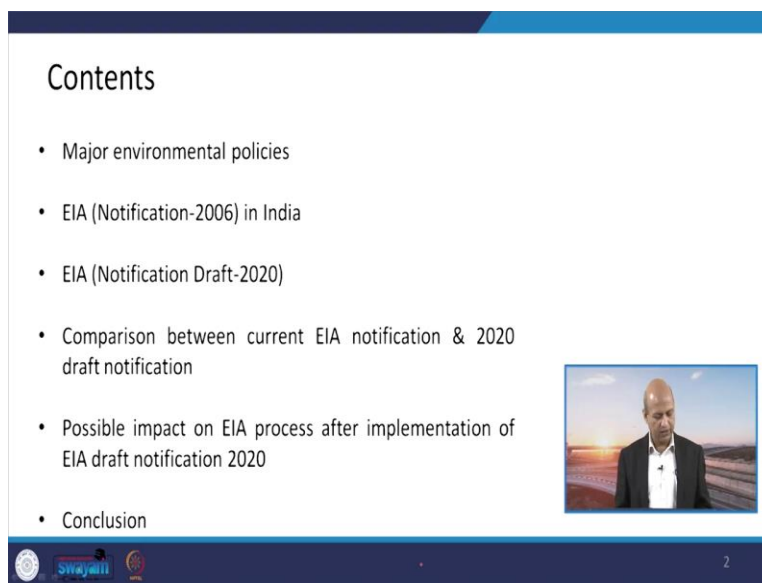


Sustainable Transportation Systems
Professor Bhola Ram Gurjar
Indian Institute of Technology, Roorkee
Lecture 15
EIA Process in India

Hello, friends. So, in the series of different aspects of EIA, today we will discuss the EIA process in India, how does it take place? What are the basis for this EIA process? And what are different acts? And what is the principle which is behind the EIA? So, all those things we will look into in today's lecture.

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The slide titled "Contents" lists the following topics:

- Major environmental policies
- EIA (Notification-2006) in India
- EIA (Notification Draft-2020)
- Comparison between current EIA notification & 2020 draft notification
- Possible impact on EIA process after implementation of EIA draft notification 2020
- Conclusion

A small video thumbnail on the right side of the slide shows Professor Bhola Ram Gurjar speaking. The slide also features logos for IIT Roorkee and Swachh Bharat Mission at the bottom left, and a page number '2' at the bottom right.

So, before EIA process was defined in terms of EIA notification 2006 and EIA notification draft which is currently, in the process, which is draft 2020. So, before this, there were many major environmental policies. So, those policies we will discuss and after that we will see like comparisons between EIA notification of 2006 and 2020, with 2020 is still in the draft mode and it will be notified I think soon and then possible impacts of EIA process after implementation of EIA draft notification, what are those implied or possible impacts that that will also be discussed during this lecture and after that we will conclude.

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The slide features a title 'Environment (Protection) Act, 1986' in the top left. A light blue rounded rectangle contains a quote: 'It states that "The Central Government, shall have the power to take all such measures as it deems necessary or expedient for the purpose of protecting and improving the quality of the environment and preventing controlling and abating environmental pollution."' To the right, an orange oval contains the text: 'This act is the legal base for EIA process in India.' In the bottom right corner, there is a small video frame showing a man in a suit speaking. The slide footer includes logos for 'Swayam' and '3'.

So, this Environmental Protection Act 1986 that is the basic bone than you can say of this whole structure of EIA, and this act is the legal base for EIA process in India whether of 2006 or whether 2020 draft notification. So, this is the basic fundamental foundation you can say of 1986 Environmental Protection Act.


So, this basically states in nutshell, the central government shall have the power to take all such measures as it deems necessary or this expedient for the purpose of protecting and improving the quality of the environment and preventing and controlling any abetting all those processes which are required for reducing the environmental pollution and to conserve the environmental resources. So, that is the basic idea behind this which is in detail, I have just given you in nutshell very brief, a concept note.

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National Forest Policy, 1988

- Launched with objective of ensuring environmental stability and ecological balance essential for the sustenance of all life forms – human, animal & plants.
- Targets to bring one third area under tree/plantation cover.

The protection of environment has been provided in Articles 48 A and 51 A (g) of Indian constitution. Time to time strengthened by judicial interpretation of Article 21 (Protection of life & personal liberty).



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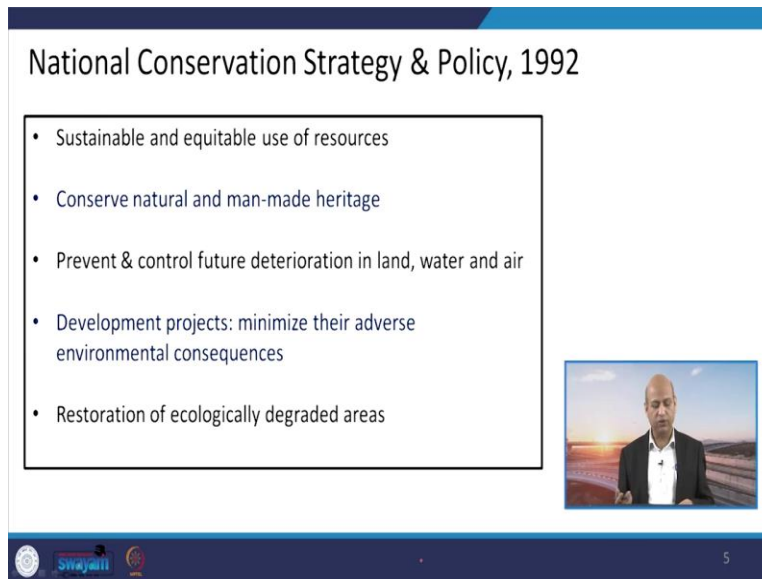
In the same line, like in 1988 National Forest policy was launched. And the basic objective of this policy was to ensure the environmental stability and ecological balance, so, that there is no activity which can disturb the balance of the environment. As you know, we have already discussed it several times that ecological balances come into picture through, thousands and millions of years and if you disturb them, due to our manmade activities, then their balance can be disturbed.

And that can, the consequences of that imbalance can be very harmful to the ecosystem as well as to us also. And this policy also tried to ensure like targets to bring one third area under the plantation. So, that, because, people say that the forest lands, plants are the lungs of our whole, this planet. So, we should protect those lung.

And the protection of environment has been provided means, it is not just out of the blue, basically, in constitution also in the Constitution of India also, in Article 48 A and 51 A (g), they give this, for judicial interpretation of Article 21, which is the protection of life and protection, personal liberty.

So, they are interrelated to each other. So, environmental protection is part of that, like right to life you can say so, that is you means, you can interpret that it has constitutional bearing or constitutional rules which is reflected in terms of different policies for the environment.

