

**BEFORE THE NATIONAL GREEN TRIBUNAL
SOUTHERN ZONE BENCH, CHENNAI
APPEAL NO. 18 OF 2020 (SZ)**

IN THE MATTER OF:

Sridevi Datla

... Appellant

Versus

Union of India and Others

... Respondents

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Filed by



Ritwick Dutta



**G.Stanly Hebzon Singh
Advocates for the Appellant**

Dated: 07.08.2021

Place: New Delhi/Chennai

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SUBMISSION ON BEHALF OF THE APPELLANT ON NOISE RELATED ISSUES,

QUALITY OF EIA AND RELEVANT JUDGMENTS DATED 09-8-2021

1. The Appellant had submitted in the APPEAL that Form I had information which had no relevance to the proposed project. Thus to substantiate this point, the Appellant had show Para 9 of the Form I wherein it was stated by the Project Proponent that the proposed airport project at Bhogapauram in Vijainagaram District will lead to the development of Kurnool as a Tourism District (Which is nearly 500 kms away from the site). It is submitted that this has happened because the contents from Form 1 of Kurnool Airport, Andhra Pradesh is 'copy and pasted' in the Form 1 of proposed Bhogapuram International Airport despite the fact the basic parameters of both the airports are different. The Appellant has been able to access the Form I submitted for the Airport in Kurnool District (which is available online).
2. That the 'copy and paste' is not limited only to the aspect of Tourism District but extends to other parameters as well. The runway dimension of Bhogapuram Airport is 3,800 metre x 60 metre whereas the Kurnool Airport Runway is 1800 metre x 30 metre. However, at Serial No. 6.2 of Form 1 with respect to Bhogapuram Airport the details of noise level is same as mentioned at Serial No. 6.2 of Form 1 of Kurnool Airport. The copy of the Form 1 of Kurnool Airport is annexed herewith and marked as **ANNEXURE-A/1**.
3. That it is stated that the EIA notification does not stipulate anything about the distance from the project site with respect to study area. However, Form

1 states that Environmental Sensitivity needs to be assessed for 15 km. aerial distance whereas the project proponent has relied upon Airport Guidance Manual for carrying out Environmental Sensitivity study within a 10 km. zone. It is stated that Form 1 is an integral part and parcel of the EIA process and would prevail over the Airport Guidance Manual.

4. **NO NOISE MONITORING DONE IN THE FUNNEL AREA: MONITORING RESTRICTED ONLY TO RUNWAY:** It is submitted in the Appeal that no noise monitoring was carried out by the EIA Consultant. That as per TOR letter dated 04.05.2006 No. X the following was stipulated:

"Noise monitoring shall be carried out in the funnel area of flight path."

As per 'SPECIAL RULES FOR REGULATING THE CONSTRUCTION AND MAINTENANCE IN THE VICINITY OF CIVIL AERODROMES, (G.O.Ms. No. 502,, Local Administration, 10th March, 1972 published in the Tamil Nadu Government Gazette, the funnel area can be defined as:-

"A Flying Funnel area may be defined as the area included between two lines paid off at angle of fifteen degrees outwards from the point where the outeredge of the sixty-eight metres cleared strip joins the perimeter track and the area bounded by lines extended from the edge of the full strip to where they meet the fifteen degree lines"

The copy of the Tamil Nadu Government Gazette is annexed herewith and marked as **ANNEXURE-A/2.**

5. That S.O. 1589 (E) of Central Government, further described about funnel for various airports as given

'The rectangular area of land enclosed within the approach funnel of the Rwy within a maximum distance of 300M from the extremity of the Rwy and 60M on either side of the extended Rwy centerline for code 3 & 4 and 45M on either side of extended Rwy centerline for code 1 & 2,

Note 2: In this Annexure:-

(a) "approach funnel".

(i) In relation to an instrument Rwy code 3 & 4, means the area in the shape of an isosceles trapezium having the longer parallel side 4800 meters long (2400 meters on either side of the extended centerline of the

runway) and smaller parallel side 300 meters long (150 meters on either side of the extended centerline of the runway) where the smaller and longer parallel sides are placed at a distance of 60 meters and 15060 meters respectively, from the end of the runway and at right angles to the extended centerline.

(ii) In relation to an instrument Rwy (precision) code 1 & 2 means the area in the shape of an isosceles trapezium having the longer parallel side 4650 meters long (2325 meters on either side of the extended centerline of the runway) and smaller parallel side 150 meters long (75 meters on either side of the extended centerline of the runway) where the smaller and longer parallel sides are placed at a distance of 60 meters and 15060 meters respectively, from the end of the runway and at right angles to the extended centerline

(iii) In relation to an instrument Rwy (non precision) code 1 & 2 means the area in the shape of an isosceles trapezium having the longer parallel side 900 meters long (450 meters on either side of the extended centerline of the runway) and smaller parallel side 150 meters long (75 meters on either side of the extended centerline of the runway) where the smaller and longer parallel sides are placed at a distance of 60 meters and 2560 meters respectively, from the end of the runway and at right angles to the extended centerline.

(iv) In relation to a non instrument Rwy code 3 & 4 means the area in the shape of an isosceles trapezium having the longer parallel side 750 meters long (375 meters on either side of the extended centerline of the runway) and smaller parallel side 150 meters long (75 meters on either side of the extended centerline of the runway) where the smaller and longer parallel sides are placed at a distance of 60 meters and 3060 meters respectively, from the end of the runway and at right angles to the extended centerline.

(v) In relation to an non instrument Rwy code 2 means the area in the shape of an isosceles trapezium having the longer parallel side 580 meters long (290 meters on either side of the extended centerline of the runway) and smaller parallel side 80 meters long (40 meters on either side of the extended centerline of the runway) where the smaller and longer parallel sides are placed at a distance of 60 meters and 2560 meters respectively, from the end of the runway and at right angles to the extended centerline.

(vi) In relation to an non instrument Rwy code 1 means the area in the shape of an isosceles trapezium having the longer parallel side 320 meters long (160 meters on either side of the extended centerline of the runway) and smaller parallel side 60 meters long (30 meters on either side of the extended centerline of the runway) where the smaller and longer parallel sides are placed at a distance of 30 meters and 1660 meters respectively, from the end of the runway and at right angles to the extended centerline.

** The diagrams of Rwy strips and approach funnel of instrument Rwy code 1, 2,3 & A and non-instrument Rwy code 3 & 4 have been shown at Appendix VI.'*

Copy of the drawing showing funnel area is annexed herewith and marked as

ANNEXURE-A/3.

Therefore, the reply given by Respondent No.4 at para 63 stating that the noise monitoring points N2 and N6 serve the purpose for noise monitoring in the funnel area is wrong and misleading. It is important to highlight that noise monitoring points N2 and N6 are located at the two ends of the proposed runway only and not in the funneal area.

6. **PREDICTION LEVELS LIMITED ONLY TO DG SETS** The Respondent No. 4 has stated that the prediction model in figure 4-11 relates to DG sets and not aircraft. A mere perusal of the EIA report at page 4-20, figure 4-11 mentions "*Predicted Noise Level of Airport on Surrounding Areas*". It is

- reiterated that the isopleth drawn to predicted noise level adjacent to upcoming Airport given in figure 4-11 shows value of 42 dB (A) whereas the background level as Leq is already recorded more than 50 db (A) at N 6 and N 2 location (Table 3-24). Therefore, the EIA consultant has failed to assess the noise impact in the funnel area as it is stated that aircrafts like Airbus A380 having noise level of nearly 100 db would be landing on the proposed Bhogapuram International Airport. Therefore, the predicted value cannot be less than the measured value as well as the specified values given for Airbus A380. The copy of the page 4-20 showing figure 4-11 of EIA report is annexed herewith and marked as **ANNEXURE-A/4** and copy of the presentation of A380 by Dan Cohen – Nir, Programs Director, Airbus Americas is annexed herewith and marked as **ANNEXURE-A/5**.
7. **WRONG WATER BALANCE DIAGRAM:** That the water balance diagram at page 2-16 of the EIA Report is a misleading document. (Copy of the water balance diagram at page 2-16 of the EIA Report is Annexed as **ANNEXURE-A/6**) It is stated that in the water balance diagram at figure 2-5 provides no source for 210.7 KLD which has been outlined for flushing and miscellaneous water. Secondly, the capacity of STP for non-monsoon season and monsoon season have been shown to be different. While in the water balance diagram during monsoon season the waste water from flights is shown to be 29.6 KLD but there is no waste water from flights shown in figure 2-5.
8. That the reply given by Respondent No. 4 in para 65 (d) of its Counter on the issue of noise monitoring is misleading. The Respondent No. 4 states that the noise monitoring has been carried out as per EIA Airport Manual Section 4.5 which says that "*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 24 hrs. at hourly intervals.*" Further, in para 3.10.3 of the EIA Report it is stated 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." It is stated that a perusal of para 4.5 of the '*Environmental Impact Assessment Guidance Manual for Airports*' the above information provided by Respondent No. 4 is only selective and part information. In this whole paragraph only methodology for noise monitoring is given and does not describes about frequency for data collection. The frequency for data collection has been given at Annexure-3 page 73 (at page 316-317 of Counter of Respondent No. 4) of the '*Environmental Impact Assessment Guidance Manual for Airports*' that the noise sampling frequency is "Once in season" which does not mean one day. It is important to highlight that Annexure 3 of said guidance manual is refereeing about CPCB guidelines for noise monitoring. Hence, the claim made by Respondent No. 4 regarding non applicability of CPCB manual for operational airport is wrong and misleading.

NOTE ON THE QUALITY OF THE EIA PREPARED BY THE EIA CONSULTANT

9. That the EIA Report prepared by the EIA Consultant clearly reveals that the EIA Consultant adopted a casual approach while preparing the EIA Report. The Quality of EIA Consultant is evaluated in terms of the standards set by the Quality Council of India (QCI) - the national accreditation body, which established as an autonomous non-profit organization jointly by the Government of India and the Indian Industry represented by the three premier industry associations, Associated Chamber of Commerce and Industry of India (ASSOCHAM), Confederation of Indian Industry (CII) and Federation of Indian Chambers of Commerce and Industry (FICCI). National Accreditation Board for Education & Training (NABET), a constituent board of Quality Council of India, has launched the scheme for accreditation of EIA consultant organizations. The accreditation under this scheme is based on the resources available with the organization including technical expertise of consultant, resource persons, their educational background as well as

experience and expertise. The objective of this scheme is to meaningfully contribute towards improving the quality of EIAs.

10. The 'Scheme of Accreditation of EIA Consultant Organizations' prepared by NABET and Quality Council of India notes as follows:

1.1 Environmental Impact Assessment (EIA) is a statutory requirement for most developmental and industrial activities in our country. This is to ensure that development and environment protection go hand-in-hand. To achieve this objective, it is crucial that quality of EIAs being carried out are of a high order so that possible impacts on environment of such activities can be assessed and mitigative measures could be adopted. However, the present situation is far from satisfactory, since the EIAs being developed, more often than not, do not measure upto the required quality.

Some of the reasons for EIAs not being of required quality are:

- Improper / inadequate scoping for the EIA –
- Consultants not having adequate understanding for developing EIAs –
- Poor quality of inputs to EIAs
- Mostly “copy-cut-paste” jobs –
- No checks on the competence of EIA Consultants
- No liability of EIA consultants –
- Very few in-house reports

Importance of Specialist in Preparation of the EIA Report

1.2 EIAs are essentially multi disciplinary activities where **inputs are required from specialists having knowledge of the industry for which EIAs are to be carried out *as well* as in functional areas like air pollution control, water pollution control, noise and vibration, ecology and bio-diversity, land use, ground**

water, surface water and hydrology, socio economic aspects, risks and hazard management etc.

Role of the EIA Coordinator and Functional Area Expert

1.2The key person in developing an EIA is the **EIA Coordinator who should have broad knowledge about the project**, as well as the functional areas which are likely to be affected by the activities related to the project in its construction, operation and the closure phases. The functional area experts are expected to assess the impacts from the proposed development / industrial activities in their respective areas of expertise and then feed the same to the EIA Coordinator. The EIA Coordinator would then be able to correlate the projected impacts and develop an overall environment impact assessment and environment management plan (EMP).

Qualification of the EIA Coordinator

Definitions of some related terms: Experience EIA Coordinator To work as an independent EIA coordinator for particular sector/s, s/he should have a minimum experience of 7 years. Out of these 7 years, 2 years should preferably be in the stated sector/s in operations/maintenance/projects, the balance could be in EIA preparation either assisting the EIA coordinator or as a Functional Area Expert or in base line data generation and analysis. Functional Area Experts To work as an independent Functional Area Expert, s/he should have minimum 3 years of experience. Out of these 3 years, minimum 1 year should be in the stated functional area/s, balance could be in consultancy/teaching and the like in the stated area/s of expertise. Exposure EIA Coordinator Should have been involved in preparation of at least 3 EIA s of the sector/ s or should have been involved in environmental auditing/ monitoring for minimum 2 – 3 assignments in the sector.

11. The EIA Report Prepared by Greencindia Consulting Private Limited (GPCL) in Chapter 11 (Page 11-2) states that the Company is accredited with NABET -Quality Council of India. It is stated that GPCL comprises of group of professionals drawn from

developmental fields. The resume of the Environmental Coordinator and Functional Area Experts (Core Functional Area & Significant Functional Area) have been mentioned in the EIA Document. The relevant pages of the EIA Report is annexed and marked as **Annexure-A/7**. It is clear that the EIA Coordinator does not have the required qualification, expertise and exposure and that could be the reason for the poor quality of EIA which is replete with wrong statement, factual inaccuracies and misleading statements. There is nothing on record to show that any 'Specialist' in the aviation sector or those with special knowledge in this aspect were involved in the Preparation of the EIA.

12. The Profile of Rahul Singh as available online His LinkedIn Profile states as follows so far as the qualification of Rahul Singh is concerned.

Mr. Singh have 22 years of vast work experience in the field of Environment, Social & Legal consultancy services. He is also recognized as International Environment Safeguard Specialist by International Funding Agency. In the education front, he has completed B.Tech in Civil & Planning, M.Tech, LL.B & LLM degrees. His Expertise includes Sustainable Infrastructure Planning, environmental, social and Land management for multi sector projects. He has completed more than 60 projects in Environment and Social Impact Assessment for Renewable and non-renewable energy sector projects. He has extensively worked on project funded by ADB/IFC/WB and familiar with the safeguard policies and Performance standard of multilateral Financial Institutions. He has vast experience to assess environment impacts of these activities on various ecological and environment parameter based on environment sensitivity matrix of MoEF&CC, GoI and ADB REA and Preliminary Climate Risk Checklist. The project siting criteria was also assessed based on the indicators of CPCB and Environment Infrastructure Manual of MoEF&CC.

The Copy of the QCI NABET SCHEME is hereto Annexed and Marked as Annexure-A/8 and the link of the same is given below for the convenience of this Hon'ble Tribunal

https://www.qcin.org/nabet/consultants/EIA/EIA_Consultant_Organization.pdf

13. SUBMISSIONS ON BEHALF OF THE APPELLANT ON RELEVANT JUDGMENTS

In ***Utkarsh Mandal v. Union of India*** (2009 SCC OnLine Del 3836) the Hon'ble Delhi High Court held:

*"4. We, therefore, hold in the context of EIA Notification dated 14 September 2006 and the mandatory requirement of holding public hearings to invite objections, it is the duty of the EAC, to whom the task of evaluating has been delegated, to indicate in its decision the fact that such objections, and the response thereto of the project proponent were considered and **the reasons why any or all of such objections were accepted or negated.** The failure to give such reasons would render the decision vulnerable to attack on the ground of being vitiated due to non-application of mind to relevant consideration and therefore arbitrary."*

.....

32.

*Consequently, the exercise expected to be performed by the EAC (Mines) is a serious one and has to include a consideration on merits of the objections raised at the public hearing. **Its decision must reflect this.** We do not accept the contention of the learned ASG that as long as the MoEF while taking the ultimate decision has applied its mind to the objections raised at the public hearing, the requirement in law would be satisfied. The whole purpose of "outsourcing" the task to an EAC comprised of experts was to have a proper evaluation of such objectives on the basis of some objective criteria. It is that body that has to apply its collective mind to the objections and not merely the MoEF which has to consider such objections at the second stage.*

2. In ***Hanuman Laxman Aroskar v. Union of India*** (2019 SCC OnLine SC 500) the Hon'ble Supreme Court held that:

"111. Public consultation involves a process of confidence building by giving an important role to those who have a plausible stake. It also recognizes that apart from the knowledge which is provided by science and technology, local communities have an innate knowledge of the

environment. The knowledge of local communities is transmitted by aural and visual traditions through generations. By recognizing that they are significant stakeholders, the consultation process seeks to preserve participation as an important facet of governance based on the rule of law. Participation protects the intrinsic value of inclusion.

...112.8 Public consultation cannot be reduced to a mere incantation or a procedural formality which has to be completed to move on to the next stage. Underlying public consultation is the important constitutional value that decisions which affect the lives of individuals must, in a system of democratic governance, factor in their concerns which have been expressed after obtaining full knowledge of a project and its potential environmental effects.

103 Apart from the intrinsic value of public consultation, it serves an instrumental function as well. The purpose of ascertaining the views of stakeholders, is to account for all the material concerns in the design of the proposed project or activity. For this reason, the process of public consultation involves several important stages. The Pollution Control Board is under a mandate to forward the proceedings to the regulatory authority. The project proponent must address all material environmental concerns and make appropriate changes in the draft EIA and EMP. The project proponent may even submit a supplementary report to the draft EIA. Each of these elements is crucial to the design features of the 2006 notification. **A breach will render the process vulnerable to challenge on the ground that: (i) significant environmental concerns have not been taken into account; (ii) there was an absence of a full disclosure when the EIA report was put up for consultation; and (iii) concerns which have been expressed by persons affected by the project have not been adequately dealt with or analysed.**

3. In ***Samata v. Union of India*** (Appeal No. 9 of 2011) this Hon'ble Tribunal (SZ) held:

"9) It is a well settled law that a decision taken must reflect the consideration of the materials available before the decision maker and the opinion formed on such material and the failure to give reasons for accepting or rejecting the projects would vitiate the decision taken on the

ground of non-application of mind to relied materials and for arbitrariness. Therefore, the recommendation to approve the project given to the MoEF by the EAC was arbitrary. Hence, for all the reasons stated above, the EC granted by the 1st respondent vide its letter dated 15.3.2010 to the 3rd respondent has to be quashed.

