

# Global Environmental Issues

**Dr. Saba Pipia - Associate Professor of The Georgian-American  
University (GAU)**

# Brief Outline

- ▶ What is natural environment and biodiversity
- ▶ Stockholm and Rio Summits
- ▶ The concept of sustainable development
- ▶ First international environmental conventions
- ▶ Climate change and global warming
- ▶ Paris agreement
- ▶ Greenhouse gas emissions and the NDCs
- ▶ Adaptation and mitigation
- ▶ Citizen participation in environmental decision making
- ▶ Protection of animals

# Definition of natural environment

## Elements of natural environment

- ▶ Environment around us
- ▶ Species
- ▶ Habitats
- ▶ ecosystems
- ▶ Flora
- ▶ Fauna (insects, wildlife, underground animals)
- ▶ Air, soil, water
- ▶ Oceans, lakes, rivers
- ▶ Mountains, meadows...
- ▶ Natural resources (living and immovable)
- ▶ Atmosphere, stratosphere, space
- ▶ Biological diversity

# Why Environment is globalized?

- ▶ Hazardous activities to environment in one country causes harm and environmental degradations into other countries
- ▶ Nature is moving (water, air, space) and covers entire globe, not specific country
- ▶ Humans represent only 0.1 % of entire living species, the rest is residing over the entire planet
- ▶ International trade and production
- ▶ Global warming concerns everyone

# First steps toward globalization of environmental issues

In 1948, 18 states, 7 international organizations and 107 national organizations established the International Union for the Conservation of the Nature (IUCN), to encourage the ecologically sustainable use of natural resources. Over the years, IUCN, now also called the World Conservation Union, has been extremely active in treaty preparation - it co-drafted the World Heritage Convention and contributed to the adoption of the Convention on International Trade in Endangered Species (CITES) - and treaty implementation - it prepares official reports on wildlife trade for the CITES Secretariat. IUCN illustrates the critical role that non-state actors have assumed in international efforts to protect the environment

# Stockholm Summit

in 1972, when 113 states gathered in Stockholm for the United Nations Conference on the Human Environment. At Stockholm states negotiated a Declaration on the Human Environment (the Stockholm Declaration) and adopted a proposal that eventually led the creation of a new UN body, the United Nations Environment Program (UNEP). The conference also reaffirmed the fundamental principle that one state should not cause environmental damage to another.

## Principle 21

*States have, in accordance with the Charter of the United Nations and the principle of international law, the sovereign right to exploit their own resources pursuant to their own environmental policies, and the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction*

# World Summit on Environment and Development - Rio Summit

UNCED met in Rio de Janeiro from 3 to 14 June 1992. One hundred seventy-two states (all but six members of the United Nations) were represented by close to 10,000 participants, including 116 heads of state and government; UNCED lasted 10 days and resulted in five texts emerged from the meeting.

- ▶ [The Declaration on Environment and Development](#) and an action program called Agenda 21.

The Declaration, a short statement of twenty-seven principles, has a composite character which its legislative history can explain. It reaffirms the Stockholm Declaration of 1972 on which it seeks to build, but its approach and philosophy are very different. The central concept is sustainable development, which integrates development and environmental protection. Principle 4 is important in this regard: it affirms that in order to achieve sustainable development, environmental protection shall constitute an integral part of the development process and cannot be considered in isolation from it.

# Sustainable development

## Rio Declaration, Principle 3

The right to development must be fulfilled so as to equitably meet developmental and environmental needs of present and future generations.

The idea of sustainable development is to find fair balance between economic needs of the country and minimizing environmental impact of economic activities.

## [Collective] Human rights:

- Right to healthy environment
- Right to development

# The Rio Conventions

- ▶ CBD (Convention on Biological Diversity)

The objectives of the CBD are the conservation of biological diversity, the sustainable use of its components, and the fair and equitable sharing of the benefits arising from commercial and other utilization of genetic resources. The agreement covers all ecosystems, species, and genetic resources.

- ▶ CCD (Convention to Combat Desertification)

CCD aims to combat desertification and mitigate the effects of drought in countries experiencing serious drought and/or desertification, particularly in Africa, through effective actions at all levels, supported by international co-operation and partnership arrangements, in the framework of an integrated approach which is consistent with Agenda 21, with a view to contributing to the achievements of sustainable development in affected areas.

- ▶ FCCC (Framework Convention on Climate Change)

The FCCC sets an overall framework for intergovernmental efforts to tackle the challenge posed by climate change. Its objectives are to stabilize greenhouse-gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system, within a time-frame sufficient to allow ecosystems to adapt naturally to climate change; to ensure that food production is not threatened; to enable economic development to proceed in a sustainable manner.