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National Conservation Strategy & Policy, 1992

- Sustainable and equitable use of resources
- Conserve natural and man-made heritage
- Prevent & control future deterioration in land, water and air
- Development projects: minimize their adverse environmental consequences
- Restoration of ecologically degraded areas

The slide features a blue header and footer. The footer contains the Swayam logo and the number 5. A small video inset in the bottom right corner shows a man in a dark suit and white shirt speaking against a background of a sunset over a body of water.

Another policy was there National Conservation Strategy and Policy of 1992 and that was basically those, in bullet form, basic ideas are given for that policy that is like sustainable and equitable use of resources. That means, it should not be that the natural resources are accessed by some group more than other groups of the society or the nation.

So, it should be equitable means every citizen must have equal opportunity towards the natural resources or towards the environmental wealth of the country. It is not like that one has some privileges or others do not have this is not there. So, the sustainable means only those kinds of resources, exploitation or harnessing should be done so that it should not get some harmful impacts which can completely destroy a particular aspect or component of the environment. So, it should be in a sustainable way.

Then to conserve the natural and manmade heritage, there are heritage of both nature, like natural for example Ganga River or certain ocean certain parts of the Himalayas, all those are heritage, natural heritage, which as part of the cultural heritage also. So, manmade heritage and natural heritage, which are part of our century's civilization centuries old, thousands of years old civilization, so, the conservation protection of those heritage is also the part of this policy.

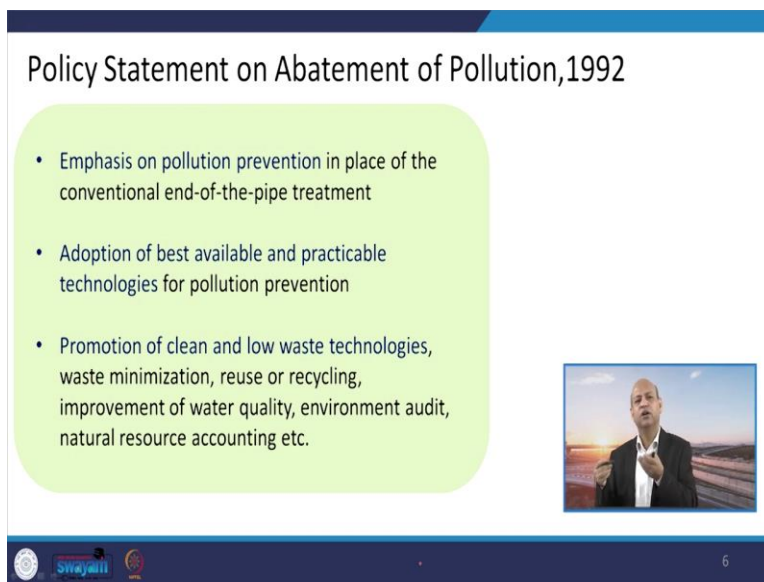
And preventing and controlling the future deterioration of any part of the land or water or air. So, that is one very important aspect that any activity which can influence in negative way the

landmass or the water bodies or the air shared that should be discouraged or that should be addressed properly, if there is some activity negative sense.

Then development projects. So, the development projects should we means of course, when we will do urbanization, industrialization or any other activity which are related for meeting our materialistic needs. So, called developmental activities, when we do then of course, their byproducts also influence the natural and manmade environment, but we have to take care that their adverse environmental consequences should be minimum, we have to minimize them.

So, that kind of policy and policy measures as well as technological interventions, we should put in place so that the development projects should not be very negative to any kind of resource whether it is natural or manmade. Then restoration of ecological degraded areas because of, natural process, as well as manmade process, some ecosystem get deteriorated over the years. So, the restoration should be part of our responsibility, part of our policy, part of government programs or policies. So, this is part of that '92 National Conservation Strategy and Policy.

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The slide is titled "Policy Statement on Abatement of Pollution, 1992". It features a light green rounded rectangle containing three bullet points. To the right of the text is a small video inset showing a man in a suit speaking. At the bottom of the slide, there are logos for "Swayam" and "6".

Policy Statement on Abatement of Pollution, 1992

- Emphasis on pollution prevention in place of the conventional end-of-the-pipe treatment
- Adoption of best available and practicable technologies for pollution prevention
- Promotion of clean and low waste technologies, waste minimization, reuse or recycling, improvement of water quality, environment audit, natural resource accounting etc.

At the same time Policy Statement on Abatement of Pollution 1992 also includes like more emphasis on pollution prevention, rather than pollution controlling or cleaning after the end of the pipe emissions or treatment, like maybe it is better to, there is a saying, "prevention is always better than cure".

So, after emissions, we clean the environment or after effluent we treat the effluent, it is better that those kind of effluent should not be there. So, that means the resources or the raw material or in the changes of the process or technology can be in such a way that the waste discharge or effluent discharge or emissions can be very minimum. So, prevention is the basic thing or philosophy.

Adoption of best available, practicable and those technologies which can prevent pollution as I said for example, in furnaces some people are using, that oil or coal etc. So, lot of emissions are there, maybe one can use electric furnaces. So, that kind of technology can prevent the pollution in that work environment.

Then promotion of clean and low waste technologies, any kind of technology, which result in very minimum kind of waste, that is welcome. So, waste minimization should be there, also the waste reuse and recycling, we have to think creatively. So, there is a saying that there is nothing waste, every waste is a resource for something else.

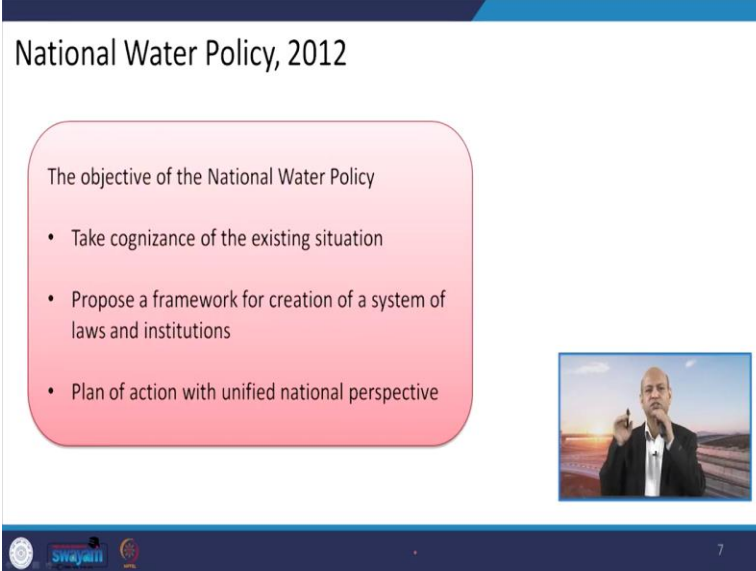
So, if we do that kind of circular economy or circular, this in eco industry development, then we can address these issues. Also, the improvement of water quality or environmental audit related processes, natural resource accounting, all these come into this promotion of clean technology and environment friendly technology, sometimes people call them green technology and they are also part of new concept of circular economy in which, every kind of waste is a resource for something. So, this is a circular economy.

