

# SNS COLLEGE OF TECHNOLOGY

## CARBON CREDIT

A carbon credit is a tradable permit or certificate that represents the right to emit a set amount of CO<sub>2</sub> (or) 1 ton of CO<sub>2</sub> (or) the equivalent amount of greenhouse gas

**Concept:** The Kyoto Protocol was an international agreement that aimed to reduce **carbon dioxide** (CO<sub>2</sub>) emissions and the presence of greenhouse gases (GHG) in the atmosphere. Kyoto protocol introduced the concept of carbon credits. According to this a country should reduce carbon emission in the atmosphere.

- A carbon credit is a tradable certificate that allows its holder to emit greenhouse gas.
- One carbon credit is equal to one ton of carbon dioxide.
- Countries need to reduce their emissions by 5.2% compared to the numbers recorded.
- Countries and companies need to be designed to reduce carbon emissions without the need to buy credits.
- Less the purchase, less will be the carbon release into the atmosphere.

### **Types of Carbon Credit:**

- **Voluntary Emissions Reduction (VER):** It is a carbon offset that is exchanged in the voluntary market for credits.
- **Certified Emissions Reduction (CER):** is a certificate issued by the United Nations to member nations for preventing one ton of carbon dioxide emissions. These are usually issued to member states for projects achieving greenhouse gas reductions through the use of Clean Development Mechanisms (CDM).

### **Advantages of carbon credit:**

1. **Encourages emission reduction:** Carbon credits create an economic incentive for companies to reduce their greenhouse gas emissions.
2. **Promotes investment in clean technologies:** The carbon market can encourage the development and adoption of clean technologies that can help reduce greenhouse gas emissions.
3. **Supports sustainable development:** The Clean Development Mechanism (CDM) encourages investment in projects that improve energy access, promote rural development, and reduce poverty.
4. **Provides a flexible approach to emissions reduction:** Carbon credits offer a flexible approach to emissions reduction, allowing companies to offset their emissions by investing in emissions reduction projects in other countries.

### **Disadvantages of carbon credit:**

1. **Can lead to "greenwashing":** Some companies may use carbon credits as a way to portray themselves as environmentally responsible without making substantial efforts to reduce their carbon footprint.
2. **Can be subject to fraud:** The carbon credit market is vulnerable to fraud, with some companies producing fake carbon credits. This undermines the integrity of the carbon

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credit system and can lead to a loss of confidence in the market.

3. **Can be complex and expensive:** The process of creating and verifying carbon credits can be complex and expensive. The cost of carbon credits can also be volatile, making it difficult for companies to budget for emissions reductions.
4. **May not result in actual emissions reductions:** Some critics argue that carbon credits do not actually result in emissions reductions because they allow companies to continue emitting greenhouse gases while investing in emissions reduction projects elsewhere. This is known as "offsetting" and can lead to a "lock-in" of high-carbon infrastructure and technologies.

### CARBON FOOTPRINT

A carbon footprint is **the total amount of greenhouse gases (including carbon dioxide and methane) that are generated by our actions.**

Smaller the carbon footprint better for the future and bigger carbon footprint will have bigger negative impact in environment.

#### Sources of Carbon Footprint:

1. **Energy production:** The burning of fossil fuels such as coal, oil, and gas for energy production is a significant source of greenhouse gas emissions. This includes emissions from power plants, industrial processes, and transportation.
2. **Agriculture:** The agricultural sector is a major source of methane and nitrous oxide emissions, primarily from livestock, fertilizers, and manure management.
3. **Land use and forestry:** Deforestation and land-use changes are major sources of greenhouse gas emissions.
4. **Industrial processes:** Chemical and manufacturing processes, including cement production, are significant sources of greenhouse gas emissions.
5. **Waste management:** Methane emissions from landfills and wastewater treatment plants are significant contributors to greenhouse gas emissions.
6. **Transportation:** Transportation, including cars, trucks, planes, and ships, is a major source of greenhouse gas emissions, primarily from the burning of fossil fuels.

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10 Ways to reduce carbon footprint:

1. Calculate your carbon footprint
2. Switch to electric or hybrid car
3. Switch to renewable energy
4. Consider solar panels
5. Get energy efficient appliances
6. Unplug electrical devices when not in use
7. Buy locally produced food
8. Start a home garden
9. Don't waste water
10. Reduce, reuse and recycle.