...

It is a mandatory requirement and also a duty of the EAC to whom the task of evaluation has been delegated to indicate its decision that the objections and concerns raised at the public hearing and the response of the Project Proponent thereon were considered and as to what reasons those objections and concerns were accepted or negated In the said decision, it has been unambiguously held that the failure to give such reasons and render the decision vulnerable to attack on the ground of being vitiated due to non-application of mind to relevant consideration and therefore, arbitrary."

4. In ***Rudresh Naik v. Goa Coastal Zone Mnagement Authority***

(Appeal No. 20 of 2013) the Hon'ble Tribunal held:

"It is settled rule that administrative authorities which are dealing with the rights of the parties and are passing orders which will have civil consequences, must record appropriate reasons in support of their decisions. Certainly, these decisions must not be like judgments of the courts, but they must provide insight into the thinking process of the authority as to for what reasons it accepted or rejected the requests of the applicant.

5. In ***Maharashtra State Board for Secondary and Higher Education***

Vs. K.S. Gandhi (1999)2 SCC 716 the Apex Court held:

"21. Reasons are the harbinger between the mind of the maker of the order to the controversy in question and the decision or conclusion reached. When an order affects the rights of a citizen or a person irrespective of whether it is quasi judicial or administrative order and unless the rule expressly or by necessary excludes recording of reasons, it is implicit that the principles of natural justice or fair play require recording of germane and precise relevant as part of fair procedure in an

administrative decision, order/decision itself may not contain reason. But, at least the records should disclose reasons.

...

27. The consistent view of the courts has been that recording of reasons is an essential feature of the principles of natural justice. Natural justice cannot be understood in isolation. *It must be examined while keeping in mind the facts and circumstances of a given case.*

6. In ***Gau Raxa Hitaxak Manch and Gauchar v. Union of India*** (Appeal No. 47 of 2012) the Hon'ble Tribunal held:

"33. The definition of the word "Appraisal" as given in Black's Law Dictionary is as follows:

"Appraisal -

i. The determination of what constitutes a fair price; valuation; estimation of worth.

ii. The report of such a determination. - also termed appraisement."

Thus, appraisal of the project does require evaluation as well as estimation of worth for the purpose of assessment/determination thereof. Needless to say, the process of "Appraisal" requires application of mind, independently, and evaluation of the material in order to find out whether it is a project worth grant of EC or for the purpose of refusal of the EC, as the case may be."

7. In ***Ravi Yashwant Bhoir v. Collector*** (2012) 4 SCC 407 the Hon'ble Supreme Court held:

"It is a settled proposition of law that even in administrative matters, the reasons should be recorded as it is incumbent upon authorities to pass a speaking and reasoned order. The Court noticed that the expanding horizon of the principles of natural justice provides for the requirement to record reasons unless recording of such reasons is specifically excluded by a Statute."

8. The Hon'ble High Court of Himachal Pradesh in Himparivesh Environmental Protection Society versus State of Himachal Pradesh CWP No.586 of 2010. Alongwith CWPIL No. 15 of 2009, Judgment of 2012)

(<https://www.informea.org/sites/default/files/court-decisions/COU-159224.pdf>)

65..... If we go through the record of the public hearing, it is apparent that the public was not informed about the pros and cons of the Project. In this behalf, we may submit that the Pollution Control Board, the MoEF and the EAC must play a more pro-active role than what is being done at present. Sitting in the Green Bench, we have heard hundreds of matters and we are constrained to observe that in almost all, if not all, cases the word of the project proponent is accepted to be the gospel truth. Obviously, the project proponent and/or the consultants who prepare the project reports will paint a rosy picture about the project and will gloss over and in fact hide the ill effects of the project. This is where the role of the Pollution Control Board and the MoEF starts. Why should we wait for NGOs or local inhabitants to come to Court to question the validity of the project. They do not have the wherewithal, the finances, the capability or the knowledge to oppose the report. We are of the considered view that the duty of the Pollution Control Board and the Officers of the Board or the MoEF is to verify the facts stated by the Project Proponent. It is the duty of the Pollution Control Board, the EAC and the persons who conduct the public hearing to ensure that the pros and cons of the project are explained in simple language to the villagers. How will the poor villagers know that a project is going to affect their health or not? In fact no layman would know what is hazardous waste or pollution generated by a particular project. In our considered view it is the duty of the Pollution Control Board, the MoEF and EAC to examine each project report and thereafter bring forth even the negative aspects of the project to the knowledge of the people. There is no use of having a public hearing if the public is not aware of the effects of the project both positive and negative. We have not come across a single case in the last two years, during which we have been hearing environmental cases where the Pollution Control Board or the MoEF have actually brought such facts to the notice of the Public during public hearing. A public hearing without first informing the public is a total sham.

100. In view of the above discussion we come to the following conclusions: i) That JAL is guilty of making false statements for obtaining environmental clearances for all its Projects. JAL has successfully misled and hoodwinked the State of Himachal Pradesh, the H.P. State Pollution Control Board, the Ministry of Environment and Forest, Environment Appraisal Committee and all other authorities. **These authorities and the officials who were manning these authorities are supposed to act like watch dogs to fiercely protect the interest of the public. They unfortunately behaved like meek lambs being led for slaughter.**



Ritwick Dutta

Filed by



G. Stanly Hebzon Singh

Advocates for the Appellant

APPENDIX I

(See Paragraph-6)

FORM 1

Note : If space provided against any parameter is inadequate, Kindly upload supporting document under 'Additional Attachments if any' at the last part of the Form1. Please note that all such Annexures must be part of single pdf document.

(I) Basic Information

S.No.	Item	Details
	Is your project Comes under Notified Industrial Area	NA
	Whether proposal involved violation of EIA notification	N/A
	Weather Consent to Establishment Obtained	N/A
	Upload copy of CTE	N/A
1.	Name of the Project/s Brief summary of project Proposal Number Project Cost	Environmental Clearance for Development of Green Field Airport at Oravakallu, District-Kurnool, Andhra Pradesh Annexure-Brief summary of project IA/AP/MIS/35914/2015 200.49 lacs
2.	S. No. in the schedule Project Sector	7(a) Air ports INFRA-2
3.	Proposed capacity/area/length/tonnage to be handled/command area/lease area/number or wells to be drilled	583 acres ha.
4.	New/Expansion/Modernization	New
5.	Existing Capacity/Area etc.	ha.
6.	Category of project i.e. 'A' or 'B'	A
7.	Does it attract the general condition? If yes, please specify	No
8.	Does it attract the specific condition? If yes, please specify	No
9.	Location of the project Shape of the project land Uploaded GPS file Uploaded copy of survey of India Toposheet Plot/Survey/Khasra No.	Oravakallu, District kurnol, Andhra Pradesh Block (Polygon) Annexure-GPS file  Annexure-Survey of india toposheet Oravakallu: 518-1,531, 532-c, 551, 552, 553-A, 553-B, 606-1, 606-2, 607-1, 607-2, 554. Kanamadakala: 380, 397-c, 398, 404, 407, 410, 442, 377, 378, 379-2B, 379-3, 379-4, 381, 385, 399, 400, 401, 402, 405, 406, 408, 409, 411. Pudicherla: 1-c, 7, 10,11, 13, 16, 19, 20-A, 21-A, 23, 28-B, 28/c, 29-a, 402-1, 404, 406, 418, 433-1, 433-2, 449, 450,

	451, 452, 453, 2, 3, 4, 5, 6, 8, 9, 12, 14, 15, 17, 18, 20-B, 20-C, 21-B, 22,24, 25, 26/1, 26/2, 27,28-A, 403
Town / Village	Oravakallu
State of the project	Andhra Pradesh

Details of State of the project

S.no	State Name	District Name	Tehsil Name
(1.)	Andhra Pradesh	Kurnool	Orvakal
10.	Nearest railway station along with distance in kms		Kotla, 14.2 km
	Nearest airport along with distance in kms		Rajiv Gandhi Airport, Hyderabad, 169.4 km
11.	Nearest Town/City/District Headquarters along with distance in kms		Kurnol , 10.0 km
12.	Village Panchayats, Zila Parishad, Municipal Corporation, Local body (Complete postal address with telephone nos. to be given)		
13.	Name of the Applicant		M
14.	Registered Address		10-2-1, IIIrd Floor, FDC Complex, AC Guards, Hyderabad
15.	<p><u>Address for correspondance:</u></p> <p>Name of the Company BHOGAPURAM INTERNATIONAL AIRPORT CORPORATION LTD</p> <p>Name of the Applicant M</p> <p>Designation (Owner/ Partner/ CEO) Managing Director</p> <p>Pin code 500028</p> <p>E-mail oravakallu.airport@gmail.com</p> <p>Telephone No. 040-23321771</p> <p>Fax No. 040-</p> <p>Copy of documents in support of the competence/authority of the person making this application to make application on behalf of the User Agency . NIL</p>		
16.	Details of Alternative Sites examined, if any. Location of these sites should be shown on a toposheet		No
17.	Whether part of Interlinked projects?		No
18.	Whether separate application of Interlinked project has been submitted?		N/A
19.	If Yes, MoEF file number		N/A
	Date of submission		N/A
20.	If No, Reason		N/A
21.	<p>Whether the proposal involves Approval/ Clearance under: if yes, details of the same and their status to be given</p> <p>(i) Whether the proposal involves approval/clearance under the Forest (Conservation) Act,1980? No</p> <p>(ii) Whether the proposal involves approval/clearance under the wildlife (Protection) Act,1972? No</p> <p>(iii) Whether the proposal involves No</p>		

	approval/clearance under the C.R.Z notification, 2011?	
22.	Whether there is any Government Order/Policy relevant/relating to the site?	No
23.	Whether any Forest Land Involved? Area of Forest land Involved (hectares)	N/A
24.	Whether there is any litigation pending against the project and/or land in which the project is proposed to be set up? (a) Name of the Court (b) Name of the Sub court (c) Case No. (d) Orders/directions of the court, if any and relevance with the proposed project	No N/A N/A N/A N/A

(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 there of (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)	Yes	About 583 acres of land is required for the Proposed Airport. The land has been provided by the state government of Andhra Pradesh. The land is primarily dry (assessed waste), Rocky & Irrigated dry land. Permanent land use change includes building-up of the following facilities. • Runway, taxiway system, turning pads, isolated bay, Aprons • Domestic Passengers Terminal • Control Tower, Technical Block, Administration Building • Development of Basic Strip, Approach Roads, Car Parking • Com
1.2	Clearance of existing land, vegetation and buildings?	No	The site has no trees in site. Tree felling not required.
1.3	Creation of new land uses?	Yes	Construction of Airport will result in creation of new land use.
1.4	Pre-construction investigations e.g. bore houses, soil testing?	Yes	No previous construction. Geo-technical and Soil Investigation will be carried out before commencement of construction activities
1.5	Construction works?	Yes	• Runway- 1800 x 30m • Turning Pads- 2 x 34.4 x 7.9m • Taxiways - 1 x 192.60 x 18 m • Apron- 217.2 x 107.8 m • Isolation Bay- 92 x 92m • Taxiway to Isolation Bay - 192.60 x 18m • Isolation Bay shoulder • Overruns • Peripheral Road- 9708 m length & 3.75m wide • Terminal Building • Sub Station Building • Fire station Building • ATC Tower • Internal Roads- 2X101mX15m & 410mX6m • Car Park- 240m x 60m
1.6	Demolition works?	No	No demolition activities are proposed
1.7	Temporary sites used for construction works	Yes	Only temporary rest shelter will be constructed in the

	or housing of construction workers?		project site.
1.8	Above ground buildings, structures or earthworks including linear structures, cut and fill or excavations and fill or excavations	Yes	Above ground building structures includes: • Apron • Boundary wall • ATC tower • Terminal building No solid waste/ Construction waste will be disposed. Construction waste will be used for leveling the project site.
1.9	Underground works including mining or tunnelling?	No	Not Applicable due to the development of airport project.
1.10	Reclamation works?	No	No reclamation will be done.
1.11	Dredging?	No	No dredging will be done.
1.12	Offshore structures?	No	As the proposed Airport project area is not falling under coastal zone thus no offshore structure has been proposed.
1.13	Production and manufacturing processes?	No	Not Applicable due to the development of airport project.
1.14	Facilities for storage of goods or materials?	No	Not Applicable due to the development of airport project.
1.15	Facilities for treatment or disposal of solid waste or liquid effluents?	Yes	Solid Waste HSW: The HSW will be collected and disposed as per Hazardous Waste Management rule. Liquid Effluent / Waste: For treatment of non-hazardous liquid waste provision of STP will be there. The waste water will be treated in the STP and the treated waste water will be re-circulated and reused for flushing and Landscape elements. The HW (used oil and others) shall be collected in containers and will be sold to MoEF&CC/SPCB approved recyclers.
1.16	Facilities for long term housing of operational workers?	No	Housing facility will not be there within the said project area
1.17	New road, rail or sea traffic during construction or operation?	Yes	An approached road will be constructed to join project site to NH 18.
1.18	New road, rail, air water borne or other transport infrastructure including new or altered routes and stations, ports, airports etc?	Yes	An approached road will be constructed to join project site to NH 18.
1.19	Closure or diversion of existing transport routes or infrastructure leading to changes in traffic movements?	Yes	There will be no diversion of existing routes or infrastructure for the proposed project.
1.20	New or diverted transmission lines or pipelines?	No	There are no new or diverted transmission lines or pipelines in the project site.
1.21	Impoundment, damming, culverting, realignment or other changes to the hydrology of watercourses or aquifers?	No	There will no adverse changes to hydrology of watercourses or aquifers due to operation. Also, no impoundment, damming, culverting, realignment or other changes will be done.
1.22	Stream crossings?	No	There is no stream crossing in the project site area.
1.23	Abstraction or transfers of water from ground or surface waters?	No	The source of water for the Proposed project will be from Kurnool municipality. Proposed project will not have any adverse effect on the ground water table also. The daily consumption of water during operation phase will be about 74.6 KLD of which 46.2KLD will be fresh water and 28.4KLD will be recycled water.
1.24	Changes in water bodies or the land surface affecting drainage or run-off?	No	No streamline is intersecting the proposed project site area. But There will be two seasonal Nallas in the

			project site from NE to SW direction. Proper study & diversion plan will be provided.
1.25	Transport of personnel or materials for construction, operation or decommissioning?	No	The construction materials will be used to leveling project site land use.
1.26	Long-term dismantling or decommissioning or restoration works?	No	Not Applicable.
1.27	Ongoing activity during decommissioning which could have an impact on the environment?	No	Not Applicable.
1.28	Influx of people to an area in either temporarily or permanently?	Yes	There will be temporary influx of people in the area due to construction time on project site. Local people will be employed. The project will provide direct and indirect employment to the local people living in surrounding villages depending on their skills.
1.29	Introduction of alien species?	No	The plant species will be native and will be selected in consultation to the local Forest Department.
1.30	Loss of native species or genetic diversity?	No	Not Applicable.
1.31	Any other actions?	No	No other actions would be involved.

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)	Yes	The land is primarily dry (assessed waste), Rocky & Irrigated dry land.
2.2	Water (expected source & competing users) unit: KLD	Yes	During operation phase will be about 74.6 KLD of which 46.2KLD will be fresh water will be collected from nearby villages or Kurnool municipality.
2.3	Minerals (MT)	Yes	Construction Phase: Diesel and petrol shall be utilized for vehicle and machines operation inside the airport Operation Phase: There will be no fuel storage facilities.
2.4	Construction material – stone, aggregates, sand / soil (expected source – MT)	Yes	Description Unit Capacity GSB Cum 70953.53 Stone Agg. Cum 95455.91 Bituminous Kg 1250.04 Structural Steel Kg 82500.00 TMT bar Kg 61100.98 Sand Cum 834.26 Cement Bags 5530.63
2.5	Forests and timber (source – MT)	No	The use of timber and forest sources will be avoided. However, if required the wooden furniture shall be procured from local vendor.
2.6	Energy including electricity and fuels (source, competing users) Unit: fuel (MT),energy (MW)	Yes	The energy requirement will be ascertained in the master plan. The electricity for the project will be sourced from State Electricity Board. Provision of Standby DG sets of 2x500 KVA has also been kept.
2.7	Any other natural resources (use appropriate standard units)	No	No other natural resources will be used.

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)	Yes	Diesel, lubricating oils will be stored at site during construction phase only. Hence no hazards are envisaged to human health or flora, fauna and water supplies.
3.2	Changes in occurrence of disease or affect disease vectors (e.g. insect or water borne diseases)	No	Not Applicable.
3.3	Affect the welfare of people e.g. by changing living conditions?	Yes	As the airport is only a transit facility and does not involve any permanent social activity at site, there will be no impact on welfare of local people
3.4	Vulnerable groups of people who could be affected by the project e.g. hospital patients, children, the elderly etc.	No	As human settlement is not coming under the project site area so no vulnerable groups of people will be directly affected by this project.
3.5	Any other causes	No	There will be no effect due to 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	Yes	Topsoil of the site will be excavated and construction waste will be generated but later on will be used for landscaping purpose and leveling of site area.
4.2	Municipal waste (domestic and or commercial wastes)	Yes	The solid waste generated in the airport will be mostly from the flight kitchen and waste from cargo complex and sludge from the STP. The solid waste will be collected and transported in covered trucks at approved municipal disposal Sites through contractors.
4.3	Hazardous wastes (as per Hazardous Waste Management Rules)	Yes	Used oil, paints, lead batteries and accidental leakage of oil.
4.4	Other industrial process wastes	No	There is no industrial process involved in the project.
4.5	Surplus product	No	Not applicable
4.6	Sewage sludge or other sludge from effluent treatment	Yes	Sludge form STP shall be used as manure in landscaping
4.7	Construction or demolition wastes	Yes	Construction waste will be generated but later on will be used for landscaping purpose and leveling of site area.
4.8	Redundant machinery or equipment	No	The machineries/equipments will be on hire basis or contact upon requirement. All machineries will be removed after completion of construction.
4.9	Contaminated soils or other materials	No	No contamination of soil or other material will be involved.
4.10	Agricultural wastes	No	There will be no agricultural waste involved.
4.11	Other solid wastes	No	No other solid waste will be generated.

