

## APPENDIX II

(See paragraph 6)

**FORM-1 A** (only for construction projects listed under item 8 of the Schedule)

### CHECK LIST OF ENVIRONMENTAL IMPACTS

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

Sr.No.	EC Members	Particulars	Architect / L.S. / Consultant remarks. Yes / No	Architect / L.S. / Consultant's detail remarks	Attach Clips	EC Members recocomendation
1.		<b>LAND ENVIRONMENT</b> (Attach panoramic view of the project site and the vicinity)				
1.1	Recourse Efficiency Including Building Materials	Will the existing land use get significantly altered from the project that is not consistent with the surroundings? (Proposed land use must conform to the approved Master Plan / Development Plan of the area. Change of land use if any and the statutory approval from the competent authority be				

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		submitted). Attach Maps of (i) site location, (ii) surrounding features of the proposed site (within 500 meters) and (iii) the site (indicating levels & contours) to appropriate scales. If not available attached only conceptual plans.				
1.2	Recourse Efficiency Including Building Materials	List out all the major project requirements in terms of the land area, built up area, water consumption, power requirement, connectivity, community facilities, parking needs etc.				
1.3	Recourse Efficiency Including Building Materials & Environmental Planning including Air quality management	What are the likely impacts of the proposed activity on the existing facilities adjacent to the proposed site? (Such as open spaces, community facilities, details of the existing land use, disturbance to the local ecology).				
1.4	Recourse Efficiency Including Building Materials	Will there be any significant land disturbance resulting in erosion, subsidence & instability? (Details of soil type, slope analysis, vulnerability to subsidence, seismicity etc may be given).				

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1.5	Recourse Efficiency Including Building Materials	Will the proposal involve alteration of natural drainage systems? (Give details on the contour map showing the natural drainage near the proposed project site)				
1.6	Recourse Efficiency Including Building Materials	What are the quantities of earthwork involved in the construction activity-cutting, filling, reclamation etc. (Give details of the quantities of earthwork involved, transport of fill materials from outside the site etc.)				
1.7	Water conservation & Management	Give details regarding water supply, waste handling etc. during the construction period.				
1.8	Water conservation & Management	Will the low lying areas and wetlands get altered? (Provide details of how low lying and wetlands are getting modified from the proposed activity)				
1.9	Waste Management	Whether construction debris & waste during construction cause health hazard? (Give quantities of various types of wastes generated during construction including the construction labour and the means of disposal)				

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<b>2</b>		<b>WATER ENVIRONMENT</b>				
2.1	Water conservation & Management	Give the total quantity of water requirement for the proposed project with the breakup of requirements for various uses. How will the water requirement met? State the sources & quantities and furnish a water balance statement.				
2.2	Water conservation & Management	What is the capacity (dependable flow or yield) of the proposed source of water?				
2.3	Water conservation & Management	What is the quality of water required, in case, the supply is not from a municipal source? (Provide physical, chemical, biological characteristics with class of water quality).				
2.4	Water conservation & Management	How much of the water requirement can be met from the recycling of treated waste water? (Give the details of quantities, sources and usage)				
2.5	Water conservation & Management	Will there be diversion of water from other users? (Please assess the impacts of the project on other existing uses and quantities of consumption)				

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2.6	Waste Management	What is the incremental pollution load from wastewater generated from the proposed activity? (Give details of the quantities and composition of wastewater generated from the proposed activity)				
2.7	Water conservation & Management	Give details of the water requirements met from water harvesting? Furnish details of the facilities created.				
2.8	Water conservation & Management	What would be the impact of the land use changes occurring due to the proposed project on the runoff characteristics (quantitative as well as qualitative) of the area in the post construction phase on a long term basis? Would it aggravate the problems of flooding or water logging in any way?				
2.9	Water conservation & Management	What are the impacts of the proposal on the ground water? (Will there be tapping of ground water, give the details of ground water table, recharging capacity, and approvals obtained from competent authority, if any.)				

