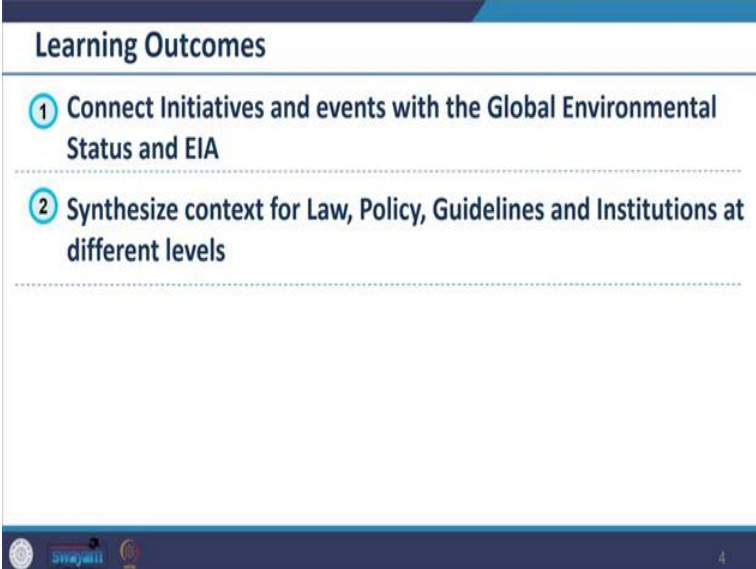


Environmental Impact Assessment
Professor Harshit Sosan Lakra
Department of Architect and Planning
Indian Institute of Technology, Roorkee
Lecture -011
World Sustainable Development Timeline
(1970-1999)

Welcome to the course- Environmental Impact Assessment. So, in the previous classes, we had seen the environmental status, we looked into need, purpose of EIA, and evolution of EIA in USA and in India. And this week onwards, we will start looking at the overall global timeline with respect to what initiatives were taken at international level and what incidences and movements were shaping the global intervention.

So, we are looking at this, so, we have already looked at the environmental status we have also looked at like where EIA fits in and this will help us, the global timeline will help us to understand the legal policy and the institutional framework and then the various components which are involved in the process of EIA and how it is evolving and how it is changing with all the things which are happening, or have happened and is happening constantly.

(Refer Slide Time: 1:34)



The slide is titled "Learning Outcomes" and contains two numbered points. The first point is "1 Connect Initiatives and events with the Global Environmental Status and EIA". The second point is "2 Synthesize context for Law, Policy, Guidelines and Institutions at different levels". The slide also features a footer with logos for IIT Roorkee and Swayam, and a small number "4" in the bottom right corner.

Learning Outcomes	
1	Connect Initiatives and events with the Global Environmental Status and EIA
2	Synthesize context for Law, Policy, Guidelines and Institutions at different levels

So, the coverage for this particular session would involve that, you would be looking into the global environmental timeline from 1970 to 1999. And we will be looking at from the environmental perspective. And our major reference would be the ADB timeline here as well as,

we are also referring to the UN training manual for this purpose. And then also international policy. So, the expected learning outcomes what is expected out a few after you finish the session is that, you should be able to connect initiatives and events with the global environmental status and EIA.

So, you should be able to bring them together as we explore further and you should be able to synthesize context for law, policy guidelines and institutions at different levels. So, why we are doing it, what we are doing and how what kind of additions are happening now or changes which are happening now.

So, as I said in the very first class, that, earlier environmental movement was of preservation, conservation and then with the Rachel Carson's publication of *Silent Spring* in 1962 and *Population Bomb* or writing of *Paul Elric* in 1968, the environmental movement led from the purse was led. Now, it was changing towards the risk perspective.



All this led to the formation of NEPA formulation of NEPA in 1969, and first Earth Day in 1970. So, therefore, to see the overall policy context, we will walk through the timeline from 1970. So, we are not taking covering before that, so, we will be walking from 1970 to 2021. And in today's session we will cover only up till 1999. And from 2000 onwards, we will take in another session.

(Refer Slide Time: 3:43)

• **1973**
The United Nations Conference on Law of the Sea, New York

Coverage

- Limits,
- Navigation,
- Archipelagic status
- Transit regimes,
- Exclusive economic zones,
- Continental shelf jurisdiction,
- Deep seabed mining,
- Exploitation regime,
- Protection of the marine environment,
- Scientific research,
- Settlement of disputes.



(Image source: Un.org, 2022)


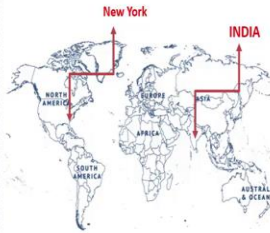
12

So, very first form of policy, we see the conference covers the limits, navigation, archeologic status, and transit regimes. Then it takes care of exclusive economic zone, continental shelf, jurisdiction, deep seabed mining, the exploitation regime. So, all these what you have really studied when, we were looking at the environmental status. So, this United Nations Conference on the law of sea was addressing to all those things here.

(Refer Slide Time: 4:22)

1973

- European Environmental Action Programme
- The United States enacts the Endangered Species Act
- Chipko Movement in India



Chipko Movement: One of the strongest movements to conserve forests in India
(Image source: Indiatimes, 2022)

14

So, in the same year, you see that, European Environmental Action program was launched. And this was the first attempt to synthesize a single environmental policy. So, this was the first time where they were trying to have single environmental policy for the European Economic Community. So, the entire European community would have a single policy. And also at the same time we see the United States enacted the Endangered Species Act for the purpose of safeguarding and for the benefit of all these citizens and then the nation's heritage.

What was there so, even this was signed at that, period and this was the same time which we see that, there was Chipko movement, which picked up in India in response to the deforestation and environmental degradation, which we recently saw. Recently saw our previous, one of the previous lectures, and which was also caused because of the influencing forestry practices. And women's participation was extensive in the environmental concern.

(Refer Slide Time: 5:33)

- **1974**
 - The United Nations Convention on International Trade in Endangered Species of Wild Fauna and Flora
 - The first World Population Conference takes place in Bucharest; 135 countries participate.
 - The World Food Conference is held in Rome
 - Strategy for world food problem
World Food Council and the World Food Programme.



Secretary General Kurt Waldheim holds a press conference During, WPC at Bucharest

(Image source: UN.org , 2022)

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So, in 1974, in this year, we see that, United Nations Convention on International Trade in Endangered Species of Wild Fauna and Flora opened for signature in Washington DC, it was an important step. Which we see here in and it helped in controlling the illegal commerce and ivory, forest and so on for the product of endangered species. And on this side note, we can also see that, just to understand the landscape, at the time, the first world population conference took place in which rest and 135 countries participated.

