तविक सर्वेक्षण के लिए छूट वाले क्षेत्रों की पूर्व अनुमति ली गई है।
1(ख)	अपतप्त और तटवर्ती तेल तथा गैस की खोज, विकास और उत्पादन	सभी परियोजनाएं	-	टिप्पण सार खोज सर्वेक्षण (जिसमें ड्रिलिंग न हो) को छूट दी गई है बशर्त कि वास्तविक सर्वेक्षण के लिए छूट वाले क्षेत्रों की पूर्व अनुमति ली गई है।
1(ग)	नदी घाटी परियोजनाएं	(i) ≥ 50 मे०वा० जल विद्युत उत्पादन (ii) $\geq 10,000$ हे० खेती योग्य प्रभावित क्षेत्र	(i) $< 50 \geq 25$ मे०वा० जल विद्युत उत्पादन (ii) $< 10,000$ हे० खेती योग्य प्रभावित क्षेत्र	साधारण शर्तें लागू होंगी
1(घ)	तापीय विद्युत संयंत्र	(कोयला लिग्नाइट और नेफ्था गैस आधारित) ≥ 500 मे.वा. ≥ 50 मे.वा. (पेटकोक, डीजल और सभी अन्य ईंधन)	(कोयला/लिग्नाइट/नेफ्था एवं गैस आधारित) < 500 मे.वा. (पेटकोक, डीजल और सभी अन्य ईंधन) < 50 मे.वा ≥ 5 मे.वा.	साधारण शर्तें लागू होंगी
1(ङ)	आणविक विद्युत परियोजनाएं और आणविक ईंधन का प्रसंस्करण	सभी परियोजनाएं		
2	प्राथमिक प्रसंस्करण			
2(क)	कोयला धोवनशालाएं	≥ 1 मिलियन टन/ वार्षिक कोयले का उत्पादन	< 1 मिलियन टन/ वार्षिक कोयले का उत्पादन	साधारण शर्तें लागू होंगी (यदि खनन क्षेत्र के अंदर स्थित है तो प्रस्ताव का मूल्यांकन खनन प्रस्ताव के साथ किया जाना चाहिए)

2(ख)	खनिज सज्जीकरण	≥ 0.1 मिलियन टन/ वार्षिक कोयले का उत्पादन	< 0.1 मिलियन टन/ वार्षिक कोयले का उत्पादन	साधारण शर्त लागू होगी अनापत्ति प्रदान करने के लिए खनन प्रस्ताव का खनिज सज्जीकरण के साथ ही मूल्यांकन किया जाना चाहिए
3	पदार्थ उत्पादन			
3(क)	धातुकर्म उद्योग (फैरेस और गैर फैरेस)	क) प्राथमिक धातुकर्म उद्योग सभी परियोजनाएं ख) स्पंज आयरन विनिर्माण ≥ 200 टन पी डी ग) गौण धातु कर्म प्रसंस्करण उद्योग सभी विषाक्त और भारी धातु उत्पादित करने वाली इकाइयां ≥ 20,000 टन/ वार्षिक	स्पंज आयरन विनिर्माण < 200 टन पी डी गौण धातु कर्म प्रसंस्करण उद्योग 1) सभी विषाक्त और भारी धातु उत्पादित करने वाली इकाइयां < 20,000 टन/ वार्षिक 2) अन्य सभी विषरहित गौण धातुकर्म प्रसंस्करण उद्योग > 5000 टन /वार्षिक	स्पंज आयरन विनिर्माण के लिए साधारण शर्त लागू होगी
3(ख)	सीमेंट संयंत्र	वार्षिक उत्पादन क्षमता ≥ 1.0 मिलियन टन	वार्षिक उत्पादन क्षमता < 1.0 मिलियन टन यह सभी ग्राइडिंग इकाइयों के लिए लागू है	साधारण शर्त लागू होगी
4	पदार्थ प्रसंस्करण			
4	पेट्रोलिम रिफाइनिंग उद्योग	सभी परियोजनाएं	-	-
4(ख)	कोक भट्टी संयंत्र	≥ 2,50,000 टन वार्षिक	< 2,50,000 एवं ≥ 25,000 टन वार्षिक	-
4(ग)	एस्बेस्टास मिलिंग और एस्बेस्टास आधारित उत्पाद	सभी परियोजनाएं	-	-
4(घ)	क्लोस्सार् उद्योग,	उत्पादन क्षमता ≥ 300 टन पी डी या अधिसूचित औद्योगिक क्षेत्र/संपदा से बाह्य अवस्थित इकाई	उत्पादन क्षमता < 300 टन पी डी और अधिसूचित औद्योगिक क्षेत्र/संपदा में अवस्थित इकाई	विनिर्दिष्ट शर्त लागू होगी किसी नए पार प्रकोष्ठ आधारित संयंत्र को अनुज्ञा नहीं दी जाएगी और इस अधिसूचना द्वारा अतिस्वीमय प्रकोष्ठ औद्योगिकी में परिवर्तन करने वाली विद्यमान इकाई को छूट प्राप्त है।

4	सोडा भस्म उद्योग	सभी परियोजनाएं	-	-
4(घ)	कमड़ा/लवचा/खाल प्रसंस्करण उद्योग	औद्योगिक क्षेत्र से बाहर सभी नई परियोजनाएं या औद्योगिक क्षेत्र के बाहर विद्यमान इकाइयों का विस्तार	अधिसूचित औद्योगिक क्षेत्र/संपदा में अवस्थित सभी नई परियोजनाएं या परियोजनाओं का विस्तार	विनिर्दिष्ट शर्त लागू होगी
5	उत्पादन/उत्प्रेषण			
5(क)	रासायनिक उर्वरक	सभी परियोजनाएं	-	-
5(ख)	क्रीटनाशक उद्योग और क्रीटनाशक विशिष्ट मध्यक जीवमार (विनिर्मिति को छोड़कर)	तकनीकी श्रेणी के क्रीटनाशकों को उत्पादन करने वाली सभी इकाइयों	-	-
5(ग)	पेट्रो रसायन परिसर (पेट्रोलियम के अंश और प्राकृतिक गैस और/या सुगन्धितों में सुधार प्रसंस्करण आधारित उद्योग)	सभी परियोजनाएं	-	-
5(घ)	मानव निर्मित फाइबर का उत्पादन	रेयन	अन्य	साधारण शर्त लागू होगी
5(ङ)	पेट्रो रसायन आधारित प्रसंस्करण (भंजन से भिन्न अन्य प्रसंस्करण तथा सुधार और जो परिसर के भीतर समाविष्ट नहीं है)	अधिसूचित औद्योगिक क्षेत्र/संपदा के बाह्य अवस्थित	अधिसूचित औद्योगिक क्षेत्र/संपदा के भीतर अवस्थित	विनिर्दिष्ट शर्त लागू होगी
5(च)	संश्लिष्ट कार्बनिक रसायन उद्योग (रंजक और रंजक मध्यक; थोक औषधि और औषधि विनिर्मितियों को छोड़कर मध्यक: संश्लिष्ट रबड़ मूल कार्बनिक रसायन, अन्य संश्लिष्ट कार्बनिक रसायन और रसायन मध्यक)	अधिसूचित औद्योगिक क्षेत्र/संपदा के बाह्य अवस्थित	अधिसूचित औद्योगिक क्षेत्र/संपदा के भीतर अवस्थित	विनिर्दिष्ट शर्त लागू होगी
5(छ)	आसवनी	(i) सभी शीरा आधारित आसवनी । (ii) सभी गन्ने का रस/गैर-शीरा आधारित आसवनी ≥ 30 कि०ली० दैनिक	सभी गन्ने का रस/गैर शीरा आधारित आसवनी < 30 कि०ली० दैनिक	साधारण शर्त लागू होगी
5(ज)	समेकित पेंट उद्योग	-	सभी परियोजनाएं	साधारण शर्त लागू होगी
5(झ)	अपशिष्ट कागज से कागज का निर्माण और तैयार लुग्दी और विरंजन किए बिना तैयार लुग्दी से कागज निर्माण के अलावा लुग्दी एवं कागज	लुग्दी विनिर्माण और लुग्दी और कागज विनिर्माण उद्योग	लुग्दी विनिर्माण के बिना कागज विनिर्माण उद्योग	साधारण शर्त लागू होगी

	उद्योग			
5(अ)	घनी उद्योग		गन्ना पेरने की क्षमता $\geq$ 5000 टन दैनिक	साधारण शर्त लागू होगी
5(ए)	प्रेरण/आर्क भट्टी/कुपोला भट्टी 5 टन प्रति घंटा या ज्यादा		सभी परियोजनाएं	साधारण शर्त लागू होगी
6	सेवा सेक्टर			
6(क)	राष्ट्रीय उद्यानों/ अभयारण्यों/ प्रवाल भित्तियों/ एल एन जी टर्मिनल सहित पारिस्थिकीय संवेदनशील क्षेत्रों से गुजरने वाली तेल और गैस परिवहन पाइप लाइनें (अपरिकृष्ट और परिकारणी/पेट्रो रसायन उत्पाद)	सभी परियोजनाएं		
6(ख)	एकल भंडारण और परिसंकटमय रसायन को संभालना (एमएसआईएचसी नियम, 1989 और 2000 की संशोधित अनुसूची 2 और 3 के स्तंभ 3 में उपदर्शित अवसीमा योजना परिमाण के अनुसार)		सभी परियोजनाएं	साधारण शर्त लागू होगी
7	पर्यावरणीय सेवाओं सहित भौतिक अवसंरचना			
7(क)	विमानपत्तन	सभी परियोजनाएं	-	-
7(ख)	सभी पोत भंजन यार्ड जिसमें पोत भंजन इकाई भी सम्मिलित है	सभी परियोजनाएं	-	-
7(ग)	औद्योगिक सम्पदा/पार्क/परिसर/ क्षेत्र/निर्यात प्रसंस्करण ज़ोन (नि.प्र.जो.), विशेष आर्थिक ज़ोन (वि.आ.जो.) जैव औद्योगिकी पार्क बनाकर परिसर	प्रस्तावित औद्योगिक संपदा में यदि एक भी उद्योग श्रेणी क के अंतर्गत आता है तो पूरे औद्योगिक क्षेत्र को श्रेणी क ही समझा जाएगा चाहे वह किसी भी क्षेत्र में हो 500 हेक्टेयर से ज्यादा क्षेत्र की औद्योगिक संपदाएं और जिनमें कम से कम एक श्रेणी ख का उद्योग स्थित हो	औद्योगिक संपदाएं और जिनमें कम से कम एक श्रेणी ख का उद्योग स्थित है और क्षेत्र < 500 हेक्टेयर हो औद्योगिक संपदाएं क्षेत्र > 500 हेक्टेयर और जिसमें श्रेणी क या ख श्रेणी का कोई उद्योग नहीं है	विशेष शर्त लागू होगी टिप्पण 500 हेक्टेयर से कम क्षेत्र की औद्योगिक संपदाओं जिनमें क या ख श्रेणी का कोई उद्योग नहीं है को मंजूरी की आवश्यकता नहीं है
7(घ)	सामान्य परिसंकटमय अपशिष्ट उपचार भंडारण और निपटान सुविधाएं (उ.भ.नि.सु.)	सभी एकीकृत सुविधाएं जिनमें भस्मीकरण और भूमिभरण या केवल भस्मीकरण शामिल है	केवल भूमि भरण वाली सभी सुविधाएं	साधारण शर्त लागू होगी

7(क)	पत्तन, बंदरगाह	≥ 5 मिलियन टन वार्षिक स्थोरा की उठाई-बहाई की क्षमता (मत्स्य बंदरगाह से भिन्न)	< 5 मिलियन टन वार्षिक स्थोरा की उठाई-बहाई की क्षमता और पत्तन/बंदरगाह में ≥ 10,000 टन वार्षिक मछली पकड़ने की क्षमता	साधारण शर्त लागू होगी
7(घ)	राजमार्ग	1) नए राष्ट्रीय राजमार्ग: और 2) 30 कि.मी. से ज्यादा लंबाई के राष्ट्रीय राजमार्गों का विस्तार जिनमें मार्ग के दोनों ओर अतिरिक्त भूमि अधिग्रहण 20 मीटर से ज्यादा है और एक से अधिक राज्यों से गुजरते हैं।	1) नए राज्य राजमार्ग: और 2) 30 कि.मी. से ज्यादा लंबे राष्ट्रीय/राज्य राजमार्गों का विस्तार जिनमें मार्ग के दोनों ओर अतिरिक्त भूमि अधिग्रहण 20 मीटर से ज्यादा है।	साधारण शर्त लागू होगी
7(ङ)	आकाशी यात्री रज्जुमार्ग		सभी परियोजनाएं	साधारण शर्त लागू होगी
7(च)	सामान्य स्त्राव उपचार संयंत्र (स.प्र.उ.सं.)		सभी परियोजनाएं	साधारण शर्त लागू होगी
7(छ)	नगरपालिका ठोस अपशिष्ट प्रबंधन सुविधा (स.न.अ.प्र.स.)		सभी परियोजनाएं	साधारण शर्त लागू होगी
8	बन/संनिर्माण परियोजनाएं/क्षेत्र विकास परियोजनाएं और शहरीकरण			
8(क)	बन एवं संनिर्माण परियोजनाएं		≥ 20000 वर्ग मी. के निर्मित क्षेत्र और < 1,50,000 वर्ग मीटर के निर्मित क्षेत्र #	# आवृत संनिर्माण के लिए निर्मित क्षेत्र आकाश की ओर खुली सुविधाओं की दशा में यह क्रियाकलाप क्षेत्र भी होगा।
8(ख)	नगरी और क्षेत्र विकास परियोजनाएं		≥ 50 हे०. क्षेत्र को सम्मिलित करते हुए और या निर्मित क्षेत्र ≥ 1,50,000 वर्ग मीटर ++	++ 8 (ख) के अंतर्गत सभी परियोजनाओं को ख 1 प्रवर्ग के अनुसार निर्बंधित किया जाएगा।

टिप्पण

साधारण शर्त (सा.श.)

प्रवर्ग "ख" में विनिर्दिष्ट किसी परियोजना या क्रियाकलाप को प्रवर्ग "क" माना जाएगा, यदि वह : (i) वन्य जीव (संरक्षण) अधिनियम, 1972 के अधीन अधिसूचित संरक्षित क्षेत्र; (ii) उसकी समय-समय पर केन्द्रीय प्रदूषण नियंत्रण बोर्ड द्वारा गंभीर रूप से प्रदूषित क्षेत्र के रूप में पहचान की गई है; (iii) परिस्थितिकी संवेदनशील क्षेत्र अधिसूचित है; और (iv) अंतरराज्यिक सीमाओं और अंतरराष्ट्रीय सीमाओं से दस किलोमीटर के भीतर संपूर्ण रूप से या आंशिक रूप में अवस्थित है।

विनिर्दिष्ट शर्त (वि.श.)

यदि कोई मद 4(घ), 4(च), 5(क), 5(ख) जैसी समयुक्त की प्रकार का उद्योगों वाला औद्योगिक संपदा/कांप्लेक्स/निर्यात प्रसंस्करण जोन/विशेष आर्थिक जोन/जैव प्रौद्योगिकी उद्यान/चमड़ा परिसर या पूर्व निर्धारित गतिविधियों वाले उद्योग (आवश्यक नहीं कि वे समयुक्त हों) पूर्व पर्यावरणीय अनापत्ति प्राप्त करते हैं, तो ऐसी संपदाओं/कांप्लेक्सों के भीतर प्रस्तावित उद्योगों सहित निजी उद्योगों को तब तक पूर्व पर्यावरणीय अनापत्ति लेना अपेक्षित नहीं है जब तक कि औद्योगिक कांप्लेक्स/संपदा के लिए निर्बंधनों और शर्तों का अनुपालन नहीं करते (ऐसी संपदा/कांप्लेक्सों की पूर्व पर्यावरणीय अनापत्ति की निर्बंधनों और शर्तों के लिए सहमता सुनिश्चित करने के विधिक उत्तरदायित्व से स्पष्ट रूप से पहचान करने का प्रबंध होना चाहिए जिसे कांप्लेक्स/संपदा के सारे जीवन में उसके अतिक्रमण के लिए उत्तरदायी ठहराया जा सकेगा)।

[सं. जे-11013/56/2004-आईए-II(I)]

आर. चन्द्रमोहन, संयुक्त सचिव

परिशिष्ट -I
(पैरा 6 देखें)
प्रारूप 1

(1) आधारभूत जानकारी

परियोजना का नाम :

विचाराधीन अनुकल्पी अवस्थिति/स्थान :

परियोजना का आकार * :

परियोजना की प्राक्कलित लागत

संपर्क जानकारी :

संवीक्षा प्रवर्ग :

- अचलीय क्रियाकलाप के लिए तत्स्थानी क्षमता (जैसे विनिर्माण करने के लिए उत्पादन क्षमता, खनिज उत्पादन के लिए खनन पट्टा क्षेत्र और उत्पादन क्षमता, खनिज पूर्वेक्षण के लिए क्षेत्र, अनुरेख परिवहन अवसंरचना के लिए लंबाई, विद्युत उत्पादन आदि के उत्पादन क्षमता)

(II) क्रियाकलाप

1. परियोजना का संनिर्माण, प्रचालन या न निकालना जिसमें ऐसी कार्यवाई भी सम्मिलित है जो परिक्षेत्र में भौतिक परिवर्तनों का कारण होगी (स्थलाकृति, भूमि उपयोग, जल निकायों में परिवर्तन आदि)

क्र.सं.	जानकारी/जांच सूची पुष्टिकरण	हां/नहीं	उनके ब्यौरे (लगभग मात्रा/दरों, सहित, जो संभव हो, सहित) आंकड़ों की जानकारी के स्रोत सहित ।
1.1	भूमि उपयोग, समावेश भूमि या स्थलाकृति में स्थायी या अस्थायी जिसमें भूमि उपयोग की मात्रा(स्थानीय भूमि उपयोग योजना के बारे में वृद्धि भी सम्मिलित है)		
1.2	विद्यमान भूमि, वनस्पति और भवनों की अनापत्ति		
1.3	नई भूमि उपयोगों का सृजन		
1.4	संनिर्माण पूर्व अन्वेषण अर्थात् बोर, गृह, मिट्टी का परिक्षण करना		
1.5	संनिर्माण कार्य		
1.6	विध्वंस कार्य		

1.7	संनिर्माण कार्य या संनिर्माण कर्मचारों के घर के प्रबंध के लिए उपयोग किए गए अस्थायी स्थल		
1.8	उपयुक्त भूमि, संरचनाएं या भूखंड जिसमें अनुसूचीय संरचनाएं, काटनी और भवन या खुदाई भी सम्मिलित है।		
1.9	भूमिगत कार्य जिसमें खनन या सुरंग बनाना भी सम्मिलित है।		
1.10	भूमि उद्धार कार्य		
1.11	तलकवक		
1.12	अपतृप्त संरचनाएं		
1.13	उत्पादन और निनिर्माण प्रक्रियाएं		
1.14	सामग्रियों या माल के भंडार को सुविधाएं		
1.15	ठोस अवशिष्ट या तरल बहिःस्रावों के उपचार या निपटान के लिए सुविधाएं		
1.16	परिचालन कर्मचारों के दीर्घकालिक घर का प्रबंध के लिए सुविधाएं		
1.17	संनिर्माण या प्रचालन के दौरान नई सड़क, रेल या समुद्री यातायात		
1.18	नई सड़क, रेल, वायु जल या अन्य परिवहन अवसंरचना जिसमें नए या परिवर्तित मार्ग और स्टेशन, पत्तन, विमानपत्तन आदि भी सम्मिलित है।		
1.19	विद्यमान परिवहन मार्गों को बंद करना या अपवर्तन या यातायात परिचालन में परिवर्तनों के लिए प्रमुख अवसंरचना		
1.20	नई या अपवर्तित प्रेषण लाइनें या पाइपलाइनें		
1.21	अवरुद्ध करना, बांध बनाना, पुलिया बनाना, पुनःरेखांकन या जलमार्गों या एकत्रीकरण के जल विज्ञान के लिए अन्य परिवर्तन		
1.22	प्रवाह पार		
1.23	भूजल या भूतल से जल का अंतरण या पृथक्करण		
1.24	नालियों या प्रवाह को प्रभावित करने वाले जलनिष्पादों या भूमि स्तर में परिवर्तन		
1.25	संनिर्माण, परिचालन या निकासने के लिए कार्मिक या सामग्रियों का परिवहन		
1.26	दीर्घकालिक रूप में तोड़ना, प्रारंभ करना या कार्य पुनः आरंभ करना।		
1.27	आरंभ के दौरान जारी ऐसे क्रियाकलाप जो पर्यावरण पर समाघात कर सकेंगे।		
1.28	जनता का किसी क्षेत्र के लिए या तो अस्थायी रूप से या स्थायी रूप से आना।		
1.29	अन्य देशीय प्रजातियों का आना		
1.30	मूल निवासी प्रजातियों या आनुवंशिक विविधता की हानि		
1.31	अन्य कोई कार्यवाहियां		

2. परियोजना के संनिर्माण या प्रचालन के लिए प्राकृतिक संसाधनों का उपयोग (जैसे भूमि, जल सामग्री या ऊर्जा विशेष रूप से ऐसा कोई संसाधन जो नवीकरणीय नहीं है या जिसका प्रदाय कम है)

क्र.सं.	सूचना/जांच सूची पुष्टीकरण	हां/नहीं	सूचना आंकड़ों के स्रोत सहित उनके ब्यौरे (लगभग मात्राओं/दरों सहित, जहां कहीं संभव हो)
2.1	विशेष रूप से अविकसित भूमि या कृषि भूमि (हे0)		
2.2	जल (अनुमानित स्रोत और प्रतियोगी उपयोगकर्ता) इकाई : के.एल.डी.		
2.3	खनिज (एम.टी.)		
2.4	संनिर्माण सामग्री -- पत्थर और सत, बालू/मृदा (अनुमानित स्रोत एम.टी.)		
2.5	वन और इमारती लकड़ी (स्रोत -- एम.टी.)		
2.6	ऊर्जा जिसके अंतर्गत विद्युत और ईंधन (स्रोत, प्रतियोगी उपयोगकर्ता) इकाई : ईंधन (एम.टी.) ऊर्जा (एम.डब्ल्यू)		
2.7	कोई अन्य प्राकृतिक संसाधन (समुचित मानक इकाइयों का उपयोग करें)		

3. नदार्थों या सामग्रियों का उपयोग संदकरण, परिवहन, सतई धराई या उत्पादन, जो मानव स्वास्थ्य या पर्यावरण के लिए खतराक या जिनके मानव स्वास्थ्य की जोखिम की वारंतावैकता के बारे में चिंताएं उठती हैं ।

क्र.सं.	सूचना/जांच सूची पुष्टीकरण	हां/नहीं	सूचना आंकड़ों के स्रोत सहित उनके ब्यौरे (लगभग मात्राओं/दरों सहित, जहां कहीं संभव हो)
3.1	नदार्थों या सामग्रियों का उपयोग जो मानव स्वास्थ्य या पर्यावरण (फ्लोरा, फोना और जल प्रदाय के लिए परिसंक्रमण) (एम.एस.ओई.एच.सी. नियमों के अनुसार) है		
3.2	रोग के होने में परिवर्तन या रोग वाहकों के रोग का प्रभाव (उदहरणार्थ कीट या जल-जन्य रोग)		
3.3	लोगों के कल्याण पर प्रभाव उदहरणार्थ जीवन वशाओं में परिवर्तन करके		
3.4	लोगों के संवेदनशील समूह जो परियोजना अर्थात् अस्पताल रोगियों, बालकों, वृद्धों आदि द्वारा प्रभावित हो सकते हैं		
3.5	कोई अन्य कारण		

4. निर्माण या प्रचालन या प्रारम्भ न करने के दौरान टोस अपशिष्टों का उत्पादन (एम.टी./मास)

क्र.सं.	सूचना/जांच सूची पुष्टीकरण	हां/नहीं	सूचना आंकड़ों के स्रोत सहित उनके ब्यौरे (लगभग मात्राओं/दशों सहित, जहां कहीं संभव हो)
4.1	मृदा, अधिक भार या खान अपशिष्ट		
4.2	नगरपालिक अपशिष्ट (घरेलू और या वाणिज्यिक अपशिष्ट)		
4.3	परिसंकटमय अपशिष्ट (परिसंकटमय अपशिष्ट प्रबंध तंत्र नियमों के अनुसार)		
4.4	अन्य औद्योगिक प्रक्रिया अपशिष्ट		
4.5	अधिशेष उत्पाद		
4.6	मल बही-स्राव उपचार से मल गाद या अन्य गाद		
4.7	निर्माण या ढाये गए अपशिष्ट		
4.8	बेकार मशीनरी या उपस्कर		
4.9	संदूषित मृदाएं या अन्य सामग्रियां		
4.10	कृषि अपशिष्ट		
4.11	अन्य टोस अपशिष्ट		

5. वायु में संदूषकों या किसी परिसंकटमय विषयों या जहरीले पदार्थों का विसर्जन

क्र.सं.	सूचना/जांच सूची पुष्टीकरण	हां/नहीं	सूचना आंकड़ों के स्रोत सहित उनके ब्यौरे (लगभग मात्राओं/दशों सहित, जहां कहीं संभव हो)
5.1	लेखन सामग्री या चल संसाधनों से जीवाणु ईंधनों के दहन से उत्सर्जन		
5.2	उत्पादन प्रक्रियाओं से उत्सर्जन		
5.3	सामग्रियों की उठाई धराई से जिसके अंतर्गत भंडारण या परिवहन भी है, उत्सर्जन		
5.4	निर्माण क्रियाकलापों से जिसके अंतर्गत संयंत्र और उपस्कर भी हैं, उत्सर्जन		
5.5	सामग्रियों की उठाई धराई से जिसके अंतर्गत निर्माण सामग्री, मल और अपशिष्ट भी हैं, धूल या गंध		
5.6	अपशिष्ट के भस्मीकरण से उत्सर्जन		
5.7	खुली वायु में अपशिष्ट के जलने से उत्सर्जन (उदाहरणार्थ स्लैश सामग्री, निर्माण सामग्री का ढेर)		
5.8	किन्हीं अन्य स्रोतों से उत्सर्जन		

6. शोर और कंपन का पैदा होना तथा प्रकाश और उष्मा का उत्सर्जन

क्र.सं.	सूचना/जांच सूची पुष्टीकरण	हां/नहीं	सूचना आंकड़ों के स्रोत सहित उनके ब्यौरे (लगभग मात्राओं/दरों सहित, जहां कहीं संभव हो)
6.1	उपस्कर के प्रचालन से उदाहरणार्थ ईजन, वातायन संयंत्र, संचलनित्र		
6.2	औद्योगिक या उसी प्रकार की प्रक्रियाओं से		
6.3	निर्माण या ढहाने से		
6.4	विस्फोटन या पाइलिंग से		
6.5	निर्माण या प्रचालन संबंधी यातायात से		
6.6	प्रकाशन या प्रशीतन प्रणालियों से		
6.7	किन्हीं अन्य संसाधनों से		

7. भूमि या मल नालियाँ, सतही जल, भूमिगत जल, तटीय जल या समुद्र में प्रदूषकों के विसर्जन से भूमि या जल के संदूषण के जोखिम

क्र.सं.	सूचना/जांच सूची पुष्टीकरण	हां/नहीं	सूचना आंकड़ों के स्रोत सहित उनके ब्यौरे (लगभग मात्राओं/दरों सहित, जहां कहीं संभव हो)
7.1	परिसंकटमय सामग्री की उठाई धराई, भंडारण, उपयोग या गाद से		
7.2	जल या भूमि में (अनुमानित बंग और विसर्जन का स्थान) मल या अन्य बर्ही खादों के विसर्जन से		
7.3	वायु से भूमि या जल में उत्सर्जित प्रदूषकों के जमा होने से		
7.4	किन्हीं अन्य संसाधनों से		
7.5	क्या इन संसाधनों से पर्यावरण में प्रदूषकों के जमा होने से दीर्घकालिक जोखिम है ?		

8. परियोजना के निर्माण या प्रचालन के दौरान दुर्घटनाओं का जोखिम जो मानव स्वास्थ्य या पर्यावरण को प्रभावित कर सकते हैं

क्र.सं.	सूचना/जांच सूची पुष्टीकरण	हां/नहीं	सूचना आंकड़ों के स्रोत सहित उनके ब्यौरे (लगभग मात्राओं/दरों सहित, जहां कहीं संभव हो)
8.1	परिसंकटमय पदार्थों के विस्फोट, गाद, आग, भंडारण, उठाई धराई या उत्पादन से		
8.2	किन्हीं अन्य कारणों से		
8.3	क्या परियोजना प्राकृतिक विपदाओं द्वारा पर्यावरण को नुकसान पहुंचाएंगी (उदाहरणार्थ बाढ़, भूकंप, भू-सखलन, वृष्टिस्फोट आदि) ?		

9. बातें जिन पर विचार किया जाना चाहिए (जैसे पारिणामिक विकास) जिनके कारण पर्यावरणीय प्रभाव होते हैं या जो संचयी प्रभावों को करने के लिए अन्य विद्यमान प्रभावों सहित या परिक्षेत्र में नियोजित क्रियाकलापों के लिए सामर्थ्यवान हैं

क्र.सं.	सूचना/जांच सूची पुष्टीकरण	हां/नहीं	सूचना आकड़ों के स्रोत सहित उनके ब्यौरे (लगभग मात्राओं/दरों सहित, जहां कहीं संभव हो)
9.1	जिसके कारण आधार का विकास, सहायक विकास या परियोजना द्वारा विकास को बल मिलता है जिसका पर्यावरण पर प्रभाव हो सकता है अर्थात् — • आधारीक अवसंरचना (सड़कें, बिजली प्रदाय, अपशिष्ट या अपशिष्ट जल उपचार आदि) • आवासन विकास • निष्कर्षित उद्योग • पूर्ति उद्योग • अन्य		
9.2	जिसके कारण स्थल का बाढ़ में उपलब्ध होता है जिसका पर्यावरण पर प्रभाव हो सकता है		
9.3	पर्यावरणीय विकासों के लिए उदाहरण स्थापित करना		
9.4	समिप्य के कारण अन्य विद्यमान परियोजनाओं पर संचयी प्रभाव हैं या उसी प्रकार के प्रभावों सहित नियोजित परियोजनाएं		

(III) पर्यावरणीय संवेदनशीलता

क्र.सं.	क्षेत्र	नाम/पहचान	आकाशी दूरी (15 किलोमीटर के भीतर) प्रस्तावित परियोजना अवस्थान सीमा
1.	उनके पारिस्थितिक भू-दृश्य, सांस्कृतिक या अन्य संबंधित मूल्यों के लिए अंतरराष्ट्रीय कन्वेंशन, राष्ट्रीय या स्थानीय विधान के अधीन संरक्षित क्षेत्र ।		
2.	क्षेत्र जो पारिस्थितिक कारणों के लिए महत्वपूर्ण या संवेदनशील हैं - बेट लैंड्स, जल स्रोत या अन्य जल संबंधी निकाय, तटीय जोन, बायोस्फीयर पहाड़ियां, वन		
3.	क्षेत्र जो प्रजनन, घोंसला बनाने, चारे के लिए, आराम करने के लिए, सर्दी के लिए, प्रवास के लिए फ्लोरा और फोना के संरक्षित महत्वपूर्ण या संवेदनशील प्रजातियों द्वारा उपयोग किए जाते हैं		
4.	अंतरराष्ट्रीय, तटीय, सामुद्रिक या भूमिगत जल		

5.	राज्य, राष्ट्रीय सीमाएं		
6.	मनोरंजन की या अन्य पर्यटक/यात्रियों वाले क्षेत्रों में पहुंच के लिए जनता द्वारा उपयोग किए जाने वाले मार्ग या सुविधाएं		
7.	रक्षा प्रतिष्ठापन		
8.	सघन रूप से बसे हुए या निर्मित क्षेत्र		
9.	संवेदनशील मानव निर्मित भूमि उपयोगों के अधिमोगाधीन क्षेत्र अस्पताल, पाठशालाएं, पूजा स्थल, सामुदायिक सुविधाएं		
10.	महत्वपूर्ण, उच्च क्वालिटी या दुर्लभ संसाधनों वाले क्षेत्र (भूमिगत जल संसाधन, भूतल संसाधन, वनोद्योग, कृषि, मत्स्य उद्योग, पर्यटन, खनिज)		
11.	क्षेत्र जो पहले से ही प्रदूषण या पर्यावरणीय नुकसान के अधीन हैं (वे जहां विद्यमान विधिक पर्यावरणीय मानक अधिक होते हैं)		
12.	क्षेत्र जहां प्राकृतिक संकट हो सकता है जो वर्तमान पर्यावरणीय समस्याओं की योजनाओं को प्रभावित कर सकते हैं (धंसना, भूस्खलन, भूमि कटाव, बाढ़ या अत्यंत या प्रतिकूल वातावरणीय दशाएं)		

परिशिष्ट 2

(पैरा 6 देखें)

प्रकरण 1 का (केवल अनुसूची की मद 8 के अधीन सूचीबद्ध निर्माण परियोजनाओं के लिए)

पर्यावरणीय प्रभावों की जांच सूची

(पूर्ण जानकारी उपलब्ध कराने के लिए अपेक्षित परियोजना सलाहकार और जहां कहीं आवश्यक हो प्रभुप के साथ संपर्कीकारक टिप्पण संलग्न करें तथा प्रस्तावित पर्यावरणीय प्रबंधन योजना और मानिटीरी कार्यक्रम के साथ प्रस्तुत करें)

1. भूमि पर्यावरण

(परियोजना स्थल और आसपास का विशाल दृश्य संलग्न करें)

1.1 क्या विद्यमान भूमि के उपयोग में परियोजना से सारवान रूप से परिवर्तन किया जाएगा जो वातावरण आसपास से संगत नहीं है ? (प्रस्तावित भूमि उपयोग सक्षम प्राधिकारी के अनुमोदित मास्टर प्लान/विकास योजना के अनुरूप होना चाहिए । भूमि उपयोग में परिवर्तन यदि कोई हो और सक्षम प्राधिकारी से कानूनी अनुमोदन प्रस्तुत किया जाए) । (i) स्थल अवस्थान, (ii) प्रस्तावित स्थल (पांच सौ मीटर के भीतर आसपास के सक्षमों) और (iii) समुचित मापमान के स्थल (स्तर और समोच्च रेखा उपदर्शित करते हुए) के नक्शे संलग्न करें । यदि उपलब्ध नहीं है तो केवल अवधारणा युक्त योजना संलग्न करें ।

1.2 भूमि क्षेत्र, निर्मित क्षेत्र, जल उपभोग, विद्युत अपेक्षा, संयोजकता, सामुदायिक सुविधाओं, परिवहन आवश्यकताओं आदि के अनुसार समीचीनी परियोजना की आवश्यकताओं को सुधोबुध में लेना।

1.3 प्रस्तावित स्थल से संलग्न विद्यमान सुविधाओं पर प्रस्तावित क्रियाकलापों के सम्बंधित प्रभाव का 90 दिनों के अंदर स्थल, सामुदायिक सुविधाएं, विद्यमान भूमि उपयोग के बावजूद, स्थानीय परिस्थिति में

1.4 क्या किसी महत्वपूर्ण भूमि विपन्न के परिणामस्वरूप भूस्वतन्त्र, भूमि कटाव के कारण, डाल विश्लेषण, भूमि कटाव की संवेदनशीलता, भूकंपन आदि के ज़रिए दिए गए

1.5 क्या प्राकृतिक मल निकास प्रणाली के परिवर्तन से संबंधित प्रस्ताव है ? (प्रस्तावित परियोजना स्थल के निकट प्राकृतिक मल निकासी को दर्शाते हुए किसी समोच्च नक्शे के ब्यौरे दें)

1.6 निर्माण क्रियाकलाप — कर्तन, भरण, भूमि सुधार आदि में अंतर्भूत भूमि कार्य की मात्राएं क्या हैं ? (अंतर्भूत भूमि कार्य, स्थल आदि के बाहर से सामग्री भरने के परिवहन के ब्यौरे दें)

1.7 निर्माण अवधि के दौरान जल प्रदाय अपशिष्ट उठाई धराई आदि के संबंध में ब्यौरे दें ।

1.8 क्या नीचे के क्षेत्रों और वेट लैंड्स में परिवर्तन होंगे ? (वह ब्यौरे दें कि किस प्रकार निचले क्षेत्र और वेट लैंड्स प्रस्तावित क्रियाकलापों से उपांतरित हो रहे हैं)

1.9 क्या निर्माण के दौरान निर्माण के कूड़ा करकट और अपशिष्ट से स्वास्थ्य को खतरा होगा ? (निर्माण के दौरान जिसके अंतर्गत निर्माण श्रम और व्यय की युक्तियां भी हैं, जनित अपशिष्टों की विभिन्न किस्मों की मात्राएं दें ।)

2. जल पर्यावरण

2.1 विभिन्न उपयोगों की अपेक्षाओं के विश्लेषण सहित प्रस्तावित परियोजना के लिए जल अपेक्षा की कुल मात्रा दें । जल अपेक्षा की पूर्ति कैसे होगी । स्रोतों और मात्राओं का कथन करें तथा एक जल अतिशेष विवरण दें ।

2.2 जल के प्रस्तावित स्रोत की क्षमता क्या है ? (बहाव या प्राप्ति के आधार पर)

2.3 अपेक्षित जल की क्वालिटी क्या है यदि पूर्ति किसी नगर पालिक स्रोत से नहीं है ? (जल की क्वालिटी के वर्ग सहित भौतिक, रासायनिक, जैव वैज्ञानिक लक्षणों को दर्शाते करें)

2.4 कितनी जल अपेक्षा की उपचारित बेकार जल के पुनः चक्रण से पूर्ति हो सकती है ? (मात्राओं, स्रोतों और उपयोगिताओं के ब्यौरे दें ।)

2.5 क्या अन्य उपयोक्ताओं से जल का उपयोग होगा ? (कृषि अन्य विद्यमान उपयोगों और उपभोग की मात्राओं पर परियोजना के प्रभाव का निर्धारण करें)

2.6 प्रस्तावित क्रियाकलापों से प्राप्त बेकार जल से प्रदूषण के भार में क्या वृद्धि है ? (प्रस्तावित क्रियाकलापों से प्राप्त बेकार जल की मात्राओं और संघटन के ब्यौरे दें)

2.7 जल अपेक्षाओं की जल संचयन से हुई पूर्ति के ब्यौरे दें । सृजित सुविधाओं के ब्यौरे प्रस्तुत करें ।

2.8 दीर्घकालिक आधार पर निर्माण चरण के पश्चात् क्षेत्र की प्रस्तावित परियोजना के पूरा होने के लक्षणों (मात्रात्मकता के साथ-साथ क्वालिटी भी) के कारण भूमि उपयोग में हुए परिवर्तनों का क्या प्रभाव होगा ? क्या इससे बाढ़ या जल के जमा होने की किसी रूप में समस्या में वृद्धि होगी ?

2.9 भूमिगत जल पर प्रस्ताव के क्या प्रभाव होंगे ? (क्या भूमिगत जल में नल लगाया जाएगा ; भूमिगत जल की सारणी, पुनः प्रभारण क्षमता और सक्षम प्राधिकारी से अभिप्राय अनुमोदन यदि कोई हों के ब्यौरे दें)

2.10 भूमि और पनिलों को प्रदूषित करने वाले निर्माण क्रियाकलाप से बचाने के उपायों के लिए क्या सावधानियां/कदम उठाए जा रहे हैं ? (प्रतिकूल प्रभावों से बचने के लिए मात्राओं और अपवाह जाने वाले उपायों के ब्यौरे दें)

2.11 स्थल के भीतर किस प्रकार तेज जल की व्यवस्था की जाएगी ? (क्षेत्र में बाढ़ से बचने के लिए किए गए उपबंध, समोच्च स्तरों के उपदर्शन के स्थल अभिन्यास सहित उपलब्ध कराई गई जल निकासी सुविधाओं के ब्यौरे का कथन करें)

2.12 क्या आवश्यक अवधि में विशेष रूप से निर्माण श्रमिकों के लगाए जाने से परियोजना स्थल के आसपास अस्वच्छता दशाएं उत्पन्न हो जाती हैं ? (उचित स्पष्टीकरण से न्यायोचित ठहराएं)

2.13 स्थल सुविधाओं पर संग्रहण, उपचार और जल निकासी के सुरक्षित व्ययन के लिए क्या व्यवस्था की जाती है ? (पुनःचक्रण और व्ययन के लिए प्रौद्योगिकी और सुविधाओं सहित जनन, उपचार क्षमताओं की, चाहे जैसी हों मात्राओं के ब्यौरे दें)

2.14 दोहरी नलसाजी प्रणाली के ब्यौरे दें यदि उपयोग किए गए उपचारित अपशिष्ट का प्रसाधनों को बहाने या किसी अन्य उपयोग के लिए उपयोग किया जाता है ।

3 वनस्पति

3.1 क्या जैवविविधता पर परियोजना का कोई खतरा है ? (स्थानीय पारिस्थितिक प्रणाली का उसकी विशिष्ट बातों सहित यदि कोई हों वर्णन करें)

3.2 क्या निर्माण में वनस्पति की विस्तृत निकासी या उपांतरण अंतर्बलित है ? (परियोजना द्वारा प्रभावित वृक्षों और वनस्पति का विस्तृत लेखा जोखा दें)

3.3 महत्वपूर्ण स्थल की बातों पर प्रभावों को कम करने के लिए प्रस्तावित उपाय क्या हैं ? (किसी समुचित मापमान कि किसी अभिन्यास योजना सहित वृक्षारोपण, भूदृश्य, जल निकायों आदि के सृजन के प्रस्ताव के ब्यौरे दें)

4. जीव जन्तु

4.1 क्या जीव जन्तुओं, स्थलीय और जलीय रूप से किसी प्रकार हटाने या उनके चलने फिरने के लिए रुकावटें होने की संभावना है ? ब्यौरे दें ।

4.2 क्षेत्र के जीव जन्तुओं पर क्या कोई प्रत्यक्ष या अप्रत्यक्ष प्रभाव हैं ? ब्यौरे दें ।

4.3 जीवजन्तुओं पर प्रतिकूल प्रभावों को कम करने के लिए कारीखोर, मछली सीड़ियों आदि जैसे उपाय विहित करें ।

5. वायु पर्यावरण

5.1 क्या परियोजना से द्वीपों में गैसों के वायुमंडलीय सांद्रण में वृद्धि होगी और उसके परिणामस्वरूप ऊष्मा बढ़ेगी ? (प्रस्तावित निर्माणों के परिणामस्वरूप वर्धित यातायात बढ़ने को ध्यान में रखते हुए विक्षेपण आदर्शों पर आधारित अनुमानित मूल्यों सहित पृष्ठभूमि वायु क्वालिटी स्तरों के ब्यौरे दें)

5.2 धूल, जहरीली वाष्पों या अन्य परिसंकटमय गैसों के बनने पर क्या प्रभाव हैं ? सभी मौसम विज्ञान परिभाषों के संबंध में ब्यौरे दें ।

5.3 क्या प्रस्ताव से यानों को पार्क करने के स्थल में कमी आएगी ? परिवहन अवसंरचना और सुधार के लिए प्रस्तावित उपायों के, जिसके अंतर्गत परियोजना स्थल के प्रवेश और निर्गम पर यातायात व्यवस्था भी है, विद्यमान स्तर के ब्यौरे दें ।

5.4 प्रत्येक प्रयोग के अधीन क्षेत्रों में आंतरिक सड़कों, बाइसिकिल मार्गों, पैदल यात्री मार्गों, पैदल मार्गों आदि पर चलने के पैदलों के ब्यारे दें।

5.5 क्या शांतायात शोर और कंपन में महत्वपूर्ण वृद्धि होगी ? ऊपर वर्णित बातों को कम करने के लिए स्रोतों और प्रस्तावित उपायों के ब्यारे दें।

5.6 परियोजना स्थल के आसपास शोर स्रोतों और कंपन तथा धिरी हुई वायु की क्वालिटी पर डीजी सेटों और अन्य उपकरणों पर क्या प्रभाव होगा ? ब्यारे दें।

6. सौन्दर्यबोद्धी

6.1 क्या प्रस्तावित निर्माणों के परिणामस्वरूप किसी दृश्य, दृश्यसुविधा या भूदृश्य में रुकावट होगी ? क्या प्रस्तावकों ने इन बातों पर विचार कर लिया है ?

6.2 क्या विद्यमान परिनिर्माणों पर नए निर्माण से कोई प्रतिकूल प्रभाव होगा ? किन बातों को ध्यान में रखा गया है ?

6.3 क्या डिजाइन मापमान को प्रभावित करने वाले शहर रूपी या शहरी डिजाइनों का कोई स्थानीय आकलन है ? उनका स्पष्ट रूप से उल्लेख किया जा सकता है।

6.4 क्या कोई मानव विज्ञान संबंधी या पुरातत्वीय स्थल या बाह्य चीजें आसपास में हैं ? कथन करें यदि कोई अन्य महत्वपूर्ण बात, जिसपर प्रस्तावित स्थल के पक्षेत्र में होने पर विचार किया गया है।

7 सामाजिक - आर्थिक पड़ना

7.1 क्या प्रस्ताव के परिणामस्वरूप स्थानीय जनता के समाज संबंधी परिनिर्माणों में कोई परिवर्तन होगा ? ब्यारे दें।

7.2 प्रस्तावित परियोजना के आसपास विद्यमान सामाजिक अवसरचना के ब्यारे दें।

7.3 क्या परियोजना से स्थानीय समुदायों पर प्रतिकूल प्रभाव, पवित्र स्थलों या अन्य सांस्कृतिक मूल्यों में विघ्न पड़ेगा ? प्रस्तावित सुझावाय क्या है ?

8 निर्माण सामग्री

8.1 अधिक ऊर्जा सहित निर्माण सामग्री का उपयोग हो सकेगा। क्या ऊर्जा दक्ष प्रक्रियाओं सहित निर्माण सामग्री उत्पादित की जाती है ? (निर्माण सामग्री और उनकी ऊर्जा दक्षता का चयन करने में ऊर्जा संरक्षण उपायों के ब्यारे दें)

8.2 निर्माण के दौरान सामग्री का परिवहन और उठाई धराई के कारण प्रदूषण, शोर और लोक अशान्ति हो सकती है। इन प्रभावों को कम करने के लिए क्या उपाय किए जाने हैं ?

8.3 क्या सड़कों और ढाचों में पुनः चकित सामग्री उपयोग की जाती है ? की गई बचतों की सीमा का कथन करें ?

8.4 परियोजना के प्रचालन संबंधी चरणों के दौरान हुए कूड़े के संग्रहण, पृथक्करण और व्ययन की पद्धति के ब्यारे दें।

9 ऊर्जा संरक्षण

9.1 विद्युत अपेक्षा प्रदाय के स्रोत, स्रोत आदि की पृष्ठभूमि आदि के ब्यौरे दें। निर्मित क्षेत्र में प्रति वर्ग फुट ऊर्जा खपत कितनी है ? ऊर्जा खपत को कम करने के लिए क्या प्रयास किए गए हैं ?

9.2 विद्युत की पृष्ठभूमि की किस्म और क्षमता, जिसको देने की आपकी योजना है, क्या है ?

9.3 उपयोग किए जाने वाले कांच के अभिलक्षण क्या हैं ? शार्ट वेव और लांग वेव विकिरण दोनों से संबंधित उसके अभिलक्षणों के निर्देश दें।

9.4 भवन में कौन से अप्रत्यक्ष सौर वास्तविक कारक उपयोग किए जा रहे हैं ? प्रस्तावित परियोजना में किए गए उपयोग को स्पष्ट करें।

9.5 क्या गलियों और भवनों के अभिन्यास सौर ऊर्जा युक्तियों की क्षमता को अधिकतम करते हैं ? क्या आपने भवन कमलैक्स में उपयोग के लिए सड़क प्रकाशन आपात प्रकाशन और सौर तप्त जल प्रणालियों के उपयोग पर विचार कर लिया है ? ब्यौरे का सार दें।

9.6 क्या प्रशीतन/तापन भार को कम करने के लिए शेडिंग का प्रभावी रूप से उपयोग किया जाता है ? पूर्व और पश्चिम की दीवारों और छत पर शेडिंग को अधिकतम करने के लिए उपयोग करने के सिद्धांत क्या हैं ?

9.7 क्या परिनिर्माणों में ऊर्जा दक्ष स्थल शीतन, प्रकाशन और यांत्रिक प्रणालियों का उपयोग किया जाता है ? तकनीकी ब्यौरे दें। ट्रांसफार्मरों और मोटर दक्षता प्रकाशन तीव्रता और वायु प्रशीतन भार धारणाओं के ब्यौरे दें। क्या आप सीएफसी एचसीएफसी फ्री चिलर्स का उपयोग कर रहे हैं ? विनिर्देश दें।

9.8 सूक्ष्म जलवायु के परिवर्तन में भवन क्रियाकलापों के संभावित प्रभाव क्या हैं ? तप्त द्वीप और प्रतीपन प्रभावों के सृजन पर प्रस्तावित निर्माण के संभावित प्रभावों पर स्वतः निर्धारण का उल्लेख करें।

9.9 भवन आवाते के तापीय अभिलक्षण क्या हैं ? (क) छत ; (ख) बाह्य दीवारें ; और (ग) झरोखे ? उपयोग की गई सामग्री और व्यष्टिक संघटकों के यू मूल्यों या आर मूल्यों के ब्यौरे दें।

9.10 अग्नि संकट के लिए प्रस्तावित सावधानियां और सुरक्षा उपाय क्या हैं ? आपात योजनाओं के ब्यौरे दें।

9.11 दिवाल सामग्री के रूप में यदि कांच का उपयोग किया जाता है तो ब्यौरे और विनिर्देश जिसके अंतर्गत उत्तार्जनता और तापीय अभिलक्षण भी हैं, दें।

9.12 भवन में वायु प्रवेशन की दर क्या है ? प्रवेशन के प्रभावों को कैसे कम कर रहे हैं, उसके ब्यौरे दें।

9.13 समग्र ऊर्जा खपत में अपारंपरिक ऊर्जा प्रौद्योगिकियों का किसी सीमा तक उपयोग किया जाता है ? उपयोग की गई नवीकरणीय ऊर्जा प्रौद्योगिकियों के ब्यौरे दें।

10 पर्यावरण प्रबंध योजना

पर्यावरण प्रबंध योजना में, निर्माण, प्रचालन और परियोजना के क्रियाकलापों के परिणामस्वरूप प्रतिकूल पर्यावरणीय प्रभावों को न्यूनतम करने के लिए समस्त जीवन चक्र के दौरान किए जाने वाले क्रियाकलापों की प्रत्येक मदवार के लिए सभी न्यूनतम करने वाले उपाय अंतर्विष्ट होंगे। इसमें विभिन्न पर्यावरणीय विनियमों के अनुपालन के लिए पर्यावरणीय मानिटरी योजना का आलेखन भी होगा। आपात की दशा में, जैसे स्थल पर दुर्घटना जिसके अंतर्गत आग लगना भी है, उठाए जाने वाले कदमों का कथन भी होगा।

परिशिष्ट 3
(पैरा 7 देखें)

पर्यावरणीय समाघात निर्धारण दस्तावेज की साधारण संरचना

क्र.सं.	ईआईए संरचना	अंतर्वस्तु
1.	प्राक्कथन	- रिपोर्ट का प्रयोजन - परियोजना और परियोजना प्रस्तावक की पहचान - परियोजना की प्रकृति, आकार, अवस्थान का संक्षिप्त वर्णन और देश, प्रदेश में इसका महत्व - अध्ययन का विस्तार — किए गए विनियामक विस्तार के ब्यौरे (सॉपे गए कृत्यों के अनुसार)
2.	परियोजना वर्णन	- परियोजना के उन पहलुओं का संघनित वर्णन (परियोजना साध्यता अध्ययन पर आधारित) जिनकी पर्यावरणीय प्रभाव कारित करने की संभावना है। निम्नलिखित को स्पष्ट करने के लिए ब्यौरे उपबंधित किए जाने चाहिए : - परियोजना के किस्म - परियोजना की आवश्यकता - अवस्थान (साधारण अवस्थान, विनिर्दिष्ट अवस्थान, परियोजना सीमा और परियोजना स्थल अभिन्यास को दर्शित करते हुए नक्शे) - प्रचालन का आकार या विस्तार (जिसके अंतर्गत परियोजना द्वारा या उसके लिए अपेक्षित सहयोजित क्रियाकलाप) - अनुमोदन और कार्यान्वयन के लिए प्रस्तावित अनुसूची - प्रोद्योगिकी और प्रक्रिया वर्णन - परियोजना वर्णन, जिसके अंतर्गत परियोजना अभिन्यास, परियोजना आदि के संघटकों को दर्शित करते हुए आरेखन। साध्यता आरेखनों के स्कीमबद्ध प्रतिनिधित्व जो ईआईए परियोजना के लिए महत्वपूर्ण जानकारी दें। - पर्यावरणीय मानकों, पर्यावरणीय प्रचालन दशाओं या अन्य ईआईए अपेक्षाओं की पूर्ति के लिए परियोजनाओं में सम्मिलित न्यूनिकरण उपायों का वर्णन (विस्तार द्वारा यथाअपेक्षित) - प्रोद्योगिकीय असफलता के जोखिम के लिए नई और अपरीक्षित प्रोद्योगिकी का निर्धारण
3.	पर्यावरण का वर्णन	- अध्ययन क्षेत्र, अवधि, संघटक और पद्धति - विस्तार में पहचान किए गए मूल्यवान पर्यावरणीय संघटकों के लिए आधारिक लेखा की स्थापना - सभी पर्यावरणीय संघटकों के आधार नक्शे
4.	अनुमानित पर्यावरणीय समाघात और न्यूनिकरण उपाय	- परियोजना अवस्थान, संभावित दुर्घटनाओं, परियोजना डिजाइन, परियोजना निर्माण, नियमित प्रचालनों, पूरी की गई परियोजना को अंतिम रूप से बंद करना या पुनर्स्थापन के कारण अन्वेषित पर्यावरणीय समाघातों के ब्यौरे। - पहचान किए गए प्रतिकूल समाघातों न्यूनिकृत और/या दूर करने के लिए उपाय - पर्यावरणीय संघटकों के असंपरिवर्तनीय और पुनः प्राप्त न किए जा सकने वाले आश्वासन।

		- समाघातों के महत्व का निर्धारण (महत्व महत्व निर्धारण का अवधारणा करने के लिए मानदण्ड) - न्यूनीकरण उपाय
5.	अनुकल्पियों का विश्लेषण (प्रौद्योगिकी और स्थल)	- यदि विस्तारित करने के कार्य के परिणामस्वरूप अनुकल्पियों की आवश्यकता होती है : - प्रत्येक अनुकल्पी का वर्णन - प्रत्येक अनुकल्पी के प्रतिकूल समाघातों का सार - प्रत्येक अनुकल्पी के लिए प्रस्तावित न्यूनीकरण उपाय और - अनुकल्पी का चयन
6.	पर्यावरणीय मानीटरी कार्यक्रम	न्यूनीकरण उपायों की प्रभावशीलता को मानीटर करने के तकनीकी पहलू (जिसके अंतर्गत माप, पद्धति, आवर्त, अवस्थान, आंकड़े विश्लेषण, रिपोर्ट करने की अनुसूचियां, आपात प्रक्रियाएं, विस्तृत बजट और उपापन अनुसूचियां भी हैं)
7.	अतिरिक्त अध्ययन	- लोक परामर्श - जोरिम निर्धारण - सामाजिक समाघात निर्धारण आर और आर अनुवर्ती योजनाएं
8.	परियोजना के फायदे	- भौतिक अवसंरचना में सुधार - सामाजिक अवसंरचना में सुधार - नियोजन क्षमता - कुशल ; अर्धकुशल और अकुशल - अन्य मूर्त फायदे
9.	पर्यावरणीय लागत फायदा विश्लेषण	यदि विस्तारण प्रक्रम पर सिफारिश की जाती है ।
10.	ईएमपी	यह सुनिश्चित करने के लिए कि न्यूनीकरण संबंधी उपाय कार्यान्वित किए गए हैं और ईआईए के अनुमोदन के पश्चात् उनकी प्रभावी मानीटरी की गई है, प्रशासनिक पहलुओं का वर्णन ।
11.	संक्षिप्त सार और निष्कर्ष (यह ईआईए रिपोर्ट का संक्षिप्त सार होगा)	- परियोजना के कार्यान्वयन के लिए समग्र औचित्य । - यह स्पष्टीकरण कि प्रतिकूल प्रभाव किस प्रकार कम किए जाते हैं
12.	नियोजित परामर्शियों का प्रकटन	उनके संक्षिप्त कार्य और दिए गए परामर्श की प्रकृति सहित नियोजित किए गए परामर्शियों के नाम

परिशिष्ट 3क

(पैरा 7 देखें)

संक्षिप्त पर्यावरणीय समाघात निर्धारण की अंतर्घट्ट

पर्यावरणीय समाघात निर्धारण का संक्षिप्त सार अधिकतम ए -4 आकार के दस पृष्ठों पर पूरी पर्यावरणीय समाघात निर्धारण का एक संक्षिप्त सार होगा । इसमें संक्षेप में अनिवार्य रूप से पूर्ण पर्यावरणीय समाघात निर्धारण रिपोर्ट के निम्नलिखित अध्याय होने चाहिए :-

- (1) परियोजना वर्णन :
- (2) पर्यावरण का वर्णन :
- (3) अनुमानित पर्यावरणीय समाघात और न्यूनीकरण उपाय :
- (4) पर्यावरणीय मानीटरी कार्यक्रम :
- (5) अतिरिक्त अध्ययन :
- (6) परियोजना के फायदे :
- (7) पर्यावरण प्रबंधन योजना :

परिशिष्ट 4

(पैस 7 देखिए)

लोक सुनवाई को संचालित करने के लिए प्रक्रिया

1.0 लोक सुनवाई की, संबंधित राज्य प्रदूषण नियंत्रण बोर्ड या संघ राज्यक्षेत्र प्रदूषण नियंत्रण समिति द्वारा परियोजना स्थल (स्थलों) में या उसके निकटस्थ परिसर में जिला वार एक प्रणालीबद्ध समयबद्ध और पारदर्शी रीति में अधिकतम संभव लोक भागीदारी को सुनिश्चित करते हुए व्यवस्था की जाएगी।

2.0 प्रक्रिया :

2.1 आवेदक, उस राज्य प्रदूषण नियंत्रण बोर्ड या संघ राज्यक्षेत्र प्रदूषण नियंत्रण समिति के सदस्य सचिव को, जिसकी अधिकारिता में परियोजना अवस्थित है, विहित कानूनी अवधि के भीतर लोक सुनवाई की व्यवस्था करने के लिए एक सादा पत्र के माध्यम से अनुरोध करेगा। यदि परियोजना स्थल का किसी राज्य या संघ राज्यक्षेत्र के परे विस्तार है तो प्रत्येक राज्य या संघ राज्यक्षेत्र में जिसमें परियोजना स्थित है, लोक सुनवाई आघापक है और आवेदक, इस प्रक्रिया के अनुसार लोक सुनवाई करने के लिए प्रत्येक संबंधित राज्य प्रदूषण नियंत्रण बोर्ड या संघ राज्यक्षेत्र प्रदूषण नियंत्रण समिति को पृथक अनुरोध करेगा।

2.2 आवेदक, अनुरोध पत्र के साथ प्रारूप पर्यावरणीय समाघात निर्धारण रिपोर्ट की कम से कम दस हार्ड प्रतियां और उसी के बराबर सॉफ्ट (इलेक्ट्रॉनिक) प्रतियां, परिशिष्ट 3 में दी गई सामान्य संरचना सहित (जिसके अंतर्गत विस्तार (प्रक्रम 2) के पश्चात् संसूचित किए गए सॉफ्ट कृत्यों के अनुसार निर्बाध रूप से अंग्रेजी और स्थानीय भाषा में तैयार की गई संक्षिप्त पर्यावरणीय समाघात निर्धारण रिपोर्ट सम्मिलित है) संलग्न की जाएगी। इसके साथ-साथ आवेदक संक्षिप्त पर्यावरणीय समाघात निर्धारण रिपोर्ट के साथ ऊपर प्रारूप पर्यावरणीय समाघात निर्धारण रिपोर्ट की एक हार्ड प्रति और एक सॉफ्ट प्रति पर्यावरण और वन मंत्रालय तथा निम्नलिखित प्राधिकारियों या कार्यालयों को निम्नलिखित अधिकारिता में परियोजना अवस्थित होगी, अग्रेषित करने की व्यवस्था करेगा :

(क) जिला मजिस्ट्रेट

(ख) जिला परिषद या नगर निगम

(ग) जिला उद्योग कार्यालय

(घ) पर्यावरण और वन मंत्रालय का संबंधित प्रादेशिक कार्यालय

2.3 ऊपर उल्लिखित प्राधिकारी, पर्यावरण और वन मंत्रालय के सिवाय, प्रारूप पर्यावरणीय समाघात निर्धारण रिपोर्ट की प्राप्ति पर, अपनी अधिकारिताओं के भीतर, उसमें हितबद्ध व्यक्तियों से संबंधित विनियामक प्राधिकरणों को अपनी टीका-टिप्पणियां भेजने का अनुरोध करते हुए, विस्तृत प्रचार करने की व्यवस्था करेंगे। वे लोक सुनवाई होने तक सामान्य कार्यालय घंटों के दौरान जनता को इलेक्ट्रॉनिक रूप से या अन्यथा निरीक्षण करने के लिए प्रारूप पर्यावरणीय समाघात निर्धारण रिपोर्ट भी उपलब्ध कराएंगे। पर्यावरण और वन मंत्रालय अपनी वेबसाइट पर प्रारूप पर्यावरणीय समाघात निर्धारण रिपोर्ट का सार तत्परता से प्रदर्शित करेगा और दिल्ली स्थित मंत्रालय में सामान्य कार्यालय घंटों के दौरान किसी अधिसूचित स्थान पर निर्देश के लिए पूरे प्रारूप पर्यावरणीय समाघात निर्धारण रिपोर्ट को भी उपलब्ध करेगा।

2.4 संबंधित राज्य प्रदूषण नियंत्रण बोर्ड या संघ राज्य प्रदूषण नियंत्रण समिति भी राज्य/संघ राज्यक्षेत्र के भीतर परियोजना की बाबत प्रचार करने के लिए उसी प्रकार की व्यवस्था करेगी और चयनित कार्यालयों या लोक गुस्तकाक्तियों या पंचायतों आदि में निरीक्षण के लिए प्रारूप पर्यावरणीय समाघात निर्धारण रिपोर्ट (परिशिष्ट 3क) का संक्षिप्त सार उपलब्ध कराएगी। वे उपर्युक्त पांच प्राधिकारियों/कार्यालयों अर्थात् पर्यावरण और वन मंत्रालय, जिला मजिस्ट्रेट आदि को प्रारूप पर्यावरणीय समाघात निर्धारण रिपोर्ट की एक प्रति अतिरिक्त रूप से भी उपलब्ध कराएंगे।

3.0 लोक सुनवाई की सूचना

3.1 संबंधित राज्य प्रदूषण नियंत्रण बोर्ड या संघ राज्यक्षेत्र प्रदूषण नियंत्रण समिति का सदस्य सचिव परियोजना सलाहकार से प्रारूप पर्यावरणीय समाघात निर्धारण रिपोर्ट की प्राप्ति की तारीख से तीस दिनों के भीतर लोक सुनवाई संचालित करने के लिए तारीख, समय और निश्चित स्थान को अंतिम रूप देगा और उसको मुख्य राष्ट्रीय दैनिक में और एक प्रादेशिक भाषा के दैनिक समाचारपत्र में विज्ञापित करेगा। जनता को अपनी प्रतिक्रियाएं देने के लिए कम से कम तीस दिनों की सूचना उपलब्ध कराई जाएगी ;

3.2 विज्ञापन, जनता को उन स्थानों या कार्यालयों की बाबत भी सूचित करेगा जहां प्रारूप पर्यावरणीय समाघात निर्धारण रिपोर्ट और पर्यावरणीय समाघात निर्धारण रिपोर्ट के संक्षिप्त सार तक सुनवाई से पूर्व जनता की पहुंच हो सके ;

3.3 लोक सुनवाई की तारीख, समय और स्थान को तब तक आस्थगित नहीं किया जाएगा जब तक कोई अवांछित आपात स्थिति न आ जाए और केवल संबंधित जिला मजिस्ट्रेट की सिफारिश पर किया आस्थगन को उन्हीं राष्ट्रीय और प्रादेशिक भाषा के समाचार पत्रों के माध्यम से अधिसूचित किया जाएगा तथा संबंधित राज्य प्रदूषण नियंत्रण बोर्ड या संघ राज्यक्षेत्र प्रदूषण नियंत्रण समिति द्वारा पहचान किए सभी कार्यालयों में मुख्य रूप से प्रदर्शित भी किया जाएगा ;

3.4 ऊपर आपवादिक परिस्थितियों में, केवल जिला मजिस्ट्रेट के परामर्श से संबंधित राज्य प्रदूषण नियंत्रण बोर्ड या संघ राज्यक्षेत्र प्रदूषण नियंत्रण समिति के सदस्य-सचिव द्वारा लोक परामर्श के लिए नई तारीख, समय और स्थान का विनिश्चय किया जाएगा और ऊपर 3.1 के अधीन प्रक्रिया के अनुसार नए सिरे से अधिसूचित किया जाएगा।

4.0 पैनाल

जिला मजिस्ट्रेट या किसी अपर जिला मजिस्ट्रेट से अन्यून की पंक्ति का उसका प्रतिनिधि, राज्य प्रदूषण नियंत्रण बोर्ड या संघ राज्यक्षेत्र प्रदूषण नियंत्रण समिति के प्रतिनिधि की सहायता से समस्त लोक सुनवाई प्रक्रिया का पर्यवेक्षण करेगा और उसकी अध्यक्षता करेगा।

5.0 वीडियोग्राफी

राज्य प्रदूषण नियंत्रण बोर्ड या संघ राज्यक्षेत्र प्रदूषण नियंत्रण समिति, समस्त कार्यवाहियों की वीडियो फिल्म तैयार करने की व्यवस्था करेगी। संबंधित विनियामक प्राधिकरण को इसे अंग्रेषित करते समय वीडियो टेप की एक प्रति या एक सीडी लोक सुनवाई कार्रवाईयों के साथ संलग्न की जाएगी।

6.0 कार्यवाहियाँ

6.1 उन सभी व्यक्तियों की उपस्थिति को जो स्थल पर विद्यमान हैं, अंतिम कार्यवाहियों के साथ संलग्न किया जाएगा।

6.2 कार्यवाहियों को आरंभ करने के लिए उपस्थिति हेतु कोई गणपूर्ति अपेक्षित नहीं होगी।

6.3 आवेदक का कोई प्रतिनिधि, परियोजना और पर्यावरण समाघात निर्धारण रिपोर्ट के संक्षिप्त सार की प्रस्तुति के साथ कार्यवाहियाँ आरंभ करेगा।

6.4 स्थल पर उपस्थित प्रत्येक व्यक्ति को, आवेदक से परियोजना पर सूचना या स्पष्टीकरण मांगने का अवसर दिया जाएगा। लोक सुनवाई कार्यवाहियों का संक्षिप्त सार ठीक रूप से प्रदर्शित करते हुए अभिव्यक्त सभी विचारों और अभिव्यक्त चिंताओं को राज्य प्रदूषण नियंत्रण बोर्ड या संघ राज्यक्षेत्र प्रदूषण नियंत्रण समिति के प्रतिनिधि द्वारा अभिलिखित किया जाएगा और प्रांतीय भाषा में अंतर्वस्तुओं को स्पष्ट करते हुए कार्यवाहियों के अंत में श्रोताओं को पढ़ कर सुनाया जाएगा तथा कथन पाए गए कार्यवृत्त पर उसी दिन जिला मजिस्ट्रेट या उसके प्रतिनिधि द्वारा हस्ताक्षर किए जाएंगे तथा संबंधित राज्य प्रदूषण नियंत्रण बोर्ड/संघ राज्यक्षेत्र प्रदूषण नियंत्रण समिति को अंग्रेषित किया जाएगा।

6.5 जनता द्वारा उठए गए मुद्दों का एक विवरण और आवेदक की टीका-टिप्पणियों को भी स्थानीय भाषा में और अंग्रेजी भाषा में तैयार किया जाएगा तथा कार्यवाहियों के साथ संलग्न किया जाएगा।

6.6 लोक सुनवाई की कार्यवाहियों को उस पंचायत घर के कार्यालय पर, जिसकी अधिकारिता में परियोजना अवस्थित है, संबंधित जिला परिषद, जिला मजिस्ट्रेट और राज्य प्रदूषण नियंत्रण बोर्ड या संघ राज्यक्षेत्र प्रदूषण नियंत्रण समिति के कार्यालय में सहजदृश्य रूप से प्रदर्शित किया जाएगा। राज्य प्रदूषण नियंत्रण बोर्ड या संघ राज्यक्षेत्र प्रदूषण नियंत्रण समिति साधारण जानकारी के लिए अपने वेबसाइट पर कार्यवाहियों को प्रदर्शित भी करेगी। कार्यवाहियों पर टीका-टिप्पणियों को, यदि कोई हों, संबंधित विनियामक प्राधिकरणों और संबंधित आवेदक को प्रत्यक्षतः भेजी जा सकेगी।

7.0 लोक सुनवाई को पूरा करने के लिए कालावधि :

7.1 लोक सुनवाई, आवेदक से अनुरोध पत्र की प्राप्ति की तारीख से पैंतालीस दिन की अवधि के भीतर पूरी की जाएगी। अतः संबंधित राज्य प्रदूषण नियंत्रण बोर्ड या संघ राज्यक्षेत्र प्रदूषण नियंत्रण समिति लोक सुनवाई के पूरा होने के आठ दिनों के भीतर संबंधित विनियामक प्राधिकरण को लोक सुनवाई की कार्यवाहियों को भेजेगी। आवेदक, लोक सुनवाई और लोक परामर्श के पश्चात् तैयार की गई अंतिम पर्यावरणीय समाघात निर्धारण रिपोर्ट या प्राथम्य पर्यावरण समाघात निर्धारण रिपोर्ट पर अनुपूरक रिपोर्ट की प्रति के साथ संबंधित विनियामक प्राधिकरण को, अनुमोदित लोक सुनवाई कार्यवाहियों की एक प्रति प्रत्यक्षतः भी अग्रेषित करेगा।

7.2 यदि राज्य प्रदूषण नियंत्रण बोर्ड या संघ राज्य क्षेत्र प्रदूषण नियंत्रण समिति, नियत पैंतालीस दिनों के भीतर लोक सुनवाई करने में असफल रहती है तो केन्द्रीय सरकार, पर्यावरण और वन मंत्रालय, प्रवर्ग 'क' परियोजना या क्रियाकलाप के लिए और प्रवर्ग ख परियोजना या क्रियाकलाप के लिए और राज्य सरकार या संघ राज्यक्षेत्र प्रशासन, राज्य पर्यावरणीय समाघात निर्धारण प्राधिकरण के अनुरोध पर, किसी अन्य अभिकरण या प्राधिकरण को इस अधिसूचना में अधिकथित प्रक्रिया के अनुसार प्रक्रिया को पूरा करने के लिए नियोजित करेगी।

परिशिष्ट 5

(पैरा 7 देखिए)

आंकलन के लिए विहित प्रक्रिया

1. आवेदक, संबंधित विनियामक प्राधिकरण को निम्नलिखित दस्तावेजों को संलग्न करते हुए, जहां लोक परामर्श आज्ञापक है, एक सादा सूचना के माध्यम से आवेदन करेगा :-

- अंतिम पर्यावरण समाघात निर्धारण रिपोर्ट की बीस हार्ड प्रतियां और एक सॉफ्ट प्रति
- लोक सुनवाई की कार्यवाहियों की वीडियो टेप की एक प्रति या सी.डी.
- अंतिम अभिन्यास योजना की बीस प्रतियां
- परियोजना साध्यता रिपोर्ट की एक प्रति

2. आवेदक द्वारा प्रस्तुत की गई अंतिम पर्यावरणीय समाधात निर्धारण रिपोर्ट और अन्य सुसंगत दस्तावेजों की संबंधित विनियामक प्राधिकरण द्वारा उसकी प्राप्ति की तारीख से तीस दिनों के भीतर कार्यालय में तत्परता से टीओआर के प्रतिनिर्देश से समीक्षा की जाएगी और ध्यान में रखी गई अपर्याप्तताओं को प्रत्येक अंतिम पर्यावरणीय समाधात निर्धारण रिपोर्ट की एक प्रति संलग्न करते हुए, जिसके अंतर्गत लोक सुनवाई कार्यवाहियां और प्राप्त की गई अन्य लोक प्रतिक्रियाएं भी हैं, प्ररूप 1 या प्ररूप 1क की एक प्रति और प्रस्तावों पर विचार करने के लिए पर्यावरणीय निर्धारण समिति/राज्य पर्यावरणीय निर्धारण समिति की बैठकों के लिए निश्चित तारीख सहित पर्यावरणीय निर्धारण समिति/राज्य पर्यावरणीय निर्धारण समिति के सदस्यों को एकल सेट में इलेक्ट्रॉनिक रूप से या अन्यथा संसूचित किया जाएगा।

3. जहां कोई लोक परामर्श आज्ञापक नहीं है और इसलिए कोई औपचारिक पर्यावरणीय समाधात निर्धारण अध्ययन अपेक्षित नहीं है, वहां आंकलन, विहित आवेदन प्ररूप 1 के आधार पर और अनुसूची की मद 8 से निम्न सभी परियोजनाओं और क्रियाकलापों की दशा में किसी पूर्व साध्यता रिपोर्ट के आधार पर किया जाएगा। अनुसूची की मद 8 की दशा में, इसके विलक्षण परियोजना चक्र को ध्यान में रखते हुए, संबंधित पर्यावरणीय निर्धारण समिति या राज्य पर्यावरणीय निर्धारण समिति, प्ररूप 1, प्ररूप 1क और धारणा योजना के आधार पर सभी प्रवर्ग 'ख' परियोजनाओं या क्रियाकलापों का आंकलन करेगी और पर्यावरणीय अनापत्ति के लिए शर्तें नियत करेगी। जब कभी आवेदक सभी अन्य आवश्यक कानूनी अनुमोदनों सहित निश्चित पर्यावरणीय अनापत्ति शर्तों को पूरा करते हुए अनुमोदित स्वीकृत/भवन योजना प्रस्तुत करता है तो पर्यावरणीय निर्धारण समिति/राज्य पर्यावरणीय निर्धारण समिति, सक्षम प्राधिकारी को पर्यावरणीय अनापत्ति मंजूर करने की सिफारिश करेगी।

4. प्रत्येक आवेदन, पर्यावरणीय निर्धारण समिति/राज्य पर्यावरणीय निर्धारण समिति के समक्ष और इसका पूरा आंकलन, विहित शीति में अपेक्षित दस्तावेजों/ब्यौसों सहित इसकी प्राप्ति के साठ दिनों के भीतर रखा जाएगा।

5. आवेदक को परियोजना प्रस्ताव पर विचार करने के लिए पर्यावरणीय निर्धारण समिति/राज्य पर्यावरणीय निर्धारण समिति की निश्चित तारीख से कम से कम पन्द्रह दिन पूर्व सूचित किया जाएगा।

6. पर्यावरणीय निर्धारण समिति/राज्य पर्यावरणीय निर्धारण समिति की बैठक के कार्यवृत्त को बैठक के पांच कार्यकरण दिनों के भीतर अंतिम रूप दिया जाएगा और संबंधित विनियामक प्राधिकरण के वेबसाइट पर प्रदर्शित किया जाएगा। परियोजना या क्रियाकलापों को पर्यावरणीय अनापत्ति को मंजूर किए जाने के लिए सिफारिश की दशा में, कार्यवृत्त में विनिर्दिष्ट पर्यावरणीय सुस्वापायों और शर्तों को स्पष्ट रूप से सूचीबद्ध किया जाएगा। यदि सिफारिशें नामंजूर करने के लिए हैं तो उसके कारणों को भी स्पष्ट रूप से कथित किया जाएगा।

परिशिष्ट 6

(पैरा 5 देखिए)

केन्द्रीय सरकार द्वारा गठित की जाने वाली प्रवर्ग 'क' परियोजनाओं के लिए सेक्टर/परियोजना विनिर्दिष्ट विशेषज्ञ आंकलन समिति और प्रवर्ग 'ख' परियोजनाओं के लिए राज्य/संघ राज्यक्षेत्र स्तर विशेषज्ञ आंकलन समितियों की संरचना

1. विशेषज्ञ आंकलन समितियाँ और राज्य/संघ राज्यक्षेत्र स्तर विशेषज्ञ आंकलन समितियाँ केवल निम्नलिखित पात्रता कसौटी को पूरा करने वाले वृत्तिकों और विशेषज्ञों से मिलकर बनेगी

वृत्तिक : ऐसा व्यक्ति जिसके पास कम से कम (i) एम.ए./एम.एस.सी डिग्री सहित संबंधित विद्या शाखा में पांच वर्ष का औपचारिक विश्वविद्यालय प्रशिक्षण या (ii) इंजीनियरी/प्रौद्योगिकी/वास्तुविद विद्या शाखाओं की दशा में, बी.टेक/बी.ई./बी.आर्क. डिग्री सहित क्षेत्र में विहित व्यावहारिक प्रशिक्षण सहित किसी वृत्तिक प्रशिक्षण पाठ्यक्रम में चार वर्षीय औपचारिक प्रशिक्षण या (iii) अन्य वृत्तिक डिग्री (जैसे विधि) जिसमें पांच वर्ष का औपचारिक विश्वविद्यालय प्रशिक्षण या विहित व्यावहारिक प्रशिक्षण अंतर्बलित है, या (iv) विहित शिक्षुता/काशीगरी तथा संबंधित वृत्तिक संगम द्वारा संचालित प्रशिक्षण उत्तीर्ण की हो (जैसे चार्टर्ड अकाउंटेंसी) या (v) किसी विश्वविद्यालय डिग्री के पश्चात् किसी विश्वविद्यालय या सेवा अकादमी में दो वर्ष का औपचारिक प्रशिक्षण (जैसे एम.बी.ए./आई.ए.एस./आई.एफ.एस.) व्यक्ति वृत्तिकों का चयन करते समय उनके द्वारा उनके क्षेत्रों में प्राप्त अनुभव को ध्यान में रखा जाएगा ।

विशेषज्ञ : उम्र पात्रता कसौटी को पूरा करने वाला कोई वृत्तिक जिसके पास क्षेत्र में कम से कम पंद्रह वर्ष का सुसंगत अनुभव या संबंधित क्षेत्र में कोई उच्चतर डिग्री हो (जैसे पी.एच.डी. और कम से कम दस वर्ष का सुसंगत अनुभव) ।

आयु : सत्तर वर्ष से नीचे । तथापि, किसी क्षेत्र में विशेषज्ञों की अनुपलब्धता/कमी की दशा में विशेषज्ञ आंकलन समिति के सदस्यों की अधिकतम आयु को पचहतर वर्ष तक अनुज्ञात किया जा सकेगा ।

2. पर्यावरणीय निर्धारण समिति के सदस्य निम्नलिखित क्षेत्रों/विद्या शाखाओं में अपेक्षित विशेषज्ञता और अनुभव वाले विशेषज्ञ होंगे । उस दशा में कि "विशेषज्ञ" की कसौटी को पूरा करने वाले व्यक्ति उपलब्ध नहीं हैं, तो उसी क्षेत्र में पर्याप्त अनुभव रखने वाले वृत्तिकों पर भी विचार किया जा सकेगा ।

- पर्यावरण क्वालिटी विशेषज्ञ : पर्यावरणीय क्वालिटी के संबंध में माप/मानिटरी, विश्लेषण और निर्वचन में विशेषज्ञ ।

- परियोजना प्रबंधन में क्षेत्रीय विशेषज्ञ : परियोजना प्रबंधन या सुसंगत क्षेत्रों में प्रक्रिया /प्रचालन/सुविधा प्रबंधन में विशेषज्ञ ।
 - पर्यावरणीय समाघात निर्धारण प्रक्रिया विशेषज्ञ : पर्यावरणीय समाघात निर्धारण का संचालन और कार्यान्वयन तथा पर्यावरणीय प्रबंधन योजना और अन्य प्रबंधन योजना तैयार करने में विशेषज्ञ और जो पर्यावरणीय समाघात निर्धारण प्रक्रिया में उपयोग की जाने वाली भावी तकनीकों और औजारों में विस्तृत विशेषज्ञता और ज्ञान रखते हों ।
 - जोखिम निर्धारण विशेषज्ञ ।
 - पेड़ - पौधे और जीव- जन्तु प्रबंधन में प्राणी विज्ञान विशेषज्ञ ।
 - वन और वन्य जीव विशेषज्ञ ।
 - परियोजना आंकलन में अनुभव सहित पर्यावरणीय अर्थशास्त्र विशेषज्ञ ।
3. पर्यावरणीय निर्धारण समिति की सदस्यता पंद्रह नियमित सदस्यों से अधिक की नहीं होगी । तथापि, अध्यक्ष, समिति की किसी विशिष्ट बैठक के लिए किसी सुसंगत क्षेत्र में किसी विशेषज्ञ को सदस्य के रूप में सहयोजित कर सकेगा ।
4. अध्यक्ष, सुसंगत विकास क्षेत्र में एक प्रतिष्ठित और पर्यावरणीय मिति या प्रबंधन में अथवा लोक प्रशासन में अनुभव प्राप्त विशेषज्ञ होगा ।
5. अध्यक्ष, सदस्यों में से एक सदस्य को उपाध्यक्ष के रूप में नामनिर्देशित करेगा जो अध्यक्ष की अनुपस्थिति में पर्यावरणीय निर्धारण समिति की बैठक की अध्यक्षता करेगा ।
6. पर्यावरण और वन मंत्रालय का एक प्रतिनिधि उसके सचिव के रूप में समिति की सहायता करेगा ।
7. किसी सदस्य की अधिकतम पदावधि, जिसके अंतर्गत अध्यक्ष भी है, प्रत्येक तीन वर्ष की दो पदावधि होगी ।
8. अध्यक्ष/सदस्य को किसी कारण और समुचित जांच के बिना पदावधि के अवसान से पूर्व नहीं हटाया जा सकेगा ।

**MINISTRY OF ENVIRONMENT AND FORESTS
NOTIFICATION**

New Delhi, the 14th September, 2006

S.O. 1533(E).—Whereas, a draft notification under Sub-rule (3) of Rule 5 of the Environment (Protection) Rules, 1986 for imposing certain restrictions and prohibitions on new projects or activities, or on the expansion or modernization of existing projects or activities based on their potential environmental impacts as indicated in the Schedule to the notification, being undertaken in any part of India¹, unless prior environmental clearance has been accorded in accordance with the objectives of National Environment Policy as approved by the Union Cabinet on 18th May, 2006 and the procedure specified in the notification, by the Central Government or the State or Union Territory Level Environment Impact Assessment Authority (SEIAA), to be constituted by the Central Government in consultation with the State Government or the Union Territory Administration concerned under Sub-section (3) of Section 3 of the Environment (Protection) Act, 1986 for the purpose of this notification, was published in the Gazette of India, Extraordinary, Part II, Section 3, Sub-section (ii) vide number S.O. 1324(E), dated the 15th September, 2005 inviting objections and suggestions from all persons likely to be affected thereby within a period of sixty days from the date on which copies of Gazette containing the said notification were made available to the public;

And whereas, copies of the said notification were made available to the public on 15th September, 2005;

And whereas, all objections and suggestions received in response to the above mentioned draft notification have been duly considered by the Central Government;

Now, therefore, in exercise of the powers conferred by sub-section (1) and clause (v) of sub-section (2) of section 3 of the Environment (Protection) Act, 1986, read with clause (d) of sub-rule (3) of rule 5 of the Environment (Protection) Rules, 1986 and in supersession of the notification number S.O. 60 (E) dated the 27th January, 1994, except in respect of things done or omitted to be done before such supersession, the Central Government hereby directs that on and from the date of its publication the required construction of new projects or activities or the expansion or modernization of existing projects or activities listed in the Schedule to this notification entailing capacity addition with change in process and or technology shall be undertaken in any part of India only after the prior environmental clearance from the Central Government or as the case may be, by the State Level Environment Impact Assessment Authority, duly constituted by the Central Government under sub-section (3) of section 3 of the said Act, in accordance with the procedure specified hereinafter in this notification.

¹Includes the territorial waters

2. Requirements of prior Environmental Clearance (EC):—The following projects or activities shall require prior environmental clearance from the concerned regulatory authority, which shall hereinafter referred to be as the Central Government in the Ministry of Environment and Forests for matters falling under Category 'A' in the Schedule and at State level the State Environment Impact Assessment Authority (SEIAA) for matters falling under Category 'B' in the said Schedule, before any construction work, or preparation of land by the project management except for securing the land, is started on the project or activity:

- (i) All new projects or activities listed in the Schedule to this notification;
- (ii) Expansion and modernization of existing projects or activities listed in the Schedule to this 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;

(iii) Any change in product - mix in an existing manufacturing unit included in Schedule beyond the specified range.

3. State Level Environment Impact Assessment Authority:- (1) A State Level Environment Impact Assessment Authority hereinafter referred to as the SEIAA shall be constituted by the Central Government under sub-section (3) of section 3 of the Environment (Protection) Act, 1986 comprising of three Members including a Chairman and a Member – Secretary to be nominated by the State Government or the Union territory Administration concerned.

- (2) The Member-Secretary shall be a serving officer of the concerned State Government or Union territory administration familiar with environmental laws.
- (3) The other two Members shall be either a professional or expert fulfilling the eligibility criteria given in Appendix VI to this notification.
- (4) One of the specified Members in sub-paragraph (3) above who is an expert in the Environmental Impact Assessment process shall be the Chairman of the SEIAA.
- (5) The State Government or Union territory Administration shall forward the names of the Members and the Chairman referred in sub- paragraph 3 to 4 above to the Central Government and the Central Government shall constitute the SEIAA as an authority for the purposes of this notification within thirty days of the date of receipt of the names.
- (6) The non-official Member and the Chairman shall have a fixed term of three years (from the date of the publication of the notification by the Central Government constituting the authority).
- (7) All decisions of the SEIAA shall be unanimous and taken in a meeting.

4. Categorization of projects and activities:-

- (i) All projects and activities are broadly categorized in to two categories - Category A and Category B, based on the spatial extent of potential impacts and potential impacts on human health and natural and man made resources.
- (ii) All projects or 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 and Forests (MoEF) on the recommendations of an Expert Appraisal Committee (EAC) to be constituted by the Central Government for the purposes of this notification;
- (iii) 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 (GC) stipulated in the Schedule, will require prior environmental clearance from the State/Union territory Environment Impact Assessment Authority (SEIAA). The SEIAA shall base its decision on the recommendations of a State or Union territory level Expert Appraisal Committee (SEAC) as to be constituted for in this notification. In the absence of a duly constituted SEIAA or SEAC, a Category 'B' project shall be treated as a Category 'A' project;

5. Screening, Scoping and Appraisal Committees:-

The same Expert Appraisal Committees (EACs) at the Central Government and SEACs (hereinafter referred to as the (EAC) and (SEAC) at the State or the Union territory level shall screen, scope and appraise projects or activities in Category 'A' and Category 'B' respectively. EAC and SEAC's shall meet at least once every month.

- (a) The composition of the EAC shall be as given in Appendix VI. The SEAC at the State or the Union territory level shall be constituted by the Central Government in consultation with the concerned State Government or the Union territory Administration with identical composition;
- (b) The Central Government may, with the prior concurrence of the concerned State Governments or the Union territory Administrations, constitute one SEAC for more than one State or Union territory for reasons of administrative convenience and cost;
- (c) The EAC and SEAC shall be reconstituted after every three years;
- (d) The authorised members of the EAC and SEAC, concerned, may inspect any site(s) connected with the project or activity in respect of which the prior environmental clearance is sought, for the purposes of screening or scoping or appraisal, with prior notice of at least seven days to the applicant, who shall provide necessary facilities for the inspection;
- (e) The EAC and SEACs shall function on the principle of collective responsibility. The Chairperson shall endeavour to reach a consensus in each case, and if consensus cannot be reached, the view of the majority shall prevail.

6. Application for Prior Environmental Clearance (EC):-

An application seeking prior environmental clearance in all cases shall be made in the prescribed Form 1 annexed herewith and Supplementary Form 1A, if applicable, as given in Appendix II, after the identification of prospective site(s) for the project and/or activities to which the application relates, before commencing any construction activity, or preparation of land, at the site by the applicant. The applicant shall furnish, along with the application, a copy of the pre-feasibility project report except that, in case of construction projects or activities (item 8 of the Schedule) in addition to Form 1 and the Supplementary Form 1A, a copy of the conceptual plan shall be provided, instead of the pre-feasibility report.

7. Stages in the Prior Environmental Clearance (EC) Process for New Projects:-

7(i) The environmental clearance process for new projects will comprise of a maximum of four stages, all of which may not apply to particular cases as set forth below in this notification. These four stages in sequential order are:-

- Stage (1) Screening (Only for Category 'B' projects and activities)
- Stage (2) Scoping
- Stage (3) Public Consultation
- Stage (4) Appraisal

1. Stage (1) - Screening:

In case of Category 'B' projects or activities, this stage will entail the scrutiny of an application seeking prior environmental clearance made in Form 1 by the concerned State level Expert Appraisal Committee (SEAC) for determining whether or not the project or activity

requires further environmental studies for preparation of an Environmental Impact Assessment (EIA) for its appraisal prior to the grant of environmental clearance depending up on the nature and location specificity of the project. The projects requiring an Environmental Impact Assessment report shall be termed Category 'B1' and remaining projects shall be termed Category 'B2' and will not require an Environment Impact Assessment report. For categorization of projects into B1 or B2 except item 8 (b), the Ministry of Environment and Forests shall issue appropriate guidelines from time to time.

II. Stage (2) - Scoping:

(i) "Scoping": refers to the process by which the Expert Appraisal Committee in the case of Category 'A' projects or activities, and State level Expert Appraisal Committee in the case of Category 'B1' projects or activities, including applications for expansion and/or modernization and/or change in product mix of existing projects or activities, determine detailed and comprehensive Terms Of Reference (TOR) addressing all relevant environmental concerns for the preparation of an Environment Impact Assessment (EIA) Report in respect of the project or activity for which prior environmental clearance is sought. The Expert Appraisal Committee or State level Expert Appraisal Committee concerned shall determine the Terms of Reference on the basis of the information furnished in the prescribed application Form 1/Form 1A including Terms of Reference proposed by the applicant, a site visit by a sub-group of Expert Appraisal Committee or State level Expert Appraisal Committee concerned only if considered necessary by the Expert Appraisal Committee or State Level Expert Appraisal Committee concerned, Terms of Reference suggested by the applicant if furnished and other information that may be available with the Expert Appraisal Committee or State Level Expert Appraisal Committee concerned. All projects and activities listed as Category 'B' in Item 8 of the Schedule (Construction/Township/Commercial Complexes/Housing) shall not require Scoping and will be appraised on the basis of Form 1/ Form 1A and the conceptual plan.

(ii) The Terms of Reference (TOR) shall be conveyed to the applicant by the Expert Appraisal Committee or State Level Expert Appraisal Committee as concerned within sixty days of the receipt of Form 1. In the case of Category A Hydroelectric projects Item 1(c) (i) of the Schedule the Terms of Reference shall be conveyed along with the clearance for pre-construction activities. If the Terms of Reference are not finalized and conveyed to the applicant within sixty days of the receipt of Form 1, the Terms of Reference suggested by the applicant shall be deemed as the final Terms of Reference approved for the EIA studies. The approved Terms of Reference shall be displayed on the website of the Ministry of Environment and Forests and the concerned State Level Environment Impact Assessment Authority.

(iii) Applications for prior environmental clearance may be rejected by the regulatory authority concerned on the recommendation of the EAC or SEAC concerned at this stage itself. In case of such rejection, the decision together with reasons for the same shall be communicated to the applicant in writing within sixty days of the receipt of the application.

III. Stage (3) - Public Consultation:

(i) "Public Consultation" refers to the process by which the concerns of local affected persons and others who have plausible stake in the environmental impacts of the project or activity are ascertained with a view to taking into account all the material concerns in the project or activity design as appropriate. All Category 'A' and Category B1 projects or activities shall undertake Public Consultation, except the following:-

- (a) modernization 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).
 - (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.
- (ii) The Public Consultation shall ordinarily have two components comprising of:-
- (a) a public hearing at the site or in its close proximity- district wise, to be carried out in the manner prescribed in Appendix IV, for ascertaining concerns of local affected persons;
 - (b) obtain responses in writing from other concerned persons having a plausible stake in the environmental aspects of the project or activity.
- (iii) the public hearing at, or in close proximity to, the site(s) in all cases shall be conducted by the State Pollution Control Board (SPCB) or the Union territory Pollution Control Committee (UTPCC) concerned in the specified manner and forward the proceedings to the regulatory authority concerned within 45(forty five) of a request to the effect from the applicant.
- (iv) in case the State Pollution Control Board or the Union territory Pollution Control Committee concerned does not undertake and complete the public hearing within the specified period, and/or does not convey the proceedings of the public hearing within the prescribed period directly to the regulatory authority concerned as above, the regulatory authority shall engage another public agency or authority which is not subordinate to the regulatory authority, to complete the process within a further period of forty five days..
- (v) If the public agency or authority nominated under the sub paragraph (iii) above reports to the regulatory authority concerned that owing to the local situation, it is not possible to conduct the public hearing in a manner which will enable the views of the concerned local persons to be freely expressed, it shall report the facts in detail to the concerned regulatory authority, which may, after due consideration of the report and other reliable information that it may have, decide that the public consultation in the case need not include the public hearing.
- (vi) For obtaining responses in writing from other concerned persons having a plausible stake in the environmental aspects of the project or activity, the concerned regulatory authority and the State Pollution Control Board (SPCB) or the Union territory Pollution Control Committee (UTPCC) shall invite responses from such concerned persons by placing on their website the Summary EIA report prepared in the format given in Appendix IIIA by the applicant along with a copy of the application in the prescribed form , within seven days of the receipt of a written request for arranging the public hearing . Confidential information including non-disclosable or legally privileged information involving Intellectual Property Right, source specified in the application shall not be placed on the web site. The regulatory authority concerned may also use

other appropriate media for ensuring wide publicity about the project or activity. The regulatory authority shall, however, make available on a written request from any concerned person the Draft EIA report for inspection at a notified place during normal office hours till the date of the public hearing. All the responses received as part of this public consultation process shall be forwarded to the applicant through the quickest available means.

(vii) After completion of the public consultation, the applicant shall address all the material environmental concerns expressed during this process, and make appropriate changes in the draft EIA and EMP. The final EIA report, so prepared, shall be submitted by the applicant to the concerned regulatory authority for appraisal. The applicant may alternatively submit a supplementary report to draft EIA and EMP addressing all the concerns expressed during the public consultation.

IV. Stage (4) - Appraisal:

(i) Appraisal means the detailed scrutiny by the Expert Appraisal Committee or State Level Expert Appraisal Committee of the application and other documents like the Final EIA report, outcome of the public consultations including public hearing proceedings, submitted by the applicant to the regulatory authority concerned for grant of environmental clearance. This appraisal shall be made by Expert Appraisal Committee or State Level Expert Appraisal Committee concerned in a transparent manner in a proceeding to which the applicant shall be invited for furnishing necessary clarifications in person or through an authorized representative. On conclusion of this proceeding, the Expert Appraisal Committee or State Level Expert Appraisal Committee concerned shall make categorical recommendations to the regulatory authority concerned either for grant of prior environmental clearance on stipulated terms and conditions, or rejection of the application for prior environmental clearance, together with reasons for the same.

(ii) The appraisal of all projects or activities which are not required to undergo public consultation, or submit an Environment Impact Assessment report, shall be carried out on the basis of the prescribed application Form 1 and Form 1A as applicable, any other relevant validated information available and the site visit wherever the same is considered as necessary by the Expert Appraisal Committee or State Level Expert Appraisal Committee concerned.

(iii) The appraisal of an application shall be completed by the Expert Appraisal Committee or State Level Expert Appraisal Committee concerned within sixty days of the receipt of the final Environment Impact Assessment report and other documents or the receipt of Form 1 and Form 1A, where public consultation is not necessary and the recommendations of the Expert Appraisal Committee or State Level Expert Appraisal Committee shall be placed before the competent authority for a final decision within the next fifteen days. The prescribed procedure for appraisal is given in Appendix V;

7(ii). Prior Environmental Clearance (EC) process for Expansion or Modernization or Change of product mix in existing projects:

All applications seeking prior environmental clearance for expansion with increase in the production capacity beyond the capacity for which prior environmental clearance has been granted under this notification or with increase in either lease area or production capacity in the case of mining projects or for the modernization of an existing unit with increase in the total production capacity beyond the threshold limit prescribed in the Schedule to this notification through change in process and or technology or involving a change in the product-mix shall be made in Form I and they shall be considered by the concerned Expert Appraisal Committee or State Level Expert Appraisal Committee within sixty days, who will decide on the due diligence.

necessary including preparation of EIA and public consultations and the application shall be appraised accordingly for grant of environmental clearance.

8. Grant or Rejection of Prior Environmental Clearance (EC):

(i) The regulatory authority shall consider the recommendations of the EAC or SEAC concerned and convey its decision to the applicant within forty five days of the receipt of the recommendations of the Expert Appraisal Committee or State Level Expert Appraisal Committee concerned or in other words within one hundred and five days of the receipt of the final Environment Impact Assessment Report, and where Environment Impact Assessment is not required, within one hundred and five days of the receipt of the complete application with requisite documents, except as provided below.

(ii) The regulatory authority shall normally accept the recommendations of the Expert Appraisal Committee or State Level Expert Appraisal Committee concerned. In cases where it disagrees with the recommendations of the Expert Appraisal Committee or State Level Expert Appraisal Committee concerned, the regulatory authority shall request reconsideration by the Expert Appraisal Committee or State Level Expert Appraisal Committee concerned within forty five days of the receipt of the recommendations of the Expert Appraisal Committee or State Level Expert Appraisal Committee concerned while stating the reasons for the disagreement. An intimation of this decision shall be simultaneously conveyed to the applicant. The Expert Appraisal Committee or State Level Expert Appraisal Committee concerned, in turn, shall consider the observations of the regulatory authority and furnish its views on the same within a further period of sixty days. The decision of the regulatory authority after considering the views of the Expert Appraisal Committee or State Level Expert Appraisal Committee concerned shall be final and conveyed to the applicant by the regulatory authority concerned within the next thirty days.

(iii) In the event that the decision of the regulatory authority is not communicated to the applicant within the period specified in sub-paragraphs (i) or (ii) above, as applicable, the applicant may proceed as if the environment clearance sought for has been granted or denied by the regulatory authority in terms of the final recommendations of the Expert Appraisal Committee or State Level Expert Appraisal Committee concerned.

(iv) On expiry of the period specified for decision by the regulatory authority under paragraph (i) and (ii) above, as applicable, the decision of the regulatory authority, and the final recommendations of the Expert Appraisal Committee or State Level Expert Appraisal Committee concerned shall be public documents.

(v) Clearances from other regulatory bodies or authorities shall not be required prior to receipt of applications for prior environmental clearance of projects or activities, or screening, or scoping, or appraisal, or decision by the regulatory authority concerned, unless any of these is sequentially dependent on such clearance either due to a requirement of law, or for necessary technical reasons.

(vi) Deliberate concealment and/or submission of false or misleading information or data which is material to screening or scoping or appraisal or decision on the application shall make the application liable for rejection, and cancellation of prior environmental clearance granted on that basis. Rejection of an application or cancellation of a prior environmental clearance already granted, on such ground, shall be decided by the regulatory authority, after giving a personal hearing to the applicant, and following the principles of natural justice.

9. Validity of Environmental Clearance (EC):

The "Validity of Environmental Clearance" is meant the period from which a prior environmental clearance is granted by the regulatory authority, or may be presumed by the applicant to have been granted under sub paragraph (iv) of paragraph 7 above, to the start of production operations by the project or activity, or completion of all construction operations in case of construction projects (item 8 of the Schedule), to which the application for prior environmental clearance refers. The prior environmental clearance granted for a project or activity shall be valid for a period of ten years in the case of River Valley projects (item 1(c) of the Schedule), project life as estimated by Expert Appraisal Committee or State Level Expert Appraisal Committee subject to a maximum of thirty years for mining projects and five years in the case of all other projects and activities. However, in the case of Area Development projects and Townships [item 8(b)], the validity period shall be limited only to such activities as may be the responsibility of the applicant as a developer. This period of validity may be extended by the regulatory authority concerned by a maximum period of five years provided an application is made to the regulatory authority by the applicant - within the validity period, together with an updated Form I, and Supplementary Form 1A, for Construction projects or activities (item 8 of the Schedule). In this regard the regulatory authority may also consult the Expert Appraisal Committee or State Level Expert Appraisal Committee as the case may be.

10. Post Environmental Clearance Monitoring:

(i) It shall be mandatory for the project management to submit half-yearly compliance reports in respect of the stipulated prior environmental clearance terms and conditions in hard and soft copies to the regulatory authority concerned, on 1st June and 1st December of each calendar year.

(ii) All such compliance reports submitted by the project management shall be public documents. Copies of the same shall be given to any person on application to the concerned regulatory authority. The latest such compliance report shall also be displayed on the web site of the concerned regulatory authority.

11. Transferability of Environmental Clearance (EC):

A prior environmental clearance granted for a specific project or activity to an applicant may be transferred during its validity to another legal person entitled to undertake the project or activity on application by the transferor, or by the transferee with a written "no objection" by the transferor, to, and by the regulatory authority concerned, on the same terms and conditions under which the prior environmental clearance was initially granted, and for the same validity period. No reference to the Expert Appraisal Committee or State Level Expert Appraisal Committee concerned is necessary in such cases.

12. Operation of EIA Notification, 1994, till disposal of pending cases:

From the date of final publication of this notification the Environment Impact Assessment (EIA) notification number S.O.60 (E) dated 27th January, 1994 is hereby superseded, except in suppression of the things done or omitted to be done before such suppression to the extent that in case of all or some types of applications made for prior environmental clearance and pending on the date of final publication of this notification, the Central Government may relax any one or all provisions of this notification except the list of the projects or activities requiring prior environmental clearance in Schedule I, or continue operation of some or all provisions of the said notification, for a period not exceeding one year from the date of issue of this notification.

SCHEDULE

(See paragraph 2 and 7)

LIST OF PROJECTS OR ACTIVITIES REQUIRING PRIOR ENVIRONMENTAL CLEARANCE

Project or Activity		Category with threshold limit		Conditions if any
		A	B	
1		Mining, extraction of natural resources and power generation (for a specified production capacity)		
(1)	(2)	(3)	(4)	(5)
I(a)	Mining of minerals	≥ 50 ha. of mining lease area Asbestos mining irrespective of mining area	<50 ha ≥ 5 ha. of mining lease area.	General Condition shall apply <u>Note</u> Mineral prospecting (not involving drilling) are exempted provided the concession areas have got previous clearance for physical survey
I(b)	Offshore and onshore oil and gas exploration, development & production	All projects		<u>Note</u> Exploration Surveys (not involving drilling) are exempted provided the concession areas have got previous clearance for physical survey
I(c)	River Valley projects	(i) ≥ 50 MW hydroelectric power generation; (ii) ≥ 10,000 ha. of culturable command area	(i) < 50 MW ≥ 25 MW hydroelectric power generation; (ii) < 10,000 ha. of culturable command area	General Condition shall apply
I(d)	Thermal Power Plants	≥ 500 MW (coal/lignite/naphtha & gas based); ≥ 50 MW (Pet coke diesel and all other fuels -)	< 500 MW (coal/lignite/naphtha & gas based); <50 MW ≥ 5MW (Pet coke ,diesel and all other fuels)	General Condition shall apply

[भाग II—खण्ड 3(ii)]

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(1)	(2)	(3)	(4)	(5)
1(e)	Nuclear power projects and processing of nuclear fuel	All projects		
2		Primary Processing		
2(a)	Coal washeries	≥ 1 million ton/annum throughput of coal	< 1 million ton/annum throughput of coal	General Condition shall apply (If located within mining area the proposal shall be appraised together with the mining proposal)
2 (b)	Mineral beneficiation	≥ 0.1 million ton/annum mineral throughput	< 0.1 million ton/annum mineral throughput	General Condition shall apply (Mining proposal with Mineral beneficiation shall be appraised together for grant of clearance)

3		Materials Production		
(1)	(2)	(3)	(4)	(5)
3(a)	Metallurgical industries (ferrous & non ferrous)	a) Primary metallurgical industry All projects b) Sponge iron manufacturing ≥ 200 TPD c) Secondary metallurgical processing industry All toxic and heavy metal producing units $\geq 20,000$ tonnes/annum	Sponge iron manufacturing < 200 TPD Secondary metallurgical processing industry i.) All toxic and heavy metal producing units $< 20,000$ tonnes/annum ii.) All other non-toxic secondary metallurgical processing industries > 5000 tonnes/annum	General Condition shall apply for Sponge iron manufacturing
3(b)	Cement plants	≥ 1.0 million tonnes/annum production capacity	< 1.0 million tonnes/annum production capacity. All Stand alone grinding units	General Condition shall apply

4				
Materials Processing				
(1)	(2)	(3)	(4)	(5)
4(a)	Petroleum refining industry	All projects	-	-
4(b)	Coke oven plants	≥2,50,000 tonnes/annum	<2,50,000 & ≥25,000 tonnes/annum	-
4(c)	Asbestos milling and asbestos based products	All projects	-	-
4(d)	Chlor-alkali industry	≥300 TPD production capacity or a unit located out side the notified industrial area/estate	<300 TPD production capacity and located within a notified industrial area/estate	Specific Condition shall apply No new Mercury Cell based plants will be permitted and existing units converting to membrane cell technology are exempted from this Notification
4(e)	Soda ash Industry	All projects	-	-
4(f)	Leather/skin/hide processing industry	New projects outside the industrial area or expansion of existing units out side the industrial area	All new or expansion of projects located within a notified industrial area/estate	Specific condition shall apply
5				
Manufacturing/Fabrication				
5(a)	Chemical fertilizers	All projects	-	-
5(b)	Pesticides industry and pesticide specific intermediates (excluding formulations)	All units producing technical grade pesticides	-	-

(1)	(2)	(3)	(4)	(5)
5(c)	Petro-chemical complexes (industries based on processing of petroleum fractions & natural gas and/or reforming to aromatics)	All projects	-	-
5(d)	Manmade fibres manufacturing	Rayon	Others	General Condition shall apply
5(e)	Petrochemical based processing (processes other than cracking & reformation and not covered under the complexes)	Located out side the notified industrial area/ estate	Located in a notified industrial area/ estate	Specific Condition shall apply
5(f)	Synthetic organic chemicals industry (dyes & dye intermediates; bulk drugs and intermediates excluding drug formulations; synthetic rubbers; basic organic chemicals, other synthetic organic chemicals and chemical intermediates)	Located out side the notified industrial area/ estate	Located in a notified industrial area/ estate	Specific Condition shall apply
5(g)	Distilleries	(i) All Molasses based distilleries (ii) All Cane juice/ non-molasses based distilleries ≥ 30 KLD	All Cane juice/non-molasses based distilleries <30 KLD	General Condition shall apply
5(h)	Integrated paint industry	-	All projects	General Condition shall apply

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(1)	(2)	(3)	(4)	(5)
5(i)	Pulp & paper industry excluding manufacturing of paper from waste paper and manufacture of paper from ready pulp with out bleaching	Pulp manufacturing and Paper manufacturing industry	Paper manufacturing industry without pulp manufacturing	General Condition shall apply
5(j)	Sugar Industry	-	≥ 5000 tcd cane crushing capacity	General Condition shall apply
5(k)	Induction/arc furnaces/cupola furnaces 5TPH or more	-	All projects	General Condition shall apply
6		Service Sectors		
6(a)	Oil & gas transportation pipe line (crude and refinery/ petrochemical products), passing through national parks /sanctuaries/coral reefs /ecologically sensitive areas including LNG Terminal	All projects		

(1)	(2)	(3)	(4)	(5)
6(b)	Isolated storage & handling of hazardous chemicals (As per threshold planning quantity indicated in column 3 of schedule 2 & 3 of MSIHC Rules 1989 amended 2000)	-	All projects	General Condition shall apply
7	Physical Infrastructure including Environmental Services			
7(a)	Air ports	All projects	-	-
7(b)	All ship breaking yards including ship breaking units	All projects	-	-
7(c)	Industrial estates/parks/ complexes/ areas, export processing Zones (EPZs), Special Economic Zones (SEZs), Biotech Parks, Leather Complexes.	If at least one industry in the proposed industrial estate falls under the Category A, entire industrial area shall be treated as Category A, irrespective of the area. Industrial estates with area greater than 500 ha. and housing at least one Category B industry.	Industrial estates housing at least one Category B industry and area <500 ha. Industrial estates of area > 500 ha. and not housing any industry belonging to Category A or B.	Special condition shall apply Note: Industrial Estate of area below 500 ha. and not housing any industry of category A or B does not require clearance.
7(d)	Common hazardous waste treatment, storage and disposal facilities (TSDFs)	All integrated facilities having incineration & landfill or incineration alone	All facilities having land fill only	General Condition shall apply

(1)	(2)	(3)	(4)	(5)
7(e)	Ports, Harbours	≥ 5 million TPA of cargo handling capacity (excluding fishing harbours)	< 5 million TPA of cargo handling capacity and/or ports/ harbours ≥10,000 TPA of fish handling capacity	General Condition shall apply
7(f)	Highways	i) New National High ways; and ii) Expansion of National High ways greater than 30 KM, involving additional right of way greater than 20m involving land acquisition and passing through more than one State.	i) New State High ways; and ii) Expansion of National / State Highways greater than 30 km involving additional right of way greater than 20m involving land acquisition.	General Condition shall apply
7(g)	Aerial ropeways		All projects	General Condition shall apply
7(h)	Common Effluent Treatment Plants (CETPs)		All projects	General Condition shall apply
7(i)	Common Municipal Solid Waste Management Facility (CMSWMF)		All projects	General Condition shall apply

(1)	(2)	(3)	(4)	(5)
8		Building /Construction projects/Area Development projects and Townships		
8(a)	Building and Construction projects		≥20000 sq.mtrs and <1,50,000 sq.mtrs. of built-up area#	#(built up area for covered construction; in the case of facilities open to the sky, it will be the activity area)
8(b)	Townships and Area Development projects.		Covering an area ≥ 50 ha and or built up area ≥1,50,000 sq .mtrs ++	**All projects under Item 8(b) shall be appraised as Category B1

Note:-**General Condition (GC):**

Any project or activity specified in Category 'B' will be treated as Category A, if located in whole or in part within 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.

Specific Condition (SC):

If any Industrial Estate/Complex / Export processing Zones /Special Economic Zones/Biotech Parks / Leather Complex with homogeneous type of industries such as Items 4(d), 4(f), 5(e), 5(f), or those Industrial estates with pre -defined set of activities (not necessarily homogeneous, obtains prior environmental clearance, individual industries including proposed industrial housing within such estates /complexes will not be required to take prior environmental clearance, so long as the Terms and Conditions for the industrial estate/complex are complied with (Such estates/complexes must have a clearly identified management with the legal responsibility of ensuring adherence to the Terms and Conditions of prior environmental clearance, who may be held responsible for violation of the same throughout the life of the complex/estate).

