

1. **Solar Radiation:** The Sun emits energy in the form of sunlight, which includes various wavelengths of electromagnetic radiation, including visible light and ultraviolet (UV) radiation.
2. **Absorption and Emission:** When sunlight reaches the Earth's surface, it is absorbed and then re-emitted as infrared (heat) radiation. Some of this heat radiates directly back into space, while a significant portion is absorbed and re-radiated by greenhouse gases in the atmosphere.

Global Warming:

Global warming refers to the long-term increase in the average temperature of the Earth's surface and lower atmosphere due to the accumulation of greenhouse gases. This phenomenon has several key implications:

1. **Temperature Rise:** The Earth's average surface temperature has been increasing over the past century, with the rate of warming accelerating in recent decades.
2. **Climate Changes:** Rising temperatures can lead to shifts in climate patterns, including more frequent and severe heatwaves, changes in precipitation patterns, and altered seasonal cycles.
3. **Glacial Retreat and Sea Level Rise:** Higher temperatures contribute to the melting of glaciers and ice sheets, leading to rising sea levels. This poses risks to coastal communities and ecosystems.

Q. What are the objectives of "Forest and Wildlife Protection Act"?

ANS. **Wildlife Protection Act** (specific to India):

The Wildlife Protection Act of 1972 is an important legislation in India aimed at safeguarding the country's rich biodiversity and its various species of flora and fauna. The primary objectives of this act include:

1. **Conservation of Wildlife:** The act aims to prevent the depletion of wildlife populations and ensure their survival for future generations.
2. **Regulation of Hunting and Poaching:** The act prohibits hunting, poaching, capturing, or killing of specified species of animals, unless under special circumstances, such as scientific research or in the interest of the wild animal.
3. **Protection of Endangered Species:** The act provides protection to endangered species by imposing stringent penalties for their hunting or trade.
4. **Control of Trade:** The act regulates the trade in wildlife and their derivatives, preventing illegal trafficking and ensuring that trade is sustainable and does not threaten the survival of species.
5. **Establishment of Protected Areas:** The act provides for the establishment of national parks, wildlife sanctuaries, and other protected areas to provide safe habitats for wildlife.

Q. Write a short note on "Migration".

ANS. **Migration** refers to the phenomenon of individuals or groups of people moving from one place to another, usually with the intention of settling temporarily or permanently in a new location. Migration can occur within a country (internal migration) or across international borders (international migration), and it is driven by a variety of social, economic, political, and environmental factors. Here's a brief overview of migration:

Types of Migration: