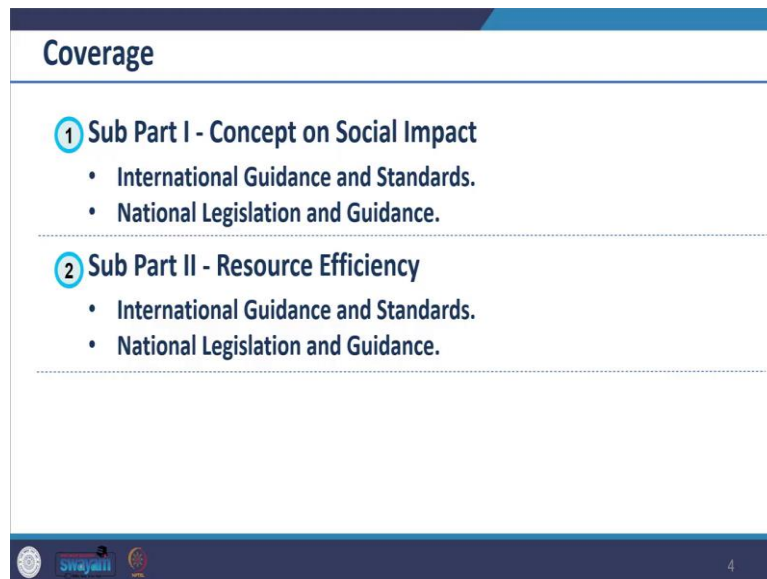


Environmental Impact Assessment
Professor Harshit Sosan Larka
Department of Architecture and Planning
Indian Institute of Technology, Roorkee
Lecture 24

EIA- Law, Policy and Institutional Arrangements for EIA Systems (Part-XII)
Socio-economic Impacts

Welcome to the course- Environmental Impact Assessment, we will cover 2 sub-parts today, and we will look at Socio-Economic Impact Assessments. And then we will also look at another domain, which is regarding resource efficiency.

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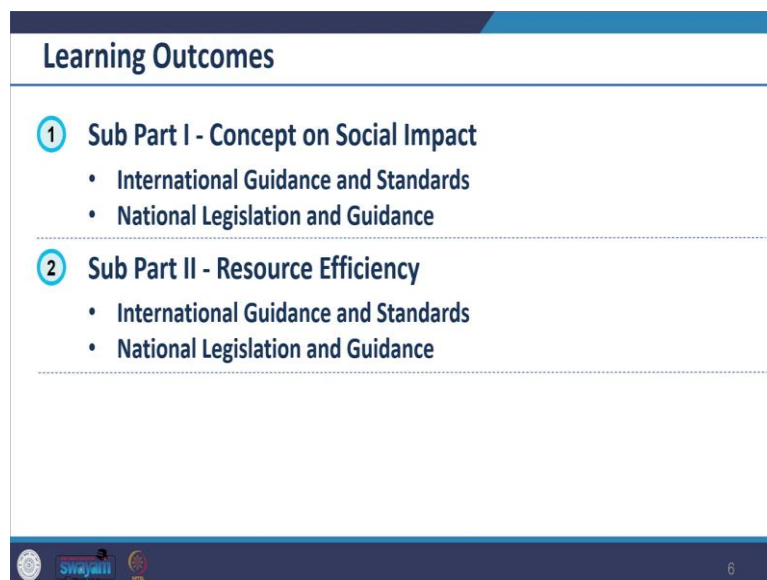


Coverage

- ① **Sub Part I - Concept on Social Impact**
 - International Guidance and Standards.
 - National Legislation and Guidance.

- ② **Sub Part II - Resource Efficiency**
 - International Guidance and Standards.
 - National Legislation and Guidance.

4



Learning Outcomes

- ① **Sub Part I - Concept on Social Impact**
 - International Guidance and Standards
 - National Legislation and Guidance

- ② **Sub Part II - Resource Efficiency**
 - International Guidance and Standards
 - National Legislation and Guidance

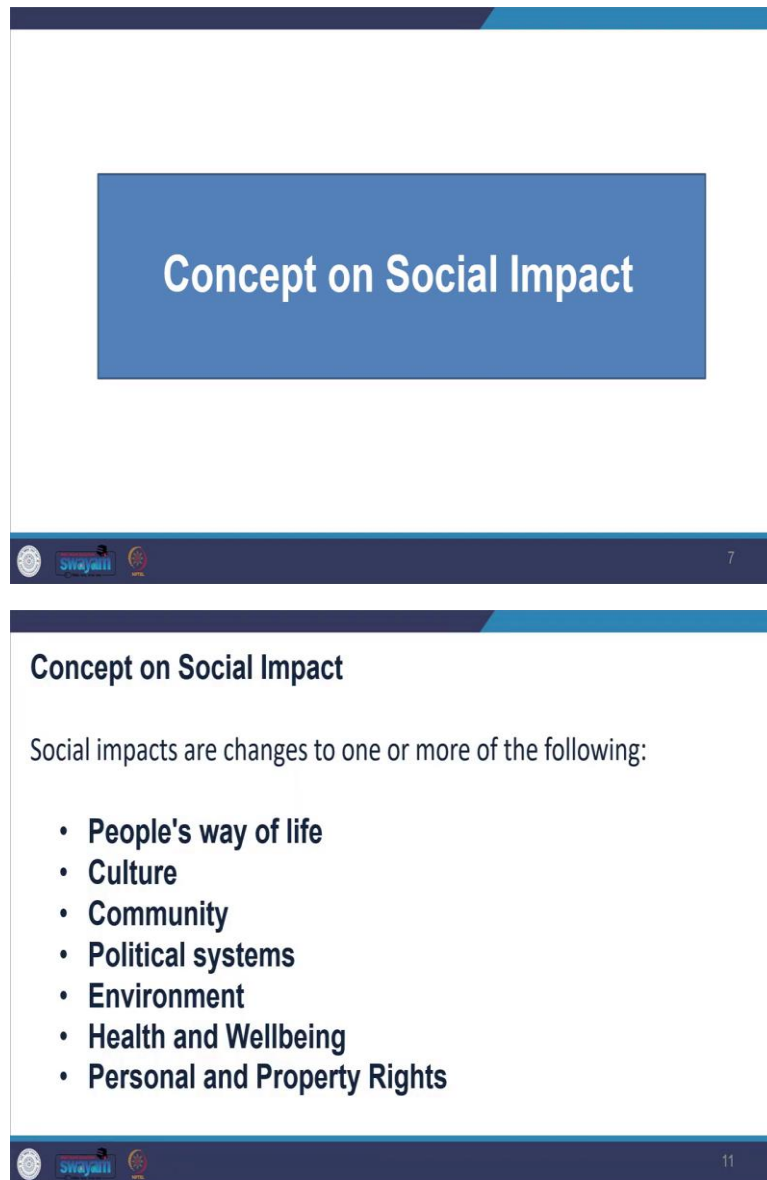
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So, accordingly, our coverage would include that, in the social impact assessment, we will study a bit about the concept of social impact. And then, we will look at the International guidance and standards in this regard. Then, we will look at the National Legislation and Guidance, then in the second part, we will look at resource efficiency and then international guidance and standards, and then the related National Legislation Guidance with that, aspect.