Like in, I think in Denmark or so some industrial development have been in such a way that one industries waste has been resource for the other industry. For example, one can have brick formation industry nearer to the thermal power plant based on the coal because fly ash can be used there. So, that way, means that way if you identify certain industries, where the waste product of one industry can be used as the raw material for other industry, then that can be a wonderful process of reuse and recycling of the materials.

Then in 2012 National Water policy was implemented. Water is very important you can see now we have this, Jal Shakti Mantralay. So, lot of emphasis is there and the reason is because, over the years we have seen that this you can call that mindless development have really harmed our water resources in a very big way.

I personally remember that when I was a kid in wells in Rajasthan in East Rajasthan, wells were so much, up into water table during this monsoon season that people, those our kids used to swim and, jump into them and it was very upper layer, at the, at the brim level you can say. But now, no well, every well is dried now. Those wells are nowhere open wells. Now, what is happening, we have these tube wells and the water table is, even more than 500 feet somewhere. So, you can see how we have exploited this groundwater and this can be a big problem.

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National Water Policy, 2012

The objective of the National Water Policy

- Take cognizance of the existing situation
- Propose a framework for creation of a system of laws and institutions
- Plan of action with unified national perspective

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So, to address those things, now National Water Policy is there and objective is that we have to take cognizance of the existing situation which is very serious means, many times you might have heard that the third world war will be on the water, the access to the clean water or the usable water is a big challenge everywhere, because we need usable water.

Water is there but usable water may not be in accessible reach. To propose the framework, for that a system can be created and laws and institutions can be put in place, so that the conservation of water may be there and it can be in a holistic way. Plan of action in a unification manner. So that at the national level one policy can be thought upon and implemented properly up to the last end like at the village level or so.

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National Environmental Policy (NEP)-2006

- Better livelihoods through resources conservation instead of their degradation
- **Greater role of and responsibilities to local bodies**
- EIA act as principal methodology for appraisal and review of new projects
- **Coordination among stakeholders for environmental management**
- Environmental protection as an integral part of the development



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Then, 2006 National Environmental Policy was put in place like better livelihoods through Resource Conservation instead of their degradation. So, again, positive outlook and greater role and responsibilities to the local bodies, that is very important. When people participate in any program, then success rate is high otherwise, what happens, us and they that kind of division in the thought does not help.

Means if you for some policy from outside because of some governmental institutions, if local people are not taken into trust or into like participation, then they will not be able to visualize that this is our policy. They will see it is outside some group is there they are doing because of their own some interest and there are many issues. So, the local bodies, roles should be defined their responsibilities should be defined, then success rate becomes high.

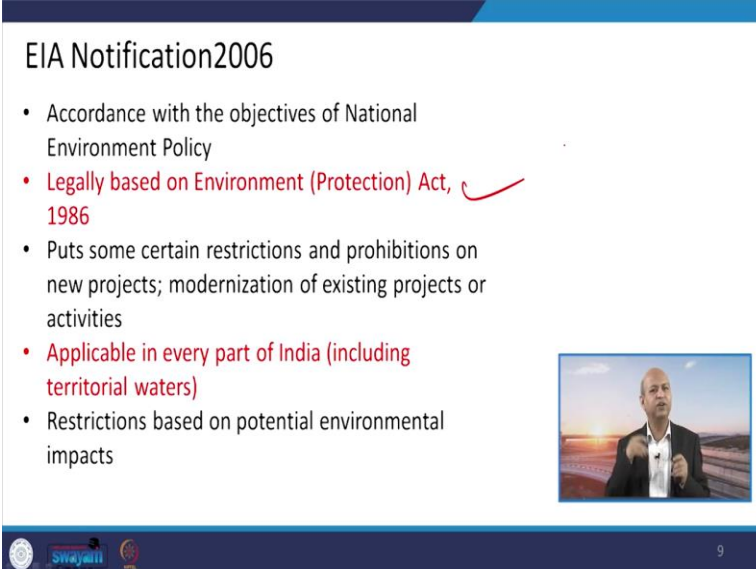
Then EIA act as principal methodology for appraisal and review of the new project. So, this philosophy was taken into account, that the EIA must be there, a good document should be prepared based on complete study. So, that objective analysis can be there and one can see if there is any kind of positive or negative impact on these all three part of like society, economy and the environment.

Then coordination among stakeholders, between government, between industries and between like users or rural folks or wherever industries are being put or any project is brought upon. So,

those local populations must be brought into picture. Environmental protection as an integral part of the development. Means developments should not be de-linked with the environment.

Any development activity, which is harmful to the environment should not be accepted, that means the proposal of the development or development activity should be totally integrated, they should be unified, they should not be separable, means whenever we talk about the development, we should talk about the environment and we should put policy in such a way that any development activity should not harm the environment. Rather it should protect or it should add value to the environment in one or the other way. That is very important.

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The slide is titled "EIA Notification 2006" and contains the following bullet points:

- Accordance with the objectives of National Environment Policy
- Legally based on Environment (Protection) Act, 1986
- Puts some certain restrictions and prohibitions on new projects; modernization of existing projects or activities
- Applicable in every part of India (including territorial waters)
- Restrictions based on potential environmental impacts

A small video inset in the bottom right corner shows a man in a suit speaking. The slide footer includes the Swayam logo and the number 9.


So, the EIA notification 2006 was brought, and that this will be the way of environmental impact assessment henceforth. And, this is again legally based on Environment Protection Act 1986 that is the, foundation thing, on that foundation, some structures are put in and it has certain restrictions, it is putting some restrictions and prohibitions on new projects or modernization of existing projects or activities in terms of like environmental implications that there the thing.

And it is applicable to every part of India including, territorial waters and all those components of national boundaries. Then restrictions based on potential environmental impacts, that is the important thing because we have to keep environment every time when we talk of any development or industrial activity.

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State Environment Impact Assessment Authority (SEIAC)

- **Constituted by the Central Government**
- **Three Members** including a Chairman & Member – Secretary
- State/UT shall forward the names of the Members and member-secretary
- Members shall be professionals or experts
- One of the member shall be the Chairman
- Decisions of the committee shall be unanimous and taken in a meeting otherwise majority prevails
- **Constituted after every 3 years**



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Then the state environmental impact assessment authority that was made and what kind of authority it is, how it is defined, it is constituted by central government and there are processes like three members, including chairman and member secretary should be in that committee and the state or UT union territory that will forward the names of the members and members secretary to the center to get approval and those members shall be professionals or experts.


It is not like some political member can be there, because professional or experts who understand the whole, this scenario or whole action interaction of the environment and development activities, they would be able to add value to the whole process. So, this is defined that professionals or experts will be the members and one of the members shall be the chairman in that and decision of committee shall be unanimous.