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	Yes	There will be emissions from D.G sets, vehicles and planes. 2 DG set are proposed to be installed as power back-up. The total emission rate of considering 2 DG sets working at a time, will be PM- 0.24 kg/hr, SO ₂ - 0.18 g/hr, NO _x - 7.36 kg/hr, CO- 2.80 kg/hr. The fuel consumption rate of Aircraft will be around 700 kg/hr in Idle conditions. However, this rate will increase during approach and take-off situations. The average emission rate of the aircraft in terms of fuel consumption will be as fo
5.2	Emissions from production processes	Yes	There will be emissions from D.G sets, vehicles and planes.
5.3	Emissions from materials handling including storage or transport	No	not applicable
5.4	Emissions from construction activities including plant and equipment	Yes	Fugitive dust emission due to earth work. Gaseous emission due to vehicular and machineries operations.
5.5	Dust or odours from handling of materials including construction materials, sewage and waste	Yes	Fugitive dust emission due to earth work. Gaseous emission due to vehicular and machineries operations.
5.6	Emissions from incineration of waste	No	No incineration facility is proposed at site as bio-medical waste if any will be transported to nearest management facility.
5.7	Emissions from burning of waste in open air (e.g. slash materials, construction debris)	No	Not applicable
5.8	Emissions from any other sources	No	There is no other source of emission.

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
6.1	From operation of equipment e.g. engines, ventilation plant, crushers	Yes	Various equipments / HEMMs (Heavy Earth moving machineries) will be used for construction activities. The tentative noise specifications for various equipments are as follows. Name of Source Noise Level at 1 m from source [dB(A)] Hot mix Plant 40 Roller 74 Water Tanker 88 Bitumen Sprayer 80 JCB 99 Tractor 84 Vacuum Excavator 85 Loader/Tipper 85 Compactor 82 Concrete Mixer 85 Air Compressor. 81 Paver 89 The specifications are subjected to Change as per the manufacturer design.
6.2	From industrial or similar processes	Yes	The weighted maximum noise level at various distances of the plane departure and landing will be as follows. Distance(ft) Noise Level [dB(A)] Approach Departure 200 88.8 94.8 400 81.6 86.3 1000 71.1 74.8 2000 63.6 66.5 4000 55 57.6 10000 41.6 44
6.3	From construction or demolition	No	Construction will be done for runways Taxiways, Apron, Control Tower, Terminal building etc.

6.4	From blasting or piling	No	No blasting is proposed at the project site.
6.5	From construction or operational traffic	Yes	During the operation phase noise will be generated from the Landing and take-off of aircrafts.
6.6	From lighting or cooling systems	No	Lighting will be done on solar basis, either will be provided by state govt. Cooling system based on air cooled HVAC.
6.7	From any other sources	No	Not applicable

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	Yes	There will no storage of fuel at site.
7.2	From discharge of sewage or other effluents to water or the land (expected mode and place of discharge)	Yes	Treated waste water shall be mainly used for landscaping And flushing. Efforts will be made to fully utilize the waste Water to eliminate the risk of land or water contamination.
7.3	By deposition of pollutants emitted to air into the land or into water	Yes	Air emissions in the form of PM, SOX, NOX, CO from vehicular emission may take place due to traffic increment. However, the project with this capacity will not have a significant impact on air environment and level of pollutants shall remain well within the standard stipulated by CPCB.
7.4	From any other sources	No	There is no other source from which risk of contamination is anticipated.
7.5	Is there a risk of long term build up of pollutants in the environment from these sources?	No	Not applicable.

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	Yes	Risk of fire is due to storage and handling of fuel during construction & operation phase, but no fuel storage is proposed in site. However, the risk will be minimum due to deployment of trained Fire fighters with Fire extinguishers etc at site.
8.2	From any other causes	Yes	Risk of accidents is envisaged due to miss-handling of machinery equipments, and falling from height, slips etc. during construction and operation. A disaster management plan will be implemented to avoid such accidents. To deal with minor accidents, first aid facility will be provided at site.

8.3	Could the project be affected by natural disasters causing environmental damage (e.g. floods, earthquakes, landslides, cloudburst etc)?	Yes	There is no risk of flooding to the project site The project is located in Seismic Zone III as per IS: 1893 (Part-1) 2002. Therefore, possibility of disaster due to earthquake is not anticipated.
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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 utilities, ancillary development or development stimulated by the project which could have impact on the environment e.g.: <ul style="list-style-type: none"> ◦ Supporting infrastructure (roads, power supply,waste or waste water treatment, etc.) ◦ housing development ◦ extractive industries ◦ supply industries ◦ Other 	Yes	The project will be having ancillary and supporting activities such as: <ul style="list-style-type: none"> • Internal road network • Sewer lines • Sewerage treatment plant • Water supply • Solid waste management Housing facility for airport staff is not planned in the project site. Not applicable.
9.2	Lead to after-use of the site, which could have an impact on the environment	No	Not applicable
9.3	Set a precedent for later developments	Yes	Contribute to the maximum possible extent for developing Kurnool as a tourism district
9.4	Have cumulative effects due to proximity to other existing or planned projects with similar effects	No	Not applicable.

(III) Environmental Sensitivity

S.No	Areas	Name/Identity	Aerial distance (within 15km.) Proposed project location boundary
1	Areas protected under international conventions, national or local legislation for their ecological, landscape, cultural or other related value	No	This project does not involve land protected under any 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	Yes	Particulars Distance (km) Direction Kurnool Cuddapal Canal 9.7 SSE Saddara Vagu 13 SW Tungabhadra River 10.9 NNW Handri River 13.9 NW Kunderu River 8 ENE Pacha Vagu 8 ESE Kommu cheruvh 11.2 SE 2 RF near Bhairavapuram village 11.8 WSW RF near Gargeyapuram 7.1 NNW RF near Kalava 11.7 SE Kunderu Nala On site
3	Areas used by protected, important or sensitive species of flora or fauna for breeding, nesting, foraging, resting, over wintering, migration	No	The area was reported not to have important or sensitive species of flora or fauna for breeding, nesting, foraging, resting, over wintering, migration.

4	Inland, coastal, marine or underground waters	No	No inland, coastal, marine or underground waters affected from the project area.
5	State, National boundaries	No	No State or National boundaries present in 10 km boundary of proposed project site.
6	Routes or facilities used by the public for access to recreation or other tourist, pilgrim areas	No	Not applicable
7	Defence installations	No	No defense installations
8	Densely populated or built-up area	Yes	No metropolitan city is there within the study area.
9	Areas occupied by sensitive man-made land uses (hospitals, schools, places of worship, community facilities)	No	The project area does not occupy by sensitive man-made land uses (hospitals, schools, places of worship, community facilities) etc, Nearest the Pudicherla Village 0.5 km in West side.
10	Areas containing important, high quality or scarce resources.(ground water resources,surface resources,forestry,agriculture,fisheries,tourism,minerals)	No	The area does not contain important, high quality or scarce resources such as ground water resources, surface resources, forestry, agriculture, fisheries.
11	Areas already subjected to pollution or environmental damage.(those where existing legal environmental standards are exceeded)	No	Not applicable.
12	Areas susceptible to natural hazard which could cause the project to present environmental problems (earthquakes, subsidence, landslides, erosion, flooding or extreme or adverse climatic conditions) similar effects	No	The project is located in seismic zone III as per IS: 1893 (Part-1) 2002. Therefore, possibility of earthquake is not anticipated. So there will be no effect of natural hazards on the project.

(IV) Proposed Terms of Reference for EIA studies

1	Uploaded Proposed TOR File	Annexure-TOR file
2	Uploaded scanned copy of covering letter	Annexure-scanned copy of covering letter
3	Uploaded Pre-Feasibility report(PFR)	Annexure-PFR
4	Uploaded additional attachments(only single pdf file)	Annexure-Additional attachments

Essential Detail Sought : NIL

Additional Detail Sought : NIL

(V) Undertaking

I hereby give undertaking that the data and information given in the application and enclosures are true to be best of my knowledge and belief and I am aware that if any part of the data and information found to be false or misleading at any stage, the project will be rejected and clearance given, if any to the project will be revoked at our risk and cost.

V. (i)	Name of Applicant Designation	M Managing Director
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**Name of Company (Applicant Name
should not be given here)**

BHOGAPURAM INTERNATIONAL AIRPORT CORPORATION LTD

Address

10-2-1, IIIrd Floor, FDC Complex, AC Guards, Hyderabad

**SPECIAL RULES FOR REGULATING THE CONSTRUCTION AND
MAINTENANCE IN THE VICINITY OF CIVIL AERODROMES.**

(G.O.Ms.No.502, Local Administration, 10th March, 1972)

Published in the Tamil Nadu Government Gazette, Part V, Page 320, dated 5th April, 1972)

S.R.O.No.A-277 of 1972-

In exercise of the powers conferred by section 191 and sub-section (1) of section 303 of the Tamil Nadu District Municipalities Act, 1920 (Tamil Nadu At V of 1920), the Governor of Tamil Nadu hereby makes the following special rules for regulating the construction of buildings, installations or structures and planting of trees in the vicinity of Civil Aerodromes.

RULES

1. Short title and extent-

These rules may be called Special Rules for Regulating the Construction and Maintenance in the Vicinity of Civil Aerodrome, 1970.

2. Application of building rules:-

These rules shall be in addition to the building rules made under the Tamil Nadu District Municipalities Act, 1920 (Tamil Nadu Act V of 1920), but shall have effect notwithstanding anything inconsistent therewith contained in the building rules.

3. Definition:-

For purpose of these rules-

(i) “vicinity of the civil Aerodrome” and “vicinity of Airforce, Air-field and installations” means the areas and the distances respectively specified in Schedules I and II appended to these rules; and

(ii) “Schedule” means the Schedule appended to these rules.

4. Prohibition of buildings in the vicinity of Civil Aerodromes or Air-force or Air-field and Installation:-

No person or authority other than the Civil Aviation Department or the Ministry of Defence, Government of India or State Government shall erect or re-erect or make material alterations in any building, installation or structure in the vicinity of a Civil Aerodrome or Air-force, Air-field and installations save as expressly provided in these rules.

5. Application for construction or re-construction of buildings, structures and Installation:-

(i) Every person or authority other than the Civil Aviation Department or the Ministry of Defence, Government of India or the State Government who intends to erect, re-erect or make material alterations in any building, installation or structure in the vicinity of a Civil Aerodrome or Air-field and installations shall give an application in writing in duplicate to the municipal council.

(ii) The application shall be accompanied by plans and statements in duplicate relating to the proposed work, and indicating precisely the distance from the outer boundaries of the civil Aerodrome or Air-force, Air-field and Installation, as the case may be.

6. Obtaining of report from Aerodrome Authority:-

The municipal council on receipt of the application under rule 5 shall forward one copy of the application to the Aerodrome Authority or the Station Commander of the Air-force, Air-field Installations as the case may be, and obtain as report, only in respect of constructions that fall within 2,400 metres from the perimeter of the Aerodrome or Air-force or Air-field Installations and then the municipal council will see that the standards prescribed in the Schedule are adhered to; and in respect of constructions that fall beyond 2,400 metres the municipal council shall see that the standards prescribed in Schedules I and II are adhered to.

7. Time-limit for intimating objection by the Aerodrome Authorities:-

The Aerodrome Authority or Station Commander of the Air-force, Air-field and Installations, as the case may be, shall intimate to the municipal council within 30 days from the date of the receipt of the documents under rule 5 whether or not he has objection to the proposed construction.

8. Refusal of permission:-

(i) If the Aerodrome Authority or Station Commander of the Air-field, Air-force and Installations objects to the proposed work or any part thereof, the municipal Council shall refuse permission for the work or its parts, as the case may be.

(ii) Permission shall not be given by the municipal council for erection, re-erection or making material alterations in a building, installation or structure in vicinity of a Civil Aerodrome or Air-force, Air-field and installations, if "No Objections Certificate" is not received by the municipal council from the Aerodrome Authority or the Station Commander of the Air-force, Air-field and Installations, as the case may be:-

(a) if the height of the proposed work exceeds or would when carried out, exceed the limit specified in Schedule I in the case of Civil Aerodrome and the limit specified in Schedule II in the case of the Air-force, Air-field, and Installations; and

(b) if the proposed work involves the construction of chimneys letting out smoke.

9. Planting of trees:-

No tree shall be planted by any person or authority within the limits of the distance of a Civil Aerodrome mentioned at Serial No.9 of Schedule I, without first obtaining the permission in writing from the Aerodrome Authority.

10. Erection of radio-masts:-

No person shall fix or erect within the limits of the municipality any radio-mast or such similar types of installations, exceeding five hundred feet in height without first obtaining the permission in writing from the Director-General, Civil Aviation.

The elevation of the top (which is also called the reduced level of the top) of the buildings, structures, installations proposed to be constructed in the neighbourhood of International Airports and their alternates should be within the limits indicated in the table below:-

Serial number and limits of distance from the aerodrome reference point measured horizontally, buildings structures or installations.

(1)	(2)
1. INTERNATIONAL AIRPOTS:	
1. Between 8,400 metres and 20 nautical kilometers	Less than 150 metres
2. Between 7,200 metres and 8,400 metres:	Less than 120 metres
3. Between 6,000 metres and 7,200 metres:	Less than 90 metres
4. Between 4,800 metres and 6,000 metres:	Less than 60 metres
5. Between 4,800 metres and 6,000 metres:	Less than 48 metres
6. Between 3,600 metres and 4,200 metres:	Less than 36 metres
7. Between 3,000 metres and 3,600 metres:	Less than 24 metres
8. Between 2,400 meters and 3,000 metres	Less than 12 metres
9. Between 2,400 metres and less:	Nil
	Except with the prior concurrence of the local aerodrome authorities.

II. OTHER CIVIL AIRPORTS AND CIVIL AERODROMES-

1. Between 7,800 metres and 20 nautical kilometres	Less than 150 metres
2. Between 6,600 metres and 7,800 meters.	Less than 120 metres
3. Between 5,400 metres and 6,600 meters.	Less than 90 metres

4.	Between 4,200 metres and 5,400 metres.	Less than 60 metres
5.	Between 3,600 metres and 4,200 metres.	Less than 48 metres
6.	Between 3,000 metres and 3,600 metres	Less than 36 metres
7.	Between 2,400 metres and 3,000 metres	Less than 24 metres
8.	Between 1,800metres and 2,400 metres	Less than 12 metres
9.	Between 1,800 metres and less	Nil.
		Except with the prior concurrence of the local aerodrome authorities.

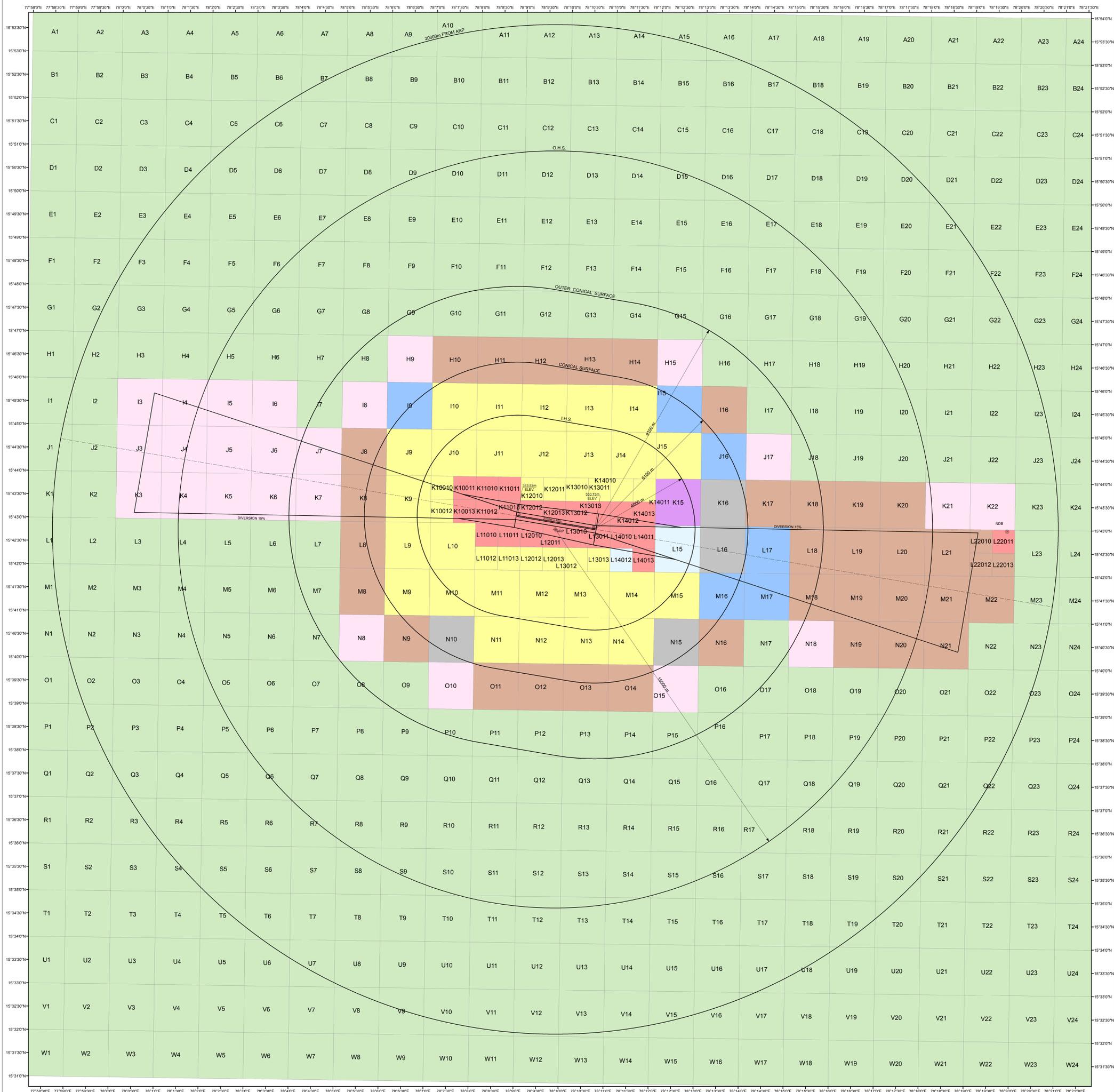
SCHEDULE II
(Referred to in rule 3 and rule 8).