So, the expected learning outcome is that you should be able to review the concept of social impact and then identify various international guidance and standards which are there and then also review National Legislation and Guidance, which align with the larger global context as well as with the regional as well as the national context.

In the second part, you should be able to conceptually explain Resource Efficiency, though, we will cover that, more in the later method section, then you should be able to identify International Guidance and Standards and then also identify National Legislation and Guidance and know where to look for information.

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The image shows two presentation slides. The top slide has a blue header and a central blue box with the text "Concept on Social Impact". The bottom slide has a blue header and a list of social impacts.

Concept on Social Impact

Social impacts are changes to one or more of the following:

- **People's way of life**
- **Culture**
- **Community**
- **Political systems**
- **Environment**
- **Health and Wellbeing**
- **Personal and Property Rights**

So, looking at the concept of social impact, though, we have been looking at those concepts. So, social impact is changes to one or more of the following. So, when such kinds of changes happen, people's way of life changes, that, is how they live work, play, and interact, changes. So, that, is also said to have a social impact, then their cultural culture changes the way the kind of beliefs they have custom values and all language or dialects they have.

Then we see that, their community is also how that, changes, it is how the community is the cohesion is there, there is stability, there is character and service and facilities which they get from the community. So, any changes on that would also be considered within this social impact.

So, we also look at their political system like the extent to which people can participate in decision-making that, affects their lives, and then the level of democratization that, is taking place. And then the resources provided for this purpose, how much they can engage, how much they can participate, and then they can be involved in the decision-making.

Likewise, we see that, see that, about their environment, the quality of air and water people use the kind of access they have to food, what they eat, and then the kind of hazards or risks they have. Then we also look into the health and wellbeing the health when we look at health as the state of complete physical, mental, social, and spiritual wellbeing, then also look at their personal and property rights.

So, there have been several reasons why in the initial period socio-economic impact has been poorly integrated with the EIA process. So, we see that most socio-economic aspects are covered in the planning and development processes. So, it is done beforehand. So, it is an EIA is done in the later part. So, mostly, it is not, that, is one of the reasons given for not being integrated with the EIA.

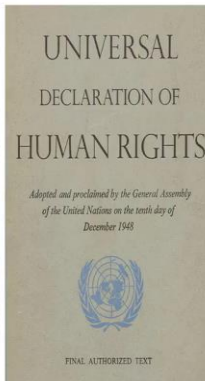
Some concerns adding Socio-Economic Impact can reduce the significance of the impact on the biophysical environment. So, it might dilute the biophysical environment, and the socio-economic environment might show up as positive or negative or can be overrated. And then there are also concerns that Socio-Economic Impacts are regularly or mostly negative, so people tend to not consider that. And then there are other challenges like it is very difficult to quantify the impact.

So, those kinds of problems come so it has been seen that, there is, there has been delay and slag and incorporating socio-economic impact in the EIA process. So, Socio-Economic Impact is bound to happen, and all the development projects. However, we see that it can be positive as well and inclusion in the EIA process can provide a balance measure. So, its social impact assessment should also be included in the EIA process.

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Key Concerns (Include Participation)

The UN Human Rights Council (UNHRC 1948)



The UN Human Rights Council (UNHRC 1948)



Marlin Gold mine Development in Guatemala



Ok Tedi Copper and Gold mine in Papua New Guinea



We will look into some of the key concerns that have to be included in the socioeconomic impact assessment like one is about participation. So, there is a need for having meaningful public participation which is very important and it is also considered that it is vitally important for the correctness of the information of what you get, what you gather, what assessment you do, and also for being very fair and just in the approach.

So, participation is considered to be important. Then the other aspect is about human rights, we see that that is also a critical, crucial area, and the Universal Declaration of Human Rights adopted by the UN in 1948 has also applied these human rights to the business. So, any development work, that comes is also bound to comply with these considerations.

And then we also see that it was the UN Human Rights Council, which clarified that, companies are also subject to international human rights law. So, some of the key examples where the social impact assessment has been seen, or have been done and have been bringing major impact or which were reported as like the Marlin gold mine development in Guatemala, and then you see, Ok Tedi Copper and Gold mine in Papua New Guinea.