So, they were also concerned about the world population. And as we see that, what we have studied in the, from the world environmental status, we saw how the population as one of the driving force. So, we started looking at that, here. And also there was a symposium of Cocoyok in which there was an understanding developed about the maldistribution, uneven distribution of the resources, which was considered to be the key factor in the environmental degradation. So, this we have also seen this in our cases while we were doing this environmental status.

So, the people came together, and then they discussed about the development action focused on how to fulfill the basic human needs since the resources were unevenly distributed. So, in the same year, we see that, world food conference was held in Rome. And that, led to formation of World Food Council and the World Food Programme. And by this time, the world's population reached 4 billion.

So, you can also see that, at this, in this year, we also had research work, which by Mario and Frank, which talked about the chlorofluorocarbons in nature with the implications for ozone layer. So, this research was also coming in and throwing more light and understanding over the environment.

(Refer Slide Time: 8:02)

- **1975**
 - Public awareness of global environmental threats and catalyze effective policy responses
 - Enforcement of Convention on International Trade in Endangered Species of Wild Flora and Fauna

WORLDWATCH INSTITUTE
Vision for a Sustainable World

State of the World 1984
A Worldwatch Institute
Report on Progress
Toward a Sustainable
Society
BROWN LE

Annual "State of the World" in 1984.

(Image source: Goodreads, 2022)

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So, in the next, in the year 1975, we see that, WorldWatch, which is the Worldwatch Institute was established, and this institute raised public awareness of global environmental threats, like what was really happening.

And it was done like as one of the key elements for enabling environment for to create to catalyze effective policy response. So, if people are aware, they would really help in creating good environments for effective policy implementation. So, this WorldWatch started publishing the annual State of the World Report in 1984. And there was also convention on the International Trade in Endangered Species of vile flora and fauna, which came into effect here.

And on the side note, we would like to see that, in the same year, there was publications and emphasis on development in poor countries. So, we were also seeing, looking at how there is income disparity, this issue about the foods all those was coming up and then there was also movement in India.

(Refer Slide Time: 9:21)

- 1976
 - The United Nations Conference on Human Settlements, Vancouver Canada



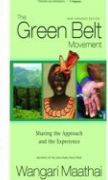

Postal Stamp of UNCHS, Vancouver

(Image source: philindiastamp, 2022)

So, when we look at 1976, there was first global meeting to link environment and human settlements. So, you see that, how the understanding was improving. Now we were looking at the human settlement as well. And with this, there was the United Nations Conference on human settlement which was held in Vancouver.

(Refer Slide Time: 9:48)

- 1977
 - The Greenbelt Movement starts in Kenya;
 - The United Nations Conference on Desertification is held in Nairobi.
 - The United Nations Water Conference is held in Mar del Plata;



Wangari Muta Maatha, Founder of Green belt Movement and first African Women to win Noble Peace Prize award

(Image source: Amazon,2022)


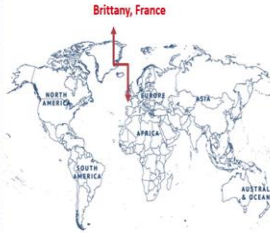
So, we further, see that, in 1977, the Green Belt Movement started in Kenya. It was based on the community tree planting to prevent desertification. So, you have already seen that, how desertification is happening. So, in 1977 how the green belts movement started in Kenya. And

they were other conferences also people were coming together to discuss the issues. So, United Nations Conference and desertification was held in Nairobi. Then you also see the United Nation water conference held in Mar del Plata. And all of this it sets the goal for providing clean water and adequate sanitation to all in the world by 1990. So, that, was the target, which was set that, time.

(Refer Slide Time: 10:36)

1978

- The Amoco Cadiz spills oil off the coast of Brittany.
- The Organisation for Economic Co-operation and Development relaunches research on environment and economic linkages.



223,000 tons of Saudi Arabian crude oil lost along the Brittany coast of France in 1978.

(Gundlach, 1985)

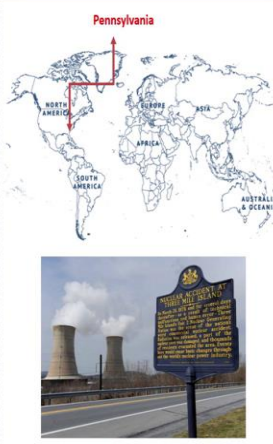
25

In 1978, we see there was an Amoco Cadiz spill oil off the coast of Brittany we see that, and that, happened here. And we also see that, OECD relaunched research on environment and economic linkages. So, you see the accident happening here. And OECD relaunched the research on environment and economic linkages.

(Refer Slide Time: 11:22)

1979

- The Convention on Long-range Transboundary Air Pollution is adopted.
- Robert Stein publishes "Banking on the Biosphere;"
- The Three Mile Island nuclear accident occurs in Pennsylvania.
- The World Climate Conference concludes that the "greenhouse effect" from increased buildup of carbon dioxide in the atmosphere demands urgent international action.



The Three Mile Island NPP on Three Mile Island

(Image source : BBC,2022)

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So, in 1978, we see that, there was convention on long range transboundary air pollution. So, that, convention was adopted. And at the same time. So, you see that, how transboundary initiation started here. And we also see that, there was also publication by Robert Steen on banking on the biosphere. So, this was key element because, it brought the procedures and practices of multi-lateral development agencies.

So, that way, it helps in improving the understanding. And then we also see in the same time that, there was another incident Three Mile Island nuclear accident, which occurred in Pennsylvania. So, all these accidents, the economic related accidents were also happening. So, like how we were developing this understanding here. So, the world climate conference, in this year concluded that, the greenhouse gas effect from the increased buildup of carbon dioxide and atmosphere demands urgent international action.

So, there was urgency identified that, how collective actions have to be taken for the greenhouse effect and all kinds of development activities which were happening, and even how things have to be handled at the transboundary level.

(Refer Slide Time: 12:45)

1980

- "World Conservation Strategy;" – By International Union for Conservation of Nature publishes Section on -"Towards Sustainable Development"
- Term "Sustainable Development" was first introduced (International policy debate by the World Conservation Strategy).
- "The Global 2000 Report to the President;" The Council on Environmental Quality (CEQ) and the United States Department of State released the report



(Image source : IUCN, 2022)

30

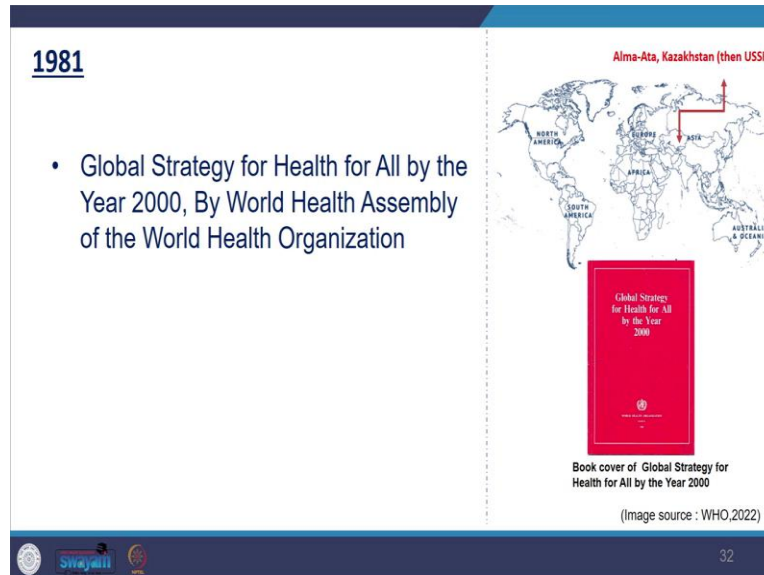
In 1980, we see that, the International Union for Conservation of Nature IUCN, it is published the World Conservation Strategy. And in that, section, in that, particular section, they had a section on towards sustainable development. So, they identified the main agents of habitat destructions, like what was really happening, and according to their writing, the main agent of habitat destruction was poverty, pollution pressure, which we are also seeing now and social inequality and trading regime. So, how we were trading, that, all had worthy reasons for habitat destruction.

So, they call first strategy for new international development, and particularly to readdress inequality. So, how we can address inequality and then there was need for International development, so, the need for collaborating at an international level. So, this year, the term sustainable development was first time introduced into the international policy debate by the World Conservation Strategy.

So, we see that, sustainable development term came here. And at the same time, we see that, the Council of Environmental Quality CEQ. And the United States Department of State released the global 2000 report to the President. So, the key point about this is that, it was here that, biodiversity was recognized for the first time.

So, we also see now in 1980, the term biodiversity or the understanding of biodiversity was acknowledged recognized for the first time as a critical factor to a critical factor which was considered that, for functioning of the planetary ecosystem.

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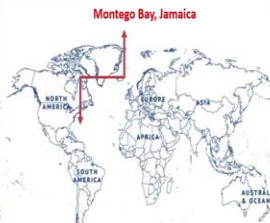
So, in 1981, we see that, the World Health Assembly of World Health Organization adopted a global strategy for Health for All by year 2000. So, now, the health concerns were also coming in and it affirmed that, the major social. So, it was much more like looked forward to, like major social goals of government should be to be the attainment of level of health by all people that, would permit them to lead socially and economically productive lives. So, that, is what they were looking at. In 1981, we see that, health concerns and that, was an acceptance came here.

(Refer Slide Time: 15:40)

1982

The United Nations Convention on the Law of the Sea

Environmental standards and enforcement provisions to deal with pollution of the marine environment




(Image source : UN.org ,2022)

And now 1982, we see that, United Nations Convention on Law of Sea is adopted. The convention is adopted here. And in this convention it sets rule for environmental standards. So, now, we see the standards coming in and the enforcement provision to deal with the pollution of the marine and environment. So, this environmental standards scheme and how those provisions can be made to deal with the pollutions of marine environment.

So, we had discussed about the range of problems which are there in marine environments, and now you can see at the international level, what kind of conventions and standards are coming in.

(Refer Slide Time: 16:25)

1983

- National Conservation Strategy – Australia
- The World Commission on Environment and Development forms Report

Development Alternatives is established to foster a new relationship between people, technology, and the environment to attain the goal of sustainable development.





Book cover of NCS, Australia and Brundtland report
(Image source : Environmentandsociety, 2022)

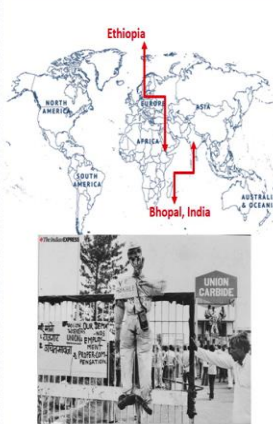
So, in 1983, we further see that, Australia adopted a national conservation strategy to implement the objective of World Conservation Strategy. So, now, the conservation part was also coming and the World Commission on Environmental development forms like you can see the it was formed the Harlem Brundtland Commission was formed.

They were responsible to put up a report here and also we see that, development alternatives was established to look into the new relationship between people, technology and the environment. So, now, we started seeing people, environment as well as the technology and in order to attain the sustainable development. So, you see how each element is going and coming.

(Refer Slide Time: 17:26)

1984

- Bhopal Gas Tragedy
- Drought-induced starvation in Ethiopia.
- Concept of Environment and Economics relationship - International Conference on Environment and Economics.



The 1984 Bhopal gas tragedy which killed thousands of people is among the world's "major industrial accidents" of the 20th century
(Image source : Indianexpress,2022)

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And we see that, another accident which happens in 1984, Bhopal Gas Tragedy, there is toxic chemical leak, and which leads to death of thousands of people and injuries as well. And this led to the major industrial policy change and also environmental concerns. So, apart from this in the same year, we also see that, in Ethiopia, there was drought induced starvation and which the range of death is like from, it is 0.2 to 1 million people died in this particular drought induced starvation in Ethiopia.

So, you see the poverty, you see the industrial development aspect here and our understanding of all that, environment and economics should be mutually reinforcing. So, it should not be like opposing each other, but it should be mutually reinforcing. And, and if you also recollect, Mrs.

Indira Gandhi's talk which we refer to how India's stand was for this sustainable development or the perspective for the environment.

Environmental concerns, you will see that, here we are looking at environmental and economic should be mutually reinforcing. So, here VC that, this understanding came in the discussion of international conference on environment and economics.