[No. J-11013/56/2004-IA-II(I)]
R. CHANDRAMOHAN, J. Secy.

APPENDIX I

(See paragraph - 6)

FORM 1**(I) Basic Information**

Name of the Project:

Location / site alternatives under consideration:

Size of the Project: *

Expected cost of the project:

Contact Information:

Screening Category:

- Capacity corresponding to sectoral activity (such as production capacity for manufacturing, mining lease area and production capacity for mineral production, area for mineral exploration, length for linear transport infrastructure, generation capacity for power generation etc.)

(II) Activity

1. Construction, operation or decommissioning of the Project involving actions, which will cause physical changes in the locality (topography, land use, changes in water bodies, etc.)

S.No.	Information/Checklist confirmation	Yes/No	Details thereof (with approximate quantities /rates, wherever possible) with source of information data
1.1	Permanent or temporary change in land use, land cover or topography including increase in intensity of land use (with respect to local land use plan)		
1.2	Clearance of existing land, vegetation and buildings?		
1.3	Creation of new land uses?		
1.4	Pre-construction investigations e.g. bore holes, soil testing?		
1.5	Construction works?		
1.6	Demolition works?		
1.7	Temporary sites used for construction works or housing of construction workers?		
1.8	Above ground buildings, structures or earthworks including linear structures, cut and fill or excavations		
1.9	Underground works including mining or tunneling?		
1.10	Reclamation works?		
1.11	Dredging?		
1.12	Offshore structures?		
1.13	Production and manufacturing processes?		

1.14	Facilities for storage of goods or materials?		
1.15	Facilities for treatment or disposal of solid waste or liquid effluents?		
1.16	Facilities for long term housing of operational workers?		
1.17	New road, rail or sea traffic during construction or operation?		
1.18	New road, rail, air waterborne or other transport infrastructure including new or altered routes and stations, ports, airports etc?		
1.19	Closure or diversion of existing transport routes or infrastructure leading to changes in traffic movements?		
1.20	New or diverted transmission lines or pipelines?		
1.21	Impoundment, damming, culverting, realignment or other changes to the hydrology of watercourses or aquifers?		
1.22	Stream crossings?		
1.23	Abstraction or transfers of water from ground or surface waters?		
1.24	Changes in water bodies or the land surface affecting drainage or run-off?		
1.25	Transport of personnel or materials for construction, operation or decommissioning?		
1.26	Long-term dismantling or decommissioning or restoration works?		
1.27	Ongoing activity during decommissioning which could have an impact on the environment?		
1.28	Influx of people to an area in either temporarily or permanently?		
1.29	Introduction of alien species?		
1.30	Loss of native species or genetic diversity?		
1.31	Any other actions?		

2. Use of Natural resources for construction or operation of the Project (such as land, water, materials or energy, especially any resources which are non-renewable or in short supply):

S.No.	Information/checklist confirmation	Yes/No	Details thereof (with approximate quantities /rates, wherever possible) with source of information data
2.1	Land especially undeveloped or agricultural land (ha)		

2.2	Water (expected source & competing users) unit: KLD		
2.3	Minerals (MT)		
2.4	Construction material – stone, aggregates, and / soil (expected source – MT)		
2.5	Forests and timber (source – MT)		
2.6	Energy including electricity and fuels (source, competing users) Unit: fuel (MT), energy (MW)		
2.7	Any other natural resources (use appropriate standard units)		

3. Use, storage, transport, handling or production of substances or materials, which could be harmful to human health or the environment or raise concerns about actual or perceived risks to human health.

S.No.	Information/Checklist confirmation	Yes/No	Details thereof (with approximate quantities/rates, wherever possible) with source of information data
3.1	Use of substances or materials, which are hazardous (as per MSIHC rules) to human health or the environment (flora, fauna, and water supplies)		
3.2	Changes in occurrence of disease or affect disease vectors (e.g. insect or water borne diseases)		
3.3	Affect the welfare of people e.g. by changing living conditions?		
3.4	Vulnerable groups of people who could be affected by the project e.g. hospital patients, children, the elderly etc.,		
3.5	Any other causes		

4. Production of solid wastes during construction or operation or decommissioning (MT/month)

S.No.	Information/Checklist confirmation	Yes/No	Details thereof (with approximate quantities/rates, wherever possible) with source of information data
4.1	Spoil, overburden or mine wastes		

4.2	Municipal waste (domestic and or commercial wastes)		
4.3	Hazardous wastes (as per Hazardous Waste Management Rules)		
4.4	Other industrial process wastes		
4.5	Surplus product		
4.6	Sewage sludge or other sludge from effluent treatment		
4.7	Construction or demolition wastes		
4.8	Redundant machinery or equipment		
4.9	Contaminated soils or other materials		
4.10	Agricultural wastes		
4.11	Other solid wastes		

5. Release of pollutants or any hazardous, toxic or noxious substances to air (Kg/hr)

S.No.	Information/Checklist confirmation	Yes/No	Details thereof (with approximate quantities/rates, wherever possible) with source of information data
5.1	Emissions from combustion of fossil fuels from stationary or mobile sources		
5.2	Emissions from production processes		
5.3	Emissions from materials handling including storage or transport		
5.4	Emissions from construction activities including plant and equipment		
5.5	Dust or odours from handling of materials including construction materials, sewage and waste		

5.6	Emissions from incineration of waste		
5.7	Emissions from burning of waste in open air (e.g. slash materials, construction debris)		
5.8	Emissions from any other sources		

6. Generation of Noise and Vibration, and Emissions of Light and Heat:

S.No.	Information/Checklist confirmation	Yes/No	Details thereof (with approximate quantities/rates, wherever possible) with source of information data with source of information data
6.1	From operation of equipment e.g. engines, ventilation plant, crushers		
6.2	From industrial or similar processes		
6.3	From construction or demolition		
6.4	From blasting or piling		
6.5	From construction or operational traffic		
6.6	From lighting or cooling systems		
6.7	From any other sources		

7. Risks of contamination of land or water from releases of pollutants into the ground or into sewers, surface waters, groundwater, coastal waters or the sea:

S.No.	Information/Checklist confirmation	Yes/No	Details thereof (with approximate quantities/rates, wherever possible) with source of information data
7.1	From handling, storage, use or spillage of hazardous materials		
7.2	From discharge of sewage or other effluents to water or the land (expected mode and place of discharge)		
7.3	By deposition of pollutants emitted to air into the land or into water		
7.4	From any other sources		
7.5	Is there a risk of long term build up of pollutants in the environment from these sources?		

8. Risk of accidents during construction or operation of the Project, which could affect human health or the environment

S.No.	Information/Checklist confirmation	Yes/No	Details thereof (with approximate quantities/rates, wherever possible) with source of information data
8.1	From explosions, spillages, fires etc from storage, handling, use or production of hazardous substances		
8.2	From any other causes		
8.3	Could the project be affected by natural disasters causing environmental damage (e.g. floods, earthquakes, landslides, cloudburst etc)?		

9. Factors which should be considered (such as consequential development) which could lead to environmental effects or the potential for cumulative impacts with other existing or planned activities in the locality

S. No.	Information/Checklist confirmation	Yes/No	Details thereof (with approximate quantities/rates, wherever possible) with source of information data
9.1	Lead to development of supporting, lities, ancillary development or development stimulated by the project which could have impact on the environment e.g.: • Supporting infrastructure (roads, power supply, waste or waste water treatment, etc.) • housing development • extractive industries • supply industries • other		
9.2	Lead to after-use of the site, which could have an impact on the environment		
9.3	Set a precedent for later developments		
9.4	Have cumulative effects due to proximity to other existing or planned projects with similar effects		

(III) Environmental Sensitivity

S.No.	Areas	Name/ Identity	Aerial distance (within 15 km.) Proposed project location boundary
1	Areas protected under international conventions, national or local legislation for their ecological, landscape, cultural or other related value		

2	Areas which are important or sensitive for ecological reasons - Wetlands, watercourses or other water bodies, coastal zone, biospheres, mountains, forests		
3	Areas used by protected, important or sensitive species of flora or fauna for breeding, nesting, foraging, resting, over wintering, migration		
4	Inland, coastal, marine or underground waters		
5	State, National boundaries		
6	Routes or facilities used by the public for access to recreation or other tourist, pilgrim areas		
7	Defence installations		
8	Densely populated or built-up area		
9	Areas occupied by sensitive man-made land uses (<i>hospitals, schools, places of worship, community facilities</i>)		
10	Areas containing important, high quality or scarce resources (<i>ground water resources, surface resources, forestry, agriculture, fisheries, tourism, minerals</i>)		
11	Areas already subjected to pollution or environmental damage. (<i>those where existing legal environmental standards are exceeded</i>)		
12	Areas susceptible to natural hazard which could cause the project to present environmental problems (<i>earthquakes, subsidence, landslides, erosion, flooding or extreme or adverse climatic conditions</i>)		

(IV). Proposed Terms of Reference for EIA studies

APPENDIX II

(See paragraph 6)

FORM-1 A (only for construction projects listed under item 8 of the Schedule)**CHECK LIST OF ENVIRONMENTAL IMPACTS**

(Project proponents are required to provide full information and wherever necessary attach explanatory notes with the Form and submit along with proposed environmental management plan & monitoring programme)

1. LAND ENVIRONMENT

(Attach panoramic view of the project site and the vicinity)

1.1. Will the existing landuse get significantly altered from the project that is not consistent with the surroundings? (Proposed landuse must conform to the approved Master Plan / Development Plan of the area. Change of landuse if any and the statutory approval from the competent authority be submitted). Attach Maps of (i) site location, (ii) surrounding features of the proposed site (within 500 meters) and (iii) the site (indicating levels & contours) to appropriate scales. If not available attach only conceptual plans.

1.2. List out all the major project requirements in terms of the land area, built up area, water consumption, power requirement, connectivity, community facilities, parking needs etc.

1.3. What are the likely impacts of the proposed activity on the existing facilities adjacent to the proposed site? (Such as open spaces, community facilities, details of the existing landuse, disturbance to the local ecology).

1.4. Will there be any significant land disturbance resulting in erosion, subsidence & instability? (Details of soil type, slope analysis, vulnerability to subsidence, seismicity etc may be given).

1.5. Will the proposal involve alteration of natural drainage systems? (Give details on a contour map showing the natural drainage near the proposed project site)

1.6. What are the quantities of earthwork involved in the construction activity-cutting, filling, reclamation etc. (Give details of the quantities of earthwork involved, transport of fill materials from outside the site etc.)

1.7. Give details regarding water supply, waste handling etc during the construction period.

1.8. Will the low lying areas & wetlands get altered? (Provide details of how low lying and wetlands are getting modified from the proposed activity)

1.9. Whether construction debris & waste during construction cause health hazard? (Give quantities of various types of wastes generated during construction including the construction labour and the means of disposal)

2. WATER ENVIRONMENT

2.1. Give the total quantity of water requirement for the proposed project with the breakup of requirements for various uses. How will the water requirement met? State the sources & quantities and furnish a water balance statement.

- 2.2. What is the capacity (dependable flow or yield) of the proposed source of water?
- 2.3. What is the quality of water required, in case, the supply is not from a municipal source? (Provide physical, chemical, biological characteristics with class of water quality)
- 2.4. How much of the water requirement can be met from the recycling of treated wastewater? (Give the details of quantities, sources and usage)
- 2.5. Will there be diversion of water from other users? (Please assess the impacts of the project on other existing uses and quantities of consumption)
- 2.6. What is the incremental pollution load from wastewater generated from the proposed activity? (Give details of the quantities and composition of wastewater generated from the proposed activity)
- 2.7. Give details of the water requirements met from water harvesting? Furnish details of the facilities created.
- 2.8. What would be the impact of the land use changes occurring due to the proposed project on the runoff characteristics (quantitative as well as qualitative) of the area in the post construction phase on a long term basis? Would it aggravate the problems of flooding or water logging in any way?
- 2.9. What are the impacts of the proposal on the ground water? (Will there be tapping of ground water; give the details of ground water table, recharging capacity, and approvals obtained from competent authority, if any)
- 2.10. What precautions/measures are taken to prevent the run-off from construction activities polluting land & aquifers? (Give details of quantities and the measures taken to avoid the adverse impacts)
- 2.11. How is the storm water from within the site managed? (State the provisions made to avoid flooding of the area, details of the drainage facilities provided along with a site layout indicating contour levels)
- 2.12. Will the deployment of construction labourers particularly in the peak period lead to unsanitary conditions around the project site (Justify with proper explanation)
- 2.13. What on-site facilities are provided for the collection, treatment & safe disposal of sewage? (Give details of the quantities of wastewater generation, treatment capacities with technology & facilities for recycling and disposal)
- 2.14. Give details of dual plumbing system if treated waste used is used for flushing of toilets or any other use.

3. VEGETATION

- 3.1. Is there any threat of the project to the biodiversity? (Give a description of the local ecosystem with its unique features, if any)

3.2. Will the construction involve extensive clearing or modification of vegetation? (Provide a detailed account of the trees & vegetation affected by the project)

3.3. What are the measures proposed to be taken to minimize the likely impacts on important site features (Give details of proposal for tree plantation, landscaping, creation of water bodies etc along with a layout plan to an appropriate scale)

4. FAUNA

4.1. Is there likely to be any displacement of fauna- both terrestrial and aquatic or creation of barriers for their movement? Provide the details.

4.2. Any direct or indirect impacts on the avifauna of the area? Provide details.

4.3. Prescribe measures such as corridors, fish ladders etc to mitigate adverse impacts on fauna

5. AIR ENVIRONMENT

5.1. Will the project increase atmospheric concentration of gases & result in heat islands? (Give details of background air quality levels with predicted values based on dispersion models taking into account the increased traffic generation as a result of the proposed constructions)

5.2. What are the impacts on generation of dust, smoke, odorous fumes or other hazardous gases? Give details in relation to all the meteorological parameters.

5.3. Will the proposal create shortage of parking space for vehicles? Furnish details of the present level of transport infrastructure and measures proposed for improvement including the traffic management at the entry & exit to the project site.

5.4. Provide details of the movement patterns with internal roads, bicycle tracks, pedestrian pathways, footpaths etc., with areas under each category.

5.5. Will there be significant increase in traffic noise & vibrations? Give details of the sources and the measures proposed for mitigation of the above.

5.6. What will be the impact of DG sets & other equipment on noise levels & vibration in & ambient air quality around the project site? Provide details.

6. AESTHETICS

6.1. Will the proposed constructions in any way result in the obstruction of a view, scenic amenity or landscapes? Are these considerations taken into account by the proponents?

6.2. Will there be any adverse impacts from new constructions on the existing structures? What are the considerations taken into account?

6.3. Whether there are any local considerations of urban form & urban design influencing the design criteria? They may be explicitly spelt out.

6.4. Are there any anthropological or archaeological sites or artefacts nearby? State if any other-significant features in the vicinity of the proposed site have been considered.

7. SOCIO-ECONOMIC ASPECTS

7.1. Will the proposal result in any changes to the demographic structure of local population? Provide the details.

- 7.2. Give details of the existing social infrastructure around the proposed project.
- 7.3. Will the project cause adverse effects on local communities, disturbance to sacred sites or other cultural values? What are the safeguards proposed?

8. BUILDING MATERIALS

- 8.1. May involve the use of building materials with high-embodied energy. Are the construction materials produced with energy efficient processes? (Give details of energy conservation measures in the selection of building materials and their energy efficiency)
- 8.2. Transport and handling of materials during construction may result in pollution, noise & public nuisance. What measures are taken to minimize the impacts?
- 8.3. Are recycled materials used in roads and structures? State the extent of savings achieved?
- 8.4. Give details of the methods of collection, segregation & disposal of the garbage generated during the operation phases of the project.

9. ENERGY CONSERVATION

- 9.1. Give details of the power requirements, source of supply, backup source etc. What is the energy consumption assumed per square foot of built-up area? How have you tried to minimize energy consumption?
- 9.2. What type of, and capacity of, power back-up to you plan to provide?
- 9.3. What are the characteristics of the glass you plan to use? Provide specifications of its characteristics related to both short wave and long wave radiation?
- 9.4. What passive solar architectural features are being used in the building? Illustrate the applications made in the proposed project.
- 9.5. Does the layout of streets & buildings maximise the potential for solar energy devices? Have you considered the use of street lighting, emergency lighting and solar hot water systems for use in the building complex? Substantiate with details.
- 9.6. Is shading effectively used to reduce cooling/heating loads? What principles have been used to maximize the shading of Walls on the East and the West and the Roof? How much energy saving has been effected?
- 9.7. Do the structures use energy-efficient space conditioning, lighting and mechanical systems? Provide technical details. Provide details of the transformers and motor efficiencies, lighting intensity and air-conditioning load assumptions? Are you using CFC and HCFC free chillers? Provide specifications.
- 9.8. What are the likely effects of the building activity in altering the micro-climates? Provide a self assessment on the likely impacts of the proposed construction on creation of heat island & inversion effects?

9.9. What are the thermal characteristics of the building envelope? (a) roof; (b) external walls; and (c) fenestration? Give details of the material used and the U-values or the R values of the individual components.

9.10. What precautions & safety measures are proposed against fire hazards? Furnish details of emergency plans.

9.11. If you are using glass as wall material provides details and specifications including emissivity and thermal characteristics.

9.12. What is the rate of air infiltration into the building? Provide details of how you are mitigating the effects of infiltration.

9.13. To what extent the non-conventional energy technologies are utilised in the overall energy consumption? Provide details of the renewable energy technologies used.

10. Environment Management Plan

The Environment Management Plan would consist of all mitigation measures for each item wise activity to be undertaken during the construction, operation and the entire life cycle to minimize adverse environmental impacts as a result of the activities of the project. It would also delineate the environmental monitoring plan for compliance of various environmental regulations. It will state the steps to be taken in case of emergency such as accidents at the site including fire.

APPENDIX III

(See paragraph 7)

GENERIC STRUCTURE OF ENVIRONMENTAL IMPACT ASSESMENT DOCUMENT

S.NO	EIA STRUCTURE	CONTENTS
1.	Introduction	- Purpose of the report - Identification of project & project proponent - Brief description of nature, size, location of the project and its importance to the country, region - Scope of the study – details of regulatory scoping carried out (As per Terms of Reference)
2.	Project Description	- Condensed description of those aspects of the project (based on project feasibility study), likely to cause environmental effects. Details should be provided to give clear picture of the following: - Type of project - Need for the project - Location (maps showing general location, specific location, project boundary & project site layout)

		• Size or magnitude of operation (incl. Associated activities required by or for the project) • Proposed schedule for approval and implementation • Technology and process description • Project description. Including drawings showing project layout, components of project etc. Schematic representations of the feasibility drawings which give information important for EIA purpose • Description of mitigation measures incorporated into the project to meet environmental standards, environmental operating conditions, or other EIA requirements (as required by the scope) • Assessment of New & untested technology for the risk of technological failure
3.	Description of the Environment	• Study area, period, components & methodology • Establishment of baseline for valued environmental components, as identified in the scope • Base maps of all environmental components
4.	Anticipated Environmental Impacts & Mitigation Measures	• Details of Investigated Environmental impacts due to project location, possible accidents, project design, project construction, regular operations, final decommissioning or rehabilitation of a completed project • Measures for minimizing and / or offsetting adverse impacts identified • Irreversible and Irretrievable commitments of environmental components • Assessment of significance of impacts (Criteria for determining significance, Assigning significance) • Mitigation measures
5.	Analysis of Alternatives (Technology & Site)	• In case, the scoping exercise results in need for alternatives: • Description of each alternative • Summary of adverse impacts of each alternative • Mitigation measures proposed for each alternative and • Selection of alternative

6.	Environmental Monitoring Program	• Technical aspects of monitoring the effectiveness of mitigation measures (incl. Measurement methodologies, frequency, location, data analysis, reporting schedules, emergency procedures, detailed budget & procurement schedules)
7.	Additional Studies	• Public Consultation • Risk assessment • Social Impact Assessment. R&R Action Plans
8.	Project Benefits	• Improvements in the physical infrastructure • Improvements in the social infrastructure • Employment potential –skilled; semi-skilled and unskilled. • Other tangible benefits
9.	Environmental Cost Benefit Analysis	If recommended at the Scoping stage
10.	EMP	• Description of the administrative aspects of ensuring that mitigative measures are implemented and their effectiveness monitored, after approval of the EIA
11.	Summary & Conclusion (This will constitute the summary of the EIA Report)	• Overall justification for implementation of the project • Explanation of how, adverse effects have been mitigated
12.	Disclosure of Consultants engaged	• The names of the Consultants engaged with their brief resume and nature of Consultancy rendered

APPENDIX III A
(See paragraph 7)

CONTENTS OF SUMMARY ENVIRONMENTAL IMPACT ASSESSMENT

The Summary EIA shall be a summary of the full EIA Report condensed to ten A-4 size pages at the maximum. It should necessarily cover in brief the following Chapters of the full EIA Report: -

1. Project Description
2. Description of the Environment
3. Anticipated Environmental impacts and mitigation measures
4. Environmental Monitoring Programme
5. Additional Studies
6. Project Benefits
7. Environment Management Plan

APPENDIX IV

(See paragraph 7)

PROCEDURE FOR CONDUCT OF PUBLIC HEARING

1.0 The Public Hearing shall be arranged in a systematic, time bound and transparent manner ensuring widest possible public participation at the project site(s) or in its close proximity District -wise, by the concerned State Pollution Control Board (SPCB) or the Union Territory Pollution Control Committee (UTPCC).

2.0 The Process:

2.1 The Applicant shall make a request through a simple letter to the Member Secretary of the SPCB or Union Territory Pollution Control Committee, in whose jurisdiction the project is located, to arrange the public hearing within the prescribed statutory period. In case the project site is extending beyond a State or Union Territory, the public hearing is mandated in each State or Union Territory in which the project is sited and the Applicant shall make separate requests to each concerned SPCB or UTPCC for holding the public hearing as per this procedure.

2.2 The Applicant shall enclose with the letter of request, at least 10 hard copies and an equivalent number of soft (electronic) copies of the draft EIA Report with the generic structure given in Appendix III including the Summary Environment Impact Assessment report in English and in the local language, prepared strictly in accordance with the Terms of Reference communicated after Scoping (Stage-2). Simultaneously the applicant shall arrange to forward copies, one hard and one soft, of the above draft EIA Report along with the Summary EIA report to the Ministry of Environment and Forests and to the following authorities or offices, within whose jurisdiction the project will be located:

- (a) District Magistrate/s
- (b) Zila Parishad or Municipal Corporation
- (c) District Industries Office
- (d) Concerned Regional Office of the Ministry of Environment and Forests

2.3 On receiving the draft Environmental Impact Assessment report, the above-mentioned authorities except the MoEF, shall arrange to widely publicize it within their respective jurisdictions requesting the interested persons to send their comments to the concerned regulatory authorities. They shall also make available the draft EIA Report for inspection electronically or otherwise to the public during normal office hours till the Public Hearing is over. The Ministry of Environment and Forests shall promptly display the Summary of the draft Environmental Impact Assessment report on its website, and also make the full draft EIA available for reference at a notified place during normal office hours in the Ministry at Delhi.

2.4 The SPCB or UTPCC concerned shall also make similar arrangements for giving publicity about the project within the State/Union Territory and make available the Summary of the draft Environmental Impact Assessment report (Appendix III A) for inspection in select offices or public libraries or panchayats etc. They shall also additionally

make available a copy of the draft Environmental Impact Assessment report to the above five authorities/offices viz, Ministry of Environment and Forests, District Magistrate etc.

3.0 Notice of Public Hearing:

3.1 The Member-Secretary of the concerned SPCB or UTPCC shall finalize the date, time and exact venue for the conduct of public hearing within 7(seven) days of the date of receipt of the draft Environmental Impact Assessment report from the project proponent, and advertise the same in one major National Daily and one Regional vernacular Daily. A minimum notice period of 30(thirty) days shall be provided to the public for furnishing their responses;

3.2 The advertisement shall also inform the public about the places or offices where the public could access the draft Environmental Impact Assessment report and the Summary Environmental Impact Assessment report before the public hearing.

3.3 No postponement of the date, time, venue of the public hearing shall be undertaken, unless some untoward emergency situation occurs and only on the recommendation of the concerned District Magistrate the postponement shall be notified to the public through the same National and Regional vernacular dailies and also prominently displayed at all the identified offices by the concerned SPCB or Union Territory Pollution Control Committee;

3.4 In the above exceptional circumstances fresh date, time and venue for the public consultation shall be decided by the Member-Secretary of the concerned SPCB or UTPCC only in consultation with the District Magistrate and notified afresh as per procedure under 3.1 above.

4.0 The Panel

4.1 The District Magistrate or his or her representative not below the rank of an Additional District Magistrate assisted by a representative of SPCB or UTPCC, shall supervise and preside over the entire public hearing process.

5.0 Videography

5.1 The SPCB or UTPCC shall arrange to video film the entire proceedings. A copy of the videotape or a CD shall be enclosed with the public hearing proceedings while forwarding it to the Regulatory Authority concerned.

6.0 Proceedings

6.1 The attendance of all those who are present at the venue shall be noted and annexed with the final proceedings.

6.2 There shall be no quorum required for attendance for starting the proceedings.

6.3 A representative of the applicant shall initiate the proceedings with a presentation on the project and the Summary EIA report.

6.4 Every person present at the venue shall be granted the opportunity to seek information or clarifications on the project from the Applicant. The summary of the public

hearing proceedings accurately reflecting all the views and concerns expressed shall be recorded by the representative of the SPCB or UTPCC and read over to the audience at the end of the proceedings explaining the contents in the vernacular language and the agreed minutes shall be signed by the District Magistrate or his or her representative on the same day and forwarded to the SPCB/UTPCC concerned.

6.5 A Statement of the issues raised by the public and the comments of the Applicant shall also be prepared in the local language and in English and annexed to the proceedings.

6.6 The proceedings of the public hearing shall be conspicuously displayed at the office of the Panchyats within whose jurisdiction the project is located, office of the concerned Zila Parishad, District Magistrate, and the SPCB or UTPCC. The SPCB or UTPCC shall also display the proceedings on its website for general information. Comments, if any, on the proceedings which may be sent directly to the concerned regulatory authorities and the Applicant concerned.

7.0 Time period for completion of public hearing

7.1 The public hearing shall be completed within a period of 45 (forty five) days from date of receipt of the request letter from the Applicant. Therefore the SPCB or UTPCC concerned shall send the public hearing proceedings to the concerned regulatory authority within 8(eight) days of the completion of the public hearing. The applicant may also directly forward a copy of the approved public hearing proceedings to the regulatory authority concerned along with the final Environmental Impact Assessment report or supplementary report to the draft EIA report prepared after the public hearing and public consultations.

7.2 If the SPCB or UTPCC fails to hold the public hearing within the stipulated 45(forty five) days, the Central Government in Ministry of Environment and Forests for Category 'A' project or activity and the State Government or Union Territory Administration for Category 'B' project or activity at the request of the SEIAA, shall engage any other agency or authority to complete the process, as per procedure laid down in this notification.

APPENDIX -V (See paragraph 7)

PROCEDURE PRESCRIBED FOR APPRAISAL

1. The applicant shall apply to the concerned regulatory authority through a simple communication enclosing the following documents where public consultations are mandatory: -

- Final Environment Impact Assessment Report [20(twenty) hard copies and 1 (one) soft copy]]
- A copy of the video tape or CD of the public hearing proceedings
- A copy of final layout plan (20 copies)
- A copy of the project feasibility report (1 copy)

2. The Final EIA Report and the other relevant documents submitted by the applicant shall be scrutinized in office within 30 days from the date of its receipt by the concerned Regulatory Authority strictly with reference to the TOR and the inadequacies noted shall be communicated electronically or otherwise in a single set to the Members of the EAC

/SEAC enclosing a copy each of the Final EIA Report including the public hearing proceedings and other public responses received along with a copy of Form -I or Form 1A and scheduled date of the EAC /SEAC meeting for considering the proposal.

3. Where a public consultation is not mandatory and therefore a formal EIA study is not required, the appraisal shall be made on the basis of the prescribed application Form 1 and a pre-feasibility report in the case of all projects and activities other than Item 8 of the Schedule. In the case of Item 8 of the Schedule, considering its unique project cycle, the EAC or SEAC concerned shall appraise all Category B projects or activities on the basis of Form 1, Form 1A and the conceptual plan and stipulate the conditions for environmental clearance. As and when the applicant submits the approved scheme/building plans complying with the stipulated environmental clearance conditions with all other necessary statutory approvals, the EAC /SEAC shall recommend the grant of environmental clearance to the competent authority.

4. Every application shall be placed before the EAC /SEAC and its appraisal completed within 60 days of its receipt with requisite documents / details in the prescribed manner.

5. The applicant shall be informed at least 15 (fifteen) days prior to the scheduled date of the EAC /SEAC meeting for considering the project proposal.

6. The minutes of the EAC /SEAC meeting shall be finalised within 5 working days of the meeting and displayed on the website of the concerned regulatory authority. In case the project or activity is recommended for grant of EC, then the minutes shall clearly list out the specific environmental safeguards and conditions. In case the recommendations are for rejection, the reasons for the same shall also be explicitly stated.

APPENDIX VI

(See paragraph 5)

COMPOSITION OF THE SECTOR/ PROJECT SPECIFIC EXPERT APPRAISAL COMMITTEE (EAC) FOR CATEGORY A PROJECTS AND THE STATE/UT LEVEL EXPERT APPRAISAL COMMITTEES (SEACs) FOR CATEGORY B PROJECTS TO BE CONSTITUTED BY THE CENTRAL GOVERNMENT

1. The Expert Appraisal Committees (EAC(s) and the State/UT Level Expert Appraisal Committees (SEACs) shall consist of only professionals and experts fulfilling the following eligibility criteria:

Professional: The person should have at least (i) 5 years of formal University training in the concerned discipline leading to a MA/MSc Degree, or (ii) in case of Engineering /Technology/Architecture disciplines, 4 years formal training in a professional training course together with prescribed practical training in the field leading to a B.Tech/B.E./B.Arch. Degree, or (iii) Other professional degree (e.g. Law) involving a total of 5 years of formal University training and prescribed practical training, or (iv) Prescribed apprenticeship/article ship and pass examinations conducted by the concerned professional association (e.g. Chartered Accountancy), or (v) a University degree, followed by 2 years of formal training in a University or Service Academy (e.g. MBA/IAS/IFS). In selecting the individual professionals, experience gained by them in their respective fields will be taken note of.

Expert: A professional fulfilling the above eligibility criteria with at least 15 years of relevant experience in the field, or with an advanced degree (e.g. Ph.D.) in a concerned field and at least 10 years of relevant experience.

Age: Below 70 years. However, in the event of the non-availability of /paucity of experts in a given field, the maximum age of a member of the Expert Appraisal Committee may be allowed up to 75 years

2. The Members of the EAC shall be Experts with the requisite expertise and experience in the following fields /disciplines. In the event that persons fulfilling the criteria of "Experts" are not available, Professionals in the same field with sufficient experience may be considered:

- **Environment Quality Experts:** Experts in measurement/monitoring, analysis and interpretation of data in relation to environmental quality
- **Sectoral Experts in Project Management:** Experts in Project Management or Management of Process/Operations/Facilities in the relevant sectors.
- **Environmental Impact Assessment Process Experts:** Experts in conducting and carrying out Environmental Impact Assessments (EIAs) and preparation of Environmental Management Plans (EMPs) and other Management plans and who have wide expertise and knowledge of predictive techniques and tools used in the EIA process
- **Risk Assessment Experts**
- **Life Science Experts in floral and faunal management**
- **Forestry and Wildlife Experts**
- **Environmental Economics Expert with experience in project appraisal**

3. The Membership of the EAC shall not exceed 15 (fifteen) regular Members. However the Chairperson may co-opt an expert as a Member in a relevant field for a particular meeting of the Committee.

4. The Chairperson shall be an outstanding and experienced environmental policy expert or expert in management or public administration with wide experience in the relevant development sector.

5. The Chairperson shall nominate one of the Members as the Vice Chairperson who shall preside over the EAC in the absence of the Chairman /Chairperson.

6. A representative of the Ministry of Environment and Forests shall assist the Committee as its Secretary.

7. The maximum tenure of a Member, including Chairperson, shall be for 2 (two) terms of 3 (three) years each.

8. The Chairman / Members may not be removed prior to expiry of the tenure without cause and proper enquiry.

(To be published in the Gazette of India, Extraordinary, Part-II-Section 3-Sub-Section (ii))

Government of India
Ministry of Environment and forests

Corrigendum

New Delhi, the 13th November 2006

S.O.1939(E) In the notification of the Government of India in the Ministry of Environment and Forests number S.O. 1533 (E) dated the 14th September, 2006, published in the Gazette of India, Part II, section 3, sub-section (ii), dated the 14th September, 2006, at pages 1 to 71 -

- (i) in paragraph 7, in sub-paragraph (i), in clause III, in sub-clause (iii), for "45 (forty five)", read "forty five days";
- (ii) in paragraph 12,-
 - (a) for "except in suppression of the things done or omitted to be done before such suppression", read "except in supersession of the things done or omitted to be done before such supersession";
 - (b) for "Schedule I", read "Schedule".
- (iii) In column (3) and (4) of category 1(d) of Schedule, for the words "naphta" and "naptha" read "naphtha".
- (iv) In para 7, sub para 7(i), clause IV, sub clause (iii), for the words "an application be shall be" read "an application shall be".
- (v) In General Conditions (GC) under Note of Schedule, for the words "Critically Polluted areas as notified by the CPCB " read as "Critically Polluted areas as identified by the CPCB".

(J.M. Mauskar)

Joint Secretary to the Government of India
J-11013/56/2004-IA-II (I)

ANNEXURE - 6

रजिस्ट्री सं० डी० एल०-33004/99

REGD. NO. D. L.-33004/99



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असाधारण

EXTRAORDINARY

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PART II—Section 3—Sub-section (ii)

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अधिसूचना

नई दिल्ली, 10 अप्रैल, 2015

का.आ. 996(अ).- केन्द्रीय सरकार, पर्यावरण (संरक्षण) नियम, 1986 के नियम 5 के उपनियम (4) के साथ पठित पर्यावरण (संरक्षण) अधिनियम, 1986 की धारा 3 की उप-धारा (1) और उप-धारा (2) के खंड (v) द्वारा प्रदत्त शक्तियों का प्रयोग करते हुए, उक्त नियमों के नियम 5 के उपनियम (3) के खंड (क) के अधीन सूचना की अपेक्षा से अभिमुक्ति देने के पश्चात् लोकहित में भारत सरकार के तत्कालीन पर्यावरण और वन मंत्रालय की अधिसूचना संख्या का.आ. 1533(अ), तारीख 14 सितंबर, 2006 में निम्नलिखित और संशोधन करती है, अर्थात् :—

उक्त अधिसूचना में, -

पैरा 7 के उप-पैरा 2 के उपशीर्ष के खंड (i) और (ii) के स्थान पर निम्नलिखित रखा जाएगा, अर्थात् :—

(i) "विस्तारण" उस प्रक्रिया को निर्दिष्ट करता है जिसके द्वारा विस्तृत व्यापक कार्य अवधारित करने के लिए उस परियोजना या क्रियाकलापों के संबंध में कोई पर्यावरणीय समाघात निर्धारण रिपोर्ट तैयार करने के लिए सभी सुसंगत पर्यावरणीय समुत्थानों को जिसके लिए पूर्व पर्यावरणीय अनापत्ति ईप्सित की गई है। सेक्टर विशेषज्ञ आकलन समिति से परामर्श कर मंत्रालय द्वारा विकसित मानक परियोजना क्रियाकलापों के लिए सौंपे गए कृत्य पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय की वेबसाइट पर प्रदर्शित किए जाएंगे :

परंतु यह कि विशेषज्ञ आकलन समिति या राज्य विशेषज्ञ आकलन समिति, यदि परियोजना के लिए यह आवश्यक पाया जाए तो विनिर्दिष्ट प्ररूप 1 या प्ररूप 2 में आवेदन को स्वीकार करने के तीस दिन में संशोधन को अंतिम रूप में प्रदान करेगी।

मानक सौंपे गए कृत्य आवेदन के आनलाइन प्रस्तुत होने और रजिस्ट्रीकरण के सफलतापूर्वक होने के पश्चात् कोई पर्यावरण समाघात निर्धारण के प्रारंभ की तैयारी का परियोजना प्रस्ताव होगा।

तथापि यह और कि विशेषज्ञ आकलन, यदि यह आवश्यक हो तो विनिर्दिष्ट आवेदन प्ररूप 1 और प्ररूप 2 में आवेदन को स्वीकार होने में तीस दिन में अतिरिक्त सौंपे गए कृत्यों का अनुबंध कर सकेगी।

और प्रस्तावक परियोजना अतिरिक्त सौंपे गए कृत्यों के साथ-साथ मानक सौंपे गए कृत्यों पर आधारित ईआईए को करेगा यदि सीईएसी द्वारा अनुबंधित हो, यदि कोई हो ।

परंतु यह कि निम्नलिखित के लिए विस्तारण अपेक्षित नहीं है :—

- (i) अनुसूची के मद 8 (क) के सामने प्रवर्ग 'ख' के अधीन सूचीबद्ध सभी परियोजना और क्रियाकलाप ;
- (ii) अनुसूची के मद 7 (च) के सामने और स्तंभ (3) को (i) स्तंभ (4) की प्रविष्टि (ii) के अधीन आने वाले सीमांत राज्यों के सभी राजमार्ग ;
- (iii) अनुसूची के मद 7 (च) के सामने स्तंभ (3) की प्रविष्टि (i) और प्रविष्टि (ii) के अधीन आने वाले सभी राजमार्ग विस्तार परियोजना ;

परंतु यह भी कि —

- (क) खंड (i) में निर्दिष्ट सभी परियोजना और कृत्य प्ररूप 1 और प्ररूप 1क और संकल्पना परियोजना के आधार पर आकलित किए जाएंगे ।
- (ख) खंड (ii) में निर्दिष्ट सभी परियोजनाएं पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय द्वारा विनिर्दिष्ट मानक सौंपे गए कृत्यों के आधार पर पर्यावरण समाधात निर्धारण रिपोर्ट और पर्यावरण ईएमपी की रिपोर्ट के आधार पर तैयार किए जाएंगे ।
- (ii) पैरा 7 के उप पैरा (i) के उपशीर्ष में खंड (iii) को उनके खंड (ii) के रूप में पुनर्संख्याकित किया जाएगा ।

[फा. सं. 22-62/2015-आईए-III]

मनोज कुमार सिंह, संयुक्त सचिव

टिप्पण : मूल अधिसूचना भारत के राजपत्र, असाधारण, भाग II , खंड 3, उप खंड (ii) संख्यांक का.आ. 1533(अ), तारीख 14 सितंबर, 2006 को प्रकाशित की गई थी और अंतिम संशोधन का.आ. 1737 (अ), तारीख 11 अक्टूबर, 2007, का.आ. 3067 (अ), तारीख 1 दिसम्बर, 2009, का.आ. 695(अ), तारीख 4 अप्रैल, 2011, का.आ. 2896 (अ), तारीख 13 दिसम्बर, 2012, का.आ. 674(अ), तारीख 13 मार्च, 2013, का.आ. 2559 (अ), तारीख 22 अगस्त, 2013, का.आ. 2731(अ), तारीख 9 सितम्बर, 2013, का.आ. 562 (अ), तारीख 26 फरवरी, 2014, का.आ. 637 (अ), तारीख 28 फरवरी, 2014, का.आ. 1599 (अ), तारीख 25 जून, 2014, का.आ. 2601 (अ), तारीख 7 अक्टूबर, 2014, का.आ. 3252 (अ), तारीख 22 दिसम्बर, 2014, का.आ. 382 (अ), तारीख 3 फरवरी, 2015, का.आ. 811 (अ), तारीख 23 मार्च, 2015 द्वारा संशोधित किए गए थे ।

MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE

NOTIFICATION

New Delhi, the 10th April, 2015

S.O. 996(E).—In exercise of the powers conferred by sub-section (1) and clause (v) of sub-section (2) of section 3 of the Environment (Protection) Act, 1986 (29 of 1986) read with sub-rule (4) of rule 5 of the Environment (Protection) Rules, 1986, the Central Government hereby makes the following further amendments to the notification of the Government of India, in the erstwhile Ministry of Environment and Forests number S.O. 1533(E), dated the 14th September, 2006 after having dispensed with the requirement of notice under clause(a) of sub-rule (3) of said rule 5, in public interest, namely:—

In the said notification, in paragraph 7 in sub-paragraph (i), in sub-heading II. for clauses (i) and (ii), the following shall be substituted, namely:—

(i) “Scoping” refers to the process to determine detailed and comprehensive Terms of Reference (TOR) addressing all relevant environmental concerns for the preparation of an Environment Impact Assessment (EIA) Report in respect of the project or activity for which prior environmental clearance is sought. Standard TOR developed by the Ministry in consultation with the sector specific Expert Appraisal Committees shall be the deemed approved TOR for the projects or activities. The standard Terms of Reference are displayed on the website of the Ministry of Environment, Forest and Climate Change:

Provided that the Expert Appraisal Committee (EAC) or State Expert Appraisal Committee (SEAC) may finalise amendment, if found necessary for a project within thirty days of the acceptance of application in specified application Form I or Form IA. These standard TOR shall enable the Project Proponent to commence preparation of an Environment Impact Assessment Report after successful online submission and registration of the application:

Provided further that, the Expert Appraisal Committee (EAC) or State Expert Appraisal Committee (SEAC) may stipulate additional Terms of Reference, if found necessary, within thirty days of the acceptance of the application in the specified application Form I or Form IA and the Project Proponent shall carry out the EIA study based on the standard TORs as well as the additional TOR, if any, stipulated by EAC/SEAC:

Provided also that the following shall not require Scoping!

- (i) all projects and activities listed under Category 'B', against Item 8(a) of the Schedule;
- (ii) all Highway projects in border States covered under entry (i) of column (3) and entry (i) of column (4) against item 7(f) of the Schedule;
- (iii) all Highway expansion projects covered under entry (ii) of column (3) and entry (ii) of column (4) against item 7(f) of the Schedule;

Provided also that –

- (A) the project and activities referred to in clause (i) shall be appraised on the basis of Form I or Form IA and the conceptual plan;
 - (B) the projects referred to in clause (ii) shall prepare EIA and EMP report on the basis of standard TOR specified by the Ministry of Environment, Forest and Climate Change;
- (ii) in Paragraph 7 in sub-paragraph (i), in sub-heading, clause (iii) shall be renumbered as clause (ii) thereof.

[F. No. 22-62/2015-IA.III]

MANOJ KUMAR SINGH, Jt. Secy.

Note.- The principal rules were published in the Gazette of India, Extraordinary, Part II, Section 3, Sub-section(ii) vide notification number S.O. 1533(E), dated the 14th September, 2006 and amended vide S.O. 1737(E) dated the 11th October, 2007, S.O. 3067(E) dated the 1st December, 2009, S.O. 695(E) dated the 4th April, 2011, S.O. 2896(E) dated the 13th December, 2012, S.O. 674(E) dated the 13th March, 2013, S.O. 2559(E) dated the 22nd August, 2013, S.O. 2731(E) dated the 9th September, 2013, S.O. 562(E) dated the 26th February, 2014, S.O.637(E) dated the 28th February, 2014, S.O. 1599(E) dated the 25th June, 2014, S.O. 2601 (E) dated 7th October, 2014, S.O. 3252(E) dated 22nd December, 2014, S.O. 382 (E) dated 3rd February, 2015, and S.O. 811(E) dated 23rd March, 2015.



जहाँ है हरियाली ।
वहाँ है खुशहाली ॥

Ministry of Environment & Forests
GOVERNMENT OF INDIA, NEW DELHI

Environmental Impact Assessment Guidance Manual for

AIRPORTS

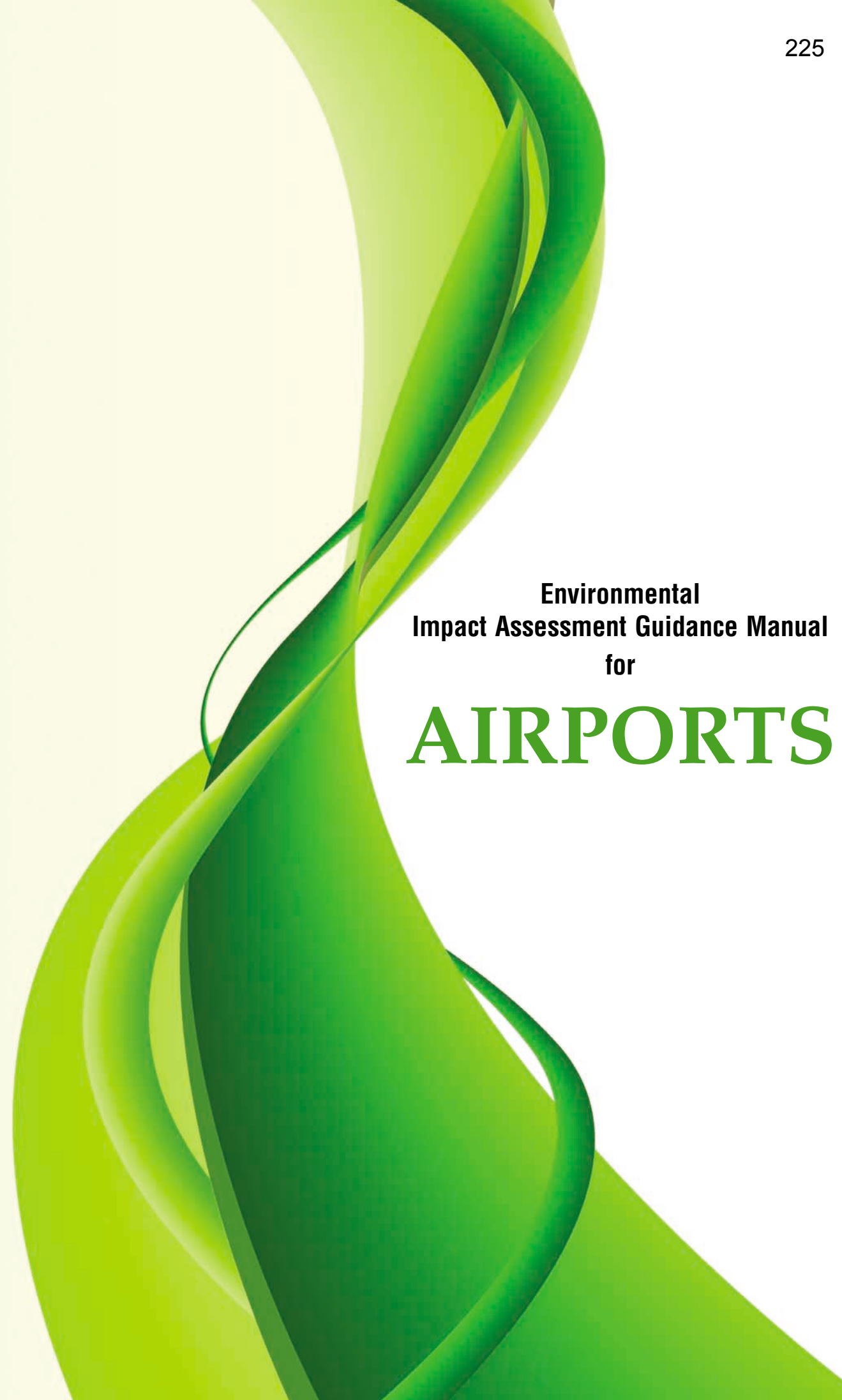


Prepared by



Administrative Staff College of India
Bellavista, Khairatabad, Hyderabad

February 2010

The background of the page features abstract, flowing, organic shapes in various shades of green and yellow, creating a sense of movement and natural energy. These shapes are layered and curved, resembling stylized leaves or waves.

**Environmental
Impact Assessment Guidance Manual
for**

AIRPORTS



Foreword

The EIA Notification 2006 not only reengineered the entire EC process specified under the EIA Notification 1994 but also highlighted the need to introduce specific sectors/categories under the sectors such as Industry and Infrastructure and also introduced new sectors such as Construction to be brought in the ambit of the EC process based on their extent of impacts on environment. The EIA Notification 2006 has notified 39 developmental sectors, which require prior environmental clearance. Based on the capacity, the Projects have been categorised into Category A or B which has been further categorised as B1 or B2. The Ministry of Environment and Forests (MOEF) has so far constituted 25 State level Environmental Impact Assessment Authorities (SEIAs) and State Expert Appraisal Committees (SEACs) to appraise B category projects.

The need for Sector specific manuals and guidelines for appraisal of projects under the EIA Notification 2006 has been felt for some time with a view to bringing clarity in the EC process consists of Screening, Scoping, Public Consultation and Appraisal for the purpose of granting and expediting environmental clearance. This need was further reinforced after the constitution of various SEIAs and SEACs in the various States, who were assigned this task for the first time. It was also felt that Manuals on each Sector would help in standardisation of the quality of appraisal and in reducing inconsistencies between SEACs/SEIAAs in granting ECs for similar projects in different States.

The MOEF at the first instance decided to bring out EIA Sector Specific Manuals for 37 developmental projects and the preparation of EIA Manuals of ten of these Sectors was assigned to Administrative Staff College of India (ASCI), Hyderabad.

1. Mining
2. Mineral Beneficiation
3. Ports & Harbours
4. Airports
5. (A) Building Construction
5. (B) Townships
6. Asbestors
7. Highways
8. Coal Washery
9. Aerial Ropeways
10. Nuclear Power Plants, Nuclear Fuel Processing Plants and Nuclear Waste Management Plants

The Manual for the sectors contain Model TOR of that Sector, technological options and processes for a cleaner production and waste minimisation, wherever applicable, monitoring of environmental quality, related regulations, and procedure of obtaining EC if linked to other clearances for eg., CRZ, etc.

The draft Manuals were uploaded on the MOEF website and comments/responses received were considered and finalised. Since the environmental clearance process itself is a dynamic one dependent on developmental needs, technologies available and standards for cleaner environment for a sustainable development, these manuals would require regular updation in the future. I hope the Manuals in their present form are of use and we would appreciate receiving responses from various stakeholders for further improvements that could be taken up in the future.

I congratulate the entire team in the Administrative Staff College of India, Hyderabad, experts of the sectors who were involved in the preparation of the Manuals, members of the Core and Peer Committees of various sectors and various Resource persons whose inputs were indeed valuable in the preparation and finalisation of the Manuals.



(JAIRAM RAMESH)

MINISTER OF STATE FOR ENVIROMENT & FORESTS

5th May 2010



Siripurapu K. Rao

M.A. (Cantab), Ph.D. (Cantab)
DIRECTOR GENERAL



Acknowledgements

Environmental Impact Assessment (EIA) is a planning tool generally accepted as an integral component of sound decision-making. EIA is to give the environment its due place in the decision-making process by clearly evaluating the environmental consequences of the proposed activity before action is taken. Early identification and characterization of critical environmental impacts allow the public and the government to form a view about the environmental acceptability of a proposed developmental project and what conditions should apply to mitigate or reduce those risks and impacts.

Environmental Clearance (EC) for certain developmental projects has been made mandatory by the Ministry of Environment & Forests through its Notification issued on 27.01.1994 under the provisions of Environment (Protection) Act, 1986. Keeping in view a decade of experience in the Environmental Clearance process and the demands from various stakeholders, the Ministry of Environment and Forests (MoEF) issued revised Notification on EC process in September 2006 and amended it in December 2009. It was considered necessary by MoEF to make available EIA guidance manuals for each of the development sector.

Accordingly, at the instance of the MoEF, the Administrative Staff College of India, with the assistance of experts, undertook the preparation of sector specific Terms of Reference (TOR) and specific guidance manual for airports. I wish to thank **Mr. J M Mauskar**, IAS, Additional Secretary, Govt. of India MoEF for his continuing support during the preparation of the manuals. I wish to place on record also my sincere thanks to **Dr. B Sengupta**, former Member Secretary, Central Pollution Control Board and Chairman of the Core Committee for his help in the preparation of the manuals. His suggestions helped us a great deal in improving the technical quality of the manuals. **Mr M Parabrahmam**, Former advisor MoEF and Chairman of the Peer Committee II for this project, has given constant guidance to the ASCI project team. His vast experience has been immensely helpful in preparing these manuals. I would like to thank the officials of the Ministry, **Dr. Nalini Bhat** and **Dr. T Chandini**, for coordinating the project from the Ministry side and for providing guidance whenever needed. My thanks are also due to **Dr. Bharat Bhushan** and **Dr. A Senthil Vel** of MoEF for the valuable inputs they had given during our interactions with the Officials at Delhi and Hyderabad.

I thank **Wg. Cdr. G S R Sharma**, resource person, who, drawing on his vast experience in the sector, prepared the EIA guidance manual for **airports** along with **Dr. Valli Manickam**, Member of Faculty of ASCI. The efforts put in by both of them are commendable.

I would like to thank all the Peer and Core Committee members for having given a valuable feed back in the preparation of the manual. I hope the manuals would prove to be useful to the community at large and to the experts working in this area in particular.

26 February, 2010


S.K. Rao

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ABBREVIATIONS

ATC	- Air Traffic Control
ARP	- Aerodrome Reference Point
ASCI	- Administrative Staff College of India
ATF	- Aviation Turbine Fuel
AAQ	- Ambient Air Quality
BSI	- Botanical Survey of India
BLEVE	- Boiling Liquid Expanding Vapour Explosion
CAEP	- Committee of Aviation Environmental Protection
CPCB	- Central Pollution Control Board
CRZ	- Coastal Regulation Zone
CSR	- Corporate Social Responsibility
EAC	- Expert Appraisal Committee
EIA	- Environmental Impact Assessment
EC	- Environmental Clearance
ETP	- Effluent Treatment Plant
EMP	- Environmental Management Plan
FEDTI	- Fire-Explosion and Toxicity Index
DMP	- Disaster Management Plan
IA	- Impact Assessment
ICAO	- International Civil Aviation Organization
IMD	- Indian Meteorological Department
UTPCC	- Union Territory Pollution Control Centre
MoEF	- Ministry of Environment and Forests
MCAA	- Maximum Credible Accident Analysis
POL	- Petrol / Paint Oil Lubricant
PCU	- Passenger Car Units
RHP	- Rain water Harvesting Plant
R&R	- Rehabilitation and Resettlement
SPCBs	- State Pollution Control Boards
STP	- Sewage Treatment Plant
TOR	- Terms of Reference
VOC	- Volatile Organic compounds
VCE	- Vapour Cloud Explosion
WG	- Working Groups
WII	- Wildlife Institute of India
ZSI	- Zoological Survey of India

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ABOUT THE MANUAL

Environmental Impact Notification S.O.1533 (E), dt.14th September 2006, as amended 2009, issued under Environment (Protection) Act 1986, has made it mandatory to obtain environmental clearance for scheduled development projects. The notification has classified projects under two categories 'A' & 'B'. Category A projects (including expansion and modernization of existing projects) require clearance from Ministry of Environment and Forest (MoEF), Govt. of India (GoI) and for category B from State Environmental Impact Assessment Authority (SEIAA), constituted by Government of India.

The existing manual on Environmental Impact Assessment (EIA) of MoEF, is common for all the sectors requiring prior environmental clearance. Considering the diversity in all sectors related to infrastructure and industrial development projects, MoEF launched a program for development of sector specific technical EIA guidance manuals. The EIA guidance manual will help the project proponent/consultant in the preparation of the EIA report. It also helps the regulatory authority to review the report as well as the public to become aware of the related environmental issues. This EIA guidance manual accordingly addresses the related environmental concerns for the specific sector - "Airports". This manual consists of terms of reference (TOR), manual and questionnaire.

The sector specific manual consists of twelve chapters, which correspond to the generic structure given as per EIA notification 2006, as amended Dec 2009.