So, the links to these case studies have been provided to you. These cases highlighted the concerns including the last scale and disturbances and how they can interrupt the access to water, and how inadequate consultation, and inadequate public participation can have an impact on the local indigenous people.

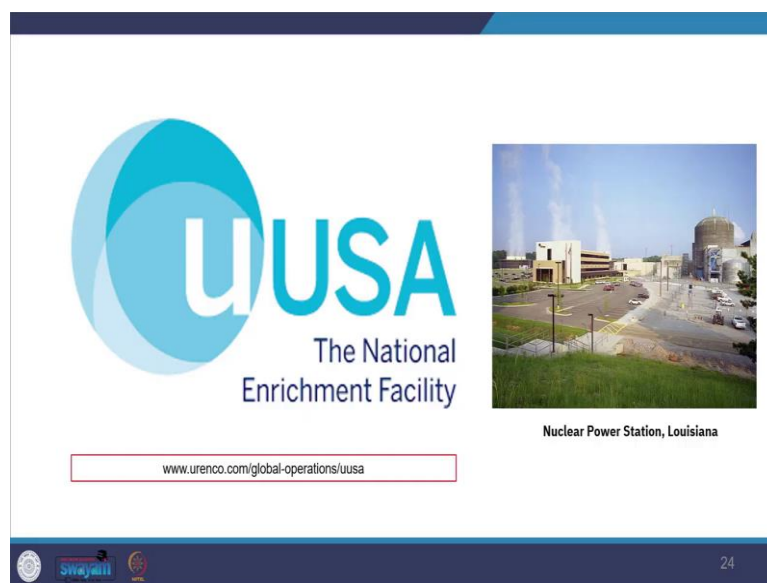
, these were the cases that were highlighted, so, I have given you the links so that, you can follow and read those cases more plus, we will do that, and the method section. Further, we also find freestanding assessment documents such as human rights impact assessments. So, there is also concern about whether it should be dealt with so the EIA audit can be independently handled.

So, you have Human Rights Impact Assessment guidelines as well. You also see that there have been some positive initiatives such as the usage of web-based tool community-based human rights impact assessment tools, which are available as well as you can see getting it right tool is also there. So, all the links have been

given to you. The Getting it Right tool has been developed by Oxfam and the International Federation for Human Rights.

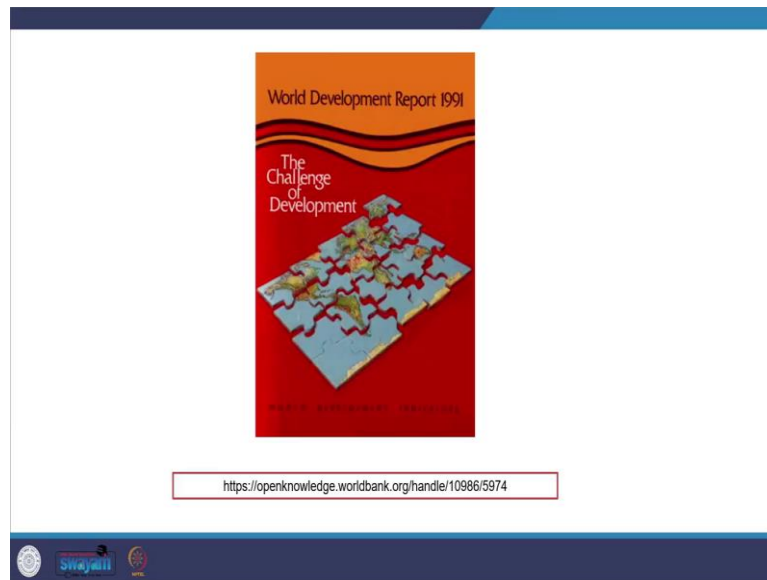
And there is another concept which is which comes in social impact assessment is Environmental Justice. So, you see the EIA process should take care of vulnerable sections of the population. For example, they need to take care of the elderly, the poor, and also the minority ethnically disadvantaged groups and certain areas that may be of particular value to these groups in terms of culture or religious belief. So, these aspects have to be covered and we see that there have been cases which have been refused permission to work or licensing in the absence of such kind of assessment or hurting the environment or their major concerns of environmental justice.

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So, one example that has been studied includes a nuclear enrichment center in Louisiana, which was not given a license because it had some racial and economic discrimination issues. So, these are the like, social impact assessments, why it is important, and what kind of key concentrations are coming into it. And then we see that, from 1991 a lot of emphasis is being given to including socio-economic impact assessment in the EIA process. So, the major impetus we which we see is also coming from

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World Bank report of 1991 and then also UNEP in 1996, which emphasize the need to undertake the social impact assessment in the EIA process. So, the UNEP 1996 document showed a direct link between the social and subsequent biophysical impacts. So, they showed how they are connected and how they influence each other for example, a project in a rural area can result in the migration of a large labor force, often with families into an area with low population density.

So, that can create a lot of pressure on the existing resources. And then increase in the population can also distort the policy existing political systems networks which we talked about, and then the additional environmental impact can cause social changes, which in turn can result in significant environmental impacts as well. So, what kind of changes happen that, would lead to other kinds of changes in the habitat and so on?

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So, UNEP and World Bank highlighted the need to undertake a social impact assessment along with the EIA process, the World Bank stated that social assessment for a purpose should focus on how various groups of people are affected by the project allocation and what kind of regulations they apply and then, so, what happens to their resources, those kinds of things have to be taken care of.

In particular, the World Bank highlighted that in projects involving indigenous people, tribal people, or people dependent on fragile ecosystems, social impact assessment is particularly important because of the close relationship between the way of life of the group of people and the resources, and how they work together.

