

Key Principles of Environmental Impact Assessment and Examples of Real-World Application

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What is sustainable development?

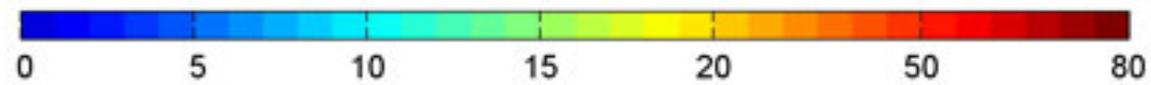
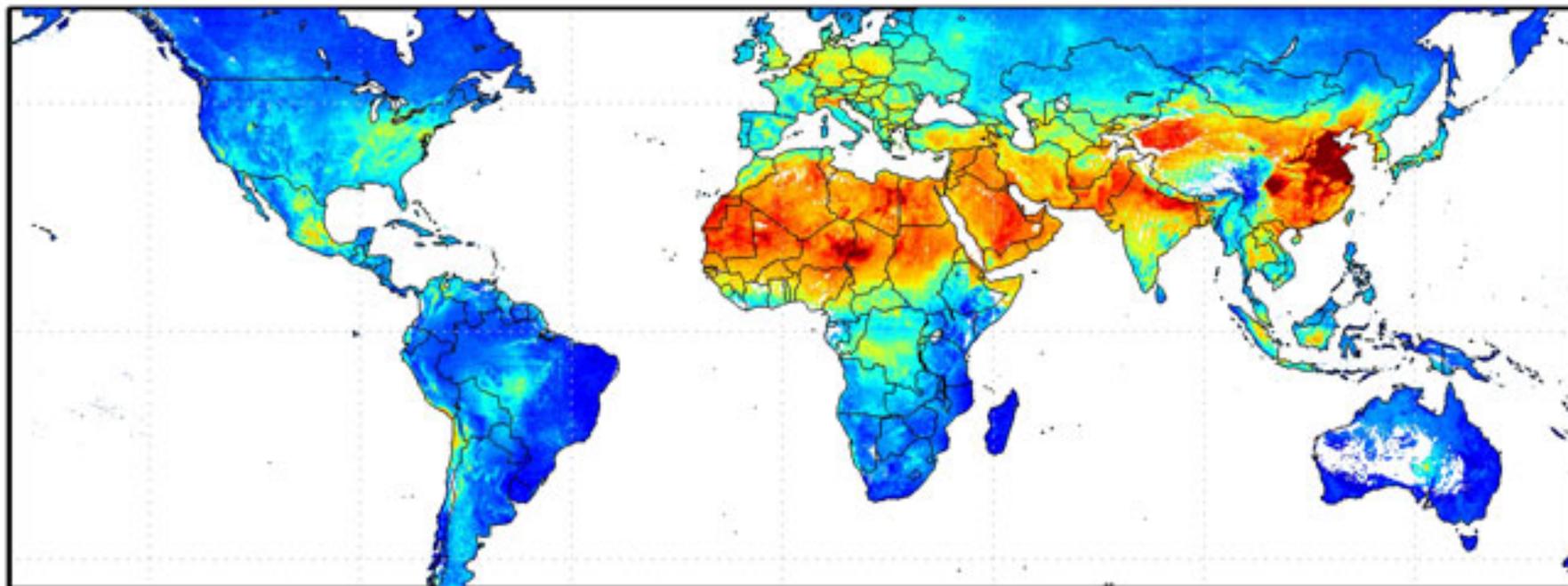
- The original concept of sustainable development articulated in *Our Common Future* is of “development that meets the needs of the present without compromising the future of generations to meet their own needs.” WCED, 1987.
- We can view sustainable development as “development that improves the total quality of life, both now and in the future, in a way that maintains the ecological processes on which life depends”.
- Environmental Impact Assessment, for projects that are likely to have a significant effect on the environment, is a way to gather the evidence so that a decision-maker can make the most informed decision about a project and any requirements to mitigate or avoid potential adverse impacts.