(Refer Slide Time: 19:10)

1985

- The Antarctic ozone hole is discovered
- The **World Meteorological Society**, the United Nations Environment Programme, and the International Council of Scientific Unions meet in Vienna;
- Responsible Care, an initiative of the Canadian Chemical Producers' Association,

Canada Vienna

Antarctic ozone hole

(Image source : Noaa,2022)

40

So, in 1985, research showed Antarctic ozone hole. So, our understanding further like we saw about the Antarctic ozone hole, and we also see that, world metrological society. The UNEP program, and then the International Council of scientific unions met in Vienna and they reported about the buildup of carbon dioxide and other greenhouse gases in the atmosphere and they predicted the global warming.

So, now you see that, how another aspect of environment is coming up about the global warming and the ozone hole. We also see development in this particular time in this year 1985, standards related with chemical productions were now adopted in many countries.

So, you see that, in the previous years, the toxic leakage, those things happened and some industrial interventions here also in this in 1985, which led to the standards related to chemicals production.


(Refer Slide Time: 20:14)

1986

- Conference on Environment and Development (IUCN), Ottawa

Concerns raised

- (i) Against laissez-faire economic theory, which considers living resources as externalities and free goods
- (ii) Concept of resource stewardship



(Image source : portals,2022)

42


So, in 1986, we witness the conference on Environment and Development sponsored by IUCN, which was held in Ottawa. So, here we see that, participants defined sustainable development as the emerging paradigm.

And there were two major concerns while they were considering this that, one was against the laissez faire economic theory, which considers living resources as externalities and free goods. So, the way we were looking at the resources that, it was opposing that, and laissez faire economic theory it was opposing, the people were opposing. And also it highlighted the concept of resource stewardship. How we are supposed to take care of each other or all the resources, which are there. So, this voice was raised in this particular IUCN conference.

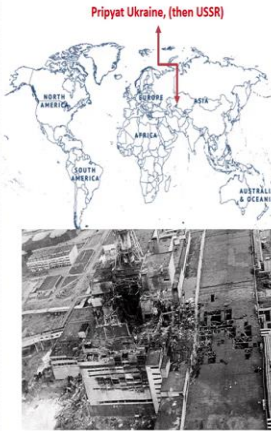
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1986

- Chernobyl toxic radioactive explosion in nuclear station



Children's beds are seen in a kindergarten near CNP plant , Pripyat, Ukraine



Pripyat Ukraine, (then USSR)

An explosion that occurs as a result of the rapid release of energy from a high-speed nuclear reaction is known as a nuclear explosion (Image source : Indiatoday, 2022)

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So, in the same year 1986, we witness Chernobyl incident. So, that, was about the toxic radioactive active explosion in nuclear station. So, that, happened and that, was disastrous. And you can also look at a lot of suggested reading and watch which we have given you for the details. So, this also happened which was again at a very different trans boundary level.

(Refer Slide Time: 21:49)

1987

- "Our Common Future," or Brundtland Report World Commission on Environment and Development
- Term "Sustainable Development" becomes popular
- Adoption of Montreal Protocol on Substances that Deplete the Ozone Layer.
- world's population reached 5 billion.
- Guidelines for environment and development in bilateral aid (OECD)



Montreal, Canada



OUR COMMON FUTURE
THE WORLD COMMISSION ON ENVIRONMENT AND DEVELOPMENT

1987 Montreal Protocol on Substances that Deplete the Ozone Layer

Our Common Future," or Brundtland Report and Montreal protocol (Image source : pod.emb,2022)

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In 1987, we see key another key publication, which from the Brundtland report came up “our common future” and with this report this term sustainable development got very popularized. So, now the term was introduced, and now it was also getting popular and then our scientific understanding of our environment also was improving and then also how to deal with technology, economic and also deal with the poverty differences, the economic differences and at the international level, how to deal with that.

So, that understanding was developing here. So, in this time, we also witnessed adoption of Montreal Protocol on substances that, deplete the ozone layer. So, as with the scientific understanding, we also had the protocol here. And in this by 1987, the world's population reached 5 billion. So, in this year, you see OECD, the Organisation for Economic Cooperation and Development, formulated guidelines for environmental and development in bilateral and policies for financing purpose. So, now, the funding was also pressurizing or in a way, guiding nations to go for Sustainable Development, align the development with sustainability.

(Refer Slide Time: 23:12)

1988

- The Intergovernmental Panel on Climate Change (IPCC)
- Use of Technology -Satellite imagery is used to document the effects of fires in the Amazon.
- Attention on destruction of the world's largest remaining tropical forest
Chico Mendes

Amazon forest, Brazil

FIGHT FOR THE FOREST
CHICO MENDES

Book cover of fight for the forest by chico mendes
(Image source : Amazon,2022)

48

So, in 1988, we see that, the Intergovernmental Panel on Climate Change was established and it was established to assess the most up to date scientific and technical socio economic research in the field. So, we see IPCC was established in this year.

And we also see the usage of technology the satellite imagery is used to document the effects of fires in the Amazon. And then at the same time, we see that, Chico Mendes, the founder of


Brazilian rubber tapers union was murdered in December. So, you see across the world what was happening, he had led a nonviolent campaign to stop the slash and burn conversion of Amazonian rainforest to pasture land.

So, by his dead the attention was focused on the destruction of the world's largest remaining tropical forests. So, at the same time, we were also losing forest and we are seeing all the distractions happening here and IPCC also reporting being established to make give most up to date scientific technical and socio economic research in the field.

(Refer Slide Time: 24:34)

1989

- Establishment of The Stockholm Environment Institute
- The Exxon Valdez runs aground and dumps 11 million gallons of oil into the Prince William Sound.
- "Blueprint for a Green Economy;" by Edward Barbier, Anil Markandya, and David Pearce Central role of the environment in economic and public policy decisions.



The Exxon Valdez Oil Spill

(Image source : amazon ,2022)

50

So, in 1989, we see the formation of Stockholm Environmental Institute to carry out global and regional environmental research. We see that, so, Stockholm Environmental Institute formation happened. Side by side we also see Exxon Valdez incidents which have like dumped 11 million gallons of oil into Prince William sound, so, we see the arrows environmental pollution happening with the activity here so, that, also took place. And at the same time, we also see publication from the research domain coming “blueprint for a green economy” by Edward and Anil and David peers.

So, this report introduced the central role of the environment and economic and public policy decisions. So, we also saw through this publication, that, environment played a key role in economic and public policy.