So, it is very, very important to look at both aspects here. So, we saw, how these international agencies highlighted and emphasized the need to undertake to take and connect socio-economic impact assessment with the EIA. Now, looking at some of the International guidance and standards, so, you have IFC performance standards on environmental and social sustainability

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https://www.ifc.org/wps/wcm/connect/topics_ext_content/ifc_external_corporate_site/sustainability-at-ifc/policies-standards/performance-standards/ps1

Performance Standard 1

- Integrated assessment to identify the environmental and social impacts, risks, and opportunities of projects
- Effective community engagement through disclosure of project-related information and consultation with local Communities on matters that directly affect them
- Client’s management of environmental and social performance throughout the life of the project.

International Labour Organization

United Nations

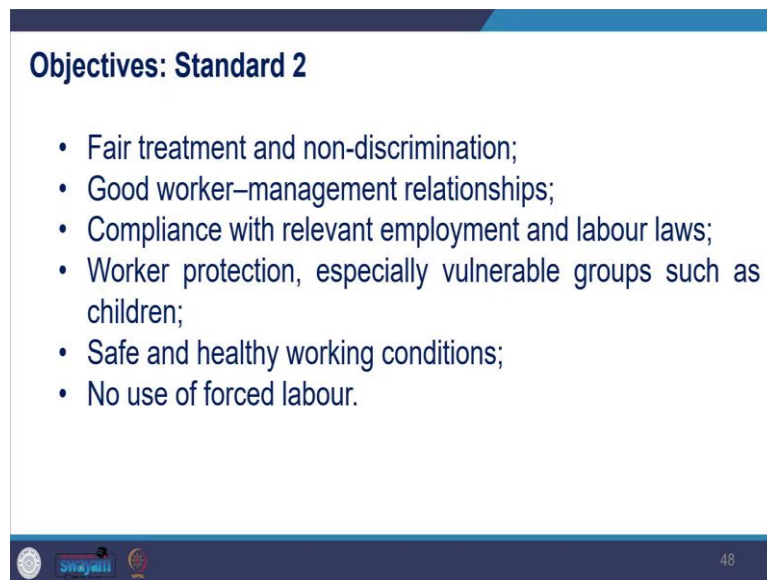
Performance standard, particularly 1, establishes the importance of integrated assessment to identify the environmental and social impact risks and opportunities of projects. So, here you see that, performance standard 1 tells about like, how integrated assessment to identify the environmental and social impact risks

and opportunities of the project like how effective community engagement has to be taken care of, and then the client management of environmental and social performance throughout the life of the project has to be taken care of all of these are very important for Impact assessment concerning socio-economic impact, and this particular performance standard is applied for the environmental and social risk and impact identification process. So, this performance standard is applied at that, level.

So, other IFC performance standards which can, which are of particular relevance to the socio-economic impact assessment, they include you have PS 2 which deals with labor and working conditions. Then you also see PS 7, which deals with indigenous people. So, performance 2, performance standard 2, recognizes the protection of fundamental rights of workers. So, it recognizes that, and emphasizes good worker-management relationships for the sustainability of a company and failure to establish or to enrich this work-worker-management relationship can reduce the worker's commitment and retention and can also damage the project.

So, the requirements set out the performance, the requirements which are set out in the performance standards are further, partially guided by several international conventions and instruments. So, you can see that performance guidance is again supported by other policies and other instruments. So, you one you have is the International Labor Organization which supports and then the UN, and this performance standard is applicable and it is while undertaking environmental and social risk and impact identification process. So, that is where this you apply.

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Objectives: Standard 2

- Fair treatment and non-discrimination;
- Good worker–management relationships;
- Compliance with relevant employment and labour laws;
- Worker protection, especially vulnerable groups such as children;
- Safe and healthy working conditions;
- No use of forced labour.

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So, looking at the objective of these particular standards, you will see that, it targets to have fair treatment and nondiscrimination among the workers, then good worker's management relationship has to be maintained and then there needs to be compliance with relevant employment and labor laws. Further, worker's protections especially were vulnerable groups such as children have to be seen and then safe and healthy working conditions have to be maintained and no use or use of force labor has to be there.

So, now, you may also think of where most of the development projects are located. So, the majority of the projects are often located in the remote and the rural areas. And when we talk about the remote and the rural areas and more, most of these areas are often populated by the indigenous people, the tribal people. So, that is a common scenario in most of the countries.

So, that also needs to be taken care of performance standard 7 recognizes the indigenous people and it recognizes indigenous people as a social group with identities, that are distinct from the mainstream groups in the national societies and are considered to be the most marginalized and vulnerable segment of the population.

So, in many cases, their economic social, and legal status limits their capacity to defend their rights to an interest in land and the natural and the cultural resources and it may also restrict their ability to participate and benefit from the development. So, considering that performance standard 7 has the guidelines for this.

So, it identifies that indigenous people are particularly vulnerable if their lands and resources are transformed, encroached upon, or significantly degraded. So, what can happen and the language culture, religion, spiritual beliefs, and institutions may also come under threat. So, because of this as a consequence, indigenous people may be more vulnerable to adverse impacts associated with a project development than non-Indigenous communities.

