

Business, Environment & Ethics

Module-I

Concept of Business Environment

Business environment may be considered as asset of factors that influence the functioning and effectiveness of a business. Interacting and transacting with the environment is the basic need of every business organization. Thus there is a mutual interdependence between business and the environment.

According to Keith Davis, “Business environment is the aggregate of all conditions, events and influence that surrounds and affect it”.

Business environment means all of the internal and external factors that affect how the **company** functions including employees, customers, management, supply and demand and **business** regulations.

Nature of Business Environment:

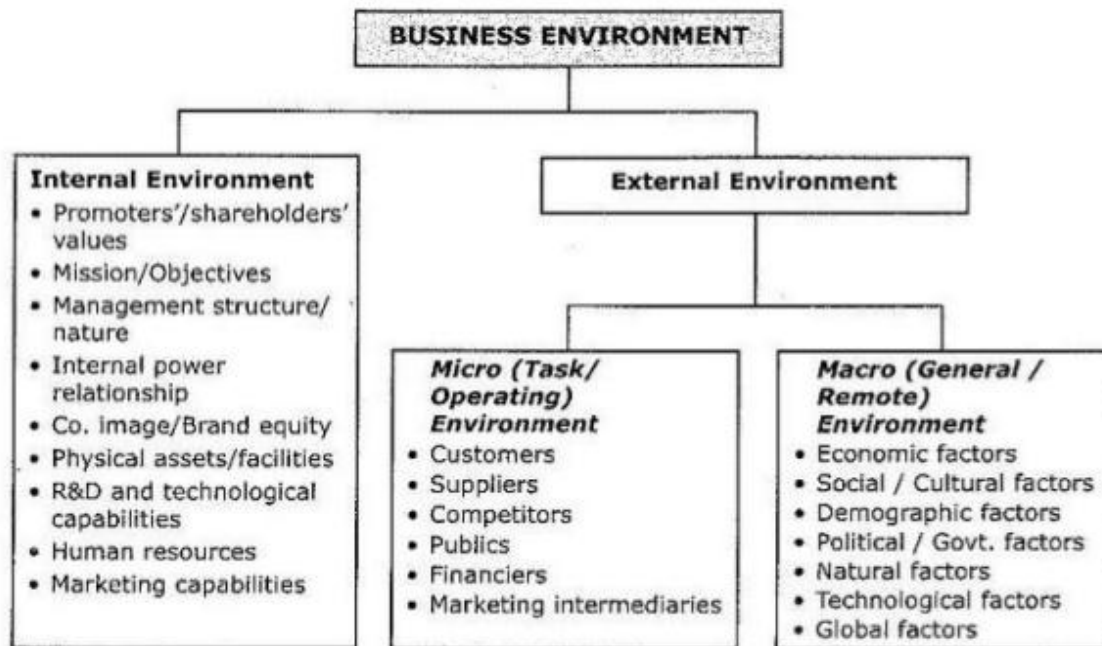
1. Environment is Inseparable from business: the most essential element of any business is the environment. No business can function without its environment- legal, political, social, cultural and economic environment.
2. Environment is Dynamic: it is difficult for any business environment to remain constant for a long period of time. Thus, environment considered dynamic in nature. The environmental factors undergo changes according to the tastes and preferences of the customer.
3. Business lack control over environment: business environment keeps on changing continuously. Business can influence the internal environment not the external environment.
4. Internal and external factors: there are internal and external factors which influence the business environment. The factors such as business objective, policies, staff members etc. Combine to form the internal environment. Whereas, the external environment comprise of micro and macro factors. The micro factors involve consumers, competitors, suppliers, society, etc.

Importance of business environment

- **First mover advantages:** Grab the early opportunity in the market which allow the enterprise to stay ahead from their competitors. **Ex- Maruti Udyog(need of the middle class people-small car)**
- **Early warning signal:** Its all about **environmental awareness**. early signal for the enterprise against upcoming threat. (Maruti proved itself against the new entrant by tripling its production--- esteem to provide quick customer delivery).
- **Customer focus:** facilitates the company to cater the changing tastes and preferences of the customer. (ex- introduction of HUL – small sachet of shampoo)
- **Strategy formulation:** environmental analysis- provide various relevant information – for future plan .(ITC – recognise – scope in travel and tourism- opened new hotel)
- **Image building:** build company’s positive image in the mind of the customer. **Big Bazaar**

Classification:

Components of Business Environment



Internal environment:

Environment that has a direct influence on the business is termed as internal environment. The internal factors which influence the business environment are controllable in nature. Hence, the factors like physical facilities, and organisation and functional means can be revised and transformed as per the requirements of the environment.

The internal factors basically include **the inner strengths and weaknesses**. Internal factors can affect how a company meets its objectives. **Some examples of areas which are typically considered in internal factors are:**

- Financial resources like **funding, investment opportunities and sources of income**.
- Physical resources like **company's location, equipment, and facilities**
- Human resources like **employees, target audiences, and volunteers**
- Access to **natural resources, patents, copyrights, and trademarks**
- Current processes like **employee programs, software systems, and department hierarchies**

The strategy and decision of internal organization is determined by the following key internal factors:

Value system: the selection of business, its mission, vision, and objectives, business policies and practices are all elements of value system in an organisation.

Mission and Vision and objectives: vision is a broader view to define the future prospects of the business. Vision aids in meeting the objectives of the business organisations.

Management structure and nature: generally, business decisions are persuaded by the organizational structure. This structure comprises of board of directors, managers, executives. The number of members in an organizational structure determines the durations of decision making.

Internal power relationship: the coordination between the levels of organizational structure is very important. The three levels, i.e. top, middle, bottom level must have mutual relationship among them. This helps to organisation to function smoothly.

Human resource: human resource is the key component of any organisation. They define the strength and weakness of an organisation. The essential requirements of human resource include skills, quality commitment, sincerity, right attitude.

Company image and brand equity: the internal environment of the enterprise is affected by the image that it carries in the outside market. The image of the organisation helps in raising capital, mergers and other alliances etc.

Internal factors affect the business in various ways:

- **Organizational and operational**
- Operational and administrative procedures.
- This includes disorganized or inaccurate record keeping.
- Interruptions to your supply chain and outdated or faulty IT systems are also factors you should evaluate.
- If the company does not overcome these, customers might see you as unreliable. You can also lose all your data.
- **Example: online purchase, or any retail outlet, payment through NEFT**

Strategic risks

- These affect the firm's ability to reach the goals in the [business plan](#).
- They could be **due to the impacts of changes in technological evolutions or customer demand**.
- These factors could **pose as threats as they can alter how customers perceive your product**. Based on these, customers might think a product is **overpriced, dull and outdated**.
- **Example- Voltas Stabilizer**

Innovation

- Business needs *innovation* in order to keep up with competitors. It is essential to get one step ahead.
- Innovation could come in the form of [marketing](#). It could also be through **promotional initiatives in the marketing plan, staff training, and welfare**.
- A lack of innovation can pose a serious risk to a growing business.
- Example: **Motorola, Nokia, Kodak** (failed in communication technology)

Financial

- The financial risks depend on the financial structure of the business.
- It is also dependent on the business transactions and the financial systems. **For example, changes in interest rates or being overly reliant on one customer could affect business**.
- **Example: car loan, house loan, study loan etc.**

Employee risks

- Employees are vital to business success.
- But, there are risks associated with them.
- For an industry, strike action could lead to a lot of problems.

External environment:

Those factors which are beyond the control of business enterprise are included in external environment.

- 1. micro environment
- 2. macro environment

Micro factors are closely related to the company.

- Example- the micro environment of a restaurant can be its **customers, other restaurants, suppliers of raw material, human resources etc.**

Micro Environment

- **Suppliers**
- **Customers**
 - Wholesalers
 - Retailers
 - Industries
 - Government and Other Institutions
 - Foreigners
- **Market Intermediaries**
 - Middleman
 - Marketing Agencies
 - Financial Intermediaries
 - Physical Intermediaries
- **Competitors**
- **Public**

Suppliers: suppliers are those who supply raw materials components and machines to the business enterprise. The suppliers are an important micro factor in the business environment. They should be trustworthy and cordial with business enterprise. This will help the enterprise to attain the customer expectation and companies will become free from the burden of keeping heavy stocks.

Customer: customers are the most important element of the business enterprise. The main aim of any business is to attract and retain its customers. This helps the business to attain long term survival and profitability. Therefore, to increase the level of loyal customers, business enterprise should carefully observe the needs and wants of the customers and fulfil them effectively. The business enterprises must also analyse the changing tastes and preference of the customers and make changes in its product and services accordingly.