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2.10	Water conservation & Management	What precautions / measures are taken to prevent the run-off from construction activities polluting land and aquifers? (Give details of quantities and the measures taken to avoid the adverse impacts)				
2.11	Recourse Efficiency Including Building Materials	How is the storm water from within the site managed? (State the provisions made to avoid flooding of the area, details of the drainage facilities provided along with a site layout indication contour levels)				
2.12	Waste Management	Will the deployment of construction labourers particularly in the peak period lead to unsanitary conditions around the project site (justify with proper explanation)				
2.13	Waste Management	What on-site facilities are provided for the collection, treatment & safe disposal of sewage? (Give details of the quantities of waste generation, treatment capacities with technology & facilities for recycling and disposal)				

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2.14	Waste Management	Give details of dual plumbing system if treated waste used is used for flushing of toilets or any other use.				
<b>3.</b>		<b>VEGETATION</b>				
3.1	Recourse Efficiency Including Building Materials	Is there any threat of the project to the biodiversity? (Give a description of the local ecosystem with its unique features, if any)				
3.2	Recourse Efficiency Including Building Materials	Will the construction involve clearing or modification of vegetation? (Provide a detailed account of the trees & vegetation affected by the project)				
3.3	Recourse Efficiency Including Building Materials	What are the measures proposed to be taken to minimize the likely impacts on important site features (Give details of proposal for tree plantation, landscaping, creation of water bodies etc along with a layout plan to an appropriate scale)				
<b>4.</b>		<b>FAUNA</b>				

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4.1	Environmental Planning including Air quality management.	Is there likely to be any displacement of fauna – both terrestrial and aquatic or creation of barriers for their movement? Provide the details.				
4.2	Environmental Planning including Air quality management	Any direct or indirect impacts on the avifauna of the area? Provide details.				
4.3	Environmental Planning including Air quality management	Prescribe measures such as corridors, fish ladders etc to mitigate adverse impacts on fauna.				
5.		<b>AIR ENVIRONMENT</b>				

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5.1	Environmental Planning Including Air Quality Management.	Will the project increase atmospheric concentration of gases and result in heat islands? (Give details of background air quality levels with predicted values based on dispersion models taking into account the increased traffic generation as a result of the proposed constructions)				
5.2	Environmental Planning Including Air Quality Management.	What are the impacts on generation of dust, smoke, odorous fumes or other hazardous gases? Give details in relation to all the meteorological parameters.				
5.3	Transport Planning and management.	Will the proposal create shortage of parking space for vehicles? Furnish details of the present level of transport infrastructure and measures proposed for improvement including the traffic management at the entry & exist to the project site.				
5.4	Transport Planning and management.	Provide details of the movement patterns with internal roads, bicycle tracks, pedestrian pathways, footpaths etc., with areas under each category.				

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5.5	Transport Planning and management.	Will there be significant increase in traffic noise & vibrations? Give details of the sources and the measures proposed for mitigation of the above.				
5.6	Environmental Planning Including Air Quality Management.	What will be the impact of DG sets & other equipment on noise levels & vibration in & ambient air quality around the project site? Provide details.				
<b>6.</b>		<b>AESTHETICS</b>				
6.1	Recourse Efficiency Including Building Materials	Will the proposed constructions in any way result in the obstruction of a view, scenic amenity or landscapes? Are these considerations taken into account by the proponents?				
6.2	Recourse Efficiency Including Building Materials	Will there be any adverse impacts from new constructions on the existing structures? What are the considerations taken into account?				

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6.3	Recourse Efficiency Including Building Materials	Whether there are any local considerations of urban form & urban design influencing the design criteria? They may be explicitly spelt out.				
6.4	Recourse Efficiency Including Building Materials	Are there any anthropological or archaeological sites or artefacts nearby? State if any other significant features in the vicinity of the proposed site have been considered.				
7.		<b>SOCIO-ECONOMIC ASPECTS</b>				
7.1	Recourse Efficiency Including Building Materials	Will the proposal result in any changes to the demographic structure of local population? Provide the details.				
7.2	Recourse Efficiency Including Building Materials	Give details of the existing social infrastructure around the proposed projects.				