Means it is not like one has dissent or something like, no, one they will be consensus, they will reach to a conclusion and it will be taken in, meeting or otherwise like majority or whenever majority people then it is a committee's decision means even if somebody having some reservation, ultimately it is the committee's decision. There is no like if and but something like that, constituted after every three years. So, that new, people can come with new perspective, new ideas, new outlook, they can contribute in constructive way.

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Need of Environment Clearance (EC)

- Environment clearance is a **legal requirement** to the project proponent which permits to start the project.
- EC needed **before any construction work, or preparation of land by the project management except for securing the land.**



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And then the need of environmental clearance, without environmental clearance project will not be implemented. So, that is very important thing. So, that has been part of the legal requirement. Environment clearance is the legal requirement without that, project will not be implemented. So, the proponent of the project, which permits to start the project, they will get the environmental clearance.


And this environmental clearance is needed before any construction work or preparation of land by the project management except for securing like purchasing land etc. But when you are preparing for that project, then EC must be there. This is, this was the, first priority or first requirement.

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Projects requiring Environment Clearance (EC)

Environment Clearance needed for-

- All new projects or activities listed in the EIA notification 2006
- Expansion in activities listed in the EIA notification 2006 with addition of capacity beyond the limits specified
- If any change in product - mix in an existing manufacturing unit beyond the specified range

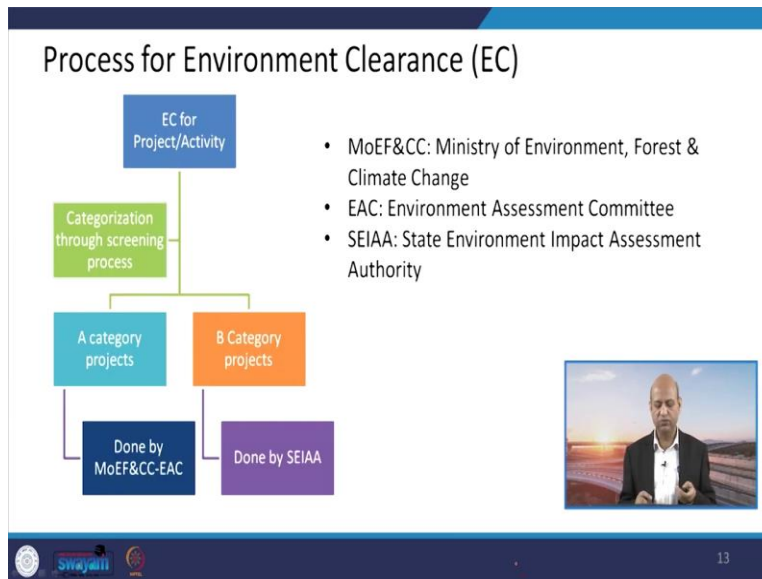


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Then projects requirement for environmental clearance, which kind of projects should be there. So, all new projects or activities listed in EIA notification of 2006. So, there is a list, which projects will require EIA, and different categories are also we will discuss those later on and the expansion of activities listed in that notification 2006 with addition of capacity building or capacity beyond the limits specified that would also need EIA.

It is not that once you have made the project and then you can do anything with that project, no, you have to define if it is, beyond certain limits, then again new EIA is required. Any change of in a product mix, in an existing this manufacturing unit beyond the specified range. So, there are some limits or range which have, which have been specified beyond that, you need again one more EIA, if earlier EIA was done, no problem, but if you are changing that thing beyond the limit then again EIA is required.

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Now, the process of environmental clearance, how this environmental clearance is taken. So, EC for projective activity we have to think about and categorization through screening process means when we see what kind of project proposal is there. So, accordingly the notification says that in which category it will come.

So, A category projects or B category projects according to 2006, we are talking environmental EIA notification of 2006, we are talking, not of the 2020 draft notification, please remember this. Then, it is done by the Ministry of Environment and Forests and Climate Change. And this EAC, that committee and this SEIAA which we just did, we just discussed State Environment Impact Assessment Authority that will take the decision according to it is written here also all these acronyms.

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What are the project categories?

- Projects are divided in **categories depending upon their possible level of impacts** (High impact projects, medium impact project etc.)
- For administrative ease, a **guideline is created to clearly categorize the projects**
- In EIA notification 2006, projects are **divided in two categories (A & B)**
 - Category A: High impact projects ✓
 - Category B: Medium impact projects ✓



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What are the project categories? How we define A or B those kinds of things? So, there are some guidelines like high impact projects or medium impact projects. So, accordingly A and B are there. So, A are high impact projects, which have, highly impactful and B medium impact projects. So, two broad categories A or B have been defined. So, that if something fall in B category then how to process further and something is in A category then how to do, all these things have been decided and divided properly.

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Categorization of transport sector project in EIA notification 2006

Project Type	Category A ✓	Category B
Airport	All airports ✓	-
Oil & gas (Pipeline) transport	All oil & gas transport projects ✓	-
Aerial ropeway		All aerial ropeway project ✓
Harbor/Port	>5 million TPA of cargo handling capacity (excluding fishing harbors) ✓	<5 million TPA of cargo handling capacity ✓ B

TPA: Tonnes per annum



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So, if you see in this table categorization of transport sector because this is the course of transportation systems. So, otherwise EIA talks about every kind of industry or development activity, but we are just taking example of transport sector because this is more nearer to our course. So, airports project type. So, all airports will be in category A, this will not be in category B.


Oil and gas pipeline, these will be again in category A, aerial ropeways they will be in category B, harbor port according to their handling capacity like more than 5 million tons per annum that cargo is handled by that port then this excluding fishing harbors, only those cargo related ports or harbors which are dealing with more than 5 million tons per annum cargo they will be in category A otherwise, less than that will be in category B. So, that is important to distinguish between these.

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Categorization of highway project in EIA notification 2006

Project Type	Category A ✓	Category B
Highway	New national highways and expansion of National highways greater than 30 KM, involving additional right of way greater than 20m involving land acquisition and passing through more than one State	New state highways and expansion of National / State highways greater than 30 km involving additional right of way greater than 20m involving land acquisition.

Railway projects don't come under EIA notification 2006 but EIA report is necessary for other clearances such as forest clearance etc.



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Highways, new national highways expansion of national highways greater than 30 kilometer or involving additional right of way greater than 20 meter involving land acquisition and passing through more than one state means inter-state, then those highways will be in category A, otherwise new state highways which do not go beyond one state or they are in within this reach of 30 kilometer, national state highways greater than 30 kilometer involving additional right of way of greater than 20 meter involving land acquisition but they do not go beyond one state then they are part of category B.

Railway projects do not come under EIA notification of 2006, but EIA report is necessary for other clearances such as forest clearance or other related clearances. Otherwise, like these are not treated for other like other highways or airports etc. So, this is given some kind of, because of its role in our goods and services to the passengers, that may be one reason.

