

ESG

summary notes

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CHAPTER 15

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Ch15- Green Initiatives (0-4 mks)

- 1) Climate change is a global phenomenon & is impacting millions & billions & as the global temperature rises it becomes all the more concerning to plan for the same.
- 2) India lately is performing better as per the CCPI (Climate Change Performance Index)
- 3) As per the ILO, Green initiatives focuses on 3 areas :
 - (a) Research & understand the threats & opportunities for moving towards a green transition.
 - (b) Build strategic partnerships between national & international levels.
 - (c) Develop policy responses for every sector to ensure decent work & social justice.
- 4) SDG goals are also known as Blue print for better future.
- 5) What are the Indian Initiatives on pollution abatement?
 - ⇒ i) India has been proactive on its initiatives on abatement of pollution, following are the initiatives which the country has taken :
 - (a) The NAT has ordered to change all the DG sets (Diesel Generator) to reduce the emissions by atleast 70% & also the CG announced NCAP (National Clean Air Programme)

To reduce air pollution in major cities over the next 5 years.

(b) India made a global call in the name of mission LIFE (Lifestyle for Environment) & has invited all countries to join this movement which is pro-people & pro-planet seeking the world to move towards mindful & deliberate utilization of resources.

(c) India has been encouraging a transition towards green initiatives wherein even private sectors have made significant contribution where they have expanded their product portfolios & this has also helped in employment generation.

➤ National Clean Air Programme (NCAP)

- The govt launched NCAP in 2019 with the aim to improve the air quality across all the cities & to reduce the particulate matter by 20% to 30%.

- The key initiatives under the plan are as follows:

1) City specific action plans -

under this the non-attainment cities are targeted, whereby the focus is reducing emission by controlling the emissions from transport / industry / construction.

2) Expansion of air quality monitoring - (PRANA)

In this it aims to create monitoring systems for real time dissemination of information about air quality.

3) Waste management reforms -

Initiatives have been taken to promote proper disposal of wastes in order to prevent open waste burning.

4) Public awareness & citizen engagement -
 Under this 'Swachh Vayu Survekshan' which means clean air survey has been started to rank cities based on their air quality improvements.

- And overall air quality improvement has been observed in major (95) cities.

7) Establishment of Asia's largest Ramsar Sites network:

- Ramsar sites are wet lands which are recognized for their ecological significance & they are important because they support biodiversity by providing habitats for birds, fishes & other wildlife.

- These sites also help in flood control, water purification & ground water recharge.

- It also helps in climate change mitigation by absorbing carbon within it.

(not for exam)

- India has 75 Ramsar sites covering 1.3 M Hectares of land & some of the well known recognized Ramsar sites are Keoladeo National Park (in Rajasthan) & Chilika (in Odisha).

8) Ban on Identified Single use plastics & Plastic waste management :

- India has taken initiative to reduce the plastic use and as well to better manage the plastic waste.

- In this context, they have moved towards eliminating single use plastic that are non-biodegradable.

- The strategy used by Government has two pillars:

(a) Ban single use plastic items

(b) Implementation of extended producer responsibility on plastic packaging.

- Further, India has put a ban on things made with plastic like plastic flags, forks, plates, etc with less than 100 microns & also has increased the thickness of plastic carry bags to 120 microns.

- This has led to an increase in overall employment initiatives.

9) Green Bonds :

- The GoI has approved sovereign green bonds to be issued by Indians to raise funds for eligible green projects, which shall help in reducing carbon intensity of economy.

10) Reduction in carbon / GHG Emissions :

- One of the major factors of climate change is the direct / indirect human activities leading to increased concentration of GHG which has led a rise in global temperature.
- Effects are so severe that it could increase the heat waves, decrease in snow covers, increase in sea levels.
- While every country has taken certain initiatives to deal with such changes, like the USA has called for preparation of climate finance plan to focus on international climate finance, India also has announced additional targets at the COP26 (conference of parties) wherein, India has a target to reduce the carbon intensity by 45% by the end of the decade.
- Which means India would require a lot of funds to make a shift to renewable energy sources, experts predict an estimated cost of 700 lakh crores.
- India is one of the largest emitter of CO₂ & is taking all the possible efforts to reduce the same & in this context the Indian Corporate sector is contributing substantially.
 [Mahindra, Tata, Wipro]

⇒ Resource Efficiency:

Resource efficiency means the using of limited resources of the earth in a sustainable manner.

- The aim is to maximise benefits of the products & services while minimizing consumption & the waste.
- Currently, the consumption requirement is more than what the earth can actually provide and renew.
- That been said the following could be done to improve the resource efficiency :
 - (a) Application of waste hierarchy -
The first thing to be done is to prevent & least we could do is proper disposal. Under the waste hierarchy one should identify what type of waste business creates & if any of the waste can be re-purposed.
 - (b) waste Assessment -
Under this the organizations assess their processes & materials being used to identify as to what is creating more waste & how one can reduce the same.
 - (c) Controlling of waste -
The management can train the teams in reducing wastages which inturn will also help in preserving the environment.

(d) Reduce energy consumption -

Practices can be adopted by anyone & everyone to reduce energy consumption which may include turning off lights as well as equipments when not in use, use cold water, ~~use~~

(e) Using reuse & refill approach.

(f) Become more energy efficient.

(g) Understanding the legislation -

It is essential for organizations to understand and comply with the legislations.

12) India's Renewable Energy Scenario:

- India has shown willingness to achieve net zero emissions by 2070, in that context the short term targets are:
 - a. increasing renewable capacity to 500 GW
 - b. meeting 50% energy requirements from renewables.
 - c. Reducing cumulative emission by one Billion Tons.
 - d. Reducing emission intensity by 45%.

