

## **DISPOSAL OF DEAD BODIES**

### ***METHODS OF DISPOSAL***

1. *Cremation*
2. *Burial*
3. *Mummification*

### **CREMATION**

- *It is the use of high-temperature burning, vaporization, and oxidation.*
- *A cremator is an industrial furnace that is able to generate temperatures of 870–980 °C (1,600–1,800 °F).*
- *Modern cremator fuels include oil, natural gas, propane, and in some areas like Hong Kong, coal gas.*
- *Approximately 300kg of wood is required for single cremation.*

### ***REGULATIONS FOR CREMATION***

1. *The death certificate from a registered medical practitioner is compulsory before cremation.*
2. *Provision of death register in the places of crematorium itself.*
3. *Corporation and municipalities maintain burning or crematory areas and therefore they are responsible for providing all facilities to public at some minimal fees.*
4. *All cremation grounds and burning ghats should be well lighted at nights and screened with high walls.*

### **BURIAL OF THE DEAD**

- ✓ *Burial or interment is the ritual act of placing a dead person, sometimes with objects, into the ground.*
- ✓ *According to WHO location of graveyards should be agreed with the community.*
- ✓ *Attention should be given to ground conditions, proximity to ground water drinking sources(which should be at least 50m)and to the nearest habitat( 500m)*

***Following points are important burial of the dead:***

***a) Location:*** Not close to residential area.

***b) Site:*** Land liable to flooding is unsuitable.

***c) Soil:*** Sandy loam soil is good where soil bacteria helps in disintegration of the body.

***d) Size:*** A pit of 3-5ft depth be dug below the surface of the earth and never more than 8 feet below the ground surface, nor within 2 feet of the highest subsoil water.

***e) Coffins:*** It should be made of easily destroyable wood. The cemeteries should be fenced or enclosed by a wall of about 8 inches.

### **MUMMIFICATION**

- *This method was practiced by the Egyptians.*
- *Over many centuries, the ancient Egyptians developed a method of preserving bodies so they would remain lifelike. The process included embalming the bodies and wrapping them in strips of linen. Today we call this process mummification.*

### **FORESTATION**

#### **FORESTS**

- *The word forest has been derived from Latin word 'foris' which means outside.*
- *A forest is a natural, self-sustaining community.*
- *All forests share the same physical characteristics but can exist in different regions under wide range of conditions such as temperature, atmospheric CO<sub>2</sub> type of soil available there.*
- *Forests are natural biotic type of non-renewable resources.*

- *Forests depend upon many factor such as rainfall, fire, wind, flooding, and animal activities.*
- *Forests cover one-third of total earth's land and about 33% of world's forest have been cleared and is converted for other uses.*

## **FORESTATION**

*Forestation means establishment of a forest naturally or artificially on an area which was previously for forests or not, so as to cover the area with trees or forest.*

### **BENEFITS**

- ✓ **Source of energy:** *Wood of trees are used for cooking and also to keep warm.*
- ✓ **Conserve soil.**
- ✓ **Increases fertility of soil.**
- ✓ **Source of food:** *Plants are source of food.*
- ✓ **Shelter:** *Birds, reptiles, insects, and mammals are provided shelter by forests.*
- ✓ **Provide a number of products:** *Wood & bamboo pulp used for the manufacturing of paper and rayon. Other products are waxes, honey, musk, gums etc.*
- ✓ **Maintain climate:** *to be cool, atmospheric humidity is increased by the transpiration, which in turn causes rainfall and changes the temperature of climate.*

## **FOREST ECOSYSTEM**

- *A number of organisms exist within the forest and these organisms interact with each other, playing a specific role to sustain the ecosystem.*
- *Forest ecosystem is a complex of inter-related living and non living elements. Forest support a number of species.*

## ***REASONS FOR THE CHANGES IN COMPOSITION & STRUCTURE OF FORESTS***

- ✓ **Natural succession:** *Due to climatic changes, one type of plant species is replaced by another. This progressive replacement of one type of species with another is known as succession.*
- ✓ **Natural disturbances :** *Wild fire, frost, diseases of trees.*
- ✓ **Human activities**

## **DEFORESTATION**

***Defined as the unscrupulous & indiscriminate destruction of indigenous forests and wood lands.***

### **CAUSES:**

- ❖ *Increasing population*
- ❖ *Natural calamities*
- ❖ *Overgrazing of live stock*
- ❖ *Human activities.*

