

## ASSIGNMENT NO.6

### TOPIC 6: SOCIAL ISSUES AND ENVIRONMENT

- Write the procedure of trading in carbon credits.
- ✓ Carbon credits must be real, quantifiable, verified reductions in GHG emissions.
- ✓ 6 gases are eligible for carbon credits.
- ✓ Gases have different values depending on their global warming potential.
- ✓ Methane 21 – 23 times more potent than CO<sub>2</sub>
- ✓ All GHG expressed as metric tons of CO<sub>2</sub> equivalents.
- ✓ One ton of CO<sub>2</sub> equivalent = one carbon credit.

Burning of fossil fuels is a major source of industrial greenhouse gas emissions, especially for power, cement, steel, textile, and fertilizer industries. The major greenhouse gases emitted by these industries are carbon dioxide, methane, nitrous oxide, hydro-fluorocarbons (HFCs), etc, which all increase the atmosphere's ability to trap infrared energy and thus affect the climate. The concept of carbon credits came into existence as a result of increasing awareness of the need for controlling emissions. The mechanism was formalized in the Kyoto Protocol, an international agreement between more than 170 countries, and the market mechanisms were agreed through the subsequent Marrakesh Accords. The mechanism adopted was similar to the successful US Acid Rain Program to reduce some industrial pollutants. Carbon credits are generated by enterprises in the developing world that shift to cleaner technologies and thereby save on energy consumption, consequently reducing their Green House Gas (GHG) emissions. Credits can be exchanged between businesses or bought and sold in international markets at the prevailing market price .Credits can be used to finance carbon reduction schemes between trading partners and around the world. For each ton of carbon dioxide (the major GHG) emission avoided, the entity can get a carbon emission certificate which they can sell either immediately or through a futures market, just like any other commodity. The certificates are sold to entities in rich countries, like power utilities, which have emission reduction targets to achieve and find it cheaper to buy 'offsetting' certificates rather than do a clean-up in their own backyard. Credits can be exchanged between businesses or bought and sold in international markets at the

prevailing market price. Credits can be used to finance carbon reduction schemes between trading partners and around the world. This trade is carried out under a UN-mandated international convention on climate change to help rich countries reduce their emissions.

- Write an essay on "How carbon credit concept is helping in minimizing the pollution".

Carbon credits create a market for reducing greenhouse emissions by giving a monetary value to the cost of polluting the air. Emissions become an internal cost of doing business and are visible on the balance sheet alongside raw materials and other liabilities or assets. For example, consider a business that owns a factory putting out 100,000 tonnes of greenhouse gas emissions in a year. Its government is an Annex I country that enacts a law to limit the emissions that the business can produce. So the factory is given a quota of say 80,000 tonnes per year. The factory either reduces its emissions to 80,000 tonnes or is required to purchase carbon credits to offset the excess. After costing up alternatives the business may decide that it is uneconomical or infeasible to invest in new machinery for that year. Instead it may choose to buy carbon credits on the open market from organizations that have been approved as being able to sell legitimate carbon credits. We should consider the impact of manufacturing alternative energy sources. For example, the energy consumed and the Carbon emitted in the manufacture and transportation of a large wind turbine would prohibit a credit being issued for a predetermined period of time.

- ✓ One seller might be a company that will offer to offset emissions through a project in the developing world, such as recovering methane from a swine farm to feed a power station that previously would use fossil fuel. So although the factory continues to emit gases, it would pay another group to reduce the equivalent of 20,000 tonnes of carbon dioxide emissions from the atmosphere for that year.
- ✓ Another seller may have already invested in new low-emission machinery and have a surplus of allowances as a result. The factory could make up for its emissions by buying 20,000 tonnes of allowances from them. The cost of the

seller's new machinery would be subsidized by the sale of allowances. Both the buyer and the seller would submit accounts for their emissions to prove that their allowances were met correctly.