Marketing Intermediaries:

Intermediaries are those who act as a mediator between the manufacturer and final consumer. The number of marketing intermediaries varies according to size and type of distribution network. Market intermediaries are beneficial to the organisation only when there is a proper coordination between channel without any hurdle.

Competitors: the organisation which manufacture similar products and try to conquer over the market share are termed as competitors. To earn more profit and stay competitive, the company needs to monitor the competitor's activities and then prepare its future plan.

General public: the general public is also an indispensable part of business environment. The positive and negative responses of the public directly influences company's image. This can also affect the sales and revenue of the company.

Macro Environment:

Macro environment prevails outside the business enterprise. If company has to change on the basis of macro environment, then it has to change many areas **like production, marketing, management.**

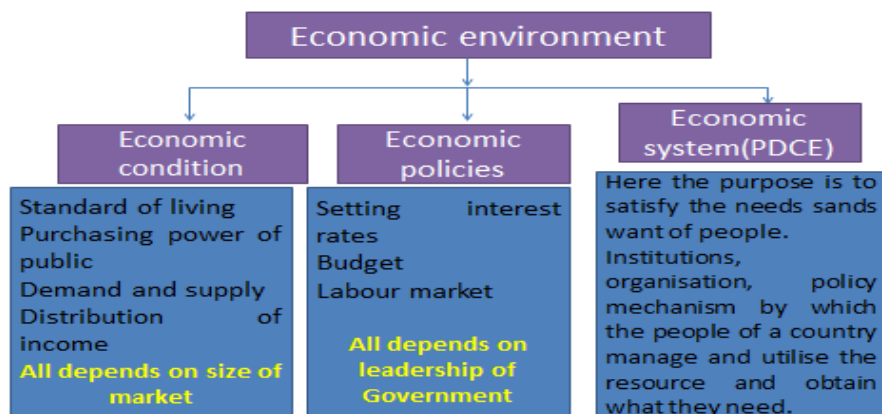
Macro environment are

1. Economic environment:

It relates to **production and distribution** of wealth of the country/ region. It also pay with the word **demand and supply** of a business of an organisation. It also said that from **financial perspective** of a business firm. These also determine the feasibility of a country or a region for the conduct of a particular business from a financial perspective. The economic conditions of a country include the nature of the economy, the stage of development of the economy, economic resources, the level of income, the distribution of income and assets.

The purchasing power of consumers and consumer confidence or insecurities strongly influences and impact the demand for the products and services of an organisation.it is an important element of the economic environment. In management decisions of all businesses, the economic environment comes up for prime consideration.

1. Economic environment



2. Socio-cultural environment:

Socio- cultural environment is a collection of social factors affecting a business and includes social traditions, values and beliefs, level of literacy and education the ethical standards and state of society, the extent of social stratification, conflict and cohesiveness and so forth.

Social culture adopted by Indians

1. **Language** : Sometimes a firm faces language problems like ford faced when they introduced their truck brand named 'fiera' which means ugly old woman in spanish.
2. **Taste & Preference** : Taste & preference of a consumer also affects a product's demand, so companies have to modify their product accordingly.
3. **Dressing & Lifestyle**: These factors also impact the demand for a product.
4. **Religion** : Religious aspects also play a important role in creating & deteriorating the demand for a product.

2. Socio-cultural environment

A company which benefited due to socio cultural environment

- ❖ McDonalds made segment according to the demographic in Indian socities.
- ❖ McDonalds made their food according to religions in India.
- ❖ McDonalds believed in Total Quality Management.
- ❖ They offer food at affordable and convenience rates which gives direct benefit to them.



The Big Mac, McDonald's signature beef burger in 119 countries, is not served in India as cows are considered sacred in Hinduism.

3. Demographic environment:

It refers to the population that constitutes population size,

- growth rate of population,
- age,
- composition of the population,
- education level,
- caste,
- religion,
- race, income, assets ownership, home ownership, employment status, location.

It is the customer group for the business process.

- Demographic variables are:
- Age and life-cycle stage
- Gender
- Martial status
- Income
- Social classes
- Family size

For example, premium products such as high-end womens' clothing usually appeal to women with higher incomes. Conversely, people with comparatively lower incomes are more senitive to price and, therefore, may prefer purchasing discount products. People with lower incomes have less disposable income. Value is a major determinant in the products they purchase.

Hence, a company may best reach lower-income people through discount retailers and wholesalers and attract higher-income buyers in specialty retail shops.

Younger people under 35 are often the first consumers to purchase high-tech products like cell phones, electronic books and video games. Certain buying groups also have more buying power than others.

For example, there are about 76 million baby boomers in the United States, according to "Entrepreneur" online.

This is the single largest population segment. Baby Boomers spent \$400 billion more than any other age group, according to a June 2009 report by "Entrepreneur." Small business owners have much to gain by selling products to this population.

4. legal Political environment:

Political/Legal Factors

These factors define the legal and regulatory parameters within which a firm must operate.

Examples: Antitrust regulations, environmental protection, tax laws, employment laws, stability of government, foreign trade protection

Global: Form of government, political ideology, protectionist sentiment, terrorist activity, legal system, government's attitude toward foreign firms.

5. Technical environment:

Technology is knowledge of methods to perform certain tasks or solve problems pertaining to product and services.

The basic elements of technology:

- information on product design
- Production techniques
- Quality assurance measures
- Human resource development

Provide opportunities for businesses to adopt new breakthroughs, innovations, and inventions to cut costs and develop new products. A business producing confectionery like **Cadbury, Schweppes** examines **SLEPT factors in designing new products**. Technological change is particularly important today, for example, **the development of new technologies that have enabled variations on chocolate bars to be produced in an ice cream format**.

6. Natural environment:

Here the term is applied to ecological complex, include plants, animals, micro-organism, minerals, rock, water bodies. The natural environment is the set of living and non-living things on earth which occur in a state sustainably not influenced by humans. The term is most often applied to an ecological complex, which includes all of the plants; animal; microorganism; abiotic factors such mineral; rocks and magma; water bodies and atmosphere layers. There are extremely complex interaction between the living organisms and abiotic elements as well as meteorological influences

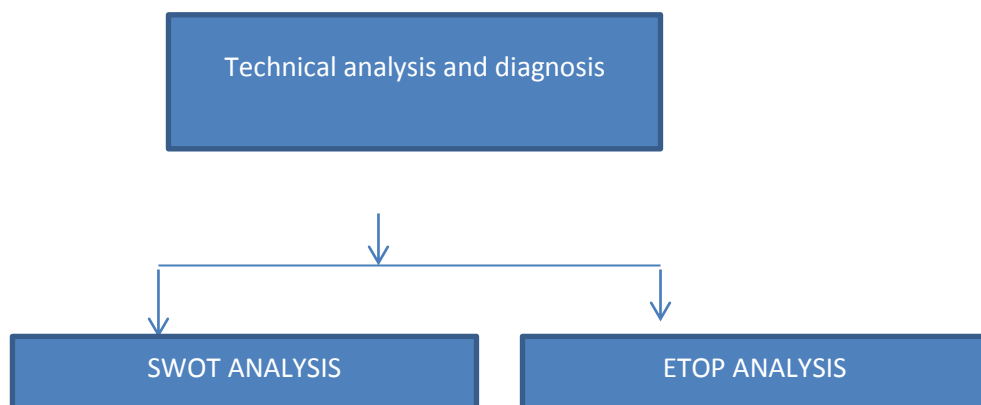
Components of natural environment are:

- **Land resources:** of all natural resources, land is certainly the important. Man and other living beings use it for their habitation.

- **Water resources:** water is a prime natural resource. It is required for satisfying one of the basic needs of humans. Thus, water has become a precious national asset.
- **Forest resources:** forests occupy an important place among natural resources of a country.
- **Mineral resources:** availability of mineral has a unique distinction of influencing the course of economic development of a country.

Technical analysis and diagnosis:

While analyzing the environment, the strategies should remember to select those techniques only that match the needs of organisation from every aspect. There are many techniques for analyzing the environment, among which some of the important techniques are as follows:



SWOT analysis:

It is the acronym for strength weakness opportunity threat, which outlines the current position of an organisation. It identifies that whether a company is in a good or bad market position. While the strengths and weakness are internal factors, the opportunities and threats are external to the organisation. Analyzing all these give a complete perspective to the managers regarding the external factors that influence the organisation or may influence in future.

It has two steps:

1. Identifying the internal and external factors of the organisations.
2. Formulating strategies to exploit the opportunities and defending the threat with the help of internal strength, as well as eliminating the internal weakness.