(Refer Slide Time: 25:37)

1990

- The International Institute for Sustainable Development
- "Earth Negotiations Bulletin"
- The United Nations World Summit for Children is held in New York; links environmental impacts to future generations.
- Establishment of Regional Environmental Center for Central and Eastern Europe to address environmental challenges across the region



United Nations World Summit for Children is held in New York

(Image source : UN.org,2022)

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So, in the year 1990, we witness formation of the International Institute for Sustainable Development. So, in this year, the International Institute for Sustainable Development was formed. And it began, it began the publication of Earth negotiation bulletin, to record international negotiations, how everyone was negotiating on the environment and development.


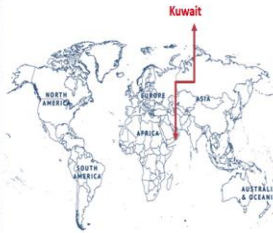
So, the United Nations, at the same time we see United Nations World Summit for children was also held in New York. And through this summit, there was linkages seen for future generations. So, far our understanding was about, like the differences, about the technology, about the environment.

But now we started looking at the future, the tomorrow, our younger generation here. So, we also see at the same time now we started establishing the regional environmental center for Central and Eastern Europe, to address the environmental challenges across the region. So, you saw the transboundary. And now, you are also seeing how regional environmental challenges were addressed. And with the emphasis on engagement of business, as well as government and also the civil bodies bringing them together.

(Refer Slide Time: 26:56)

1991

- The cod fishery off the Canadian east coast collapses.
- Hundreds of oil fires burn out of control in Kuwait in the wake of the Gulf War.
- "Caring for the Earth: A Strategy for Sustainable Living" IUCN and UNEP and World Wide Fund for Nature publish sets 132 actions to increase human well-being and halt the destruction of the earth's capacity to support life.



Hundreds of oil fires burn out of control in Kuwait in the wake of the Gulf War.
(Image source : thecaireview ,2022)

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So, in 1991, then we see that, another accident happened at this cod fishery on the Canadian East Coast that, collapsed. So, hundreds of oil fires were also burnt out, and burned out of control in Kuwait in the wake of Gulf War. So, there was war also happening. And then another accident and then you also see another research and status report coming where IUCN, UNEP, World Wide Fund for Nature published caring for the earth.

So, it had a strategy for sustainable living. It was a sequel to their previous report. And it was influential as it sets like to base for 132 actions to increase the human wellbeing. And to stop the destruction of the Earth's capacity to support life. So, what ecosystem services are provided how we stopped doing destruction to that?

(Refer Slide Time: 28:13)

1991

- Global Environment Facility Created by The World Bank, the United Nations Development Programme, and the United Nations Environment Programme to provide grants to developing countries for projects that benefit the global environment and promote sustainable livelihoods in local communities.



World bank and UN HQ at New York



gef
GLOBAL ENVIRONMENT FACILITY
INVESTING IN OUR PLANET

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In the same year, we see that, World Bank United Nations Development Programme UNDP, and United Nations Environmental programme UNEP created the global environmental facility. So, they came together to create a facility to provide grants to developing countries. So, they extended support to the development countries for projects that, benefit the global environment and promote sustainable livelihoods in local communities.

(Refer Slide Time: 28:31)

UNECE (or Espoo) Convention on EIA (1991)

- **Transboundary Context**
- **First EIA-specific International Treaty**
- **Entered into force in 1997**

Source: EIA Training Resource Manual, UNEP, 2002;

58

So, in the same year 1991 with the realization and acknowledgement that, environmental threats do not respect national boundaries and danger should be prevented. And there is need for

notifying and consulting with the other governments, the Espoo convention was brought as an as a key instrument to bring all the stakeholders to prevent environmental damages before it occurs. So, it was the first EIA specific international treaty. So, here, it was at the international level, and it was EIA specific, where we were going to undertake EIA at the transboundary level. So, the convention entered into force in 1997.

(Refer Slide Time: 29:25)

The Espoo (EIA) Convention

Obligations of Parties to assess the environmental impact of certain activities at an early stage of planning.

General obligation of States to notify and consult each other on all major projects under consideration that are likely to have a significant adverse environmental impact across boundaries.

UNECE
Convention on Environmental Impact Assessment in a Transboundary Context (Espoo, 1991)
Sandra Ruza, UNECE Secretariat
www.unece.org/env/eia

Workshop on Multilateral Environmental Agreements
Tirana, Albania, 22-24 June 2010

(unece,2022)

60

So, the Espoo convention or EIA convention, you can say sets out the obligation of the parties like all the parties, the government would, which would be involved would assess the environmental impact. So, they would evaluate how much environmental impact is going to happen over the certain activity at the earliest stage of planning.

And it will also lay down the general obligations about these states that, how they are going to consult with each other and how they are going to do the assessment. And how they are going to reduce the significant adverse environmental impact across the boundaries.

(Refer Slide Time: 29:54)

TRANSBOUNDARY COOPERATION

Convention on Environmental Impact Assessment in a Transboundary Context (Espoo, 1991)

CASE STUDY FACT SHEET #1

Bridge over the Danube River between Vidin (Bulgaria) and Calafat (Romania)

Convention on Environmental Impact Assessment in a Transboundary Context (Espoo, 1991)

CASE STUDY FACT SHEET #5

Nuclear Power Plants in Finland

https://unece.org/DAM/ineia/documents/factsheet/factsheet1_Bridge_over_Danube_River_Dec04.pdf

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So, I have given you links to the case studies and videos and you can look at them. So, there is cases of nuclear power plant and this is given to you Access is given to you. So, you can see how EIA is taken place at the transboundary level.

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1992

- "Changing Course," by The Business Council for Sustainable Development.
- Establishes business interests in promoting sustainable development practices.
- The United Nations Conference on Environment and Development (Rio de Janeiro):
 - Agenda 21,
 - Convention on Biological Diversity,
 - Framework Convention on Climate Change,
 - Nonbinding Forest Principles.
- Commission on Sustainable Development - oversee implementation of Agenda 21 into the programs and processes of the United Nations system.

Rio De Janeiro (Brazil)

UNITED NATIONS CONFERENCE ON ENVIRONMENT AND DEVELOPMENT
Rio de Janeiro 3 - 14 June 1992

The United Nations Conference on Environment and Development (Rio de Janeiro)

(Image source : UN.Org.2022)

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Now, we look at 1992. So, the here we see that, Business Council for Sustainable Development here in 1992 publishes changing course. So, now we are seeing that, what we were looking at was like from the research community coming now we see that, it is coming from the Business Council.

So, it established business interest in promoting sustainable development practices. So, now we are seeing that, how the business community was also engaging and there was platform to create interest for them for sustainable development practices.

