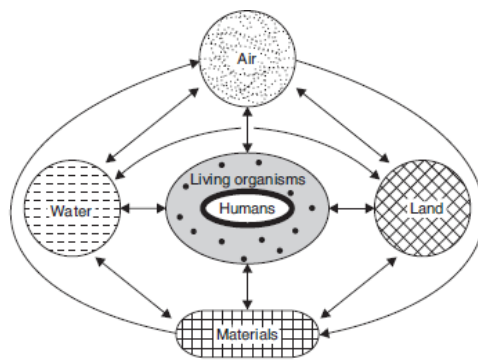


Chapter 1 – Introduction to Environment

'Environment' is a term derived from the Latin word 'Environ' that means 'to surround'. As per Environment (Protection) Act, 1986, environment includes all the physical and biological surroundings of an organism along with their interactions. **Environment** is thus defined as “the sum total of water, air and land and the inter-relationships that exist among them and with the human beings, other living organisms and materials.”

The concept of environment can be clearly understood from Fig 1. It depicts the environment of human beings. Air, water and land surrounding us constitute our environment, and influence us directly. At the same time we too have an influence on our environment due to overuse or over-exploitation of resources or due to discharge of pollutants in the air, water and land. The flora, fauna and micro-organisms as well as the man-made structures in our surroundings have a bi-directional interaction with us directly or indirectly. The totality of all these components and their interactions constitute the environment.



SCOPE

Environmental studies as a subject has a wide scope. It encompasses a large number of areas and aspects, which may be summarized as follows:

- Natural resources—their conservation and management
- Ecology and biodiversity
- Environmental pollution and control
- Social issues in relation to development and environment
- Human population and environment

These are the basic aspects of environmental studies which have a direct relevance to every section of the society. Environmental studies can also be highly specialized concentrating on more technical aspects like environmental science, environmental engineering or environmental management. In the recent years, the scope of environmental studies has expanded dramatically the world over. Several career options have emerged in this field that is broadly categorized as:

(i) **Research & Development (R & D) in environment:** Skilled environmental scientists have an important role to play in examining various environmental problems in a scientific manner and carry out R & D activities for developing cleaner technologies and promoting sustainable development.

(ii) **Green advocacy:** With increasing emphasis on implementing various Acts and Laws related to environment, need for environmental lawyers has emerged, who should be able to plead the cases related to water and air pollution, forest, wildlife etc.

(iii) **Green marketing:** While ensuring the quality of products with ISO mark, now there is an increasing emphasis on marketing goods that are environment friendly. Such products have ecomark or ISO 14000 certification. Environmental auditors and environmental managers would be in great demand in the coming years.

(iv) **Green media:** Environmental awareness can be spread amongst masses through mass media like television, radio, newspaper, magazines, hoardings, advertisements etc. for which environmentally educated persons are required.

(v) **Environment consultancy:** Many non-government organizations (NGOs), industries and government bodies are engaging environmental consultants for systematically studying and tackling environment related problems.

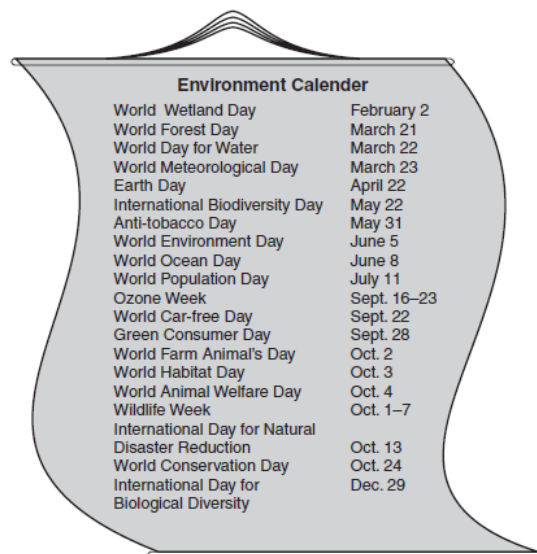
IMPORTANCE OF ENVIRONMENT

(a) **Global vs. Local Importance of Environment:** Environment is one subject that is actually global as well as local in nature. Issues like global warming, depletion of ozone layer, dwindling forests and energy resources, loss of global biodiversity etc. which are going to affect the mankind as a whole are global in nature and for that we have to think and plan globally.

However, there are some environmental problems which are of localized importance. For dealing with local environmental issues, e.g. impact of mining or hydroelectric project in an area, problems of disposal and management of solid waste, river or lake pollution, soil erosion, water logging and salinization of soil, fluorosis problem in local population, arsenic pollution of groundwater etc., we have to think and act locally.

(b) **Individualistic Importance of Environment** Environmental studies is very important since it deals with the most mundane problems of life where each individual matters, like dealing with safe and clean drinking water, hygienic living conditions, clean and fresh air, fertile land, healthy food and sustainable development.

Environment Calendar

A graphic of an environment calendar presented as a shield-shaped scroll. The title "Environment Calendar" is centered at the top. Below it is a list of environmental events and their dates.