Chapter 1: Introduction

This chapter contains the general information on the airport sector, major sources of environmental impact in respect of airport projects and details of the environmental clearance process.

Chapter 2: Project Description

This chapter contains the description of the project, such as the type of project, need for the project, project location, project layout, cargo handling methods, utilities and services, the project implementation schedule, estimated cost of development etc

Chapter 3: Analysis of Alternatives (Technology and Site)

This chapter gives details of various alternatives both in respect of location of site and technologies to be deployed, in case the initial scoping exercise considers such a need.

Chapter 4: Description of Environment

This chapter should cover baseline data in the project area and study area.

Chapter 5: Impact Analysis and Mitigation Measures

This chapter describes the anticipated impact on the environment and mitigation measures. The method of assessment of impact including studies carried out, modelling techniques adopted to assess the impact where pertinent should be elaborated in this chapter. It should give the details of the impact on the baseline parameters, both during the construction and operational phases and suggests the mitigation measures to be implemented by the proponent.

Chapter 6: Environmental Monitoring Program

This chapter should cover the planned environmental monitoring program. It should also include the technical aspects of monitoring the effectiveness of mitigation measures.

Chapter 7: Additional Studies

This chapter should cover the details of the additional studies required in addition to those specified in the ToR and which are necessary to cater to more specific issues applicable to the particular project.

Chapter 8: Project Benefits

This chapter should cover the benefits accruing to the locality, neighbourhood, region and nation as a whole. It should bring out details of benefits by way of improvements in the physical infrastructure, social infrastructure, employment potential and other tangible benefits.

Chapter 9: Environmental Cost Benefit Analysis

This chapter should cover on Environmental Cost Benefit Analysis of the project.

Chapter 10: Environmental Management Plan

This chapter should comprehensively present the Environmental Management Plan (EMP), which includes the administrative and technical setup, summary matrix of EMP, the cost involved to implement the EMP, both during the construction and operational phase and provisions made towards the same in the cost estimates of project construction and operation. This chapter should also describe the proposed post-monitoring scheme as well as inter-organizational arrangements for effective implementation of the mitigation measures.

Chapter 11: Summary and Conclusions

This chapter gives the summary of the full EIA report condensed to ten A-4 size pages at the maximum. It should provide the overall justification for implementation of the project and should explain how the adverse effects have been mitigated.

Chapter 12: Disclosure of Consultants

This chapter should include the names of the consultants engaged with their brief resume and nature of consultancy rendered.

The contents of the manual are to be considered as version 1.0 (2010). The ministry as per the requirements will take up an updating/revision of the manual. In case of interpretation of any question related to law, the provisions of the original laws and the Rules made thereunder with various Government directions/resolutions will have to be read and followed. In case of amendment to the original Act/Rules/Notifications made thereunder, the provisions as amended from time to time shall be applicable. Any obligations of international conventions, where GoI is a signatory and accepted for implementation are also to be followed.

INTRODUCTION

1.0 Preamble

Environment plays a vital role in overall development of the country. Recognizing the importance of environmental protection and sustainable development, the Ministry of Environment and Forest, Government of India had formulated policies and procedures governing the industrial and other developmental activities to prevent indiscriminate exploitation of natural resources and to promote integration of environmental concern in developmental projects.

Environmental Impact Assessment is a planning tool now generally accepted as an integral component of sound decision-making. The purpose of EIA is to give the environment its due place in the decision-making process by clearly evaluating the environmental consequences of the proposed activity before action is taken. Early identification and characterization of critical environmental impact allows the public and the government to form a view about the environmental acceptability of a proposed developmental project and what conditions should apply to mitigate or reduce those risks and impact.

The Ministry of Environment & Forest has made environmental clearance (EC) for certain developmental projects mandatory through its notification issued on 27.01.1994 under the provisions of Environment (Protection) Act, 1986. The process of conducting public hearing has also been made mandatory for certain developmental projects through its notification issued on 10.04.1997. EIA notification 2006, as amended Dec 2009 was issued by the Ministry of Environment and Forests and is in vogue now. The categorization of the developmental projects / activities is specified in this notification.

1.1 General Information on Airport Sector

The aviation sector has been relatively free of major environmentally driven regulations in past, because the sector is considered a key contributor to driving the global economy and the only mode of rapid trans-national travel on offer to customers. However airport development has not kept pace with significant increases in aviation activity in India. While funding is one problem; rapid pace of change in aviation technologies is the other. While joint ventures in airport development have solved the first problem, innovative planning approaches are needed to solve the second. Central actions in connection with proposed airport development often require pursuant to the implementing guidelines of the Ministry of Environment and Forests (MoEF) under Government of India (GOI), which is in the process of formulating EIA manual for airport sector according to EIA notification dated 14th September 2006, as amended 2009

Major sources of the adverse effects on account of development of airport projects are due to the following:

- (a) Location of airport;
- (b) Construction activities;

- (c) Airport operation, including air traffic and associated noise & emissions, and
- (d) Cargo handling & storage, and land transport

1.2 Environmental Clearance Process

In terms of the 14th September 2006, as amended Dec 2009 notification of the MoEF, all airport projects are categorized under Category A in the Schedule, including expansion and modernization of existing projects or activities, shall require prior environmental clearance from the Central Government in the Ministry of Environment and Forests (MoEF) on the recommendations of an Expert Appraisal Committee (EAC) to be constituted by the Central Government for the purposes of this notification;

Project or Activity	Category with Threshold Limit	
Airports	Category - A All Projects	Category - B -
General Condition shall apply "Any project or activity specified in Category 'B' will be treated as Category 'A' if located in whole or in part within 10 km from the boundary of: i. Protected areas notified under the Wildlife (Protection) Act, 1972; (ii) Critically polluted areas as notified by the Central Pollution Control Board from time to time; (iii) Eco-sensitive areas as notified under section 3 of the Environment (Protection) Act, 1986, such as, Mahabaleswar Panchangi, Matheran, Pachmarhi, Dahanu, Doon Valley and (iv) inter-state boundaries and international boundaries Provided that the requirement regarding distance of 10km of the inter-state boundaries can be reduced or completely done away with by an agreement between the respective states or U.Ts sharing the common boundary in the case the activity does not fall within 10 kilometers of the areas mentioned at item (i), (ii) and (iii) above		

The environmental clearance process for new projects will comprise of a maximum of three stages. These three stages in sequential order are:

Stage (1)- Scoping

'Scoping' refers to the process by which the EAC in the case of Category 'A' projects or activities, including applications for expansion and/or modernization and/or change in product mix of existing projects or activities, determine detailed and comprehensive TOR addressing all relevant environmental concerns for the preparation of an EIA report in respect of the project or activity for which prior environmental clearance is sought. The EAC concerned should determine the ToR on the basis of information furnished in the prescribed application Form 1 including ToR proposed by the applicant, a site visit by a sub-group of EAC concerned only if considered necessary by the EAC concerned and other information that may be available with the EAC concerned.

Stage (2) - Public consultation

Public consultation" refers to the process by which the concerns of local affected persons and others who have plausible stake in the environmental impact of the project or activity are ascertained with a view to taking into account all the material concerns in the project or activity design as appropriate.

After completion of the public consultation, the applicant shall address all the material environmental concerns expressed during this process, and make appropriate changes in the draft EIA and EMP. The final EIA report, so prepared, shall be submitted by the applicant to the concerned regulatory authority for appraisal. The applicant may alternatively submit a supplementary report to draft EIA and EMP addressing all the concerns expressed during the public consultation.

Stage (3) - Appraisal

Detailed scrutiny by the EAC of the application and other document like the Final EIA report, outcome of the public consultations including public hearing proceedings, submitted by the applicant to the regulatory authority concerned for grant of EC

Flow-chart depicting these stages in obtaining the prior environmental clearance for Airport projects is presented in **Figure 1.1**

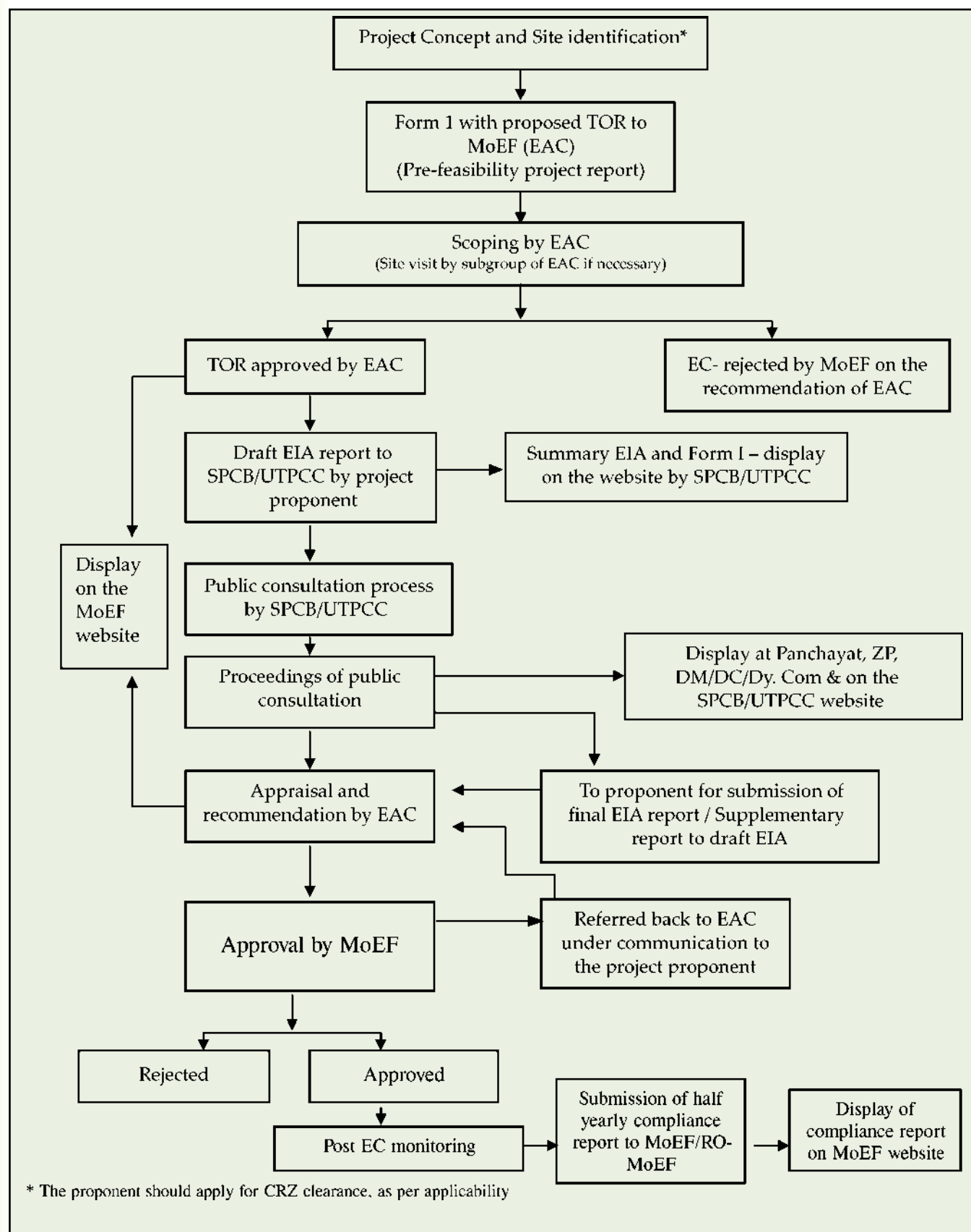


Figure 1.1: Prior Environmental clearance process for category A projects

- ▶ The projects involving clearance under Coastal Regulation Zone Notification, 1991 shall submit with the application a CRZ map duly demarcated by one of the authorized agencies, showing the project activities, w.r.t. C.R.Z (at the stage of TOR) and the recommendations of the State Coastal Zone Management Authority (at the stage of EC). Simultaneous action shall also be taken to obtain the requisite clearance under the provisions of the CRZ notification, 1991 for the activities to be located in the CRZ
- ▶ The projects to be located within 10km of the National parks, Sanctuaries, Biosphere reserves, Migratory corridors of wild animals, the project proponent shall submit the map duly authenticated by Chief Wildlife Warden showing these features vis-à-vis the project location and the recommendations or comments of the Chief Wildlife Warden thereon (at the stage of EC)
- ▶ All correspondence with the Ministry of Environment & Forests including submission "of application for TOR/Environmental Clearance, subsequent clarifications, as may be required from time to time, participation in the EAC meeting on behalf of the project proponent shall be made by the authorized signatory only. The authorized signatory should also submit a document in support of his claim of being an authorized signatory for the specific project"

(Reference: S.O 3067 (E) dated 1st December 2009)

1.3 Regulatory Compliance Requirement

The operational and geographic impact associated with airport development are covered by policy drives (both strategies and legislation) at global, regional and national levels.

The International Civil Aviation Organisation (ICAO), which oversees the level and direction of effort involved in addressing the environmental impact of the sector, also deals with the emissions from aircrafts.

ICAO: The ICAO agenda is focussed on the Committee of Aviation Environmental Protection (CAEP), whose 18 member states make recommendations through five groups:

- ▶ WG1-reducing noise (noise stringency limits engines); (www.icao.int)
- ▶ WG2 - land use planning and management, operating restrictions and other issues associated with noise such as modelling; (www.caa.co.uk)
- ▶ WG3-reducing emissions at source (emission limits); (www.caa.co.uk)
- ▶ WG4 - operational mechanism for reducing aviation emissions; (www.icao.int/icao/en/m.html) and
- ▶ WG5-market based options (legal & administrative issues surrounding emissions permit trading, environmental charges and voluntary agreements as a means to limit or reduce emissions) (www.icao.int).

The work of the CAEP is more technical in nature. The process of securing consensus in ICAO is lengthy, not least because membership is voluntary. Though the members are responsible for enacting certain standards and practices, they are not legally bound to do so. They are only honour bound to implement the resolution on environmental policies and practices.

India being one of the member states of ICAO, implements the resolution on environmental policies and practices adopted by ICAO through Director General of Civil Aviation (DGCA), under Ministry of Civil Aviation, GOI at national level to mitigate the operational impact associated with aviation at airports.

It ensures that environmental concerns are strategically integrated into air transport policy by improving technical environmental standards on noise and gaseous emissions; advancing long-term technology improvements; inspecting aerodrome site for issuing aeronautical clearance; improving the air traffic management and promoting flight safety environment at airports.

Geographic Impact:

Unlike the operational impact, the geographic impact operate on a local scale over a relatively shorter period of time and are more significant. Their intensity depends on the airport capacity as well as on the site location for a given aviation environment. There is hence a requirement for legislation on the airport development sector at national level. However, this is insufficient to meet the site-specific requirements at local level. Hence, appropriate local regulation / Acts are to be incorporated to make the environmental policy sector and site specific.

Since the applicability of some of the acts, Rules to the project is site specific, project proponent has to under take a reconnaissance of the site proposed for the project, survey the demand for the sector, ensure the applicability of legislation / Acts / Rules before selecting the site and then go ahead with EC process. The Air traffic demand survey is based on the traffic projections derived from "econometric multiple correlation on forecasting methodology. In this method, past usage is correlated with variables such as income and prices and then future usage is ordinate on the basis of past relationships. This does not separate cause from effect, but uses observed historical, statistical relationships with judgemental factors applied.

Air traffic projections based on capacity driven and demand driven constraints are factored. Unaccounted traffic diverted through rail, domestic aircraft etc., due to non-availability of landing rights to foreign aircrafts is shown as potential passengers. The projections based on existing traffic, are worked out and shown in Tables 1.1 to 1.4.

Litigations if any: In some of the states, there may be some litigation in process between public / State Govt. agencies/ other industries and the project proponent or other projects relevant to the project proposed. In such cases, court rulings / directions on the matter may be mentioned. These may be studied and highlighted in the project report.

1.4 Terms of Reference (TOR) for Preparation of EIA Report for Airport Projects

Duly catering to the commonly expected environmental concerns, Terms of Reference (ToR) for the airports sector is prepared and given in Annexure-1. In addition, the proponent is required to identify specific issues if any, pertinent to the project and include those issues also in the ToR for preparation of EIA and EMP report upon approval of the ToR by the Expert Appraisal Committee.

1.5 Validity of Environmental Clearance

The prior environmental clearance granted for airports sector is valid for a period of five years. The regulatory authority concerned may extend this validity period by a maximum period of five years.

1.6 Post Environmental Clearance Monitoring

For category A projects, it shall be mandatory for the project proponent to make public the environmental clearance granted for their project along with the environmental conditions and safeguards at their cost by prominently advertising it at least in two local newspapers of the district or state where the project is located and in addition, this shall also be displayed in the project proponent's website permanently.

The Project management should submit half-yearly compliance reports in respect of the stipulated prior environmental clearance terms and conditions on 1st June and 1st December of each calendar year to the regulatory authority concerned. All such reports should be public documents.

1.7 Transferability of Environmental Clearance

A prior environmental clearance granted for a specific project or activity to an applicant may be transferred during its validity to another legal person entitled to undertake the project or activity on application by the transferor or the transferee with a written "no objection" by the transferor, to, and by the regulatory authority concerned, on the same terms and conditions under which the prior environmental clearance was initially granted, and for the same validity period.

1.8 Generic Structure of Environmental Impact Assessment Document

In terms of the EIA notification of the MoEF dated 14th September 2006 as amended Dec 2009, the generic structure of the EIA document should be as under:

- ▶ Introduction
- ▶ Project Description
- ▶ Analysis of Alternatives(Technology and site)
- ▶ Description of the Environment
- ▶ Anticipated Environmental Impact & Mitigation Measures
- ▶ Environmental Monitoring Programme
- ▶ Additional Studies
- ▶ Project Benefits
- ▶ Environmental Cost Benefit Analysis
- ▶ Environmental Management Plan
- ▶ Summary & Conclusion
- ▶ Disclosure of Consultants Engaged

1.9 Identification of Project Proponent

Profile of the project proponent, contact address with e-mail, fax, phone number etc should be furnished. All correspondence with MoEF shall be made by the authorized signatory only. The authorized signatory should also submit a document in support of his claim of being an authorized signatory for the specific project

1.10 Brief Description of Project Proponent

In this section details of the project nature, size, location and its importance to the country and the region are to be included. Project site description; survey/khasra nos, village, tehsil, district, state & extent of the land, latitude & longitude of the boundaries are to be furnished.

Description of existing national and international environmental laws/regulations on the proposed activity is to be brought out clearly. If there are any notified restrictions/limitations from environmental angle, issued by the district administration, State or Central government, the same should be furnished. Details of litigation(s) pending against the project/ proposed site and or any direction passed by the court of law against the project, if any, should be stated.

In case of expansion/ modernization of the project, the environmental compliance status for the existing project should be furnished for the following:

- ▶ Status of Environmental Clearance and compliance for the terms & conditions for the existing project
- ▶ Validity of the Air & Water Consent orders, and Hazardous Waste Authorization (HWA) from SPCB/ PCC for existing project
- ▶ Notices/directions issued by the regulatory agencies under section 33(A) of the Water Act, 1974 as amended, under section 31(A) of the Air Act 1981 as amended and any directions issued under the provisions of the E (P) Act, 1986 during the last one year.

PROJECT DESCRIPTION

2.0 General

This chapter on project description in the EIA study report to be prepared by the proponent should include the following aspects:

- ▶ Purpose of the project, goals and objectives of the proposed project
- ▶ Overall suitability of the site and the proposed activity in light of the existing environmental acts and serious deviations, if any.
- ▶ Significance of the project both at local and national level including background information and overall scenario of the proposed activity in the Indian context
- ▶ Relevance of the project in light of the existing development plans of the region, project coverage, master plan, phasing and scope,
- ▶ Estimated cost of development of the project, environmental protection works both during construction and operations phase of the project, etc.
- ▶ Estimated water budget for the proposed project.

It is to be noted that the location as well as layout of airport structures also contribute to potential impact on the environment. The description of the project to be given in this chapter of the EIA study report should be reasonably adequate to understand the likely overall impact of the project construction and operational phases on various facets of environment. The proponent is to present the project description in the EIA report as required to obtain prior environmental clearance.

2.1 Description of the project

Description of the project should be brief but elaborate enough to assess the impact of the project location on the environment. Therefore these brief details should include:

- ▶ The location of the project with longitude, latitude, revenue village, tehsil, district and state
- ▶ Number of phases for development of Airport based on traffic demand,
- ▶ Capacity to handle new generation large aircraft,
- ▶ Sponsors' details,
- ▶ Envisaged project cost,
- ▶ Basis of project; BOO or BOT etc.,
- ▶ Project execution (Private or Joint Venture) (with details under Company Act 1956),
- ▶ Existing traffic; Domestic, International and Potential,
- ▶ Airport paved facilities; whether catering for futuristic operation / or existing operation.
- ▶ Villages, settlements, need for rehabilitation and resettlement (R&R) of communities/villages along with present status of such activities
- ▶ Land acquisition requirement- (present and future) and status,

Essential Toposheets / Maps to be provided

- ▶ A map of the study area (project area and area 10 km around its boundary) delineating the major topographical features such as land use, drainage, a location of habitats is to be given. Major constructions including roads, railways, pipelines, major industries if any in the area are to be marked clearly.
- ▶ A map of the study area covering aerial distance of 15 km from the proposed project boundary delineating environmental sensitive areas as specified in Form I of EIA notification 2006 as amended 2009 is to be shown.
- ▶ Land use map of the study area to 1: 25,000 scale, based on recent satellite imagery of the study area delineating the cropping pattern, waste land, forest area and built up area need to be prepared.
- ▶ Contour map at sufficient or acceptable intervals as available or as required for the study of project area and site plan of the area showing the proposed break-up of the land may be prepared.
- ▶ Layout plan of proposed airport development should be submitted to a scale of 1:5000. Description of covered and open facilities, landscape and other civil works such as under ground / over head water tanks; Sewage Treatment Plant(STP); Effluent Treatment Plant (ETP); Petrol / Paint, Oil, Lubricants(POL)stores; Aviation Turbine Fuel(ATF) store; Cargo storage and other maps and utilities (water & power) are to be shown in the layout (Table 2.1). Based on the terrain slope and drainage pattern of the region; perimeter boundary wall is to be planned for security of the site without allowing the storm waters to stagnate or enter project area. Key features are to be given as indicated in Table-2.2.
- ▶ Description of the project site its geology, hydrology, topography, and climate, connectivity by road/rail, demographic aspects, socio-cultural and economic aspects, villages, and settlements are to be identified.
- ▶ Details of environmentally sensitive places, land acquisition and rehabilitation of communities/ villages with their present status should be mentioned. The Siting criteria delineated by MoEF should be discussed. Notified restrictions and limitations from Environmental considerations etc., if any should be discussed.
- ▶ Historical and climatic data such as climatic conditions, rainfall, wind pattern, history of cyclones, storms surges, visibility etc. for the last 25 years are to be mentioned.
- ▶ In case of expansion/ modernization of the project, the environmental compliance status for the existing project should be explained. If the potential impact on environment exceed the existing project limits, fresh EIA process may be initiated before starting the project.
- ▶ Technologies involved for design, construction, equipment and operation should be brought out clearly in the document.
- ▶ Requirement of natural resources for construction along with their sources, technologies involved in the design, construction, equipment and operation should be furnished in the report by the proponent. Water requirement during the construction and operational phases should be covered along with the identified sources. Water balance flow chart should be prepared considering phases of construction and operation. Rainwater harvesting provisions should be explored. Utilization of solar energy for lighting etc may be explored. The resources requirement for the construction may be quantified.

Utilization of alternative construction materials such as fly ash and alternate energy such as solar etc should be explored

2.2 Description of Activities and Ancillary Operations

Details of various activities involved both during construction phase and operational phase along with flow charts duly indicating required resources should be described duly supported with sufficient details in appropriate tabular forms in order to enable assessment of impact of the activities on various facets of environment.

2.3 Housing

Requirement of housing for the workers and employees both during construction phase as well as operation phase should be specified in detailed and should be catered to by the proponent. In the event the proponent proposes to develop township for housing the workers/employees involved in the airport operations details of various types of buildings envisaged, layout plan of township, details of utilities and services along with methods of disposal and treatment of sewage should be given. The proponent should comply with all statutory provisions and directions, as may be, imposed by concerned local bodies in this regard. Details of utilities such as water supply, power supply, along with sources and distribution network should be mentioned in the EIA report.

2.4 Use of Public Infrastructure

The proponent should furnish the connectivities of national road and rail network to the proposed airport location. In case existing road and rail facilities are utilized for the airport activity, the proponent should furnish details of extra capacities required to augment the existing connectivity such that the infrastructure is not subjected to congestion. The layout of such road and rail facility should be incorporated in the project layout. Approval of appropriate authorities for the proposed layout of the connectivity should be pursued by the proponent and implemented as part of the project such that the public hitherto availing these utilities are not deprived of these road and rail facilities as a consequence of the post project implementation.

2.5 Man Power Requirement

The proponent should indicate the requirement of various categories of manpower such as skilled, semi-skilled, unskilled workers, technicians, engineers, managers and other professionals for both construction phase and operational phase. The proposed training methods for imparting and upgradation of specialized skills, where required, should be mentioned in the EIA Report.

2.6 Project Implementation Schedule

The proponent should also submit the detailed project implementation schedule bar chart, CPM / PERT chart etc., duly bringing out interrelationship of major activities.

ANALYSIS OF ALTERNATIVES (TECHNOLOGY & SITE)

3.0 General

If the scoping results in need for alternatives, a clear description of the each alternative, and summary of the impact - adverse and positive with each site, and selection of alternatives are to be explained in detail.

3.1 Alternative Evaluation Criteria

Alternative sites and design process should be critically examined to maintain the positive environmental impact, socio-economic benefits & profitability and minimise the temporary adverse impact. Normally, the extent of displacement of people, the loss of agricultural land, relocation of flora & fauna and irreversible loss of natural resources permanently, will be deciding factors in selection/rejection of site. Project planning and the design process need to be flexible enough to adopt the modified basic project alternatives. The following steps will help in this process.

Source: Introduce proactive measures in the project design at source level to mitigate environmental impact, (e.g. ICAO measures on Aircraft design, redesign of storage tanks for storing hazardous material, landscape design, flood control measures and flight safety measures to counter risks due to birds and wildlife at airport.).

Process: Introduce reactive measures in the operational procedures (e.g. ICAO measures for flight procedures, Air traffic system procedures for surface traffic, sewage treatment plants, effluent treatment plants, waste disposal procedures, and rain water harvesting etc.,)

Receptors: Introduce defensive measures in the relocation of receptors.(e.g. Legally mandated procedures in relocation, safety and health of population and flora and fauna, and third party risk mitigation)

Funding: Incorporate budgeted funding for alternatives as described.

Multi Nodal Transportation, Environmental Impact & Trade offs:

Review the demand for the air transportation in the region, analyse the possibility of meeting it through alternate modes of transport such as road / rail. This involves study of interrelationships between environmental impact due to airports and the trade offs in which one impact has to be traded off against another

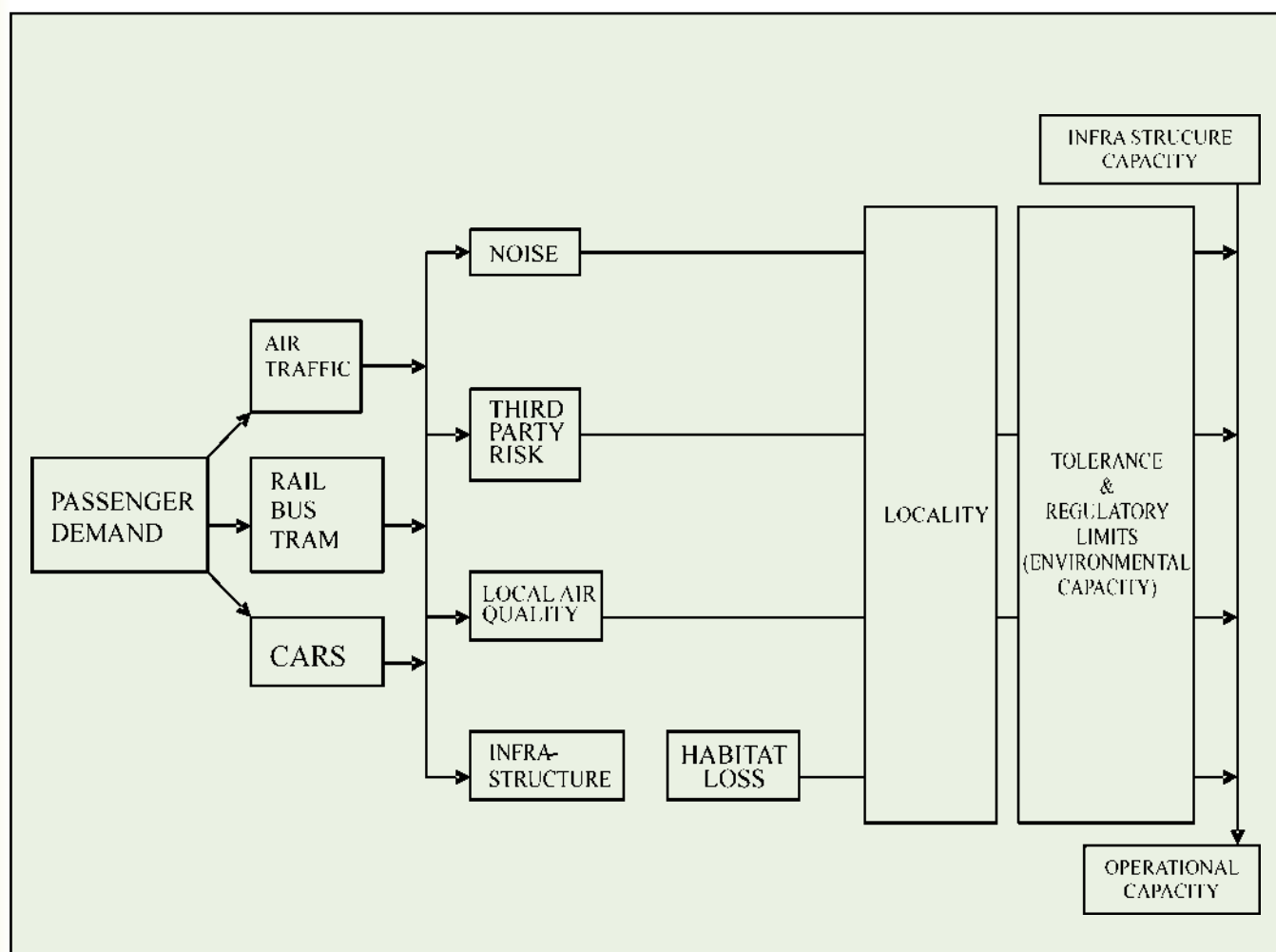


Fig 3.1 Interrelationships in Potential Impact

Fig3.1 provides schematic representation of the way in which different environmental impact relate to each other. It also indicates the regulatory and other social controls or restrictions that are associated with them and shows how these could reduce or restrict the operating capacity of an airport. The figure also provides a useful way of illustrating other trade offs. For example, local emissions arising from growing road traffic could in theory cause the air quality management zone in which the airport is located to fail to meet local air quality regulations. This constraint could be alleviated by the construction of a rail link to reduce car use, however, this would require additional land - take that could be restricted by habitat protection issues in the surrounding country side.

For example, the development of preferred noise routes designed to reduce community disturbance can result in departing aircraft having to fly farther during the early phase of flight. This can increase fuel burn and engine emissions. There may also be conflicts between the requirement at an airport to reduce fuel burn and emissions, and requirement to minimise noise.

DESCRIPTION OF ENVIRONMENT

4.0 General

Airport development may create a wide range of impact on the environment by construction work, reclamation, landfills, noise and emissions from aircraft effecting air quality and ground sources, cargo operations, and other airport related activities. Environment facets to be considered in relation to airport development can be categorized into seven groups: (a) land use (b) water quality (c) air quality (d) noise pollution (e) biological changes (f) socio-economic changes and occupational health and (g) solid waste management. Hence it is necessary to ascertain the baseline data of these environmental facets.

4.1 Study Area

Primary data through measurements and field surveys; and secondary data from secondary sources are to be collected in the study area within 10 km radius from Aerodrome Reference Point (ARP). Primary data should cover one season other than monsoon and secondary data is to cover one full year. The basis for selection of these criteria is that the aircraft gains a height of 1000ft in this area below which noise and air pollution are generated maximum during its take off stage. Secondary data should be collected within 15 km aerial distance for the parameters as specifically mentioned at column 9 (III) of Form I of EIA Notification, 2006. Details of secondary data, the method of collection of secondary data, should be furnished. Similarly the proposed locations of monitoring stations of water, air, soil and noise etc should be shown on the study area map.

The study areas mentioned in this document should be considered for guidance purpose but the exact study area for different environmental attributes (water, air, noise and soil etc.) is to be submitted considering the proposed activities and location, along with proper reasoning, for review and approval by the Expert Appraisal Committee.

Baseline data of various environmental parameters envisaged to be effected by airport activities are collected from secondary sources and through primary monitoring in the study area. This baseline data helps in evaluation of the predicted impact on various environmental attributes in the study area by using scientifically developed and widely accepted environmental impact assessment methodologies. This further helps in preparing an Environmental Management Plan (EMP) outlining the measures for improving the environmental quality and scope for future expansions for environmentally sustainable development. The baseline environmental study also helps to identify the critical environmental attributes, which are required to be monitored after implementation of the project.

The methodology involves analysis of secondary data including satellite imagery, to describe the existing environmental status in the study area of the project referring to the source of the data in each case. The primary data on the other hand describes the existing environmental status in an area of 10km radial distance from ARP through scientifically designed monitoring network. The methods defer from one parameter to the other. The basis for this depends on the relevance of the parameter and the impact of the airport activity on it.

4.2 Land Environment

Soil:

Land is one of the important and rare resources. Airport projects require considerable land area for development of activity areas, operational and non-operational buildings, areas for ancillaries, utilities including townships. Sometimes acquisitions of large stretches of land and areas being used by the local habitat may be necessitated requiring rehabilitation measures. Availability of land for earmarking for the airport without causing undue hardship to local habitat and their socio cultural and economic aspects is very important. Studies on land use aspects of ecosystem play an important role in identifying sensitive issues in the past and present development of the region. Existing baseline status of land use can be determined through a study of changes in the land use pattern in the past 10yrs by collecting data from secondary sources such as census, and land records. Interpretation of satellite data of current year will bring out the trends in the changes of land use pattern in the past. The land use pattern in study area is analysed with the help of a map to 1:25000 scale based on recent satellite imagery of the study area delineating the cropping pattern, forest area and built-up area etc. (Annexure-2).

Soil refers to the loose material composed of weathered rock and other minerals and also partly decayed organic matter that covers large parts of the earth's surface. It is an essential component of the terrestrial eco system. It acts as a medium of transport of various dissolved materials to the underlying ground water. Hence, impact on soil is important in EIA study. Soil formation is influenced mainly by climate, geology, relief and other biotic interactions. The soil characteristics in the study area of the project, which would affect the agricultural and afforestation potential of the area need to be studied.

Soil data including type, classification, characteristics, properties, etc are important from engineering considerations for structures etc. Changes in soil parameters may also affect plantation and vegetation, which in turn may endanger the health of habitat. Baseline data consisting of soil analysis -physical and chemical (Tables 4.1 and 4.2) within the project area is to be collected to assess its fertility. Data pertaining to coverage of land for other purposes and general slope of the terrain within the study area is collected to assess the trends in the land use patterns and the natural run off patterns.

Soil samples are collected all around the project site covering the agricultural and reserved forestland, if any in the study areas. Sampling frequencies and the methods of baseline environmental quality monitoring are given in Annexure 3. The samples are collected during the study period and analysed for physical, chemical parameters and heavy metal concentrations, as per standard methods of analysis. The nature of the soil is to be discussed based on the classification.

Physiography and Drainage Patterns:

The terrain and hill slope, general slope and elevation of the area, the flow direction of streams and rivers, the water bodies and wet lands and the vegetation which together describe the physiography of the land, will control the drainage pattern in the region. Land farms, terrain, may get affected due to construction of airport. It may require large scale quarrying, dredging and reclamation, which may cause changes in the topography. This in turn may affect the drainage pattern of the land / terrain. Baseline data pertaining to existing land at the proposed project area including the description of terrain hill slopes terrain features, slope and elevation are to be collected. Study of land use pattern, habitation, cropping pattern, forest cover, environmentally

sensitive places etc., is to be undertaken by employing remote sensing techniques and ground truthing. Ecological features of forest area; agricultural land; grazing land; wildlife sanctuary land & national parks; migratory routes of fauna; water bodies; and drainage pattern including the orders of the drain and water sheds are to be described. Settlements in the study area may be delineated with respect to ARP on the site map. High rise buildings, industrial areas and zones, slaughter houses and other features of flight safety importance may also be marked on the map. Secondary data from Central Water Board GOI; State ground water department, State Irrigation Department is to be obtained. Geomorphology of the region is to be clearly delineated. Study of land use patterns, habitation, cropping pattern, and forest cover data is undertaken. Information on the location of water bodies, drainage, forests, surface travel routes with respect to the project site is obtained within the study area and plotted on a map. This map will show the natural slopes and the drainage patterns, which give a guideline while planning the drains in the airport project. The drains help in discharge of storm water from the airport to avoid flooding and water logging in the project area.

4

4.3 Water Environment

Ground water quality is important, as change in its chemical parameters will affect the water quality. Airport activities during construction / operation may have impact on ground water quality. Due to airport construction existing low areas may be reclaimed with dredged spoil. The pollutants from dredged spoil are likely to enter into the ground water. This is likely to increase sedimentation of pollutants in airport area, which may migrate in time to the neighbouring ground water. Also runoff from solid waste if any, may percolate into the ground and may contaminate the ground water. Hence, they need to be studied through primary surveys and secondary sources. Monitoring locations are to be finalized as per CPCB norms which can represent the baseline conditions.

Ground water, surface water and waste water within study area are examined for physico-chemical, heavy metal and bacteriological parameters. The samples are collected and analysed as per procedures prescribed (Annexure 3). Baseline data on location sources of surface water like water bodies, lakes, their dimensions, present quality and their utility are to be provided. The location of sampling stations is to be provided as shown in Table 4.3. Similarly baseline data on the groundwater, surface water is to be provided. Water Table contour map for the pre monsoon months are made for the study area based on secondary data collected from state ground water board. Criteria for raw water used for organized community water supplies (surface and ground water) primary parameters are given in Annexure 4.

4.4 Air Environment:

Ambient air quality (AAQ) is important for the airport projects. The significance of aviation's impact on air quality will vary depending on many other factors such as, background pollution levels, other sources of pollution, weather and proximity of residential areas. Around many airports some large emission sources already exist (power stations, factories) that are not related to the airport at all. Also local roads and motorways, even roads associated with an airport, may be heavily used by non-airport traffic.

Aircraft engines produce emissions that are similar to other emissions resulting from any oil based fuel combustion. These, like any exhaust emissions, can affect local air quality at ground level. It is emissions from aircraft below 1,000ft, above the ground (typically around 3km from departure or, for arrivals, around 6km from touchdown) that are chiefly involved in influencing

local air quality. These emissions disperse with the wind and blend with emissions from other sources such as emissions from domestic sources, emissions from industries and from surface transport.

Important sources of emissions from airport include:

- airside and landside ground transport
- aircraft emissions from takeoff, approach and landing, engine testing and taxiing
- use of auxiliary power units to provide energy to stationary aircraft and ground power units.
- Fuel spillages, fire training, and construction activities

The local air quality relevant emissions attributed to aircraft operations at airports are oxides of nitrogen (NO_x), carbon monoxide (CO), Hydrocarbons (HC), sulphur dioxide (SO₂), particulate matter (PM₁₀ and PM_{2.5}). Aircraft engines, auxiliary power units, apron vehicles, de-icing, and apron spillages of fuel and chemicals that emit these pollutants. Local factors influence the significance of individual emissions for each airport, but often NO_x is by far the most abundant and is considered the most significant pollutant from an air quality stand point. Standard emission factors, for various operation types for a range of common civil aircraft engine types maybe obtained from International Civil Aviation Organization (ICAO) database. Annexure 5.1 to 5.3.

The ambient air quality in area with radial distance 10km. from Aerodrome Reference Point (ARP), forms the baseline information. For new airport development, the sources of air pollution, for baseline studies are vehicular traffic, dust arising from unpaved village roads, domestic fuel burning and nearby industrial air emissions. For expansion / modernisation projects, additional pollutants include the airside and geographic sources in the airfield.

Meteorological Data

The methodology adopted for collection of micro meteorological data specific to the site is to compile the Mean monthly normals of atmospheric parameters, from previous 10yrs data recorded by the nearest IMD station. The parameters selected are atmospheric pressure in (mb) and relative humidity in percentage both recorded at 0830hrs & 1730hrs IST of each day. Maximum and minimum temperatures in 0C of each day; 24hrly rainfall in millimetres (mm) recorded at 0830hrs IST and 1730hrs of each day. The normals for each month are to be calculated and shown in a tabular form. Wind Roses for each month giving the wind direction, speed and percentage frequency; as per key Index and scale should be given. Most probable wind speed class and wind direction at the nearest IMD site is to be estimated from this. Sunshine duration, cloud cover "normal values" is to be compiled from secondary data for getting the monthly "normals".

The methodology adopted for monitoring surface observations is to be as per the standard norms. Onsite monitoring will be undertaken for one season except monsoon season for recording various meteorological variables in order to generate the site - specific data (Annexure 3). This data is then compared with the meteorological data of IMD for judging its reliability and consistency with regional meteorology.

The Central Monitoring Station (CMS) equipped with continuous monitoring equipment to record wind speed, direction, temperature (2m & 10m levels) and solar radiation is to be set up at the project site. Relative humidity and atmospheric pressure are recorded manually daily at 0830hr, and 1730hrs. Data on cloud cover and storms is recorded by visual observation. Rainfall is

monitored daily by rain gauge. Hourly averages of maximum and minimum values of wind speed, direction, solar radiation and temperature are recorded continuously at the site.

Upper air climatic data is useful in locating ground and elevated inversions and computing hourly mean mixing heights, which are required for use in air dispersion models. They can be procured from nearest IMD station and other secondary sources. The air quality monitoring stations should be given as shown in Table 4.4 and the data is to be measured and recorded as shown in Table 4.5. The standards are given in Annexure 5.4.

4.5 Noise Environment

4

The effect of noise on population depends on the characteristics of the source, the time of its existence and the location with respect to the noise sensitive land use. Noise can cause Noise Induced Hearing Loss (NIHL) to annoyance depending on its loudness. The effects of noise from proposed airport, construction activity, and vehicular traffic can cause potential damage to hearing, physiological responses, annoyance and general community responses. The ambient noise measurement frequencies and standards are given in Annexure 3 and Annexure 6 respectively. The existing noise levels before starting the construction of airport are to be measured for collecting baseline data. The process is to be repeated during construction and operational phases of project as well.

Baseline data on noise survey is collected in the project area on a given day during study period at a given location covering residential, commercial and silence zones continuously for 24hrs, at hourly intervals. During each hour parameters like L10, L50, L90 and Leq are directly computed by the instrument capable of measuring Sound pressure Level (SPL), Leq and octave band frequency analysis. The description of noise levels measured over a given (Leqs) of time interval is given using statistical quantities. These are calculated as per the noise level exceeding over certain percentage of time during the study period.

L10 is the noise level exceeding 10 percent of time,

L50 is the noise level exceeding 50 percent of the time,

L90 is the noise level exceeding 90 percent of the time,

Leq is the hourly equivalent noise level value computed by the noise integrating sound level meter.

Lday is the equivalent sound level (average noise level during 6am to 10 pm).

Lnight is the equivalent sound level (average noise level during 10 pm to 6 am.)

Ldn is Day Night sound level (24 hr equivalent sound level with weighted penalty for night) for community noise from all sources. Here 10 dB (A) is added to instantaneous sound value during night before calculating 24hrs average.

$$L_{dn} = 10 \log \frac{1}{24} \left\{ \sum_{i=1}^{15} 10 \left(\frac{L_{eq_i}}{10} \right) + \sum_{i=1}^9 10 \left(\frac{L_{eq_i} + 10}{10} \right) \right\}$$

The data is to be presented as shown in Table 4.6.

4.6 Biological Environment

Airport operations may cause change in local ecosystems, threaten endangered species, and disturb movements and breeding patterns of local wildlife. Airports are located within a variety of settings (both urban and rural), which support habitats and species of their own, some of which will have direct interaction with those located on the airport and vice versa. Some local areas will also be

designated for their nature conservation value. The biological environment of the airport should hence be seen as an integral component of the wider landscape scale ecological network. To accomplish this,

- ▶ Baseline data from field observations for various terrestrial and aquatic systems are to be generated.
- ▶ Comparison of the data with authentic past records to understand changes is undertaken.
- ▶ Environmental components like land, water, flora and fauna are characterised and,
- ▶ The impact of airport development on vegetation structure in and around project site is to be understood.

Data on sensitive habitats, wild or endangered species in the project area also is to be collected from Zoological Survey Of India (ZSI), Botanical Survey of India (BSI), Wildlife Institute of India (WII) and Ministry of Earth Sciences. Wildlife symbolizes the functioning efficiency of the entire eco system. Just as wild flora needs special treatment for preservation and growth, wild fauna as well deserves specific conservatory pursuits for posterity. As per Wildlife Act (1972), the various wild animals are enlisted in the schedules of wildlife Act based on the intensity of threat to them as rare, endangered, threatened, vulnerable etc. Primary data on survey of the wild animals and birds in the study area is collected and identified with the classification into various schedules taken from secondary data.

In case water bodies are located in the study area plantation analysis for one season is to be undertaken (Annexure 3)

4.7 Socio- Economic Environment

Airport development may often require relocation of the local community, which, sometimes causes ethnic, cultural, tribal or religious conflicts with local people. Industrialization and modernization may change the cultural traditions of the local community. To study the socio-economic aspects of people in the study area around proposed airport, baseline data on demographics, land used patterns, water resources for agricultural and industrial use, human settlements, health status of the communities, infrastructure facilities and economic conditions in the existing and relocated area, cultural and archaeological assets within the project area should be catalogued and presented.

Baseline data is collected from various secondary sources, such as District Census Statistical Handbooks -1991, and records of National Informatics Centre, New Delhi and supplemented by the primary data generated through process of a limited door to door socio-economic survey during the study period and during other stages of the project. Results are to be compiled and presented as in Table 4.7 and Table 4.8.

4.8 Solid Waste

Solid waste generation, in airport development is in three stages namely, site preparation, construction and operation. The types of waste, which are generated, can be classified into 4 categories namely, construction or demolition waste; municipal waste, i.e., biodegradable and recyclable waste; hazardous waste and E- waste.

Details of authorized municipal solid waste disposal facilities, biomedical treatment facilities and hazardous waste disposal facilities in the area are highlighted. The adequacy of these measures vis a vis waste generated is to be assessed and alternate measures need to be initiated.

ANTICIPATED ENVIRONMENTAL IMPACTS & MITIGATION MEASURES

5.0 GENERAL

The aim is to ensure that potential environmental problems are foreseen and avoided at an early stage in planning cycle so as to pre-empt problems. The EIA mechanism shall be applied to the project in the following order of priority:

- Avoid adverse environmental impact
- Minimize and control adverse environmental impact
- Mitigate adverse environmental impact

5.1. Identification of Impacts:

Various environmental parameters are to be studied during construction and operational phase of the airport project for assessment of their impact on the surrounding environment.

The prediction process involves resources, receptors and pathways linking them. Their nature, magnitude, extent of coverage and probability of occurrence determine their relevance and significance. The pathways, sources, resources, receptors and the cause and effect relationship in the prediction of impact process of a typical airport development project in operation, is shown in Figure 5.1.

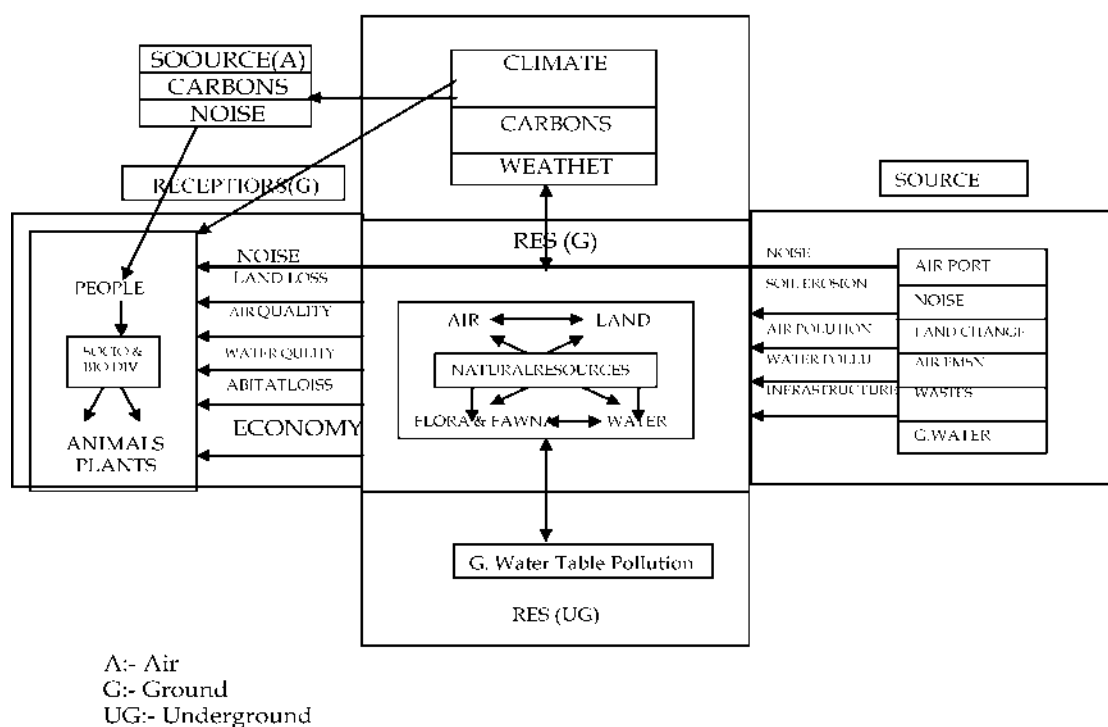


Figure 5.1 Pathways in Impact Prediction

Mitigation Measures and their Effectiveness: Mitigation measures are the avoidance, reduction or remedy of significant adverse effects as explained below:

- ▶ Avoidance (e.g. at source through design),
- ▶ Reduction involves lessening the severity of an impact,
- ▶ Remedy which could include compensation accepts that there will be adverse consequences but provides means by which those consequences can be mitigated or compensated for,
- ▶ Enhancement or improvements to the environment not related to an identified impact, but where there will be a net benefit to the environment,
- ▶ Only measures that can be implemented by the applicant, either directly or indirectly, e.g. via a legal obligation with other parties for instance, should be included,
- ▶ All significant adverse impact should be considered for mitigation and specific measures put forward; and attention should be paid to all stages of the development, in particular the construction stage where there is likely to be great potential for nuisance,
- ▶ All proposed mitigating measures should be capable of enforcement,
- ▶ Mitigating measures themselves sometimes have potentially adverse impact on other aspects of environment, which will also need to be assessed in terms of significance. This needs the co-ordination between various experts who may be involved in the process.

During the identification and prediction of the impact in construction and operational phases of the airport development project, the baseline conditions are either assumed to remain unchanged or revised as per trend analysis from known data collected till reference date of construction or operation of project.

5.2 Prediction of Impact During Construction Phases

The activities that take place during construction phases of airport project are levelling of site, construction and erection of main airport structures like terminal buildings, runways, taxi ways, auxiliary buildings etc. , and associated equipments in operation. The impact are on land use, soil, air quality, aquatic Ecology, demography and socio-economics, access roads and public expectations. The potential primary and secondary impact on the environment, their prediction, significance and mitigation are to be discussed.

5.3 Prediction of Impact During Operational Phase

The potential significant impact are on physiography / topography, land use, soil quality, ambient air quality, traffic densities, water resources, water quality, biological environment, noise levels, demography & socio- economics. Secondary impact on other areas of project such as commercial aspects include funding and profits.

Baseline conditions of the potential impact studied including their trends till the time of starting of operations is considered as the base. Where no trend analysis is available, the baseline data is assumed to remain unchanged during the study period and taken as the base value of the environmental parameter. The short term (24hrly), incremental value of the environmental parameter arising due to the development of airport is predicted qualitatively or quantitatively.

5.4 Land Environment

Anticipated Impact

The impact of the activities in the area on the land is to be clearly identified. Some of the impact include:

- ▶ Fuel storage and handling (delivery, storage and use of fuel for aircraft and other vehicles)
- ▶ Aircraft and vehicle maintenance,
- ▶ Waste burial, spillage, burning activities, fly tipping etc.
- ▶ Fire training, use of surfactants, etc.

Mitigation Measures

Mitigation measure should be clearly indicated and some of these include

- ▶ Transfers of fuels during refuelling operations, leak detection on underground pipes, containment of any surface spillage are to be monitored
- ▶ Aircraft maintenance, sensitivity of the location where activities are undertaken, and control of runoff of potential contaminants, chemicals etc are to be properly implemented and reported.
- ▶ Proper drainage systems, emergency containment in the event of a major spill during monsoon season etc are to be provided for.

The mitigation measures proposed during construction and operational phases, for impact on topography if any is to be detailed out. The various structures and associated Landscape when planned will tend to improve the aesthetic appeal of the site. Tree plantation along the perimeter of the project site will further improve the appeal. The plantation species should be carefully chosen to avoid bird nesting and to improve pollution control and noise control measures.

5.5 Water environment

Anticipated Impact

The main users of water include:-

- | |
|---|
| <ul style="list-style-type: none"> ▶ aircraft and vehicle washing ▶ aircraft potable water supply ▶ catering facilities ▶ toilets / laundries / cleaning fluids / and other domestic facilities |
|---|

Maximum use of fresh water is for dwelling units, having colony, domestic traffic, Flight catering etc., The conservation measures for drinking water and ground water resources will reduce the impact on water resources drastically. Use of water from STP and Rainwater harvesting plant for green belt development / Tree plantation and for cooling plants will further reduce the burden on fresh water. Reuse of the waste water from these is to be planned for refills in tanks meant for fire fighting.

Mitigation Measures

Measure for mitigating the run off from the landscape area is to route it to rainwater harvesting structures for further use in fire fighting operation, cooling plants and air conditioners after treatment. This will also recharge the ground water table. The run off from paved structures like

Runways, Taxiways, can be routed through drains to oil separation tanks and sedimentation basins before being discharged into rainwater harvesting structures. Two lines of water supply - potable (fresh) and non-potable (treated); are to be incorporated in the project design for the benefit of end users, appropriately.

Storm water drains are to be built for discharging storm water from the air-field to avoid flooding /water logging in project area during monsoon season / cloud bursts.

5.6 Air Environment

Anticipated Impact

Short-term impact on ambient air quality due to air emissions from multiple volume sources (from moving source) such as aircrafts, surface vehicles and point sources such as DG Sets are predicted using relevant models. The model input data are the emissions from aircraft calculated on the basis of ICAO data, emissions from vehicles (Table 5.1 to 5.3) and emissions from DG Stack (Table 5.4).

For the short-term simulations for volume and point emission sources, the concentrations are estimated around numerous receptors to obtain an optimum description of variations in concentrations over the site in 10km radius covering 16 directions. The incremental concentrations are estimated for the study period representing pre-monsoon. The isopleths of these pollutants dispersion values are to be plotted, studied and compared with standards specified by CPCB for 24 hourly values. The maximum incremental Ground Level Concentrations (GLCs) due to the airport project for SPM, SO₂, NO_x, CO and HC are superimposed on the maximum baseline concentrations of the respective pollutants recorded during the study period to arrive at the likely resultants, concentrations after implementation of the project and the resultant concentrations are to be presented in tabular form (tables 5.5 to 5.7). The values are compared with CPCB standards.