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The Rio de Janeiro Earth Summit, 1992



[International Agreement : UN Framework Convention on Climate Change \(UNFCCC\)](#)

The UNFCCC, was enforced in 1994

Not legally binding

Requires frequent meetings between the ratifying countries- known as the Conference of the Parties, or COP

Ratified by **197 countries**



(Image source: thegreenpolitics, 2022)

Further, we see, in the same year that, which is particularly important for us, the United Nations Conference on the Environment and Development held in Rio de Janeiro agreement were reached on agenda 21.

And the Convention on Biological Diversity, there was Framework Convention on Climate Change and also non-binding forest principles. The outcome of the summit was first international agreement on climate change, which became the foundation for future agreements, among them and UN Framework Convention on Climate Change. UNFCCC see this framework aims to prevent dangerous human interface in the climate system.

It accepts that, human activities are created. So, those kinds of acceptance happened here, creating climate change, and it was recognized that, climate change is an issue of global concern. So, it is happened at this time. So, the UNFCCC was enforced in 1994. There we could not, we would note that, UNFCCC. We could note that, UNFCCC is not legally binding to the signatories. With this agreement, all signatories came to a common understanding to reduce greenhouse gas emissions.

However, no targets or timetables were set for the purpose. So, there was for this, it was not legally binding. Further, there was no targets or timetable set, but there was an agreement, there was an acknowledgement. So, and also it is required that, there would be frequent meetings between the countries who signed. And then the signatory countries are known as the Conference of parties or COP. And as of 2019, as the data of liberal it has been ratified by 197 countries, including United States and India.

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EIA-Instrument of National Decision Making

Principle 17

Environmental impact assessment, as a national instrument, shall be undertaken for proposed activities that are likely to have a significant adverse impact on the environment and are subject to a decision of a competent national authority.

Principle 15

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.

https://www.un.org/en/development/desa/population/migration/generalassembly/docs/globalcompact/A_CONF.151_26_Vol.I_Declaration.pdf

(Source: UN, 2022; Council on Foreign Relations, 2022)

India joined in 1992 and signed the agreement in 1994

Cop 1- 1995: [Berlin Mandate](#) –lays ground work for Kyoto Protocol

So, UNFCCC directed to use EIA as an instrument of national decision making, through the principle of 17, principle 17, principle 15 covers precautionary approach. And we find similar other aligned principles in the EIA practice. India joined in 1992, and signed the agreement in 1994. We witness COP1 in Berlin, and in this year, and then the outcome of that, was the Berlin mandate.

And, and this mandate, this conference laid the background work for Kyoto Protocol. So, you can see here, the principle in 1973, the United Nations Conference on Law of the Sea is held in was held in New York.

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Article 4. Jurisdictional Scope

Subject to the rights of other States, and except as otherwise expressly provided in this Convention, the provisions of this Convention apply, in relation to each Contracting Party:

(a) In the case of components of biological diversity, in areas within the limits of its national jurisdiction; and

(b) In the case of processes and activities, regardless of where their effects occur, carried out under its jurisdiction or control, within the area of its national jurisdiction or beyond the limits of national jurisdiction.

Article 14. Impact Assessment and Minimizing Adverse Impacts

1. Each Contracting Party, as far as possible and as appropriate, shall:

(a) Introduce appropriate procedures requiring environmental impact assessment of its proposed projects that are likely to have significant adverse effects on biological diversity with a view to avoiding or minimizing such effects and, where appropriate, allow for public participation in such procedures;

<https://www.cbd.int/doc/legal/cbd-en.pdf>

(Source: UN, 2022)



UN Convention on Climate Change and Biological Diversity (1992)
EIA as an implementing mechanism

So, following that, in 1992, we see that, UN Convention on Climate Change and biological diversity. We see that, it had the framework for EIA as an implementing mechanism. We see that, in particular article 4 and 14 referred to EIA. You can see here from the snip, So, in the following years, we see comprehensive reform of long established EIA systems and then we see that, how New Zealand, Canada, Australia and India implemented that.

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New or revised EIA legislation enacted by many developing and transitional countries;

- **Vietnam (1993)**
- **Uganda (1994)**
- **Ecuador (1997)**



ENVIRONMENTAL COMPLIANCE IN UGANDA-A REGULATORY PERSPECTIVE ENVIRONMENTAL IMPACT ASSESSMENT (EIA) PROCESS IN UGANDA

Source: EIA Training Resource Manual, UNEP, 2002; (Image source : NEMA Uganda, 2022)

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So, you can see, year wise 1991, 95, 99 and 94. How, like EIA system was being established. So, we also see new or revised the legislation enacted by many developing and transitional countries, for example, we see Vietnam, Uganda and Ecuador also adopting it.

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1995

UNFCCC signatories gather for the first Conference of the Parties, or COP1, in Berlin.



Angela Merkel, then Germany's minister of the environment, leads the Berlin conference.

(Source: UNEP, 2002)

(Source: Jockel Finck/AP)

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So, COP1, one took place in Berlin. And in this the United States pushed back in this particular COP1. And here the Berlin mandate was formulated.

So, with this the United Nations General Assembly setup commission. So, the commission was set up on sustainable development to oversee implementation of agenda 21 into the program and process of the United Nations system. So, that, happened in 1992 here.

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1993

- Establishment of the United Nations Commission on Sustainable Development.
 - Follow-up
 - Enhance international cooperation,
 - Rationalize intergovernmental decision-making capacity.
- World Conference on Human Rights in Vienna.
- Confirmation of international commitments to all human rights;
- Appointment of first United Nations High Commissioner for Human Rights.



World Conference on Human Rights in Vienna

(Image source : UN.Org,2022)

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And in 1993, we see that, United Nations Commission on Sustainable Development established there was a commission which was established, which will would ensure follow up, like what is going on with that.

And then we see at the World Conference on there was also World Conference on human rights in Vienna, which is another important conference we see. So, there the government confirms their international commitments. So, all the governments came together and they acknowledge their international commitments to human rights. So, in this the first United Nation High Commissioner for Human Rights was appointed here.

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1994

- Large funding under the Global Environment Facility.
- North American Free Trade Agreement enters into force;
- North American Agreement on Environmental Cooperation.
- The International Conference on Population and Development is held in Cairo.
- The United Nations Convention on Desertification is adopted.
- The United States Agency for International Development redefines its foreign assistance program in terms of sustainable development.



The International Conference on Population and Development, Cairo.