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Change in project category in EIA notification 2006

Any project or activity specified in Category 'B' will be treated as Category A, if located in whole or in part within 10 km from the boundary of :

- Protected Areas notified under the Wildlife (Protection) Act, 1972
- Notified Eco-sensitive areas
- Critically Polluted areas as notified by the Central Pollution Control Board
- Inter-State boundaries and international boundaries

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Change in project category means once, one category is there, but in some situations, one category can go to other category. For example, category B will be treated to category A in some cases. For example, if it is located whole or part within 10 kilometer from the boundary of these four kind of zones like under Wildlife Protection Act if some area is defined and that project is within 10 kilometer of this zone then this will be treated as Category A even if it was Category B according to that table which we just discussed.


Then notified eco sensitive areas, again if project within that area or within 10 kilometer then this will be category A. Critically polluted areas as notified by Central Pollution Control Board there are certain industrial areas which are highly polluted. So, we do not need more projects there, otherwise they will add into more pollution.

So, if within 10 kilometers of that area, critically polluted area, that will be treated as A. So, more stringent rules, regulations will be applied. Inter-state boundaries and international boundaries, so nearer to the 10 kilometer again, even if project is small, that will be treated as category A project.

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Application for Environmental Clearance (EC)

- Application seeking prior environmental clearance in all cases shall be made in the prescribed [Form 1/Form 1A](#), if applicable.
- The applicant shall furnish, along with the application, a copy of the [pre-feasibility project report](#).
- Pre-feasibility project report won't be required in case of few projects, then a copy of the [conceptual plan](#) shall be provided by applicant.



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Then application for environmental clearance. So that is the part of whole EIA, which is submitted to the agencies which are responsible for giving environmental clearance. So, the applications for seeking this environmental clearance is submitted in terms of prescribed form 1 and form 1A, which we will see later on in next slide.

And then applicant will furnish some pre-feasibility project report, certain guidelines are there for them to submit their report and pre-feasibility project to report will not be required in case of few projects, then a copy of the conceptual plans shall be certain categories are there where pre-feasibility project report is not required, then conceptual plan will be required.

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Form 1 & 1A in application for environment clearance

- Form 1A is a check-list form required from the applicant.
- Yes/No check-list about impact with details required in case of yes.
- 93 parameters in 10 categories of impact.
- Form 1A requires to fill details about 10 impacts such as vegetation, air quality, water quality.



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So, it is not like you do not need to submit anything and you can get environmental clearance, it is not so, you have to submit some sort of information to the decision-making organization or agencies. So, we were talking about form 1 and 1A, what is this application? So, this is a kind of checklist, that gives different parameters.

So, take yes, no, those kinds of things, checklist is there in terms of the impact of details, like yes or no, the 93 parameters in 10 categories of the impact, which we discussed earlier. So, those are in that checklist. Form 1A requires to fill details about 10 impacts such as vegetation or air quality or water quality or, solid waste related things, those issues are listed there and they become part of form 1A.

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Pre-feasibility report

It consists:

- Project background
- Project Description
- Site Analysis
- Proposed Infrastructure
- Rehabilitation & Resettlement Plan
- Project schedule & cost estimates
- Overall analysis of proposal (in terms of social, economic & environmental impacts)

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Pre-feasibility report consist of like what is the background of the project, a brief description of the project then site analysis, where it is located, what are the weather, climate conditions, then what are the proposed infrastructures when we are going to develop it, rehabilitation or resettlement plan if that kind of issue is there. For example, in dams related activities, those are the part of the whole plan or EIA.


Project schedule and cost estimates that should also be there because cost estimates and the project schedule will give us an idea that how many years it will go on and when cost estimates is there, then there are certain activities. So, with that activity, we can relate what kind of impacts may be there, overall analysis of the proposal in terms of like social, economic and environmental impact that will be the detailed part of the pre-feasibility report.

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Conceptual plan

It consists:

- Project description
- Site location
- Important features of project
- Impacts (if any)




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Then if there is no requirement of pre-feasibility report, then you have to give a brief conceptual plan. So, again project description is there, site location, important features of the projects impacts if any. So, these are the things which are required for even smaller projects.

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Steps for Scoping Process in EIA notification 2006 1/2

- Comprehensive Terms Of Reference (ToR) for the preparation of an EIA report by applicant
- Site visit by a sub- group of appraisal committee
- ToR shall be conveyed by the appraisal committee within sixty days of the receipt of application



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Then we see the steps for a scoping process in EIA notification according to 2006. So, the ToR terms of reference comprehensive, terms of reference for the preparation of EIA report by the applicant has to submit according to the those guidelines. Then site visit by a subgroup of

appraisal committee is compulsory. So, that they can see the site in physically and they can relate those impacts which can be possible in that site in that location.

Then, ToR shall be conveyed by the appraisal committee within 60 days of the receipt of the application means, this is the responsibility of the appraisal committee, if they want to give some comments on the ToR, they accept it as it is or they want to make some changes they have to give within two months period to the client.

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The slide is titled "Scoping Process in EIA notification 2006 2/2". It contains four bullet points:

- If ToR (Terms of Reference) are not finalized and conveyed to the applicant within sixty days, provided ToR will be assumed final
- Approved ToR shall be displayed on the website of the MoEF&CC (Ministry of Environment, Forest & Climate Change)
- Prior environment clearance may be rejected on the recommendation of the appraisal committee
- Reason of rejection shall be communicated within 60 days

There is a small video inset in the bottom right corner of the slide showing a man speaking. The slide also features logos for Swayam and MoEF&CC at the bottom left, and the number 23 at the bottom right.

Well, so, if ToR are not finalized and conveyed to the applicant within 60 days provided ToR will be assumed final. So, if no comments are received that means the whatever ToR you have submitted that is fine, that is acceptable by the decision-making body. That approved ToR shall be displayed, on the website so that everybody can see it.

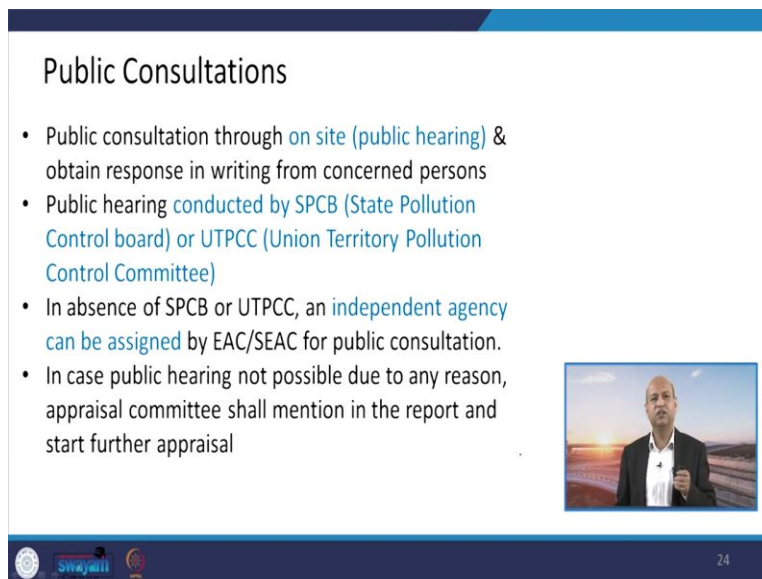
So, the whole transparency is there because there are so many stakeholders wherever project is coming there are so many stakeholders even if they are not part of that project, because the project will directly or indirectly will influence their life. So, even if some villager is there he has or she has equal rights, constitutional right that they should know what is going on because of this whole project.

