

Q 8,

2, REDD:

Definition:

REDD stand for Reducing emission from deforestation and degradation. It is an international mechanism to incentivize the communities and individual in developing countries in order to reduce emission from deforestation and degradation.

Contribution of deforestation in carbon emission:

As forests absorb carbon dioxide to purify the air; on the other hand they also contribute in to increase the emission of carbon dioxide, if degraded. Deforestation and degradation of forests causes 1.2% to 15% annually in carbon emission which

is equal to the amount of carbon emitted from vehicles.

From REDD TO REDD+

On COP 11 Montreal the theme of "Reducing Emission from deforestation and forest degradation" was presented on concentrating the increment of Carbon emission from deforestation.

REDD+:

On COP 13 REDD was converted to REDD+ by a great improvement and development. "+" denotes the given activities/tasks are achieved.

Objectives:

1. To Reduce carbon emission from degradation of forest and deforestation
2. For the protection and conservation of forests
3. To incentivize the developing

countries for sustainable forest development.

Funds provided to the countries:

1, Readiness Fund:

Readiness fund is provided to the countries. After the provision of this fund the countries start working on their policies and making strategies to make themselves ready for the given task.

2, Carbon Fund:

Carbon fund is given to the countries after the completion of the given task. When the countries reduce emission in the given level then they are awarded with the reward.

3, Ecologi

3, Ecological Restoration

Introduction:

Ecological Restoration means providing assistance

for the Restoration of ecosystem which has been degraded, damaged and destroyed.

The ecosystem can be degraded by natural changes as well as by human activities.

Objectives:

- 1) To help degraded echo-system for recovering and to be more sustainable to bear environmental changes.
- 2) To develop new relation between the restored echo-system and human being.

Principles of Restoration:

- 1) It is static not dynamic.
- 2) No general set of rules will be efficient there must be applicable, specific projects.
- 3) Adaptive management is necessary for restoration to succeed.

Ecological Restoration

Ecological Restoration and Sustainable Development:

1) Human Populations.

If the ecosystem is degraded in such a level where the recovery is difficult. Then that part of area will be unable to ~~to~~ have carrying capacity to human beings. Sustainable population leads to sustainable ecosystem and vice versa.

2) Sustainability

The land has been degraded due to over use for agriculture, overgrazing and pollutants. By following the ecosystem restoration principles such land can be recovered.

3) Urban World:

Due to excessive urbanization the wildlife has become in danger, land has become barren, and deforestation is

planned. the plan

on its peak. In cities also these are degradation of natural resources. By restoration the wild life as well as the city life can be improved.

People and Nature

Restoration is the way by which human beings can compensate for their undesirable impacts on nature.

③ OH and S

Introduction:

~~It is~~ ^{The} Occupational Health and Safety Management is a science which recognize, evaluate, predict and control the hazard arising in or from work place like industries, organization etc. which can have negative impacts on its

workers and people in the surrounding.
These hazards can be of three types.

1) Physical Hazards:

It is about the physical or building of the factories. The construction of the building is not safe like machineries are not working well, the floor is made up of marble etc. These all have negative and dangerous effects on workers.

2) Chemical Hazards:

In chemical industry, the toxic chemicals are used which are harmful for workers. Acids, gases, Radiation etc

3) Biological Hazards:

In production of fertilizers etc the micro organisms, viruses and bacteria cause harmful implication on workers

Doubt. the plant

To ensure the safety of worker and it surrounding from the above hazardous globally, there is Occupational Health and Safety management which is International organization who deals with occupational Health and Safety.

Occupational Health and Safety Management Model:

1) OHS Policy: The management on top make the policy.

2) Planning: After policy making they start planning like indentifying of hazardous and their controlling measures.

3) Implementations

After planning the Finance Department of organization provide financial support and start implementing their actions. They can be include providing safety kits to the worker, Repairing machineries etc.

4/ Monitoring

After implementation there will be monitoring if the identified issues are solved or if they are working well.

5/ Policy Reviews

At last the ~~pro~~ Policy will be review by OH and S management if the policy made was applied or not.

Benefits of OH and Safety:

- 1/ Provision of healthy and safe environment for workers and people in the surrounding.
- 2/ It improves motivation among the workers.
- 3/ It improves good reputation of organizations and increase their profit margin.
- 4/ It ensures compliance of national and international standards.
- 5/ It also controls environmental pollution.

Plants. The plants decompose

SEA

Strategic Environmental Assessment is an analytical participatory process for incorporating environmental consideration at early stages of decision making into planning any programme that affect environment.

It is more advanced than EIA.

EIA is to determine the implications of environmental development to inform decision making at the project level. However

SEA determine the implication of policies, planning and program on environment. It is a proactive approach rather than reactive.

Goals or objectives of SEA

- 1, Ensuring environmental protection by identifying and controlling implications.
- 2) By the application of SEA the sustainable development

will be promoted.