From the projected air traffic figures for different types of aircraft for a given period (Table 1.3), the emissions from the aircrafts and point sources, 24 hourly short term incremental concentrations of air pollution, the total pollution load from domestic and international traffic for each successive year for NO_x, CO & HC can be computed. The same for domestic and international traffic depending on aircraft type can also be computed.

Mitigation Measures

Mitigation measures for emissions from operational sources as introduced by ICAO are as follows:-

- ▶ Low fuel / emission aircraft departure procedures,
- ▶ Continuous Descent Approach and low power- low drop techniques,
- ▶ Design the airports to minimize aircraft holding and taxiing times
- ▶ Avoid Aircraft queuing on the ground,
- ▶ Avoiding unnecessary use of aircraft auxiliary power units,
- ▶ Taxiing management (e.g. towing and single engine taxi),
- ▶ Increasing the use of public transport,
- ▶ Encouraging staff to "car share "to use more sustainable transport access,
- ▶ The use of electric vehicles or less polluting fuels (liquid & natural gas),
- ▶ Use less polluting fuels in airport buildings,

- ▶ Ensure adequate vehicle maintenance,
- ▶ Energy management in buildings and for air field systems,
- ▶ Fugitive emission controls.

All these can contribute to reducing air quality related emissions, whilst at the same time, deliver in other economy benefits. For operational measures however, there may also be trade - offs with environmental capacity and noise which is described in the "Alternative's "analysis.

Air Quality Modelling for Surface Traffic Outside Airport Area

The baseline study on traffic volume outside the airport area and the observed speed is to be carried out. The anticipated increase in traffic due to project in terms of PCU (Passenger Car Units) / day is also shown in table, as per Indian Road Congress (IRC) conventions. The IRC recommendations are,

Road category	Max PCU / day
2-Lane Roads (7-m) with earthen shoulders	15000
4-Lane Highway with earthen shoulders	35000

Based on above, the existing peak hour traffic (in PCUs) is added to the proposed peak hour traffic (PCUs) to arrive at the total traffic in PCUs. This is verified for the adequacy of road capacity and suitable decisions are taken for widening the roads.

Mitigation measures include the increase in use of public transport and thereby reduce the emissions from vehicular transport. Review of the use of and fuels to power airside vehicles is to be undertaken at regular intervals.

5.7 Noise Environment

Anticipated Impact

Noise sources associated with airports are

- Aircraft noise - generated by aircraft in the air and during takeoff and landing
- Ground noise - ground based activities due to taxiing of aircraft, ground running of engines, auxiliary power units, ground service vehicles etc.

Noise Level Prediction: Noise during operational phase is generated by aircrafts, DG Sets and vehicular traffic. However, the latter two are localised while the aircraft noise is significant due to its movement over wide area. Suitable model may be chosen (Table 5.8). The model should calculate changes in noise impact resulting from new or extended runways, new traffic demand and fleet mix, revised routings and airspace structures, alternative flight profiles and modifications, and other operational procedures like reverse thrust. Noise contours showing the areas and the number of dwellings exposed to various aircraft noise levels are to be shown clearly.

Precise information on number of aircraft, types of aircraft, distribution of flights during the day and night are to be considered. In the absence of this information, the data is taken from peak traffic forecast of aircraft movement as per format in Table 5.8. Night time values are to be computed with additional penalty of 10 dB (A)

Lmax values are considered because it measures maximum sound pressure level occurring during a certain period of time during a single noise event. In practice, Lmax can identify serious noise

problems arising from short lived noise events, which are not picked up by Leq. It is to be borne in mind that the study is for worst case on the assumption that peak hour estimates are occurring at all hours of the day. Also effect of mitigation measures are not considered in the model, which further reduces the noise impact during actual operation. The results are compared with CPCB standards for various locations.

Mitigation Measures

ICAO requirements to noise management at airports are to be followed. Some of these include reduction of noise at source (Compared to standards), land use planning, restrictions on the use of the noisiest aircrafts.

The mitigation measures adopted are a combination of change in aircraft engine / air frame design and change in air traffic procedures for reduction of aircraft noise impact at operational source. Acoustic enclosures for DG sets, noise barriers for ground- run bays, ear plugs for operating personnel are the other mitigation measures for noise impact due to ground sources. These measures gave excellent results in the last two decades world over but fell short of expectations in recent times due to rapid growth in air traffic. Rewards for using noise free routes and penalties for flouting it is one method being used in other countries. This may involve trade-offs as the fuel consumption in flying through longer routes may increase. Acquiring land in the funnel zones along take off and landing paths where noise impact is more is another adopted method in some countries. Payment of compensation to residents in approach path for bearing with aircraft noise is yet another measure adopted by international aviation agencies.

In the Indian context, new generation aircraft of reduced emissions to air are not able to operate in majority of airports due to their large size and requirement of additional length of Runway. Expansion and modernisation of these airports can make them operate at these airfields and bring down air emissions at busy airports by de-congesting traffic over them.

The noise preferential routes which the aircraft overfly the least populated areas after takeoff and before landing are to be suggested. Night flying policy to limit the number of flights and amount of noise generated during this most sensitive time is to be formulated and calculated. Mitigation measures could also include introduction of higher landing fees for noisy aircraft and for night landing in threshold cases could be considered.

5.8 Biological Environment

Anticipated Impact

Based on the biological species found in the area, the biological value of the species found in the study area is to be assessed. This assessment will help in the development of landscaping which forms one of the important mitigation measures.

Mitigation Measures

A biological action plan can help in the planning of the landscaping activities of the airport area. Also proper selection of plant species to avoid bird nesting can help in minimizing bird strikes in the airport area. Proper Landscape management plans are to be identified for the airport area.

5.9 Socio-Economic Environment

Anticipated Impact

An assessment is to be made on the impact of the airport activity on the archaeology of the region. If it is found that the existing archaeology would be affected then a complete assessment of the potential effects is to be made. The document should be supported by photographs of elevations, architectural details and contextual photographs.

It is important that the cultural heritage of the region be highlighted in all international airports. This would enlighten the visiting population about the cultural and historical values of the region.

Impact on Occupation Health: Air pollution due to emissions of PM, NO_x, SO₂, HC and noise generation will effect the health of employees.

Mitigation Measures

Employees working in high noise zones are to be provided with health protection devices like earplugs / ear muffs. Air pollution control measures are to be adopted. Noise control measures such as noise absorbing building material in closed buildings, noise barriers in Ground run bays, Engine caps over DG sets etc., are to be ensured. Health camps both for employees and local populations are to be conducted.

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5.10 Waste Management

Airports produce a large quantity of wastes from a wide variety of sources including:

- ▶ in-flight wastes
- ▶ scrap wastes
- ▶ oils and solvent, components from aircraft maintenance
- ▶ catering wastes
- ▶ domestic and office wastes
- ▶ textile, plastic, rubber and metal from aircraft refurbishment

The wastes have to be managed after segregation and identifying the method of management. Recycling of wastes such as paper, glass (produced from terminals and aircraft caterers), metal (at aircraft maintenance site), plastics (from aircrafts, terminals and offices), wood, waste oil and solvents (from maintenance and engineering operations), kitchen wastes and vegetable oils (from caterers) is to be effectively carried out.

After initiating the mitigation measures in construction phase, the solid waste is of importance to the soil in operational phase. The oily sludge from ETP and garbage are to be disposed off.

5.11 Energy Considerations

Airports are significant resource users in terms of energy consumption during the operational and construction phases. The main use of energy in airports include

- ▶ aircraft and vehicles,
- ▶ construction activities
- ▶ heating, ventilation and air conditioning systems

- ▶ lighting, both externally, (runway, airfield and roads) and internally (terminals, offices and other buildings)
- ▶ passenger and baggage handling facilities

This requires considering the use of potential alternative energy sources. This could include energy generation on-site, use of alternative energy fuels, construction of green building in case of new airports, installing low energy lighting systems within the terminals and office spaces etc.

ENVIRONMENTAL MONITORING PROGRAMME

6.0. General

This includes the technical aspects of monitoring the effectiveness of mitigation measures (including measurement methodologies, data analysis, reporting schedules, emergency procedures, detailed budget & procurement schedules). The details include summary matrix of environmental monitoring during construction and operation stage; requirement of monitoring facilities and frequency, location, parameters of monitoring; compilation and analysis of data; comparison with base line data and compliance to accepted norms and reporting system and plantation monitoring programme.

6.1 Post Project Monitoring

- (a) A technical plan which spells out in detail the methodologies for measurement, the required frequencies of measurement, the planned location of measurement, data storage and analysis, reporting schedules and emergency procedures, and
- (b) Detailed budgets and procurement schedules for, necessary equipment and supplies, technical and administrative manpower.

The environmental monitoring needs to include

- ▶ Air pollution and meteorological data
- ▶ Compilation of emission inventory to quantify airport sources and the contribution to regional emissions
- ▶ Compilation of the emission inventory for aircraft sources should be undertaken.
- ▶ Storm water drain and check dams may be constructed to arrest the flow of silt loads emanating from airport during monsoon season.
- ▶ Ground water down stream of airport will be monitored. Heavy metal monitoring in surrounding wells and lakes should be taken up if necessary.
- ▶ Noise level monitoring by online integrated noise meters within airport premises continuously. This meter will be connected to central monitoring station where all the data is stored and processed.

It shall also cover different statutory returns/ compliance reports to be submitted such as:

- ▶ Submission of half yearly compliance report in respect of the stipulated prior environmental clearance terms and conditions in hard and soft copies to the regulatory authority concerned, on 1st June and 1st December of each calendar year
- ▶ Submission of environmental statement for the financial year ending 31st March to the concerned regulatory authority on or before 30th September every year
- ▶ Submission of Water Cess returns in Form 1 as per Rule 4 (1) of Water (Prevention & Control of Pollution) Cess Rules 1978 on or before the 5th of every calendar month

ADDITIONAL STUDIES

7.0 General

TOR to be adopted for airports as commonly applicable is prepared and attached to this manual as Annexure 1. It may however, be necessary to consider specific issues as applicable to individual projects. The EIA report and EMP should therefore address such issues also.

7.1 Items Identified by the Proponent

The proponent may be able to identify issues beyond those included in the common TOR as may be specifically considered by him important from environmental point of view for the proposed project or site selected. In such cases the proponent shall include such issues as additional studies under TOR and pursue them in the EIA study after the regulatory authority approves TOR.

7.2 Items Identified by the Regulatory Authority

During the scoping process, the regulatory authority may direct specific issues, beyond those included in the TOR proposed by the proponent, as may be specifically considered important from environmental point of view. In such cases the proponent should pursue those issues as additional studies in the EIA report after the regulatory authority approves TOR.

7.3 Items Identified by the Public and Other Stakeholders

After completion of the public consultation, the applicant shall address all the material environmental concerns expressed during the process, and make appropriate changes in the draft EIA and EMP. The final EIA report, so prepared, shall be submitted by the applicant to the concerned regulatory authority for appraisal. The applicant may alternatively submit a supplementary report to draft EIA and EMP addressing all the concerns expressed during the public consultation. A statement of the issues raised by the public and the comments of the applicant shall also be prepared in the local language and in English and annexed to the proceedings.

7.4 Surface Access to Airport

The aim of the study is two fold.

- ▶ Improving the efficiency of Road Access.
- ▶ Reducing the emissions of pollutants and green house gases.

Road Access

Every airport does require a well-planned network of access roads. These may incorporate roads dedicated purely for airport access as well as other, non - dedicated roads. The access road network must also have sufficient capacity to cope with peak hour traffic to and from the airport. Hence, study on capacity of existing Highways leading to airport and of the proposed dedicated roads to the airport is to be undertaken. This involves,

- ▶ Study of Baseline conditions of traffic,
- ▶ Projected Demand of traffic,
- ▶ Assessment of Road capacity,

Reduction of Pollution & Carbon:

The use of cars as the dominant mode for accessing airport is, coming under greater scrutiny particular with local community. Key issues include;

- ▶ More congestion, delays, unreliable journeys and road casualties,
- ▶ Emission pollutants reducing local air quality and potentially affecting the health of local community,
- ▶ Generation of additional noise associated with traffic.

To obviate these impact, decreasing the proportion of journeys to the airport made by private car with increasing the share of journeys made by other modes including busses and coaches, trains and light rail, taxis and private hire vehicles, bicycles, walking and combinations of these modes. The most effective way in which to minimise the environmental effects related to airport surface access is to reduce the level of private car use through promotion of alternate modes.

Considering the associated problems in Rail link, taxi service, the best mode of passenger pick up is through coach and Bus services. Key factors that influence the choice to travel by coach are quality and reliability of service, frequency of and provision of information out a particular service, and the time of travel from pick up to the airport.

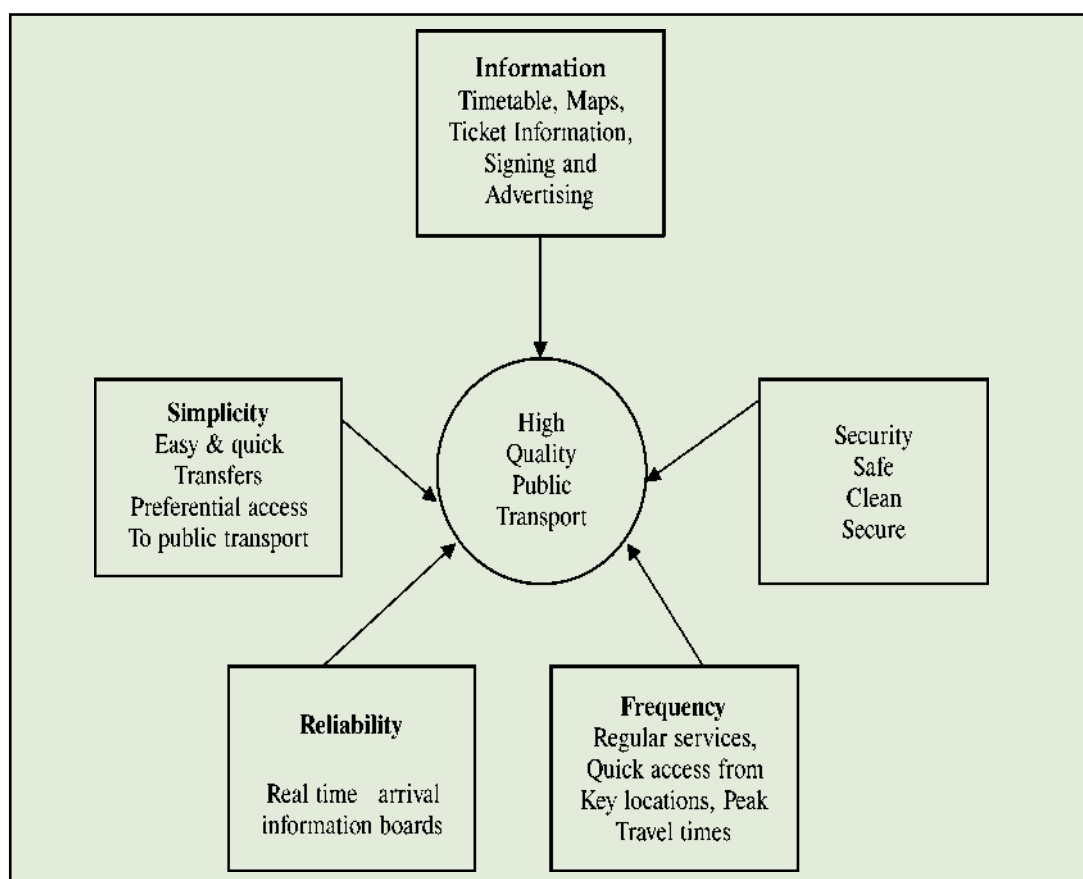


Fig. 7.1 Key Criteria for Successful Public Transport

Rail Link

Availability of Rail link to airport is further advantageous from pollution angle, provided its option is made more attractive to passengers by -

1. Quick and early access to airport terminal from airport rail station,
2. Discount for airline passengers using trains to get to or from airport,
3. Baggage transfer service between trains and aircraft taking into account, security concerns over control of checked luggage,
4. Competitive fares and ticketing agreements between airlines and rail operators that consolidate rail and air tickets.

The use of through - ticketing to link air and rail or bus services encourages the use of mass transit over private cars because it can offer,

- ▶ Reduced connection times,
- ▶ Comfort and security from already having a ticket,
- ▶ Convenience of having tickets for all segments of a journey in a single booklet,
- ▶ Single payment for entire journey avoiding the need for foreign currency immediately on arrival and,
- ▶ Potential savings from special tariffs and promotional arrangements.

7

The promotion of rail services should therefore be a primary aim of the travel plan wherever possible

7.5 Risk Assessment

Hazards & Risks

Hazard analysis involves the identification and quantification of various unsafe conditions (hazards) that may exist at an airport. Risk analysis on the other hand involves identification and quantification of risks to airport personnel, facilities and equipment due to accidents resulting from the hazards present.

At airports hazard occurrence may result in,

- ▶ Fire and / or explosion
- ▶ Leakage of flammable material
- ▶ Release of toxic material

Fuel

Fuel Storage at the Airport:

Two types of fuel are stored in underground tanks.

- ▶ Aviation Turbine Fuel (ATF) including under ground Fuel Hydrant system,
- ▶ HSD for ground service vehicles and DG set.

Chemical Storage

- ▶ Identification of Major hazardous units based on Manufacture, storage and import of hazardous Chemical Rules 1989 (amended in 2000) of GOI. E.g. Flammable substances, unstable substances and Toxic substances as rated in NFPA codes 49 and 345M,
- ▶ Identification of hazardous units and segments of Airports and Storage units based on relative ranking technique. Fire -explosion and Toxicity Index (FEDTI).

Preliminary Hazard Analysis for Process and Storage Areas at an airport and also for the whole airport is shown in Table 7.1. Assessment, relevance and reliability of analytical methods and framework used in risk assessment are given in Annexure 8.

Leakage of hazardous material due to accidents can be assessed by models and Maximum Credible Accident Analysis (MCAA). The out puts are damage distances of heat radiation, toxic releases, vapour cloud explosion etc.

Damage Criteria: The fuel storage and the supply pipelines may lead to fire and explosion hazards. This may release hydrocarbon, which does not contaminate soil and also is not toxic as it vaporizes slowly without leaving a residue.

Damage due to Fire from Flammable Liquid i.e. (ATF, HSD): The damage is mainly due to thermal radiation intensity and lethality is shown in Annexures 9.1 and 9.2.

Damage due to Explosion: It is sudden and violent release of energy accompanied by the generation of pressure wave which causes injury to people and damage to property and death to people in close proximity. (Boiling Liquid Expanding Vapour Explosion (BLEVE) or Vapour Cloud Explosion (VCE).

BLEVE Fire ball is combination of fire & explosion due to overheating of a pressurised vessel by primary fire.

Vapour Cloud Explosion is due to confined (in a vessel & pipeline) or unconfined explosion (in open air). The peak pressures in confined explosion reach hundreds of k Pa while in unconfined it is few k Pa.

Damage due to Hazards at ATF Store and HRD Store at Airport:

- ▶ Model simulations reveal that leakage at HRD store causing fire will be 100% lethal within 18 metres and 50% lethal with in 23 metres. Vulnerable zone within abnormal heat is within 34metres.
- ▶ BLEVE- fireball due to failure of ATF storage is 100% lethal within 72metres and 50% lethal with 111metres. Safe distance is 565metres.
- ▶ Safe distance for pool fire (leakage) at ATF storage is 436 metres and that at HSD storage is 109metres.

Design consideration for Hazardous material storage:

The implication of the above observations is that

- ▶ The location of ATF storage tank and HSD storage tank should be well within the Airfield taking into consideration the safety distance for population outside airfield, workers and equipment within airfield.

- ▶ The design consideration should be as per maximum fuel storage planned. The Dyke wall should be constructed as per standard norms for the capacity of tank keeping in view the meteorological and local factors within the airfield.

7.6 Disaster Management Plan

Emergency planning is an essential part of overall loss control programme for effective management of an accident / incident to minimise losses to people and property both in and out side the airfield.

Prevention Measures

These include formulation of technical and organisational measures for

- ▶ Controlling leakage of hazardous materials out of the facility
- ▶ Implementing proactive and reactive measures against threats to the safety of personnel and property.

Standard Operational Procedures(SOPs) & Action Plans and Resources

The preventive measures can be implemented successfully, provided the organisation is aware of the plan of action, the responsibilities and the requirement of resources. Hence, standard operational procedures, Action plans highlighting what is to be done and by whom and inventory of the resources required are important. These also include the discussion of role of Government organisations and those agencies under Mutual Aid Scheme.

Emergency Planning at Airport:

The objectives of Emergency plans are to,

- ▶ Rapidly control or contain hazardous situation.
- ▶ Minimise the risk and impact of accident
- ▶ Rescue and rehabilitate affected persons and prevent damage to property.

To action this, the following are required:

- ▶ Accurate and early detection of emergency,
- ▶ Command, co-ordination and response of organisational structures along with efficient trained personnel.
- ▶ Resource availability
- ▶ Appropriate Emergency response actions,
- ▶ Effective communication facilities,
- ▶ Regular review and update of plan,
- ▶ Proper training of concerned personnel.

Organisational Structure

- ▶ Airport in-charge is responsible for maintaining distribution and control of the plan and for review and revision of procedures,
- ▶ Safety in-charge is responsible for training of personnel on the drills and their adequacy,
- ▶ All employees and occupants are responsible for carrying out their responsibilities as per the plan.

Emergency Response at Airport

This includes:

- ▶ Accident initiation and raising the Alarm by Emergency control centre,
- ▶ Accident evaluation and classification of on site emergency by the Airport Director.
- ▶ Declaration by the Director to initiate action for mitigation and taking over from ATC Sr. Manager for control operations.
- ▶ Off site and External Agency Notification by Director,
- ▶ Implementation of on site response actions,
- ▶ Protective actions and evaluation, co-ordination of Response Actions with External agencies, Management of emergency resources by Emergency Operations centre located at ATC through various action addressees specified in SOPs.

Recovery

After termination of the emergency, the Director in conjunction with facility activities to normal management, establishes a Recovery organisation to manage those activities necessary to return to normalcy.

7.7 Rehabilitation and Resettlement (R&R) Plan

Impact on Economy & Environment:

Rehabilitation and Resettlement covers total families displaced due to project construction and villages affected. Impact assessment and mitigation measures proposed are to be tabulated.

Detailed R&R plan with data on the existing socio-economic status of the population in the study area and broad plan for resettlement of the displaced population is to be given. The site for the resettlement colony is to be earmarked. Alternative livelihood concerns/employment are to be addressed. Rehabilitation of the displaced people, civil and housing amenities being offered and the schedule of the implementation of the project specific R&R Plan may be prepared. Details of provisions (capital & recurring) for the project specific R&R Plan may be given. These include the financial help, employment; vocational training etc; due to loss of land, jobs, profession and livelihood. The commitment of project proponent in this regard may be recorded and expenditure may be budgeted.

In addition to the benefits derived during construction phase as per implementation of R&R plan, the population will get more employment during operational phase, mainly skilled and semi- skilled jobs. The environment 5km around airport may be more urbanised with cost of living going up. However, with increase in income this is off set. All the project-affected persons should be counselled to use the 'Rehabilitation Grant' received carefully, for future settlement. Settlements may increase due to influx of people in search of employment from outside. Civic amenities will improve in terms of power, drinking water, health care, education, communication and other infrastructures.

On the other hand flight safety hazard sources such as, slaughterhouses, which promote bird activity in airport vicinity and high-rise buildings, which form obstructions for aircraft operations, may develop. New small-scale industries may crop up in the surroundings, affecting the ambient air and water quality. Awareness of these hazards " and their role in aviation will make the population realise their social responsibilities.

PROJECT BENEFITS

8.0 General

This chapter should include benefits accruing to the locality, neighbourhood, region and nation as a whole. It should bring out details of benefits by way of:

- ▶ Improvements in the physical infrastructure by way of addition of project infrastructure, ancillary industries that may come up on account of the project
- ▶ Improvements in the social infrastructure like roads, railways, townships, housing, water supply, electrical power, drainage, educational institutions, hospitals, effluent treatment plants, improved waste disposal systems, improved environmental conditions, etc.
- ▶ Employment potential -skilled; semi-skilled and unskilled labour both during construction and operational phases of the project with specific attention to employment potential of local population as well as necessity for imparting any specialized skills to them to be eligible for such employment in the project on a long term basis i.e., during operational and maintenance stages of the project and
- ▶ Other tangible benefits like improved standards of living, health, education etc.

8.1 Socio-Economic Benefits of the Project Mainly Include

- ▶ provision of additional revenue generation in terms of foreign exchange earned from operations,
- ▶ Triggering growth in the region;
- ▶ provision of additional employment;
- ▶ development of ancillary industries and trade centres;
- ▶ improvement in quality of life, flight safety awareness and literacy of people in the area and
- ▶ promote direct foreign investment in the region due to access to international markets

ENVIRONMENTAL COST BENEFIT ANALYSIS

9.0 General

If recommended by the Expert Appraisal Committee at the Scoping stage i.e., deciding upon the TOR, this chapter should include the Environmental Cost Benefit Analysis of the project.

ENVIRONMENTAL MANAGEMENT PLAN (EMP)

10.0 General

The objective of Environmental Management Plan is to:

- ▶ Monitor the effectiveness of mitigation measures
- ▶ Ensure efficient operation of mitigation measures
- ▶ Establish systems and procedures for this purpose
- ▶ Take any necessary action when unforeseen impact occur

10.1 Components of EMP

The EMP should contain the following :

- ▶ Summary of potential impact & recommended mitigation measures. Allocation of resources and responsibilities for plan implementation
- ▶ Administrative and technical set up for management of environment
- ▶ Institutional arrangements proposed with other organizations/Govt. authorities for effective implementation of environmental measures proposed in the EIA
- ▶ Safe guards/mechanism to continue the assumptions/field conditions made in the EIA
- ▶ Environmental specifications for contractors should cover the required safeguards during the design and construction stage
- ▶ EMP to comply the standards and code of practices modified under E (P) Act 1986
- ▶ Approach towards voluntary compliance should be explained ISO 14001

10.2 Environmental Cell

It is desirable for the proponent to set up a separate environmental cell to oversee implementation of the EMP and evaluate the results of monitoring. Survey and analysis to be carried out periodically

The Environmental management plan should include:

- ▶ checking the final design documents to ensure they incorporate the management measures.
- ▶ Monitoring the construction and interacting with the contractor to ensure an understanding of compliance with the constraints involved with the Environmental protection or mitigation measures during construction and,
- ▶ Following construction, continuous monitoring during project operations to ensure that the project meets its environmental goals, and to initiate needed modifications to the project design or operations for this purpose.

SUMMARY AND CONCLUSIONS

11.0 General

Summary EIA shall be a summary of the full EIA report condensed to ten A-4 size pages at the maximum. It should necessarily cover in brief the following chapters of the full EIA report.

- ▶ Introduction
- ▶ Project Description
- ▶ Description of the Environment
- ▶ Anticipated Environmental Impact & Mitigation Measures
- ▶ Additional Studies
- ▶ Project Benefits
- ▶ Important Aspects of the Environmental Management Plan and
- ▶ Important Aspects of the Environmental Monitoring Programme
- ▶ Disclosure of Consultants Engaged

DISCLOSURE OF CONSULTANTS ENGAGED

12.0 General

The team of consultants engaged in the project is to be given with brief resume of team members and nature of consultancy rendered. The EIA consultants shall have accreditation with Quality Control of India (QCI)/National Accreditation Board of Education and Training (NABET) as per office memorandum dated 2nd December 2009 of MoEF. This chapter shall include the names of the consultants engaged with their brief resume and nature of consultancy rendered. The consultants shall include the copy of the accreditation certificate and data provided by the other organizations/ laboratories including their status of approvals etc.

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GLOSSARY

Airfield

An area of ground where aircraft can take off and land

Aerodrome

A defined area on land or water (including any buildings, installations, and equipments) intended to be used either wholly or in part for the arrival, departure and surface movement of the aircraft

Aerodrome Traffic Circuit

The specified path to be flown by aircraft operating in the vicinity of an aerodrome

Aerodrome Taxi Circuit

The specified path of aircraft on the manoeuvring area during specific wind conditions

Airport

An area consisting of a set of runways and buildings where non-military aircraft can take off and land

Airbase

Base for military aircraft

Airport Reference Point / (Aerodrome Reference Point) (ARP) :

A point on the airport designated as the official airport location.

Apron

A defined area on a land aerodrome intended to accommodate aircraft for the purposes of loading and unloading of the passengers, mail or cargo, fuelling, parking or maintenance

Apron Taxiway

A position of a taxi way system located on an apron and intended to provide a through taxi route across the apron

Aircraft Taxi Lane

A portion of an apron designated as a taxiway and intended to provide access to aircraft standards only

Aircraft

Any machine that can derive support in the atmosphere from the reactions of the air other than the reactions of the air against earth's surface

Air Traffic

All aircrafts in flight or operating on the manoeuvring area of an aerodrome

Air Traffic Service

A generic term meaning variously, flight information service, alerting service, air traffic advisory service (air traffic control service, approach control service or aerodrome control service)

Approach Funnel

A specified airspace around a nominal approach path within which an aircraft approaching to land is considered to be making a normal approach

Airway

A control area or portion thereof established in the form of a corridor equipped with Radio navigation aids

ATS Route

A specified route designated for channeling the flow of traffic as necessary for the provision of air traffic services

Final Approach

That segment of an instrument approach procedure in which alignment and descent for landing are accomplished

Glide Path

A descent profile to determine for vertical guidance during final approach

International Civil Aviation Organization (ICAO)

A specialized agency of the United Nations whose objective is to develop the principles and techniques of international air navigation and to foster planning and development of international civil air transport

International Airport

Any airport designated by the contracting State or whose territory it is situated as an airport of entry and departure for international air traffic where the formalities incident to customs, immigration, public health animal and plant quarantine and similar procedures are carried out

Instrument Landing System (ILS)

It is designed to provide an approach path for exact alignment and descent of an aircraft on final approach to a runway

Landing Area

That part of a movement area intended for the landing or takeoff or aircraft

Movement Area

That part of an aerodrome to be used for the takeoff, landing and taxiing of aircraft, consisting of the manoeuvring area and the Apron(s)

Rapid Taxiway

A taxiway connected to a runway at acute angle and designated to allow landing aeroplanes to turn off at higher speeds than are achieved on other taxiways and thereby minimizing runway Occupancy times

RADAR: (Radio Detection and Ranging)

It is a surveillance system whereby radio waves are transmitted into the air and then received when they have been reflected by an object in the path of the beam to detect its range and direction

Runway

A defined rectangular area on land aerodrome prepared for the landing and takeoff of aircraft

Taxiing

Movement of an aircraft on the surface of an aerodrome under its own power, Excluding takeoff and landing

Taxiway

A defined path on a land aerodrome established for the taxing of aircraft and intended to provide a link between one part of the aerodrome and another including aircraft stand taxilane, apron taxiway and rapid exit taxiway

Touchdown

The point where the normal glide path intercepts the runway.



TABLES

Table 1.1 Air Traffic Projections

Existing Traffic in the year: -----	
Domestic traffic	= A (Embarking+ Disembarking +Potential passengers from other modes of transport) - B (Transfer from Domestic to International)
International traffic	= C (Embarking + Disembarking + potential passengers from other modes of transport) + B (Transfer from Domestic to International)

Table 1.2 Forecast Traffic

Forecast Traffic	Annual Growth Rate Rate	Period	Forecast at the end of Period -
Domestic	R%	n yrs	$(A-B)(1+R/100)^n$
Inter	S%	n yrs	$(C+B)(1+S/100)^n$

Table 1.3 Peak Demand in Aircraft Movement Per Annum from The End of Period

- (a) Large Aircraft (Type/Capacity) - 747/360 A330/260
 (b) Medium Aircraft (Type/Capacity) - A320/165 B737/145
 (c) Forecast Passengers International - Y
 During the year Domestic - X
 (d) number of days during peak month of traffic - n

SI No	Forecast Details (ICAU)	International Aircraft B/747, A-330, A-320	Domestic Aircraft A-330, A-320, B-747
1	Capacity Average	255	190
2	Average Occupancy	60%	66%
3	Average Seats per air craft	153	125
4	No. of operations per Annum	$Y/153$	$X/125.4$
5	Peak Month operation (Dec)@ 10% of (4)	$Y/153 \times 0.1$	$X/125.4 \times 0.1$
6	Operations in Average Day of Peak Month (ADPM)	$Y/153 \times \frac{0.1}{n}$	$X/125.4 \times \frac{0.1}{N}$
7	Peak hour operations @ 20% of ADPM	$Y/153 \times \frac{0.1 \times 0.2}{n}$	$X/125.4 \times \frac{0.1 \times 0.2}{n}$
8	No of flight per million passengers during peak hour of the year (Y = 1000000)	$131/n$	$160/n$
9	Peak hour passengers @ 23% of ADPM per International flights and 20% of ADPM per domestic flights	$Y/n \times 0.1 \times 0.23$	$X/n \times 0.1 \times 0.20$
10	No of passengers during peak hour per million passenger during the year	$23002/n$	$19995/n$

Table 1.4 Forecast Cargo Traffic (Y = 1000000)

$$\begin{aligned}
 \text{Existing Cargo in MT for Export} &= D + E = P \text{ (MT)} \\
 &\quad \text{(Actual)} \quad \text{(Potential)} \\
 \text{for Import} &= F + G = Q \text{ (MT)} \\
 &\quad \text{(Actual)} \quad \text{(Potential)}
 \end{aligned}$$

Period	Annual Growth Rate		Quantity in MT	
	Export	Import	Export	Import
T years	K%	L%	$P \left(1 + \frac{k}{100} \right)^t$	$P \left(1 + \frac{L}{100} \right)^t$

Table 2.1 Key Design Features of Proposed Airport

Facility			Key Design Features
1	Civic Airport		
	(a)	Runway	Description, Handling Capacity, Restrictions, Nav aid
	(b)	Taxiway	Description, emergency usage
	(c)	Rapid Exit Taxi	Special feature if any
	(d)	Other Taxi ways	Special feature if any
	(e)	Parking Apron	Facility for Latest new air craft
	(f)	Maintenance	Special Features
2	Terminal Building		Area, Sealing Capacity in various phases, Aerobridges, security system, elevators Escalators, Walkalators, Baggage handling system, Flight info system, CCTV, Air conditioning.
3	Cargo Terminal		Logistics and redistribution
4	Communication, Navigation and Surveillance systems		ILS, Lighting system, RVR measuring.
5	Infrastructure		Main Access Road, Other Access Road, Aside Road, Rail Link, Water and Power Supply
6	Fuel Farm		Fuel farm design in collaboration with others
7	Car Park		Features for handling Peak capacity
8	Other facilities		Housing, maintenance workshops, offices, crash Rescue & Fire Fighting Station. ATC control tower, Ware house for Retail depot.
9	Miscellaneous		Ground Handling Equipment, CRF Eqpt, Fire detection alarm and Fire Hydraulic, Met equipment
10	Airport Management Systems		Monitoring of all operational, security and lighting equipment. Automation of storage and Retrieval systems.

Table 2.2 Features of Proposed Airport

Sl No	Description	Details
1	Runways, Length, Width, Orientation and NAV AIDS & Nos	
2	TAXI WAYS - Full length parallel length & Width & Nos.	
3	Taxi ways - Rapid Exit Length, Width & Numbers	
4	Other Taxi ways - Apron Taxi way, cargo Taxiway, Main Taxi way, General Aviation	
5	Apron Facilities, Aero Bridges, Cargo, Remote Parking, VIP, Maintenance and isolation	
6	Cargo Terminal - Capacity (MTPA)	
7	Passenger Terminals - domestic, International, Capacity, area, Peak hour Capacity	
8	Maintenance Hangars	
9	Car Park	
10	Access	
11	Ancillary Projects - Fuel Arm, Logistics Center, Hotel, Convention Center, Free Trade zone, Restaurants, Aviation Training, Flight Catering Centre, aircraft Maintenance etc.	

Table 4.1 Physical Properties of Soil

Station Code	Colour	Texture	Water Holding Capacity (%)	Porosity (%)	Sand (%)	Salt (%)	Bulk Density gm /cc	Permeability ml
S1								
S2								
S3								
S4								

Table-4.2 Chemical Properties of Soil

Parameters	Samples					
	S1	S2	S3	S4	S5	S6
pH						
Potassium						
Sodium						
Sodium Absorption Ratio						
Cat ion exchange capacity						

Table No. 4.3 Description of Ground Water Surface Water Sampling Locations

Station No.	Location	Distance & Direction from project area	Project area/ study area	Environmental setting
GW				

Table No. 4.4 Description of Ambient Air Quality Monitoring Stations

Station No.	Location	Distance & Direction from project area	Project area/ study area	Environmental setting

Table No. 4.5 Analysis of Ambient Air Quality

Monitoring Station Category (R,I,S)	Category of Station	Min.	Max.	Mean	95 Percentile	Min.	Max.	Mean	95 Percentile	Min.	Max.	Mean	95 Percentile	Min.	Max.	Mean	95 Percentile	Min.	Max.	Mean	95 Percentile

R - : Residential Area

I - : Industrial Area

S - : Sensitive Area

Table No. 4.6 Description of Noise Monitoring Stations

S. No	Locations	Class*	Average Day noise level (dBA)	Average Night noise level	Day time (6.00 A.M. to 10.00 P.M) Standard (Leq in dBA)	Day time (10.00 P.M. to 6.00 A.M) Standard (Leq in dBA)	Remarks

*Industrial area/ Commercial area /Residential area /Silence zone

Table 4.7 Demographic Profiles of the Villages in the Atudy Area

Sl. No.	Demographic Feature	Study Area	Share in total Population (%)
1.0	Total Population		
2.0	Households		
3.0	Occupation		

Table 4.8 Other Infrastructural Facilities Available in the Study Area

Sr. No.	Name of the village	DWF	Tp	W	T	TW	IHP	R	C	L	S	O	PO	TO	PT	P	B	RS	NW	CB	CoB

Note:

DWF	: Drinking Water Facility	C	: Canal	P	: Phone
Tp	: Tap	L	: Lake	B	: Bus
W	: Well	S	: Spring	RS	: Railway Service
T	: Tank	O	: Others	NW	: Navigable Waterways
TW	: Tube Well	PO	: Post Office	CB	: Commercial Bank
HP	: Hand Pump	TO	: Telegraph Office	CoB	: Co-operative Bank
R	: River	PT	: Post & Telegraph Offices		

Table 5.1 Emission From Petrol Driven Vehicles (2/3 Wheelers and Light Duty Vehicles LDVS)
(With Reference Mass >350 kg, 1020-1250 kg and speed 40 km/hr)

Pollutant	MoEF Standard gm/km		Emissions g/s/vehicle=1xspeed/3600		Total Emissions g/s=2xvehicles Nos.	
	(1)		(2)		(3)	
	2/3 wheeler	Light Duty	2/3 wheelers	LDVS	2/3 Wheelers	LDVS
CO	40	19.7				
HC	15	2.7				

Co - Carbon Monoxide

HC- Hydrocarbon

Table 5.2 Emission from Diesel Driven Vehicles (Trucks/Busses and speed 30 km/hr)
(Reference from 125 HP Engine and speed 30 km/hr) Format

Pollutant	MoEF Standard gm/km vehicles (gm/kwh)	Emissions (g/s vehicle) 1x HP x 0.746/3600	Total Emissions (g/s) = 2 x vehicles Nos.
	(1)	(2)	(3)
CO	19		
HC	3.8		
NO _x	18		

NO_x - Oxides of Nitrogen

Table 5.3 Total Emissions From All Vehicles (From Tables 5.1, 5.2)

Parameter / Type of vehicle	Units	Value		
	-	Petrol Driven		Diesel Driven
	g/s	2/3 Wheelers	LDVS	Trucks/Buses
CO	"			
HC	"			
NO _x	"	Not specified	Not specified	

Table 5.4 Emissions From Dg Stack

Parameter	Emission rate (gm/sec)
Particulate Matter	Emission Rate (gm/sec) = Emission limit (mg/Nm ³) * flow rate (Nm ³ /hr)
CO	Emission Rate (gm/sec) = Emission limit (mg/Nm ³) * flow rate (Nm ³ /hr)
NO _x	Emission Rate (gm/sec) = Emission limit (mg/Nm ³) * flow rate (Nm ³ /hr)
SO ₂ :	Emission rate (gm/sec) = Stack exit gas flow rate (Nm ³ /hr * percentage of Sulphur in HSD x HSD density x Conversion factor 64/32

SO₂ -Sulphur dioxide

**Table 5.5 Resultant Concentrations Due to Incremental GLC
(Base line value + Predicted Airport Value)**

Pollutant	Max AAQ Concentrations Recorded during the Study Microgram/m ³)	Predicted Incremental (Max) Concentrations due to Airport Microgram/m ³ (Aircraft+DG+Traffic in Airport)	Resultant Concentration (Microgram/m ³) during Post Project Scene (Max)
PM			
SO ₂			
NO _x			
CO			
HC			

PM - Particulate Matter(10, 2.5).

Table 5.6 Record of Daily Traffic at Site

Date and Location	Traffic Category and AV Speed					Passenger Car Units (PCU) per days
Truck/Bus (MF= 3.0)	LCV (MF=1.0)	Car/Jeep (MF=1.0)	MAV (MF=3.0)	2/3 Wheeler (MF=0.5)	Others Tractors (MF=3.0)	(Factors Truck 3.0, Tractor 3.0; LDV-1.0, 2/3 wheelers 0.5)

MF - Multiplication factor

Table 5.7 The Peak Daily Traffic Case

Aircraft	Departure/Day	Approaches/day	Distribution of both departure and approach in %		
			Day Time	Evening	Night
			(0700-1900)	(1900-2200)	(2200-0700)
Peak Daily Traffic : Domestic = Nos International = Nos					

Table 5.8 Post Project Noise Levels

Location of Noise Measurement	Pre Project Noise Level (Leg) dB(A)		Incremental Noise Levels Due to Project* (L max) dB (A)	Post Project Noise Levels (Leg) dB(A)	
	Day	Night		Day	Night

Night time values are computed with additional penalty of 10 dB (A)

* Integrated Noise Model (INM) version 6.0 developed by Federal Aviation Administration (FAA) office of environment and energy USA may be used till CPCB / MoEF come out with their recommended model.

Table 7.1 Preliminary Hazard Analysis For Process And Storage Areas And For Whole Airport

Source	Process	Potential Hazard	Provisions
DG Set	Production of Electrical Energy	Fire hazard in Lube oil system, cable gallery short circuit	Standard Cables to be used, Fire detection system to be used
Power Transfer unit		Fire and explosive	-do-
Switch Yard Control Room	220 KVA switch yard	Fire	-do-
ATF & HSD Storage Area	Fuel Storage for Aircraft, ground vehicles	Fire & Explosive	Precautions as per TAC, OISD to be followed. Fuel Hydrant system for Aircraft refuelling. Fire Detection alarm system.
Compressor House	Airport operation	Governor failure due o the failure of pins and springs leading to opening of safety valves & source ignition	Design precautions to be followed in manufacture and erection. Fire Detection Alarm system to be used.
Buildings	Electrical short circuit Eventually source ignition	Fire	All electrical fittings and cables will be provided of standard quality. All motor starters to be flame proof.
Chemical Store	Inflammable chemicals in Stores	Fire in Storage Areas due to inflammable nature of chemicals	Fire extinguishers at potential points. Fire Hydrant network as per TAC guidelines. Fire detection system.



ANNEXURES

Annexure 1

Terms of Reference (TOR) for environmental impact assessment of AIRPORTS

Objectives

Terms of Reference (TOR) for preparation of Environmental Impact Assessment (EIA) and Environmental Management Plan (EMP) for Airport Development / Expansion / Modernization are prerequisites for obtaining Environmental clearance as per the EIA notification of September 2006 as amended December 2009 by Ministry of Environment and Forests (MoEF) GOI. They have been devised to improve the quality of the reports and make decision-making process transparent and easy. TOR will help the project proponents and consultants to prepare the report with relevant project specific data, which are precise, concise and easy to comprehend. TOR for Airport Development/ Expansion/ Modernization is expected to cover all environmental related features.

General Information

Airports are classified as international, domestic with customs facilities and domestic airports. Aviation compared to any other mode of transport, has grown rapidly and made significant contribution to the economic development of countries world over. Development / expansion / modernisation of airport facilities (referred as Project) are a right step towards meeting that end. Associated with the economic benefits, they may also create adverse impact on the surrounding environment during construction, operational and post operational phases of the project. These include pollution in land, air, water, noise, biological, socio-economic and health environments. The project development and operation should therefore be planned with careful consideration of their environmental impact. To minimise these adverse effects that may be caused by the project and to identify suitable alternate methods /sites; techniques of Environmental Impact Assessment became necessary.

1.0 Introduction

Airport development / expansion / modernisation is listed at Para 7 (a) of the schedule of list of projects dealing with physical infrastructure in MoEF notification as amended December 2009. It is a category 'A' project as stipulated in the EIA notification 2006. Prior environmental clearance before starting any Construction work or preparation of land except for security the land is mandatory for this project.

This chapter shall cover purpose of the project, details of project proponent, brief description of the project; name, nature, size, location of the project and its importance to the region.

Profile of the Project Proponent, name and contact address, Implementing Organization, Organizational Chart, Project consultants etc., should be mentioned clearly.

Land description/ plot/ survey / khasra nos, village, tehsil, district, state & extent of the land must be mentioned clearly.

Description of existing National/State environmental laws/ regulations on the proposed activity with annexure giving their references is to be brought out clearly.

Any litigations pending against the proposed project site and / or any directions or orders passed by any court of law against the project are to be detailed out.

In case of expansion/ modernization of the project, the environmental compliance status for the existing project should be explained.

In the beginning of the EIA report, the page numbers of various chapters, sections and sub-sections, tables, appendices, drawings and figures etc., with titles should be clearly indicated.

2.0 Project Description

The chapter should contain the broader details of the basic activities, location, lay out and implementation schedule of the project.

Background of the project may contain the following:

- ▶ Purpose of the project, goals and objectives of the proposed project
- ▶ Significance of the project both at local and national level and its contribution to national economy.
- ▶ Relevance of the project in light of the existing development plans of the region.
- ▶ Information on the proposed activity in the Indian context and its overall function.

Project details should include information related to:

- ▶ Project coverage, master plan, phasing and scope.
- ▶ Estimated cost of development of the project, environmental costs, funding agencies, whether governmental or on the basis of BOO or BOT etc
- ▶ Resources, manpower, time frame etc required for the completion of the project.

Essential Toposheets / Maps to be provided with TOR application

Topographical map

A map of the topo sheet of the study area (project area and area 10 km around its boundary) delineating the major topographical features such as land use, drainage, locations of habitats. Major constructions including roads, railways, pipelines, major industries, if any in the area are to be clearly shown.

A map of the study area covering aerial distance of 15 km from the proposed project boundary delineating environmental sensitive areas as specified in Form I of EIA notification of Sept 06.

Remote sensing imagery

Land use map of the study area to 1: 25,000 scale, based on recent satellite imagery of the study area delineating the cropping pattern, waste land, forest area and built up area may be prepared.

Digital Elevation Model (DEM) / Contour map

Contour map at sufficient or acceptable intervals as available in toposheets or as required for the study of project area and site plan of the area showing the various proposed break-up of the land may be prepared.

- ▶ Description of the project sites its geology, hydrology, topography, climate, connectivity by road/rail, demographic aspects, socio, cultural and economic aspects, villages, and settlements.
- ▶ Details of environmentally sensitive places, land acquisition and rehabilitation of communities/ villages with their present status. The siting criteria delineated by MoEF shall be discussed. Notified restrictions and limitations from environmental considerations etc., if any.
- ▶ Historical and climatic data such as climatic conditions, rainfall, wind pattern, history of cyclones, storms surges, visibility etc.,
- ▶ Layout plan of proposed project development , activity areas with facilities open to the sky such as runways, taxi/link taxi ways, aprons, drainages, sewage disposal, navigation facilities, communication facilities, airfield lighting, crash fire & rescue facilities, car parking, access/approach roads, refueling facilities, boundary wall, meteorological observatory, landscape, waste disposal etc;
- ▶ Layout plan of proposed development of built up areas with covered construction such as terminal buildings and associated facilities, air traffic control tower, Repair& Servicing(R&S) hangars, AC plants, DG set rooms, operational buildings such as RADAR and Instrument Landing System(ILS) structures, administrative buildings, utilities such as main and stand by power, water supply installations, cargo storage facilities, Petrol Oil Lubricant (POL) stores , Aviation Turbine Fuel(ATF) store and Bulk Petroleum installation.;
- ▶ In case of expansion/ modernization of the project, the environmental compliance status for the existing project shall be explained. If the potential impact on environment exceed the existing project limits fresh EIA process may be initiated before starting the project.
- ▶ Technologies involved for design, construction, equipment and operation are to be detailed.

3.0 Analysis of alternatives (Technology & Sites)

If the scoping results in need for alternatives a clear description of the each alternative, summary of the impact - adverse and positive with each site and selection of alternatives is to be detailed out.

4.0 Description of the Environment

Environmental data to be considered in relation to airport development would be: (a) land (b) ground water, surface water (c) air (d) biological (e) noise and vibration (f) socio economic and health environment.

Study area:

Primary data by measurements, field surveys and secondary data from secondary sources are to be collected in the study area within 10 km radius from Aero dome Reference Point (ARP). Beyond 10 kms, only secondary data is to be collected. Primary data should cover one season other than monsoon and secondary data for one full year.

Map of the study area clearly delineating the location of various monitoring stations (air, noise, water and soil) superimposed with location of habitats are to be shown. Monitoring should be done as per CPCB guidelines.

4.1 Land Environment

Physiography and Drainage Patterns:

Land farms, terrain, may get affected due to construction of airport. It may require large scale quarrying, dredging and reclamation, which may cause changes in the topography. This in turn may affect the drainage pattern of the land / terrain.

Baseline data to be given on description of existing land area situation at the proposed project area including description of terrain hill slopes terrain features, slope and elevation. Study of land use pattern, habitation, cropping pattern, forest cover, environmental sensitive places etc., by employing remote sensing techniques and ground truthing is to be carried out.

Ecological features of forest area; agricultural land, grazing land, wildlife sanctuary land and national parks, migratory routes of fauna, water bodies, and drainage pattern including the orders of the drain and water sheds are to be shown clearly. Settlements in the study area may be delineated with respect to ARP on the site map. High rise buildings, industrial areas and zones, slaughter houses and other features of flight safety importance may also be marked on the map.

Soil

Land is one of the important and rare resources. Airport projects require considerable land area for development of activity areas, operational and non-operational buildings, areas for ancillaries, utilities including townships. Sometimes acquisitions of large stretches of land and areas being used by the local habitat may be necessitated requiring rehabilitation measures. Availability of land for earmarking for the airport without causing undue hardship to local habitat and their socio cultural and economic aspects is very important. Site suitability for developing airport is also to be approved by aerodrome standards, directorate in the DGCA, Ministry of Civil Aviation in accordance with Para (xi) of the Aircraft Rules 1937. Baseline data of the land and its availability is to be ascertained from local authorities, revenues records etc., Justification for the proposed quantum of the area to be given.

Soil data including type, classification, characteristics, properties, etc are important from engineering considerations for structures etc. Changes in soil parameters may also affect plantation and vegetation which in turn may endanger the health of habitat.

Baseline data consisting of soil analysis and land use pattern of agriculture lands within the project area is to be collected to assess its fertility. Data pertaining to coverage of land for other purposes and general slope of the terrain within the study area is collected to assess the trends in the land use patterns and the natural runoff patterns.

4.2 Water Environment

Ground water

Baseline data of ground water including data of pH, dissolved solids, suspended solids, BOD, DO, coliform bacteria, oil, fluorides, chlorides, heavy metals etc., to determine the quality of the ground water is to be estimated.

Surface water

Baseline data on location sources of surface water like water bodies, lakes, their dimensions, present quality and their utility to be provided.

4.3 Air Environment

Climatological Data: This is obtained from nearest India Meteorological Department (I M D) station for one full year. Micro meteorological data consisting of wind speed, wind direction, temperature, cloud cover, (amount and height), humidity, rainfall and wind rose, from primary and secondary sources in an area of 10km radius from ARP be obtained, on 24 hr basis.

Ambient Air Quality (AAQ) is important for the airport projects. The significance of aviation's impact on air quality will vary depending on many other factors such as, background pollution levels, other sources of pollution, weather and proximity of residential areas.

Aircraft engines produce emissions that are similar to other emissions resulting from any oil based fuel combustion. These, like any exhaust emissions, can affect local air quality at ground level. It is emissions from aircraft below 1,000ft, above the ground (typically around 3km from departure or, for arrivals, around 6km from touchdown that are chiefly involved in influencing local air quality. These emissions disperse with the wind and blend with emissions from other sources such as domestic heating emissions, factory emissions and transport pollution.

The local air quality relevant emissions attributed to aircraft operations at airports are oxides of nitrogen (NO_x), carbon monoxide (CO), Unburnt hydrocarbons (NMHC and VOCs), sulphur dioxide(SO₂), particulate matter (PM10 and PM2.5).

Aircraft engines, auxiliary power units, apron vehicles, de- icing, and apron spillages of fuel and chemicals emit these pollutants. Local factors influence the significance of individual emissions for each airport, but often NO_x is by far the most abundant and is considered the most significant pollutant from an air quality stand point.

Baseline data of these parameters extending over an area of 10km radial distance from ARP of the project by observation at a number of locations, predominantly in the windward direction duly taking into account changes in predominant wind direction in the monsoon period and changes in humidity in atmosphere. Specific importance is to be attached to areas in close proximity of project up to 3km is essential, considering the mobile source of emission such as aircraft.

4.4 Noise Environment

Noise pollution is created by airside sources such as aircraft, under their flight paths and also by landside sources such as, DG sets, surface traffic, heavy machinery and aircraft on ground in start-up, taxi, take off and ground run phases. This type of noise during daytime effects the workers' and local population's health in the long run. The existing noise levels before starting the construction of airport are to be measured for collecting baseline data. The process is to be repeated during construction and operational phases of as well.

Measurements should typically be taken as per by CPCB guidelines and recorded as dB(A) in an area of 10km radius from ARP. Hourly equivalent noise levels, Leq, for day and night separately are to be recorded once in each season. Monitoring should typically be conducted with frequency of measurements more along the runways, near residential areas and near ground sources. Locations, at which measurements were taken, should be noted on a base map. Recorded values can be presented in Tables.

4.5 Biological Environment

Airport operations may cause change in local ecosystems, threaten endangered species and disturb movements and breeding patterns of local wildlife. Existing biological conditions include the presence and distribution of indigenous and migratory animals, and indigenous plants. Known sensitivities of species of surrogate species should also be stated.

Baseline data on flora and fauna duly authenticated for study area should be furnished, based on field survey clearly indicating the Schedule of the fauna present. Data on sensitive habitats, wild or endangered species in the project area also is collected from Zoological Survey of India (ZSI), Botanical Survey of India (BSI), Wildlife Institute of India (WII) and Ministry of Earth Sciences.

4.6 Socio -Economic Environment

Airport development may often require relocation of the local community, sometimes causing ethnic, cultural, tribal or religious conflicts with local people. Industrialization and modernization may change the cultural traditions of the local community. Baseline data on demographics, settlements, infrastructure facilities in the existing and relocated area, economic conditions in the existing and relocated area, cultural and archaeological assets within the project area should be catalogued and plotted on a base map.

4.7 Solid Waste

The types of waste, which are generated, can be classified into construction or demolition waste and municipal waste, i.e., biodegradable and recyclable waste, hazardous waste and waste.

Details of authorized Municipal solid waste facilities, biomedical treatment facilities and hazardous waste disposal facilities in the area are to be given.