SWOT ANALYSIS

Strength	Weakness
Ex: special expertise, reputation, cost advantage, technology advantages	Ex: limited service lines, marketing deficiencies, management of staff problems
Opportunities	Threats
Ex: new technology, lack of dominant competition, new market or service	Ex: New or increased competition insurance plan changes, adverse demographic change, adverse govt. policies, economic slow down

Sample Strategic SWOT Analysis for a Hospital

Strengths <ul style="list-style-type: none"> • Design of the building. • Geographical location. • History and reputation. • Competent clinical staff members. • Comprehensive services. 	Weaknesses <ul style="list-style-type: none"> • High turnover rates. • Poor internal communication. • Lack of a website (in the era of internet). • Many of the non-clinical staff members lack English language and computer skills. • Lack of any well-recognized accreditation.
Opportunities <ul style="list-style-type: none"> • Acquiring a higher market share after being renovated and JCI-accredited. • An unsaturated market which can tolerate the opening of new branches and/or satellite clinics in strategic locations. • Affiliation with an American hospital /center /group and arrangement for periodic visits of its clinical experts. 	Threats <ul style="list-style-type: none"> • Potential competitors who will enter the market in the near future (whether local or international ones). • Increased power of the healthcare insurance companies which sent us more than 60% of the total cases admitted at our hospital last year.



What do you mean by Environmental?

Surroundings, external objects, influences or circumstances under which someone or something exists.

Why ETOP is needed?

1. Helps organisation to identify opportunities and threat.
2. To consolidates and strengthen organisation position.
3. Find out which sector is favorable impact on the organisation.

Preparation ETOP

1. Dividing the environment into different sector.
2. Analyzing the impact of each sector on the organisation.
3. Sub-dividing each environmental factor into sub factors.
4. Impact of each sub-factor on organisation in the form of statement.

FACTORS	COULD INCLUDE
Political	international trade, taxation policy
Economic	interest rates, exchange rates, national income, inflation, unemployment, Stock Market
Social	ageing population, attitudes to work, income distribution
Technological	innovation, new product development, rate of technological obsolescence
Environmental	global warming, environmental issues
Legal	competition law, health and safety, employment law

*** ETOP Analysis (Contd.)**

ETOP (Environmental threat and opportunity profile)

Environmental Sectors Impact of each sector

Social (↑) Customer preference for motorbike, which are fashionable, easy to ride and durable.

Political (→) No significant factor.

Economic (↑) Growing affluence among urban consumers; Exports potential high.

Regulatory (↑) Two Wheeler industries a thrust area for exports.

Market (↑)	Industry growth rate is 10 to 12 percent per year, For motorbike growth rate is 40 percent, largely Unsaturated demand
Supplier (↑)	Mostly ancillaries and associated companies supply parts and components, REP licenses for imported raw materials available.
Technological (↑)	Technological up gradation of industry in progress. Import of machinery under OGL list possible.

India's New Economic Policy 1991

The former Finance Minister of India Dr. Manmohan Singh under the stewardship of then Prime Minister Mr. P. V. Narsimha Rao, initiated the NEW ECONOMIC POLICY (NEP), in 1991, to integrate the Indian economy with the World market.

Since then, structural changes of various dimension and intensity brought in by Globalization and Liberalization processes have been experienced in different industries and enterprises in die country.

Some of the major effects of new economic policy (NEP) as follows:

1. Emergence of Knowledge Workers
2. Dwindling Trade Union Leadership
3. Emergence of Consumer Economy.

The main characteristics of new Economic Policy 1991 are:

1. De-licensing. Only six industries were kept under Licensing scheme.
2. Entry to Private Sector. The role of public sector was limited only to four industries; rest all the industries were opened for private sector.
3. Disinvestment. Disinvestment was carried out in many public sector enterprises.
4. Setting up of Small Scale Industries. Various benefits were offered to small scale industries.
5. Liberalization of Foreign Policy. The limit of foreign equity was raised to 100% in many activities, i.e., NRI and foreign investors were permitted to invest in Indian companies.
6. Liberalization in Technical Area. Automatic permission was given to Indian companies for signing technology agreements with foreign companies.
7. Setting up of Foreign Investment Promotion Board (FIPB). This board was set up to promote and bring foreign investment in India.

Three Major Components or Elements of New Economic Policy:

There are three major components or elements of new economic policy- Liberalisation, Privatization, Globalization. (LPG)

1. Liberalization:

Liberalization refers to end of licence, quota and many more restrictions and controls which were put on industries before 1991.

Indian companies got liberalization in the following way:

- (a) Abolition of license except in few.
- (b) No restriction on expansion or contraction of business activities.
- (c) Freedom in fixing prices.
- (d) Liberalization in import and export.
- (e) Easy and simplifying the procedure to attract foreign capital in India.
- (f) Freedom in movement of goods and services
- (g) Freedom in fixing the prices of goods and services.

2. Privatization:

Privatization refers to giving greater role to private sector and reducing the role of public sector. To execute policy of privatization government took the following steps:

- (a) Disinvestment of public sector. i.e., transfer of public sector enterprise to private sector.
- (b) Setting up of Board of Industrial and Financial Reconstruction (BIFR). This board was set up to revive sick units in public sector enterprises suffering loss.
- (c) Dilution of Stake of the Government. If in the process of disinvestments private sector acquires more than 51% shares then it results in transfer of ownership and management to the private sector.

3. Globalization:

It refers to integration of various economies of world. Till 1991 Indian government was following strict policy in regard to import and foreign investment in regard to licensing of imports, tariff, restrictions, etc. but after new policy government adopted policy of globalization by taking following measures:

- (i) Liberal Import Policy. Government removed many restrictions from import of capital goods.
- (ii) Foreign Exchange Regulation Act (FERA) was replaced by Foreign Exchange Management Act (FEMA)
- (iii) Rationalization of Tariff structure
- (iv) Abolition of Export duty.
- (v) Reduction of Import duty.

As a result of globalization physical boundaries and political boundaries remained no barriers for business enterprise. The Whole world becomes a global village.

Globalization involves greater interaction and interdependence among the various nations of global economy.

Impact of Changes in Economic Policy on the Business or Effects of Liberalisation and Globalisation:

The factors and forces of business environment have lot of influence over the business. The common influence and impact of such changes in business and industry are explained below:

1. Increasing Competition.

After the new policy, Indian companies had to face all round competition which means competition from the internal market and the competition from the MNCs. The companies which could adopt latest technology and which were having large number of resources could only survive and face the competition. Many companies could not face the competition and had to leave the market.

2. More Demanding Customers:

Prior to new economic policy there were very few industries or production units. As a result there was shortage of product in every sector. Because of this shortage the market was producer-oriented, i.e., producers became key persons in the market.

But after new economic policy many more businessmen joined the production line and various foreign companies also established their production units in India.

3. Rapidly Changing Technological Environment:

Before or prior to new economic policy there was a small internal competition only. But after the new economic policy the world class competition started and to stand this global competition the companies need to adopt the world class technology.

To adopt and implement the world class technology the investment in R & D department has to increase. Many pharmaceutical companies increased their investment in R and D department from 2% to 12% and companies started spending a large amount for training the employees.

4. Necessity for Change:

Prior to 1991 business enterprises could follow stable policies for a long period of time but after 1991 the business enterprises have to modify their policies and operations from time to time.

5. Need for Developing Human Resources:

Before 1991 Indian enterprises were managed by inadequately trained personnel's. New market conditions require people with higher competence skill and training. Hence Indian companies felt the need to develop their human skills.

6. Market Orientation:

Earlier firms were following selling concept, i.e., produce first and then go to market but now companies follow marketing concept, i.e., planning production on the basis of market research, need and want of customer.

7. Loss of Budgetary Support to Public Sector:

Prior to 1991 all the losses of Public sector were used to be made good by government by sanctioning special funds from budgets. But today the public sectors have to survive and grow by utilizing their resources efficiently otherwise these enterprises have to face disinvestment.

On the whole the policies of Liberalisation, Globalisation and Privatisation have brought positive impacts on Indian business and industry. They have become more customer focus and have started giving importance to customer satisfaction.

8. Export a Matter of Survival:

The Indian businessman was facing global competition and the new trade policy made the external trade very liberal. As a result to earn more foreign exchange many Indian companies joined the export business and got lot of success in that. Many companies increased their turnover more than double by starting export division.

Example, the Reliance Group(RIL), Videocon Group, MRF Tyres, Ceat Tyres, etc. got a great hold in the export market.

Industrial Policy

It is an strategic attempt to influence the growth of various sectors. For the industrial development, specific roles are allocated to the different types of **industrial organisation like public, private, joint and cooperative sectors.**

What are the roles of industrial policy?

- Formulation o labour policy
- Tariff policy
- fiscal policy
- Monetary policy

According to world bank, "Industrial policy comprises government efforts to alter industrial structure to promote productivity based growth".