The consequences of failing to protect the environment - PRC







Satellite-Derived PM_{2.5} [$\mu\text{g}/\text{m}^3$]

Rio Declaration on Environment and Development 1992

- Principle 3:
The right to development must be fulfilled so as to equitably meet developmental and environmental needs of present and future generations.
- Principle 4:
In order to achieve sustainable development, environment protection shall constitute an integral part of the development process and cannot be considered in isolation from it.
- Principle 14:
In order to protect the environment, the precautionary approach shall be widely applied by States according to their capabilities. Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation.

Rio Declaration on Environment and Development 1992

○ Principle 10

Environmental issues are best handled with the participation of all concerned citizens, at the relevant level. At the national level, each individual shall have appropriate access to information concerning the environment that is held by public authorities, including information on hazardous materials and activities in their communities, and the opportunity to participate in decision-making processes. States shall facilitate and encourage public awareness and participation by making information widely available. Effective access to judicial and administrative proceedings, including redress and remedy, shall be provided.

Rio Declaration on Environment and Development 1992

- Principle 11:
“States shall enact effective environmental legislation...”
- Principle 16:
“National authorities should endeavour to promote the internalization of environmental costs and the use of economic instruments, taking into account the approach that the polluter should, in principle, bear the costs of pollution, with due regard to the public interest and without distorting international trade and investment.”

Key aims of Environmental Impact Assessment (EIA)

- The key aims of EIA is to achieve sustainable development and create sustainable societies.

Environmental and social impact assessment is a process of estimating and assessing impacts on the environment by [development] projects and activities. It also identifies the methods and standards for preventing, mitigating and reducing such potential impacts on the environment.

- It allows public participation at each stage in the process to guide the decision-making
- It allows the decision-maker to make the final determination based on the best available information in accordance with accepted legal norms promoting sustainable development

Key principles of EIA

- Effective EIA is achieved through the adoption of the following key principles
 - Proponent bears cost of application and assessment
 - Public participation at all stages of the process
 - Access to proponent information by civil society and government
 - Transparent process
 - Best available scientific information
 - Clear decision making
 - Effective compliance and enforcement

Mechanisms to achieve principles of EIA

- Precautionary principle
- Intergenerational and intra-generational equity
- Conservation of biological diversity and ecological integrity (Maintenance of natural capital)
- Improved valuation, pricing and incentive mechanisms
- Reliance on participatory approaches

Aarhus Convention

- Signed 25 June 1998. Entered into force 30 October 2001. EU and 39 European states.
- The main rights:
 - the right of everyone to receive environmental information that is held by public authorities ("**access to environmental information**").
 - the right to participate in environmental decision-making ("**public participation in environmental decision-making**").
 - the right to review procedures to challenge public decisions that have been made without respecting the two aforementioned rights or environmental law in general ("**access to justice**").
- Objective of the Convention – Article 1
In order to contribute to the protection of the right of every person of present and future generations to live in an environment adequate to his or her health and well-being, each Party shall guarantee the rights of access to information, public participation in decision-making, and access to justice in environmental matters in accordance with the provisions of this Convention.

Mechanisms to achieve principles of EIA

- Precautionary principle -

where there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation. In the application of the precautionary principle, public and private decisions should be guided by:

- i. careful evaluation to avoid, wherever practicable, serious or irreversible damage to the environment; and
- ii. an assessment of the risk-weighted consequences of various options.

- Intergenerational equity -

the present generation should ensure that the health, diversity and productivity of the environment is maintained or enhanced for the benefit of future generations.

- Conservation of biological diversity and ecological integrity -

conservation of biological diversity and ecological integrity should be a fundamental consideration.

Mechanisms to achieve principles of EIA

- Improved valuation, pricing and incentive mechanisms –
 - Environmental factors should be included in the valuation of assets and services.
 - Polluter pays i.e. those who generate pollution and waste should bear the cost of containment, avoidance, or abatement.
 - The users of goods and services should pay prices based on the full life cycle costs of providing goods and services, including the use of natural resources and assets and the ultimate disposal of any wastes.
 - Environmental goals, having been established, should be pursued in the most cost effective way, by establishing incentive structures, including market mechanisms, which enable those best placed to maximise benefits and/or minimise costs to develop their own solutions and responses to environmental problems.

Intergovernmental Agreement on the Environment: (Australia) paras 3.5.1 – 3.5.4.

International Association of Impact Assessment (IAIA) Principles of EIA as adapted

- Be applied as a tool to help achieve sustainable development;
- Be integrated into existing development planning and approval processes;
- Be applied as a tool to implement environmental management;
- Be integrated into the project life-cycle;
- Be applied to all proposed actions that are likely to have a significant adverse effect on the environment and human health;
- Include an analysis of realistic alternatives to the proposal;
- Maximise opportunities for public participation;
- Be undertaken in an interdisciplinary manner; and
- Integrate information on social, economic and biophysical impacts.

EIA is a valuable tool to assist decision making on a local, regional and national level.

- EIA can include Regional Impact Assessment
 - When impacts are to be felt over a broader area
- EIA can also be used for Strategic Environment Assessment
 - When the issue is for example energy generation, SEA can be used to look at a number of areas and determine which would be best for the country, although there may be local impacts
- EIA also encompasses Cumulative Impact Assessment
 - Cumulative assessment is important when the carrying capacity may be reached. For example, a hydropower dam proposed along a river may have acceptable impacts on fish and sediment-flow, however dams already being constructed or operating upstream may mean in the future unacceptable impacts on fisheries and sediments from that dam. Coal mines proposed in already polluted areas.

EIA Litigation

- Can be both procedural and substantive.
- Procedural - challenging a decision due to the failure of the assessment body to apply key principles of EIA or misapplies the principles.
- Substantive - challenging the decision because a project should not be approved on the evidence or because the approval does not include sufficient conditions to avoid or mitigate possible harm.

Procedural cases

- A recent decision of the WA Supreme Court in *The Wilderness Society of WA Inc v Minister for the Environment* [2013] WASC 307, Martin CJ overturned an approval for an LNG Plant worth \$1.5 billion.
- The decisions of both the WA EPA and consequently the Minister were overturned because of the failure of the EPA to validly discharge its obligations under the Environment Protection Act 1984.
- The Courts may take a strong position that a failure to effectively consult with the community or failure of the government department to undertake its obligations should invalidate the approval.

Procedural cases

- A procedural case involving a government department or the grant of a permit by a Minister may raise a fundamental rule of law principle.
- The cases often ask the Court's to apply the legislation and the principles of law impartially.
- “The essence of the rule of law is that all governmental authority is subject to and constrained by law. When any branch of government seeks to remove itself from the constraints of law, the rule of law is impoverished.” Preston CJ, NSW Land and Environment Court, October 2011.

Substantive cases

- A recent decision in the NSW Land and Environment Court refused the expansion of a major coal mine. In the recent decision of *Bulga Milbrodale Progress Association Inc v Minister for Planning and Infrastructure and Warkworth Mining Limited* [2013] NSWLEC 48, Preston CJ of the Land and Environment Court of NSW, reject the major expansion of a coal mine.
- His Honour determined that the mine expansion should be refused “having regard to the significant, adverse, biological diversity, noise and dust, and social impacts of the Project”.
- Most importantly the Court reassessed the economic justification for the mine and based on the plaintiff’s evidence held that the economic benefit was not able to be substantiated. This is particularly important issue for major projects.

This table shows how an EIA can make a Qualitative Risk Assessment Matrix:

Following this the decision-maker can then apply the principles such as the precautionary principle, intergenerational equity and the polluter pays principle.

			Severity of Consequence				
			1	2	3	4	5
			Catastrophic	Major	Moderate	Minor	Insignificant
Likelihood of Consequence	A	Almost Certain	Extreme	Extreme	Extreme	High	High
	B	Likely	Extreme	Extreme	High	High	Moderate
	C	Possible	Extreme	Extreme	High	Moderate	Low
	D	Unlikely	Extreme	High	Moderate	Low	Low
	E	Rare	High	High	Moderate	Low	Low

Mining and Forests

- A major issue in India, for example, is coal mining.
- Approvals have increased new mine capacity by 583 million tonnes per annum. Environmental clearances have been issued that would double the coal capacity of India..
- Especially within existing coalfields the question should be whether cumulative impacts, including health impacts, have been assessed.
- Coal India Limited produces 90% of India's coal, reserves of 64 billion tonnes, produces 500 million tpa. Does it comply with best practice EIA?
- Also need to consider forest clearance for mines and biodiversity issues. Forest clearance approvals for mines and thermal power projects exceeded capacity for the 12th five-year plan.
- Much of this capacity is not yet utilised. Would EIA principles allow further clearances in such circumstances.