5.0 Anticipated Environmental Impact and Mitigation Measures

5.1 Prediction of impact

This should describe the likely impact of the project on each of the environmental parameters, methods adopted for assessing the impact such as model studies, empirical methods, reference to existing similar situations, reference to previous studies, details of mitigation, methods proposed to reduce adverse effects of the project, best environmental practices, conservation of natural resources; environmental management plan; post project environmental monitoring programme including budgeting for the expenditure proposed in the project cost. Reference to the models along with the inputs used may be given.

5.2. Land Environment

Physiography and drainage patterns

Anticipated Impact:

Impact of project construction/ operation on the land requirement/ use pattern is to be assessed by standard procedures. Affect of future growth of the airport facility and/ or of the ancillaries is to be carefully assessed by preparing master plans for the airport and the ancillaries. Impact on the public utilities arising out of the project activities and impact on the natural drainage system are equally important. Prediction of impact on the existing infrastructures like road network, housing, loss of productive soil and impact on natural drainage pattern is to be considered. Loss of agriculture land is to be estimated by super posing the project lay-out on the land use site map.

Mitigation Measures:

Mitigation measures to reduce adverse effects like adopting soil improvement techniques and adopting suitable methods to reduce land requirement are to be identified. Strengthening of road network, infrastructure to handle the increase in traffic, parking arrangements, integration of airport development with the local land use plan are to be considered. Conformance to statutory regulations is to be ensured.

Soil

Anticipated Impact:

Impact of airport construction / operation is to be assessed on the topography due to activities like large scale quarrying, filling of low lying areas with dredged spoil and burrowed material. Damage to green belt and plantation, changes in land use patterns, disturbance to existing protected areas like mangroves & forests and environmentally sensitive zones/areas, flooding due to filling up of low lying areas are to be assessed. Study on the trend of change in land use pattern for the last 10 years based on remote sensing data is to be made to establish trends in baseline data. Impact of the project construction / operation on the soil parameters, probability of settlement, subsidence, slides, surface drainage etc. is to be assessed.

Mitigation measures:

Measures for holding storm / flood waters entering project area and construction of drainage lines are to be discussed. Measures for soil erosion at quarry / burrow sites from which soil is drawn for filling, during construction phase to be discussed. Phase wise plan of plantation and compensatory forestation clearly indicating the area to be covered under plantation and the species to be given. Details of the plantation already done to be given. To reduce adverse effects like adopting soil improvement techniques and adopting suitable design methods etc., are to be considered.

5.3 Water Environment

Anticipated impact:

Discharge of trade effluents and sewage, run off from cargo storages and toxic or harmful substances, and their percolation to underground water are to be assessed. Impact of airport operations on surface water sources, contamination due to cargo operations, impact on utility of surface water resources by the neighbouring colonies, impact on surface water flow (flooding) due to any anticipated obstructions and spillages etc. are some of the impact to be mitigated. Detailed water balance along with flow chart of water use for the airports is to be provided.

Mitigation measures:

Mitigation measures include paving the cargo areas, impervious roads, lined impervious drains; routing surface drainage to settlement tank/ pits etc., Protection measures to surface water resources during construction and operational phases along with identification and provision of alternatives for their conservation may be clearly mentioned.

5.4. Air Environment:

Anticipated impact:

The impact of project construction / operation on the ambient air quality on account of emissions of dust during construction and emission of gases from airside and land side sources such as aircraft, DG sets, surface traffic etc. in operational phases is to be assessed. Assessment of changes in AAQ parameters by suitable modeling techniques or empirical methods is to be resorted to. Prediction of fugitive dust / air emissions, prediction of point/line source emissions and emissions from the multi volume sources in the airport area is to be done in anticipation of increase in future air and surface traffic.

Mitigation measures:

Mitigation measures to reduce adverse effects during the construction stage and during the operation stage include alternative solutions such as closed conveyor system; lowering the emissions from the automobiles and the aircraft; institutional arrangements proposed with other agencies for effective implementation of environmental measures, applicable for environmental standards and compliance are to be proposed. Landscape development to mitigate the emission levels may be clearly mentioned.

Guidance on mitigation from airside sources, such as the procedures specified in ICAO Circular 303, AN176: and "Operational opportunities to minimize fuel use and emissions"; and the IATA "Guidance Material and Best Practices for Fuel Environmental Management" published Dec.2004 may be referred.

5.5 Noise Environment

Anticipated impact:

Impact on the noise environment is due to noise emitted by static and mobile sources from the groundside and airside are to be meduted. Noise pollution by static sources on ground are from aircraft in ground run, taxi mode and DG sets and machinery etc. Noise pollution by mobile sources is from aircraft engines and airframes under its flight path. Suitable modeling techniques may be used for prediction of noise levels.

Mitigation Measures:

Noise pollution can be controlled at the source of generation itself by employing techniques like control in the transmission path; installation barriers etc., Barriers between noise source and receiver can minimize the noise levels. Methods of reduction of noise from the airside sources are stipulated in chapter 3 standards in Annexure 16 of ICAO publication. Noise from DG sets may be reduced by provision of integral acoustic enclosure and by suitably modifying its dimensions. Certain proactive measures adopted in international practice, which act as deterrents for noise generation may be used.

5.6 Biological Environment

Anticipated Impact:

Impact of the projects during construction and operational phases, on the biological environment is to be assessed by suitable, empirical model studies. Effect of project on schedule-1 fauna and on fisheries due to displacement of water bodies if any is to be identified in the study area.

Mitigation measures:

In case of any Scheduled-1 fauna found in the area, the necessary plan for their conservation should be prepared in consultation with State forest Departments and details furnished. Measures adopted to preserve / relocate the water bodies as sources of irrigation and fisheries in study area be pointed. Phase wise plan of green belt near water bodies be provided. The expenditure may be budgeted in the project cost

5.7 Socio-Economic Environment**Anticipated Impact:**

Impact on the local population, infrastructure facilities, utilities are a to detailed out.

Mitigation Measures:

Preservation of cultural, historical and religious sites to honour the sensitivities of the residents may be carried out. Measures of socio- economic benefits proposed to the local communities be provided by the project proponent.

5.8 Solid Waste:**Anticipated Impact:**

Impact of the project construction / operation on generation of waste is to be assessed. Prediction of quantity of solid waste to be generated is waste is to be studied.

Mitigation measures:

Minimization of solid waste by using environmentally compatible disposable material; recycling of waste proper management and disposal of temporary structures, made during construction phase is to be done.

6.0 Environmental Monitoring Program

This chapter should include:-

- ▶ Summary matrix of environmental monitoring, during construction and operation stage of project
- ▶ Technical aspects of monitoring for achieving effectiveness in mitigation measures.
- ▶ Requirement of monitoring facilities
- ▶ Frequency, location, parameters of monitoring
- ▶ Compilation and analysis of data and reporting system

7.0 Additional Studies**7.1 Public consultation**

Public hearing with the issues raised by the public and the response of the project proponent in tabular form shall be provided.

7.2 Risk Assessment (ERA) and Disaster Management Plan (DMP)

Activities associated with airport construction and operations also give rise to associated hazards and accidents. It is therefore desirable that based on the categories of hazards prevailing at the project site, risk analysis may be carried out by specialists in the field and recommendations may be implemented. Some of the activities requiring attention under this category are

- ▶ Occupational hazards due to exposure etc.
- ▶ Fire and / or explosion
- ▶ Leakage of flammable material
- ▶ Release of toxic material

7.3 Natural resource conservation

Plan of action for conservation of natural resources and recycling of waste materials due to the project activity in the construction and operational phase of the project is to be discussed for open and covered area constructions. Energy efficiency measures in the activity are to be drawn up.

7.4 R&R Action Plan

Detailed R&R plan with data on the existing socio-economic status of the population in the project area and broad plan for resettlement of the displaced population, site for the resettlement colony, alternative livelihood concerns/employment for the displaced people, civil and housing amenities being offered, etc and the schedule of the implementation of the project specific R&R Plan if any is to be given. Details of provisions (capital & recurring) for the project specific R&R Plan.

8.0 Project benefits

This section details out the improvements in physical infrastructure, social infrastructure if any. Also it details out any employment potential and other benefits that are accrued if the project is taken up.

9.0 Environmental cost benefit analysis

The detailed environmental cost benefit analysis is to be taken up if recommended in the scoping stage of the project.

10.0 Environmental Management Plan (EMP)

Summary of potential impact and recommended mitigation measures are to be brought out. Budgeting for the EMP is also to be included in EIA.

- ▶ Administrative and technical set up for management of environment
- ▶ In built mechanism of self monitoring of compliance of environmental regulations
- ▶ Institutional arrangements proposed with other organizations/ Govt. authorities for effective implementation of environmental measures proposed in the EIA
- ▶ Safe guards/mechanism to continue the assumptions/field conditions made in the EIA, for arriving the site suitability

Awareness and Training Methodology of training imparted to field personnel may be specified. Record keeping and reporting: Standard operational/administrative procedures for record maintenance and reporting may be prepared.

11.0 Summary & Conclusion (Summary EIA)

The summary should be a clear presentation of the critical facts that make up each issue, and the resolution of the issues. Whenever possible, the summary should make use of base maps, tables and figures. Information should be condensed into succinct, but meaningful presentations. It must be able to stand alone as a document. It should necessarily cover and brief the following chapters of the full EIA report and address the following:-

- ▶ Introduction
- ▶ Project description & Project benefits
- ▶ Environmental Examination
- ▶ Additional Studies
- ▶ Environmental Management Plan and Post Project Monitoring Program
- ▶ Environmental Risk Assessment (ERA) and Disaster Management Plan (DMP)

12.0 Disclosure of Consultants Engaged

The team of consultants engaged in this project is to be given.

Enclosures

Feasibility report/ Duly filled in questionnaire / Relevant figures and tables if referred as annexure in the text/ Photos, or plates of proposed project site, impact areas

Annexure 2

Land Use / Land Cover Classification System

Level -I	Level -II	Level -III
1. Built – up land	1.1. Built –up land	1.1.1. Urban (towns & cities)
2. Agricultural land	2.1. Crop land (i) kharif (ii) rabi (iii) double cropped	2.1.1 Irrigated crop land
		2.1.2. Unirrigated crop land
	2.2. Fallow	2.2.1. Fallow
	2.3. Plantation	2.3.1. Types of plantation, casuarina, coconut, tea etc.
3. Forest	3.1 evergreen/ semi-evergreen	3.1.1. Dense / closed
		3.1.2. Open
	3.2. Deciduous	
	3.3. Degraded scrub land	
	3.4. Forest blank 3.4.2. Forest blank	3.4.1 Degraded forest
	3.5. Forest plantation 3.6. Mangrove	3.5.1. Types of plantatin eg. teak, sal etc.
4. Wastelands	4.1. Salt affected land	
	4.2. Water logged land	
	4.3. Marshy / swampy land	
	4.4. Gullied / ravinous land	
	4.5. Land with or without scrub	
	4.6. Sandy area (coastal & desertic)	Minimum mappable unit IS 2.25 hectares on 1:50,000 scale
	4.7. Barren rocky / stony waste/ sheet rock areas	
5. Water bodies 5.2	5.1. River / stream Lake / reservoir / tank / canal	
6. Others 6.1.2. 6.2. 6.3. 6.4.	6.1. Shifting cultivation Old / abandoned	6.1.1. Current
	grassland / grazing land	6.2.1. Grassland / grazing land
	Snow covered / glacial area	6.3.1. Snow covered / glacial area
	Mining area	6.4.1. Mining dumps

Note: Land use / Land cover categories at different levels and corresponding scales for mapping are as follows:

Level – I	–	categories	–	1:1000,000 scale
Level – II	–	categories	–	1:250,000 scale
Level – III	–	categories	–	1:50,000 scale and 1:25,000 scale

(Sources: Description and classification of land use / land cover : NRSA – TR – LU & CD – 01 –90)

Annexure 3

Sampling, Frequency & Method of Baseline Environment Monitoring

Attributes	Sampling		Measurement Method	Remarks
A. Air Environment	Network	Frequency		
Meteorological • Wind speed • Wind direction • Maximum temperature • Minimum temperature • Relative humidity • Rainfall • Solar radiation • Cloud cover • Environmental Lapse Rate	1 site in the project area	1 hourly continuous	Mechanical/automatic weather station Max/Min Thermometer Hygrometer Rain gauge As per IMD specifications As per IMD specifications Mini Sonde/SODAR	IS 5182 Part 1-20 Site specific primary data is essential Secondary data from IMD CPCB guidelines
Pollutants • PM (10) • PM (2.5) • SO₂ • NO_x • Lead in PM	Nos. of sampling location to be decided	24 hourly twice a week @4 hourly. Twice a week, One non monsoon season 8 hourly, twice a week 24 hourly, twice a week	As per CPCB guidelines	Monitoring Network • Minimum one locations in upwind side, two sites in downwind side / impact zone • All the sensitive receptors need to be covered for core zone and buffer zone

Attributes	Sampling		Measurement method	Remarks
B. Noise	Network	Frequency		
Hourly equivalent noise levels	Identified study area	Once in season	Noise level meter	IS:4954-1968 as adopted by CPCB
Peak particle velocity	150-200m from blast site	Once	PPV meter	
C. Water				
Parameters for water quality - pH, temperature, turbidity, magnesium hardness, total alkalinity, chloride, sulphate, nitrate, fluoride, sodium, potassium, salinity - Total nitrogen, total phosphorus, DO, BOD, COD - Heavy metals - Total coliforms, faecal coliforms - Phyto plankton	Set of grab samples for ground and surface water		Samples for water quality should be collected and analysed as per : - IS : 2488 (Part 1-5) methods for sampling and testing of Industrial effluents - Standard methods for examination of water and wastewater analysis published by American Public Health Association.	
D. Land environment				
Soil - Organic Matter - Texture - pH - Electrical conductivity - Permeability - Water holding capacity - Porosity	Sample from villages (soil samples be collected as per BIS specifications)	One season	Collected and analysed as per soil analysis reference	Analysis be done as per BIS specifications

Annexure 4.1

Criteria for Raw Water Used for Organized Community Water Supplies (Surface and Ground Water)

Primary Parameters

	Parameters	Range/Limiting Value		Note
		Use with only disinfection	Use after conventional treatment	
1.	pH	6.5 to 8.5	6.0 to 9.0	To ensure prevention of corrosion in treatment plant and distribution system and interference in coagulation and chlorinating.
2.	Colour Pt. scale Hz Units	< 10	< 50	Color may not get totally removed during treatment
3.	Suspended Solids mg/l	< 10	< 50	High SS may increase the cost of treatment.
4.	Odour, dilution factor	< 3	< 10	May not be tackled during treatment.
5.	DO, (%saturation)	90-100	80-120	May imply higher chlorine demand.
6.	BOD, mg/l	< 3	< 5	Same as above.
7.	TKN, mg/l	< 1	< 3	Same as above.
8.	Ammonia, mg/l	< 0.05	< 1	Same as above.
9.	Faecal coliform MPN/100 ml	< 200	< 2000	Not more than 20% samples show greater than limit.
10.	EC, $\mu\text{mhos/cm}$	< 2000	< 2000	High conductivity implies dissolved high solids making water unpalatable.
11.	Chloride, mg/l	< 300	< 300	May cause physiological impact and unpalatable taste.
12.	Sulphates, mg/l	< 250	< 250	May cause digestive problems
13.	Phosphates, mg/l	< 0.7	< 1.0	May interfere with coagulation
14.	Nitrate, mg/l	< 50	< 50	May cause methemoglobinemia
15.	Fluoride, mg/l	< 1.0	< 1.5	Higher value shall cause fluorosis and lower value shall carries.
16.	Surfactants, mg/l	< 0.2	< 0.2	May impair treatability and cause foaming.

Additional Parameters for Periodic Monitoring (Seasonal - Only to be done when there are known natural or anthropogenic sources in the upstream catchment region likely or apprehended to contribute or other well founded apprehensions)

Parameters	Desirable	Acceptable	Note
Dissolved Iron mg/l	< 0.3	< 0.5	Affect taste and cause stains
Copper, mg/l	--	< 1.0	May cause live damage
Zinc, mg/l	--	< 5.0	Cause bitter stringent taste
Arsenic, mg/l	< 0.01	< 0.05	Cause hyperkeratosis & skin cancer
Cadmium, mg/l	< 0.001	< 0.005	Toxic
Total Chromium, mg/l	< 0.05	< 0.05	Toxic
Lead, mg/l	< 0.05	< 0.05	Physiological abnormality
Selenium, mg/l	< 0.01	< 0.01	Toxic symptoms similar to arsenic
Mercury, mg/l	< 0.005	< 0.0005	Carcinogenic and poisonous
Phenols, mg/l	< 0.001	< 0.001	Toxic and cause taste and odour problem
Cyanides, mg/l	< 0.05	< 0.05	Physiological abnormality
PAH, mg/l	< 0.0002	< 0.0002	Carcinogenic
Total Pesticides, mg/l	< 0.001	< 0.0025	Trend to bioaccumulates & carcinogenic

(Source: Ecological Impact Assessment Series: EIAS/03/2002-03 Published by CPCB)

Annexure 4.2

Use Based Classification of Surface Waters in India

Designated-Best-Use	Class of water	Criteria
Drinking Water Source without conventional treatment but after disinfection	A	1. Total Coliforms Organism MPN/100ml shall be 50 or less 2. pH between 6.5 and 8.5 3. Dissolved Oxygen 6mg/l or more 4. Biochemical Oxygen Demand 5 days 20°C 2mg/l or less
Outdoor bathing (Organized)	B	1. Total Coliforms Organism MPN/100ml shall be 500 or less 2. pH between 6.5 and 8.5 3. Dissolved Oxygen 5mg/l or more 4. Biochemical Oxygen Demand 5 days 20°C 3mg/l or less
Drinking water source after conventional treatment and disinfection	C	1. Total Coliforms Organism MPN/100ml shall be 5000 or less 2. pH between 6 to 9 3. Dissolved Oxygen 4mg/l or more 4. Biochemical Oxygen Demand 5 days 20°C 3mg/l or less
Propagation of Wild life and Fisheries	D	1. pH between 6.5 to 8.5 2. Dissolved Oxygen 4mg/l or more 3. Free Ammonia (as N) 1.2 mg/l or less
Irrigation, Industrial Cooling, Controlled Waste disposal	E	1. pH between 6.0 to 8.5 2. Electrical Conductivity at 25°C micro mhos/cm Max. 2250 3. Sodium absorption Ratio Max. 26 4. Boron Max. 2mg/l

(Source: Guidelines for Water Quality Management -CPCB 2008)

Annexure 5.1

Aircraft Emission Standards for Subsonic Engines Manufactured on or after 01-01-1983. (Ref: ICAO Annex 16 Vol-II PartIII, Chapt-2)

	(Sub sonic engines) before 01-01 - 1983	(ICAO Annex 16, Vol II Part III, Chap 2)
Serial Number	Parameter	Values
1	Hydrocarbons (HC) gm/KN	$D_p/F_{\infty} = 19.6$
2	Carbon Monoxide (CO) gm/KW	$D_p/F_{\infty} = 118$
3	Oxides of Nitrogen (NO _x) gm/KN	$D_p/F_{\infty} = 40 + 2\pi_{\infty}, 32 + 1.6\pi_{\infty}$ HC - Total Hydrocarbon compounds of all classes and molecular weights contained in a gas sample, calculated as if they were in the form Methane. NO _x - The sum of the amounts of Nitric Oxide and Nitrogen dioxide contained in a gas sample as if Nitric oxide were in the form of Nitrogen dioxide
4	Smoke Number (SN)	$83.6 (F_{\infty})^{-0.274}$ or 50 whichever is lower

. as if the nitric oxide is in the form nitrogen dioxide

- SN - The dimensionless term quantifying smoke emissions.
- D_p - Mass (in gms) of gaseous pollutants (HC, CO, NO_x) emitted during the reference emissions (LO) Cycle.
- F_{∞} - Rated output of the engine (in kilo newtons) in Max Thrust available for take-off under normal operating conditions at ISA sea level static conditions without use of water injections as certified.
- Pressure ratio i.e. ratio of Mean Total pressure at the last compressor discharge plane of the compressor to the mean total pressure at the compressor entry plane when the engine is developing take off thrust rating in ISA Sea Level static conditions (to which all engine performance should be corrected).

Annexure 5.2

Time and Thrust Setting for Reference L to (Landing, Take Off) Cycle

Phase	Time in Operating Mode (Mts)	Thrust Setting
Take Off	0.7	100% F
Climb	2.2	85% F
Approach	4.0	30% F
Taxi/Ground idle	26.0	7% F

Annexure 5.3

Emissions From Large/Medium/Small Aircrafts

Parameter	Units	Value		
Type of aircraft	-	B 747 - 400 (Large)	B767 - 400 (Medium)	A 330 - 300 (Small)
Engine Type	-	CF6-80C2B5F	CF6-80C2	CF6-80 EI
No of Engines	-	4	4	2
Rated output F				
Max Thrust				
	Kilo Newton	276	283	320
Smoke Number	-	17.9	17.8	17.2
TOTAL EMISSIONS (gm/Sec)				
Dp (HC)	gm/Sec	170.6	175.0	197.8
Dp)CO)	gm/Sec	1027.3	1053.4	1191.1
Dp (Nox)	Gm/Sec	609.4	624.9	706.6

Source: Emission Data Calculation based on ICAO Standard
(Ref: ICAO Annexure 16, Volume II part III, Chapter-2)

Annexure 5.4

National Ambient Air Quality Standards

S. No	Pollutants	Time Weighted Average	Concentration in Ambient Air		
			Industrial, Residential, Rural and Other Areas	Ecologically Sensitive Area (notified by Central Government)	Methods of Measurement
1.	2.	3.	4.	5.	6.
1	Sulphur Dioxide (SO ₂), µg/m ³	Annual*	50	20	Improved west & Gacke
		24 hours**	80	80	Ultraviolet fluorescence
2	Nitrogen Dioxide (NO _x), µg/m ³	Annual*	40	30	- Modified Jacob & Hochhieser (Na - Arsenite)
		24 hours**	80	80	- Chemiluminescence
3	Particulate Matter (size less than 10 µm) or PM ₁₀ , µg/m ³	Annual*	60	60	- Gravimetric
		24 hours**	100	100	- TOEM - Beta Attenuation
4	Particulate Matter (size less than 2.5 µm) or PM _{2.5} , µg/m ³	Annual*	40	40	- Gravimetric
		24 hours**	60	60	- TOEM - Beta Attenuation
5	Ozone (O ₃), µg/m ³	8 hours**	100	100	- UV Photometric - Chemiluminescence - Chemical method

6	Lead (Pb), $\mu\text{g}/\text{m}^3$	Annual*	0.50	0.50	- AAS/ICP method after sampling on EPM 2000 or equivalent filter paper - ED-XRF using Teflon filter
		24 hours**	1.0	1.0	
7	Carbon Monoxide (CO), mg/m^3	8 hours**	02	02	- Non-Dispersive Infra Red (NDIR) Spectroscopy
		1 hour**	04	04	
8	Ammonia (NH_3), $\mu\text{g}/\text{m}^3$	Annual*	100	100	- Chemiluminescence - Indophenol blue method
		24 hours**	400	400	
9	Benzene (C_6H_6), $\mu\text{g}/\text{m}^3$	Annual*	05	05	- Gas Chromatography based continuous analyzer - Adsorption and Desorption followed by GC analysis
10	Benzo(O)Pyrene (BaP) – Particulate phase only, ng/m^3	Annual*	01	01	- solvent extraction followed by HPLC/GC analysis
11	Arsenic (As), ng/m^3	Annual*	06	06	- AAS/ICP method after sampling on EPM 2000 or equivalent filter paper
12	Nickel (Ni), ng/m^3	Annual*	20	20	- AAS/ICP method after sampling on EPM 2000 or equivalent filter paper

* Annual arithmetic mean of minimum 104 measurements in a year at a particular site taken twice a week 24 hourly at uniform intervals.

** 24 hourly or 8 hourly or 1 hourly monitored values, as applicable, shall be complied with 98% of the time in a year. 2% of the time, they may exceed the limits but not on two consecutive days of monitoring.

Note: Whenever and wherever monitoring results on two consecutive days of monitoring exceed the limit specified above for the respective category, it shall be considered adequate reason to institute regular/continuous monitoring and further investigations.

(Source: As notified by CPCB in the Gazette vide No. b- 29016/20/90/PCI-I, dated. 18th November, 2009)

Annexure 6

Ambient Air Quality Standards in Respect of Noise

Area code	Category of area	Limits in db (A) Leq	
		Day time	Night time
A	Industrial area	75	70
B	Commercial area	65	55
C	Residential area	55	45
D	Silence zone	50	40

Note:

1. Day time shall mean from 6.00 a.m. to 10.00 p.m.
2. Night time shall mean from 10.00 p.m. to 6.00 a.m.
3. Silence zone is an area comprising not less than 100 meters around hospitals, educational institutions, courts, religious places or any other area, which is declared as such by the competent authority.
4. Mixed categories of areas may be declared as one of the four above-mentioned categories by the competent authority.

* dB(A) Leq denotes the time weighted average of the level of sound in decibels on scale A which is relatable to human hearing.

A "decibel" is a unit in which noise is measured.

"A", in dB(A) L_{eq} , denotes the frequency weighting in the measurement of noise and corresponds to frequency response characteristics of the human ear.

L_{eq} : It is an energy mean of the noise level over a specified period.

(Source: Noise pollution (Regulation and control) Rules, 2000)

Annexure 7

List of Critically Polluted Industrial Cluster/Area Identified by CPCB

S. No.	Critically Polluted Industrial Area and CEPI	Industrial Clusters/Potential Impact Zones
1	Ankleshwar (Gujarat) <i>CEPI-88.50 (Ac_Wc_Lc)</i>	GIDC Ankleshwar and GIDC, Panoli
2	Vapi (Gujarat) <i>CEPI-88.09 (Ac_Wc_Lc)</i>	GIDC Vapi
3	Ghaziabad (Uttar Pradesh) <i>CEPI-87.37 (Ac_Wc_Lc)</i>	Sub-cluster A • Mohan nagar Industrial area • Rajinder nagar Industrial area • Sahibabad Industrial area Sub-cluster B • Pandav nagar Industrial area • Kavi nagar Industrial area • Bulandshahar Road Industrial area • Amrit nagar • Aryanagar Industrial area Sub-cluster C • Merrut road Industrial area Sub-cluster D • Loni Industrial area • Loni Road Industrial area • Roop Nagar Industrial area Sub-cluster E • Hapur Road Industrial area • Dasna • Phikua Sub-cluster F (other scattered Industrial areas) • South side of GT road • Kavi Nagar • Tronica city • Anand Nagar • Jindal Nagar • Prakash Nagar • Rural Industrial estate
4	Chandrapur (Maharashtra) <i>CEPI-83.88 (Ac_Wc_Lc)</i>	Chandrapur (MIDC Chandrapur, Tadali, Ghuggus, Ballapur)
5	Korba (Chhattisgarh) <i>CEPI-83.00 (Ac_Ws_Lc)</i>	a) Industrial areas and their townships of NTPC, BALCO, CSEB (East) & CSEB (West) b) Korba town
6	Bhiwadi (Rajasthan) <i>CEPI-82.91 (Ac_Wc_Ls)</i>	a) RIICO Industrial areas Phase I to IV b) Bhiwadi town c) Other surrounding industrial areas: Chopanki, Rampura Mundana, Khushkhera Phase I to III.
7	Angul Talcher (Orissa) <i>CEPI-82.09 (Ac_Wc_Lc)</i>	a) MCL Coal Mining Area, Angul – Talcher region b) Industrial Area (60 km x 45 km) Following blocks of Angul District: - Kohina block - Talcher block - Angul block - Chhendipada block - Banarpal block And Odapada block of Dhenkamal District
8	Vellore (North Arcot) (Tamilnadu) <i>CEPI-81.79 (Ac_Wc_Lc)</i>	Ranipet, SIPCOST Industrial Complex
9	Singurauli (Uttar Pradesh) <i>CEPI-81.73 (Ac_Wc_Ls)</i>	Sonebhadra (UP) • Dala-Tola • Obra • Renukoot • Anpara • Renusagar • Kakri • Dudhichuwa • Bina • Khadia • Shakti Nagar • Rihand Nagar • Bijpur Sigravli (Madhya Pradesh) Vindhyachal Nagar and Jayant, Nigahi, Dudhichua, Amlohri & Jhingurdah townships

S. No.	Critically Polluted Industrial Area and CEPI	Industrial Clusters/Potential Impact Zones
10	Ludhiana (Punjab) CEPI-81.66 (Ac_Wc_Ls)	Ludhiana Municipal limits covering industrial clusters: • Focal Point Along with NH_I_Tota Eight Phase • Industrial Area-B-From Sherpur chowk to Gill road & Gill road to Miller Kotla road (left Side of Road) • Mixed Industrail Area – Right side of Gill road • Industrial area – C (near Jugiana Village) • Industrial Area A & Extension: Area between old GT Road and Ludhiana by pass road • Industrial Estate : Near Dholwal chowk • Mixes Industrial Area (MIA) Miller gunj • MIA-By pass road • Bahdur Industrial Area • Tejpur industrial Complex.
11	Nazafgarh drain basin, Delhi CEPI-79.54 (As_Wc_Lc)	Industrial areas : Anand Parvat, Naraina, Okhla and Wazirpur
12	NOIDA (Uttar Pradesh) CEPI-78.90 (Ac_Wc_Lc)	Territorial jurisdiction of : • Noida Phase - 1 • Noida Phase - 2 • Noida Phase – 3 • Surajpur Industrial Area • Greater Noida Industrail Area • Village-Chhaparaula
13	Dhanbad (Jharkhand) CEPI-78.63 (Ac_Ws_Lc)	Four blocks of Dhanbad district: • Sadar (Dhanbad Municipality) • Jharia (Jharia Municipality, Sindri Industrial Area) • Govindpur (Govindpur Industrial Estate) • Nirsra
14	Dombivalli (Maharashtra) CEPI-78.41 (Ac_Wc_Ls)	MIDC Phase-I, Phase-II
15	Kanpur (Uttar Pradesh) CEPI-78.09 (Ac_Wc_Ls)	• Industrial areas: • Dada Nagar • Panki • Fazalganj • Vijay Nagar • Jajmau
16	Cuddalore (Tamilnadu) CEPI-77.45 (As_Wc_Lc)	SIPCOT Industrial Complex, Phase I & II
17	Aurangabad (Maharashtra) CEPI-77.44 (Ac_Wc_Ls)	MIDC Chikhalthana, midc Waluj, MIDC Shendra, and Paithan Road industrial area
18	Faridabad (Haryana) CEPI-77.07 (Ac_Ws_Lc)	• Sector 27 - A, B, C, D • DLF Phase – 1, Sector 31, 32 • DLF Phase – 2, Sector 35 • Sector 4, 6, 24, 25, 27, 31, 59 • Industrial area Hatin • Industrial Model town Ship
19	Agra (Uttar Pradesh) CEPI-76.48 (As_Wc_Ls)	Nunihai Industriaal Estate, Rambag Nagar, UPSIDC Industrial Area, and Runukata Industrial Area
20	Manali (Tamilnadu) CEPI-76.32 (Ac_Ws_Ls)	Manali Industrial Area
21	Haldia (West Bengal) CEPI-75.43 (As_Wc_Ls)	5 km wide Strip (17.4 x 5.0 km) of industrial area on the southern side of the confluence point of Rivers Hugli and Rupnarayan, covering Haldia Municipa Area & Sutahata Block-I and II • GIDC Odhav • GIDC Naroda
22	Ahmedabad (Gujarat) CEPI-75.28 (Ac_Ws_Ls)	
23	Jodhpur (Rajasthan) CEPI-75.19 (As_Wc_Ls)	• Industrial areas including Basni Areas (Phase-I & II), Industrial Estate, Light & Heavy industrial areas, industrial areas behind new Power House, Mandore, Bornada, Sangariya and Village Tanwda & Salawas. • Jodhpur city
24	Greater Coach (Kerala) CEPI-75.08 (As_Wc_Ls)	Eloor-Edayar Industrail Belt, Ambala Mogal Industrial areas
25	Mandi Gobind Garh (Punjab) CEPI-75.08 (Ac_Ws_Lc)	Mandi Govindgarh municipal limit and Khanna area
26	Howrah (West Bengal) CEPI-74.84 (As_Ws_Lc)	a) Liluah-Bamangachhi Region, Howrah b) Jalah Industrial Complex-1, Howrah
27	Vatva (Gujarat) CEPI-74.77 (Ac_Wc_Ls)	GIDC Vatva, Narol Industrial Area (Villages Piplaj, Shahwadi, Narol)

S. No.	Critically Polluted Industrial Area and CEPI	Industrial Clusters/Potential Impact Zones
28	Ib Valley (Orissa) CEPI-74.00 (Ac_Ws_Ls)	Ib Valley of Jharsuguda (Industrial and Mining area)
29	Varansi-Mirzapur (Uttar Pradesh) CEPI-73.79 (As_Wc_Ls)	- Industrial Estate, Mirzapur - Chunar - Industrial Estate, Chandpur Varanasi - UPSIC, Industrial Estate, Phoolpur - Industrial Area, Ramnagar, Chandaull
30	Navi Mumbai (Maharashtra) CEPI-73.77 (Ac_Ws_Ls)	TTC Industrial Area, MIDC, Navi Mumbai (including Blocks-D, C, EL, A, R, General, Kalva)
31	Pali (Rajasthan) CEPI-73.73 (As_Wc_Ls)	a) Existing industrial areas: Mandia Road, Puniyata Road, Sumerpur b) Pali town
32	Mangalore (Karnataka) CEPI-73.68 (Ac_Ws_Ls)	Baikampady Industrial Area
33	Jharsuguda (Orissa) CEPI-73.34 (Ac_Ws_Ls)	Ib Valley of Jharsuguda (Industrial and Mining area)
34	Coimbatore (Tamil Nadu) CEPI-72.38 (Ac_Ws_Ln)	SIDCO, Kurichi Industrial Clusters
35	Bhadravati (Karnataka) CEPI-72.33 (Ac_Ws_Ln)	KSSIDC Industrial Area Mysore Paper Mill & VISL Township Complex
36	Tarapur (Maharashtra) CEPI-72.01 (Ac_Ws_Ls)	MIDC Tarapur
37	Panipat (Haryana) CEPI-71.91 (As_Ws_sc)	Panipat Municipal limit and its industrial clusters
38	Indore (Madhya Pradesh) CEPI-71.26 (As_Ws_Ls)	Following 09 industrial areas: - Sanwer Road - Shivaji Nagar - Pologround - Laxmibai Nagar - Scheme No. 71 - Naviakha, - Pipliya - Palda - Rau - Indore city - Other surrounding industrial areas : Manglia, Rajoda, Barlal, Asrawad, Tejpur Gadwadi
39	Bhavnagar (Gujarat) CEPI-70.99 (As_Ws_Ls)	GIDC Chitra, Bhavnagar
40	Vishakhapatnam (Andhra Pradesh) CEPI-70.82 (As_Ws_Ls)	Bowl area (the area between Yarada hill range in the south to Simhachalam hill range in the north and sea on the east and the present NH-5 in the West direction)
41	Junagarh (Gujarat) CEPI-70.82 (As_Ws_Ls)	Industrial Areas: - Sabalpur - Jay Bhavani - Jay Bhuvneshwari - GIDC Junagarh (I&II)
42	Asansole (West Bengal) CEPI-70.20 (As_Ws_Ls)	Burnpur area surrounding IISCO
43	Patancheru- -Bollaram (Andhra Pradesh) CEPI-70.07 (As_Ws_Ls)	Industrial Area: - Patancheru - Bollaram

Note: Names of identified industrial clusters/ potential impact zones are approximate location based on rapid survey and assessment and may alter partially subject to the detailed field study and monitoring. Detailed mapping will be made available showing spatial boundaries of the identified industrial clusters including zone of influence/buffer zone, after in depth field study.

Aggregated Comprehensive Environmental Pollution Index (CEPI) scores of 70 and above are considered as critically polluted industrial clusters/ areas.

Source: Ecological Impact Assessment Series: EIAS/5/2009-10

Details of Critically Polluted Industrial Areas and Clusters/ Potential Impact Zone in terms of the Office Memorandum no. J-11013/5/2010-IA.II(I) dated 13.1.2010

Annexure 8

Guidance for Assessment Relevance and Reliability of Analytical Methods and Framework Used for Impact Prediction: Risk Assessment

Relevance		
Name	Application	Remarks
EFFECT	Consequence Analysis for Visualisation of accidental chemical release scenarios & its consequence	Heat load, pressure wave & toxic release exposure
WHAZAN	Consequence Analysis for Visualisation of accidental chemical release scenarios & its consequence	neutral gas dispersion
HEGADIS	Consequence Analysis for Visualisation of accidental chemical release scenarios & its consequence	Dense gas dispersion
HAZOP and Fault Tree Assessment	For estimating top event probability	Failure frequency data is required
Pathway reliability and protective system hazard analysis	For estimating reliability of equipment and protective systems	Markov models
Vulnerability Exposure models	Estimation of population exposure	Uses probit equation for population exposure
F-X and F-N curves	Individual / Societal risks	Graphical Representation

Annexure 9.1**Damage Due To Incident Radiation Intensity (World Bank Standards)**

Sl No	Incident - Radiation (KW/m ²)	Type of Damage Intensity Damage to Equipment	Damage to People
1	37.5	Damage to process Eqpt	100% Lethality in 1 min.
2	25	Minimum energy required to ignite wood at indefinitely long exposure without a flame	50% lethality in 1 min. Significant injury in 10 sec.
3	19	Max. Thermal Radiation intensity allowed on thermally unprotected adjoining equipment	-
4	12.5	Minimum energy to ignite with a flame, melts plastic tubing	1% lethality in 1 min
5	4.5	-	Causes pain if more than 20 secs Blistering is unlikely
6	1.6		Causes no discomfort on long exposures

Annexure 9.2**Radiation Exposure And Lethality**

Radiation Intensity (KW/m ²)	Exposure Time (Seconds)	Lethality (%)	Degree of Burns
1/6	-	0	No Discomfort even after Long exposure
4.5	20	0	1st
4.5	50	0	1st
8.0	20	0	1st
8.0	50	<1	3rd
8.0	60	<1	3rd
12.0	20	<1	2nd
12.0	50	8	3rd
12.5	-	1	-
25.0	-	50	-
37.5	-	100	-

Source: http://europe.osha.eu.int/good_practice/risks/ds/oel accessed December 2008



QUESTIONNAIRE

QUESTIONNAIRE FOR ENVIRONMENTAL APPRAISAL FOR AIRPORTS

Note 1: All information to be given in the form of Annexures should be properly numbered and form part of this proforma.

Note 2: No abbreviations to be used - Not available or not applicable should be clearly mentioned.

I. General Information

1.1 Name of the project :

(b) Name of the authorized signatory :

(c) Mailing Address :

E-mail :

Telephone :

Fax No. :

(c) Does the proposal relate to new project/
expansion/modernization :

1.2 Site Information

(a) Location of Airport:

Village(s)	Tehsil	District	State

(b) Geographical information

▶ Latitude :

▶ Longitude :

▶ Total area envisaged for setting up of project (in ha) :

▶ Nature of terrain (hilly, valley, plains, coastal plains etc) :

▶ Nature of soil (sandy, clayey, sandy loam etc) :

▶ Seismic zone classification :

▶ Does the site falls under CRZ classification? :

▶ Land usage of the proposed project site :

Geographical Information of Aerodrome Reference Point: (ARP)

▶ Latitude	:	
▶ Longitude	:	
▶ G.T. Sheet No. (Survey of India Map No.	:	
▶ Elevation above Mean Sea level (metres)	:	
▶ Total Area proposed for the Project (in ha)	:	
▶ Nature of Terrain	:	
▶ Nature of Soil (Clayey, Sandy, salty, loam etc.,)	:	
▶ Permeability	:	

1.3. Environmental sensitivity details within 10 km from the boundary of the project for applicability of "General Condition (GC)" as per EIA notification dated 14.9.2006 and amendments as on date

S.No	Item	Name	Aerial Disance (in Km)
1.	Protected areas notified under the wild life (Protection) Act, 1972		
2.	Critically polluted areas as identified by the CPCB		
3.	Eco-sensitive areas as notified under Section 3 of the E (P) Act 1986		
4.	Inter-state boundaries and international boundaries		

1.4. Environmental sensitivity areas as mentioned at column 9(III) of EIA Notification 2006

S.No	Areas	Name/ Identify	Aerial distance (within 15 km) Proposed project location boundary
1	Areas protected under international conventions, national or local legislation for their ecological, landscape, cultural or other related value		
2	Areas which are important or sensitive for ecological reasons - Wetlands, watercourses or other water bodies, coastal zone, biospheres, mountains, forests		
3	Areas used by protected, important or sensitive species of flora or fauna for breeding, nesting, resting, migration etc		
4	Inland, coastal, marine or underground waters		
5	State, National boundaries		
6	Routes or facilities used by the public for access to recreation or other tourist, pilgrim areas		
7	Defense installations		
8	Densely populated for built-up area		
9	Areas occupied by sensitive man-made land uses (<i>hospitals, schools, places of worship, community facilities</i>)		
10	Areas containing important, high quality or scarce resources (<i>ground water resources, surface resources, forestry, agriculture, fisheries, tourism, minerals</i>)		
11	Areas already subjected to pollution or environmental damage (<i>those where existing legal environmental standards are exceeded</i>)		
12	Areas susceptible to natural hazard which could cause the project to present environmental problems (earthquakes, subsidence, land slides, erosion, flooding or extreme or adverse climatic conditions)		

* 0.5 km from Railway lines/National / State Highway should be maintained

Description of the flora/vegetation in the project area**Description of fauna (non-domesticated) in the project area**

1.5. Baseline data*Meteorological data*

Ambient air quality data

Water quality data

Human Settlement

	With in the project site	With in 1 km from the project boundary
Population*		
No. of villages		
Number of households village-wise		

1.6. Current land use of the proposed project site Area(in ha) :

Level -I
1. Built - up land
2. Agricultural land
3. Forest
4. Wastelands
5. Water bodies
6. Others
Total

2. Any application made for the Aeronautical clearance from Aerodrome Standards Directorate of DGCA; Ministry of Civil Aviation, GOI.

Yes ☐ No ☐

if YES, what is the progress?

3. Land use plan:

3.1 Does the proposed project conform to the approved land use all over the site? (To be certified by the concerned Department of State Government).

Yes ☐ No ☐

If not, clearly indicate which of the stretches are not as per approved land use.

3.2 Project Site Preparation:

Is the proposed project located in low-lying area?

Yes ☐ No ☐

Level before filling (above MSL in m)

Level after filling (above MSL in m)

Details of fill material required:

Quantity of Fill material required (in cu.m) ///

Source

Gradient Details:

3.3 Would the above filling result in complete / partial filling of water bodies

3.4 Does the site involve stripping?

Yes ☐ No ☐

If yes, provide the following details:

1. Size of the area to be stripped

2. Location,

3. Soil Type,
4. Volume and quantity of earth to be removed,
5. Location of dump site,
6. Proposal for utilisation of removed topsoil.

3.5. Does it involve cutting?

Yes ☐ No ☐

If yes , please furnish the following details:

1. Size of the area to be cut,
2. Depth of cut,
3. Location,
4. Soil Type,
5. Volume and quantity of earth and other material to be removed
6. Location of dump site.

3.6. Does the site preparation require cutting of trees?

Yes ☐ No ☐

If yes, please furnish the following details:

1. How many trees are proposed to be cut?
2. Species of the above trees
3. Are there any protected / endangered species?

Yes ☐ No ☐

If yes, please provide details.

3.7 In case the site covers a flood plain of a river , please furnish:

1. detailed micro- drainage,

2. Flood passages,

3. Flood periodicity in the area.

3.9. Does the proposed project involve construction on any sandy stretch?

Yes ☐ No ☐

If yes, please furnish details

Height (above MSL in metres)

3.9. Does the project involve extraction of sand, levelling or digging of sandy stretches within 500 metres of high tide line?

Yes ☐ No ☐

If yes, mention the activity involved and area.

1. Stretch

2. Area (sq. metre)

3.10 Does the project involve any dredging?

Yes ☐ No ☐

3.11 Whether there will be any change in the drainage pattern after the proposed activity?

Yes ☐ No ☐

If yes, what are the changes?

A. What is the maximum extent?

B. Is any additional area to be flooded?

4. Raw material Required During Construction:

S.No.	Item	Quantity (Tonnes)	Mode of Transport	Source
1	Blue metal			
2	Bricks			
3	Sand			
4	Cement			
5	Bitumen			
6	Diesel			
7	Others (Please specify)			

5. Water Required During Construction:**5.1 Water Requirement (cu.m / day)**

S.No	Purpose	Average Demand	Peak Demand	Source	Type treated / Untreated / Fresh / Recycled	Remarks
1	Airport Development					
2	Dust Suppression					
3	Drinking					
4	Others (please Specify)					
	Total					

5.2. Source of Raw Water Supply (Net)

S.No	Source	Cum/hr	Cum/day
1	Sea		
2	River		
3	Ground Water		
4	Rainwater Harvesting		
5	Municipal Water Supply		
6	Others		

5.3. Solid Waste:

A. Solid waste generated during Airport development (Tonnes / day)

1. Top Soil	
2. Overburden	
3. Others (please specify)	
Total:	

6. Storage of inflammable / hazardous / toxic substances) :

S.No	Name	Consumption (in TPD)	Maximum Quantity at any point of time(tonnes)	Means of transportation
1	Bitumen			
2	Diesel			
3	Others (please specify)			

7. Landscape:

A. Total area of project (in ha)	
B. Area already afforested (for existing projects), in ha	
C. Area proposed to be afforested (in ha)	
D. Width of green belt (minimum, in m.) along with alignment	
E. Trees planted and proposed	
	NOs
1. Planted	
2. Proposed	
3. List of species	

8. Rehabilitation & Resettlement Plan including vocational training and other avenues of employment:

A. Population to be displaced:

S.No.	Name of Village	Population	Land outsets only / Homestead	Land+ Home stead	Oustees only

B. Rehabilitation Plan for Oustees.

C. Site where the people are proposed to be resettled

D. Compensation package

E. Agency / Authority responsible for their resettlement

9.0 Environmental Management Plan

a. Details of Pollution Control Systems:

	Existing	Proposed
Air		
Water		
Noise		
Solid Waste		

b. Expenditure on environmental measures:

S. No		Capital cost		Annual recurring cost	
		Existing	Proposed	Existing	Proposed
1	Pollution control (provide break-up separately)				
2	Pollution monitoring (provide break-up separately)				
3	Fire fighting & emergency handling				
4	Green Belt				
5	Training in the area of environment & occupational health				
6	Others (specify)				

- c. Details of organizational set up/cell for environmental management and monitoring:

- d. Details of community welfare/peripheral development programmes envisaged/being undertaken by the project proponent:

10. Compliance with environmental safeguards (for existing units)

- a. Status of the compliance of conditions of Environmental Clearance issued by MoEF, if any enclosed Yes ☐ No ☐
- b. Status of compliance of 'Consent to Operate' issued by SPCB, if any, enclosed Yes ☐ No ☐
- c. Latest 'Environmental Statement' enclosed Yes ☐ No ☐

11. Public Hearing

- (a) Date of Advertisement
- (b) Newspapers in which the advertisement appeared
- (c) Date of public hearing (DD/MM/YYYY)
- (d) Public Hearing Panel chaired by & members present
- (e) No. of people attended the public hearing meeting and number of people from the lease area.
- (f) Summary/details of public hearing in tabular form.

Issues raised by the Public	Response/Commitment of Project Proponents	Suggestions made by the Public Hearing Panel

Date

Name and Signature of the Competent Officer/ Authority

E-mail:

Phone and Fax nos:

Given under the seal of organization on behalf of whom the applicant is signing

Note:

The project authorities are earnestly advised in their own interest to provide complete information on points, which they think are relevant to their proposal. Non supply of required information may result in considerable delay in according environmental clearance.

All correspondence with MoEF shall be made by the authorized signatory only. The authorized signatory should also submit a document in support of his claim of being an authorized signatory for the specific project (refer notification No. SO. 3067 (E) dated 1st December 2009)

ANNEXURE 8

PRESENTATION

TO

**THE HON'BLE EXPERT APPRAISAL COMMITTEE (INFRA-2)
FOR TERMS OF REFERENCE**

**DEPARTMENT OF GREENFIELD INTERNATIONAL AIRPORT AT BHOGAPURAM, VIZIANAGARAM
DISTRICT, ANDHRA PRADESH**

BY

**M/S BHOGAPURAM INTERNATIONAL AIRPORT CORPORATION LTD,
ANDHRA PRADESH**

AGENDA NO. : 4.2.5**DATE : 28TH MARCH, 2016****TECHNICAL CONSULTANT****MITES LIMITED****SCHEDULE 'A' ENTERPRISE OF GOI****ENVIRONMENT CONSULTANT****GREENCINDIA CONSULTING PVT. LTD.****NABET/EIA/RA014/041**

PROJECT BACKGROUND

3 Recognizing the exponential growth of air traffic in India, the Andhra Pradesh Government has unveiled its Civil Aviation Policy-2015 which seeks for the development of world-class aviation infrastructure in the State.

➤ BIACL (Bhogapuram International Airport Company Ltd) has planned to develop 3 greenfield airport projects in Andhra Pradesh, named Bhogapuram International Airport (Vizianagaram District), Oravakallu Airport (Kurnool district) & Dagadarthi Airport (Nellore District).

➤ The proposed Dagadarthi & Oravakallu Airports are awarded TOR from MoEF&CC vide letter dated 18th & 29th February, 2016 respectively.

➤ The proposed Bhogapuram International Airport is located in Kongavanipalem, A Ravivalasa, Munjeru, Savaravilli. Kancherupalem, Gudepuvalasa, Kavulavada and Ravada villages in Bhogapuram Mandal of Vizianagaram District in Andhra Pradesh.

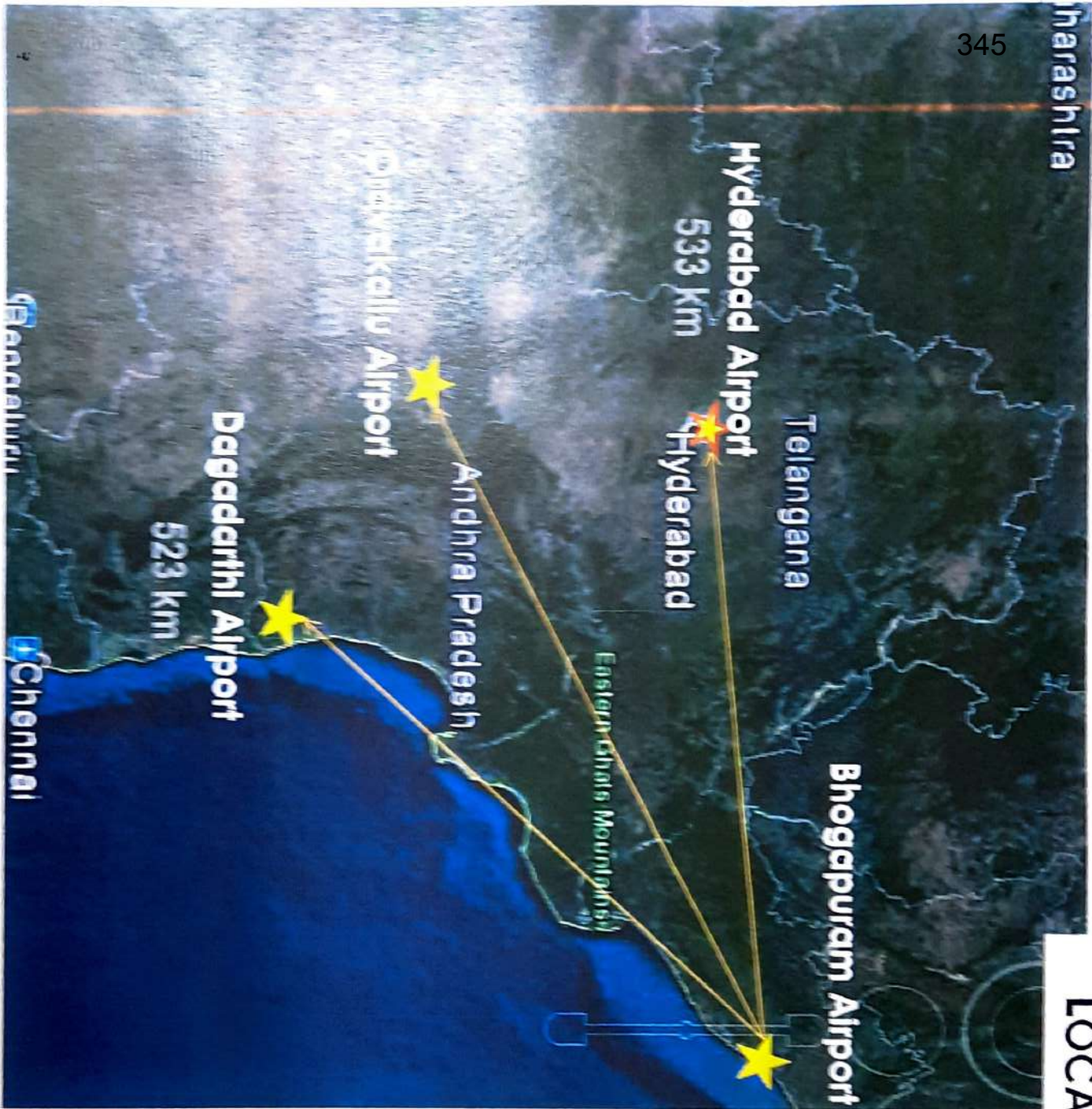
➤ Land for the proposed airport already allotted by State Govt. of Andhra Pradesh, vide letter number Memo No. 512/Airports/A2/2015, dt:31.08.2015.

➤ For development of Bhogapuram International Airport, State Govt. of Andhra Pradesh provided 4068.55 Acre (1646.48 ha) out of which 2004.54 Acre (811.21 ha) land will be used for this phase.

➤ The airport will be developed to cater A-380 airbus.

(92)

LOCATION OF NEAREST AIRPORTS



Aerial Distance from proposed Bhogapuram International Airport	
Hyderabad Airport	533 km
Oravakallu Airport	620 km
Dagadarthi Airport	523 km

★ Hyderabad Airport (Existing)

★ Proposed 3 Airport of BIACL

PROJECT FEATURES

346	Description	Details		
Project Site	A Ravivalasa, Kongavanipalem, Munjeru, Savaravilli. Kancherupalem, Gudepuvalasa, Kavulavada and Ravada Villages, Bhogapuram Mandal, Vizianagaram District, Andhra Pradesh			
Co-ordinates	Latitude		Longitude	
	17°57'48.9"N - 17°59'20.7"N		83°28'29.2"E - 83°33'02.2"E	
Runway Dimension	3800m x 60m			
Total Area (ha)	Project Site	Approach Road	Total	
	2004.54 Acre	119 Acre	2123.54	
Access road	NH-5, 3 km, Adjacent to project site			
Nearest town	Vizianagaram – 25 km			
Nearest railway station	Vizianagaram – 25 km			
Nearest Airport	Visakhapatnam Airport, Visakhapatnam-56km			
Aircraft to be used initially	A-3' 80			
Manpower Required	Direct employment opportunities for 4000 persons and total direct & indirect employment for 7,500 persons during the operation phase is expected			
Water Requirement	273.8 KLD			
Power Requirement	20 MVA			
Project cost	INR 2,461.27 crores			

KEY FEATURES OF THE PROJECT

⁴⁷₃Key features

- Concession framework – Bhogapuram airport is proposed to be developed as a PPP project under a Design, Build, Finance, Operate and Transfer (DBFOT) concession framework.
- Concession period may be 99 years with premium as the bidding parameter.
- Project to be developed in two phases. Tentative cost estimates is around Rs. 2,461.27 Crores for phase 1.
- It is proposed that the runway be 3,800 m. Aerodrome Reference Code 4F.
- Passenger Terminal Building (PTB) would cater to approx 6 mn PAX by 2035 and approx. 10 mn PAX by 2050.