INDUSTRIAL POLICY 1991

- **In pursuit of the above objectives, Government have decided to take a series of initiatives in respect of the policies relating to the following areas.**
 - A. Industrial Licensing.**
 - B. Foreign Investment.**
 - C. Foreign Technology Agreements.**
 - D. Public Sector Policy.**
 - E. MRTP Act.**

INDUSTRIAL POLICY 1991

- **Industrial licensing:**
 - **Modified industrial licensing policy to ease restrictions on capacity creation, respond to emerging domestic & global opportunities by improving productivity**
 - **Abolished industrial licensing for most industries but for 18 categories**
 - **Small scale sector reserved**
- **Foreign Investment:**
 - **FDI (up to 51% foreign equity) permitted in high priority industries (high investment and advanced technology) & export oriented companies**

INDUSTRIAL POLICY 1991

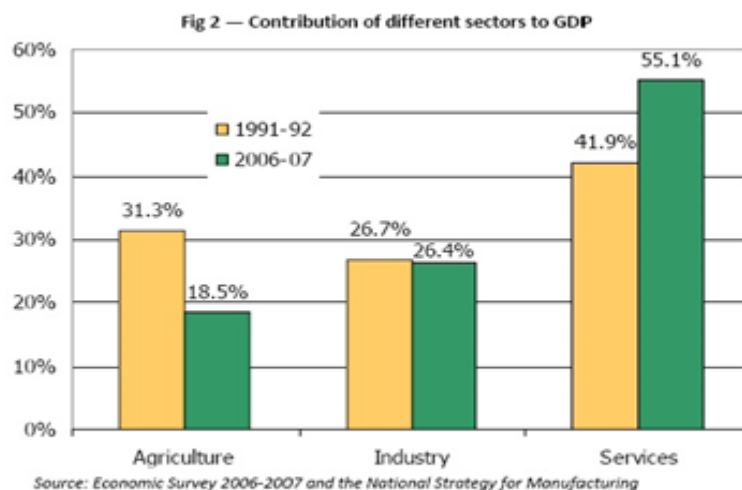
- **Foreign Technology Agreements:**
 - **Towards technological dynamism, automatic approval for technological agreements related to high priority industries; eased procedures for hiring foreign technical expertise**
- **Public Sector Policy:**
 - Restructuring public sector units, raise resources through public participation PSUs, refer sick units to Board of Industrial & Financial Reconstruction**
- **MRTP Act:**
 - **Abolished scrutiny of investment decision of MRTP companies etc.**

Industrial Policy Resolution 1956

- **Objectives:**
 - **Improvement in living standards and working conditions for the mass of the people.**
 - **Reduction in income and wealth disparities**
 - **Prevention of private monopolies and concentration of economic power in different fields in the hands of small numbers of individuals.**

Industrial Policy Resolution 1956

- **Progressively predominant and direct responsibility for the State in setting up new industrial undertakings and for developing transport facilities**
- **Undertake State trading on an increasing scale.**
- **Equal opportunity for the private sector to develop and expand.**



Importance of industrial policy

- **Establishes co-ordination:** industrial policy helps to establish co-ordination between various areas such as industry and agricultural development, public and private sector and capital and physical resources.
- **Directs national resources:** national resources have to direct the areas where there is a scarce resource.
- **Prevent economic power concentration:** it prevents from monopoly capitalism, the wealth and economic power.

- **Proper control:** industrial policy enables different to have proper control over the establishment and development of private sector enterprises in compliance with the national objectives.

National level industrial policies:

- **Industrial policy resolution 1948:** after the independence, India was going through the issue related with the partition of the country like scarcity of food, loss of land and property, rehabilitation of people, reformation of states.
- Labour leaders are realised but, Indian capitalists were not in power. In order to get rid of this situation, government formulated industrial policy resolution 1948.

Industrial policy resolution 1956

- Industrial policy became socialist –oriented with the resolution of 1956 which helped the public sector to widen their scope.
- This resolution was based on the Mahalanobis model. This model said that the long term growth can only be achieved by dealing in heavy industries.

Industrial policy resolution 1973:

- In this resolution joint sector idea suggested by the Dutt committee. Licensing was made strict and it had a strong favouritism for the large and heavy enterprises.

Industrial policy resolution 1977:

This resolution passed by Janta party, the ruling government at that time. The main aim was to improve the living conditions of the people. The policy were as follows:

- 1. Prevention of economic power concentration and monopoly.
- 2. Production of consumer goods at maximum level.
- 3. Enabling industries to respond towards the needs of the society.

Industrial policy resolution 1980

After defeating Janta party, Congress government introduced new industrial policy.

The main aim was to benefit masses of the society by fast and reasonable industrialisation.

Policy includes:

1. Creation of employment at large scale.
2. Maximise the production.
3. Supporting industrially weak areas for their development.
4. Development in agriculture.
5. Focusing on import and export oriented business.
6. Protection of consumers against costly and poor quality product.

State level industrial policies:

Economic reforms adopted in the 1990s deeply modified India's macro-economic environment, as well as the trade and investment regimes. By rewriting the rules of economic governance in India's federal democracy, reforms have had far-reaching consequences on the relations between the union and the states.

In post-reform India, state government have grater policy space and more scope for influencing social and economic outcomes. In this context, state level policies are starting to receive garter attention than in the past.

Below mentioned some important state level policies of some major state:

1. Andhra Pradesh: thrust awarded to development of the projects by desalination power purchase agreements with private developer.
2. Gujarat:
Strong encouragement to private sector participations development of ports, power stations, desalination of water supply.
3. Haryana: an industrial model township with Japanese assistance Indo-German industrial park, a software technology park and export promotion industrial park are coming up in the state.
4. Kerala: steps have already been taken to initiate private participation in selected areas like power, ports and road develop.
5. Orissa: the FDI in the industrial promotion and investment corporation of Orissa will act as a single window for investment by non- resident Indians and foreign investors.

MODULE- II

ENVIRONMENTAL ISSUES AND CONTROLLING MEASURES CAUSE, EFFECT AND CONTROL MEAURES OF POLLUTION

Air Pollution in India:

The presence in or introduction into the air of a substance which has harmful or poisonous effects.

What is Air pollution?

Pollution is now a common place term that our ears are attuned to. We hear about the various forms of pollution and read about it through the mass media. Air pollution is one such form that refers to the contamination of the air, irrespective of indoors or outside.

A physical, biological or chemical alteration to the air in the atmosphere can be termed as pollution. It occurs when any harmful gases, dust, smoke enters into the atmosphere and makes it difficult for plants, animals and humans to survive as the air becomes dirty.

Air pollution can further be classified into two sections-

1. Visible air pollution and
2. Invisible air pollution.

The Ozone layer considered crucial for the existence of the ecosystems on the planet is depleting due to increased pollution. Global warming, a direct result of the increased imbalance of gases in the atmosphere has come to be known as the biggest threat and challenge that the contemporary world has to overcome in a bid for survival.

Air Pollutants:

They are the substances which pollute the air. Some of the common pollutants are dust, soot, ash, carbon monoxide, excess of carbon dioxide, Sulphur dioxide, oxides of nitrogen, hydrocarbons, chlorofluorocarbons (CFC), lead compounds, asbestos dust, cement dust, pollens and radioactive rays.

Sources of Air Pollution:

The pollution of air can be caused by natural processes or by human activities. The sources of air pollution are classified into two groups:

1. Natural Sources
2. Manmade sources

Natural Sources of Air Pollution: They are dust storms, forest fires, ash from smoking volcanoes, decay of organic matters and pollen grains floating in air.

Manmade Sources of Air Pollution:

They are population explosion, deforestation, urbanization and industrialization, whose effects can be explained as follows:

1. Burning of fuels like wood, cow dung cakes, coal and kerosene in homes pollute the air.
2. Exhaust gases emitted by motor vehicles which pollute the air are the major source of air pollution in big cities.
3. Industries pollute air by releasing various types of pollutants such as sulphur dioxide, oxides of carbon, nitrogen oxide, chlorine, asbestos dust and cement dust.
4. **Manmade Sources of Air Pollution:**
5. 4. Thermal power plants pollute air by emitting sulphur dioxide and fly-ash.
6. 5. Nuclear power plants pollute air by releasing radioactive rays.
7. 6. Use of fertilizers and pesticides in agriculture pollute the air.
8. 7. Mining activities releases particulate matter into the air and pollutes it.
9. 8. Indiscriminate cutting of trees and clearing of forests increases the amount of carbon dioxide in the atmosphere and thereby pollutes it.
10. 9. Use of chlorofluorocarbons in refrigeration, fire extinguishers and aerosol sprayers pollutes air by depleting the ozone layer.
11. 10. Smoke pollutes air by emitting carbon monoxide.