So, this vulnerability may include loss of identity, culture, and natural resource-based livelihoods as well as exposure to impoverishment and diseases. So, we further, see that the standard recognizes that, major

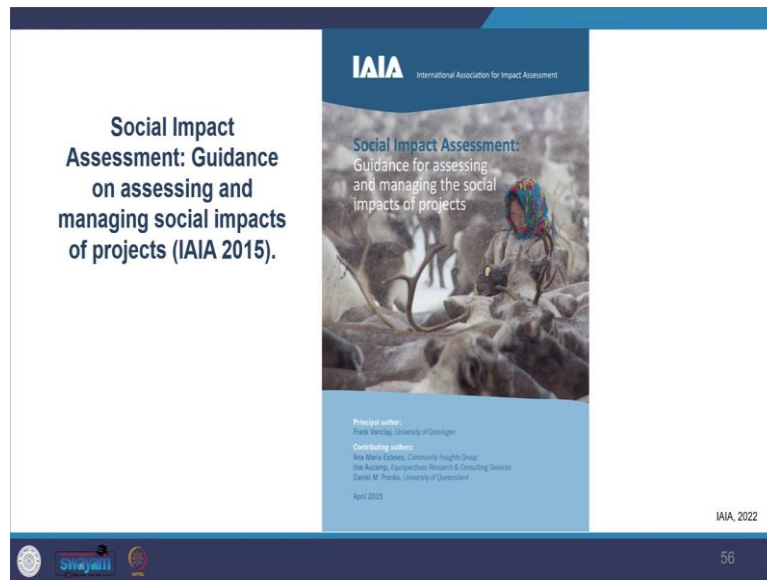
projects can create important employment opportunities for indigenous people. So, they can be the positive aspect also, to that, and full and then they can act as a mechanism tool to fulfill the social and economic aspirations.

So, based on that, the objectives which are set by this performance standard include respects to the human respect for human rights, dignity, aspirations, culture, and natural resources, avoiding or at least minimizing the impact of projects on the community then also promoting sustainable development benefits and opportunities in a culturally appropriate manner.

Further, it also has the objective to have an ongoing relationship with the community based on informed consultation and participation. So, informed consultation and participation have to be maintained to ensure free and prior informed consent and respect and preserve the cultural knowledge and practice of the indigenous people.

Indigenous people may be a particularly important consideration in the assessment process and the process of EIA in the process of social impact assessment will be an important consideration and this performance standard is used again in the impact identification process. So, at that, stage, you use this performance standard.

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So, we find other key guidances also. So, we see that there is the International Association for Impact Assessment, IAIA, which guides social impact assessment, assessing and managing social impacts of the project, so, that, guidance is available, and it comes up with certain key aspects. So, there is a guidance which has come up in 2015, it has certain key aspects it includes, it talks about a social license to operate.

So, not just the practical license, but the social license to operate the acceptability of particular development projects in the local by the local community, then it emphasizes the free prior and informed consent. This is the procedural mechanism that is developed to assist in ensuring the rights of indigenous people to self-determination. And this concept came from like

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Key concept

- **Social License to Operate**
The level of acceptance or approval of the activities of an organization by its stakeholders, especially local impacted communities.
- **Free, Prior and Informed Consent (FPIC)**
A procedural mechanism developed to assist in ensuring the right of Indigenous peoples to self-determination.

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United Nations Declaration on rights of indigenous people and in 1989, the International Labor Organization convention. So, through that, this key idea came, and then you also see human rights-based approach refers to a conceptual and procedural framework directed towards ensuring the promotion and protection of human rights and policies.

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Human Rights Due Diligence

- Refers to the expectation in the United Nations Guiding Principles on Business
- Human Rights that companies must carry out a due diligence process in order to ensure that a proposed business action, transaction or acquisition has no hidden human rights risks (in other words, risks to people and communities, not only risks to the company).

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Further, this particular guideline highlights human rights due diligence, which means taking care of the expectations and taking, ensuring a proposed business action, transaction, and acquisition has no hidden human rights risk. So, that has to be taken care of. So, this document highlights that then this document also talks about non-technical risk, which relates to managerial legal, social, and political issues, which are faced by the project in contrast to technical risks, like physical structural engineering or environmental risk. So, it talks about all non-technical risks like legal social, and political issues.

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Social risk

The World Bank defines social risk as:

“The possibility that the intervention would create, reinforce or deepen inequity and/or social conflict, or that the attitudes and actions of key stakeholders may subvert the achievement of the development objective, or that the development objective, or means to achieve it, lack ownership among key stakeholders.”

Further, we see that it also addresses social risk and the World Bank defines social risk as the possibility that whatever intervention is being taken place that, would create or reinforce or deepen the iniquity or the social conflict. So, whatever social conflict is happening or inequities there, that, might be reinforced or be deepened, and that, the attitude and action of key stakeholders may like, cut down the achievements of the development objectives. So, one needs to the concept of social risk is highlighted in this particular guidance. And then it also highlights the impacts of many impacts and benefits agreement

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Sustainable Livelihoods

- A way of thinking about communities and people in terms of their capabilities.
- The livelihood resources and the livelihood strategies they undertake to make their living and conduct their way of life.
- A livelihood refers to the way of life of a person or household and how they make a living, in particular, how they secure the necessities of life.

how do those agreements have to be negotiated between the affected people and the project developers then it also introduces the concept of sustainable livelihoods. So, when we say sustainable livelihood, it refers to a way of thinking about communities and people in terms of their capabilities and livelihood or livelihood resources, like what kind of assets they have, what kind of capital they have, and what kind of activities they take care of. So, all those things have to be understood and incorporated. Then it also talks about the shared value,

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Shared value

Shared value creating shared value, rather than just profit for its shareholders, so society benefits as well as the company.


The Equator Principles (EP)

Equator Principles is a corporate social responsibility and sustainability framework for the global finance industry.


where the proponent of the project and the community have to have shared value rather than stakeholders only looking at the profits of the project, and then it also aligns with the Equator Principles, which we talked about in the previous class.

