

Introduction – Environmental Studies

By:
Dr. Parveen Kumar
Asst. Professor



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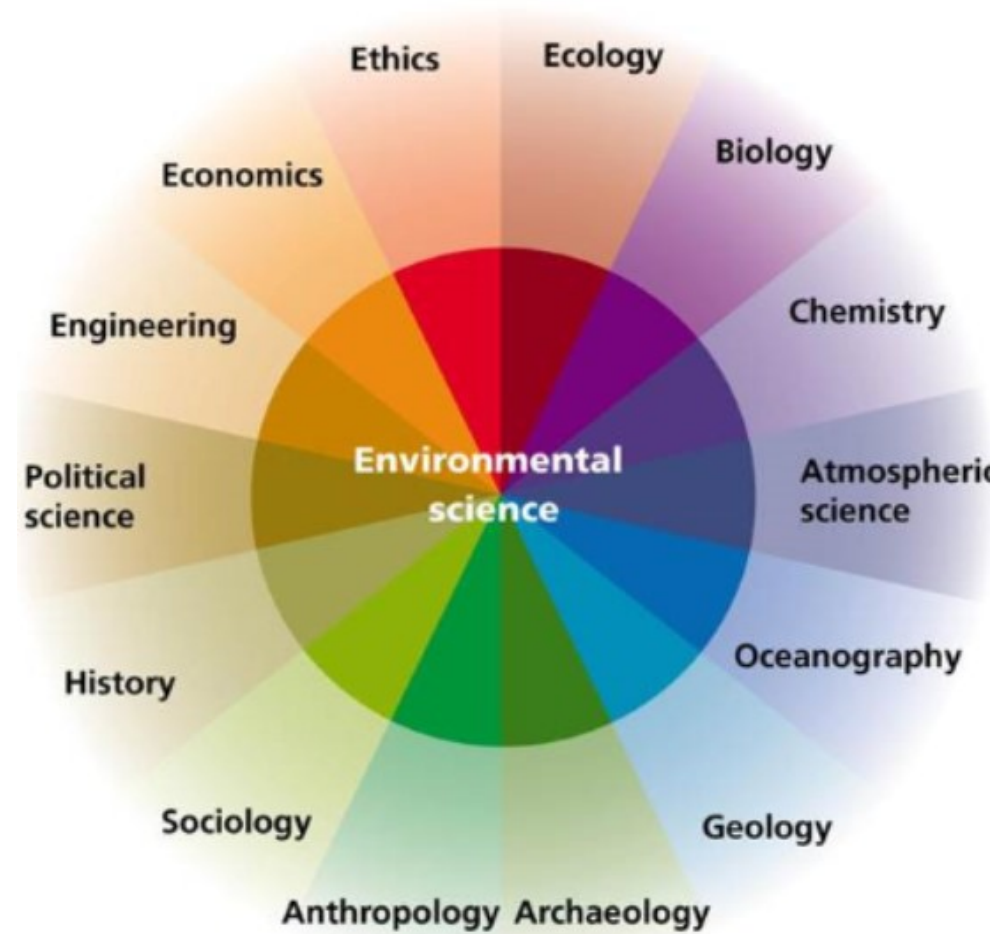
Course Objectives

- This course on the environment not only provide information about the environment but also tell about the way we all should live.
- It will lead to developing a concern for your own environment.
- When you develop this concern, you will begin to act at your own level to protect the environment we all live in.