- 3/ It is strengthening EIA by taking proactive measures

Principle of SEA:

- 1/ Identification of environmental, social and economic effects and policy implications.
- 2/ Identified practicable option for sustainable development.
- 3/ Seek for the available methods.
- 4/ Address the issues in the development.
- 5/ Recommendations will be given.
- 6/ The policies will be formulated.

Q5(B)

Explain Eutrophication.

Introduction:

Eutrophication means the excessive plant and algae growth in the water body.

due to increase level of carbon, nitrogen and phosphorus.

Types of Eutrophication:

There are two types of eutrophication.

- 1) Natural Eutrophication
- 2) Cultural Eutrophication
- 1) Natural Eutrophication

This type of eutrophication is occurred due to natural factor not by human activities.

It is slower process and requires ~~month~~ years and decades to be completed.

2) Cultural Eutrophication:

This type of eutrophication is caused by human activities.

It increase in the speed of growth of nutrients. It takes weeks and months to be completed.

Causes of Eutrophication:

- 1) Use of Agro-Chemical fertilizers
- Use of Agro-Chemical fertilizers

in the fields cause to produce more fertilizers in the industries. The toxic, hazardous wastes of the chemical fertilizers mix in the rivers etc by making the process of eutrophication faster.

2) Excreta and Ewastes of living beings: causes the speedy growth of eutrophication.

3) Industries & Wastes:

The wastes of the industries are thrown in the water bodies becoming the cause of eutrophication.

Process of eutrophication:

The fertilizers, pesticides and other industrial wastes are penetrated in the water bodies.

These pollutants cause excessive growth of organic plants and algae. They block the penetration of sunlight in the water which causes the death of plants. The ^{death} plants decomposes

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and the water body becomes dense which causes suffocation due to the lack of oxygen.

This results into death of marine life like fishes.

Effects of Eutrophication

- 1, It makes the water taste undesirable.
- 2, It changes the water colour into yellowish.
- 3, It affects the water quality
- 4, It disturbs the people by smell coming out of the water.
- 5, It reduces the tourists visit to the beach sides.
- 6, It harms the aquatic life.
- 7, The water becomes unhealthy and toxic and the animals drink the water. The humans eat those animals meat.

Like this it is harmful for plants, animals, aquatic life, and humans.

Controlling eutrophication by taking measures:

- 1) Reduce the use of agro chemical and use non-chemical fertilizers
- 2) Sustainable waste measures should be taken for waste management.
- 3) ~~Keep~~ Take care of the water bodies by public visiting those areas not to pollute the water.

Q4: What is EIA? Explain the process of EIA:-

Introduction:

It is a formal Report to identify, evaluate, to predict and to reduce/control the environmental implication of by any project or activity.

EIA is done before the starting of any project and without the approval of EIA no work can be started.

Objectives of EIA:

- 1) To ensure environmental protection
- 2) To promote sustainable development
- 3) To Reduce the over exploitation of natural resources

Process of EIA:

1) The Project Screening:

In this step basic information about the project will be reviewed. Like about cost of the project, its type, location and time period.

2) Project Scoping:

In this step the effects of the project on social ~~idea~~ development will be observed or predicted. Like its benefit on environment, National economy and to people.

3) Base line data collection.

In this step the site is visited to collect the data about the location. Like if there is water body, forest, historic place, residential area etc.

4/ Identification of effects:

In this step it is to be reviewed that what implication will be on the ~~envt~~ ~~nat~~ environment like, water, forest, Historical site living beings etc.

5/ Impact measures:

1) After identifying the effects trying to find alternatives.

6/ Mitigation Measures:

The EIA data collectors guide the person about alteration and filtration in the Project.

7/ Public Participation:

Public participation is mandatory. There will be public hearing to listen to the public opinions and concerns.

8/ EIA Approved:

There will be coordination between owner and EPA for visiting the site to keep in check during construction by EPA.

9/ Environmental Monitoring:

During the project if find any violation of rules then the project will be sealed.

10/ Environmental Audit:

After completion of project to see if all the measures are taken seriously or not according to the report.

Benefits of EIA:

- 1/ It helps in identification of effects.
- 2/ It helps to find suitable alternatives.
- 3/ It saves the aquatic life.
- 4/ It ~~saves~~ saves / the protect the forests.
- 5/ It prevents to violate the rules which are efficient for environmental protection.
- 6/ It engages the public and spread awareness.
- 7/ It helps in integration of environment and development process.

Q.3: Define Biodiversity

Introduce from:

The variety and availability among living organisms and the ecological complexes in which they occur is called bio-diversity.

Walter G. Rose:

"It is all about the variety of life present on the earth".

Levels of Bio-Diversity:

There are three levels of bio-diversities.

1) Ecosystem diversity level:

It is about the variety regarding ecosystem world. Like living things living in different ecosystems have different nature.

2) Species diversity level:

Total number in kind of living things.

3) Genetic diversity level

Variety in each species

According to genetic makeup