Current status

- Project approvals / clearances :
 - NOC given by Ministry of Defence
 - Site Clearance given by Ministry of Civil Aviation
- Bidding documents are being prepared by the Government and are expected to be issued shortly.

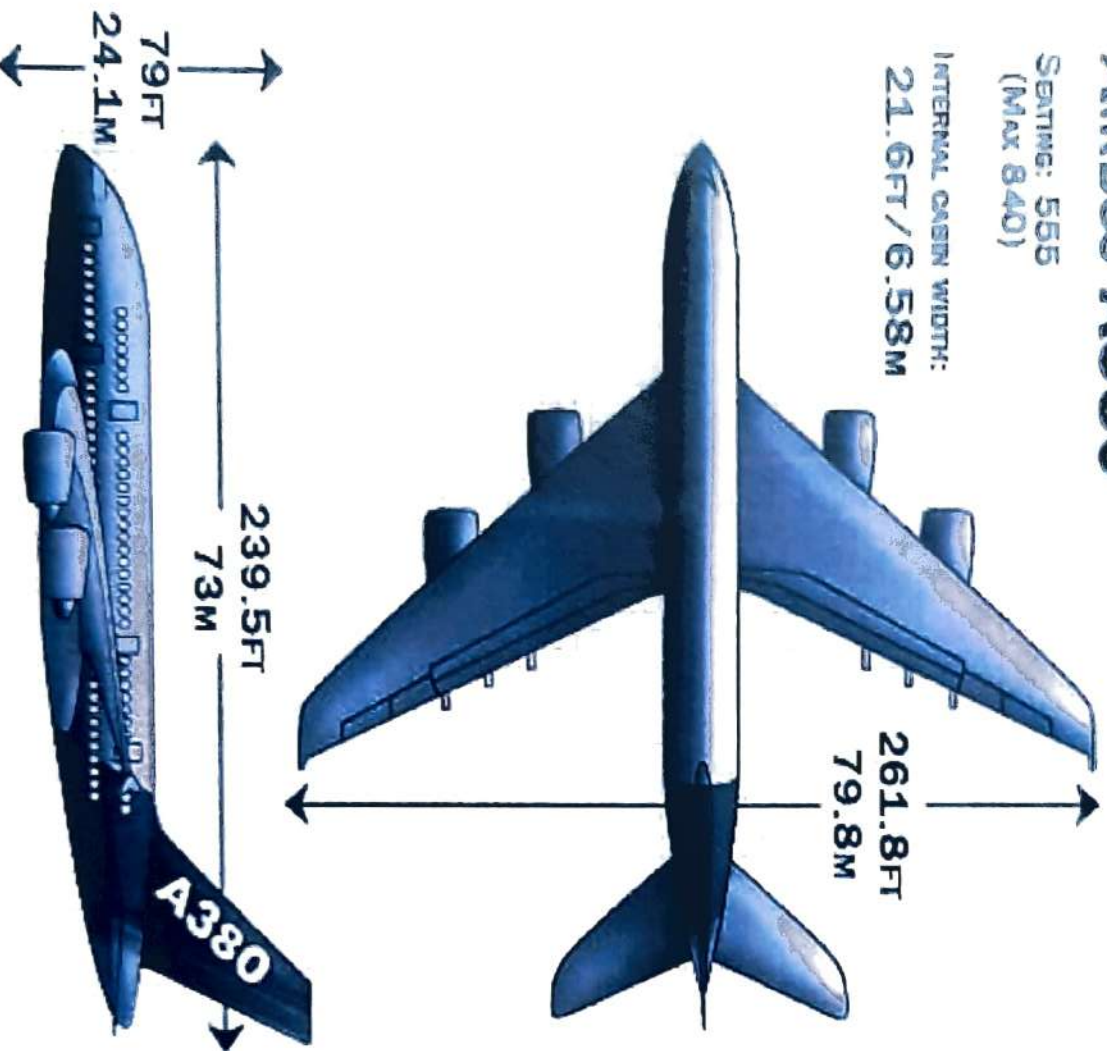
SPECIFICATIONS OF AIRCRAFT AIRBUS A-380

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AIRBUS A380

SEATING: 555
(MAX 840)

INTERNAL CABIN WIDTH:
21.6 FT / 6.58 M



Airbus A-380	
Specifications	Details
Length (m)	72.7
Wingspan (m)	79.8
Height (m)	24.1
Wing area (m ²)	845
Maximum take-off weight (kg)	5,60,000
Maximum landing weight (kg)	3,86,000
Operating empty weight (kg)	2,76,800
Maximum zero fuel weight (kg)	3,61,000
Maximum payload (kg)	83,000
Standard fuel capacity (litres)	3,10,000
Range with max payload (km)	15,000
Maximum operating altitude (m)	13,100
Take-off field length (m)	2,050
Landing field length (m)	2,900
Engines	R-R Trent 970,
Passengers (1-class)	700
Passengers (3-class)	555
Cabin width (m)	5.92 - 6.58

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TRAFFIC FORECAST

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Passenger Handled at Six Major airport in India (in millions)

Airports	City	State	2012-13	2013-14	2014-15
Delhi International Airport Limited	Delhi	Delhi	34.4	36.9	41.0
Chhatrapati Shivaji International Airport	Mumbai	Maharashtra	30.2	32.2	36.6
Chennai International Airport	Chennai	Tamil Nadu	12.8	12.9	14.3
Kempegowda International Airport	Bangalore	Karnataka	12.0	12.8	15.4
Netaji Subhash Chandra Bose International Airport	Kolkata	West Bengal	10.1	10.1	10.9
GMR Hyderabad International Airport Limited	Hyderabad	Andhra Pradesh	8.4	8.8	10.5
TOTAL			107.9	113.7	128.7

Passenger Traffic at four major airports in Andhra Pradesh

AIRPORTS	DISTANCE	APR-NOV 2015	APR-NOV 2014	% GROWTH
TIRUPATI	137 KM	1,98,544	1,31,686	51%
RAJAHMUNDRY	221 KM	1,19,662	85,492	40%
VISAKHAPATNAM	465 KM	9,52,288	6,21,687	53%
VIJAYAWADA	213 KM	2,17,965	1,17,823	85%
AP TOTAL		14,88,459	9,56,688	56%

Source : AAI

TRAFFIC FORECAST FOR BHOGAPURAM

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Peak hour Domestic passenger projections for Bhogapuram Airport (in Nos.)

Phase	Average Aircraft Load Factor	Arrival Peak Hour Passengers	Departure Peak Hour Passengers	Two Way Peak Hour passengers
Year- 2025	125	1125	1625	2125
Year- 2035	131	1834	2751	3668
Year- 2045	138	2898	4278	5796
Year- 2050	141	3525	5217	6909

Peak hour international passenger projections for Bhogapuram Airport (in Nos.)

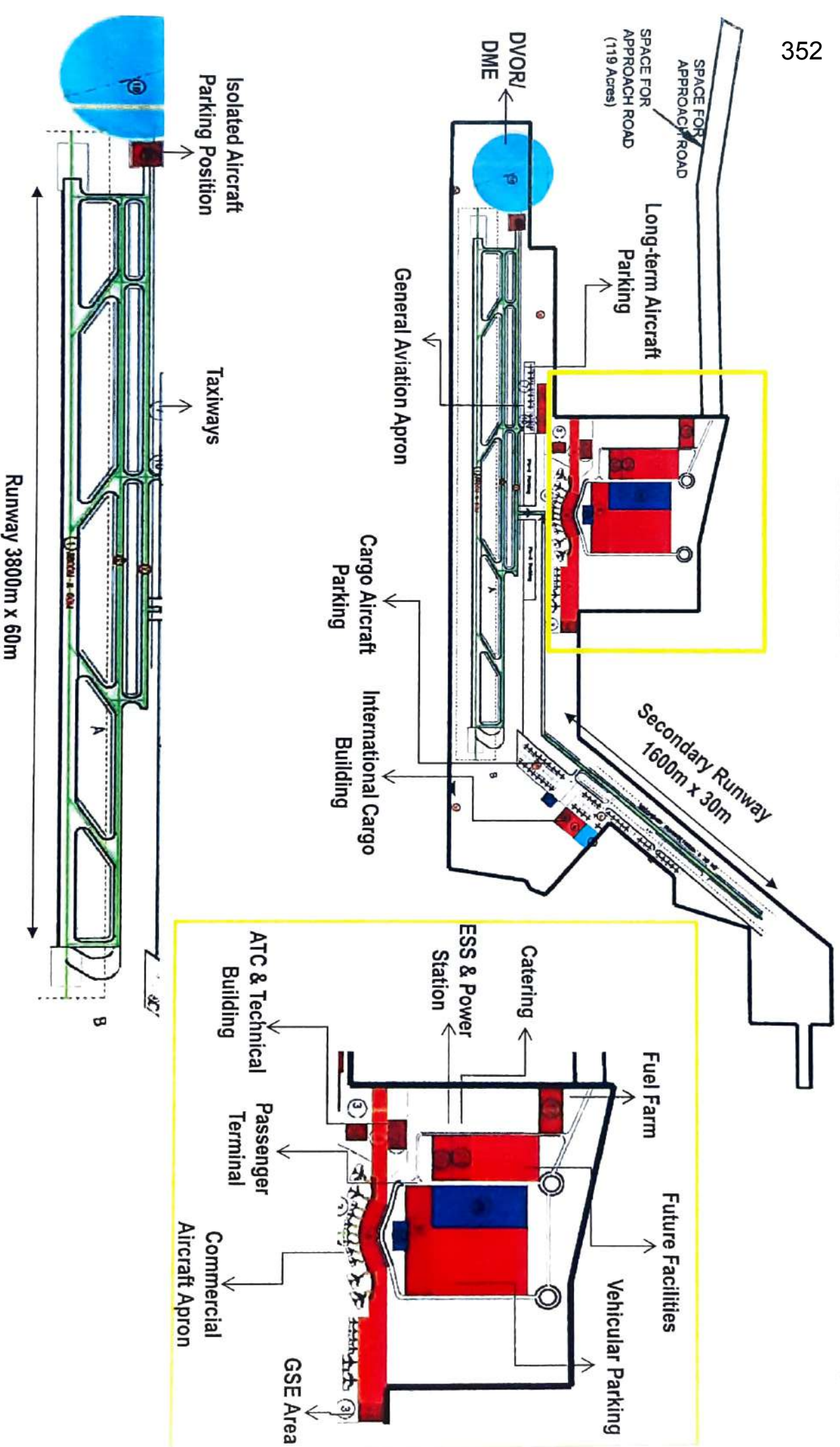
Phase	Average Aircraft Load Factor	Arrival Peak Hour Passengers	Departure Peak Hour Passengers	Two Way Peak Hour passengers
Year- 2025	81	81	81	162
Year- 2035	109	218	218	327
Year- 2045	146	292	292	438
Year- 2050	169	338	338	507

PLANNING CONSIDERATIONS

S. No.	Description	Phase-1	S. No.	Description	Phase-1
1	Aerodrome Reference Code	4F	16	GSE area	2x9700 sqm
2	Design Aircraft	A-380	17	Peripheral Road	13000x3.75 m
3	Flights per hour	30	City Side Planning		
4	Runway Capacity (million per annum)	2242	18	Terminal Building sqm	81000 sqm
5	Passenger Terminal Capacity (million per annum)	29.74	19	Sub Station Building	2000 sqm
Air Side Planning			20	Fire station Building	10000 sqm
6	Runway	3800m x 60m	21	ATC Tower - sqm	15556 sqm
7	Secondary Runway	1600m x 30m	22	STP	1
8	Turning Pads	Not Provided	23	Internal Roads	10,20 and 30 m wide
9	Taxiway	3800x25 m, 2607x25 m	24	Car Park	3500 cars
10	Apron	198000 sqm	25	Boundary Wall - 3.0m high with 0.6 m concertina coil on top	30,000 m
11	RESA	2X240X90 m	26	Operational Chain Link Fencing - 2.0m high	5,000 m
12	Isolation Bay	120m x120m	27	Gates	10
13	Taxiway to Isolation Bay	Not Provided	28	Estimated Electrical Load	20,0000 kV or 200 MVA
14	Shoulders		29	Transformer rating	15 nos of different ratings
	a) to Runway	3800x7.5 m	30	DG set rating	7 no. DG set each of rating 2,000 kVA or 2 MVA (6 working + 1 standby)
	b) To Taxiway	3800x7.5 m -			
	c) To Apron	27,630 sqm			
	d) To Isolation Bay	465mx7.5m			
15	Overruns	2X60X60 m			

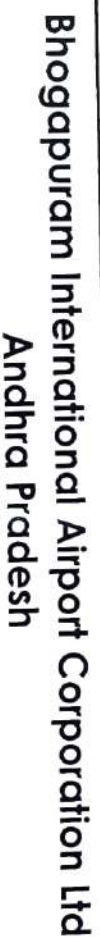
PROJECT LAYOUT PLAN

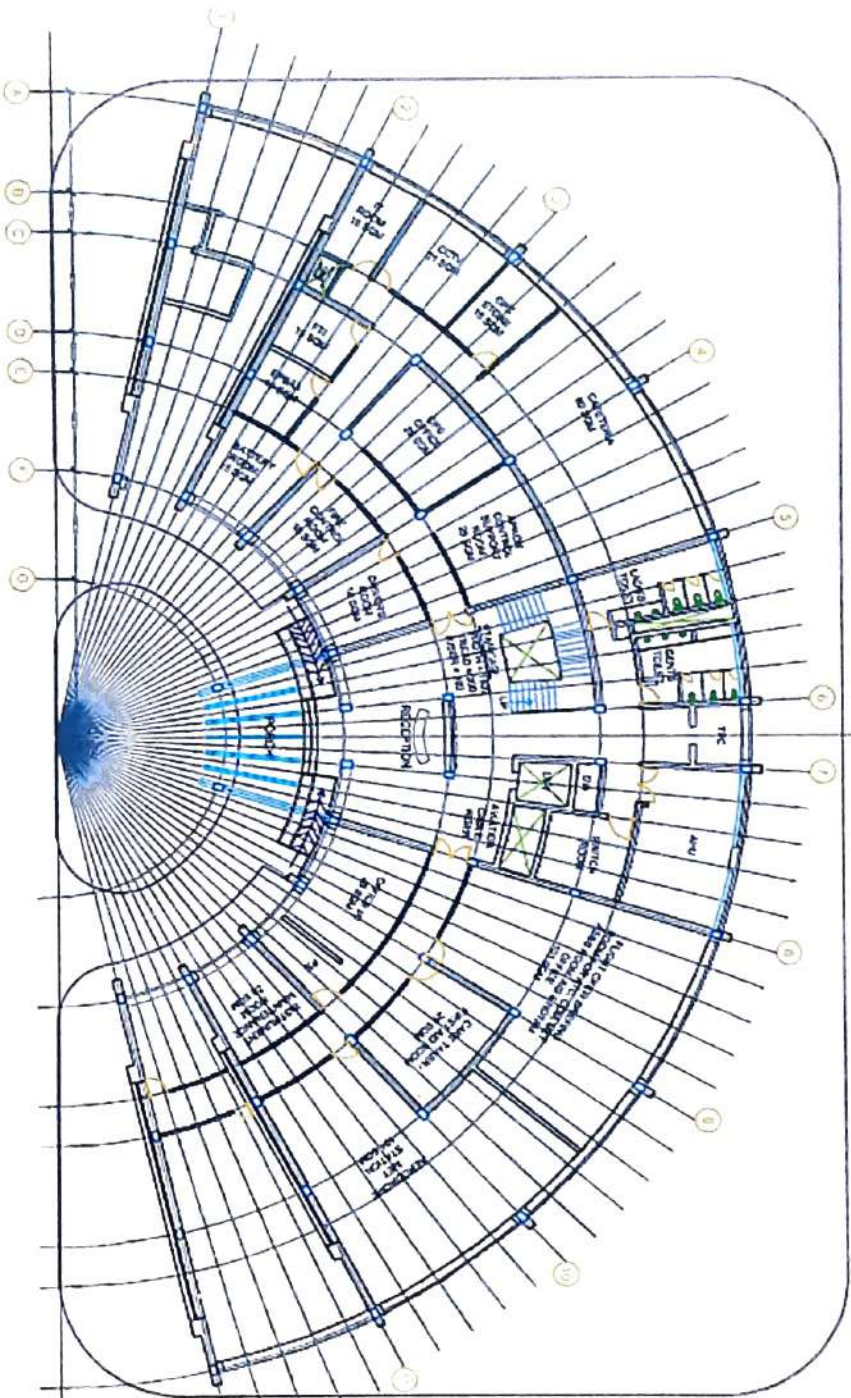
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Ground Floor Plan-Arrival





Bhogapuram International Airport Corporation Ltd
Andhra Pradesh

PROJECT REQUIREMENTS

Requirement	Details
Water	➤ The project will utilize the ground water and water supply from Vizianagaram Municipality. The daily consumption of water during operation phase will be about 273.8 KLD of which 152.1 KLD will be fresh water and 137.2 KLD will be recycled water.
Fuel	➤ Fuel storage facility will be provided near to approach road.
Power	➤ The energy requirement will be ascertained in the master plan. Total load estimation for Bhogapuram Airport works will be 20,000(Approx) KVA or 20 MVA. The electricity for the project will be sourced from State Transmission line. ➤ Provision of Standby DG set of 12,000 KVA or 12 MVA has also been kept.

WATER REQUIREMENTS

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S.no	Parameters	Unit	Quantity		Water Consumpti on (LPCD*)		Water Requireme nt in KLD**			Wastewater Generation (KLD)			Sewage Treatment Plan (20% excess) in KLD
A	OPERATION PHASE				Fresh	Recycled	Fresh	Recycled	Total	Fresh	Recycl ed	Total	
										80%	95%		
a	Passengers	No.	12800	7	8	89.6	102.4	192.0	71.7	97.3	169.0	SBT Technology 288 KLD	
b	Visitors	No.	2500	7	-	17.5	-	1.8	14.0	-	1.4		
c	Airport Staff	No.	1000	30	15	30.0	15.0	45.0	24.0	14.3	38.3		
d	Residential Area	No.	0	65	21	0.0	0.0	0.0	0.0	0.0	0.0		
e	Kitchen, floor washing & Restaurant Seats	No.	500	30	40	15.0	20.0	35.0	12.0	19.0	31.0		
Total Water Demand in KLD						152.1	137.4	273.8	121.7	130.5	239.6		
B	CONSTRUCTION PHASE												
a	Daily Labour	No.	500	30	15	15.0	7.5	22.5	12.0	7.1	19.1	Septic Tanks & Toilets	
b	Residential Labour	No.	500	50	36	25.0	18.0	43.0	20.0	17.1	37.1		
C	Officials	No.	100	30	15	3.0	1.5	4.5	2.4	1.4	3.8		
Total Water Demand in KLD						43.0	27.0	70.0	34.4	25.7	60.1		

LIQUID WASTE

- Domestic wastes will be treated in STP during operational phase and treated water shall be used for Landscaping and Flushing.
- The total waste water generated during construction phase is 60.1 KLD and during operation phase it will be 239.6 KLD. During Operation Phase wastewater will be treated in 288 KLD Soil Bio-filter Technology (SBT) based STP.
- The treated effluents conforming to the prescribed standards shall be re-circulated and used for green belt development.
- No treated wastewater shall be discharged outside the Site premises.

SOLID WASTE

- The solid waste generated in the airport will be mostly from the flight kitchen and waste from cargo complex and 2468 kg/day sludge from the STP.
- The solid waste will be collected and transported in covered trucks at approved municipal disposal site. During construction phase 275 kg/day solid waste will be generated.

Memo. No. 512/Airports/A2/2015

Dt: 31-08-2015

Sub: Establishment of International Green Field Airport at Bhogapuram- Analysed various options-
Selection of revised option -Justification report-Submitted.

Ref: 1.RC. No. 30/2012/G3, Dt: 08-2015 received from the Collector's Office, Vizianagaram.
2. Lr.No.WP.4768 and 9250/2012/Rev, dated.20.8.2015 received from the Govt. Pleader for Revenue
(A.P) addressed to the District Collector, Vizianagaram.

The attention of the Collector & District Magistrate, Vizianagaram District is invited to the references cited , he is informed that the village wise land details (which are not covered by any litigation) and village with land details (Which are covered by Interim orders of the Hon'ble High Court in W.P.No.4768/2012 & W.PMP.No.11695 in W.P.NO.9250/2012) falling within in the Proposed Airport at Bhogapuram are enclosed here with. He is informed that even though the Counters were filled earlier in both the W.P's and vacate Stay Petitions were moved, Government considered to proceed further. The Collector, Vizianagaram is therefore requested to notify all the lands to a total extent of Acs.5311.88 by adding a rider in the following terms.

"In view of the interim orders of the Hon'ble High Court dt.:23.2.2012 and d1.3.4 .2012, the possession of the petitioner s in respect of the subject lands is not being disturbed. These lands are being notified along with other land s as they are coming within the alignment of proposed Green field Airport at Bhogapuram. This notification is subject to the further orders of the Hon'ble High Court in pending Writ Petitions. "

Ajay Jain

Secretary to Government

Dated:25.02.2016

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To whomsoever concerned

- Ref:- 1. AAI Letter No.AAI/C&C/Visakhapatnam/2007/833 dated 23.05.2007 site selection & feasibility study report
2. AAI Letter No. AAI/38/37/2008/AR-II (P) dated 24.09.2014 on New Greenfield Airport at Visakhapatnam – Feasibility

Andhra Pradesh is on the path of sustained double digit growth and aviation is a focus area for connecting various parts of the State towards accelerating economic growth. After bifurcation of the erstwhile combined State of Andhra Pradesh (AP) in June 2014, the Government of Andhra Pradesh (GoAP) has set ambitious targets for its development. Providing reliable and seamless air connectivity across the State, especially linking places of industry/trade, tourism and other major areas is a priority for the State Government.

The current international airport in the city of Visakhapatnam is a civilian enclave under the control of Indian Navy, Ministry of Defense (MoD). With the scope of services and expansion being limited, the Government of Andhra Pradesh has proposed the development of a new greenfield international airport in the region to serve the growing passenger and cargo requirements. As a part of the initial development plan, the GoAP has identified the following four prospective sites for the development of a Greenfield international airport in the Visakhapatnam region.

1. Bhogapuram Mandal in Vizianagaram District
2. S Rayavaram Mandal in Visakhapatnam District
3. Achutapuram Mandal in Visakhapatnam District
4. Sabbavaram Mandal in Visakhapatnam District

In 2007, Airports Authority of India (AAI) was requested by the Government of Andhra Pradesh to undertake the initial feasibility analysis of the prospective sites and suggest the way forward. AAI, in its report cited (1), concluded that the sites in Bhogapuram Mandal of Vizianagaram district and S Rayavaram Mandal of Visakhapatnam district are suitable for development of the greenfield international airport. Of the sites mentioned, S Rayavaram is located 70 km from the current Visakhapatnam Airport whereas the site in Bhogapuram is located at a distance of 50 km. AAI has also made a recommendation that a land extent of 5,000 acres be set aside for the development of the international airport with view of the future development requirements.

The AAI, on 5th August 2014, have presented to the Hon' Chief Minister of Andhra Pradesh on the developments plans for the airports

Bhogapuram International Airport Corporation Ltd

Andhra Pradesh

SITE ANALYSIS DOCUMENTS

This is to inform that, Airports Authority of India (AAI), after studying four alternate locations in 2007, have shortlisted two sites 1st near S. Rayavaram (70kms from Visakhapatnam) and 2nd near Bhogapuram (50kms from Visakhapatnam), to be suitable for development of Greenfield International Airport. Govt. of Andhra Pradesh (in 2014), in consultation with AAI, finally decided to develop the international airport near Bhogapuram keeping in view the following:

- Minimizing land acquisition cost as far as possible
- Utilizing maximum Government Land
- Reduce resettlement cost/educational institute

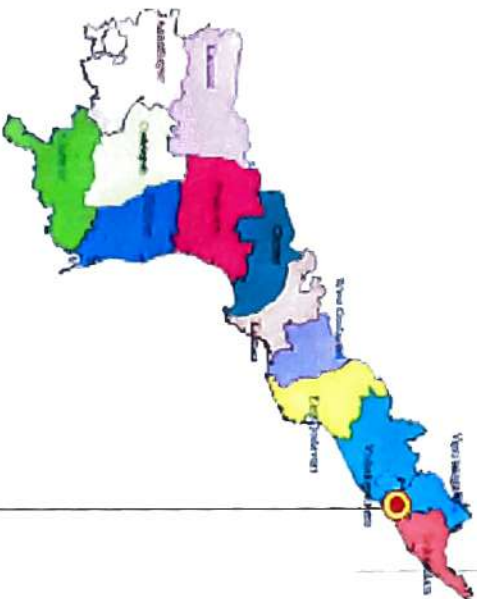
maintained by AAI at Visakhapatnam, Tirupati and Vijayawada. The AAI, in its letter cited (2), has communicated that the site at Bhogapuram Mandalas more suitable and recommended it for the development of Greenfield international airport. The Government of Andhra Pradesh, after duly considering several parameters including the availability of the land, proximity to the city, existing infrastructure connectivity, and the recommendations by AAI, has finalized the site in Bhogapuram for the development of the airport.

Yours faithfully

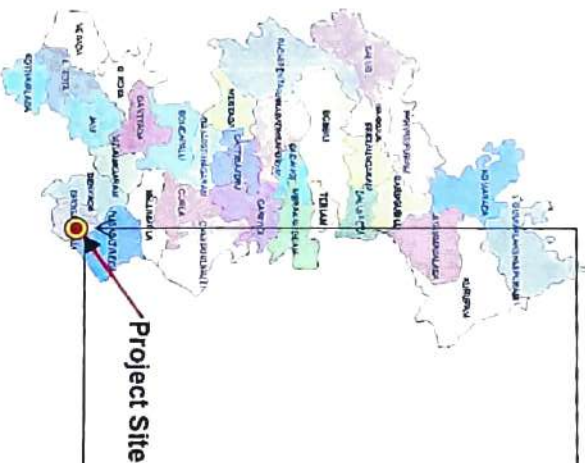

(M. Venkateswarlu)

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Greencindia Consulting Private Limited
NCR, Ghaziabad,



District:- Andhra Pradesh, India



Project Site



Project Site

Vizianagaram, Andhra Pradesh

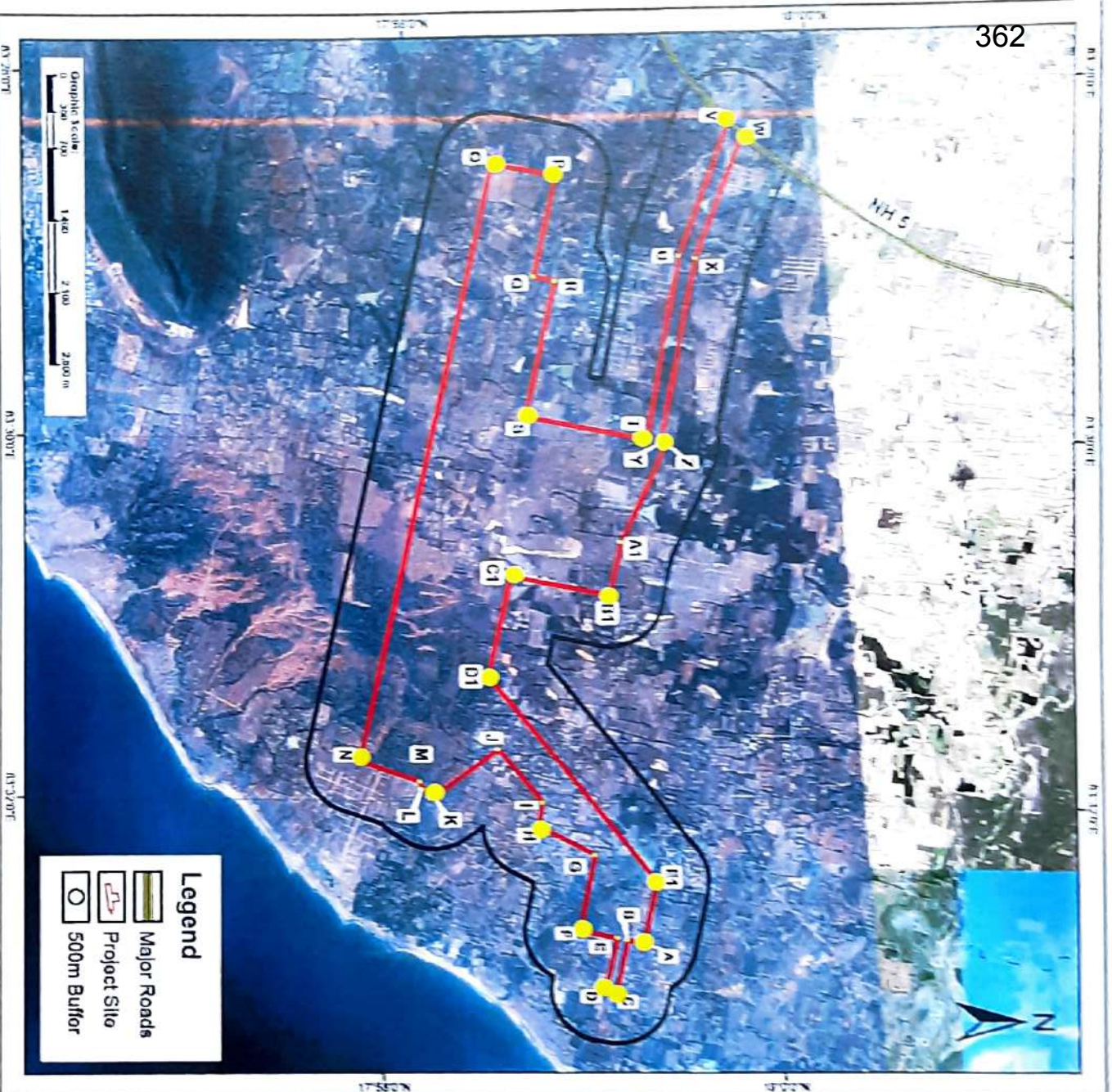
Bhogapuram International Airport Corporation Ltd

Andhra Pradesh

CO-ORDINATE MAP

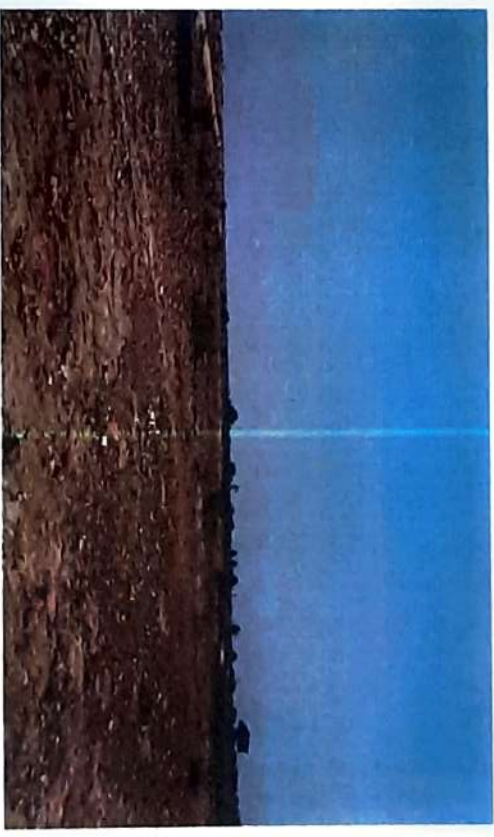
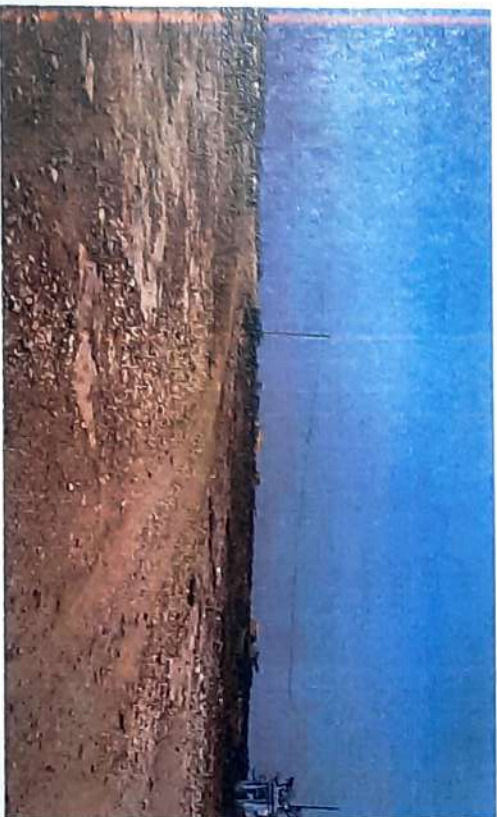
Point	Latitude	Longitude
A	17° 59' 16.5" N	83° 32' 46.1" E
C	17° 59' 08.6" N	83° 33' 01.8" E
D	17° 59' 05.5" N	83° 33' 01.2" E
F	17° 58' 57.3" N	83° 32' 42.3" E
H	17° 58' 44.4" N	83° 33' 08.1" E
K	17° 58' 13.4" N	83° 31' 58.9" E
N	17° 57' 50.9" N	83° 31' 47.3" E
O	17° 58' 27.3" N	83° 28' 29.2" E
P	17° 58' 46.3" N	83° 28' 33.0" E
S	17° 58' 38.4" N	83° 29' 52.6" E
T	17° 59' 14.8" N	83° 29' 59.8" E
V	17° 59' 38.3" N	83° 28' 15.2" E
W	17° 59' 42.5" N	83° 28' 18.9" E
Z	17° 59' 21.1" N	83° 30' 01.1" E
B1	17° 59' 04.6" N	83° 30' 51.5" E
C1	17° 58' 35.0" N	83° 30' 45.6" E
D1	17° 58' 28.9" N	83° 31' 19.0" E
E1	17° 59' 20.2" N	83° 32' 25.8" E

➤ Proposed project site is at 700-800m distance from H.T.L(High Tide Line). & CRZ map preparation is under process.



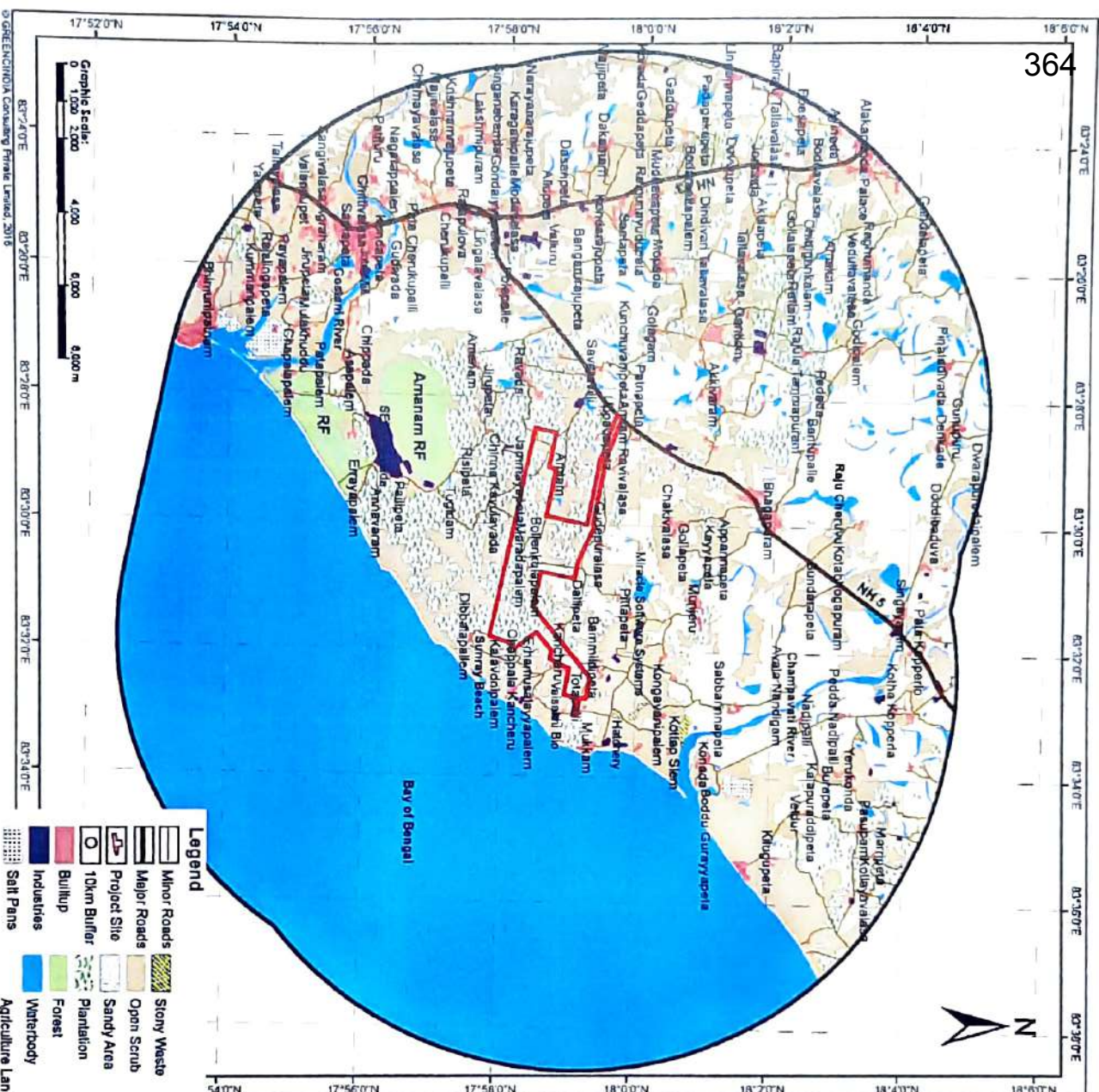
SITE PHOTOGRAPHS

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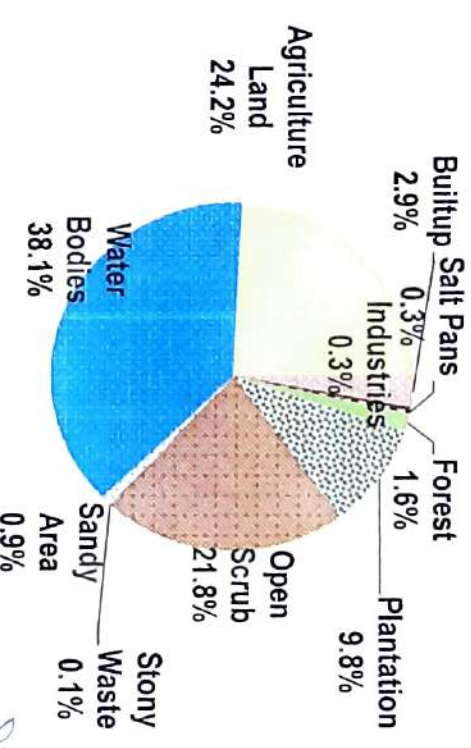


LANDUSE PATTERN OF STUDY AREA

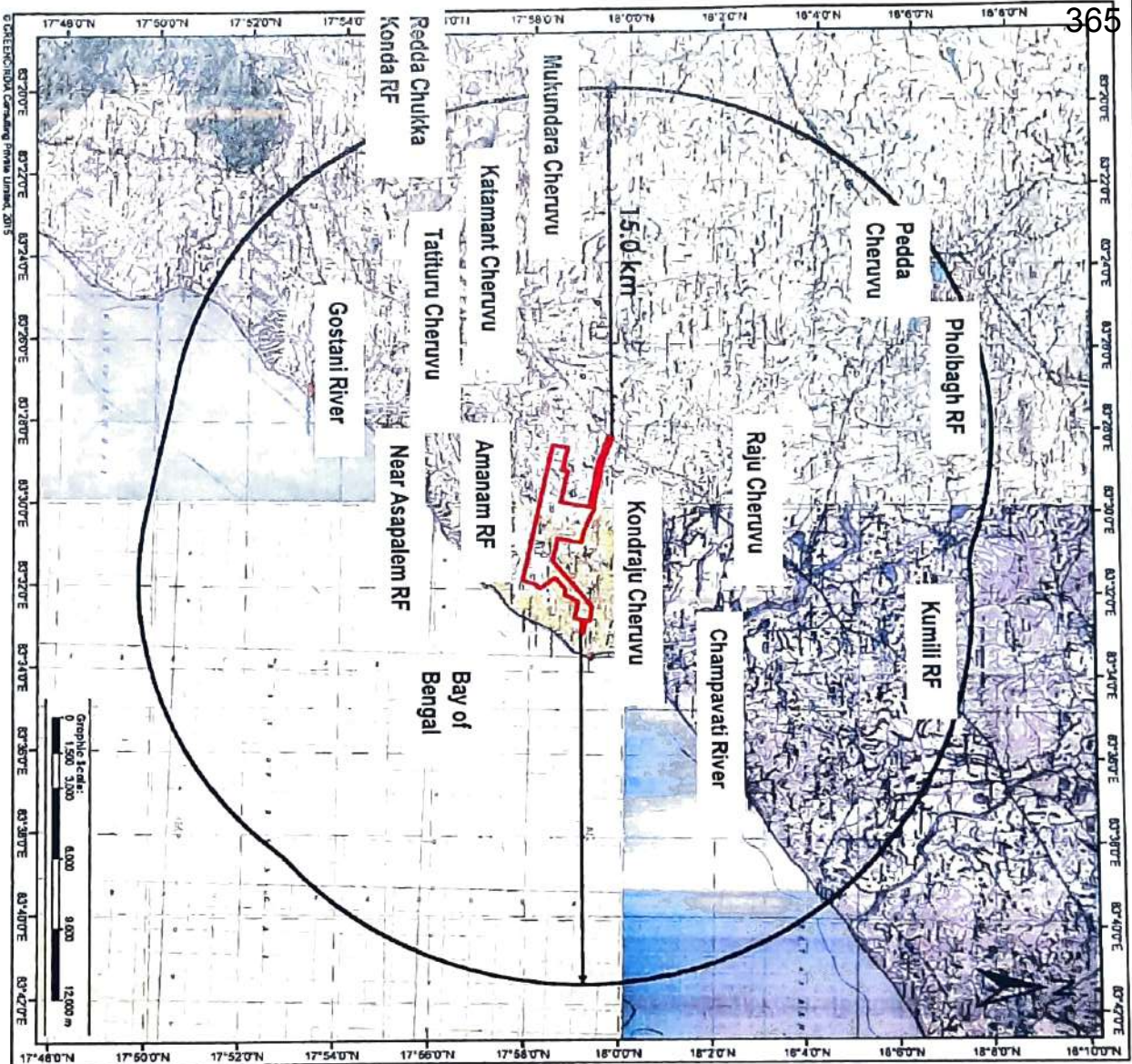
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Land-use	Area (in Ac)	Area (in %)
Builtup	3818.0	2.9
Industries	434.2	0.3
Salt Pans	352.1	0.3
Forest	2146.4	1.6
Plantation	12897.8	9.8
Open Scrub	28614.8	21.8
Stony Waste	140.8	0.1
Sandy Area	1162.6	0.9
Water Bodies	49988.1	38.1
Agriculture Land	31770.4	24.2
Total Area	131325.3	100



ENVIRONMENTAL SENSITIVE LOCATION IN 15 KM



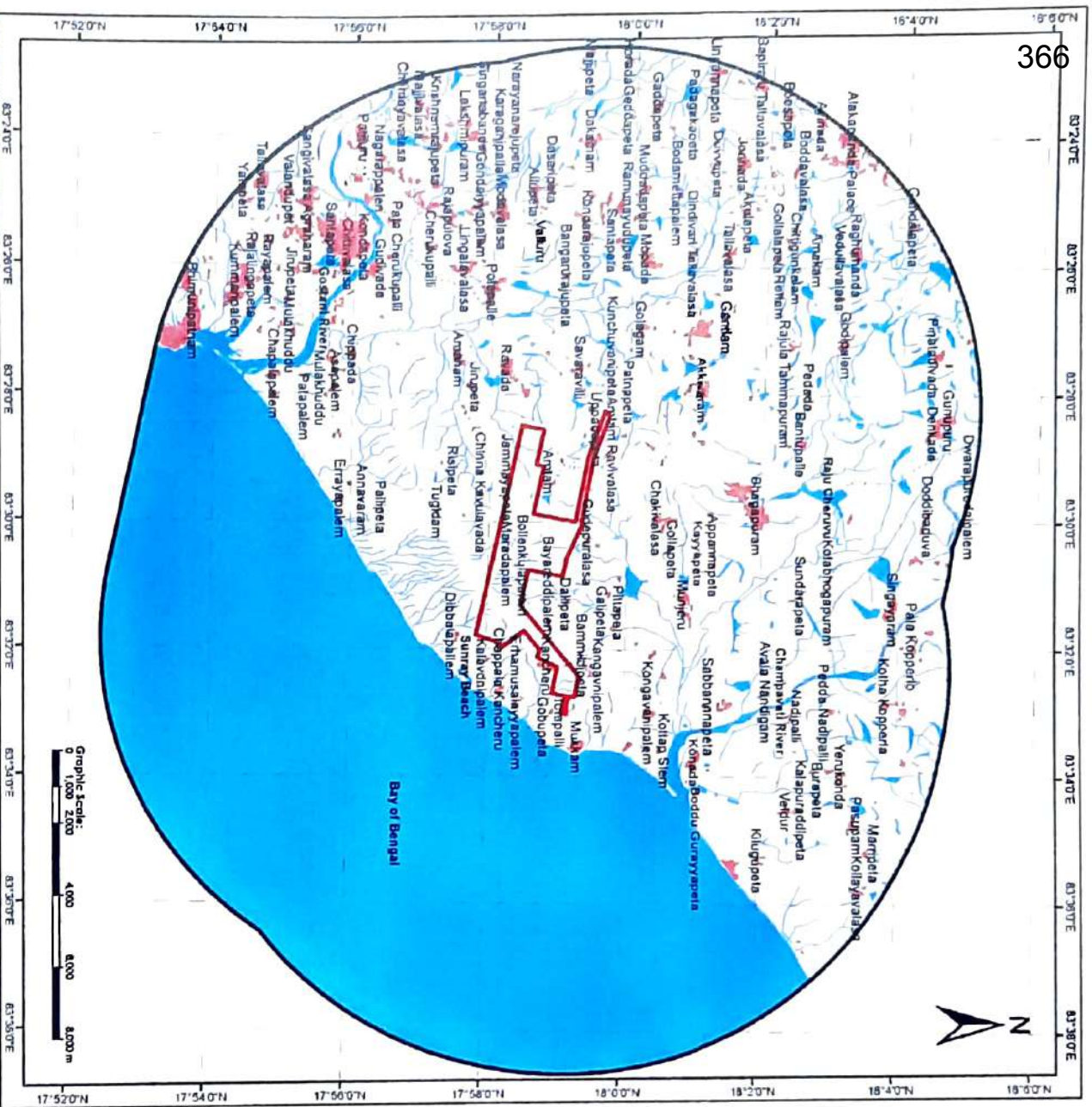
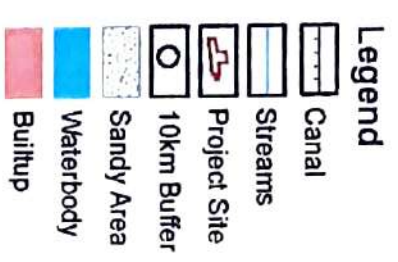
Particulars	Distance (km)	Direction
Bay of Bengal	0.85	SE
Kondraju Cheruvu	1.0	N
Champavati River	3.0	NE
Pedda Cheruvu	14.3	NNW
Raju Cheruvu	4.9	N
Gostani River	5.9	SW
Mokundara Cheruvu	5.9	SW
Katamant Cheruvu	12.6	WSW
Tatturu Cheruvu	10.9	WSW
Kumili RF	14.0	NNE
Pholbagh RF	10.9	NNW
Amanam RF	2.0	S
Redda Chukka Konda RF	14.6	WSW
RF near Asapalem	4.5	S

Legend

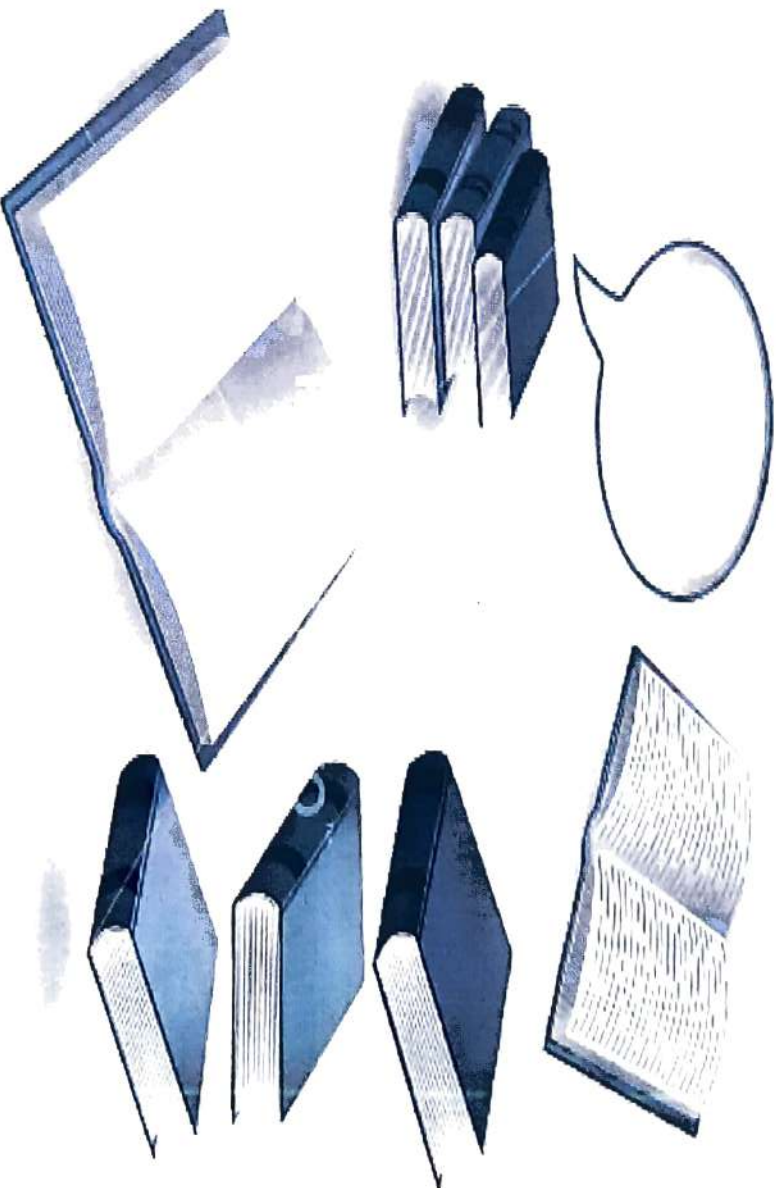
- Project Site
- 15km Buffer
- Settlements
- Streams
- Roads
- Forest
- Waterbody
- Vegetation
- Contours
- Locations

DRAINAGE PATTERN OF THE AREA

- Some first order streams are passing through the project site.
- Some water bodies are present in the study area namely; Kondraju Cheruvu, Champavati River, Pedda Cheruvu, Raju Cheruvu, Gostani River, Mokundara Cheruvu, Katamant Cheruvu and Tatituru Cheruvu.
- In the project site slope is 18 meter to 75 meter from West to East direction.