Other Causes of Air pollution:

1. **Burning of Fossil Fuels:** Sulfur dioxide emitted from the combustion of fossil fuels like coal, petroleum and other factory combustibles is one the major cause of air pollution. Pollution emitting from vehicles including trucks, cars, trains, airplanes cause immense amount of pollution. We rely on them to fulfill our daily basic needs of transportation.

But, there overuse is killing our environment as dangerous gases are polluting the environment. Carbon Mono-oxide caused by improper or incomplete combustion and generally emitted from vehicles is another major pollutant along with Nitrogen Oxides, that is produced from both natural and manmade processes.

Other Causes of Air pollution:

2. **Agricultural activities:** Ammonia is a very common by product from agriculture related activities and is one of the most hazardous gases in the atmosphere. Use of insecticides, pesticides and fertilizers in agricultural activities has grown quite a lot. They emit harmful chemicals into the air and can also cause water pollution.

3. **Exhaust from factories and industries:** Manufacturing industries release large amount of carbon monoxide, hydrocarbons, organic compounds, and chemicals into the air thereby depleting the quality of air.

Manufacturing industries can be found at every corner of the earth and there is no area that has not been affected by it. Petroleum refineries also release hydrocarbons and various other chemicals that pollute the air and also cause Agricultural land/soil pollution.

Eg. Taj Mahal getting yellowish-black because of Mathura Refinery

4. **Mining Operations:** Mining is a process wherein minerals below the earth are extracted using large equipment. During the process dust and chemicals are released in the air causing massive air pollution. This is one of the reason which is responsible for the deteriorating health conditions of workers and nearby residents.

5. **Indoor air pollution:** Household cleaning products, painting supplies emit toxic chemicals in the air and cause air pollution. You may have noticed that once you paint walls of your house, it creates some sort of smell which makes it literally impossible for you to breathe.

Suspended particulate matter popular by its acronym SPM, is another cause of pollution. Referring to the particles afloat in the air, SPM is usually caused by dust, combustion etc.

Effects of Air pollution

1. **Respiratory and Heart problems:** The effects of Air pollution are alarming. They are known to create several respiratory and heart conditions along with Cancer, among other threats to the body. Several millions are known to have died due to direct or indirect effects of Air pollution. Children in areas exposed to air pollutants are said to commonly suffer from pneumonia and asthma.

2. **Global Warming:** Another direct effect is the immediate alterations that the world is witnessing due to Global warming.

With increased temperatures worldwide, increase in sea levels and melting of ice from colder regions and icebergs, displacement and loss of habitat have already signaled an impending disaster if actions for preservation and normalization aren't undertaken soon.

3. **Acid Rain:** Harmful gases like nitrogen oxides and sulfur oxides are released into the atmosphere during the burning of fossil fuels. When it rains, the water droplets combine with these air pollutants, become acidic and then fall on the ground in the form of acid rain. Acid rain can cause great damage to human, animals and crops.

4. **Eutrophication:** Eutrophication is a condition where high amount of nitrogen present in some pollutants gets developed on sea's surface and turns itself into algae and adversely affect fish, plants and animal species. The green colored algae that is present on lakes and ponds is due to presence of this chemical only.

5. **Effect on Wildlife:** Just like humans, animals also face some devastating effects of air pollution. Toxic chemicals present in the air can force wildlife species to move to new place and change their habitat. The toxic pollutants deposit over the surface of the water and can also affect sea animals.

6. **Depletion of Ozone layer:** Ozone exists in earth's stratosphere and is responsible for protecting humans from harmful ultraviolet (UV) rays. Earth's ozone layer is depleting due to the presence of chlorofluorocarbons, hydro chlorofluorocarbons in the atmosphere. As ozone layer will go thin, it will emit harmful rays back on earth and can cause skin and eye related problems. UV rays also have the capability to affect crops.

Solutions to curb Air Pollution

1. **Use public mode of transportation:** Encourage people to use more and more public modes of transportation to reduce pollution. Also, try to make use of carpooling. If you and your colleagues come from the same locality and have same timings you can explore this option to save energy and money.
2. **Conserve energy:** Switch off fans and lights when you are going out. Large amount of fossil fuels are burnt to produce electricity. You can save the environment from degradation by reducing the amount of fossil fuels to be burned.
3. **Understand the concept of Reduce, Reuse and Recycle:** Do not throw away items that are of no use to you. In-fact reuse them for some other purpose. For e.g. you can use old jars to store cereals or pulses.
4. **Emphasis on clean energy resources:** Clean energy technologies like solar, wind and geothermal are on high these days. Governments of various countries including India have been providing grants to consumers who are interested in installing solar panels for their home. This will go a long way to curb air pollution.

Eg: The Canal in Gujarat and A village near Ladakh

5. **Use energy efficient devices:** CFL/LED lights consume less electricity as against their counterparts. They live longer, consume less electricity, lower electricity bills and also help you to reduce pollution by consuming less energy.

Some measures that can be adopted in this direction are:

1. Using unleaded petrol
 2. Using fuels with low Sulphur content
 3. Encouraging people to use public transport, walk or use a cycle as opposed to private vehicles
 4. Ensure that houses, schools, restaurants and playgrounds are not located on busy streets
 5. Plant trees along busy streets as they remove particulates, carbon dioxide and absorb noise
 6. Industries and waste disposal sites should be situated outside the city preferably on the downwind of the city.
 7. Catalytic converters should be used to help control emissions of carbon monoxide and hydrocarbons
- Control measures in Industrial Centers...

1. Emission rates should be restricted to permissible levels by each and every industry and that must be monitored by National Green Tribunal (NGT).
2. Incorporation of air pollution control equipment in design of plant layout must be made mandatory NGT.
3. Continuous monitoring of the atmosphere for pollutants should be carried out to know the emission levels by NGT.

Water & Marine Pollution in India

Water Pollution

Our Earth is with about 70% of its cover being water, it undeniably becomes one of our greatest resources. As young students, we learned about the various ways to conserve water; coming to think of it, water is used in almost every important human chores and processes.

It is an important element in both domestic as well as industrial purposes. However a closer inspection of our water resources today, give us a rude shock!!!

Water Pollution has taken toll of all the surviving species of the earth. Almost 60% of the species live in water bodies.

It occurs due to several factors; the industrial wastes dumped into the rivers and other water bodies cause an imbalance in the water leading to its severe contamination and death of aquatic species.

Also spraying insecticides, pesticides like DDT on plants pollutes the ground water system and oil spills in the oceans have caused irreparable damage to the water bodies. Eutrophication is another big source; it occurs due to daily activities like washing clothes, utensils near lakes, ponds or rivers; this forces detergents to go into water which blocks sunlight from penetrating, thus reducing oxygen and making it inhabitable.

Water pollution not only harms the aquatic beings but it also contaminates the entire food chain by severely affecting humans dependent on these. Water-borne diseases like cholera, diarrhoea have also increased in all places.

Water pollution is an appalling problem, powerful enough to lead the world on a path of destruction. Water is an easy solvent, enabling most pollutants to dissolve in it easily and contaminate it. The most basic effect of water pollution is directly suffered by the organisms and vegetation that survive in water, including amphibians. On a human level, several people die each day due to consumption of polluted and infected water.

As per the "Economist Report" (in 2008) each day over 1000 children die of diarrheal sickness in India and the numbers have only increased alarming in the last five years.

Water is polluted by both natural as well as man-made activities. Volcanic eruptions, earthquakes, Tsunamis etc are known to alter water and contaminate it, also affecting ecosystems that survive under water.

Sources of Water Pollution

There are various classifications of water pollution. The two chief sources of water pollution can be seen as ... Point and Non Point

Point refer to the pollutants that belong to a single source. An example of this would be emissions from factories into the water.

Non Point on the other hand means pollutants emitted from multiple sources. Contaminated water after rains that has traveled through several regions may also be considered as a Non point source of pollution.

Causes of Water Pollution

1. **Industrial Waste:** Industries produce huge amount of waste which contains toxic chemicals and pollutants which can cause air pollution and damage to us and our environment. They contain pollutants such as lead, mercury, sulphur, asbestos, nitrates and many other harmful chemicals. Many industries do not have proper waste management system and drain the waste in the fresh water which goes into rivers, canals and later in to sea.

The toxic chemicals have the capability to change the color of water, increase the amount of minerals, also known as Eutrophication, change the temperature of water and pose serious hazard to water organisms.

2. **Sewage and Waste Water:** The sewage and waste water that is produced by each household is chemically treated and released in to sea with fresh water. The sewage water carries harmful bacteria and chemicals that can cause serious health problems. Pathogens are known as a common water pollutant; The sewers of cities house several pathogens and thereby diseases.

