

8. Environmental Issues

Learning objectives

The learner will be able to,

- ❖ Understand the importance of growing more plants to mitigate the environmental problems.
- ❖ Distinguish between the importance and conservation of endemic and endangered species.
- ❖ Appreciate the use of technologies for agriculture and forestry.
- ❖ Participate in community activities to improve environmental conditions.
- ❖ Develop methods in conservation of water and plants for sustainable development.
- ❖ Get acquainted with satellite technology and utilising it in our daily life needs.

Important Points and Notes

- ❖ Clouds and Dust particles can also produce Green House effect. That is why clouds, dusts and humid nights are warmer than clear dust free dry nights.

- ❖ Green House Effect is a process by which radiant heat from the sun is captured by gases in the atmosphere that increase the temperature of the earth ultimately.
- ❖ The ozone layer of the troposphere is called **bad ozone** and the ozone layer of stratosphere is known as **good ozone**.
- ❖ The presence or absence of certain plants indicates the state of environment by their response. The plant species or plant community acts as a measure of environmental conditions, it is referred as biological indicators or phytoindicators or plant indicators.
- ❖ **Jadav "Molai" Payeng** (born 1963) is an environmental activist has single-handedly planted a forest in the middle of a barren wasteland. This Forest Man of India has transformed the world's largest river island, Majuli, located on one of India's major rivers, the Brahmaputra, into a dense forest, home to rhinos, deers, elephants, tigers and birds. And today his forest is larger than Central Park.
- ❖ Former vice-chancellor of Jawahar Lal Nehru University, Sudhir Kumar Sopory named Jadav Payeng as **Forest Man of India**, in the month of October 2013. He was honoured at the Indian Institute of Forest Management during their annual event 'Coalescence'. In

2015, he was honoured with Padma Shri, the fourth highest civilian award in India. He received honorary doctorate degree from Assam Agricultural University and Kaziranga University for his contributions.

- ❖ Any system having the capacity to accumulate more atmospheric carbon during a given time interval than releasing CO₂. Example: forest, soil, ocean are natural sinks. Landfills are artificial sinks.
- ❖ **Biomonitoring** The act of observing and assessing the current state and ongoing changes in ecosystem, biodiversity components, landscape including natural habitats, populations and species.
- ❖ An agricultural drone is an unmanned aerial vehicle applied to farming in order to help increased crop production and monitor crop growth. Agricultural drones let farmers see their fields from the sky. This bird's eye-view can reveal many issues such as irrigation problems, soil variation and pest and fungal infestations. It is also used for cost effective safe method of spraying pesticides and fertilizers, which proves very easy and non-harmful.
- ❖ GIS is a computer system for capturing, storing, checking and displaying data related to positions on Earth's surface.