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Guidelines for Social Impact Assessments
for mining projects in Greenland



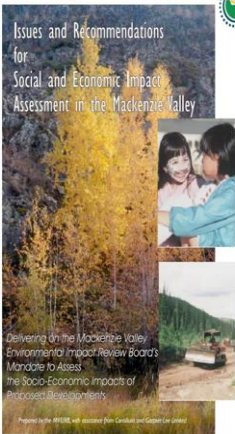
November 2009



Bureau of Minerals and Petroleum, Greenland

https://www.socialimpactassessment.com/documents/sia_guidelines.pdf


Issues and Recommendations for Social and Economic Impact Assessment in the Mackenzie Valley



Delivering on the Mackenzie Valley Environmental Impact Review Board's Mandate to Assess the Social-Economic Impacts of Proposed Developments

Prepared by the MVEIRB, with assistance from Canadian and Greenland experts





file:///C:/Users/Admin/Downloads/SEIA_paper.pdf


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Asian Development Bank : SIA

ADB Environmental Assessment Guidelines

Institutional Document | December 2003

These guidelines describe how to fulfill the requirements outlined in ADB's Environment Policy and the Operations Manual on Environmental Considerations in ADB Operations.

Download (Free PDF File)

These guidelines describe how to fulfill the requirements outlined in ADB's Environment Policy and the Operations Manual on Environmental Considerations in ADB Operations.

Information on ADB's policies and procedures for conducting and reporting on the environmental assessment is also provided for all types of projects.

Strategic tools such as country environmental analysis and strategic environmental assessment are also included.

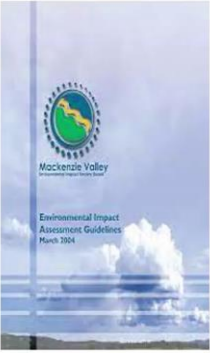
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Abbreviations EiCovers iii

Part 1: Overview of Environmental Assessment Requirements and Procedures


<https://www.adb.org/search?keywords=SOCIAL%20IMPACT%20ASSESSMENT%20Guidelines&page=1>

Mackenzie Valley Environmental Impact Review Board (2007) and Ziller (2012).



Environmental Impact Assessment Guidelines
March 2004

https://reviewboard.ca/sites/default/files/ref_library/MVE%20EIA%20Guidelines.pdf


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So, we see other guidelines also you have the Bureau of Minerals and Petroleum, which again provides the guidelines. Then you also see the Mackenzie Valley Environmental Impact Review Board, which also guides how to conduct a social impact assessment. Then you also have the Asian Development Bank, which also provides sector-based guidance. So, you have lots of series of guidance. So, I have provided links to all of these. So, you can see the guidance on how to undertake a social impact assessment.

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Asian Development Bank : SIA

Mackenzie Valley Environmental Impact Review Board (2007) and Ziller (2012).

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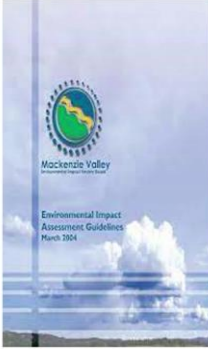
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https://reviewboard.ca/sites/default/files/ref_library/MVE%20EIA%20Guidelines.pdf

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2.8 Socio-Economic Impacts

It is generally envisaged that the scope of a project's socio-economic impact study is limited to the region and population directly influenced by the project, with an emphasis on the distribution of benefits and costs among the project stakeholders. Within project scoping, the socio-economic issues as in Box 2.4 should be addressed:

Box 2.4

Socio-economic

- Onsite and offsite optimal land requirements, specifically in relation to the potential for displacement, rehabilitation, and habitat fragmentation
- Land acquisition details
- Quantity and nature of employment and/or estimated needs for migratory workers
- Potential for stress/increase on utilities and services
- Potential benefits/benefits to the local habitats resulting through project and ancillary activities
- Impact on health of/migrant labour
- Impact on education of male/female
- Community health impacts
- Potential impacts on existing occupations and economic activities
- Potential losses of livelihood for local and vulnerable sections of the population

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- Potential impacts on existing occupations and economic activities
- Potential losses of livelihood for local and vulnerable sections of the population

Stress on medicinal plants

Potential impacts to archaeological monuments and culturally/religiously important locations

<https://moef.gov.in/wp-content/uploads/2018/04/Identificationofkeyissues.pdf>

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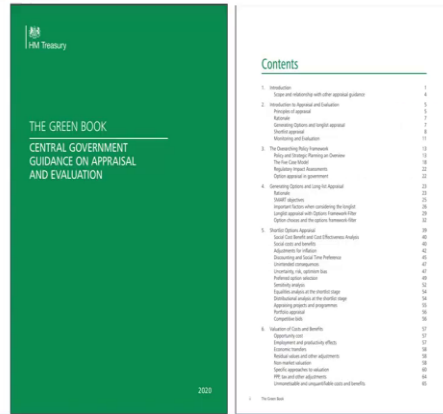
So, that was about the international guidance. Now we will look at the National Legislation and Guidance. So, in India, we see that there is an overall manual that has been provided by MOEFCC, and then we also see a sectorial manual, which provides sector-based guidance and then how social impact assessment has to be taken.

So, the link has been provided to you to all the manuals, you can see how various components of social impact assessment have to be taken, what you can see her on-site and off-site optimal land requirements, then land acquisition details, quantity, and nature of employment potential for stress potential benefits, dis benefits, impact on health impact on education, community health impact potential impact on existing occupation, potential losses of livelihoods, stress on medicinal plants, potential impacts to archaeological monuments and culturally religiously important locations. So, all these are provided in the manual by the ministry.