Microorganisms in water are known to be causes of some very deadly diseases and become the breeding grounds for other creatures that act like carriers. These carriers inflict these diseases via various forms of contact onto an individual. A very common example of this process would be Malaria.

3. Mining activities: Mining is the process of crushing the rock and extracting coal and other minerals from underground. When these elements extracted in the raw form contains harmful chemicals and can increase the amount of toxic elements when mixed up with water which may result in health problems.

Mining activities emit several metal waste and sulphides from the rocks and is harmful for the water.

4. Marine Dumping: The garbage produce by each household in the form of paper, aluminum, rubber, glass, plastic, food if collected and deposited into the sea in many a countries. These items take from 2 weeks to 200 years to decompose. When such items enter the sea, they not only cause water pollution but also harm animals in the sea.

5. Accidental Oil leakage: Oil spill pose a huge concern as large amount of oil enters into the sea and does not dissolve with water; there by opens problem for local marine wildlife such as fish, birds and sea otters.

For e.g.: A Ship carrying large quantity of oil may spill oil if met with an accident and can cause varying damage to species in the ocean depending on the quantity of oil spill, size of ocean, toxicity of pollutant.

6. Burning of fossil fuels: Fossil fuels like coal and oil when burnt produce substantial amount of ash in the atmosphere. The particles which contain toxic chemicals when mixed with water vapor result in acid rain. Also, carbon dioxide is released from burning of fossil fuels which result in global warming.

7. Chemical Fertilizers and Pesticides: Chemical fertilizers and pesticides are used by farmers to protect crops from insects and bacterial infections. They are useful for the plants growth. However, when these chemicals are mixed up with water produce harmful for plants and animals. Also, when it rains, the chemicals mixes up with rainwater and flow down into rivers and canals which pose serious damages for aquatic animals.

8. Leakage from sewer lines: A small leakage from the sewer lines can contaminate the underground water and make it unfit for the people to drink. Also, when not repaired on time, the leaking water can come on to the surface and become a breeding ground for insects and mosquitoes.

Eg: Cases from Cuttack & Sambalpur

11. Urban Development: As population has grown, so has the demand for housing, food and cloth. As more cities and towns are developed, they have resulted in increase use of fertilizers to produce more food, soil erosion due to deforestation, increase in construction activities, inadequate sewer collection and treatment, landfills as more garbage is produced, increase in chemicals from industries to produce more materials.

12. Leakage from the landfills: Landfills are nothing but huge pile of garbage that produces awful smell and can be seen across the city. When it rains, the landfills may leak and the leaking landfills can pollute the underground water with large variety of contaminants.

13. Animal Waste: The waste produce by animals is washed away into the rivers when it rains. It gets mixed up with other harmful chemicals and causes various water borne diseases like cholera, diarrhea, jaundice and typhoid.

14. Underground storage leakage: Transportation of coal and other petroleum products through underground pipes is well known. Accidentals leakage may happen anytime and may cause damage to environment and result in soil erosion.

Control measures of Water Pollution...

- Administration of water pollution control should be in the hands of state or central government...
- Scientific techniques should be adopted for environmental control of catchment areas of rivers, ponds or streams...
- Industrial plants should be based on recycling operations as it helps prevent disposal of wastes into natural waters but also extraction of products from waste...
- Plants trees and create forest covers to control pollution as they act as natural air conditioners...
- Trees are capable of reducing sulphur dioxide and nitric oxide pollutants and hence more trees should be planted.
- No pollutants/waste (treated, partially treated or untreated) should be discharged into any natural water body.
- Industries should develop closed loop water supply schemes and domestic sewage must be used for irrigation after purification process.
- Qualified and experienced experts must be consulted from time to time for effective control of water pollution.

- Public awareness must be initiated regarding adverse effects of water pollution across media platforms.
- Laws, standards and practices should be established to prevent water pollution and these laws should be modified from time to time based on current requirements and technological advancements. This has been achieved by the formation of NGT.
- Basic and applied research in public health engineering should be encouraged by the current Govt. Eg: Swachh Bharat India Campaign by Govt. India

Marine Pollution

Pollution can then be defined as any form of contamination in an ecosystem with a harmful impact upon the organisms in this ecosystem, by changing the growth rate and the reproduction of plant or animal species, or by interfering with human amenities, comfort, health, or property values. In a broader sense, the terms contamination and pollution also include any physical modification that alters the energy or radiation flow in an environment (such as a heat source or a radioactive element), or even the presence of an invasive species. Hence, marine pollution as defined by the Group of Experts on the Scientific Aspects of Marine Pollution (GESAMP), as part of the basic framework of the UN Convention on the Law of the Sea (UNCLOS) 1982 (Article 1.4), is: “the introduction by man, directly or indirectly, of substances or energy into the marine environment (including estuaries) resulting in such deleterious effects as harm to living resources, hazards to human health, hindrance to marine activities including fishing, impairment of quality for use of sea water, and reduction of amenities.”

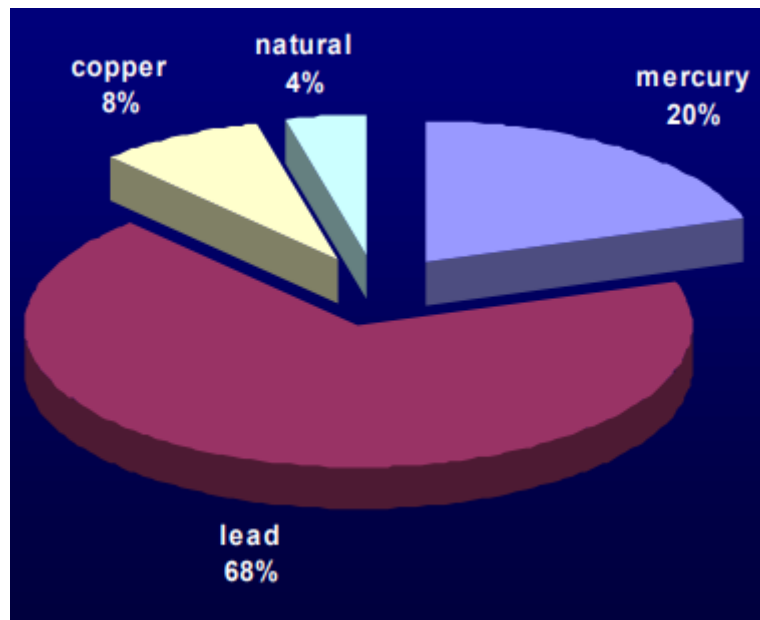
Types of Marine Pollution

- Sedimentation
- Agricultural runoff (herbicides, pesticides and nutrients)
- Energy (thermal and light)
- Sewage (Faecal Coliform and nutrients)
- Solid Waste
- Chemicals, Metals and Radioactive Substances
- Oil
- Biological **Major Marine Pollutants Worldwide**
- 10 billion tonnes of ballast water with invasives
- Est. 10,000 million gallons of sewage annually
- 3.25 million metric tonnes of oil annually
- Millions of tonnes of Solid waste

Major Marine Pollutants – Metals

- Introduced dangerous metals include mercury, lead, and copper
- Heavy Metals Heavy Metals Heavy Metals are a great concern because they enter the food chain
- Fuel combustion, electric utilities, steel and iron manufacturing, fuel oils, fuel additives and incineration of urban refuse are the major sources of oceanic and atmospheric contamination by heavy metals
- Copper is dangerous to marine organisms and has been used in marine anti-fouling paints
- Mercury and lead poisoning cause brain damage and behavioral disturbances in children
- Contaminated land runoff, rain of pollutants from the air, and fallout from shipwrecks pollute the ocean with dangerous metals
- Human activities release 5 times as much mercury and 17 times as much lead as is derived from natural sources.

Heavy Metals Entering Oceans

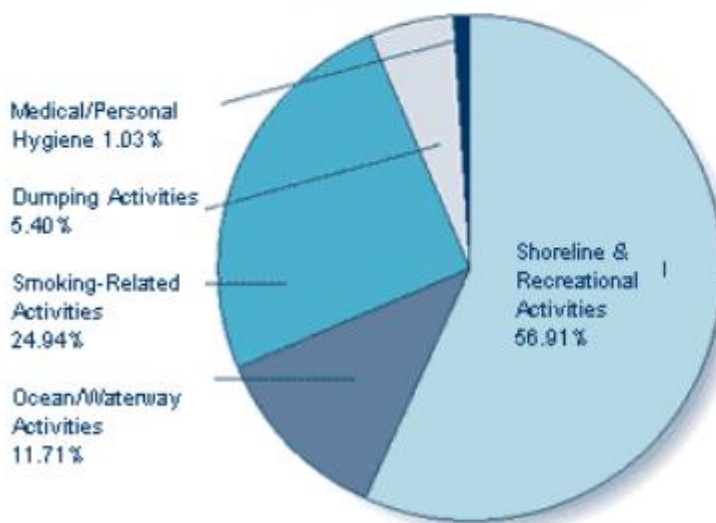


Major Marine Pollutants - Solid Waste

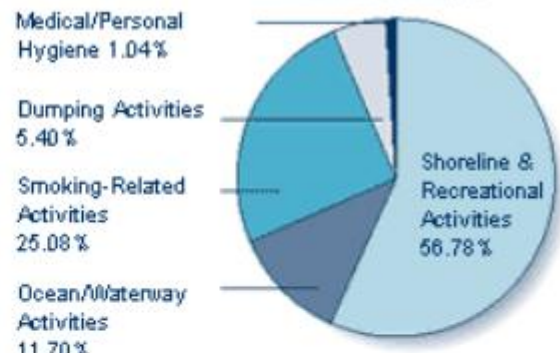
International – Marine Debris Sources

Debris Collected from...