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7.3	Recourse Efficiency Including Building Materials	Will the project cause adverse effects on local communities, disturbance to sacred sites or other cultural values? What are the safeguards proposed?				
<b>8.</b>		<b>BUILDING MATERIALS</b>				
8.1	Recourse Efficiency Including Building Materials	May involve the use of building materials with high-embodied energy. Are the construction materials produced with energy efficient processes? (Give details of energy conservation measures in the selection of building materials and their energy efficiency)				
8.2	Recourse Efficiency Including Building Materials	Transport and handing of materials during construction may result in pollution, noise & public nuisance. What measures are taken to minimize the impacts?				

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8.3	Recourse Efficiency Including Building Materials	Are recycled materials used in roads and structures? State the extent of savings achieved?				
8.4	Waste Management	Give details of the methods of collection, Segregation & disposal of the garbage generated during the operation phases of the project.				
<b>9.</b>		<b>ENERGY CONSERVATION</b>				
9.1	Energy Efficiency & Renewable Energy	Give details of the power requirements. Source of supply, backup source etc. What is the energy consumption assumed per square foot of built up area? How have you tried to minimize energy consumption?				
9.2	Energy Efficiency & Renewable Energy	What type of and capacity of power backup to you plan to provide				

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9.3	Energy Efficiency & Renewable Energy	What are the characteristics of the glass you plan to use? Provide specifications of its characteristics related to both short wave and long wave radiation?				
9.4	Energy Efficiency & Renewable Energy	What passive solar architectural features are being used in the building? Illustrate the applications made in the proposed project.				
9.5	Energy Efficiency & Renewable Energy	Does the layout of streets & buildings maximise the potential for solar energy devices? Have you considered the use of street lighting, emergency lighting and solar hot water systems for use in the building complex? Substantiate with details.				
9.6	Energy Efficiency & Renewable Energy	Is shading effectively used to reduce cooling / heating loads? What principles have been used to maximize the shading of walls on the East and the West and the Roof? How much energy saving has been effected?				

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9.7	Energy Efficiency & Renewable Energy	Do the structures use energy-efficient space conditioning, lighting and mechanical systems? Provide technical details. Provide details of the transformers and motor efficiencies, lightings intensity and air conditioning load assumptions? Are you using CFC and HCFC free chillers? Provide specifications.				
9.8	Environmental Planning including Air quality management	What are the likely effects of the building activity in altering the micro - climates? Provide a self assessment on the likely impacts of the proposed construction on creation of heat island & inversion effects?				
9.9	Energy Efficiency & Renewable Energy	What are the thermal characteristics of the building envelope? (a) Roof (b) external walls and (c) fenestration? Give details of the material used and the U-values or the R-values of the individual components.				
9.10	Recourse Efficiency Including Building Materials	What precautions & safety measures are proposed against fire hazards? Furnish details of emergency plans				

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9.11	Energy Efficiency & Renewable Energy	If you are using glass as wall material provides details and specifications including emissivity and thermal characteristics.				
9.12	Environmental Planning Including Air Quality Management.	What is the rate of air infiltration into the building? Provide details of how you are mitigating the effects of infiltration.				
9.13	Energy Efficiency & Renewable Energy	To what extent the non-conventional energy technologies are utilised in the overall energy consumption? Provide details of the renewable energy technologies used.				
<b>10.</b>		<b>ENVIRONMENT MANAGEMENT PLAN</b>				
	Environmental Planning & Energy Efficiency & Renewal	The Environment Management plan would consist of all mitigation measures for each item wise activity to be undertaken during the construction, operation and the entire life cycle to minimize adverse environmental impacts as a result of the activities of the				

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	Energy. & Waste Management (Solid & Liquid)	project. It would also delineate the environmental monitoring plan for compliance of various environmental regulations. It will state the steps to be taken in case of emergency such as accidents at the site including fire.				
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