Serial number and distance, area etc. (1)	Particulars of structures (2)
1. Within 670 metres (a) Radar, i.e.-	Structures of any height or depth
(i) Fixer Station	”
(ii) High Frequency Direction Finding Station	”
(iii) Very High Frequency Direction Finding Station	
(iv) Sector Operations Centre	
(v) Ground Controlled Interception Station	
(b) Wireless receiving station	
2. Between 670 and 3,150 meters of (i), (ii) and (iii) of item I (a) above	
3. Within the approach circuit of an air field, i.e.-	
(a) between 1,050 metres and 3,150 metres of the perimeter of an air field having a runway or runways.	
(b) with 3,150 metres of the perimeter of the available landing area of an air-field having no runway.	
4. Within the flying funnel areas of an air-field upto 1,050 metres from the nearest end of the runway.	-Do-

Explanation.- A Flying Funnel area may be defined as the area included between two lines paid off at angle of fifteen degrees outwards from the point where the outer-edge of the sixty-eight metres cleared strip joins the perimeter track and the area bounded by lines extended from the edge of the full strip to where they meet the fifteen degree lines.

DATUM WGS-1984

KURNOOL AIRPORT LATITUDE 15°42' 53.120"N LONGITUDE 078°09' 46.750"E AERO ELEVATION 353.52m RWY 10/28 3100m x 45m	RWY END CO ORDINATES RWY 10 15°43' 9.650"N 078°08' 56.310"E RWY 28 15°42' 54.160"N 078°10' 39.120"E		LIST OF NAV AIDS AT KURNOOL AIRPORT		SCALE 1:50000 0 1,000 2,000 3,000 4,000 5,000 6,000 7,000 Meters 1. ALL GEOGRAPHICAL COORDINATES ARE IN WGS-1984. 2. ALL ELEVATIONS, CONTOURS AND DIMENSIONS ARE IN METERS.		COLOR CODED ZONING MAP (GRID FORMAT) OF KURNOOL AIRPORT
	S.NO.	NAV AIDS	CO ORDINATES	ELEVATIONS			
	1.	NDB	15°42' 57.920"N 078°19' 51.000"E	362m			



COLOUR LEGEND

Red	NOC TO BE OBTAINED FROM AAI	Blue	PERMISSIBLE TOP ELEV. 403M AMSL OR BELOW
Light Blue	PERMISSIBLE TOP ELEV. 368M AMSL OR BELOW	Orange	PERMISSIBLE TOP ELEV. 433M AMSL OR BELOW
Purple	PERMISSIBLE TOPELEV. 373M AMSL OR BELOW	Pink	PERMISSIBLE TOP ELEV. 463M AMSL OR BELOW
Yellow	PERMISSIBLE TOPELEV. 383M AMSL OR BELOW	Light Green	PERMISSIBLE TOP ELEV. 493M AMSL OR BELOW
Grey	PERMISSIBLE TOP ELEV. 393M AMSL OR BELOW		

NOTES:-

- THIS CCZM HAS BEEN ISSUED IN ACCORDANCE WITH MOCA NOTIFICATION NO GSR 751(E) RULE 6 IN RESPECT OF KURNOOL AIRPORT AND DOES NOT INCLUDE JURISDICTION OF DEFENCE AIRPORT.
- NOC IS NOT REQUIRED FROM AAI FOR BUILDINGS / STRUCTURES PROPOSED TO BE CONSTRUCTED UP TO THE HEIGHT PERMITTED VIDE THIS CCZM. REFER G 751 (E) RULE 7 (2) (3) & (4).
- THE ELEVATION PERMITTED BY CCZM ARE INDICATED ABOVE MEAN SEA LEVEL I.E. AMSL. BUILDING HEIGHT PERMITTED I.E. ABOVE GROUND LEVEL (AGL) WILL BE CALCULATED AS **BUILDING HEIGHT (AGL) = CCZM ELEVATION FOR THE RESPECTIVE GRID - SITE ELEVATION OF THE BUILDING.**
- AS PER GSR 751 (E) RULE 4 (4), THE LEVEL ROADS AND LEVEL RAILWAY LINES WITHIN ONE KILOMETER OF THE AIRPORT BOUNDARY WALL SHALL ALSO BE SUBJECT TO ISSUANCE OF THE NO OBJECTION CERTIFICATE.
- AS PER GSR 751 (E) SCHEDULE - 1 (1.2), INSTALLATION OF EXTRA HIGH TENSION, HIGH TENSION LINES SHALL NOT BE PERMITTED WITHIN 1500 METERS OF THE INNER EDGE OF THE APPROACH AND TAKE-OFF-CLIMB SURFACE.

APPLICABLE FROM DATE-----03-07-2019
(SUBJECT TO REVIEW AND WHEN REQUIRED)

VERSION-----1.0	DATE-----03-07-2019
COMPILED BY----- SR.SUPDT.(CARTO)	(SHARDA KHANNA)
RECOMMENDED BY----- AGM (ATM-DoAS)	(K.K.SONI)
APPROVED BY----- GM(ATM-DoAS)	(R.K.SINGLA)

Environmental Impact Assessment

For Development of Greenfield International Airport at Tehsil -Bhogapuram, District - Vizianagaram, Andhra Pradesh



M/s Bhogapuram International Airport Corporation Limited,
Andhra Pradesh

February 2017

Environment Consultant:

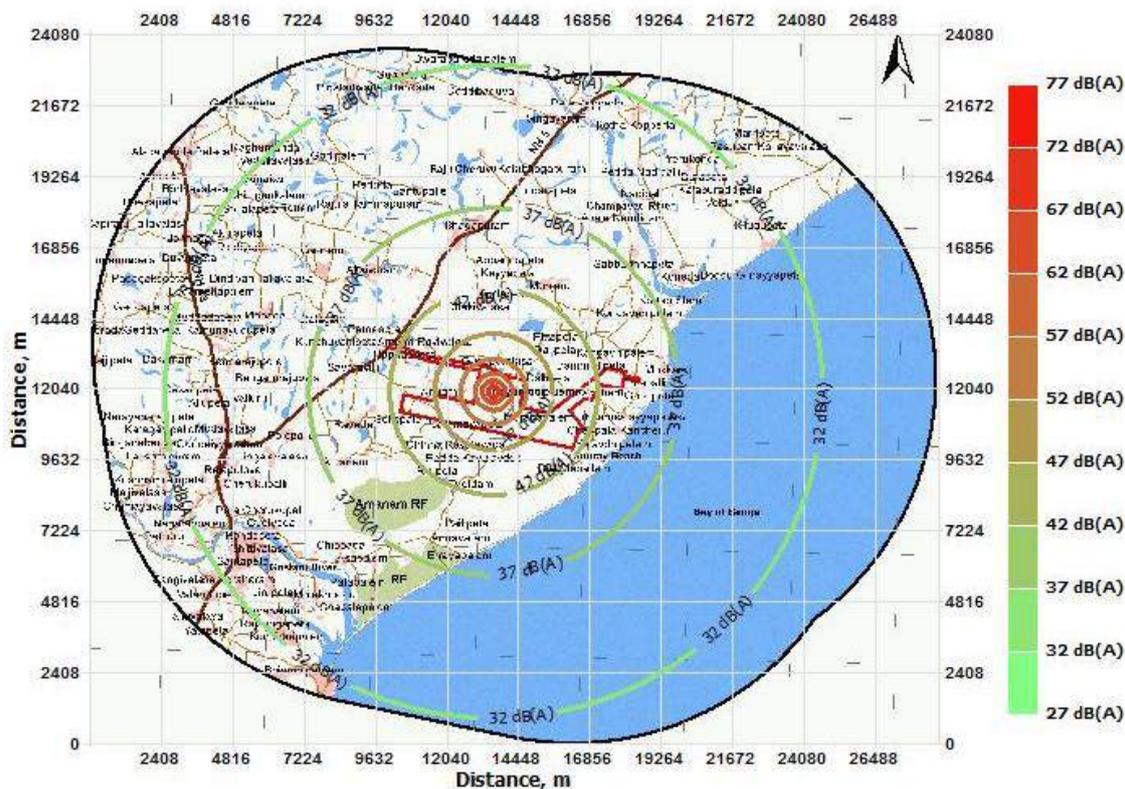


GREENCINDIA CONSULTING PRIVATE LIMITED
Ghaziabad, Uttar Pradesh

Figure 4-10: Predicted Noise Level of Aircrafts



Figure 4-11: Predicted Noise Level of Airport on Surrounding Areas

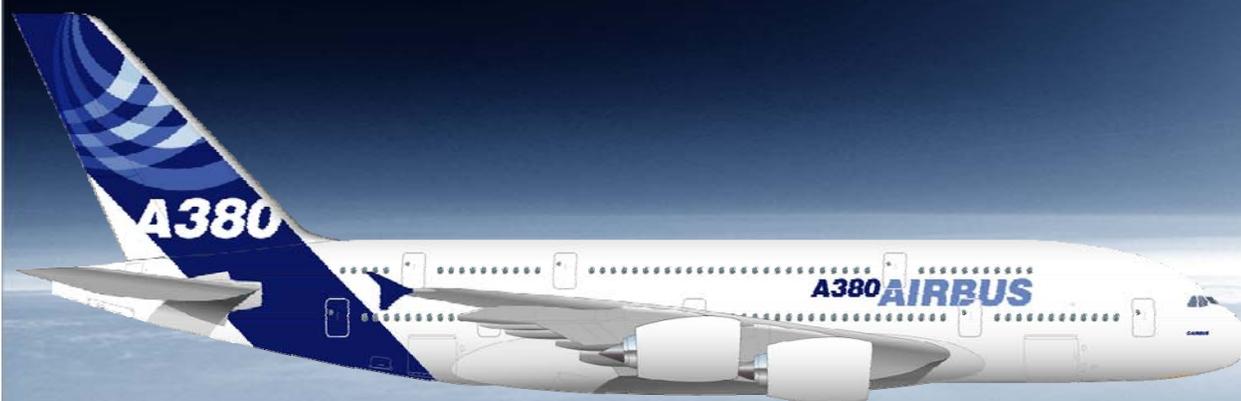


DG Sets: During operation phase, DG Set of 2MVA rating (6 Nos.) and 1 standby of 2MVA capacity will be installed at the proposed airport to meet the power requirement in the event of power grid failure. DG sets will be provided acoustic enclosure as per CPCB guidelines, anticipated noise level will be essentially within 75 dB(A), as per prescribed noise standards.

The isophones of LDN considering day as well as night operations is given in **Figure 4-11**. A fine of 10 db(A) is given for night operations as per CPCB recommendations.

A380: Designed for LAX

The Environmental Benefits Of the New Larger Aircraft



Presented by

Dan Cohen-Nir

Programs Director, Airbus Americas

www.airbusamericas.com



It's great to be back in LAX...



A380 First of the two visits in March 2007



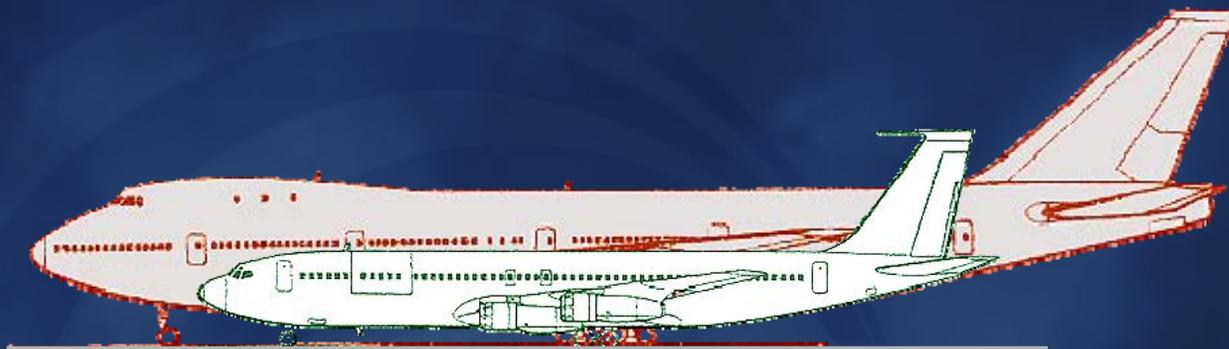
The A380 capacity change in context

The revolution of 1970 707-320B to 747-100

150
pax

+150%

747-100 – 375
pax



Evolution in the 21st century 747-400 to A380

747-400 – 402
pax

+35%

A380 – 555
pax



A380 Benefits

- Higher capacity
 - ▶ 35% more passengers (passenger aircraft)
- Massive gains in economics
 - ▶ 15% lower cost/seat
 - ▶ 20% lower cost/pound of cargo
- Longer range
 - ▶ More payload on critical routes
 - ▶ New non-stop markets, simplified networks
- Passenger comfort
 - ▶ Almost 50% more cabin floor volume
 - ▶ More space per passenger