Environment Calendar	
World Wetland Day	February 2
World Forest Day	March 21
World Day for Water	March 22
World Meteorological Day	March 23
Earth Day	April 22
International Biodiversity Day	May 22
Anti-tobacco Day	May 31
World Environment Day	June 5
World Ocean Day	June 8
World Population Day	July 11
Ozone Week	Sept. 16–23
World Car-free Day	Sept. 22
Green Consumer Day	Sept. 28
World Farm Animal's Day	Oct. 2
World Habitat Day	Oct. 3
World Animal Welfare Day	Oct. 4
Wildlife Week	Oct. 1–7
International Day for Natural Disaster Reduction	Oct. 13
World Conservation Day	Oct. 24
International Day for Biological Diversity	Dec. 29

NEED FOR PUBLIC AWARENESS

(a) International Efforts for Environment

Environmental issues received international attention about 35 years back in Stockholm Conference, held on 5th June, 1972. Since then we celebrate **World Environment Day** on **5th June**. At the United Nations Conference on **Environment and Development** held at Rio de Janeiro, in 1992, known popularly as **Earth Summit**, and ten years later, the **World Summit on Sustainable Development**, held at Johannesburg in 2002, key issues of global environmental concern were highlighted. Attention of general public was drawn towards the deteriorating environmental conditions all over the world.

NOBEL PEACE PRIZE, 2004 AND 2007 FOR ENVIRONMENTALISTS

The 2004 Nobel Peace Prize was awarded to Kenyan Environmentalist **Wangari Maathai** for her contribution to sustainable development, democracy and peace. This is the greatest recognition given to the cause of environment at international level. The Norwegian Nobel Committee, while awarding the prize, expressed the views "*Peace on Earth depends on our ability to secure our living Environment*".

Maathai, Kenya's Deputy Environment Minister is the founder of Kenya based **Green Belt Movement**. This movement comprising mainly of women has planted about 30 million trees across Africa. This has helped in slowing desertification, preserving forest habitats for wildlife and food for future generations and has helped combat poverty.



Wangari Maathai

Maathai has given a beautiful slogan "*When we plant new trees, we plant the seeds of peace.*"

Nobel peace prize, 2007 was awarded jointly to Intergovernmental Panel on Climate Change (IPCC) headed by Indian Environmentalist Dr. R.K.

Pachauri, and former US vice-president Al Gore. IPCC, the UN body comprising of 3,000 experts from various fields is an authority on global warming and its impacts. The award to IPCC is in appreciation of its efforts to build up and disseminate greater knowledge about man-made climate change and to lay the foundation for the measures that are needed to counteract such change. Al Gore is "probably the single individual who has done most to create greater world-wide understanding to the measures that need to be adopted," observed the Norwegian Nobel Committee while naming the joint winner of the award.



Former US vice-president Al Gore R.K. Pachauri

(b) Public Awareness for Environment

The goals of sustainable development cannot be achieved by any government at its own level until the public has a participatory role in it. Public participation is possible only when the public is aware about the ecological and environmental issues. The public has to be educated about the fact that if we are degrading our environment we are actually harming our own selves.

(c) Role of Contemporary Indian Environmentalists in Environmental Awareness

In our country, efforts to raise environmental awareness have been initiated, and several landmark judgments related to environmental litigations have highlighted the importance of this subject to general public. Two noted personalities, who need a mention here, are Justice Kuldeep Singh, known popularly as *the green judge* and Sh. M.C. Mehta, *the green advocate*, who have immensely contributed to the cause of environment.

In 1991, the Supreme Court of our country issued directives to make all curricula

Environment-oriented. This directive was, in fact, in response to a Public Interest Litigation (PIL) filed by *M.C. Mehta vs. Union of India (1988)* that prompted the apex court to give a mandate for creating environmental awareness among all citizens of India. Based on the judgment, Environmental Studies is being taught as a compulsory course to all students.

There are some environmentalists in the present time who have made a mark in our country through environmental activism. **Sh. Sunderlal Bahuguna**, known for his 'Chipko movement' and 'Tehri Bachao Andolan', **Smt. Medha Patkar** and **Ms. Arundhati Roy** known for their 'Narmada Bachao Andolan', the Magsaysay awardee **Sh. Rajender Singh** known for his water conservation efforts are some such contemporary figures. **Salim Ali** is a renowned ornithologist, famous for his work on Indian birds. In modern India, our late Prime Minister Mrs. Indira Gandhi was instrumental in introducing the concept of environmental protection in the Constitution of India as a fundamental duty while **Mrs. Maneka Gandhi**, formerly environment minister, has worked a lot for the cause of wildlife protection. **Citizen's report on environment** was first published by late **Sh. Anil Aggarwal**, the founder Chairman of Centre for Science & Environment. Even with many such key persons leading the cause to environment, India is yet to achieve a lot in this field.

(d) **Role of Government, Concept of Ecomark:** In order to increase consumer awareness about environment, the Government of India has introduced a scheme of ecolabelling of consumer products as 'Ecomark' in 1991. It is an 'earthen pitcher'—a symbol of eco-friendliness and our traditional heritage. A product that is made, used or disposed off in a harmless manner is called eco-friendly and is awarded this eco-mark. In a drive to disseminate environmental awareness '**Eco-Clubs**' for children and '**Eco-task force**' for army men have also been launched by the government.