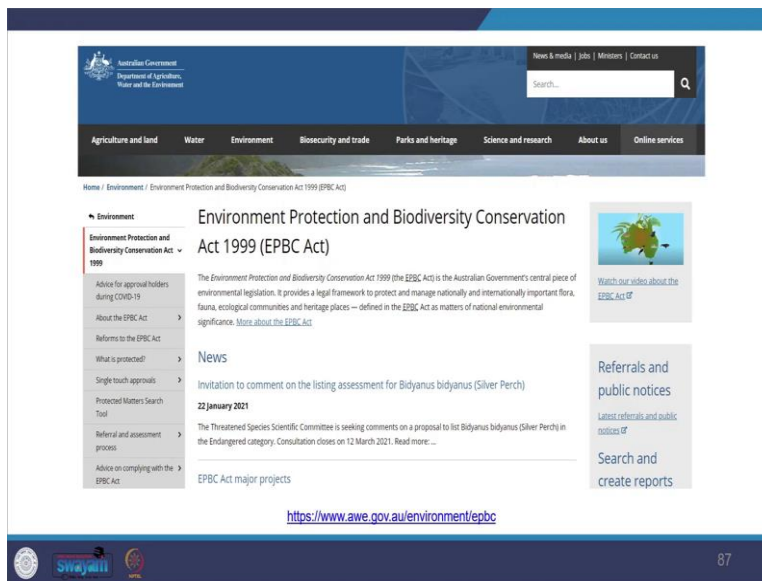
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National Legislation and Guidance

- Provides Guidance on the design and use of monitoring and evaluation before, during and after implementation.
- Appraisal of alternative policy options is an inseparable part of detailed policy development and design



https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/938046/The_Green_Book_2020.pdf



then you see that, the UK also provides a green book on how to conduct socio-economic impact assessment, I have provided you the link here. And then you also see in Australia you have the federal level Environmental Protection and Biodiversity Conservation Act 1999, which has the component of social impact assessment, and then they have also come up with innovative ways to link social impact assessment.

This particular act requires the decision-makers to consider social and economic matters in deciding project approval. So, that comes within the EIA process. Not only that, certain states have also adopted their special social impact management plans, like Queensland has adopted it, then you also see you have Western Australia, which has innovative socio-economic impact initiatives, which have taken which have been taken in this place. So, this was about part 1, where we saw the socio-economic impact assessment.

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Resource Efficiency

The image shows two screenshots of the IFC Performance Standards website. The left screenshot displays a grid of ten categories: Risk Management, Labor, Resource Efficiency (highlighted with a dashed box), Community, Land Resettlement, Biodiversity, Indigenous People, and Cultural Heritage. The right screenshot provides a detailed view of 'Performance Standard 3: Resource Efficiency and Pollution Prevention (2012)', including a description of the standard and a list of implementation resources.

Now, we will move on to part 2, where we will look at resource efficiency, and again, we are taking from chapter 17 of the Terrible and Boots book, which textbook we are referring to. So, in this, we will be looking first at the international guidance and standards. So, just to just before that, we will just slightly touch upon resource efficiency, what do we mean by resource efficiency, resource efficiency is as per the name you can understand, it is the measure of input needed to produce a required product.

So, how many resources you can recollect from the previous diagram also, we have seen this the more input goes, and more waste we generate. So, you see that, it takes care of the measures of the input needed for the production of any kind of product or project and what kind of waste is generated with the product of the project. So, for example, the amount of energy that goes the amount of water, which goes and then what kind of urban expansion happens, what kind of mineral extraction we do, and it is, and then we should have less input and less waste.

So, IFC has guidance on this through its performance standard 3, which covers resource efficiency and pollution prevention. So, these standards state that clients will be required to implement technically and

financially feasible and cost-effective measures for improving efficiency in their consumption of energy, water as well as other resources and material inputs.

So, they are required to take care of this. So, such measures will integrate the principles of cleaner production. So, it is how they can achieve it. So, they can achieve it through the principles of cleaner production, through product design, then also by improving the processes production processes, and then also by conserving raw material energy and water. There are also available benchmark data, clients will be able to make comparisons about how efficiently they are using the resources.

It is also required that to avoid the generation of hazardous and non-hazardous waste material, and then as far as possible to reduce the generation of waste and then to recover and reduce waste and where the waste cannot be recovered or reused, the client would be required to treat destroy or dispose of it in an environmentally sound manner. So, that, all is stated in this particular performance standard.

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Further, we see that UNEP has through their SDGs states about sustainable consumption and production and it has targets to achieve by 2030 to achieve the sustainable management and efficient use of natural resources by 2020 to achieve environmentally sound management of chemicals and always so, those targets are set which guides the global initiatives.


Then you also see an example of a Johannesburg plan of implementation, which has an entire chapter on sustainable patterns of consumption and production. This was a result of the UN Conference on Sustainable Development. So, the 10-year framework of the program on sustainable consumption and production patterns was prepared. You also see your UNEP global partnership on waste, they have published a database of waste management guidelines. So, it also informs how you can take care of the waste.

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NEPA (US) with EIA process

Implementing these concepts through Environmental Impact Assessment (EIA), the impressively far-sighted United States National Environmental Policy Act 1969 requires environmental statements to include information on


- The relationship between local short-term uses of man's environment and the maintenance and enhancement of long-term productivity, and
- Any irreversible and irretrievable commitments of resources which would be involved in the proposed action should it be implemented' (42 USC Sec. 4332).



And then we see in the US also the NEPA has incorporated in their EIA process, how all these things can be incorporated in the environmental assessment environmental statement. They can look into the short-term uses as well as the reversible and irreversible commitment of resources, all of which need to be addressed in their environmental status.

