

# Environmental Aspects

~Dr Dilip Ganguly

## Environmental Aspects: The Basics

*The identification of environmental aspects is an important step towards recognizing their impacts on our planet. This proves helpful in setting and formulating objectives, targets, and other programs that may be directed towards solving environmental problems.*

### 1. Definition of Environmental Aspect

Environmental Aspect is an element of an organization's activities, products or services that can interact with the environment. There are two types of environmental aspects:

(i) **Direct Environmental Aspect** Activities over which a company can be expected to have an influence and control. For example, emissions from processes.

(ii) **Indirect Environmental Aspect** Actual or Potential activities over which the organization can be expected to have an influence, but no control. For example, supply chain controlled aspects, customer controlled aspects, aspects managed elsewhere within the same company.

### 2. Identification of Environmental Aspects

(a) Identify Activities, Services and Products.

(b) Draw up an inventory of all operations and processes, identify releases (normal, abnormal, accidental, and emergency situations).

(c) Consider direct and indirect environmental aspects.

(d) Consider:

- Emissions to air.
- Release to water.
- Waste Management.
- Contamination of land.
- Impact on communities.
- Use of raw materials and natural resources.
- Other local environmental and community issues.

### 3. Records of Environmental Aspects

- Review based on sound understanding of environmental issues associated with the process.
- Check that both Direct and Indirect Environmental Aspects have been included.
- Check the method of assigning significance.
- Check that both actual and potential aspects have been included.
- Check that legislative requirements have been taken in view.

# Environmental Aspect and Impact: The Basics

*In the study of environment, it is essential to identify each possible environmental aspect and impact of it on our surroundings. The various environmental aspects each have a number of different impacts on the environment. Potential impacts must also be identified.*

## 1. Commonly Used Definitions in the Study of Environmental Aspect and Impact

1.1. **Environmental Impact** Any change to the environment whether adverse or beneficial (wholly or partially) resulting from an organization's activities products or services.

1.2. **Significant Impact** The activity that results in substantial breach of statutory regulations under abnormal conditions.

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## 2. Identification of Environmental Aspect and Impact



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*Inputs and Outputs of a manufacturing process*

## 3. Cause and Effect

**Activity** Spray Painting

**Aspect** Emissions of Solvent to air

**Impact** Global Warming plus Ozone Depletion

**Activity** At start up of spray painting

**Aspect** Emissions of Solvent to water

**Impact** Water Pollution

**Activity** Spray on to the ground for 5 seconds  
**Aspect** Contamination of land  
**Impact** Land Pollution

#### 4. Potential Environmental Impacts

Let us now list out a number of environmental aspects. We shall discuss each environmental aspect and impact that each has on the environment

##### 4.1 Natural Resources

**Possible Aspect** Over consumption

**Impact** Depletion of minerals, raw materials, and energy sources

**Possible Aspect** Habitat destruction

**Impact** Depletion of living resources

##### 4.2 Air

**Possible Aspect** CO<sub>2</sub>, CH<sub>4</sub> fossil fuel combustion

**Impact** Global warming

**Possible Aspect** CFCs, halons, other chlorinated compounds

**Impact** Ozone layer depletion

**Possible Aspect** SO<sub>2</sub> Nox NH<sub>3</sub>

**Impact** Acid precipitation

**Possible Aspect** Automobile, bus, truck emissions

**Impact** Rising ground level ozone

**Possible Aspect** Industrial emissions : evaporation

**Impact** Exposure to hazardous gases

**Possible Aspect** Energy installations

**Impact** Exposure to smoke

**Possible Aspect** Nuclear installation, wastes, natural sources

**Impact** Exposure to radioactivity

##### 4.3 Land

**Possible Aspect** Hazardous or radioactive waste, air deposition

**Impact** Contamination

**Possible Aspect** Mining, construction, drainage

**Impact** Disturbance and soil erosion, loss of soil cover, water logging, disturbs groundwater, loss of habitats

##### 4.4 Visual, Noise, Nuisance

**Possible Aspect** Construction  
**Impact** Visual

**Possible Aspect** Production, processes, waters  
**Impact** Dust

**Possible Aspect** Machinery, traffic  
**Impact** Odor, noise, vibration