(Image source : UN.Org,2022)

So, we see in 1994, under the global environmental facility. So, billions of aid dollar were restructured and were good for improving the decision making power to the developing countries, So, a lot of funding was channelized here. So, now you see how the resources are coming in. And there was also simultaneously North American Free Trade Agreements. Then we also see commission for Environmental Cooperation, which was to facilitate effective cooperation of conservation, protection and enhancement.

We also see that, now, we also have Conference on Population and Development, as well as we see United Nations Convention on desertification, United States Agency for International Development, it was also redefining its foreign assistance program in terms of sustainable development. So, how everybody was converting their efforts so sustainability aspect.

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1995

- Establishment WTO -World Trade Organization.
- World Summit for Social Development (Copenhagen);
- International Community commitment to address the problem of poverty.
- The Fourth World Conference on Women is held in Beijing acknowledges the issue of women's rights and status.



World Summit for Social Development (Copenhagen);
(Image source : UN.Org,2022)

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So, in 1995, we see that, World Trade Organization, World Trade Organization was established and the WTO World Trade Organization provided formal recognition to trade, environment and development linkages. So, it also identified recognized it. And at this in the same year, we also see the World Summit for Social Development held in Copenhagen, and highlights the commitment of the international community to address the problem of poverty.

So, here, they reinforced it that, they would like to or they would be tackling the problem of poverty. And at the same time, now, we see another aspect coming in in 1995 is the Fourth World Conference on Women, which was held in Beijing. So, in this negotiations, they recognize the status of women. And then they also looked at the obstacles which are still there for realizing the women's rights as human rights. So, now, even the gender aspect coming here was you can see how it is coming in the timeline.

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1997

- A voluntary international standard for corporate environmental management systems (ISO 14001) is formally adopted.
- United Nations Conference on Human Settlements (Istanbul).
- The Asia-Pacific Economic Cooperation Ministerial Meeting on Sustainable Development is held in Manila;
- Key areas for cooperation –
 - Sustainable cities,
 - Cleaner production
 - Technologies
 - Sustainability of the marine environment



United Nations Conference on Human Settlements (Istanbul).
(Image source : UN.Org, 2022)

So, next, we see in the year 1997, we see now, ISO 14001 is formally adopted as a voluntary international standard for corporate environmental management systems. So, now we see that, how for managing the environment, we have the standards coming in. And at the same year, we also see United Nations Conference on human settlement is held in Istanbul.

So, that is also progressing here, understanding about linking human settlement with the environment here. And then Asia Pacific Economic Cooperation. ministerial meeting was also there on sustainable development in Manila. And in this Manila declaration, and Action Program, were the key areas such as like cooperation for sustainable cities, cleaner production, and technology, and the sustainability of the marine environment was discussed.

So, in 1997 now we see that, many things happened but and it also highlighted a lot of efforts were made but it also highlights a lot of challenges which were there on ground. So, land clearing fires which happened like and you see An Lino induced drought, which resulted in the haze blankets, the entire southern eastern Asia and that, costs like 3 billion in health cost and fire related damages.

So, that, was the cost economic cost which happened because of this land clearing fires, at the same, in the same year we also see United Nations General Assembly in this year reviewed the Earth Summit as a reminder for progress for implementing agenda 21. And there were no

significant commitments till here. Then we also see the Intergovernmental Panel on forest also submitted its recommendations.

But also indicated the need to collaborate to come together. And so, that, need was emphasized. So, the scenario was that, we were still struggling to come together. And at the same time, we see the Earth Council convinced non-governmental organization at the Rio 5 forum, in Rio de Janeiro. And it makes a note that, there is lack of integrated approach and many organizations and individuals are still working in isolation, isolation. So, there was need for integrated approach.

And then we see another aspect coming here in the same year, we see the global knowledge 97 Knowledge for developments in the information age was addressed. And it was held in Toronto. And here the global dialogue came where people started talking about, about the how to harness knowledge and information as a tool for sustainable and equitable development. So, now information, knowledge, all these aspect was also coming on the table for discussion and implementation.

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1997

- [Kyoto Protocol](#) – COP3- 1997, Japan
- **First Legally Binding Climate Treaty**
- To developed countries to reduce emissions by an average of 5 percent below 1990 levels and establishes a system to monitor countries' progress.
- No compulsion on developing countries
- [Carbon market](#) -for countries to trade emissions units and encourage sustainable development, a system known as “cap and trade.”



(Image source : UN, 2022)

And we see that, we also see that, delegates to your United Nations Framework Convention on Climate Change. There was signing of Kyoto Protocol, the protocol commits developed nations to reducing overall emissions of several greenhouse gases. And the mechanism to encourage

North South cooperation on emission reduction. So, in 1998, we see that, there is concerns for global environment and food security are raised.

And we also see that, there is also blockage of genetically modified crops. And then there is also voice for Terminator technology. And we also see that, People's Republic of China experiences the worst floods in the decades. So, there is also calamity disaster coming in two thirds of the Bangladesh are underwater for several months from monsoon, and there is also Hurricane Mitch which destroyed the parts of Central America and 54 countries were hit by flood and 45 by Draught. And then there was lot of problems which we were experiencing.

So, in this 1998, we see that, the Global Sustainability Index was launched. Which helps to track the leading corporate sustainability practices worldwide. So, where all sustainability practices are being adopted. And we also looked at this was also called as Dow Jones sustainability group indexes. And this tool provided guidance to investors looking for profitable companies that, follow sustainable development principles.

So, see how the different indexes were being developed. Here, we also see the Third World Trade Organization WTO ministerial conferences held in Seattle. So, it is met with the protests, So, they will protest and now against the globalization and growth of global corporations. So, we see now another perspective of the opposition coming to globalization. Also we see the environmental groups and social activists coming here.

And then how they were multi-lateral agreements on investments. They were oppositions against it. And by this time, we see that, the world population reached 6 billion. And it we see that, in this year, it was in Kyoto, Japan that, Cop3 took place and then that, the conference adopted Kyoto Protocol, which was the first legally binding climate treaty. So, earlier what we saw was not a legally binding but by Kyoto Protocol, which was legally binding.

So, here we set like, how much to reduce by what timeframe to reduce and then we also however, it was not bind, like not compelled upon the developing countries including China and India. In this we also see there was setting up of carbon market and also there was concept of a system known as cap and trade was mechanized here.