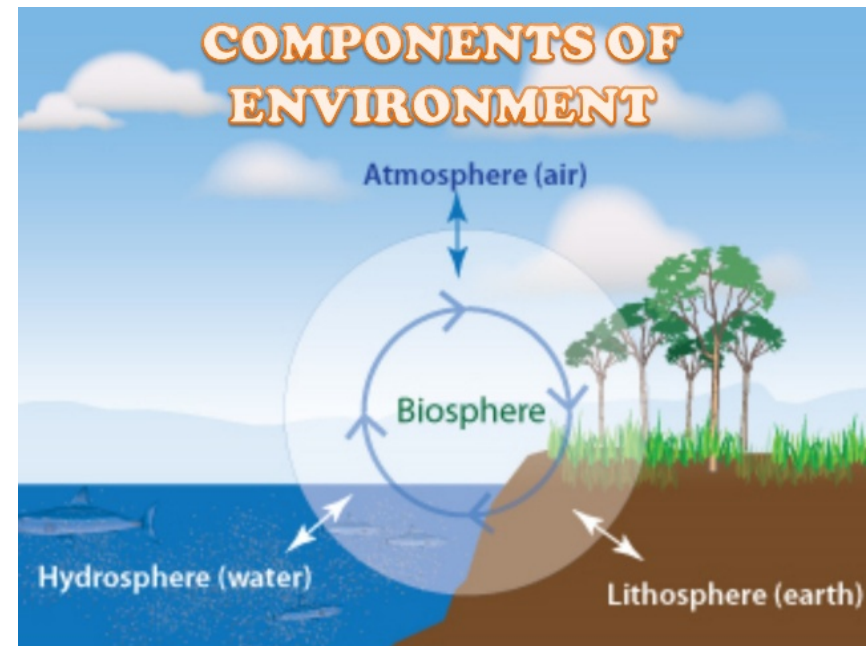
Environmental Studies?

- It deals with **every issue** that affects an organism.
- A **multidisciplinary approach** - to appreciate natural world and understand human impacts on it.
- An **applied science** – aim to make human civilization sustainable on the earth's finite resources.
- Its **components** include **biology, geology, chemistry, physics, engineering, sociology, health, anthropology, management, mass communication, economics, statistics, computers and philosophy.**



Scope & Importance

- Our daily lives are linked with **our surroundings** and inevitably affects them.
- **Environment** - everything around us forms our environment and our lives depend on different resources and community of living plants and animals as part of environment.
- **Environment as ‘Mother Nature’** - most traditional societies have learned that **respecting nature** is vital for their **livelihoods**.
- **Respect for nature and all living creatures** is not new to India. **Emperor Ashoka** said that **‘all forms of life are important for our well being’** in 4th



Continued.....

- **Modern societies – economic growth by environmental degradation**

- Fertilizers and pesticides.
- Mega dams for irrigation.
- Industrialization and urbanization
- Environmental pollution

- Overexploitation of **natural resources**.

- **Renewable resources – Timber/ water** - too will deplete if overexploited.

- **Sustainable utilization or development.**

- **Deforestation** leads to floods in the monsoon and dry rivers once the rains are over.



Understanding and making ourselves more aware of our environmental assets and problems is not enough. We, each one of us, must become increasingly concerned about our environment and change the way in which we use every resource.

Continued.....

- We live in a world in which **natural resources are limited**. Without them, life itself would be impossible.
- We **waste or pollute** large amounts of nature's clean **water**.
- We create more and more **plastic** that we discard after a **single use**.
- We **waste food**, which is discarded as garbage.
- Solid waste and chemicals **pollute water**, and gases pollute the **air**.
- *Increasing amounts of waste cannot be managed by natural processes and accumulate in environment, causing diseases and affecting all our lives.*
- Air pollution leads to **respiratory diseases**, water pollution to **gastro-intestinal diseases**, and many pollutants are known to cause **cancer**.
- *The actions at individual level are needed in our daily lives to preserve our environmental resources and handle above problems.*



We cannot expect Governments alone to safeguard the environment, nor other people to prevent environmental damage. We need to do it ourselves.

Need For Public Awareness?

- As **earth's natural resources are dwindling** and **environment** is being **degraded** by human activities, something needs to be done.
- *To prevent environment degradation by our actions, is economically more viable than cleaning up the environment once it is damaged.*
- **Individually** we can play a major role in environment management.
- We can reduce **wasting natural resources** and can act as **watchdogs** to inform Government about degradation of environment.
- **Mass public awareness** – media i.e. newspapers, radio, television, strongly influence **public opinion**.
- **Politicians** respond positively to strong **publicly supported movement**. This will make green policies.