### **EFFECTS :**

- *Deprivation of shelter.*
- *Deprivation of food.*

- *Decreased O<sub>2</sub> and CO<sub>2</sub>.*
- *Scarcity of fuel wood*
- *Increased draught*
- *Melting of ice- caps causing floods.*
- *Increased soil erosion.*
- *Increased pollution*
- *Depletion of soil nutrients.*
- *Global warming.*
- *Reduced ecosystem stability, extinction of species.*

### **FOREST MANAGEMENT**

*Forest management is required to stop the ecological degradation which can result in harmful climatic conditions if not stopped.*

### **MEASURES FOR FOREST MANAGEMENT**

- Avoid wastage of forest products.*
- Use alternate sources of energy such as use of cooking gas in place of wood.*
- Prohibit deforestation*
- Encourage reforestation*
- Use of pesticides to protect the trees from the disease.*
- Control the forest fire created by human activity due to carelessness.*
- Prohibit overgrazing.*

## **PLANS AND POLICIES FOR FORESTATION AND PREVENTION OF DEFORESTATION**

Indian Forest Act 1927

- To conserve and protect the forests
- To ensure judicious use of forest products

Violation of the law:

Penalty under section 33:d imprisonment of 6 months or more or Rs. 500 or both.

*Van Mahotsava: Since 1950, in the month of February and July, tree plantation.*

*National Forest Policy( 1952) & 1988.*

*Chipko movement(1973) :Embrace the tree and save them.*

*Van Samrakshan samithi*

*National Forestry Actions Programme, 1999( NFAP)*

### **NOISE**

#### **DEFINITION**

*Better definition "Wrong sound, in the wrong place, at the wrong time."*

#### **SOURCES**

1. *Automobiles, factories, industries, aircraft*
2. *Noise level is high near railway junction, traffic places, airport.*
3. *Use of pressure horns, recreational noise of loudspeaker.*
4. *The domestic noise due to radio,TV.*

#### **PROPERTIES:**

*Noise has 2 properties: 1. Loudness or intensity.*

*2. Frequency.*

**a) Loudness or intensity:**

*The loudness of noise is measured in decibels(dB)*

*Whispering -- 20-30dB*

*Normal conversation -- 60-65dB*

*Heavy street traffic -- 60-80dB*

*Boiler factories -- 120dB*

*Daily exposure of 85dB can tolerated by the man without substantial damage to their hearing.*

**b) Frequency:**

- *It is donated as Hertz(Hz).*
- *The human ear can hear frequency from about 20-20,000Hz*

***The basic instrument used in studies on noise is***

*--Sound level meter (intensity)*

*--Octave band frequency analyzer (sound spectrum)*

*--Audiometer (hearing ability)*

**EFFECT OF NOISE POLLUTION**

***Auditory effects***

1. **Auditory fatigue:** *Appears in 90dB region and greatest at 4000Hz.(Whistling and buzzing).*

2. **Deafness:**

**Temporary hearing loss:** *Results from specific exposure to noise, disappear after a period of time up to 24hr following the noise exposure.*

**Permanent hearing loss:** *Repeated & continuous exposure to 100dB.*

*Exposure to noise above 160dB may rupture tympanic membrane.*

***Non auditory effects:***

- **Interference with speech:** 300-500HZ. Ex: Road and air traffic.
- **Annoyance:** This is psychological response, irritated, short tempered and impatient and more likely to resort to agitation and disrupt production.
- **Efficiency :**Mental concentration decreases
- **Physiological changes:** Rise in BP, rise in ICP, increased heart rate, breathing and sweating.

**CONTROL OF NOISE**

***1) Careful planning of cities:***

- a) *Division of city into zones with separation of areas concerned with industry and transport*
- b) *The separation of residential areas from the main streets by means of wide green belts*
- c) *Widening the main streets to reduce the level of noise penetration into dwelling.*

***2) Control of vehicles:*** Avoid heavy vehicles into narrow street. Prohibit pressure horn.

***3) Improve acoustic insulation of building:*** Sound proof wherever necessary.

***4) Industries and railway :*** Special area must be ear marked, outside residential areas, for industries, for railways.

***5) Protection of exposed persons:*** Workers must be regularly rotated from noisy areas to comparatively quiet posts in factories.

***6) Legislation:*** Noise Pollution (Control and Regulation) Rules, 1999.

***7) Education***