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The European EIA Directive 2014

25.4.2014  Official Journal of the European Union L 124/1

1
(Regulation act)

DIRECTIVES

DIRECTIVE 2014/22/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL
of 16 April 2014
amending Directive 2003/35/EC on the assessment of the effects of certain public and private projects on the environment
(See with EIA relevance)


(2) Annexes III and IV are replaced by the following:

ANNEX III
SELECTION CRITERIA REFERRED TO IN ARTICLE 4(3)
(CRITERIA TO DETERMINE WHETHER THE PROJECTS LISTED IN ANNEX II SHOULD BE SUBJECT TO AN ENVIRONMENTAL IMPACT ASSESSMENT)

ANNEX IV
INFORMATION REFERRED TO IN ARTICLE 5(1)
(INFORMATION FOR THE ENVIRONMENTAL IMPACT ASSESSMENT REPORT)

1. Description of the project, including in particular:
 - (c) a description of the main characteristics of the operational phase of the project (in particular any production process), for instance, energy demand and energy used, nature and quantity of the materials and natural resources (including water, land, soil and biodiversity) used;
 - (d) an estimate, by type and quantity, of expected residues and emissions (such as water, air, soil and subsoil pollution, noise, vibration, light, heat, radiation) and quantities and types of waste produced during the construction and operation phases.
5. A description of the likely significant effects of the project on the environment resulting from, inter alia:
 - (a) the construction and existence of the project, including, where relevant, demolition works;
 - (b) the use of natural resources, in particular land, soil, water and biodiversity, considering as far as possible the sustainable availability of these resources;
 - (c) the emission of pollutants, noise, vibration, light, heat and radiation, the creation of nuisances, and the disposal and recovery of waste;

<https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32014L0052&from=FR>



Then you also see European EIA directives, which have the entire screening process, where they have all the list of things like where they have to provide characteristics of the projects, what kind of project what kind of process will be adopted. So, that, all takes care of the resource efficiency. And that would also include the use of natural materials and what kind of how much land it will use soil, water, and biodiversity, and what kind of waste would be generated in the production.

So, even EIA directives take care within their process, how this resource efficiency is incorporated, then, directives again through Annex 4 require an environmental statement, which will include the description of

the main characteristic of the operational phase of the project, and then it would also specify all the quantities types of waste produced during the construction and the operation phase.

So, looking at the national guidance and standards, some of the countries have legislation on sustainable production and consumption, resource efficiency, and waste avoidance. So, we can see an example from Australia, the Victorian Environmental Protection Act 2002, which aims to promote the establishment of voluntary sustainable covenants to improve the efficiency of resource use and to reduce impact on the environment.

So, they have this act in place. And then you also see New South Wales waste and resource recovery strategy which is 2014 and 21 that, also has targets for recycling waste. Then, you also see resource-related legislation, you have a disposal of waste by landfill and increasing demand requirements for energy efficiency of vehicle appliances and lighting. So, all these two together, you have we had we have covered how different tools modes, and mechanisms work. So, you see how these targets are being addressed.

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2.11 Global Environmental Issues

India is a signatory to many international agreements ratifying her commitment to environmental concerns. These are listed in **Annex III**. Therefore global concerns must also be considered. The reviewer will need to note whether a project's potential resource consumption, waste generation and emissions could break international codes of practice and where this is the case, the proponent should identify, evaluate and suggest mitigation measures if any in the EIA report.

There are a number of additional/optional areas, which may be considered:

- } Potential trans- boundary transport of atmospheric pollutants or liquid effluents.
- } Potential impacts to wetlands of international importance as per the Ramsar convention and those that attract migratory birds
- } The use or production of hazardous or toxic materials
- } Potential impacts on primitive and rare cultivated plants, land, ethnic minorities, archaeological places
- } Impacts on identified rare and endangered species
- } Emissions of nuclear radiation on-site and off-site and potential for nuclear accidents

<https://moef.gov.in/wp-content/uploads/2018/04/Identificationofkeyissues.pdf>

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So, here you can see from the Ministry of Environment forests, how the global environmental issues are being addressed, and then how they are looking at the potential problems environmental problems at the transboundary level and then at the wetland level, and then how the use of production of hazardous or toxic material can be controlled and how potential impacted primitive and rare cultivated plants can be taken care of. And then other species and then other nuclear radiation on-site and off-site can be taken care of.

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Summary

① Sub Part I - Concept on Social Impact

- International guidance and standards
- National legislation and guidance


② Sub Part II - Resource Efficiency

- International guidance and standards
- National legislation and guidance

So, today, summarizing what we covered today. So, we covered our section in 2 subparts. And part 1, we saw concepts of social impact assessment. And we looked at the International guidance and standards and then we looked at the national legislation and guidance. And then we also covered another sub-theme of resource efficiency where we looked at the International guidance and standards and then also national legislation and guidance in this regard. So, that was for today in this session.

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Suggested Watch and Read





https://www.youtube.com/watch?v=dN...yC3GRw&ab_channel=OutreachNetworkforGeneDriveResearch

https://www.youtube.com/watch?v=3AcW...opesm0&ab_channel=WorldBusinessCouncilforSustainableDevelopment


https://www.youtube.com/watch?v=KC3VTg...8f0s&ab_channel=UnitedNationsESCAP



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 Please feel free to ask Questions. 

Let us know about any Concerns you have .

Do share your Opinions, Experiences and Suggestions.

Looking forward to Interacting and Co-learning with you while exploring EIA. 

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So, this is our key reference. This is the key textbook we are using for this course. These are the suggested watch and read. If you are interested in learning more, you can look at these videos. Please feel free to ask questions. Let us know about any concerns you have. Do share your opinions, experiences, and suggestions looking forward to interacting and Co-learning with you while exploring EIA. Thank you