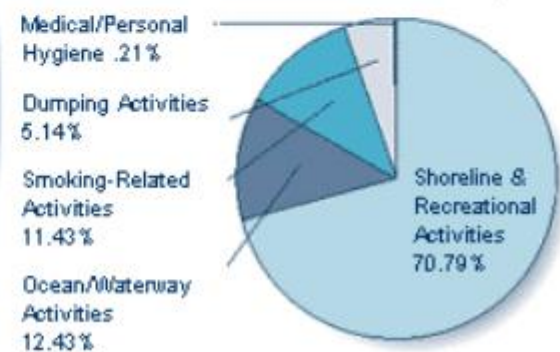
...Land and Underwater Cleanups



...Land Cleanups



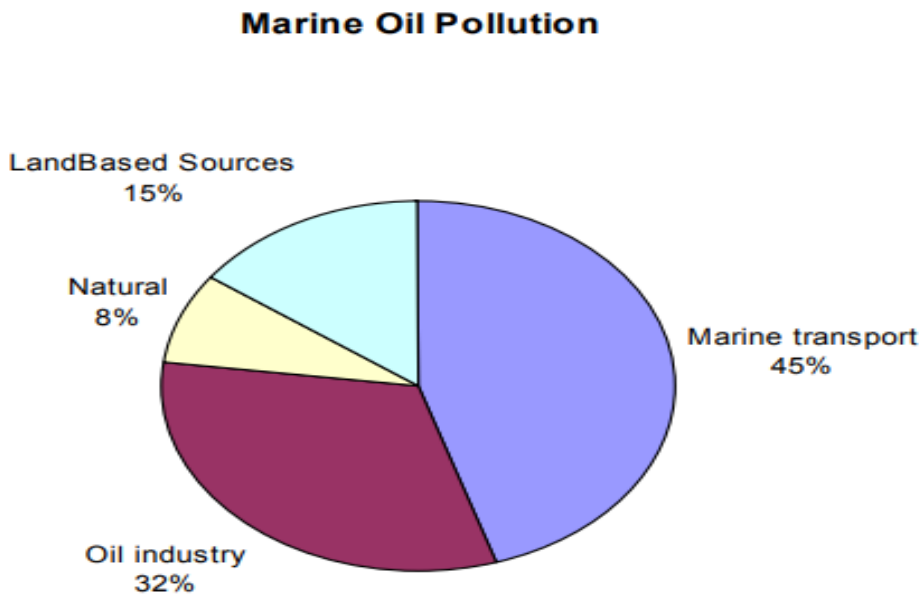
...Underwater Cleanups



- A large portion and great danger is non biodegradable plastic
- 46,000 pieces of floating plastic/sq mile of ocean surface off the N.E U.S. coast.
- Sea turtles mistake plastic bags for jellyfish and die from internal blockages.

- Seals and sea lions starve after being entangled by nets or muzzled by six-pack rings (decomposition time 400 years).
- Plastic debris kills 100,000 marine mammals and 2 million sea birds die annually

Major Marine Pollutants - Oil



Major Marine Pollutants - Biological

International Maritime Organization top ten: Cholera, Cladoceran Water Flea, Mitten Crab, toxic algae (R,G,B tides), Round Goby, European Green Crab, Asian kelp, Zebra Mussel, North Pacific Seastar, North American Comb Jelly.

- Spreading infestation of Jamaican waters by a Green mussel

Sources of Pollution

From Land

- 80% of non-biological marine pollution comes from land based activities
- Most obvious inputs via pipes discharging directly into marine waters(sewage, industrial,chemical and food processing wastes)
- Riverine flows into the sea carry pollutants from the entire catchment area.

From Air

- Global atmospheric inputs to the sea from air discharges

Maritime

- Oily discharges from ballast water and bilge water) during routine ship operations and illegal dumping of solid waste
- Designated dumping grounds at sea (dredged spoil, old munitions, sewage sludge, fly ash, oil based drilling muds)
- Accidental spills from Ships carrying hazardous substances, oil, gas etc.

Impacts of Marine Pollution

Generally marine pollution affects ecosystem health, public health, recreational water quality and economic viability in the following ways:

- Mechanical
- Eutrophication
- Saphrogenic
- Toxicity
- Mutagenic and Carcinogenic

Solutions to Pollution

Two main methods

- Correction – costly and time intensive

– Prevention – requires attitude changes

Coastal Scientists believe that prevention is better than cure since the effects of marine pollution may be irreversible and we may therefore be creating everlasting damage to the marine ecosystem. “An ounce of prevention is worth a pound of cure”.

Marine Pollution Conventions

There are no less than 6 international marine pollution conventions. Some are listed below:

- Convention for the Prevention of Marine Pollution by Dumping from Ships and Aircraft (1972) The Oslo Convention
- Convention for the prevention of pollution from ships (1973) MARPOL
- Convention for the Prevention of Marine Pollution from Land-based Sources (1974) The Paris Convention
- Convention for the Protection of the Marine Environment of the North-East Atlantic (1992) The OSPAR Convention

Soil Pollution in India

Soil contamination or soil pollution is caused by the presence of xenobiotic (human-made) chemicals or other alteration in the natural soil environment. It is typically caused by industrial activities, agricultural use of chemicals, or improper disposal of waste.

With the rise of concrete buildings and roads, one part of the Earth that we rarely see is the soil. It has many different names, such as dirt, mud and ground. However, it is definitely very important to us.

The plants that feed us grow in soil and keeping it healthy is essential to maintaining a beautiful planet. However, like all other forms of nature, soil also suffers from pollution. The pollution of soil is a common thing these days, and it happens due to the presence of man made elements.

The main reason why the soil becomes contaminated is due to the presence of man made waste. The waste produced from nature itself such as dead plants, carcasses of animals and rotten fruits and vegetables only adds to the fertility of the soil.

However, our waste products are full of chemicals that are not originally found in nature and lead to soil pollution.

Main Causes of Soil Pollution

1. Industrial Activity: Industrial activity has been the biggest contributor to the problem in the last century, especially since the amount of mining and manufacturing has increased. Most industries are dependent on extracting minerals from the Earth.

Whether it is iron ore or coal, the by products are contaminated and they are not disposed off in a manner that can be considered safe. As a result, the industrial waste lingers in the soil surface for a long time and makes it unsuitable for use.

2. Agricultural Activities: Chemical utilization has gone up tremendously since technology provided us with modern pesticides and fertilizers. They are full of chemicals that are not produced in nature and cannot be broken down by it. As a result, they seep into the ground after they mix with water and slowly reduce the fertility of the soil. Other chemicals damage the composition of the soil and make it easier to erode by water and air. Plants absorb many of these pesticides and when they decompose, they cause soil pollution since they become a part of the land.

3. Waste Disposal: A growing cause for concern is how we dispose of our waste. While industrial waste is sure to cause contamination, there is another way in which we are adding to the pollution. Every human produces a certain amount of personal waste products by way of urine and human waste.

While much of it moves into the sewer the system, there is also a large amount that is dumped directly into landfills in the form of diapers. Even the sewer system ends at the landfill, where the biological waste pollutes the soil and water. This is because our bodies are full of toxins and chemicals which are now seeping into the land and causing pollution of soil.

4. Accidental Oil Spills: Oil leaks can happen during storage and transport of chemicals. This can be seen at most of the fuel stations. The chemicals present in the fuel deteriorates the quality of soil and make them unsuitable for cultivation. These chemicals can enter into the groundwater through soil and make the water undrinkable.

Eg: News Reports Kerosene type material

5. Acid Rain: Acid rain is caused when pollutants present in the air mixes up with the rain and fall back on the ground. The polluted water could dissolve away some of the important nutrients found in soil and change the structure of the soil.