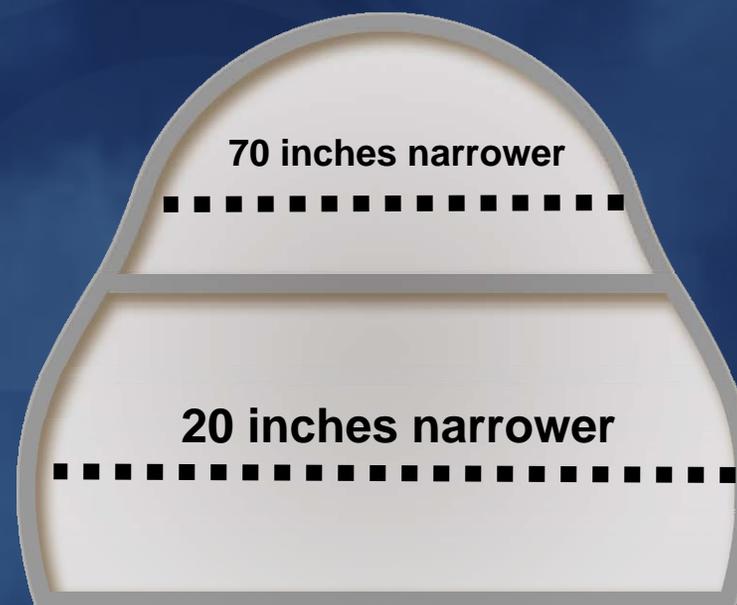


A380 – dimensioned for the future

A380



747

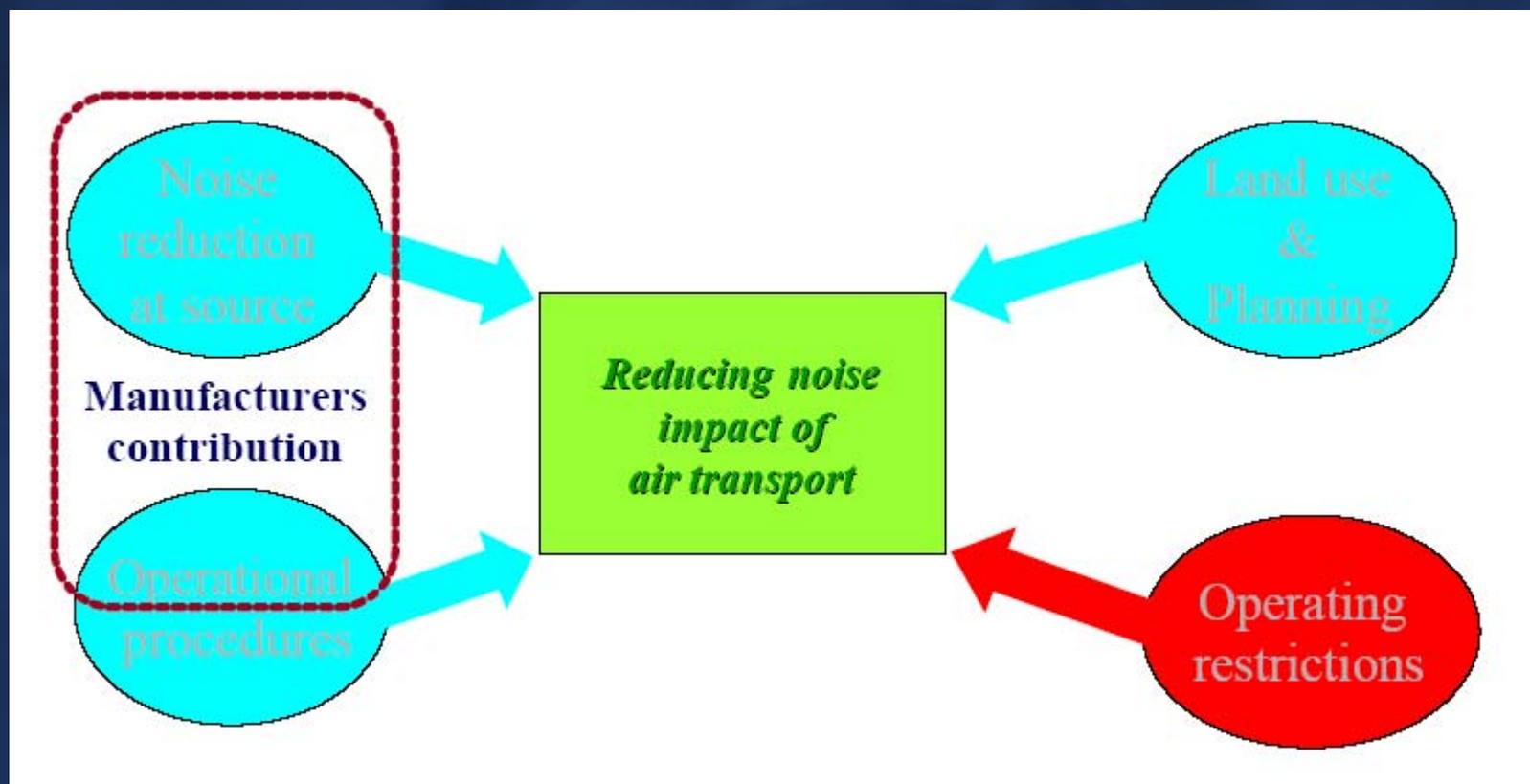


A380 upper deck: true wide body comfort

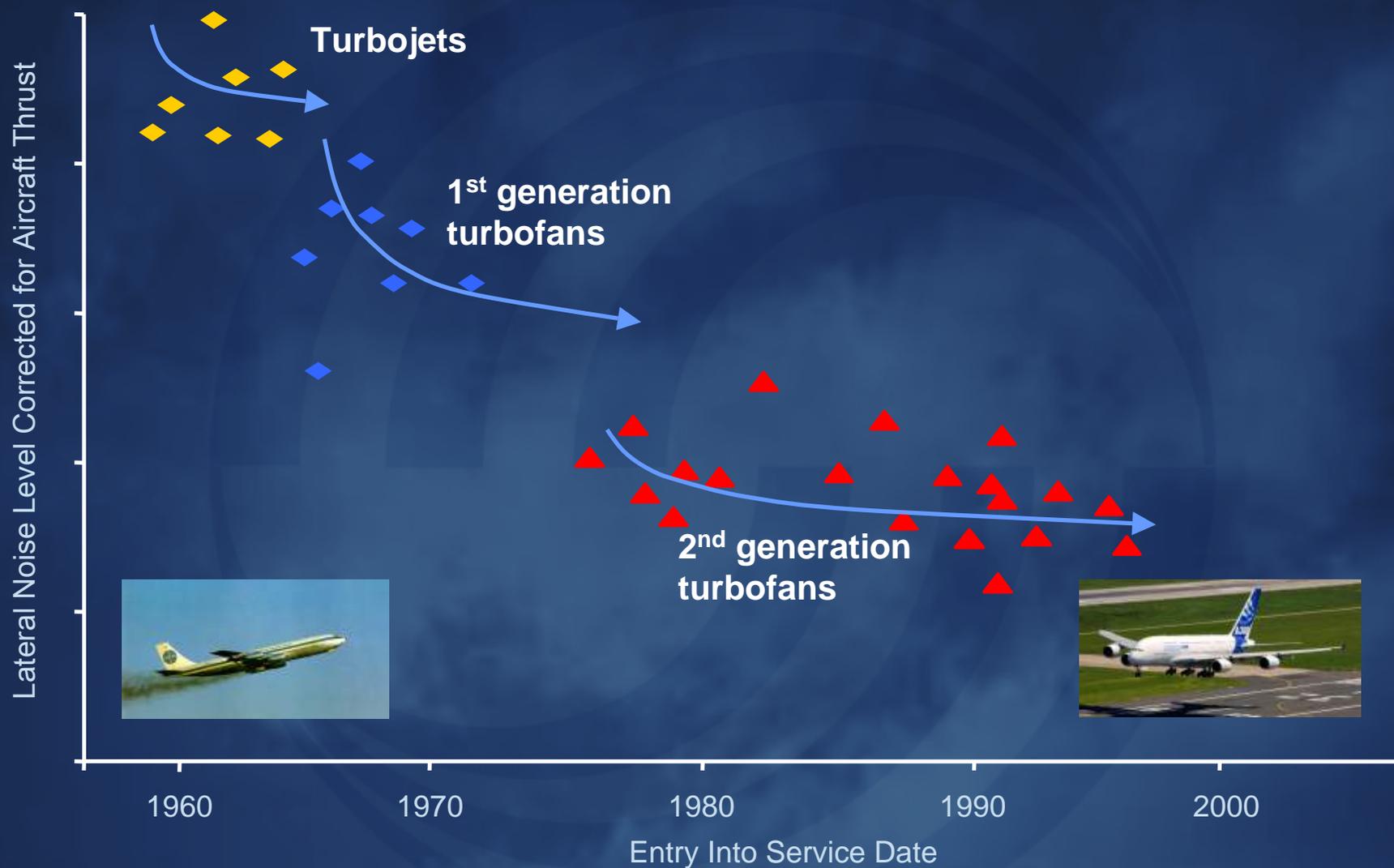
A380 main deck: the widest cabin ever

More space per passenger than a 747

Internationally recommended balanced approach to airport noise reduction



20dB airport noise reduction = 75% quieter!

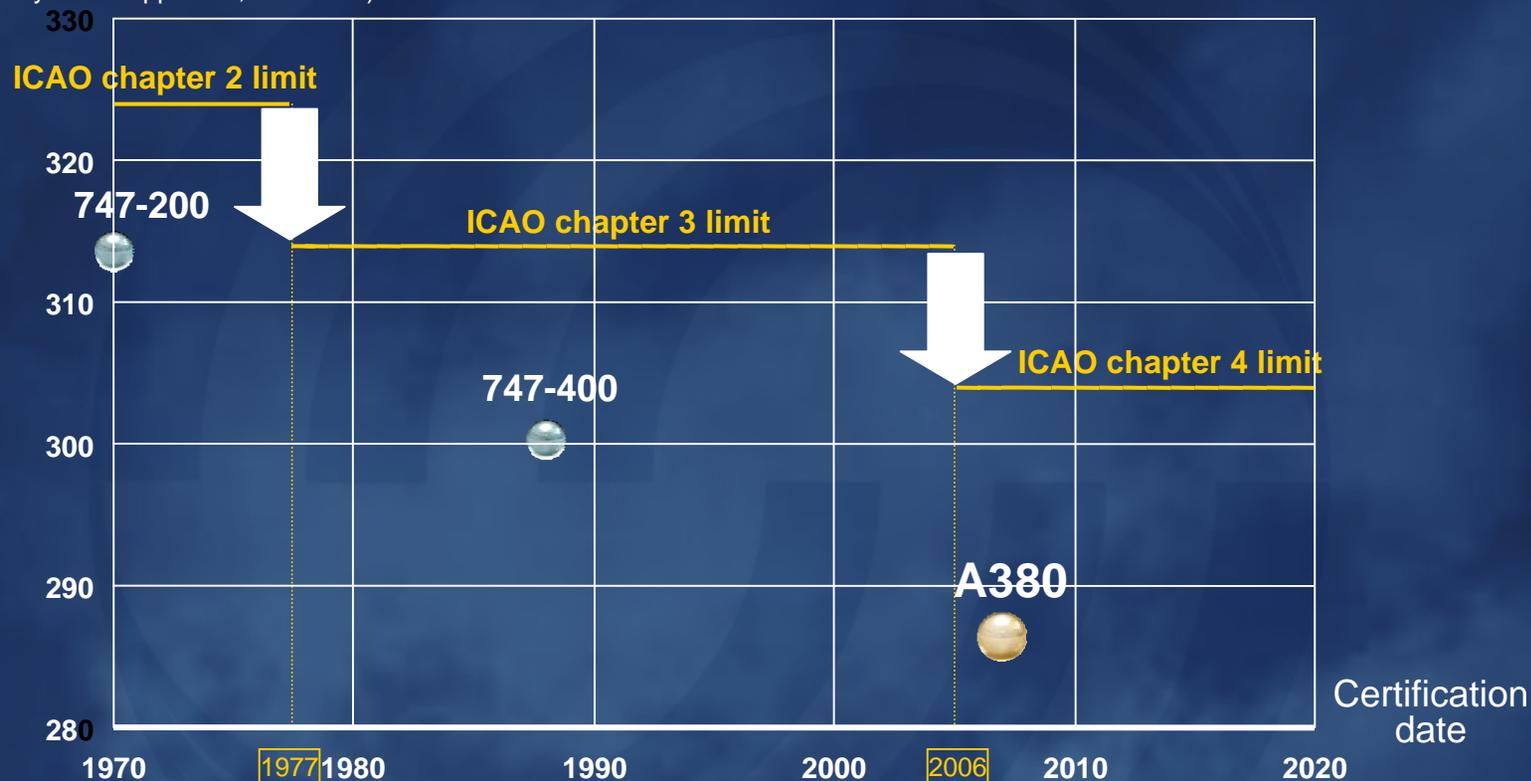


Environmental pressure: noise regulation

Cumulated certificated noise values

(sideline + flyover + approach, in EPNdB)

Source ICAO, FAA



Continuous environmental pressure: the A380 had to bring a step change in environmental friendliness

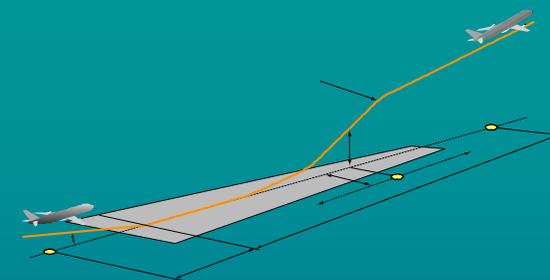
Technology for lower noise



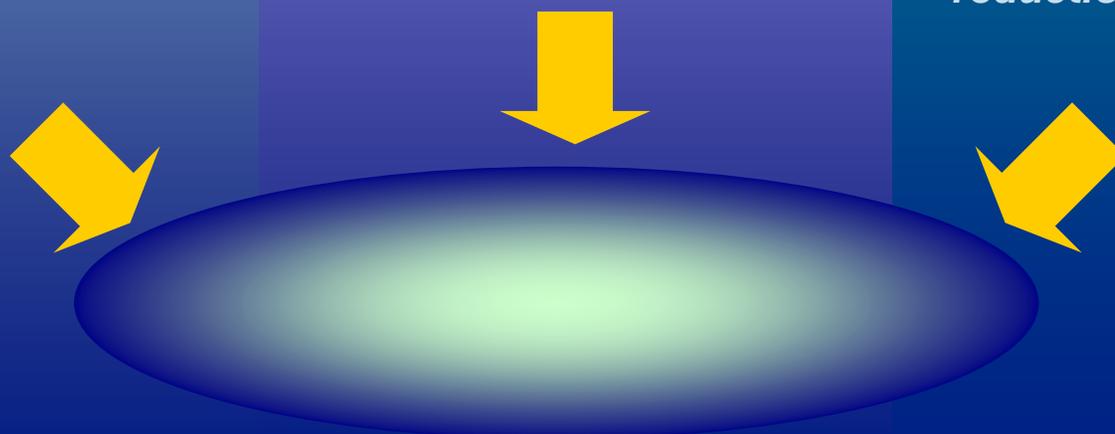
Rolls-Royce



Performance

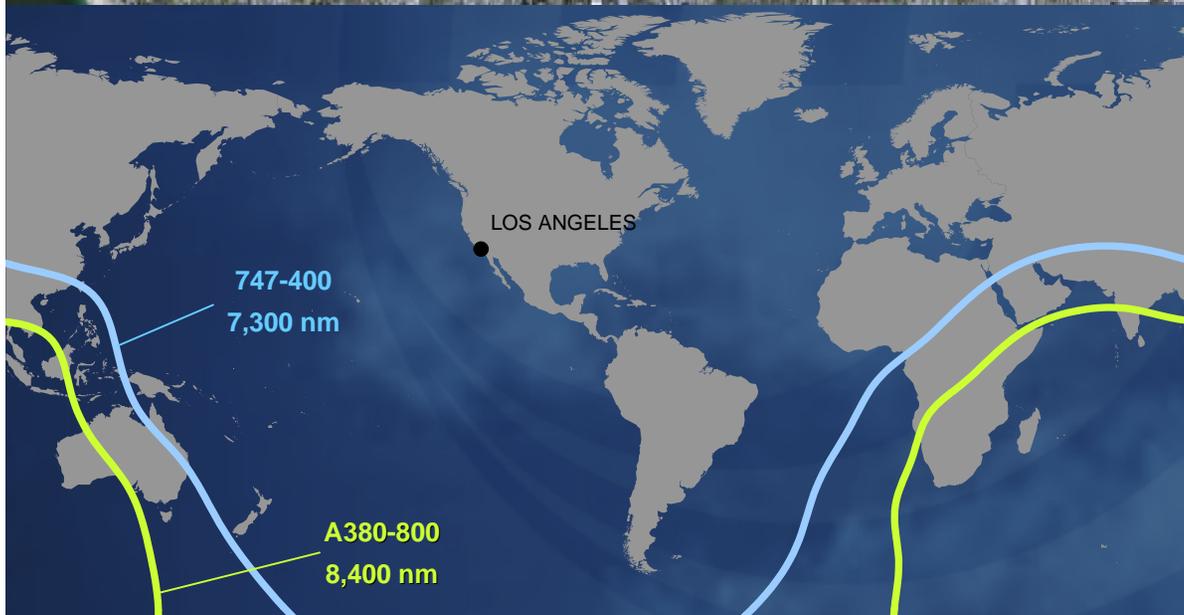
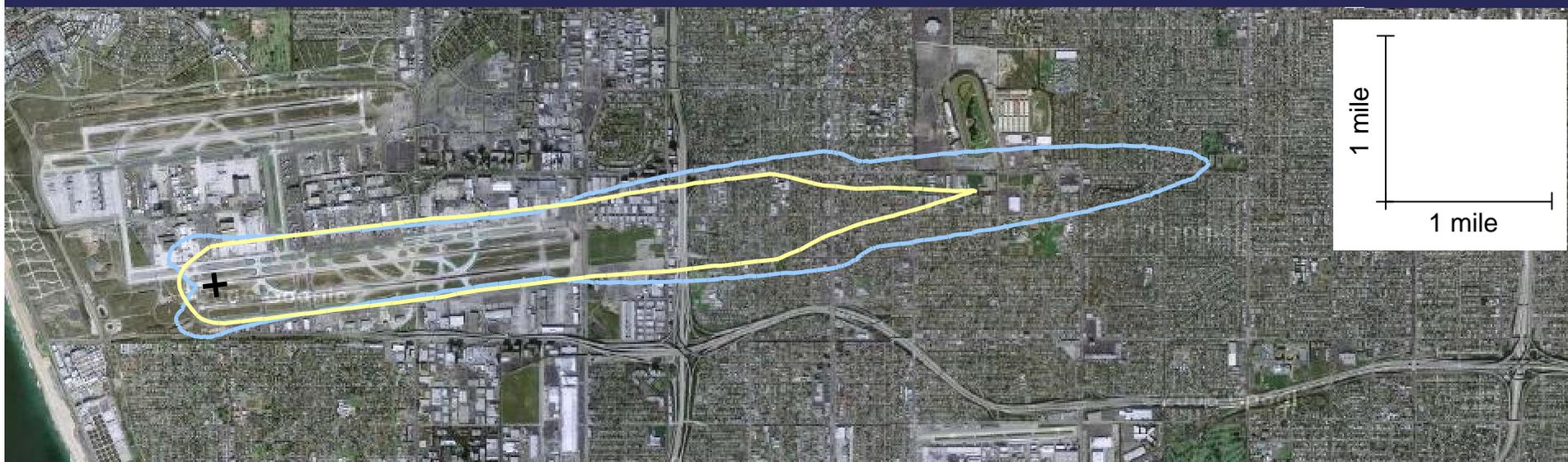


- *Better climb performance and lower approach speed*
- *Automated and customised noise abatement procedure for take off for further noise reduction*

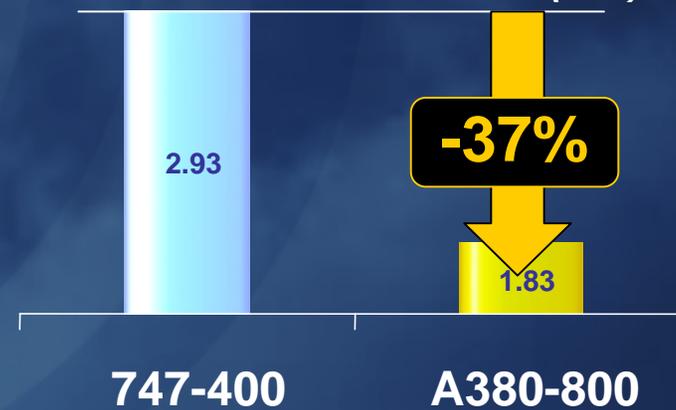


AIRBUS

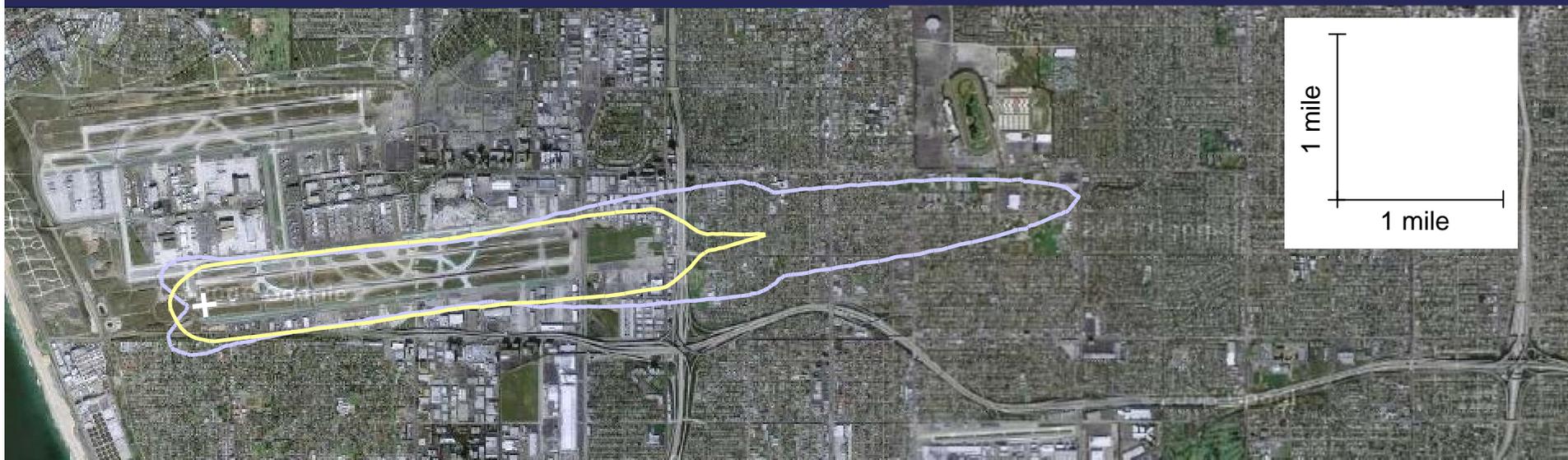
85 db noise contour from LAX at MTOW



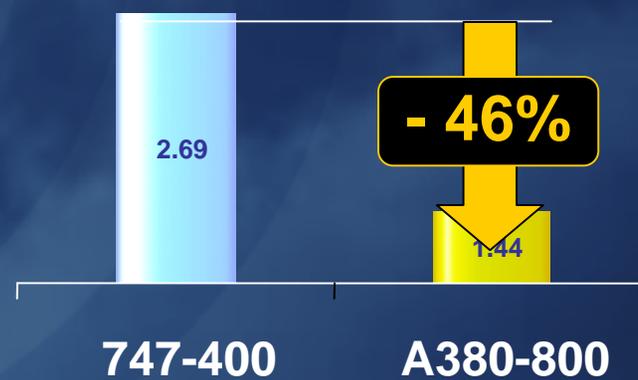
Noise contour surface (mi²)



85 db noise contour for a 5,000 nm mission



Noise contour surface (m^2)



Reducing noise at departure

ICAO standard procedures

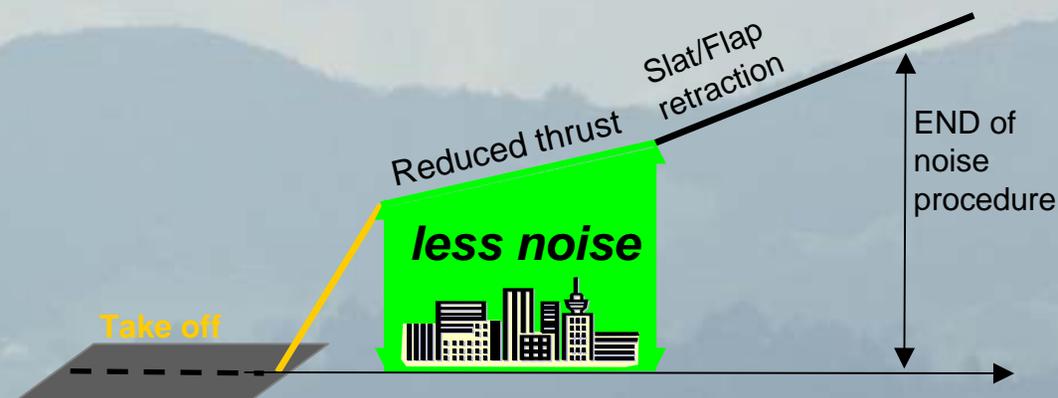


ICAO defined two Noise Abatement Departure Procedures (NADP):

- which optimise noise and reduce impact in the airport vicinity
- by optimising aircraft speed, configuration and engine thrust

NADP 1 Close in

reduction of thrust level before slats/flaps retraction, noise reduction for sensitive areas **close** to airport.