Suggested Further Activities For Concerned Students:



- Join group to study nature – **WWFI, BNHS** etc.
- Read newspaper articles and periodicals i.e. **‘Down to Earth’, WWF-I** etc.
- **Lobby for conserving resources** during discussions.
- **Save paper, water, reduce plastics** use, **3Rs** principle, and **proper waste disposal**.
- **Join local movements** e.g. saving trees in your area.
- **Nature treks, buy eco-friendly products.**
- Practice **no spitting/tobacco chewing/throwing garbage/smoking/urinating or defecating** in public places.
- Participate in **World Environment Day, Wildlife Week** etc.
- Visit a **National Park or Sanctuary**, or spend time in whatever nature you have near your

Institutions in Environment

- **Bombay Natural History Society (BNHS), Mumbai:**

- ❑ **Oldest** wildlife conservation research based NGO.
- ❑ Publications - **Hornbill** and **Journal on Natural History**.
- ❑ **Dr. Salim Ali** - associated.

- ❑ Helped to frame wildlife related laws.

- ❑ ‘**Save the Silent Valley**’ campaign.

- **World Wide Fund for Nature (WWF-I), New Delhi (1969):**

- ❑ Wildlife education and awareness.
- ❑ Conduct programs including the Nature Clubs of India for school children.

- **Center for Science and Environment (CSE), New Delhi:**

- ❑ Campaigns, workshops and conferences.
- ❑ ‘**State of India’s Environment**’.
- ❑ Popular magazine, ‘**Down to Earth**’



- **Salim Ali Center for Ornithology and Natural History (SACON), Coimbatore (1990):**

- Dr. Salim Ali's dream that became a reality only after his demise.
- Biodiversity conservation

- **Wildlife Institute of India (WII), Dehradun (1982):**

- Training and Research in Wildlife Management.
- Publication 'Planning A Wildlife Protected Area Network for India' (Rodgers and Panwar, 1988).
- Information on India's biological wealth.
- Trains in eco-development, wildlife biology, and habitat management.

- **Botanical Survey of India (BSI) (1890):**

- It carries out surveys of plant resources in different regions.

- **Zoological Survey of India (ZSI) (1916):**

- Its mandate was to do a systematic survey of fauna in India.



**भारतीय वन्यजीव संस्थान
Wildlife Institute of India**



**भारतीय वनस्पति सर्वेक्षण
BOTANICAL SURVEY OF INDIA**

**ZOOLOGICAL SURVEY
OF INDIA
1916**



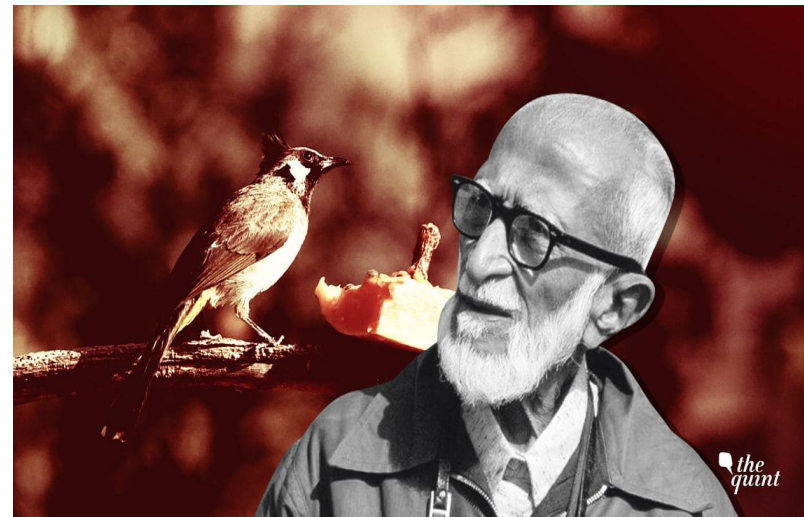
People in Environment

- **Rachel Carson published (1960)** several articles that caused immediate worldwide concern on the effects of pesticides on nature and mankind. She wrote a well known book called '**Silent Spring**' which eventually led to a change in **Government policy and public awareness**.