EIA in Pakistan

- In 2009, a Pakistan Supreme Court initiative led to the ending of the proposed New Murree Development Project.
- In September 2005 the Court halted the project pending a judicial review of the proposal to turn the 1,663 hectare Patriata Reserved Forest near Murree in Rawalpindi District into a 'tourist city of international standards'.
- The EIA highlighted the negative impacts.
- The environmental and economic significance of the forests for a country like Pakistan with a looming water crisis and an agriculture intensive developing economy far outweighed the benefits of the proposed development.

Sri Lanka – World Heritage

- Reports arose in late 2012 of moves to revoke part of the Sigirya sanctuary, a WHP, that may have then had an impact on the world heritage site itself.
- Large herds of wild elephants roam the sanctuary. It is also home to the leopard, bear and other wildlife including nearly 150 varieties of birds.
- EIA is required to undertake changes to boundaries, but often this requirement is overlooked.
- This type of activity is a classic case where the Court could intervene to order an EIA, but also to order an EIA conducted in accordance with internationally recognised principles.

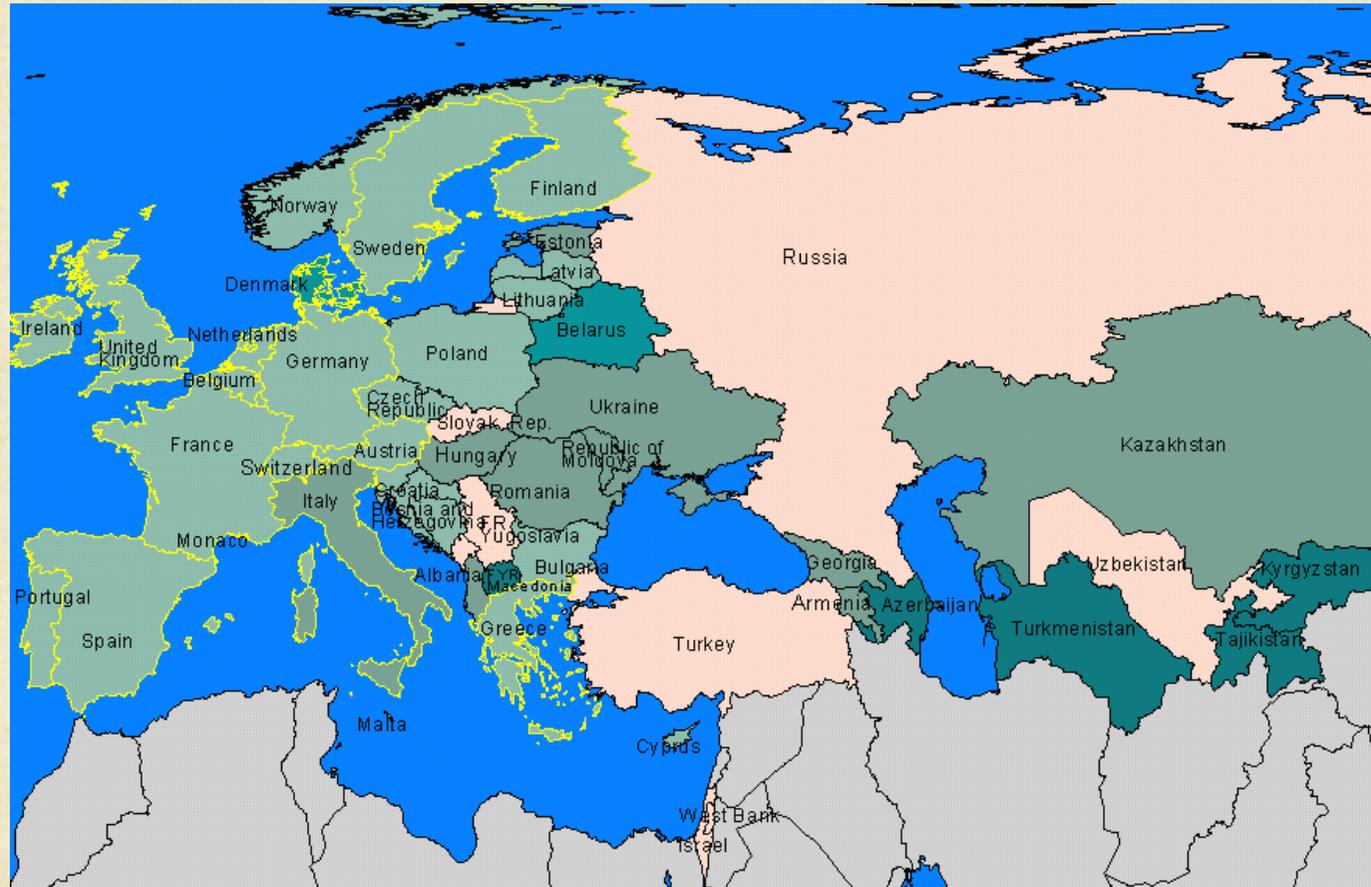
Other international documents

- The follow section provides greater detail on the Aarhus convention and its key principles.
- Reference is also made to the Equator Principles and the UN Global Compact.
- The use of corporate social responsibility as a tool for enforcing compliance with EIA and other environmental responsibilities is under-utilised.
- Greater familiarity with these ethical standards may allow Courts to compel corporate compliance with them.

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Aarhus Convention



Aarhus Convention

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Aarhus Convention

- Article 4 – Access to environmental information
Government may refuse access if potential adverse affect certain matters e.g. national security
- Article 6 – Public participation in decisions on specific activities. Information should be provided “*in an adequate, timely and effective manner*”.
- Article 9 – Access to Justice. This is for people who have not been provided with environmental information. There should be a right of court review and an independent and impartial body, of the decision that the information should not be provided.