- In this context, following initiatives have been taken:

(a) Solar ^{arks} ~~Power~~ Scheme -

The objective is to facilitate development of solar parks & ultra mega solar park projects with target capacity of 40 GW.

(b) Solar Rooftop -

Government has been bullish in promoting rooftops being used for solar purposes.

(c) off-Grid Solar -

These can store energy with it & allows its usage when required.

India has taken many steps in this by investing into solar street lights, distributing solar study lamps.

(d) Wind Energy -

India has been increasing its capacity year by year to achieve its target of 50% usage of renewable resources.

(e) PM-KUSUM Scheme has also been put for farmers.

13) Water Management:

- with dependency of people / industries increasing on water & quality & availability of water getting decreased it poses an immediate threat to the world at large & calls for water management & water stewardship, wherein water mgmt means planning, developing & managing optimum use of water resources & water stewardship means using water in a way i.e. economically beneficial, environmentally sustainable & socially equitable.

- Water stewardship is a collaborative approach that aims to achieve social, environmental & economic benefits.
- WWF (World wide fund) for nature led the establishment of AWS (Alliance for Water Stewardship) as an independent NPO dedicated to advancing water stewardship:
 - (a) The Nature Conservancy
 - (b) Water Stewardship Australia
 - (c) Pacific Institute.[All these are founding members]
- AWS defines ~~to~~ criteria for good water stewardship & make plans which can align with other sustainability initiatives

* Top water management Trends :

(a) Digital Water management :-

The increasing global water demand is putting up heavy pressure on infrastructure requires growth in digital water mgmt which can help in improving the decision making at the time of mgmt, distribution & conservation of water resources.

(b) Wastewater Processing :-

Large amount of wastewater which is get not treated is discharged in water bodies & ^{pollute} produce the fresh water, so steps ~~be~~ should be taken on better waste water processing.

(c) Water Saving Technology :-

As the availability of fresh water is decreasing new trend lately has been reuse / recycle / home conservation & intelligent irrigation.

(d) Advanced Filtration -

Startups have been paying more attention on water filtration & creative methods & are focusing upon that method which is energy saving as well as cost effective.

* Waste Management

- Waste mgmt is the practices incorporated by the organisation to manage & dispose off wastes.

- It includes its processing / recycling / discarding.

- The objective is to reduce the amount of unusable materials.

- The modern concept of waste mgmt covers

7Rs :-

➤ Reuse, Recycle, Reduce, Rethink, Refuse, Research & Regulate.

• Composting -

↳ All the biodegradable wastes can be recycled & can be converted into manure by burning them in pits, this process is called composting.

• Landfills -

↳ Large areas are used to dispose off waste which is biodegradable & waste is buried in such a way that it does not harm the environment & once the landfill is full, it can be converted into a park.

2] Non - Biodegradable Waste :

- These are waste which cannot be decomposed easily for ex: polythenes & plastics & iron nails.
- The following are the techniques to manage non-biodegradable waste:

• Recycling

• Incineration

↳ This is a process in which those wastes which are non-recyclable are decomposed using temperature of above 5000° .

* Waste Management Life cycle.

There are four types of waste management:

- Solid
- Liquid
- Bio-medical
- E-waste.

(a) Solid waste mgmt :-

Effective waste mgmt is an expensive task & is essential for building ecological & liveable cities.

- In this context, Tata Steels has taken steps to move towards becoming a zero waste company by using 3Rs reduce, reuse and recycle.
 By these strategies adopted they have led to in many plants at a 100% 0 waste.

(b) Liquid waste mgmt :-

- Liquid waste can be wastewater, oils, grease, sometimes some liquids are hazardous also which have a potential to harm a human health.
- Further, it could be in the following forms:
 - Household liquid waste.
 - Commercial liquid waste
 - Industrial waste.
 - Stormwater - weather related waste that is contaminated with pollutants.
- Liquid waste mgmt was seen in Bharat Petroleum wherein, an effluent treatment plant has been set up for maximised recycle of wastewater, also, oil containment boom have been installed to protect oil spills in water.

(c) Bio-medical waste Mgmt :-

- These are wastes which are generated during the diagnosis, treatment of human beings, animals or in production / testing of related products.

- The following approaches can be used in order to effectively deal in bio-medical wastes:

• Autoclaving -

It is a sterilization process which uses high pressure steam at the end of which all the micro-organisms are destroyed.

• Incineration

• Microwaving -

In this process the waste is first mixed with water & then heated to kill the micro-organisms, this approach is considered more energy efficient approach than incinerating it.

(d) E-waste mgmt :-

- E-waste refers to waste created by electronic products which are unwanted or are not working, in other words it is at the end of its useful life.

- Measures to reduce e-waste are as follows:

• Cloud storage -

Business organisations may not buy large server or storage system for personal / commercial use but this problem can be solved through cloud storage.

• Donate / Resell -

Organisations may think of donating or reselling old gadgets which still have some life left & then buy a new electronic gadget.

- Reduce purchases & organise them accordingly.

* GRI Standards:

- a) Universal
 - b) Sector
 - c) Topic
- } already covered in ch 20

* GRI Environmental Standards (GRI 300)

- 1) 301 - materials
- 2) 302 - Energy
- 3) 303 - water & effluents
- 4) 304 - Bio diversity
- 5) 308 - Supplier's environmental assessment

- This disclosure addresses the supplier's environmental assessment.
- Since, due diligence is expected by the organization to prevent negative environmental impacts from supply chain.
- So, the disclosure can provide info upon the organization's approach in preventing & mitigating the negative impacts created by suppliers in its chain.