Rachel Carson

- **Salim Ali's name is associated** with Bombay Natural History Society (BNHS). He wrote great books '**Book of Indian Birds**'. He is known as '**Birdman of India**'.



**Salim
Ali**

- **Indira Gandhi as PM has** - preservation of India's wildlife. Protected Areas grew from **65 to 298** during her time. **Wildlife Protection Act (1972)** was formulated. India gained a name for itself by being a major player in **CITES (Convention on International trade in Endangered Species of Flora and Fauna)** and other International Environmental Treaties.



Indira Gandhi

- **M S Swaminathan** - India's foremost agricultural scientists and **biodiversity conservation**. He has founded **MS Swaminathan Research Foundation in Chennai**, which does work on the conservation of **biological diversity**.



**MS
Swaminathan**

- **M C Mehta - environmental lawyer.** Since **1984**, filed several **PILs** for **environmental conservation**. Fought for **Taj Mahal**, cleaning up the **Ganges River**, initiating Government to **implement environmental education in schools and colleges etc.**



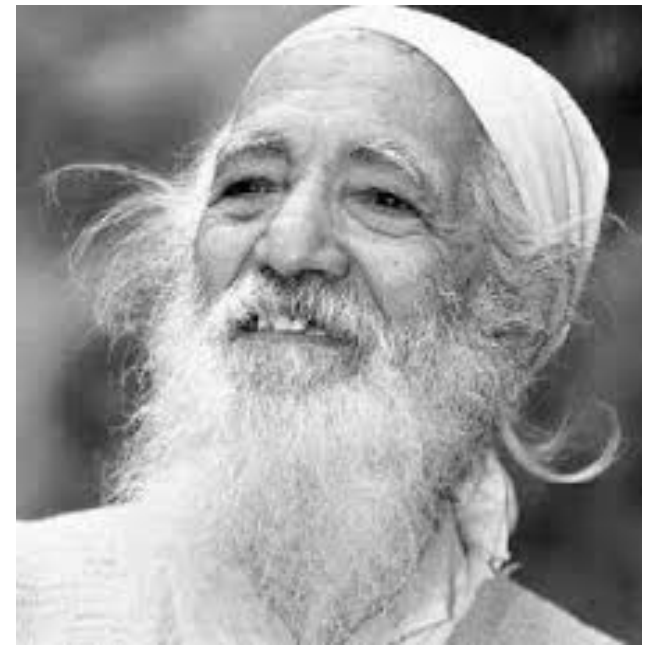
M C Mehta

- **Medha Patkar** is known as one of **India's champions** who has supported the cause of downtrodden **tribal people** whose environment is being affected by the dams on the **Narmada river**.



Medha Patkar

- **Sunderlal Bahugna - Chipko Movement** - efforts of local people to save forest resources. He also fought to prevent construction of **Tehri Dam** in a **earthquake prone setting**.



Sunderlal Bahugna

- **Gaura Devi** was elected to lead the Mahila Mangal Dal (Women's Welfare Association) in the wake of the **Chipko movement**. The organization worked on the protection of community forests



Gaura Devi

Climate Change Mitigation

- The human caused **climate change** is threatening **human health** and **natural ecosystems**.
- The Nobel Peace Prize 2007 was awarded jointly to Intergovernmental Panel on Climate Change (**IPCC**) and **Albert Arnold (Al) Gore Jr.** "for their efforts to build up and disseminate greater knowledge about **man-made climate change**, and to lay the **foundations for the measures** that are needed to **counteract** such change."

The Nobel Peace Prize 2007

IPCC
INTERGOVERNMENTAL
PANEL ON
CLIMATE CHANGE



Intergovernmental
Panel on Climate
Change (IPCC)

Prize share: 1/2

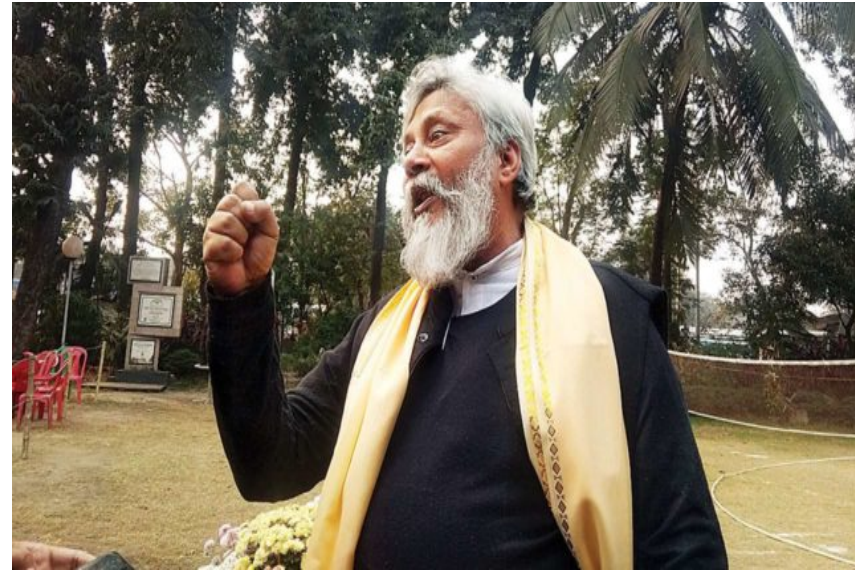


Photo: Ken Opprann
Albert Arnold (Al)
Gore Jr.

Prize share: 1/2

Water Conservation

- Water is the elixir of life. It sustains the growth and development of various organisms.
- **Rajendra Singh** won **Magsaysay Award** (2001) and **Stockholm Water Prize** (2015) for his water conservation activities.
- He bagged title of '*Waterman of India*' for his inspirational efforts.



Rajendra Singh
Rajasthan (Alwar)

UN's Green Award (Champions of The Earth) for Modi

Narendra Modi, Indian prime minister received **UN's Highest Environmental Award (2018)** along with French President **Emmanuel Macron** as joint '**Champions of the Earth**' in the policy leadership category.

Modi and **Macron** were awarded for "**Championing the International Solar Alliance** and promoting new areas of levels of **cooperation on environmental action**, including Macron's work on the **Global Pact for the Environment** and Modi's unprecedented pledge to **Eliminate all single-use plastic in India by 2022.**"



Forest Conservation

- ❑ Awarded **Padma Shri** (2019) for planting **8000** Trees in **80** Yrs, **106-Yr-Old Environmentalist 'Blesses' President.**
- ❑ Popularly known as '**Vriksha Mathe**' (mother of trees) was awarded with country's fourth highest civilian award for '**her tireless effort to make the planet green**'.
- ❑ **She lives an ordinary life, but she is no ordinary woman.**
- ❑ She planted and nurtured **384 banyan trees** lined in a five-km stretch some 80km from Bangalore.



Saalumarada Thimmakka – Blessing Sh. Ram Nath Kovind, President, India

Forest Conservation

- ❑ **Tulasi Gowda** (72-year-old) received **'The Padma Shri' Award (2020)** for **Planting Over One Lakh Trees.**
- ❑ She is known as **'Encyclopedia of forest'** for her vast knowledge of diverse species of plants and herbs.
- ❑ She has worked to **raise awareness** about **forest conservation.**
- ❑ She is also actively involved in **afforestation programmes** and **nurtures saplings** she plants until they can stand on their own.
- ❑ Single-handedly she tackled **poachers**, stopped **forest fires**, and contributed in conservation of **Western Ghat forest.**



**Tulasi Gowda
Karnatake**

Environmental 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
World Conservation Day	Oct. 24
International Day for Natural Disaster Reduction	Oct. 13
International Day for Biological Diversity	Dec. 29

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