So, ToR visible to all, so on the website of MoEF Ministry of Environment Forests and Climate Change, it will be available. Then the prior, this EC or environmental clearance may be rejected

on the recommendation of the appraisal committee that is possible. On the basis of whatever information has been given, they can decide, this is not good, something has to be done.


So, the reason of rejection shall be communicated within 60 days. So, again, timeline is there. So, responsibility is there for the committee, that you cannot just linger on, you cannot harass the client, they are the part of our country building activity. So, if you are not satisfied, give them answer. So that accountability is there. That is wonderful part of this notification.




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Public Consultations

- Public consultation through **on site (public hearing)** & obtain response in writing from concerned persons
- Public hearing **conducted by SPCB (State Pollution Control board) or UTPCC (Union Territory Pollution Control Committee)**
- In absence of SPCB or UTPCC, an **independent agency can be assigned** by EAC/SEAC for public consultation.
- In case public hearing not possible due to any reason, appraisal committee shall mention in the report and start further appraisal



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Then public consultation is also important means project is coming somewhere. So, the public participation must be there, public hearing must be there. So those kind of issues are implemented in real sense. Public meetings are organized and the any public member can give some feedback, or they can ask some queries. So that is part of this whole EIA. And sometimes if this public consultation is not possible, then one has to define the reasons and alternates like maybe some representatives of the public can be invited and feedback can be taken something can be done, but it cannot be ignored totally.

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Importance of public consultation : Bhatta-Parsaul Case

In year 2011, U.P. govt. done acquisition of land for Yamuna expressway around Greater Noida (U.P.)


This caused huge uproar in surrounding region of project site and violence broke out.

A political & social crisis was created.

Do you think public participation can ease out project implementation and reduces risks for project ? (Yes, it does)



ImageSource: amarujala.com



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Now, some examples that why it is so important. So, in year 2011 UP government, had done this acquisition of land for Yamuna expressway around Greater Noida, but there were some issues, so, agitations erupted and this political and social crisis kind of situation emerged. So, if public participation had been done properly and documented properly and, there was no gap, then such situations can be avoided.


That means the public participation and public consultation must be in a transparent way, there should not be scope for any doubt and maybe some legal documents should be signed by both parties, so that there is no scope of making misinterpretations of any situation.

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Exception cases for Public Consultations in EIA notification 2006

All projects or activities mentioned in EIA notification 2006 shall undertake Public Consultation except:

- Expansion of Roads and Highways which do not involve any further acquisition of land
- Projects or activities concerning national defense and security, or involving other strategic considerations as determined by the Central Government
- Specified project within existing industrial estates & Irrigation project



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Similarly, like exception cases, where public consultations of this project is not required, then there are certain conditions or situation like expansion, expansion of the roads and highways, which do not involve any further acquisition of land. So, for that, no public consultation is required that is, just waived off.


Similarly, projects or activities concerning national defense and security. So, again, that are kind of public consultation is not required, because the most important thing is security and defense of the nation, that is the first party of whole country and society. So, we can get away with this, so that those projects are not hindered.

So, involving those kinds of strategic considerations and so, that is exempted. Then specified projects within existing industrial estates and some irrigation projects, which are of utmost importance for farmers for those, deprived groups of the society, which needs, a fast development kind of things. So, that kind of thing can also be exempted in certain cases.

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Steps for appraisal process in EIA notification 2006

- Grant environmental clearance on stipulated terms and conditions, or rejection of the application for environmental clearance, together with reasons for the same
- Based on the prescribed application Form 1 and Form 1A and addition information required after site visit by appraisal committee
- Recommendations of the appraisal committee shall be placed before the Ministry of Environment, Forest & Climate Change (MoEF&CC) for a final decision within the next fifteen days
- The appraisal of an application shall be completed within sixty days of the receipt of the final EIA report




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Then appraisal process for EIA notification 2006. So, the clearance is taken or rejection is there all those things have been, should be communicated properly, and which we have already discussed that within 60 days, these kinds of things should be communicated.

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Post Environmental Clearance Monitoring

- Need to submit half-yearly compliance reports in respect of the stipulated prior environmental clearance terms and conditions in hard and soft copies, on 1st June and 1st December of each calendar year.
- All such compliance reports submitted by the project management shall be public documents.



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Like post EC means, like environment clearance has been obtained then monitoring must be there. So, half yearly, every six months, when project is going on, so, reports should go to the this MoEFCC and pollution control board, what kind of activities are there what kind of impacts are there all those things. So, every 1st June or 1st December of each calendar year, the report

should go for the monitoring, compliance are there or not whatever guidelines are there. So, those compliances should be a kind of public document and it should be accessible to all.

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Transferability of Environmental Clearance

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




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Then, like some environmental clearances are there and let us assume that suppose, one contractor cannot complete that project because one or other reason, and that project has already got the environmental clearance. So, that clearance can be transferred to another agency, if that agency is hired to complete that project. So, that kind of possibility is there, but with same terms and conditions, there should not be any major change, which can add into some negative impact, that is not acceptable, but transferable of the EC is possible in certain situations.

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EIA Notification 2020 Draft

- Central govt. notified a new draft for EIA process in March 2020 for public comments/feedback.
- Notification shall come into force on the date of publication of final notification after changes (if any) in the Official Gazette.
- It is also legally based on Environment (Protection) act, 1986.



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Then now, we are talking about EIA notification 2020 draft. So, on the basis of some feedback from different stakeholder's groups, like even NGOs or environmentalists or experts, etc. or maybe industrialist or industrial groups. So, new EIA notification is building and the 2020 draft is, was there in public mode and anybody could give some feedback. So, that new draft has been there for the public comments and feedback in March 2020.

And this notification will come in force on the date of publication of that final notification, after incorporating whatever changes or suggestions which have been received from different walks of the people, then it will be Official Gazette. So, then it will be into force, legal force, so legally based on again, Environmental Protection Act 1986 that is the basic bone of all these acts.