NADP 2 Distant

slats/flaps retraction before reduction of thrust level, noise reduction for areas **distant** to airport



Reducing noise at departure

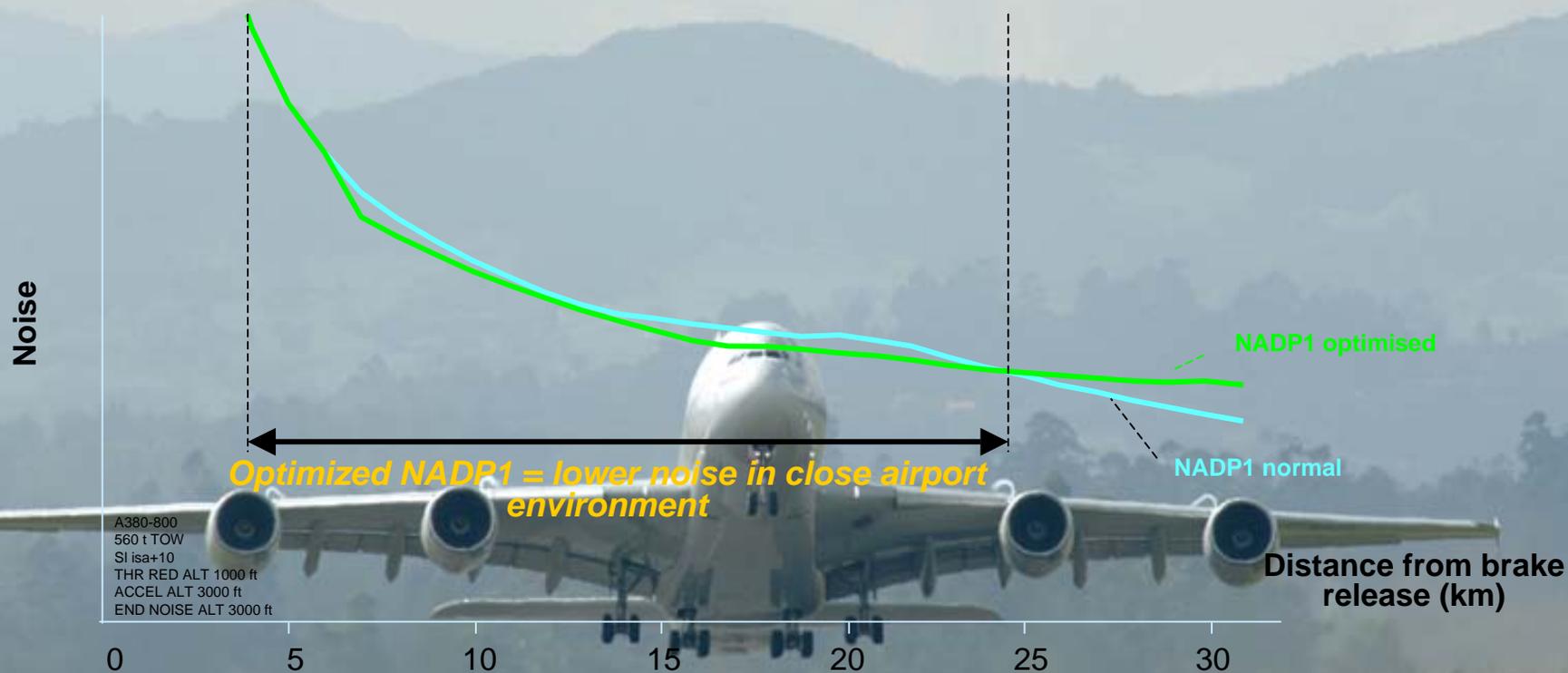
The A380 Airbus Departure Analysis Software

**Airport specific
noise constraints**

Aircraft data

**Airbus Departure
Analysis Software
(ADAS)**

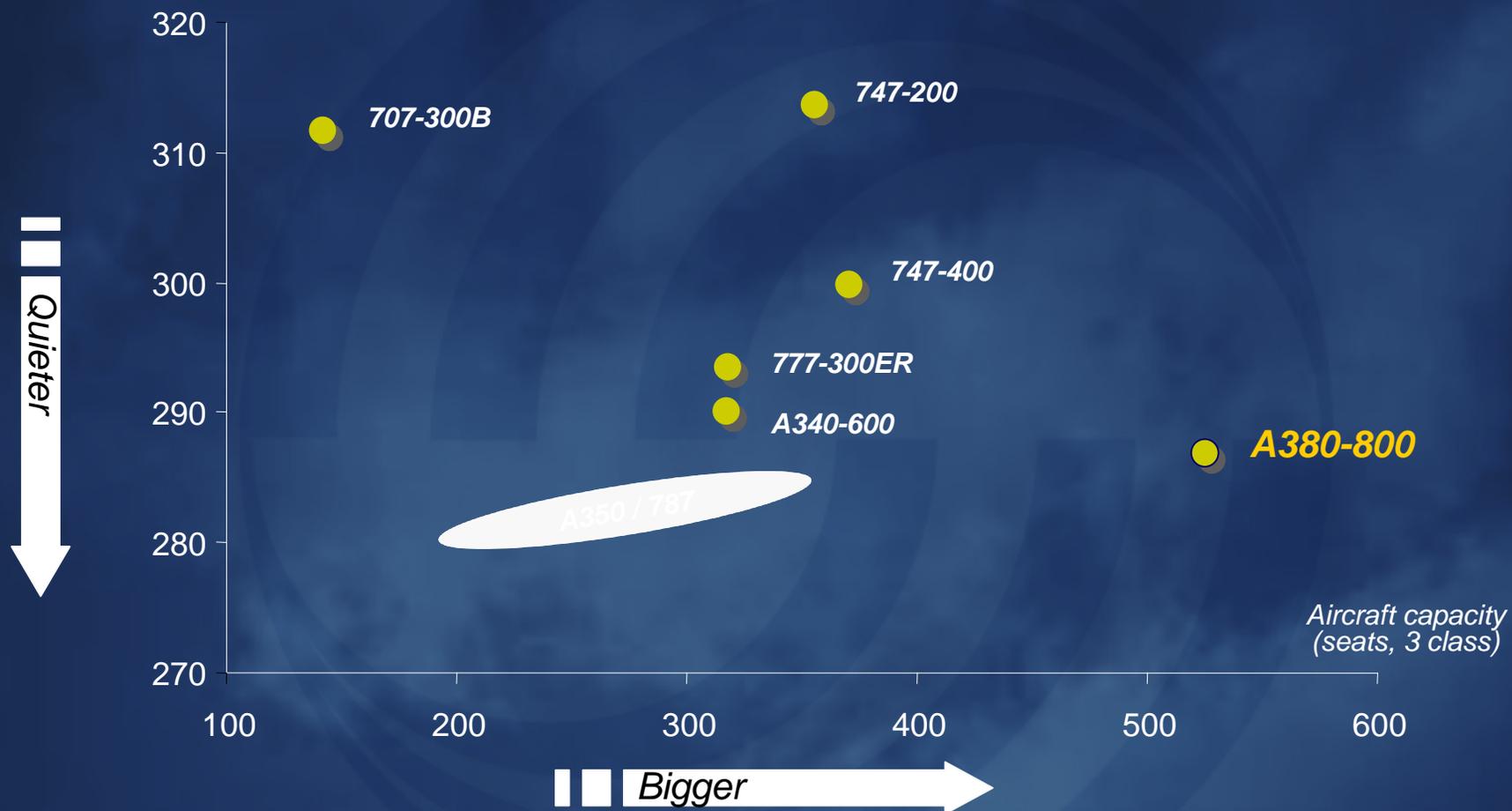
**Optimized NADP
in Flight Management
System**



ADAS calculates customised NADP enabling additional noise reduction up to 2 dB

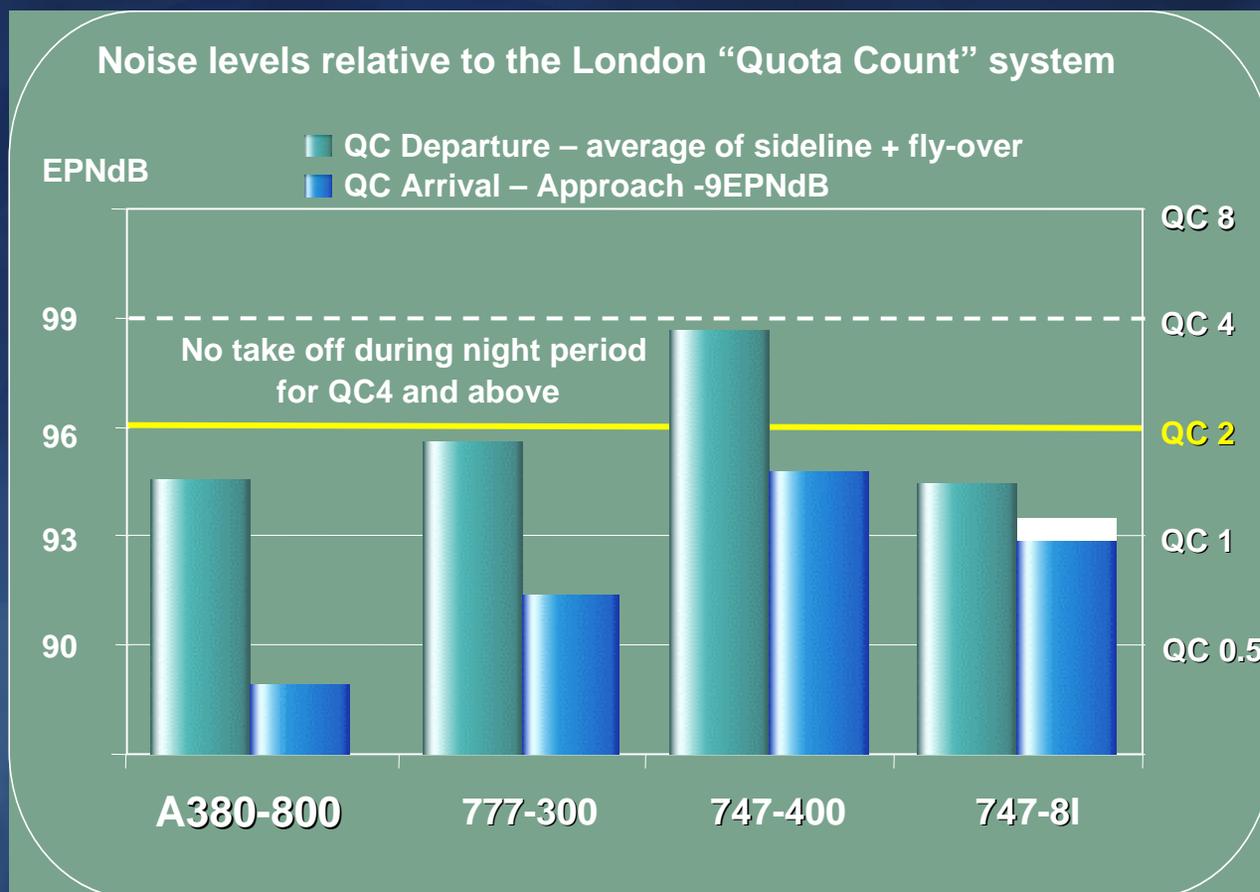
The A380 is the quietest large aircraft

Cumulated noise value: Approach +
sideline + flyover (EPNdB)



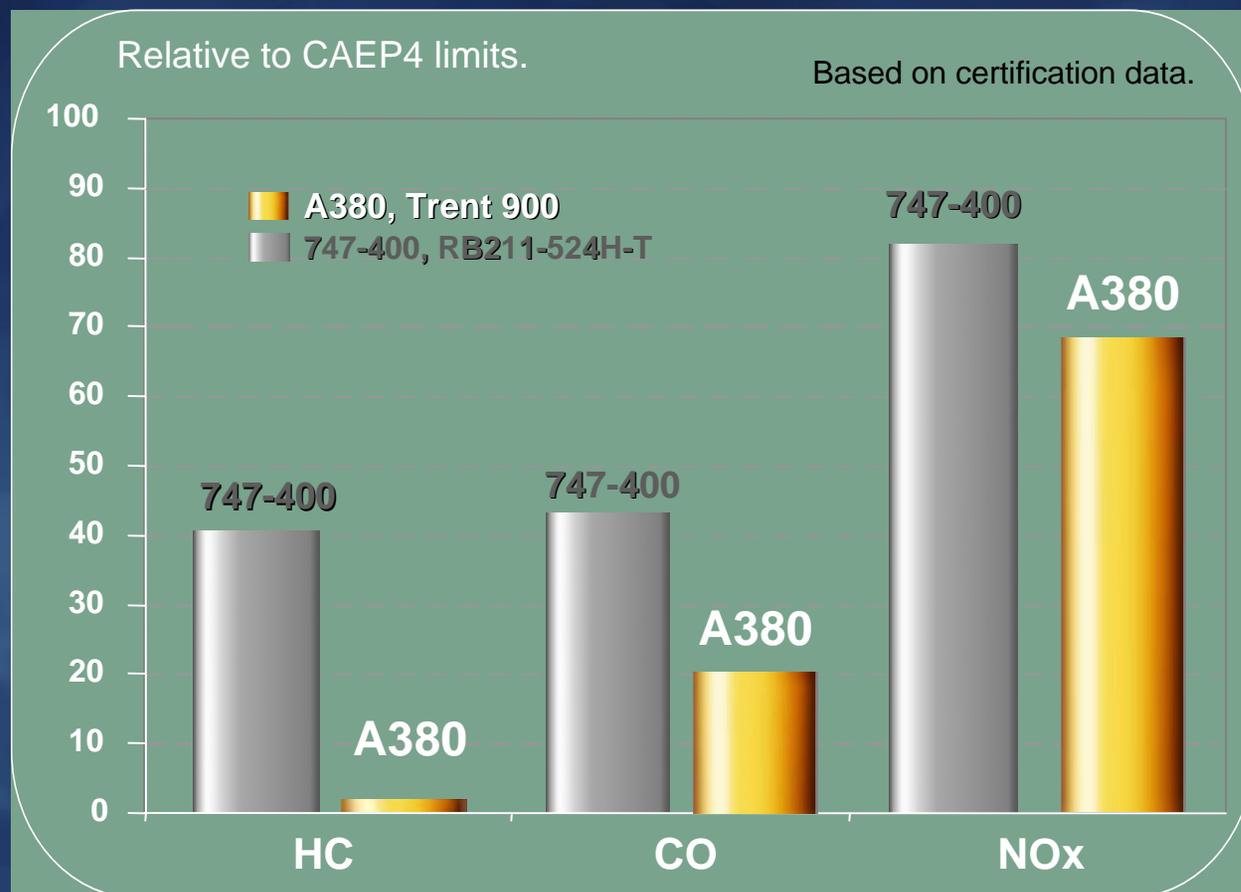
More passengers with less noise

A380 – The quietest in its class



A380 produces half the noise generated by the 747-400

A380 – The lowest emissions



Setting a new standard for the environment

Conclusion: The A380 double noise benefit

1

The capacity effect

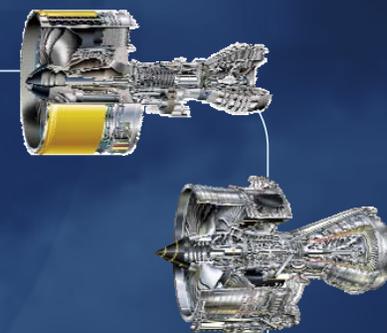
- With 35% more capacity than the 747-400, the A380 allows airlines to **cater for growth with fewer additional movements**



2

The technology effect

- The A380 is an all new design benefiting from technological advancements in noise reduction, leading to halve the acoustic energy of a 747-400



AIRBUS

A380 entry into service October 25, 2007



21st Century flagship

AIR FRANCE

BRITISH AIRWAYS

中国南方航空(集团)公司
CHINA SOUTHERN AIRLINES (GROUP)