# CC (Climate Change)

- ▶ Increase in the overall temperature of the planet (0.8 C - now, 4.5 C - anticipated by the end of century, goal to hold it at 2 C)
- ▶ Natural disasters
- ▶ Endangers ecosystems
- ▶ Industrialization and economic development pose serious threat to climate
- ▶ Extreme weather events (earthquakes, droughts, flooding, soil degradation)
- ▶ Change in precipitation
- ▶ Let's see video

# Paris Agreement (2015)

- ▶ The Paris Agreement builds upon the Convention and for the first time brings all nations into a common cause to undertake ambitious efforts to combat climate change and adapt to its effects, with enhanced support to assist developing countries to do so. As such, it charts a new course in the global climate effort.
- ▶ The Paris Agreement central aim is to strengthen the global response to the threat of climate change by keeping a global temperature rise this century well below 2 degrees Celsius above pre-industrial levels and to pursue efforts to limit the temperature increase even further to 1.5 degrees Celsius. Additionally, the agreement aims to strengthen the ability of countries to deal with the impacts of climate change. To reach these ambitious goals, appropriate financial flows, a new technology framework and an enhanced capacity building framework will be put in place, thus supporting action by developing countries and the most vulnerable countries, in line with their own national objectives.

# Greenhouse effect

- ▶ Greenhouse gases (industry, farming, transport)
- ▶ Inventory of greenhouse gases
- ▶ The Paris Agreement requires all Parties to put forward their best efforts through nationally determined contributions (NDCs) and to strengthen these efforts in the years ahead. This includes requirements that all Parties report regularly on their emissions and on their implementation efforts.
- ▶ Reporting mechanism of NDCs

# Adaptation and Mitigation

The difference between climate change mitigation strategies and climate change adaptation is that mitigation is aimed at tackling the causes and minimising the possible impacts of climate change, whereas adaptation looks at how to reduce the negative effects it has and how to take advantage of any opportunities that arise. Where mitigation strategies fail to reach emissions containment targets, climate resilience will be key to lessen the impacts of climate change and pave the way for our survival, along with the rest of the Earth's inhabitants.

**Mitigation measures** - switching to renewable energy, use non-motorized transport, promoting ecological industry, taxing the fossil fuel emitters (so called offsets)

**Adaptation measures** - building climate resilient infrastructure, replanting forests and trees, diversifying crops in agriculture, investing in innovative nature based solutions

# Deforestation and Carbon Accounting

- ▶ Role of forests in climate change
- ▶ Photosynthesis
- ▶ Trees absorb carbon dioxide and produce oxygen
- ▶ Deforestation causes even more carbon emission
- ▶ Regeneration of forests can calculate exactly how much Carbon emission can be absorbed by those forests in years

# Climate Activism

- ▶ #FridaysForFuture
- ▶ Shop-stop - you don't buy new things unless its absolutely necessary for you
- ▶ Veganism
- ▶ No-fuel transport

# Ozone Layer

- ▶ The ozone layer comprises a sheet of ozone that is found in the earth. Ninety per cent of atmospheric ozone is found in the stratosphere. The ozone layer is thought to provide a shield against harmful exposure to ultraviolet radiation from the sun and control the temperature structure of the stratosphere.
- ▶ Since the 1960s, there have been losses in the ozone layer over the Antarctic during the southern hemisphere spring, and more recently a hole has appeared in the ozone layer above the Arctic;
- ▶ Serious levels of UVB radiation have been observed over Antarctica, Australia and mountainous regions of Europe;
- ▶ 1985 Vienna Convention for the Protection of the Ozone Layer.

# Marine Environment and Common Heritage of Humankind

- ▶ Seas comprise of 2/3 of entire surface of our planet
- ▶ Marine environment is the richest with billions of different species
- ▶ World oceans are divided in different zones under the UN Convention on the Law of the Seas (UNCLOS)
- ▶ High seas and seabed
- ▶ Common heritage of humankind - everyone can benefit from it

# Aarhus Convention

## Three pillars of the Aarhus Convention

1. The right of everyone to receive environmental information that is held by public authorities ("access to environmental information").
1. The right to participate in environmental decision-making. Arrangements are to be made by public authorities to enable the public affected and environmental non-governmental organizations to comment on, for example, proposals for projects affecting the environment, or plans and programs relating to the environment, these comments to be taken into due account in decision-making, and information to be provided on the final decisions and the reasons for it ("public participation in environmental decision-making");
1. 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").

# CITES and Animals

- ▶ Categorizing animals (wildlife, farm animals, pets)
- ▶ Endangered species
- ▶ International trade in wildlife
- ▶ Wildlife markets and Covid-19
- ▶ Need to have unified international regime to protect animal welfare and rights

# Five freedoms of animal welfare

- ▶ Freedom from hunger and thirst;
- ▶ Freedom from discomfort;
- ▶ Freedom from pain, injury, and disease;
- ▶ Freedom to express normal and natural behavior;
- ▶ Freedom from fear and distress.