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1998
UNECE- Aarhus Convention (1998)

INFORMATION PARTICIPATION
JUSTICE

AARHUS CONVENTION
for our environment

UNECE
United Nations Economic Commission for Europe

Aarhus (Denmark)

Technical Briefing Paper prepared for Expert Meeting on Human Rights and the Environment

Source: UNECE, 2002

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So, in 1998, we see UNECE AARHUS convention on access to information public participation and decision making. And access to justice and environmental matters. So, now, you see how information aspect is coming also the public participation aspect is coming in decision making, and then access to justice in the environmental matter. So, it was with the AARHUS convention. So, that, was what we covered today.

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Summary

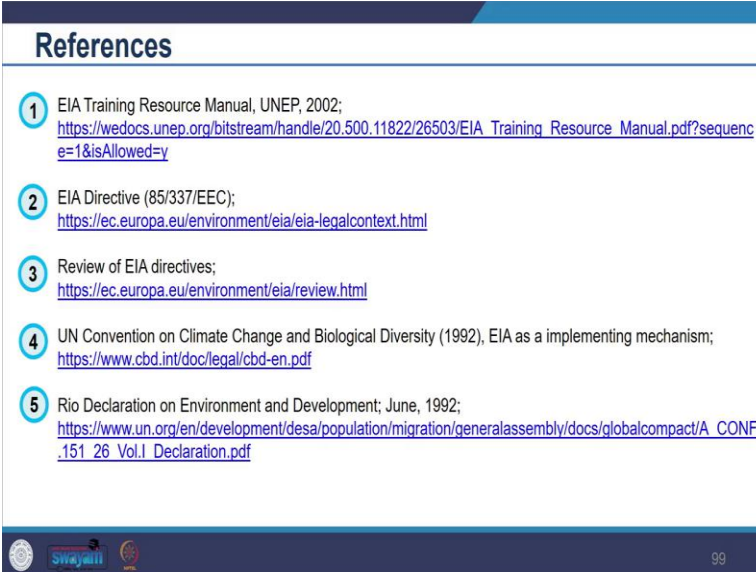
1 Global Environmental Timeline 1970-1999
(Environmental Perspective)

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So, we looked at the Global Environmental timeline. So, we looked from 1970 to 1999, from the environmental perspective. So, we looked at like how really, we started from the silent spring, and then how eventually, our understanding and inclusiveness increased about it. So, how we addressed about the poverty, how we addressed about the health, how we addressed about the Permian, and also the biodiversity, and then the economy and the technology information as well as the public participation.

So, what keep reflecting like how we will look at EIA, then how all these elements are now translated into Acts and the notifications which you see. So, we will continue in the next session from here, from 2000 till date we will be covering in our next session.

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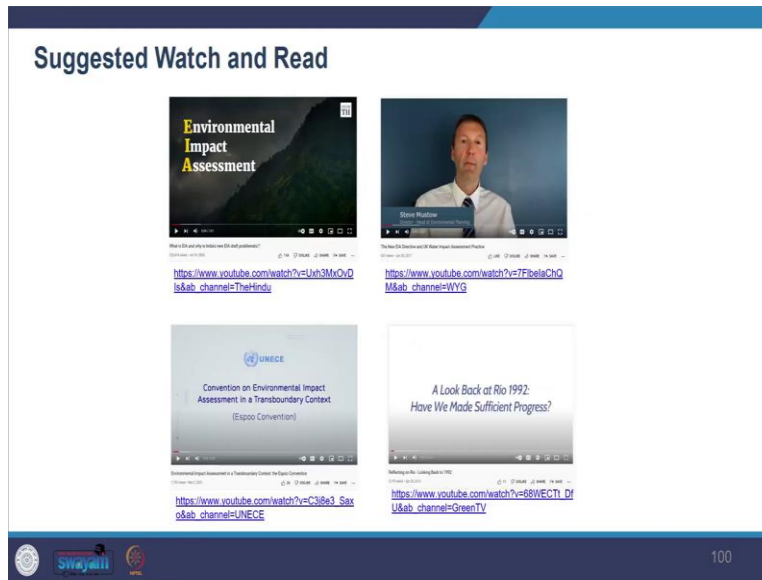
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https://wedocs.unep.org/bitstream/handle/20.500.11822/26503/EIA_Training_Resource_Manual.pdf?sequence=1&isAllowed=y
- 2 EIA Directive (85/337/EEC);
<https://ec.europa.eu/environment/eia/eia-legalcontext.html>
- 3 Review of EIA directives;
<https://ec.europa.eu/environment/eia/review.html>
- 4 UN Convention on Climate Change and Biological Diversity (1992), EIA as a implementing mechanism;
<https://www.cbd.int/doc/legal/cbd-en.pdf>
- 5 Rio Declaration on Environment and Development; June, 1992;
https://www.un.org/en/development/desa/population/migration/generalassembly/docs/globalcompact/A_CONF.151.26_Vol.I_Declaration.pdf

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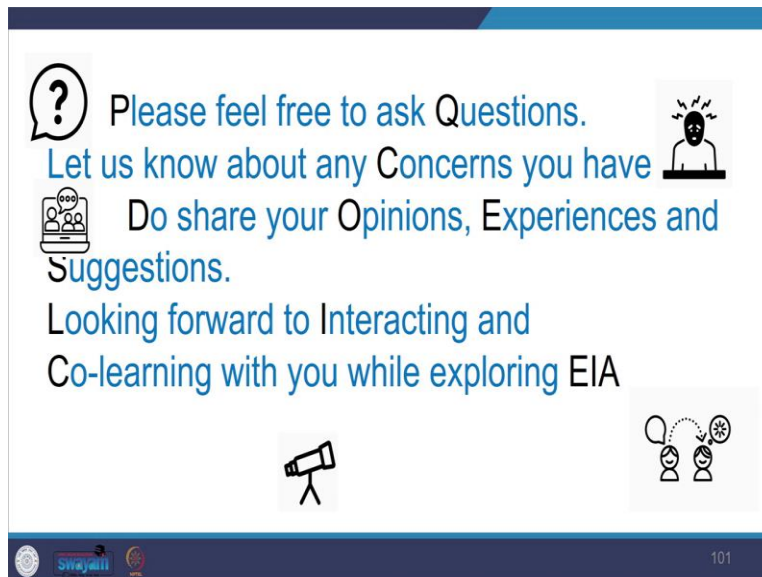
So, these were our key references for this particular session.

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And these are the suggested watch and read.

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Please feel free to ask questions. Let us know about any concerns you have to share your opinion, experiences and suggestions, looking forward to interacting and co-learning with you while exploring EIA. Thank you.