Emirates

المطارات
marsans

ILFC



KINGFISHER

KOREAN AIR

Lufthansa

Malaysia

QATAR AIRWAYS القطرية



SINGAPORE AIRLINES



THAI

Virgin atlantic



A380 525 seats 8200nm

A380F 150 tonnes 5800nm

196 orders & commitments
from **17** customers

AIRBUS

SIA A380: comfort, space and luxury



Cabin pictures: courtesy Singapore Airlines



Singapore Airline Suites

A cabin class **beyond** First class

New Business Class

The world's **widest** B/C seat

New Economy Class

More personal **space**

UD boarding

Quietest cabin

Special lighting features

New version of KrisWorld IFE: eX2

Only in A380



A dream becomes reality

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**AN EADS JOINT COMPANY
WITH BAE SYSTEMS**



AIRBUS

Environmental Impact Assessment

For Development of Greenfield International
Airport at Tehsil -Bhogapuram, District -
Vizianagaram, Andhra Pradesh



M/s Bhogapuram International Airport Corporation Limited,
Andhra Pradesh

February 2017

Environment Consultant:



GREENCINDIA CONSULTING PRIVATE LIMITED
Ghaziabad, Uttar Pradesh



2.5.3 WATER BALANCE DIAGRAM

Figure 2-5: Water Balance Diagram During Non-Monsoon Season

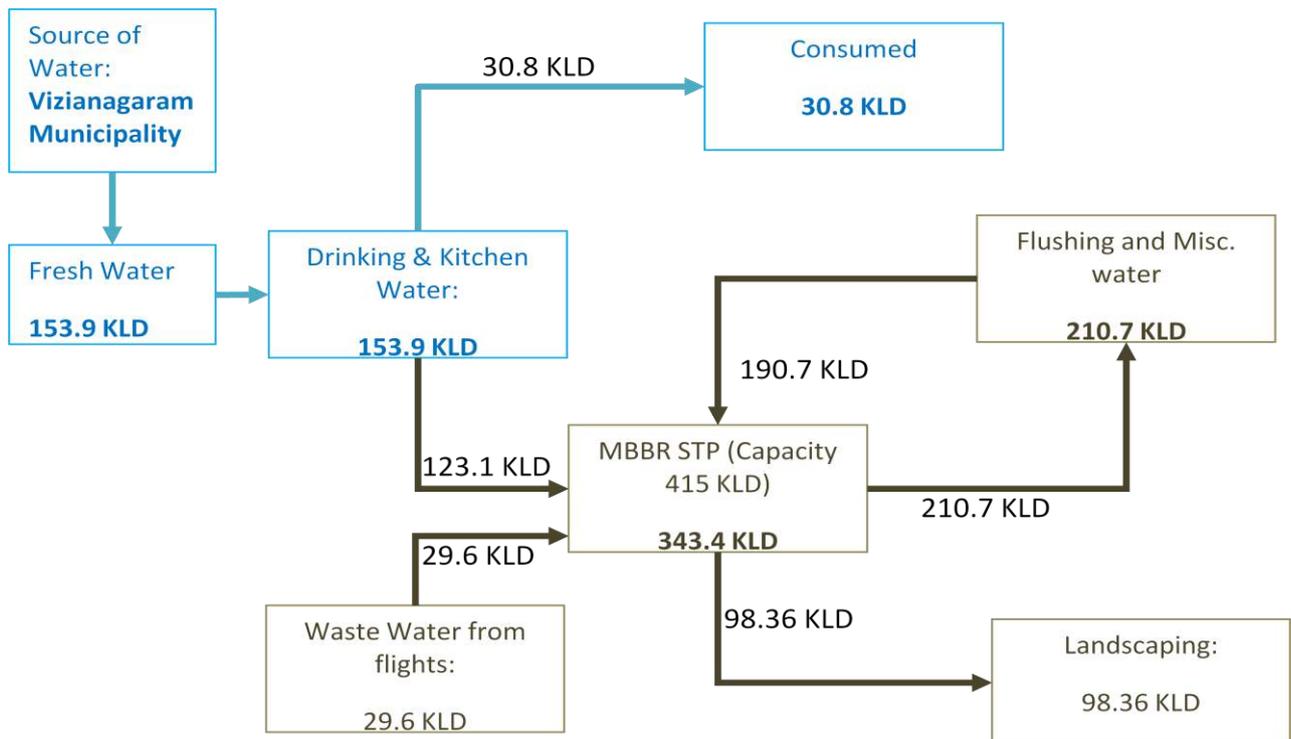
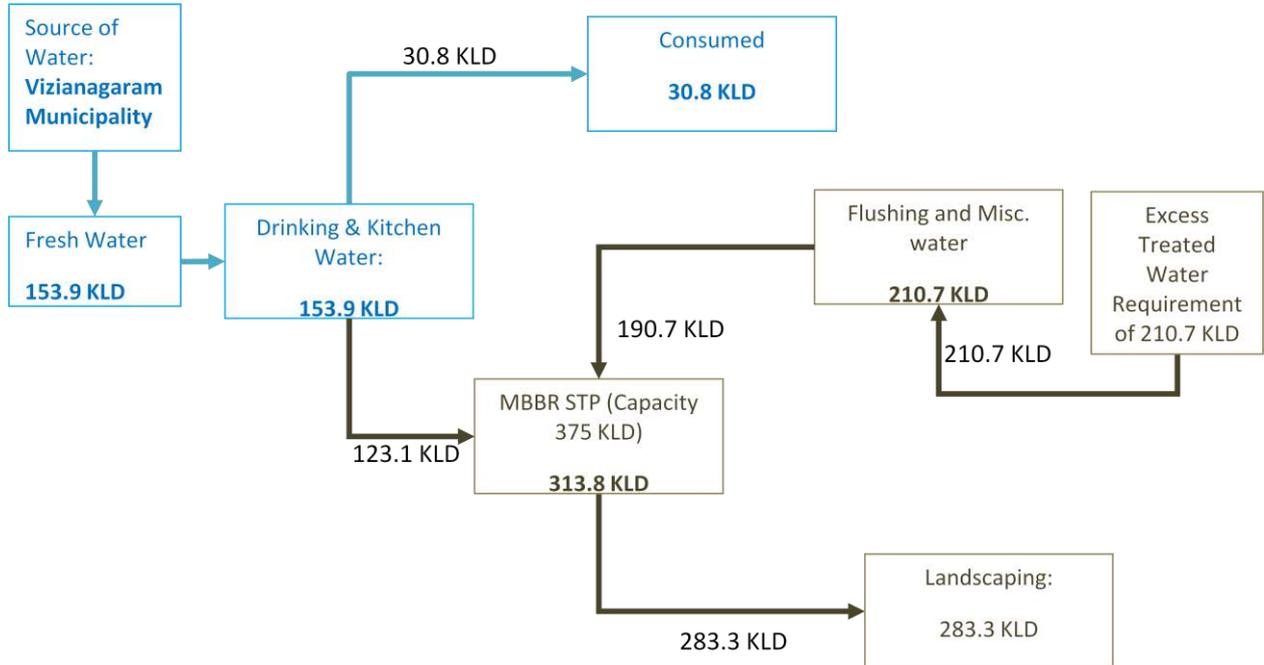


Figure 2-6: Water Balance Diagram During Monsoon Season

Environmental Impact Assessment

For Development of Greenfield International Airport at Tehsil -Bhogapuram, District - Vizianagaram, Andhra Pradesh



M/s Bhogapuram International Airport Corporation Limited,
Andhra Pradesh

February 2017

Environment Consultant:



GREENCINDIA CONSULTING PRIVATE LIMITED
Ghaziabad, Uttar Pradesh

	ENVIRONMENT IMPACT ASSESSMENT For Development of Greenfield International Airport at Bhogapuram Mandal, District - Vizianagaram, Andhra Pradesh	11
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11. DISCLOSURE OF CONSULTANT

11.1 INTRODUCTION TO FIRM

Greencindia Consulting Private Limited (GCPL) is an environmental consultancy organization, manned by a highly qualified, experienced and multidisciplinary team of scientists and engineers. The company has received accreditation from Quality Council of India (NABET-QCI) as an EIA Consultancy organization. The company has its own sophisticated in-house laboratory which is accredited to NABL.

The primary aim of GCPL is to sensitize policy planner and local people about their development needs through capacity building process. The company facilitates managerial and technical expertise to people and associations for development of areas and regions.

GCPL has undertaken more than 100 EIA and other associated studies and clearances for mining projects, thermal power projects; airports, road and highways; special economic zones (SEZs); urban infrastructure projects, etc.

The main objects of the Company are as follows;

- To carry on the business of providing all types of consultancy services related to Social And Environmental Impact Assessment, Environment Action Plan, Tribal Development Plan, Resettlement and Rehabilitation Action Plan, Project Information Report, Detailed Project Report, Need Assessment Report, Corporate Social Responsibility Plan, Forest Diversion Plan, Wildlife Conservation Plan, Drainage Plan and Hydrogeology Environment, Social & Land related legal services and any other consultancy services and studies related to urban development, rural development, environment, forest and legal aspects.
- To provide consultancy services in environment monitoring, sample collection of air, water, soil, meteorological data and publish testing results for the collected samples
- To undertake research study in the field of environment, social, legal, agriculture, urban planning, rural planning, alternate sources of energy etc and provide consultancy/advisory/training services in these field to government, quasi-government, non-government and private institutions.
- EPFI reporting, environmental and social impact assessment according to IFC guidelines and equator principles.

11.2 AREA OF EXPERTISE

- Environmental Impact Assessment
- Environmental Management Plan
- Disaster Management Plan
- Risk Assessment
- Rehabilitation & Resettlement Plan
- Pre-feasibility Report
- Detailed Project Report
- Geo-Technical Investigation
- National, Regional and Urban Plans

	ENVIRONMENT IMPACT ASSESSMENT For Development of Greenfield International Airport at Tehsil - Bhogapuram Mandal, District - Vizianagaram, Andhra Pradesh	11
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- Management Information System and Geographic Information system
- Urban Infrastructure Development including Water Supply and Solid Waste Management
- Environmental Monitoring and Assessments
- Impact Assessment Formulate Policies & Mitigation Measures R&R
- Natural Resource Management
- Terminal Planning and Design
- Institutional Strengthening
- Development, Functional and Strategic Planning and Design
- Preparation of Manuals
- Training Programmes

11.3 ACHIEVEMENT OF COMPANY

Greencindia Consulting Private Limited (GCPL) (formerly GIS Enabled Environment & Neo-graphic Center) is an ISO 9001:2008-QMS, 14001:2004-EM and 18001:2004-OHSAS certified company. The analytical tests for GCPL are conducted by Envirotech East Private Limited (EEPL). For accreditation certificates of EEPL refer to **Annex 11.1**. GCPL has signed MoU with EEPL (**Annex 11.2**) for specialized testing and analysis of samples from their laboratory.

The company is accredited with QCI-NABET since 2010 for following sectors:-

- Thermal Power Project
- Mining Project-coal and other than coal
- Chemical fertilizers
- Irrigation Projects
- Metallurgical Industries
- Hydro Power Projects
- Cement Plants
- River Valley, Hydel, Drainage and Irrigation Projects
- Airports
- Buildings and large construction projects and townships & area development projects
- Roads, Railways and other linear projects

11.4 BRIEF RESUME OF TEAM MEMBERS

GCPL comprises of group of professionals drawn from development related fields. The core members of **GCPL** team hold experiences in Developmental Planning, Pollution Control, Economic Analysis, Social Work and Information Technologies. In addition there is a panel of senior associates and young voluntaries facilitating the various programmes. The brief resume of the Environment Coordinator and Functional Area experts (Core Functional Areas & Significant Functional Area) are discussed below:-

Rahul Singh (EC & FAE-LU): Mr. Singh is the EIA coordinator of the Infrastructure projects and has an experience of 12 years. He is a coordinator with rich experience in city planning, site planning, terminal designs and preparation of environment reports and management plant. He has numerous national and international projects related in his credit. He has in depth understanding of environment legislations

	ENVIRONMENT IMPACT ASSESSMENT For Development of Greenfield International Airport at Bhogapuram Mandal, District - Vizianagaram, Andhra Pradesh	11
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applicable in India and has also undertaken an assessment of legislative framework on the development projects.

Rahul Singh (SFA) (FAE-LU): Mr. Singh has an experience of 12 years in field of land-use. He is a qualified Planner with rich experience in city planning, site planning, terminal designs and preparation of environment reports and management plan. He has worked and got acclamation for his contribution in city planning projects. He has in-depth understanding of environment legislations applicable in India and has also undertaken an assessment of legislative framework on the development projects.

KD Choudhury (SFA) (FAE-AP): Mr. Choudhury has an experience of about 45 years in erection of Steel Plant; various aspects of Environmental Engineering covering detailed engineering, preparation of environmental impact assessment (EIA) and environmental management plan (EMP) reports; setting up of Environmental Laboratory; developing environmental norms and guidelines for statutory bodies like CPCB and MoEF (now MoEFCC); representing Government bodies in various environmental committees. He has working experience on more than 50 projects in the field of Environment Impact Assessment Studies. His primary strength is the quantitative assessment of noise and vibration study in the field of mining, railway, highways and construction projects. He is well versed with the Indian Legislative Framework for Environmental, IFC Performance Standards and Equator Principals.

Dr. PB Murthy (SFA) (FAE-AQ): Dr. B. Padmanava Murthy has more than 50 years of expertise in the field of Air and Water Quality Modeling, and designing and optimization of Air Quality Monitoring Networks in South Asia. He has completed his Bachelor in Science in Micrometeorology and Masters in Science in Meteorology including subjects such as, Soil, Physics, Water Balance, Land Use, Oceanography, and Upper Atmosphere. He has completed his Graduation, Post-Graduation and Doctorate from Andhra University, an esteemed university in India. He has also attended national and international training and conferences i.e. one week & two week training of Diffusion & Transport of Air Pollution, Statistical Evaluation of Air Pollution data respectively. He is accredited by Quality Council of India as a Functional Area Expert for Air Quality. His trainings also include, a two years training as National Research Council, Post Doctorate Fellow at Atmosphere Environment Service, Toronto, Canada & specialized in Micrometeorology, Air Pollution & Urban Meteorology. His professional activity started in the Meteorological Department, India, where he worked from 1962-1985 and retired as Director of Environment Meteorology. He also worked as a Professor in School of Environmental Sciences, Jawaharlal Nehru University, and New Delhi from 1985 till 2000.

In the year 2000, Dr. B.P. Murthy started working as an Individual Air Quality Expert and worked with major companies like Reliance Power Company (Mumbai), L&T Infrastructure Engineering Limited (Hyderabad), Tata Steel Limited (Mumbai), and Ambuja Cements Limited for various Thermal Power Plant projects, and major mining projects.

As an Air Quality Expert, he conducted Air Quality Modeling study, Third Party Audit of Environment Testing Laboratories, Optimization of Air Quality Monitoring Stations in and around Cement plants. He has also prepared Environmental Impact Assessment Report for projects like Redi Port in Maharashtra, Thermal Power Projects in Orissa, Gujarat and other parts of India.

He has also done many research projects including preparation of Manual for EIA for Thermal Power Plants on Ambient Air Quality and Optimization of Air Quality Monitoring Network for the Ministry of Forests and Environment, India.

	ENVIRONMENT IMPACT ASSESSMENT For Development of Greenfield International Airport at Tehsil - Bhogapuram Mandal, District - Vizianagaram, Andhra Pradesh	11
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He has worked with many International Donor projects including Asian Development Bank and World Bank. He has worked in association with Asian Development Bank Consulting Services Division and NTPC Limited. He has worked in the World Bank funded research project “Andhra Pradesh Cyclone Hazard Mitigation Project” and “Air & Noise Quality in Coastal Andhra” 2001.

Dr. Murthy has published more than 200 books on Meteorology, Climatology, Micro-meteorology, Urban Meteorology, Agro meteorology, Biometeorology, Air Pollution monitoring, Air Quality modeling, Noise Pollution etc. He has also contributed in chapters related to “Industrial Noise Pollution Control” & “Greenbelts for Air Pollution Control” in the book “Industrial Pollution and Environmental Management”, published by Sci. Pub Jodhpur, 2003. “Environmental Meteorology”, a text book was also published by I.K International Pvt. Ltd., New Delhi.

Dr. PS Kelkar (CFA) (FAE-WP): Mr. Kelkar has an experience of more than 25 years in the field of water and waste water treatment and waste management. He has working experience on more than 30 projects in various sectors such as thermal power, mining, airports, etc. He has excellent knowledge in analytical chemistry in water, air. His broad area of specialization is as Environmental Impact Assessment and Environmental Audit, Water and Waste Water Treatment and Waste Management, Hydrology and Water Audit, Eco System Management and Limnology of lakes and Environment Quality management. He is well versed with the Indian Legislative Framework for Environmental, IFC Performance Standards and Equator Principals.

Dr. PC Kuniyal (CFA) (FAE-EB): Dr. Kuniyal has 7 years of experience in study of ecology in Himalayan and Sub-Himalayan region. He has in-depth insight in study and interpretation of flora and fauna species across various climatic zone of country. He has specific training in field of impact assessment and ecological monitoring. He also has working experience of the application of taxonomy in resource inventory in numerous projects across country. Dr. Kuniyal also have experience in assessment of fertility and characterization of soil and assess the impact of gaseous, liquid and solid pollutants on the soil in large and medium size projects.

Dr. PC Kuniyal (SFA) (FAE- SC): Dr. Kuniyal has 7 years of experience in study of ecology in Himalayan and Sub-Himalayan region. He has in-depth insight in study and interpretation of flora and fauna species across various climatic zone of country. He has specific training in field of impact assessment and ecological monitoring. He also has working experience of the application of taxonomy in resource inventory in numerous projects across country. Dr. Kuniyal also have experience in assessment of fertility and characterization of soil and assess the impact of gaseous, liquid and solid pollutants on the soil in large and medium size projects.

Rahul Singh (CFA) (FAE-SE): Mr. Singh has 7 years of experience and acquired expertise in rural planning and development. His area of expertise includes Socio-Economic Study, R&R Plan, Participatory Rural Appraisal Technique, forestry and rural development planning principles. As part of EIA activity, Mr. Singh has been involved in more than 30 EIA Studies and has prepared Socio-economic Studies, Social Impact Assessment and Management Plan. He has also been actively involved in preparation of more than 15 R&R Plans for development projects.