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Major Differences between EIA notification 2006 & EIA draft 2020

EIA notification 2006	EIA draft notification 2020
<ul style="list-style-type: none">• Only 2 project categories (A/B)	<ul style="list-style-type: none">• 3 project categories (A/B1/B2)
<ul style="list-style-type: none">• Various terms not defined	<ul style="list-style-type: none">• Terms are defined
<ul style="list-style-type: none">• Yearly data is required of impacts	<ul style="list-style-type: none">• Data of one season is sufficient
<ul style="list-style-type: none">• Monitoring at every 6 month	<ul style="list-style-type: none">• Yearly monitoring
<ul style="list-style-type: none">• Monitoring report by third party	<ul style="list-style-type: none">• Monitoring report submitted by project proponent



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Now, if we want to see what is the difference between 2006 and 2020 this EIA notification. So, there are some differences like, in this EIA notification 2006 there were only two major categories of the projects A and B. In this, in 2020, this B category have been splitted into two B1 and B2, again based on certain feedback.

So, three project categories are there, various terms were not defined in 2006, they were, implied kind of thing, but in 2020 notification, every term is properly defined, there is no ambiguity, because of that. Yearly data is required for impacts, data of one season is sufficient in new guidelines. So, it can be quick, but which kind of, season has to be chosen.

So, it is better that those kinds of reasons would be chosen, which gives us kind of worst-case scenarios, so that we can have a better idea about what can happen in negative way and we can address them properly. Monitoring at every six months as we have seen 1st June and 1st December. Now, yearly monitoring can be there. So, because of, some technological interventions, maybe those kind of paperwork is not required, there are other ways to monitor and to do compliance.


Then monitoring report by third party, this monitoring has to be submitted by project proponent himself or herself means that agency they can submit again as I said, there are so many technologies that you can always catch hold, if there is some manipulation or not. So, because of


those new technologies, it is possible to get away with those more rigorous monitoring compliances.

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Increment in project categories in EIA draft 2020

- In EIA notification 2006, few project under category B were required to be appraised at central level (or treated as category A projects).
- To ease out this, now in EIA draft 2020, category B projects are further classified in B1 & B2 categories.






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Categorization of transport sector projects in EIA draft notification 2020

Project Type	A	B1	B2
Airports and Heliports including terrestrial and water ports	All airports	-	Water - aerodromes which are for commercial use Heliports which are for commercial use.
Oil & gas (Pipeline) transport	All oil & gas transport projects	-	-
Elevated roads or standalone flyovers or bridges	-	-	>1,50,000 sq. meters. of built-up area




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Then increment time project categories in EIA draft 2020 like from B to B1, B2 and those kinds of categories are there because of certain dimensions. We will see in this example. Like airports, all airports are A, like water, aerodromes, these have been defined, commercial heliports, all these are now in B 2. So, one definite terms are there other otherwise, earlier there was like ports

only. Similarly, like oil and gas again it is in A, elevated roads or flyovers or bridges more than 1,50,000 square meters built up area that will be in B2.

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Categorization of transport sector projects in EIA draft notification 2020

Project Type	A	B1	B2
Aerial ropeway			All projects located in notified ecologically sensitive areas.
Harbor/Port	Greater than 5 million TPA (Tonnes per annum) of cargo handling capacity (excluding fishing harbors)	Less than 5 million TPA of cargo handling capacity Greater than 30000 ton per annum of fish handling capacity.	All projects in respect of Inland water ways




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Categorization of highway projects in EIA draft notification 2020

Project	A	B1	B2
Highway/ Expressways or Multi-modal corridors or Ring Roads	New National Highways or Expressways or Multi-modal corridors or Ring Roads. Expansion or widening of existing National Highways or Expressways or Multi-modal corridors or Ring Roads by length more than 100 km involving widening or right of way more than 70 m on existing alignments or re-alignments or bypasses.	All new State Highway projects State Highway expansion projects in hilly terrain (above 1,000 meter above mean sea level).	Expansion or widening of existing National Highways or Expressways or Multi-modal corridors or Ring Roads by length between 25 km and 100 km involving widening or right of way more than 70 m on existing alignments or realignments or bypasses. Expansion or widening of existing State Highways (500 m to 1000 m above mean sea level)



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So, you can see A, B1, B2. Harbor ports earlier all these ports were like more than 5 million TPA, tons per annum they were in A and then B category was for less than this 5 million, but the B2 categories now, all projects in respect of inland waterways. So, inland waterways lot of focus is there of the government earlier that was not part means in it was not specified properly. Now, in B2 category it has been incorporated. That is welcome step. Similarly, highways have been

categorized into like B1 and B2 depending upon their length and their width etcetera. So, these are listed here.


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Definition in EIA draft 2020: Accredited Environment Impact Assessment Consultant Organization (ACO)

Organization that is accredited with the

- National Accreditation Board for Education and Training (NABET) of Quality Council of India (QCI) or
- Any other agency, as may be notified by the Ministry from time to time

Was not defined in EIA notification 2006



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Then there are, certain terms which have been defined in 2020, which were not defined properly in 2006 like EIA should be done by some accredited environmental assessment groups or people, those organizations which are assessment consultant organizations and they should be, accredited in by NABET, National Accreditation Board for Education and Training of Quality Council of India.

So, again, more formal more professional way of doing things otherwise, earlier sometimes, some people used to do not with such a serious way. Any other agency may be notified by the Ministry from time to time. So, it has been properly defined.

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Definition in EIA draft 2020 : Capital Dredging & Border Area


Capital Dredging

- Done during waterways/harbor project construction.
- one time process involving removal of virgin material from the sea-bed to create or deepen a shipping channel in order to serve larger ships. This includes dredging activity inside and outside the ports or harbors and Channels.

Border Area

- Area falling within 100 kilometers aerial distance from the Line of Actual Control with bordering countries of India.

Was not defined in EIA notification 2006



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Similarly, like dredging, how to do although, earlier also I said that dredging is not encouraged and now new technologies are coming because dredging is not so environment friendly. Then for border areas, within 100 kilometers, these areas have been defined earlier there were debates which are the border areas, to what distance something like that.


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Definitions in EIA draft 2020 : Certificate of green buildings

Certificate issued for green building under the rating programme of:

- Green Rating for Integrated Habitat Assessment (GRIHA)
- Indian Green Building Council (IGBC)
- Leadership in Energy and Environmental Design (LEED)
- Excellence in Design for Greater Efficiencies (EDGE)

Was not defined in EIA notification 2006



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Similarly, like Green Rating for Integrated Habitat Assessment, GRIHA, Indian Green Building Council. All these, certificate which can be issued by those agencies are defined so that one can

flag my project is so good because it has got certificates from these environment friendly rated agencies.

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Definitions: District/Divisional Level Expert Appraisal Committee

District/Divisional Level Expert Appraisal Committee

Committee of experts constituted at district level or at divisional level on the recommendation of the State Government or Union Territory administration, for environment appraisal of projects referred to it and for making appropriate recommendations.