PROPOSED TERMS OF REFERENCE



FOCUS AREA FOR EIA STUDY

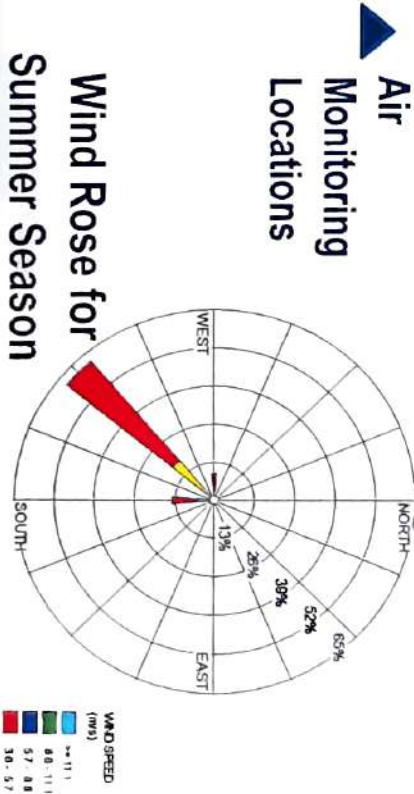
368	Study Modules	Scope and Coverage	Methodology (Type and Source)
	Topography	➤ Landform Pattern	➤ Slope and elevation
	Soils	➤ Soil physical and chemical characteristics / analysis	➤ Primary soil survey and analysis
	Hydrology	➤ Groundwater table ➤ Drainage systems	➤ Characterization of inland surface water
	Meteorology / Climatology	➤ Wind and Rainfall pattern ➤ Frequency distribution of wind direction ➤ Temperature ➤ Associated atmospheric pressure	➤ Primary data collection for summer season ➤ Secondary data from nearest IMD station
	Noise Level	➤ Ambient noise levels at the project sites and nearby community ➤ Vibration Study at Site and nearby community	➤ Primary traffic survey on nearby road intersections
	Traffic Intensity	➤ Traffic characterization and assessment of peak hours	➤ Identification of air pollution sources
	Air Quality	➤ Ambient air quality for the parameters: PM10, PM2.5, SO ₂ , NO ₂ , HC and CO	➤ Identification of air pollution sources ➤ Air quality measurements

FOCUS AREA FOR EIA STUDY

Study Modules		Scope and Coverage		Methodology (Type and Source)	
Water Quality	➤ Surface and Ground water characteristics ➤ Physico-chemical and Bacteriological characteristics	➤ Summary of Vegetative cover	➤ Terrestrial fauna species inventory survey	➤ Sampling and analysis of surface and ground water	➤ Primary ecological survey supported by secondary data collected from regional office
Fauna	➤ Population size ➤ Population density, household size ➤ Population by gender ➤ Literacy rate ➤ Occupation and employment status	➤ School facilities ➤ Telecommunications, water and power facilities	➤ Network and mode of transportation	➤ Fire: Location of fire station, internal measures ➤ Earth Quake: Zone, Construction of what measures	➤ Primary Survey and Analysis
Demography	➤ Population size ➤ Population density, household size ➤ Population by gender ➤ Literacy rate ➤ Occupation and employment status	➤ School facilities ➤ Telecommunications, water and power facilities	➤ Network and mode of transportation	➤ Fire: Location of fire station, internal measures ➤ Earth Quake: Zone, Construction of what measures	➤ Primary Survey and Analysis
Other Social Services	➤ School facilities ➤ Telecommunications, water and power facilities	➤ Network and mode of transportation	➤ Fire: Location of fire station, internal measures ➤ Earth Quake: Zone, Construction of what measures	➤ Primary Survey and Analysis	➤ Primary Survey and Analysis
Transportation	➤ Network and mode of transportation	➤ Fire: Location of fire station, internal measures ➤ Earth Quake: Zone, Construction of what measures	➤ Primary Survey and Analysis	➤ Primary Survey and Analysis	➤ Primary Survey and Analysis
Emergency Services	➤ Fire: Location of fire station, internal measures ➤ Earth Quake: Zone, Construction of what measures	➤ Primary Survey and Analysis	➤ Primary Survey and Analysis	➤ Primary Survey and Analysis	➤ Primary Survey and Analysis

AIR MONITORING LOCATIONS

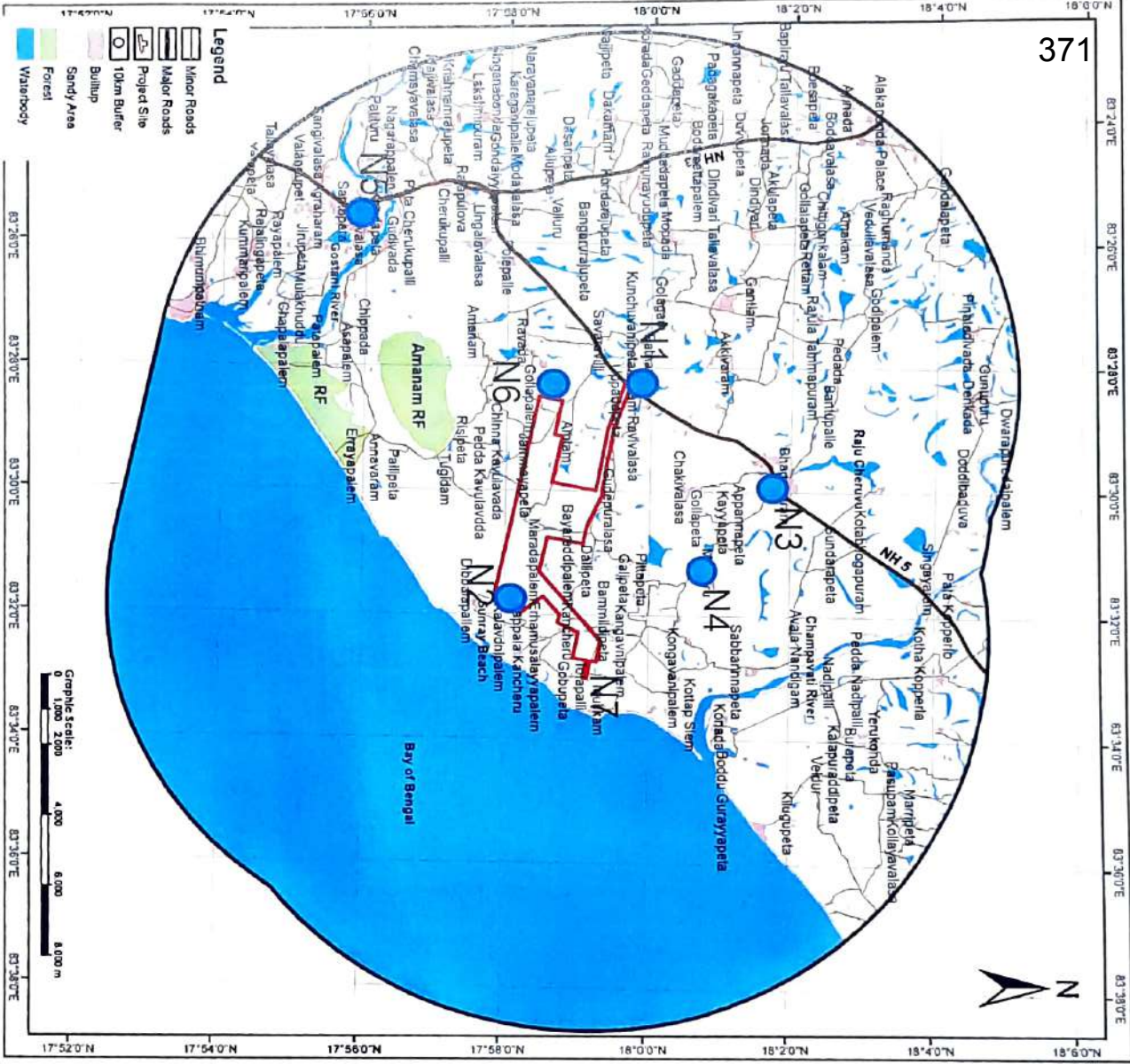
Point	Air Monitoring Location	Distance (Km)	Direction
AAQ1	On Project Site	-	-
AAQ2	Kavulavada	adjacent to project site	SSW
AAQ3	Amanam	2	SW
AAQ4	Near Site	0.5	SE
AAQ5	Near Miracle Engg. College	0.3	NNE
AAQ6	Munjuru	3.4	NNE
AAQ7	Near Akkivaram	3.5	NW
AAQ8	Near Kongavanipalem	2.2	NNE
AAQ9	Bhogapuram	4.8	NNW



NOISE MONITORING LOCATIONS

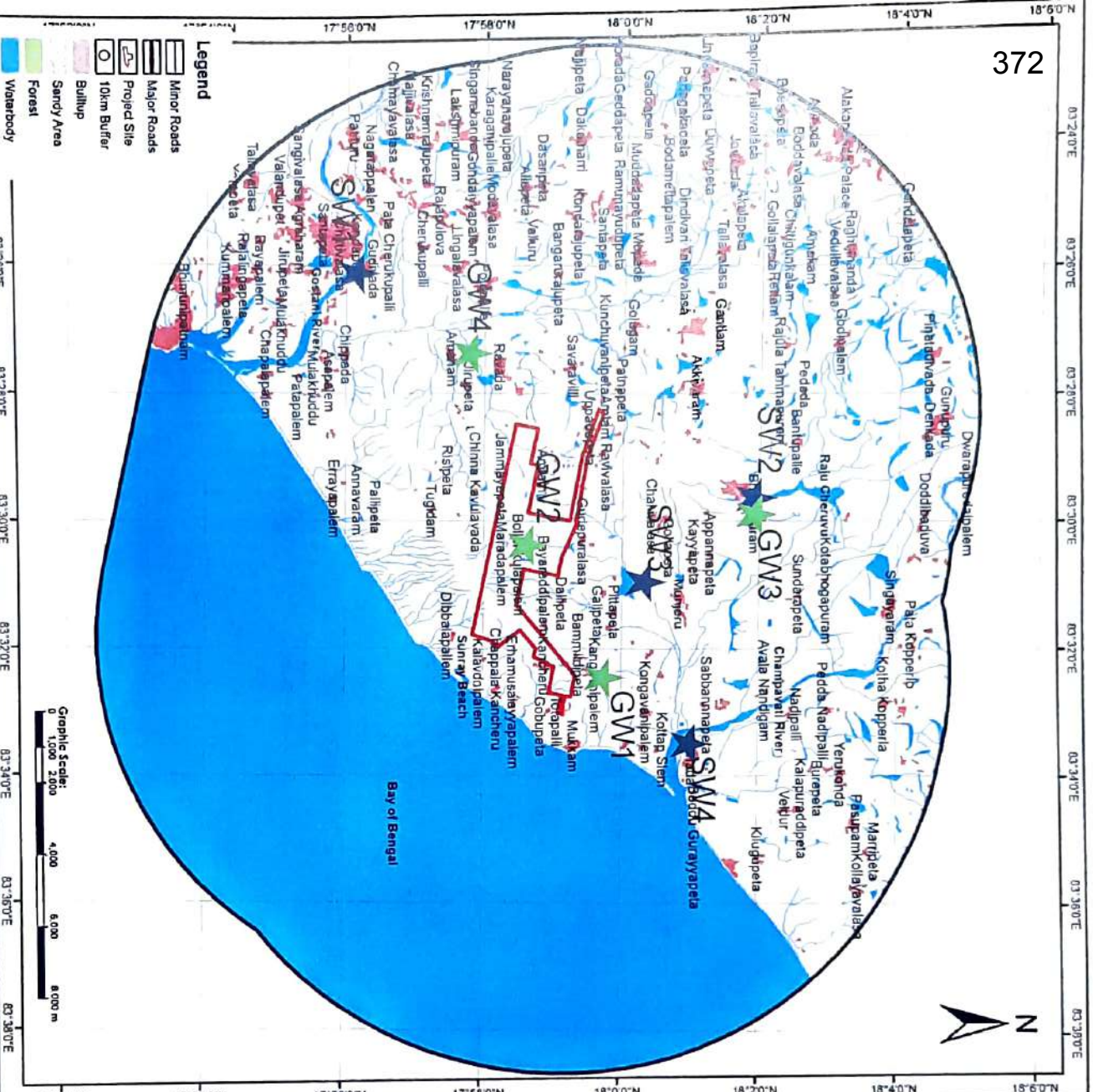
Point	Location	Distance (Km)	Direction
N1	Near NH-5	Adjacent to site	SW
N2	Kalavadnipalem	Adjacent to site	E
N3	Near Bhogapuram	4.6	NNW
N4	Near Munjeru	3.9	NNE
N5	Chittivalasa	6.6	SW
N6	Gollapalem	Adjacent to Site	W
N7	Mukkam	0.5	NE

 Noise Monitoring Location



WATER SAMPLING LOCATIONS

372

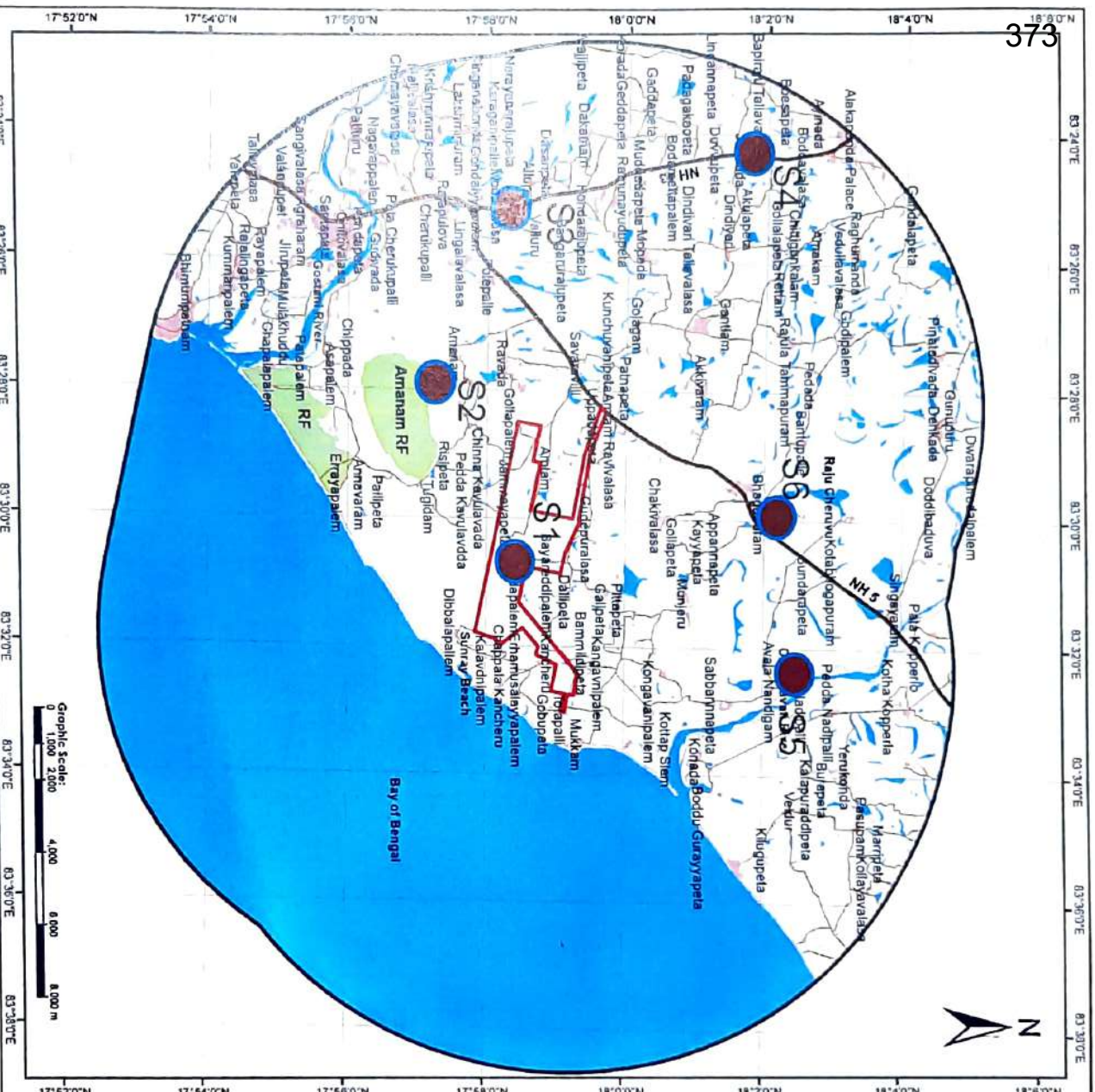


Surface water Sample			
Point	Location	Distance (km)	Direction
SW1	Near Chittivalasav (River)	6.4	SW
SW2	Near Bhogapuram (Pond)	4.6	NNW
SW3	Near Munjeru (Pond)	3.9	NNE
SW4	Near Konada (River)	3.7	NNE
Ground water Sample			
GW 1	Near Miracle Engg. College	0.3	NNE
GW 2	On project Site	-	-
GW 3	Near Bhogapuram	4.6	NNW
GW 4	Amanam	2	SW

- ★ Ground Water Monitoring Location
- ★ Surface Water Monitoring Location

SOIL SAMPLE LOCATIONS

Point	Location	Distance (Km)	Direction
S1	Within Site	on Site	-
S2	Near Amanam	2	SSW
S3	Modhavalasa	4.9	SW
S4	Near Jonnada	8	NW
S5	Near Nandigam	7	NNE
S6	Bhogapuram	4.8	NNW

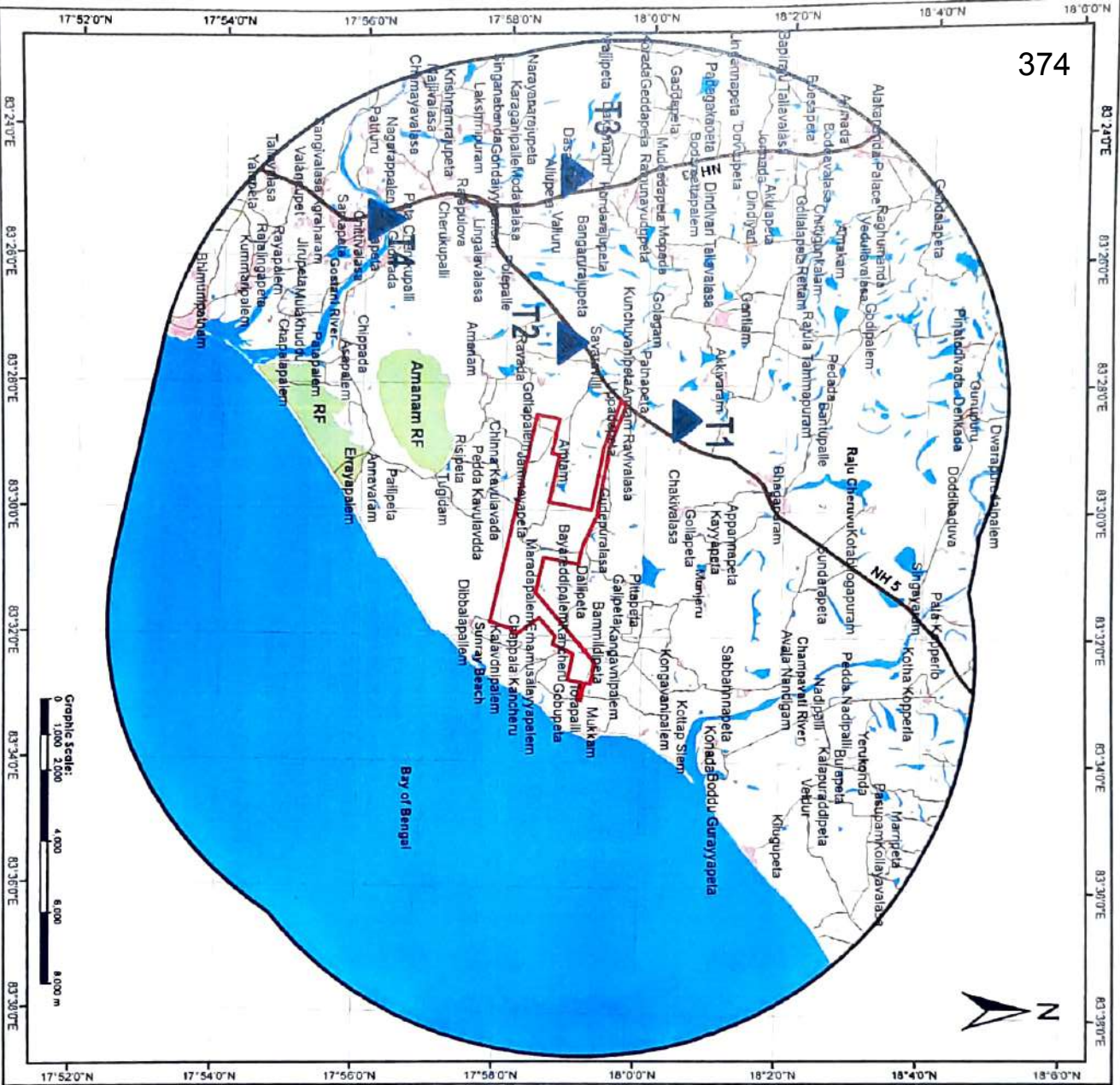


Soil Sample Location

- Legend**
- Minor Roads
 - Major Roads
 - Project Site
 - 10km Buffer
 - Builtup
 - Sandy Area
 - Forest
 - Waterbody

TRAFFIC MONITORING LOCATIONS

374



Point	Location Name	Distance (KM)	Direction
T1	Near Bhogapuram	4.5	NNW
T2	Near Savarevalli	0.8	WSW
T3	Near Allupeta	6.2	W
T4	Near Kondapeta	7.9	SW

Legend

- Minor Roads
- Major Roads
- Project Site
- 10km Buffer
- Builtup
- Sandy Area
- Forest
- Waterbody
- Traffic Monitoring Locations

7(a): STANDARD TERMS OF REFERENCE FOR CONDUCTING ENVIRONMENT IMPACT ASSESSMENT STUDY FOR AIRPORTS AND INFORMATION TO BE INCLUDED IN EIA/EMP REPORT

- 1) Reasons for selecting the site with details of alternate sites examined/rejected/selected on merit with comparative statement and reasons/basis for selection. The examination should justify site suitability in terms of environmental angle, resources sustainability associated with selected site as compared to rejected sites. The analysis should include parameters considered along with weightage criteria for short-listing selected site.
- 2) Details of the land use break-up for the proposed project. Details of land use around 10 km radius of the project site. Examine and submit detail of land use around 10 km radius of the project site and map of the project area and 10 km area from boundary of the proposed/existing project area, delineating project areas notified under the wild life (Protection) Act, 1972/critically polluted areas as identified by the CPCB from time to time/notified eco-sensitive areas/inter state boundaries and International boundaries. Analysis should be made based on latest satellite imagery for land use with raw images.
- 3) Submit the present land use and permission required for any conversion such as forest, agriculture etc. land acquisition status, rehabilitation of communities/ villages and present status of such activities. Check on flood plain of any river.
- 4) Examine and submit the water bodies including the seasonal ones within the corridor of impacts along with their status, volumetric capacity, quality likely impacts on them due to the project.
- 5) Submit a copy of the contour plan with slopes, drainage pattern of the site and surrounding area, any obstruction of the same by the airport.
- 6) Submit details of environmentally sensitive places, land acquisition status, rehabilitation of communities/ villages and present status of such activities.
- 7) Examine the impact of proposed project on the nearest settlements.
- 8) Examine baseline environmental quality along with projected incremental load due to the proposed project/activities
- 9) Examine and submit details of levels, quantity required for filling, source of filling material and transportation details etc. Submit details of a comprehensive Risk Assessment and Disaster Management Plan including emergency evacuation during natural and man-made disaster integrating with existing airport
- 10) Examine road/rail connectivity to the project site and impact on the existing traffic network due to the proposed project/activities. A detailed traffic and transportation study should be made for existing and projected passenger and cargo traffic.
- 11) Submit details regarding R&R involved in the project
- 12) Examine the details of water requirement, use of treated waste water and prepare a water balance chart. Source of water vis-à-vis waste water to be generated along with treatment facilities to be proposed.
- 13) Rain water harvesting proposals should be made with due safeguards for ground water quality. Maximize recycling of water and utilization of rain water.
- 14) Examine details of Solid waste generation treatment and its disposal.
- 15) Submit the present land use and permission required for any conversion such as forest, agriculture etc.
- 16) Examine separately the details for construction and operation phases both for Environmental Management Plan and Environmental Monitoring Plan with cost and parameters.
- 17) Submit details of a comprehensive Disaster Management Plan including emergency evacuation during natural and man-made disaster.
- 18) Examine baseline environmental quality along with projected incremental load due to the proposed project/activities.
- 19) The air quality monitoring should be carried out as per the notification issued on 16th November, 2009.
- 20) Examine separately the details for construction and operation phases both for Environmental Management Plan and Environmental Monitoring Plan with cost and parameters.
- 21) Submit details of corporate social responsibilities (CSR)
- 22) Submit details of the trees to be cut including their species and whether it also involves any protected or endangered species. Measures taken to reduce the number of the trees to be removed should be explained in detail. Submit the details of compensatory plantation. Explore the possibilities of re-planting the existing trees.
- 23) Examine the details of afforestation measures indicating land and financial outlay. Landscape plan, green belts and open spaces may be described. A thick green belt should be planned all around the nearest settlement to mitigate noise and vibrations. The identification of species/ plants should be made based on the botanical studies.
- 24) Public hearing to be conducted for the project in accordance with provisions of Environmental Impact Assessment Notification, 2006 and the issues raised by the public should be addressed in the Environmental Management Plan. The Public Hearing should be conducted based on the TOR letter issued by the Ministry and not on the basis of Minutes of the Meeting available on the web-site.
- 25) A detailed draft EIA/EMP report should be prepared in accordance with the above additional TOR and should be submitted to the Ministry in accordance with the Notification.
- 26) Details of litigation pending against the project. If any, with direction /order passed by any Court of Law against the Project should be given.
- 27) The cost of the Project (capital cost and recurring cost) as well as the cost towards implementation of EMP should be clearly spell out.
- 28) Any further clarification on carrying out the above studies including anticipated impacts due to the project and mitigation measure, project proponent can refer to the model TOR available on Ministry website "http://moef.nic.in/Manual/Airport".

Thank You

GREENCINDIA CONSULTING PRIVATE LIMITED, NCR, GHAZIABAD
NABET/EIA/RA014/041

QCI-NABET Accredited Consultant -**Mine & Minerals**, River Valley, Hydel, Drainage & Irrigation Projects, Thermal Power Plants, Metallurgical Industries, Coal Washery, Chemical Fertilizers, Airports, Highways, Railways, Transport Terminals, MRTS, Building & Large Construction Projects, Townships & Area Development Projects
Email: information@greencindia.com
Phone: 0120-4111527

ANNEXURE - 9

F.No.10-21/2016-IA.III
 Government of India
 Ministry of Environment, Forest & Climate Change
 (IA.III Section)

Indira Paryavaran Bhawan,
 Aliganj, JorBagh Road,
 New Delhi - 3

Dated: 4th May, 2016

To

The Managing Director
 M/s Bhogapuram International Airport Corporation Ltd.
 10-2-1, IIIrd Floor, FDC Complex,
 AC Guards, Hyderabad

E-mail: oravakallu.airport@gmail.com ; fax.: 02646 222849;

Sub: Development of Greenfield International Airport at Tehsil Bhogapuram, District- Vizianagaram, Andhra Pradesh by M/s Bhogapuram International Airport Corporation Ltd –Terms of Reference (ToR) - reg.

Ref.: Your online proposal no. IA/AP/MIS/50659/2016 dated 27.02.2016.

Sir,

Kindly refer your online proposal no. IA/AP/MIS/50659/2016 dated 27.02.2016 alongwith project documents including Form-I, Pre-feasibility Report and draft 'Terms of Reference' as per the EIA Notification, 2006. It is noted that proposal is for development of Green Field International Airport at Bhogapuram, District- Vizianagaram, Andhra Pradesh by M/s Bhogapuram International Airport Corporation Ltd. In the Phase-I, the airstrip will be developed to cater for operation of Airbus A-380, type of aircraft. Development of Bhogapuram airport shall be taken broadly in 2 Phases. Airport will be developed for IFR operation of Airbus A-380 in phase-1. Proposed runway length is 3,800 m. All the facilities for safe operation of the aircraft like construction of new runway, terminal building (81000 m²), apron 198000 m², air traffic controller tower, runway end safety area (RESA), apron, link taxi track shoulders, isolation bay shoulders, fully equipped firefighting equipments etc. are the part of the project. Cost of project is Rs. 2,461.27 Crore for phase-1. About 2004.54 acres of land out of 3645.79 acre of land is required for the proposed airport for phase-1.

2. Draft Terms of Reference (TOR) have been discussed and finalized by the 4th Expert Appraisal Committee (Infrastructure -2) held during 28th – 29th March, 2016 for preparation of EIA/EMP report. The Committee prescribed the following TOR in addition to Standard TOR provided at Annexure-1 for preparation of EIA-EMP report :

- i. Importance and benefits of the project.
- ii. A toposheet of the study area of radius of 10km and site location on 1:50,000/1:25,000 scale on an A3/A2 sheet. (including all eco-sensitive areas and environmentally sensitive places)
- iii. Status of R&R of the project to be submitted.

A-1

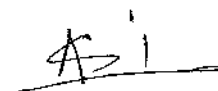
- iv. Submit a copy of layout superimposed on the HTL/LTL map demarcated by an authorized agency on 1:4000 scale.
- v. SCZMA recommendations if applicable.
- vi. Layout maps of proposed project indicating runway, airport building, parking, greenbelt area, utilities etc.
- vii. Cost of project and time of completion.
- viii. A note on appropriate process and materials to be used to encourage reduction in carbon foot print. Optimize use of energy systems in buildings that should maintain a specified indoor environment conducive to the functional requirements of the building by following mandatory compliance measures (for all applicable buildings) as recommended in the Energy conservation building code (ECBC) 2007 of the Bureau of Energy Efficiency, Government of India. The energy system include air conditioning systems, indoor lighting systems, water heaters, air heaters and air circulation devices.
- ix. Details of Emission, effluents, solid waste and hazardous waste generation and their management.
- x. Noise monitoring shall be carried out in the funnel area of flight path.
- xi. Requirement of water, power, with source of supply, status of approval, water balance diagram, man-power requirement (regular and contract)
- xii. The E.I.A. should specifically address to vehicular traffic management as well as estimation of vehicular parking area.
- xiii. Fuel tank farm and its risk assessment.
- xiv. Public hearing to be conducted and issues raised and commitments made by the project proponent on the same should be included in EIA/EMP Report in the form of tabular chart with financial budget for complying with the commitments made.
- xv. Any litigation pending against the project and/or any direction/order passed by any Court of Law against the project, if so, details thereof shall also be included. Has the unit received any notice under the Section 5 of Environment (Protection) Act, 1986 or relevant Sections of Air and Water Acts? If so, details thereof and compliance/ATR to the notice(s) and present status of the case.
- xvi. A tabular chart with index for point wise compliance of above TORs.

3. These 'TORs' should be considered for the preparation of EIA / EMP report for development of Greenfield International Airport at Bhogapuram, District- Vizianagaram, Andhra Pradesh by M/s Bhogapuram International Airport Corporation Ltd. in addition to all the relevant information as per the 'General Structure of EIA' given in Appendix III and IIIA in the EIA Notification, 2006. The EIA/EMP as per TORs should be submitted to the Chairman, Andhra Pradesh State Pollution Control Board, (APSPCB) for public consultation. The SPCB shall conduct the public hearing/public consultation as per the provisions of EIA notification, 2006.

4. You are requested to kindly submit the final EIA/EMP prepared as per TORs and incorporating all the issues raised during Public Hearing / Public Consultation to the Ministry for considering the proposal for environmental clearance *within 3 years as per the MoEF O.M. No. J-11013/41/2006-IA.II (I) dated 8th October, 2014.*



5. The consultants involved in the preparation of EIA/EMP report after accreditation with Quality Council of India / National Accreditation Board of Education and Training (QCI/NABET) would need to include a certificate in this regard in the EIA/EMP reports prepared by them and data provided by other Organization(s)/Laboratories including their status of approvals etc.

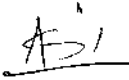

(A.N. Singh)
Scientist 'D'

Copy to:

- 1) The Chairman, AP Pollution Control Board, Paryavaran Bhawan, A-III, Industrial Estate, Sanath Nagar, Hyderabad - A.P.
- 2) Additional Principal Chief Conservator of Forests (C), Ministry of Environment, Forest and Climate Change, Regional Office (SEZ), Ist and IInd Floor, Handloom Export Promotion Council, 34, Cathedral Garden Road, Nungambakkam, Chennai – 34

Annexure - I**7(a): TERMS OF REFERENCE FOR CONDUCTING ENVIRONMENT IMPACT ASSESSMENT STUDY FOR AIRPORTS INFORMATION TO BE INCLUDED IN EIA/EMP REPORT**

- 1) Reasons for selecting the site with details of alternate sites examined/rejected/selected on merit with comparative statement and reason/basis for selection. The examination should justify site suitability in terms of environmental angle, resources sustainability associated with selected site as compared to rejected sites. The analysis should include parameters considered along with weightage criteria for short-listing selected site.
- 2) Details of the land use break-up for the proposed project. Details of land use around 10 km radius of the project site. Examine and submit detail of land use around 10 km radius of the project site and map of the project area and 10 km area from boundary of the proposed/existing project area, delineating project areas notified under the wild life (Protection) Act, 1972/critically polluted areas as identified by the CPCB from time to time/notified eco-sensitive areas/inter state boundaries and international boundaries.. Analysis should be made based on latest satellite imagery for land use with raw images.
- 3) Submit the present land use and permission required for any conversion such as forest, agriculture etc. land acquisition status, rehabilitation of communities/ villages and present status of such activities.
- 4) Examine and submit the water bodies including the seasonal ones within the corridor of impacts along with their status, volumetric capacity, quality likely impacts on them due to the project.
- 5) Submit a copy of the contour plan with slopes, drainage pattern of the site and surrounding area
- 6) Submit details of environmentally sensitive places, land acquisition status, rehabilitation of communities/ villages and present status of such activities.
- 7) Examine the impact of proposed project on the nearest settlements.
- 8) Examine baseline environmental quality along with projected incremental load due to the proposed project/activities
- 9) Examine and submit details of levels, quantity required for filling, source of filling material and transportation details etc. Submit details of a comprehensive Risk Assessment and Disaster Management Plan including emergency evacuation during natural and man-made disaster integrating with existing airport
- 10) Examine road/rail connectivity to the project site and impact on the existing traffic network due to the proposed project/activities. A detailed traffic and transportation study should be made for existing and projected passenger and cargo traffic.
- 11) Submit details regarding R&R involved in the project
- 12) Examine the details of water requirement, use of treated waste water and prepare a water balance chart. Source of water vis-à-vis waste water to be generated along with treatment facilities to be proposed.
- 13) Rain water harvesting proposals should be made with due safeguards for ground water quality. Maximize recycling of water and utilization of rain water.
- 14) Examine details of Solid waste generation treatment and its disposal.



Page 4 of 5

- 15) Submit the present land use and permission required for any conversion such as forest, agriculture etc.
- 16) Examine separately the details for construction and operation phases both for Environmental Management Plan and Environmental Monitoring Plan with cost and parameters.
- 17) Submit details of a comprehensive Disaster Management Plan including emergency evacuation during natural and man-made disaster.
- 18) Examine baseline environmental quality along with projected incremental load due to the proposed project/activities.
- 19) The air quality monitoring should be carried out as per the notification issued on 16th November, 2009.
- 20) Examine separately the details for construction and operation phases both for Environmental Management Plan and Environmental Monitoring Plan with cost and parameters.
- 21) Submit details of corporate social responsibilities (CSR)
- 22) Submit details of the trees to be cut including their species and whether it also involves any protected or endangered species. Measures taken to reduce the number of the trees to be removed should be explained in detail. Submit the details of compensatory plantation. Explore the possibilities of relocating the existing trees.
- 23) Examine the details of afforestation measures indicating land and financial outlay. Landscape plan, green belts and open spaces may be described. A thick green belt should be planned all around the nearest settlement to mitigate noise and vibrations. The identification of species/plants should be made based on the botanical studies.
- 24) Public hearing to be conducted for the project in accordance with provisions of Environmental Impact Assessment Notification, 2006 and the issues raised by the public should be addressed in the Environmental Management Plan. The Public Hearing should be conducted based on the ToR letter issued by the Ministry and not on the basis of Minutes of the Meeting available on the web-site.
- 25) A detailed draft EIA/EMP report should be prepared in accordance with the above additional TOR and should be submitted to the Ministry in accordance with the Notification.
- 26) Any further clarification on carrying out the above studies including anticipated impacts due to the project and mitigative measure, project proponent can refer to the model ToR available on Ministry website "<http://moef.nic.in/Manual/Airport>".

ANNEXURE 10

BHOGAPURAM INTERNATIONAL AIRPORT CORPORATION LIMITED
(A Government of Andhra Pradesh Undertaking)

Virender Singh
Chief Executive Officer

To,
The Member Secretary
Infrastructure and Miscellaneous Project & CRZ
Ministry of Environment, Forest and Climate Change, Government of India
Indira Paryavaran Bhawan, Jorbagh
New Delhi – 110003

Date: 14th April 2017

Sub: Environmental Clearance for Development of Greenfield International Airport at Tehsil:
Bhogapuram, District – Vizianagaram, Andhra Pradesh

Dear Sir,
As per our meeting held on 13th April 2017, and Agenda No. 15.4.1, please find enclosed the updated Annex II and its subsequent attachments. The Greenfield International Airport would be developed as per the ECBC norms, and the other comments are attached in Annex II.

We would request you to kindly consider the project for environmental clearance.

Thanking You,

Yours Sincerely,

Chief Executive Officer

ANNEXURE II: CHECKLIST FOR EC-BHOGAPURAM AIRPORT

1	Proposal	:	Development of Greenfield Airport Bhogapuram Mandal, District-Vizianagaram, Andhra Pradesh by M/s Bhogapuram International Airport Corporation Limited
2	Location	:	Amatam Ravivalasa, Savaravilli, Gudepuvalasa, Kancheru, Kavulavada, and Ravada Villages in Bhogapuram Mandal, Vizianagaram District, Andhra Pradesh
3	Project brief (nature of proposal (new/expansion) total area-land-use, project components, connectivity to the site etc.	:	▪ Nature of proposal: The proposal is for development of a Greenfield international airport. The total area involved is 2004.52 acres (811 ha). ▪ Land-use: The project site is mostly covered by plantations (63%) followed by open scrub (30%). Agricultural land covers 6% of the project site. ▪ Project Components: The current proposal is for Phase-I of the Airport where the airstrip will be developed to cater for operation of Airbus-A380 type of aircraft. It will also involve construction of new runway with all allied facilities like terminal building, apron, apron shoulder, taxi track, runway shoulder, boundary wall, perimeter roads and parking facilities. ▪ Connectivity to the site: The project is accessible through NH-5 which is 1.5 km from the project site in the western direction.
4	Cost of the project	:	The estimated cost of the project is Rs. 2260.73 Crores for Phase 1.
5	Whether the project is in critically polluted area	:	No, the project is not located in any critically polluted area.
6	If the project is for EC under EIA Notification, 2006	:	Applicable
a	For the first time appraisal by EAC	:	Yes, the project will be considered by EAC for appraisal for the first time.
i	Date of ToR	:	The ToR for the project was granted on 4 th May, 2016.
ii	Date of Public Hearing, location	:	Public Hearing for the project was held on 11 th January, 2017 at the project site in, Bhogapuram Mandal, Vizianagaram District.
iii	Major issues raised during PH and response of PP	:	Attached as Attachment 1
b	Second appraisal	:	Not applicable
i	Date of first /earlier appraisal	:	-
ii	Details of the information sought by the EAC with the response of the PP	:	-
7	If the project is in CRZ area	:	The project is not located in CRZ area.
i	Components in CRZ area	:	-
ii	recommendation of Coastal Zone Management Authority,	:	-
iii	layout on CRZ map of 1: 4000 scale prepared by an authorised agency	:	-
8	If the project involves diversion of forest land	:	The project site does not involve any forest land.
i	Extent of the forest land	:	-
ii	Status of forest clearance	:	-
9	If the project falls within 10 km of eco-sensitive area	:	No
i	Name of eco-sensitive area and distance from the project site	:	N.A.
ii	Status of clearance from National Board for wild life	:	Not required as there are no National Parks or Wildlife Sanctuaries located within 10km radius of the proposed project.

ANNEXURE II: CHECKLIST FOR EC-BHOGAPURAM AIRPORT

10	Waste Management	:	
i	Water requirement, source, status of clearance	:	The project will utilize water supply from Vizianagaram Municipality. The daily consumption of water during operation phase will be about 647.9 KLD of which 153.9 KLD will be fresh water and 494 KLD will be recycled water. The construction water requirement is 70 KLD for domestic use which could be met through private water tankers. For civil works 1663 KLD of water will be used which will be met through private water tankers.
ii	Waste water quantity, treatment capacity, detail	:	Total wastewater generation will be 343.4 KLD
iii	Recycling / reuse of treated water and disposal	:	The entire wastewater of 343.4 KLD will be treated in a well-designed Sewage Treatment Plant of 415 KLD capacity and the treated water will be used for flushing of toilets and horticultural purposes, floor washing and water spraying on roads.
iv	Solid Waste Management	:	▪ Construction Stage: 300 kg / day (@ 0.2 kg / person /day for 1000 labours + 400 dependents + 100 employees) of solid waste will be collected and disposed as per established laws and procedures. ▪ Operation phase: Commercial waste of 4.2 MT will be generated from airport which will be collected using twin bin waste collection system; green bins for bio-degradable wastes and blue bins for non-biodegradable wastes. The total solid waste generation will be 19.4 MT per day, but the horticulture and street sweeping waste will be converted to manure for the landscaping area, and only the inert waste will be transported to the nearby municipality landfill site after segregation. ▪ Twin bins segregation method will be used at household level to segregate waste. For which green and blue bin will be provided, green bins for biodegradable wastes and blue bins for non-biodegradable wastes. ▪ Collection would be done by Airport staff. ▪ The waste collected in the bins on primary site will be transported to nearby waste dumping site. ▪ Organic Waste Converters will be provided for biodegradable waste. Inert and recyclable waste will be sent to nearest MSW facility. The grass clippings from the mowing of the lawns shall be collected separately and converted into manure.
v	Hazardous Waste Management	:	Hazardous wastes will be disposed off as per applicable rules.
11	Other Details	:	
i	Noise modeling with noise control measures for airports	:	Attached as Attachment 2
ii	Details of water bodies, impact on drainage if any	:	Some first order streams are passing through the project site, which will be diverted along the site boundary.
iii	Details of tree cutting	:	Trees have been identified for felling belonging to species of coconut, palm, eucalyptus, casuarinas, mango, cashew, acacia, leak, sapodilla, guava, challa gummid, neem, banyan tree.
iv	Energy conservation measures with estimated saving	:	▪ Airport Terminal building will be designed and constructed as Green Building. ▪ Use of Energy Efficient building material & glass. ▪ Use of LED lamps instead of GLS lamps. ▪ Use of Solar Backed up Light Emitting Diode Lamps instead of

ANNEXURE II: CHECKLIST FOR EC-BHOGAPURAM AIRPORT

		▪ par lamps, ▪ Energy efficient HVAC system, ▪ Solar passive techniques for terminal building, ▪ Use of 5 star BEE energy efficiency rating electrical equipments, ▪ Microprocessor-based Building Management System (BMS) will be installed for minimization of energy consumption, ▪ Automatic lighting on/ off control system will be provided in the airport area for optimum utilization of energy.
v	Green belt development (20% of construction projects and 33 % for others)	The project involves development of landscaping in 35% of the total project area in Phase I.
vi	Parking requirement with provision made	The parking area at the proposed airport will be 77,000 m² (for 1500 visitor parking, 100 cargo truck parking, and staff parking)
12	If the project involves foreshore facilities	The project does not involve foreshore facilities.
i	Shoreline study	-
ii	Dredging details, disposal of dredge material	-
iii	Reclamation	-
iv	Cargo handling with dust control measures	-
v	Oil Spill Contingent Management Plan	-
vi	If the project involves Marine disposal	-
a	NOC from PCB in case of marine disposal	-
b	Details of modeling study—details of outfall diffusers, number of dilution expected, distance at which the outlet will reach ambient parameters	-
c	Location of intake / outfall. Quantity	-
d	Detail of monitoring at outfall	-
e	Any other relevant information	-
f	Investment/Cost of the project is Rs.....(in crore).	INR 2260.73 Cr.
g	Employment potential	During Construction Phase 1100 man-power, 500 daily labourers, 500 residential labourers and 100 officials; During Operation Phase 1000 airport staff (500 regular and 500 on contract).
h	Benefits of the project	▪ The Bhogapuram airport will decrease the air traffic load at the existing Vishakhapatnam airport as its capacity will be exhausted in next few years. ▪ Improvement in all weather air connectivity of the region with rest of the state and country from strategic and commercial point of view. ▪ Employment opportunity to people. ▪ Development of tourism in the state of Andhra Pradesh.

Attachment 1: Major issues raised during public hearing

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Sl. No.	Name and address	Issues raised by the villagers during public hearing	Reply by Proponents/Concerned Persons and Suggestions	Action plan
1.	Sri D.L. Reddy, Ex. Sarpanch, Gudepuvalasa Village	a. He welcomed the proposed project and stated that Rellipeta village is completely under land acquisition and at present only 60% people of assigned lands have received the compensation and the remaining people were not paid the same for the reason that they have purchased the assigned lands. He requested the government to pay compensation for the alienated assigned lands also and further requested to implement the best possible R&R package.	a. It was told by the district authorities that the land compensations have been prepared based on the existing guidelines of R&R policy and that affected villages were consulted before finalization. District Collector has informed that INR 28-33 lakhs per acre will be paid as compensation, which is much higher than rates prescribed by the LARR Act 2013.	
2.	Sri Neelapu Rami Reddy (Ramu), Maradapalem Village	a. He welcomed the proposed project and stated that, the government has limited the extent of the proposed Airport to about 2,500 acres of land against the initially planned area of 15,000 acres. Maradapalem, Bollinkalapalem and Rellipeta villages are completely under land acquisition alignment and the government has to give top priority to these villagers in settling R & R package. b. He requested the government to give 5 cents VUDA approved sites at the earliest duly relaxing the age limit from 18 to 16 years for R & R package. The villagers have voluntarily surrendered their lands to the proposed project in anticipation of bright future for their wards.	a. People of these villages would be given priority not only in settlements but also in employment as per their eligibility and requirement of the developer. b. It was told by the district authorities that the R&R packages have been decided based on the existing guidelines of R&R policy and that affected villages were consulted before	

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			finalization	
3.	Sri D. Narasimha Reddy, Ex. Sarpanch, Tudem Village	a. He welcomed the project and stated that, there will be sound / noise pollution due to this proposed project and the authorities should take necessary steps to prevent the same. b. The airport authorities should provide the employment to the local youth and laborers while executing the project as there is large scale illiteracy in the area. c. This area lost large scale greenery due to Hud – Hud cyclone and the same has to be developed by the airport authorities by consulting Horticulture experts.	a. The Noise pollution from the proposed project is projected in chapter 4. Beyond the boundary the LDN value will be 55 dB(A) and below b. Direct Employment opportunity during both construction (1000 labours) and operation phase (1000 employees) would be sourced from the nearby localities as much as possible. During the operation phase, it is expected that 3 times the direct employment will be generated in allied activities of the airport. The details of Employment will be worked out and will be clarified and preference will be given to the Land losers as per their Eligibility. c. The airport will have a green belt of 141.64 Ha., which will include native species of plants and shrubs. Plantation in neighboring villages would be taken up as part of the CSR Programme. An amount of INR. 68 lakhs will be allocated for the same.	c. For green area development and landscaping, BIACL has allocated about Rs 150,00,000 as capital expenditure and Rs 2,00,000 as annual recurring expenditure. In addition to that about Rs 68 lakhs per annum has been allocated for environmental improvement including social forestry in nearby villages.

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4.	Sri Korada Ramu, Maradapalem Village	a. He welcomed the project and stated that the airport authorities shall provide the employment to the people of 4 villages under land acquisition on first priority basis besides ensuring the same to the 75 migrated families who do not have Aadhar and Voter Identity cards in Maradapaem village.	a. Direct Employment opportunity during both construction (1000 labours) and operation phase (1000 employees) would be sourced from the nearby localities as much as possible. During the operation phase, it is expected that 3 times the direct employment will be generated in allied activities of the airport. The details of Employment will be worked out and will be clarified and preference will be given to the land losers as per their eligibility.	
5.	Sri Narasimha Raju, Kavulavada Village	a. While stating that he did not have any objections about the proposed project, the paddy & maize crops only mentioned in the Environment Impact Assessment (EIA) report, but there is significant Mango & Coconut plantation in the study area. b. The proposed employment for 1300 people in the report is catering only 1% of the population in the area. We are apprehending more losses than the benefits from this project. c. The alignment of the project is also modified 5 to 6 times with many curvatures unlike in the other similar airports.	a. The EIA report mentions the presence of mango and coconut plantation in the study area. (Chapter 1, Section 1.3.3) Appropriate compensation would be paid to the plantation owners by the District authorities. b. Skill -training would be provided to the PAFs and other local youth. It was assured that local people, especially PAFs will get preference in employment as per eligibility.	It has been planned to allocate INR 4.59 crores for providing skill training to the local youth and women through local

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		d. There is declining of agro products in India and the same is to be promoted.	c. Area break-up of the airport: For single runway of 4000m length (plus additional 2000m length for approach lights etc.) and double parallel taxiway system including their basic strips = 6000m x 600m = 900 acres ; for commercial apron / long term parking apron / general aviation apron / other air side facilities / solar farm = 6000m x 300m = 450 acres ; For terminal building (18 MPPA) / car park / circulation area / green belts / other city side facilities = 2000m x 900 = 450 acres ; for cargo / MOR facility / aviation academy / parking / circulation = 1500m x 600 = 225 acres d. Plantation in neighboring villages would be taken up as part of the CSR Programme. An amount of INR. 68 lakhs will be allocated for the same.	ITIs.
6.	Sri B. Babji, Loksatta Party	a. He raised the issue of 5 to 6 times modification of alignment of the airport land and sought clarification as to how it was happened. The government should have circulated detailed note on this project to all people before	a. Prior to the public hearing BIACL had circulated the EIA report and executive summary of the project to all the panchayats, District collectorate and all district level	BIACL has allotted a CSR budget of INR 45.2 crores for the project, over a period of three years which

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		conducting the Public Hearing. b. The airport company should provide employment to all the people who have surrendered their lands for the proposed project. c. The Airport Corporation should take up welfare activities such as Health, Education etc., under the CSR activities. d. He then requested the government to take the age of the persons for R & R package at the time of vacating the village instead of age at the time of notification. e. He, then, requested the Govt. to name the airport after "Late Kommuru Appanna Dora" who was an Ex-MP and local leader.	offices relevant to the project. b. Direct employment opportunity during both construction (1000 labours) and operation phase (1000 employees) would be sourced from the nearby localities as much as possible. During the operation phase, it is expected that 3 times the direct employment will be generated in allied activities of the airport. The details of Employment will be worked out and will be clarified and preference will be given to the Land losers as per their Eligibility. c. The CSR budget is estimated to INR 45.2 crores for the project, and will be utilized for health, education and other welfare activities of the surrounding localities. d. The corporation will examine the issue of adopting the villages under land acquisition under CSR activity e. This is under consideration	will cover all activities such as health camps, education development, training for youth, construction of toilets, etc. Other development and welfare activities would be also carried out in consultation with the Panchayats

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7.	Sri Sunanda Reddy, NGO	a. Greenbelt should develop in the project area in a phased manner along with avenue plantation with fruit bearing and medicinal plants. b. Water harvesting structures to be provided to recharge the ground water as this area is having adequate rainfall of about 40 Crore Ltrs. c. The EIA studies should have included base line epidemiological studies also to know the health status of the villagers. d. This project will generate direct employment to 1000 people and indirect employment to 5000 people and hence skill development centers to be provided at the villages to make them suitable for jobs and provide employment to the local people only. e. Industry shall take up welfare activities such as Health, Education etc., through CSR budget by forming a co-ordination committee consisting of ZPTC, MPTC & PCB officials. f. The airport company should think of alternative plan to operate the flights without disturbing the natural hillock with a height of 250 m from sea level.	a. The airport will have a green belt of 141.64 Ha., which will include native species of plants and shrubs b. Rainwater harvesting structures will be put in place for proper groundwater recharge around the airport. 351 Nos of recharge pits will be put in place to recharge the ground water. c. The demographic section of the EIA includes the health and educational infrastructure of the surrounding villages, and a brief description on the prevalent diseases in the area (Chapter 5). The CSR budget is estimated to INR 45.2 crores for the project, and will be utilized for health, education and other welfare activities including skill development of the surrounding localities. d. Skill -training would be provided to the PAFs and other local youth. It has been planned to allocate INR 4.59 crores for providing skill training to the local	For green area development and landscaping, BIACL has allocated about Rs 150,00,000 as capital expenditure and Rs 2,00,000 as annual recurring expenditure. In addition to that about Rs 68 lakhs per annum has been allocated for environmental improvement including social forestry in nearby villages. BIACL has allotted a CSR budget of INR 45.2 crores for the project, over a period of three years which will cover all CSR activities. Skill training would be provided to the local people and an

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			youth and women through local ITIs. It was assured that local people, especially PAFs will get preference in employment as per eligibility. e. The corporation will examine the issue of adopting the villages under land acquisition under CSR activity. f. This has been taken into consideration in the design and location of the airport	amount will be earmarked in the CSR cost For health related activities such as health camps and awareness programmes Rs 102 lakhs have been earmarked in the CSR budget.
8.	Sri Neelapu Rami Reddy, Maradapalem Village	a. This area is having very low literacy and hence the authorities shall provide work to the local villagers during construction stage and ensure the work to them during operation of the airport also by enhancing their skills through skill development programmes in this area.	a. Skill -training would be provided to the PAFs and other local youth. It has been planned to allocate INR 4.59 crores for providing skill training to the local youth and women through local ITIs. It was assured that local people, especially PAFs will get preference in employment as per eligibility.	Skill training would be provided to the local people and an amount of Rs 459 lakhs per annum has been provided in the CSR cost.

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9.	E.A.S. Sarma, Former Secretary of Government of India, Vishakhapatnam	a. It is mandatory that alternate sites for such a project are first considered so as to make sure that the site selected would cause minimum disruption to agriculture, minimum disturbance to the local community and their livelihoods, places least pressure on natural resources such as water and least adverse impact on the food security of the region. No such analysis has yet been made as evident from the fact the details of the site selection committee (SST), its terms, composition etc. have not been made public nor is the report of the SST made available to the people. As such the process of Environment Impact Assessment (EIA) in itself is deficient and conducting a public hearing on the basis of such an inadequate report is not called for. b. The local community in and around Bhogapuram are primarily skilled in agriculture and other skilled associated with agriculture. The government has not undertaken any schemes to impart skills to the local youth that would empower them to benefit from the economic and commercial activities that are likely to be generated by the airport project. As a result, as and when the project comes up, the local residents will not be able to take advantage of the limited employment	Alternate Site Analysis has been carried out by the State Government, details of which are provided in Chapter 5, section 5.2 of the EIA Report. Skill -training would be provided to the PAFs and other local youth. It has been planned to provide skill training to the local youth and women through local ITIs. It was assured that local people, especially PAFs will get preference in employment as per eligibility.	Skill training would be provided to the local people and an amount of Rs 459 lakhs per annum has been provided in the CSR cost.

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		opportunities that the project may bring and, at best, a few of them may secure low-income, low-value jobs, whereas, without the project, they would continue to be proud, independent owners of agricultural lands which have an enormous potential value in the coming years. c. The purpose of the proposed airport project is such that it largely caters to those in the nearby large urban agglomerations, not the communities living in the Bhogapuram area who are dependent largely on buses and other kinds of transport. Similarly, the project will offer very little employment opportunities to the locals whose skills may not correspond to those needed for the project. If a social cost benefit analysis is made, the cost of dis-employment of farmers, agricultural workers, outweigh the social benefits, which are limited. The EIA report is silent on this and, therefore, it is unacceptable. d. Section 10 of the Land Acquisition Act of 2013 which is applicable in the case of AP requires that the state should, on the basis of scientific evaluation, prescribe district-wise, the minimum area of agricultural land and the minimum area of irrigated, multi-cropped land that should be conserved so as to safeguard the food security of the region. The State government is yet to	Airports usually cater to urban agglomerations, and not to local communities. People in the state have limited options of International travel from the state. It is envisaged that the project would bring in development and positive economic growth in the region, thus strengthening the existing transport facilities in the local area. The EIA report discusses the impact on socio-economic status for both construction and operation phase in Chapter 4, Section 4.10. The project area has 60% of plantations which consist of mango, cashew, and coconut plantations, i.e. 511 Ha. Only 6% of the project site has agricultural area, amounting to 49 Ha. Thus it is envisaged, that food security of the region will not be hampered. Also, the land has	BIACL has allotted a CSR budget of INR 45.2 crores for the project, over a period of three years which will be utilized for development of the local area.

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		conduct any such studies and prescribe any such limits. In the absence of such statutorily prescribed limits, the state cannot proceed ahead to acquire any land for this project. This assumes importance from the EIA point of view also. The fact that the EIA is silent on this show that the EIA study itself is deficient and since erosion of food security as a result of diversion of agricultural lands for this project will have serious adverse socio-economic impacts, no public hearing can be conducted on the basis of an EIA report which ignores this aspect. Large tracts of agricultural land have already been diverted for non-agricultural purposes in this region as a result of several other industrial projects and the adverse impact on food security for the region is evident from the increases that have already taken place in the process of food articles. e. This project will place a heavy stress on the scarce water resources of the region, both surface and ground water resources. The available water resources stand fully committed and the diversion of such water resources for the project will cause a serious disruption to the lives of the community in the region. Such an impact has not been assessed in the EIA report. The EIA report ought to have evaluated, the	been bought (and not acquired) from the owners after mutual agreements on one on one basis. The District Collector has informed that INR 28-33 lakhs per acre is being paid as compensation, which is much higher than rates prescribed by the LARR Act 2013. BIACL is conducting a feasibility study for the source of water supply for the project, through the Andhra Pradesh Space Applications Center (letter attached). It is elaborated in the EIA report that the water in the ground water in the area saline. Therefore for construction works water will be utilized from private	As the water of the area is saline, drinking water would be provided to the affected villages during times of requirement. For this an amount of Rs 60 lakhs have been

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		total availability of water resources in the region, the commitments already made and the existing demand vis-avis the likely demand for water from this project. In the absence of such an analysis, the EIA report should be rejected forthwith. No public hearing can thus be conducted on the basis of such an inadequate report. f. The EIA report is highly inadequate as it fails to assess the adverse impacts that the project will have on the cultural aspect of the lives of the local people as a result of the influx of undesirable commercial activities consequent to the setting up of the project.	tankers, and for operation phase from the nearest municipal corporation. Water conservations measures, such as rain water harvesting, and using treated water from the STP will be applied to minimize the use of fresh water and eventually aim for zero-discharge. This has been elaborated in Chapter 2 of the EIA report. The EIA report discusses the impact on socio-economic status for both construction and operation phase in Chapter 4, section 4.10. (section attached) It is apparent that there will be influx of people from outside to the area. However it is not foreseen that large number of people will migrate to the area as local people would be given priority in jobs as well as in setting up own ventures.	allocated per annum.

**BEFORE THE HON'BLE
NATIONAL GREEN TRIBUNAL
SOUTHERN ZONE AT CHENNAI**

APPEAL NO. 18 OF 2017

BETWEEN:

Smt. Sridevi Datla

...APPELLANT

AND

Union of India & Others

...RESPONDENTS

**COUNTER AFFIDAVIT FILED BY THE
RESPONDENT NO. 4**

Filed On: 08.07.2021

Filed By:

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