KD Choudhury (SFA) (FAE-NV): Mr. Choudhury has an experience of about 45 years in erection of Steel Plant; various aspects of Environmental Engineering covering detailed engineering, preparation of environmental impact assessment (EIA) and environmental management plan (EMP) reports; setting up of Environmental Laboratory; developing environmental norms and guidelines for statutory bodies like CPCB

	ENVIRONMENT IMPACT ASSESSMENT For Development of Greenfield International Airport at Bhogapuram Mandal, District - Vizianagaram, Andhra Pradesh	11
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and MoEF (now MoEFCC); representing Government bodies in various environmental committees. He has working experience on more than 50 projects in the field of Environment Impact Assessment Studies. His primary strength is the quantitative assessment of noise and vibration study in the field of mining, railway, highways and construction projects. He is well versed with the Indian Legislative Framework for Environmental, IFC Performance Standards and Equator Principals.

Dr. Manoj Kumar (SFA) (FAE-HG): Dr. Manoj Kumar have 20 years of national and international experience in the field of geology and involve in more than fifty projects across country to study the geology and hydrogeology of the area with respect to aquifer characteristics, determination of impact of ground water withdrawal of groundwater and suggested mitigation measures. He has also developed geological maps by undertaking geology & geo-morphological analysis in the projects undertaken by him. He has also involved in mining development incorporating environmental aspects like top soil preservation, waste dump management, reclamation/rehabilitation of mined out areas in various states of country.

KD Choudhury (SFA) (FAE-RH): Mr. Choudhury has an experience of about 45 years in erection of Steel Plant; various aspects of Environmental Engineering covering detailed engineering, preparation of environmental impact assessment (EIA) and environmental management plan (EMP) reports; setting up of Environmental Laboratory; developing environmental norms and guidelines for statutory bodies like CPCB and MoEF (now MoEFCC); representing Government bodies in various environmental committees. He has working experience on more than 50 projects in the field of Environment Impact Assessment Studies. His primary strength is the quantitative assessment of risk & hazardous in the field of mining, railway, highways and construction projects and prepared management plan. He is well versed with the Indian Legislative Framework for Environmental, IFC Performance Standards and Equator Principals.

Dr. Seema Awasti (SFA) (FAE-MSW): Dr. Awasti has an experience of more than 15 years in field of Municipal Solid Waste and Environment Impact Assessment Study. She has working experience on more than 30 projects in the field of Environment Impact Assessment Studies. Her primary strength is the quantitative assessment of Municipal Solid Waste study in the field of various type of projects like mining, railway and construction projects. She is well versed with the Indian Legislative Framework for Environment.

Dr. Koushik Sadhu (SFA) (FAE-HW): Mr. Sadhu has an experience of more than 8 years in the field of hazardous waste management. He has working experience on more than 15 projects in various sectors such as thermal power, mining, airports, etc. He has excellent knowledge in analytical chemistry in water, air. His primary strength is the quantitative assessment of the impact on various environmental attributes. He is well versed with the Indian Legislative Framework for Environmental, IFC Performance Standards and Equator Principals.

Dr. BK Tewary (SFA-ISW): Dr. Tewary have more than 30 years of National & International experience in the field of Environmental Science, Environmental Biology and Ecology. He has completed more than 45 projects in Mining (Coal & Non-coal Mining), Ecology & Biodiversity and preparation of management plan for Solid Hazardous Waste (SHW). He has excellent knowledge in fly ash management and R&D. He has also knowledge in analytical chemistry in water, air. He has also worked in a steel plant and has also worked for World Bank projects. He has lifetime membership in East-West Centre, Honolulu, USA, Mining & Geology Society, International Society of Tropical Ecology and International Society for Environmental Botany respectively. He is well versed with the Indian Legislative Framework for Environment, IFC Performance Standards and Equator Principles.

	ENVIRONMENT IMPACT ASSESSMENT For Development of Greenfield International Airport at Tehsil - Bhogapuram Mandal, District - Vizianagaram, Andhra Pradesh	11
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11.5 QCI ACCREDITATION CERTIFICATE

GCPL is accredited under QCI-NABET scheme for accreditation of EIA consultants organizations vide certificate number: NABET/EIA/RA014/041 on July, 28 2014 for Mining of Minerals (Open Cast only), Thermal Power Plants, Metallurgical Industries (Ferrous only)-both primary & secondary, Highways, Railways, transport terminals, MRTS, Building and large construction projects and Townships & Area Development Projects. In furtherance to this as per provision of the scheme First surveillance assessment was conducted in January 2013, Minutes of 40th AC meeting for surveillance assessment, February 15, 2013 and Minutes of 157th AC meeting for Surveillance Assessment, July 12, 2016 has extended our scope and included River valley, Hydel, Drainage and Irrigation projects, Chemical Fertilizers & Airports (Refer Annex 11.3).

11.6 CERTIFICATE OF ACCREDITATION FOR LABORATORY

The analytical tests for GCPL are conducted by GreenC Laboratory Services and Envirotech East Private Limited (EEPL). For accreditation certificate of EEPL is provided in Annex 11.1 and 11.2. The facilities present in the laboratories include:

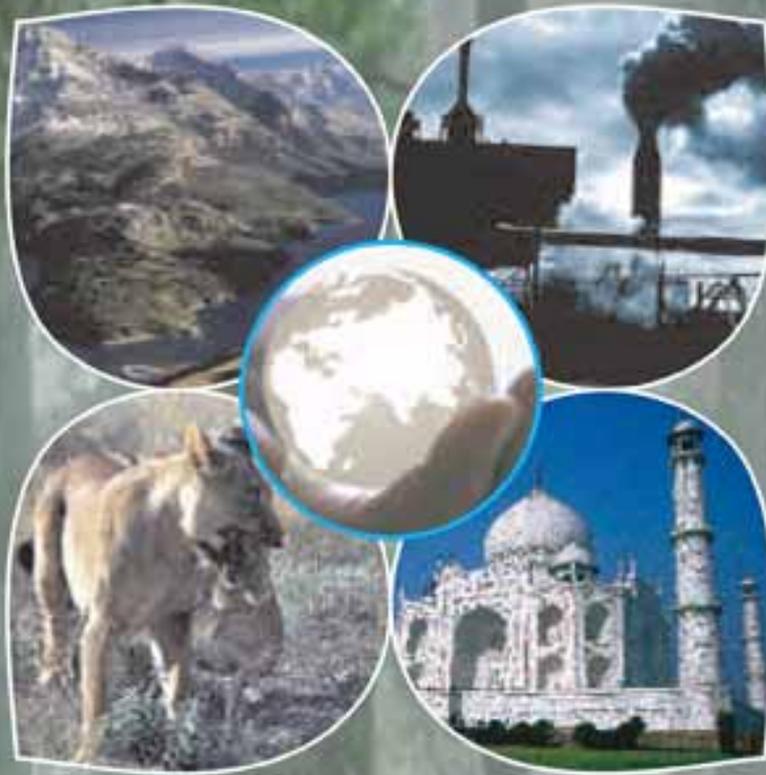
Sl. No.	Name of the Equipment	Quantity
1.	Refrigerator	3
2.	Deep Freeze	1
3.	BOD Incubator	2
4.	Hot Air Oven	5
5.	Muffle Furnace	2
6.	Autoclave	2
7.	Water Bath	2
8.	Centrifuge	2
9.	Water Distillation Assembly (Glass)	2
10.	Heating Mantle	2
11.	Hot Plate	2
12.	Magnetic Stirrer	2
13.	Vacuum Filtration Pump	2
14.	Inoculation Hood	2
15.	Aquarium for Bioassay & Aerators	1
16.	Depth Sampler	1
17.	Bottom Sampler	1
18.	Filtration Assembly	2
19.	Other Equipment	
	Fluoride Distillation Assembly	2
	Cyanide Distillation Assembly	1
	Ammonia Distillation Assembly	1
	COD Digestion Assembly	1
	Arsenic Estimation Assembly (Gutzeit Generator)	10

List of Sophisticated Instruments:

Sl. No.	Name of the Equipment	Quantity
1.	Atomic Absorption Spectrophotometer	2
2.	Gas Chromatograph	1



Scheme for Accreditation of **EIA Consultant Organizations**



**NATIONAL ACCREDITATION BOARD FOR
EDUCATION AND TRAINING**

Quality Council of India



Scheme for Accreditation of
EIA Consultant Organizations

**NATIONAL ACCREDITATION BOARD FOR
EDUCATION AND TRAINING**

QUALITY COUNCIL OF INDIA

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1.0 Introduction

1.1 Environmental Impact Assessment (EIA) is a statutory requirement for most developmental and industrial activities in our country. This is to ensure that development and environment protection go hand-in-hand. To achieve this objective, it is crucial that quality of EIAs being carried out are of a high order so that possible impacts on environment of such activities can be assessed and mitigative measures could be adopted. However, the present situation is far from satisfactory, since the EIAs being developed, more often than not, do not measure upto the required quality.

Some of the reasons for EIAs not being of required quality are:

- Improper / inadequate scoping for the EIA
- Consultants not having adequate understanding for developing EIAs
- Poor quality of inputs to EIAs
- Mostly “copy-cut-paste” jobs
- No checks on the competence of EIA Consultants
- No liability of EIA consultants
- Very few in-house reports

In the new Environmental Clearance Notification of Ministry of Environment & Forests (MOEF), many new aspects have been addressed, particularly scoping for the EIA (which is now done by the Ministry or State Level Authority vide the MOEF notification dated September 14, 2006), checklist for environmental impacts, guidelines for EIA report's structure etc. Once a proper scoping is developed then the EIA is expected to address the main issues concerning that project.

Quality Council of India (QCI), the national accreditation body, was established as an autonomous non-profit organization jointly by the Government of India and the Indian Industry represented by the three premier industry associations, Associated Chamber of Commerce and Industry of India (ASSOCHAM), Confederation of Indian Industry (CII) and Federation of Indian Chambers of Commerce and Industry (FICCI).

National Accreditation Board for Education & Training (NABET), a constituent board of Quality Council of India, has launched the scheme for accreditation of EIA consultant organizations. The accreditation under this scheme is based on the resources available with the organization including technical expertise of consultant, resource persons, their educational background as well as experience and expertise. The objective of this scheme is to meaningfully contribute towards improving the quality of EIAs.

1.2 EIAs are essentially multi disciplinary activities where inputs are required from specialists having knowledge of the industry for which EIAs are to be carried out as well as in functional areas like air pollution control, water pollution control, noise and vibration, ecology and bio-diversity, land use, ground water, surface water and hydrology, socio economic aspects, risks and hazard management etc.

The key person in developing an EIA is the EIA Coordinator who should have broad knowledge about the project, as well as the functional areas which are likely to be affected by the activities related to the project in its construction, operation and the closure phases. The functional area experts are expected to assess the impacts from the proposed development / industrial activities in their respective areas of expertise and then feed the same to the EIA Coordinator. The EIA Coordinator would then be able to correlate the projected impacts and develop an overall environment impact assessment and environment management plan (EMP).

Projects for which EIAs are required to be done can be broadly categorized under the following heads as given in the new EIA Notification:

- Mining, extraction of natural resources, power generation
- Primary processing
- Materials production
- Materials processing
- Manufacturing fabrication
- Services sector
- Physical Infrastructure including Environmental Services
- Building/ Construction Projects/ Area Development Projects and Townships

1.3 Keeping the above requirements in view, the present EIA accreditation scheme have been developed by NABET. This document covers:

- i) Guidelines to the applicants for accreditation on requisite skills and knowledge, educational background and experience in the respective areas of functional area experts.
- ii) Eligibility of applicants for accreditation
- iii) Assessment procedure followed by NABET
- iv) Application details

The scheme will also help clients (for identifying proper EIA Consultants) who would like to carry out EIA studies as part of due diligence process or for assessing the impacts of their activities on the environment, not necessarily required by statutes.

Assessment Process (in brief, details given later)

Assessment process for an EIA Consultant Organization would cover the following:

- * Desk top review of documents pertaining to background of the organization, manpower, equipment, experience, etc in the requisite formats given in this format
- * On site verification of office infrastructure, laboratories, facilities & interview of the EIA coordinator/s and some of the functional area experts

NABET reserves the right to visit the site un-announced, if it deems necessary.

The consultant organization shall develop and maintain documented procedures for effective administration of the consultancy projects in line with requirements stated in Clause 3.7 of this document.

Accreditation under this scheme is available without restriction to all applicants who satisfy the accreditation requirements.

QCI - NABET reserves all rights to amend its accreditation scheme, procedures and fees etc. as it may deem fit. Applicants are requested to refer to the updated scheme on QCI website (www.qcin.org) before applying for their accreditation.

All information provided by the applicants can be verified and shared with the stakeholders including MOEF at any stage during or after the assessment process. NABET reserves the right to utilize the information provided by the applicants for legal, research, for sharing with other IPC (International Personnel Certification Association) members or for any other purpose as may be deemed fit by NABET. However, the identity of the accredited EIA Consultant Organizations would be masked for sensitive information related to business whenever it is called for/ appropriate. In case an applicant wants the information to be kept confidential, a communication must be sent to NABET citing reasons for the same. NABET reserves the right to take decision in this regard.

Please contact NABET office for the latest information.

2.0 Nomenclature/ Abbreviations

Desk Top Review

The evaluation of documentary evidence submitted by the applicant in support of the application.

NABET Assessor

A NABET Assessor is the person designated by NABET to review the relevant documentation submitted by the applicant and to verify the competence of the applicant at his premises including interviewing the key persons, for accreditation in line with the NABET requirements.

CPCB	Central Pollution Control Board
EAC	Expert Appraisal Committee
EIA	Environmental Impact Assessment
EMP	Environmental Management Plan
ESP	Electrostatic Precipitator
FAE	Functional Area Expert
GIS	Geographical Information System
GLC	Ground Level Concentration
GLP	Good Laboratory Practice
IPC	International Personnel Certification Association
ISO	International Organization for Standardization
MOEF	Ministry of Environment & Forests
NABL	National Accreditation Board for Testing and Calibration Laboratories
NABET	National Accreditation Board for Education & Training
NO_x	Nitrogen Oxides
QCI	Quality Council of India
QMS	Quality Management System
RPM	Respirable Particulate Matter
SO₂	Sulphur Dioxide
SPCB	State Pollution Control Board
VOCs	Volatile Organic Compounds

Definitions of some related terms:**Experience**

EIA Coordinator → To work as an independent EIA coordinator for particular sector/s, s/he should have a minimum experience of 7 years. Out of these 7 years, 2 years should preferably be in the stated sector/s in operations/maintenance/projects, the balance could be in EIA preparation either assisting the EIA coordinator or as a Functional Area Expert or in base line data generation and analysis.

Functional Area Experts → To work as an independent Functional Area Expert, s/he should have minimum 3 years of experience. Out of these 3 years, minimum 1 year should be in the stated functional area/s, balance could be in consultancy/teaching and the like in the stated area/s of expertise.

Exposure

EIA Coordinator → Should have been involved in preparation of at least 3 EIA s of the sector/ s or should have been involved in environmental auditing/ monitoring for minimum 2 – 3 assignments in the sector/ s.

Training

Functional Area Experts → The duration of the training should be minimum 3 days and conducted/organized by Universities, Research Institutes, Professional Bodies, Industry Associations or other recognized organizations.

For all the above, documentary evidences are required to be provided

3.0 Requirements

3.1 Eligibility

Only organizations will be considered for accreditation.

These can be government, public sector or private organizations which could be proprietary firms, partnership firms or companies (Pvt. & Public Limited), bodies registered under Society Acts, under Section 25 of Companies Act, Research Institutes and the like.

Universities including IITs, CSIR labs, other labs and/or research based organizations conducting EIA studies can also apply for accreditation.

3.2 Skills and Knowledge of Experts

As mentioned earlier, EIA is a multi-disciplinary activity where the central figure is the EIA coordinator who has the domain knowledge of sector/s of the project/s for which the EIA is to be developed and the environmental aspects related to the project. The EIA Coordinator can then seek inputs from various functional area experts, analyze and collate the inputs to develop the impact assessment and a management plan. Hence, to ensure that a Consultant Organization has the basic human resource infra-structure in place to support EIA activities, it is required that it has at least one EIA Coordinator and 3/5 key Functional Area Experts (Ref. Section 3.2.2) in full time employment with the organization. Additional human resource required as EIA Coordinators or Functional Area Experts to cover all sectors applied for, may be empanelled with the organization. For empanelled coordinators/experts, a declaration of association with the organization is to be submitted as per Annexure V of this document. A documented procedure should be available with the Consultant Organization for selection and appointment of empanelled EIA Coordinators and Functional Area Experts.

It is, however, preferable that the Consultant Organization should have enough in-house resources to deploy one EIA coordinator for maximum five sectors, so that an appropriate and detailed EIA analysis can be done. As regards Functional Area Experts (FAE), since by definition, these are areas of specialized expertise, a person can be FAE of maximum four areas of expertise.

A person may be the EIA Coordinator for any number of sectors (vide Annexure III A) (though preferably not more than five) provided s/he fulfils the requirements of the scheme mentioned in Section 3.2.1 below in respect of educational qualification and experience/exposure for the sector/s for which accreditation have been sought.

3.2.1 EIA Coordinators

3.2.1.1 Minimum educational background and training

- a) Bachelor/ Masters/ Ph.D. Degree in Engineering **or** Masters/ Ph.D. degree in Science or Humanities in any of the subjects mentioned below

Engineering - Chemical, Civil, Mining, Electrical or Environmental or allied Engineering, Architecture (Architecture or Town and Country Planning)

Sciences - Environmental Sciences, Physics, Chemistry, Botany, Zoology, Geology, Geography, Forestry or Agricultural Sciences

Humanities - Economics, Sociology, Law or Management

- b) **Specific Training (Preferable)**

Training on analysis and integration of inputs from various functional experts and developing Environmental Impact Assessment reports.

3.2.1.2 Experience/ Exposure

A person must have minimum 7 years working experience related to EIA preparation to function as an independent EIA Coordinator.

For the sector/s for which s/he wants to work as an independent EIA coordinator, the experience/exposure for the specific sectors will be governed by the requirements mentioned in Section 3.2 above. S/he should have an overall knowledge of the concerned sector/s and a clear understanding of environmental and socio-economic aspects related to those sectors.

S/he should be thoroughly aware of national and global environmental concerns and familiar with all environmental regulations, the EIA Notification and its Amendments and public consultation procedures.

3.2.2 Functional Area Experts

The expertise in some of the key functional areas is an integral part of all EIAs. Hence, the following FAEs should be available in-house (full time employment) -