Was not defined in EIA notification 2006



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Exceptions for assessment of B1 category projects for EIA draft 2020


Any project or activity specified in Category 'B1' shall be appraised at the Central Level, if located in whole or in part,

Within 5/10 km (varies with type of project) from the boundary of-

- Protected Areas ✓
- Critically Polluted Area ✓
- Eco-sensitive area ✓
- Inter State or Union Territory ✓

Within the boundary of-

- Severely Polluted Area ✓
- Eco-sensitive Zone ✓



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Then, some district divisional level expert appraisal committee has also been properly defined, earlier it was not so categorized properly. Exceptions for assessment of B1 category projects for EIA, like earlier also there were some categories, but any project or activity specified in category B1 shall be appraised at the central level if located whole or part.


Earlier also we discussed in the B category, if you remember the similar project protected areas, critically polluted areas, eco sensitive zones, all these or severely polluted areas or eco sensitive zone within that boundary 5 to 10 kilometers. So, it has been again defined that even if B1 category is there, it will be treated as A because the center will take the cognizance of it directly.

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EIA draft 2020 : Reduced Monitoring compliance & Monitoring mechanism

Authorities were earlier mandated to **monitor projects for compliance with environmental norms every six months**. Now this has been **changed to once in a year**.

The monitoring mechanism is changed: **Compliance report will be filed by the project proponents**. This may give a chance for discrepancies.



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Example of weak monitoring process: Vizag Gas Leak

- Polymer Plant in Vishakhapatnam
- Styrene gas leak happened on May 7.
- Plant running for over two decades without environmental & safety clearances.
- 11 people died and approx. 1000 people got sick.





Image Source: Indianexpress.com

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Then, this monitoring, monitoring has been like earlier twice a year as we have already seen in the difference, now, once a year and the compliance can be done by the proponent itself. Examples of like some weak monitoring processes, there are real life examples which gives us

lessons to learn like there was polymer, plant in Vishakhapatnam and there was some gas leak and because of this it was death of 11 people and approximately 1000 people got sick and what was found?

That over 2 decades without environmental and safety clearances this setup was going on. So, these are the missing gaps or negligence which should not be tolerated if this process was there so this kind of thing might be avoided because when you do some processing, some monitoring properly then auditing happens and things come into knowledge that oh this is the gap we have to address.

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Example of weak monitoring process: Refinery in Assam

- Natural gas in eastern Assam's Tinsukia district had a blowout and caught fire on May 2020
- Severe damage to the livelihoods & biodiversity.
- Operating for over 15 years without obtaining prior environmental & safety clearance.





Image Source: Indianexpress.com

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Similarly, this refinery in Assam, it has severe damage to the livelihoods because of this fire in May 2020 and it was operating for 15 years without any environmental and safety clearance. So, these kind of negligence should not be tolerated and they should be brought into this complete EIA process that they, monitoring should be continuous, there should not be any gap and they should be made legally binding.

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EIA draft 2020: Change in requirement of Seasonal Data

New draft EIA notification 2020 permits to collect data for any environmental impact during one season (except for river valley projects).

Environmental data (parameters related to air quality, water quality etc.) changes according to seasons. It may hamper the baseline data and thus assessment and mitigation.



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So, the new draft of EIA 2020 that is there and there is some implications like any environmental impact during one season except for river valley projects. So again, there are some schools of thoughts or some people who are arguing that it is not good. One season people may try to manipulate, they may go for any season and it may not be worst case scenario and then the impact may not be so severe which can be in severe kind of condition. So those kind of issues are there, but may be notification comes and then they are all addressed.

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Example of change in impact assessment due to seasonal data: Air Pollution

- In summer season, due to low pressure, there is a chance that, pollutants will be in lesser compared to another season.
- It may impact baseline data.






Image Source: climatekids.nasa.gov

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Change in impact assessment due to seasonal data: **Water Pollution**

- In summer season, due to significance change in flow in rivers (mostly in Himalayan river), may hamper the baseline data.




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Similarly, air pollution related like, which season should be there? What baseline data can be there? If summer or winter because if something is done in summer may be in winter because of inversion that situation can be totally different.

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Conclusion

- There are various policies and act regarding environment protection in India which ensure conservation at various stages.
- EIA is an important for securing environment while development projects.
- EIA draft 2020, is upcoming EIA process regarding which there are some concerns among few experts.

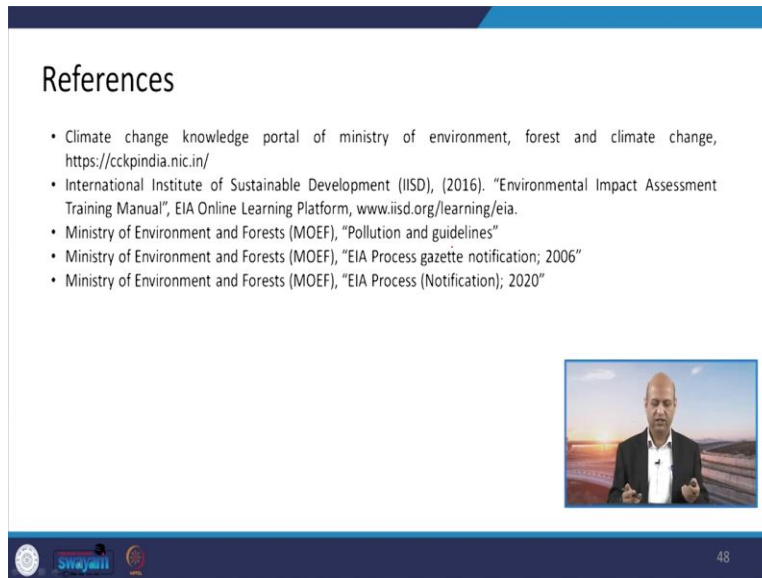


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So, those issues are there and they should be addressed and we hope that when 2020 new notification will come, in '21 or they or we are not sure when it will come but all these issues will be addressed, we are hoping so. So, in a nutshell we can say that the EIA process has evolved

over the years and now our EIA process is very good and this takes notice of everything which can influence the environment in the negative way.

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The slide is titled "References" and contains a bulleted list of five references. In the bottom right corner of the slide, there is a small video inset showing a man in a dark suit and white shirt speaking. The slide also features a blue header bar at the top and a blue footer bar at the bottom. The footer bar contains the logos of the Ministry of Environment and Forests and the Swachh Bharat Mission, along with the number 48.

References

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- International Institute of Sustainable Development (IISD), (2016). "Environmental Impact Assessment Training Manual", EIA Online Learning Platform, www.iisd.org/learning/eia.
- Ministry of Environment and Forests (MOEF), "Pollution and guidelines"
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- Ministry of Environment and Forests (MOEF), "EIA Process (Notification); 2020"

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And these are the references which you can go through. There is lot of information on the website of Ministry of Environment and Forest and Climate Change. You should go through those notifications. We have just given some bullet form information but notifications are quite detailed. So please go through those notifications, it will give you better idea, better understanding about the whole EIA process. Thank you for your kind attention. We will continue on certain case studies later on. Thanks again.