Aarhus Convention

Fourth Conference of Parties was held in June/July 2011 in Chisinau, Moldova. During the last 10 years a number of protocols have been adopted.

- The Fourth COP also adopted the Chisinau Declaration that:

“Openness, transparency, a wide participatory approach and accountability are key principles and objectives of the Aarhus Convention. Through the promotion of these principles in international environmental decision-making processes, the principles of the Aarhus Convention can be directly applied to the United Nations Conference on Sustainable Development (Rio+20) process. “

Equator Principles June 2006

- Guiding principles for the financial industry. A benchmark for determining, assessing and managing social and environmental risk in project financing. \$US10million of more.

Principle 2: Social and Environmental Assessment

- For each project assessed as being either Category A or Category B, the borrower has conducted a Social and Environmental Assessment (“Assessment”) process² to address, as appropriate and to the EPFI’s satisfaction, the relevant social and environmental impacts and risks of the proposed project (which may include, if relevant, the illustrative list of issues as found in Exhibit II). The Assessment should also propose mitigation and management measures relevant and appropriate to the nature and scale of the proposed project

UN Global Compact

- The UN Global Compact asks companies to embrace, support and enact, within their sphere of influence, a set of core values in the areas of human rights, labour standards, the environment and anti-corruption:

“ The Global Compact asks companies to embrace universal principles and to partner with the United Nations. It has grown to become a critical platform for the UN to engage effectively with enlightened global business.”- UN Secretary-General Ban Ki-moon

Human Rights

- Principle 1: Businesses should support and respect the protection of internationally proclaimed human rights; and
- Principle 2: make sure that they are not complicit in human rights abuses.

UN Global Compact

Environment

- Principle 7: Businesses should support a precautionary approach to environmental challenges;
- Principle 8: undertake initiatives to promote greater environmental responsibility; and
- Principle 9: encourage the development and diffusion of environmentally friendly technologies.