Effects of Soil Pollution

1. **Effect on Health of Humans:** Considering how soil is the reason we are able to sustain ourselves, the contamination of it has major consequences on our health. Crops and plants grown on polluted soil absorb much of the pollution and then pass these on to us. This could explain the sudden surge in small and terminal illnesses.

Eg: News Report of Ban of sale of Leafy Vegetables in Bhopal from specific areas

2. **Effect on Growth of Plants:** The ecological balance of any system gets affected due to the widespread contamination of the soil. Most plants are unable to adapt when the chemistry of the soil changes so radically in a short period of time. Fungi and bacteria found in the soil that bind it together begin to decline, which creates an additional problem of soil erosion.

The fertility slowly diminishes, making land unsuitable for agriculture and any local vegetation to survive. The soil pollution causes large tracts of land to become hazardous to health. Unlike deserts, which are suitable for its native vegetation, such land cannot support most forms of life.

3. **Decreased Soil Fertility:** The toxic chemicals present in the soil can decrease soil fertility and therefore decrease in the soil yield. The contaminated soil is then used to produce fruits and vegetables which lacks quality nutrients and may contain some poisonous substance to cause serious health problems in people consuming them.

4. **Toxic Dust:** The emission of toxic and foul gases from landfills pollutes the environment and causes serious effects on health of some people. The unpleasant smell causes inconvenience to other people.

5. **Changes in Soil Structure:** The death of many soil organisms (e.g. earthworms) in the soil can lead to alteration in soil structure. Apart from that, it could also force other predators to move to other places in search of food.

Solution:

A number of ways have been suggested by experts to curb the current rate of soil pollution. Such attempts at cleaning up the environment require plenty of time and resources to be pitched in.

Industries have been given regulations for the disposal of hazardous waste, which aims at minimizing the area that becomes polluted. Organic methods of farming are being supported, which do not use chemical laden pesticides and fertilizers.

Use of plants that can remove the pollutants from the soil is being encouraged. However, the road ahead is quite long and the prevention of soil pollution will take many more years.

1. Make people aware about the concept of Reduce, Recycle and Reuse.
2. Reduce the use of pesticides and fertilizers in agricultural activities.
3. Avoid buying packages items as they will lead to garbage and end up in landfill site.
4. Ensure that you do not litter on the ground and do proper disposal of garbage.
5. Buy biodegradable products.
6. To practice Organic gardening and eat organic food that will be grown without the use of pesticides.
7. Create dumping ground away from residential areas.

Noise Pollution in India

Definition...

“Noise pollution takes place when there is either excessive amount of noise or an unpleasant sound that causes temporary disruption in the natural balance”.

Most of us are very used to the sounds we hear in everyday life. Loud music, the television, people talking on their phone, the traffic and even pets barking in the middle of the night. All of these have become a part of the urban culture and which rarely disturb us.

This definition is usually applicable to sounds or noises that are unnatural in either their volume or their production. Our environment is such that it has become difficult to escape noise. Even electrical appliances at home have a constant hum or beeping sound.

By and large, lack of urban planning increases the exposure to unwanted sounds.

Causes of Noise Pollution

1. **Industrialization:** Most of the industries use big machines which are capable of producing large amount of noise. Apart from that, various equipment's like compressors, generators, exhaust fans, grinding mills also participate in producing big noise. Therefore, you all must have seen workers in these factories and industries wearing ear plugs to minimize the effect of noise.

2. **Poor Urban Planning:** In most of the developing countries, poor urban planning also play a vital role. Congested houses, large families sharing small space, fight over parking, frequent fights over basic amenities leads to noise pollution which may disrupt the environment of society.

3. **Social Events:** Noise is at its peak in most of the social events. Whether it is marriage, parties, pub, DJ or place of worship, people normally flout rules set by the local administration and create nuisance in the area. People play songs on full volume and dance till midnight which makes the condition of people living nearby pretty worse. In markets, you can see people selling clothes via making loud noise to attract the attention of people.

4. **Transportation:** Large number of vehicles on roads, Aero planes flying over houses, trains produce heavy noise and people get it difficult to get accustomed to that. The high noise leads to a situation wherein a normal person lose the ability to hear properly.

5. **Construction Activities:** Under construction activities like mining, construction of bridges, dams, buildings, roads, flyovers take place in almost every part of the world. These construction activities take place everyday as we need more buildings, bridges to accommodate more people and to reduce traffic congestion. The important point is that these construction equipment's are too noisy.

6. **Household Chores:** We people are surrounded by gadgets and use them extensively in our daily life. Gadgets like TV, mobile, mixer grinder, pressure cooker, vacuum cleaners, washing machine, dryer, cooler, and air conditioners are minor contributors to the amount of noise that is produced but it affects the quality of life of your neighborhood in a bad way.

While this form of pollution may seem harmless, it in fact has far reaching consequences. The adverse effects on the human health as well as of the environment are quite severe. Not only is the local wildlife affected by the pollution, humans also facing a number of problems due to it.

Effects of Noise Pollution

1. **Hearing Problems:** Any unwanted sound that our ears have not been built to filter can cause problems within the body. Our ears can take in a certain range of sounds without getting damaged. Man made noises such as hammers, horns, machinery, airplanes and even vehicles can be too loud for our hearing range.

Constant exposure to loud levels of noise can easily result in the damage of our ear drums and loss of hearing. It also reduces our sensitivity to sounds that our ears pick up unconsciously to regulate our body's rhythm.

2. **Health Issues:** Excessive noise pollution in working areas such as offices, construction sites, bars and even in our homes can influence psychological health.

Studies show that the occurrence of aggressive behavior, disturbance of sleep, constant stress, fatigue and hypertension can be linked to excessive noise levels. These in turn, can cause more severe and chronic health issues later in the life span.

3. **Sleeping Disorders:** Loud noise can certainly hamper your sleeping pattern and may lead to irritation and uncomfortable situations. Without a good night sleep, it may lead to problems related to fatigue and your performance may go down in office as well as at home. It is therefore recommended to take a sound sleep to give your body proper rest.

4. **Cardiovascular Issues:** Blood pressure levels, cardio-vascular disease and stress related heart problems are on the rise. Studies suggest that high intensity noise causes high blood pressure and increases heart beat rate as it disrupts the normal blood flow.

5. **Trouble Communicating:** High decibel noise can put trouble and may not allow two people to communicate freely. This may lead to misunderstanding and you may get difficult understanding the other person. Constant sharp noise can give you severe headache and disturb your emotional balance.

6. **Effect on Wildlife and Animals:** Wildlife faces far more problems than humans because noise pollution since they are more dependent on sound. Animals develop a better sense of hearing than us since their survival depends on it. The ill effects of excessive noise begin at home. Pets react more aggressively in households where there is constant noise.

Solutions:

As of now, there are many solutions to reduce sound pollution. On a personal level, everybody can help reducing the noise in their homes by lowering the volume of the radio, music system and the television. Listening to music with headphones is also a good step forward. Removal of public loudspeakers is another way in which the pollution can be countered, controlling the sound levels in clubs, bars, parties and discos.

Better urban planning can help in creating 'No-Noise' zones, where honking / hooting and industrial noise is not tolerated. It is only when our understanding noise pollution is complete, can we take steps to eradicate this issue completely.

Nuclear Hazards

What is Nuclear Energy?

Nuclear energy is the energy stored in the nucleus of an atom. It is being used to produce electricity. The enormous energy that is stored in the bonds that hold atoms together can be released by two processes: nuclear fission or nuclear fusion.

What is Radioactive/Nuclear Waste?

“Radioactive wastes are wastes that contain radioactive material. Radioactive wastes are usually by-products of nuclear power generation and other applications of nuclear fission or nuclear technology, such as research and medicine. Radioactive waste is hazardous to most forms of life and the environment, and is regulated by government agencies in order to protect human health and the environment.”

The process to produce electricity from nuclear reactor is similar to most types of reactor. The only difference is that “chain reaction” is used to produce the heat. Nuclear power plants use nuclear fission to produce electricity.

A nuclear power reactor uses uranium rods as nuclear fuel to generate heat that will be used to generate electricity. Carbon dioxide and water is then used to take the heat away to produce steam. The steam then turn turbines which drives the generators and generate electricity.

Nuclear Energy Pros and Cons

As of today, nuclear energy is considered as one of the most environmentally friendly source of energy as it produces fewer greenhouse gas emissions during the production of electricity as compared to traditional sources like fossil fuel based power plant and coal power plants. Nuclear fission is the process that is used in nuclear reactors to produce high amount of energy using element called “**Uranium**”.

Pros of Nuclear Energy

1. **Low Pollution:** Nuclear power also has a lot fewer greenhouse emissions. It has been determined that the amount of greenhouse gases have decreased by almost half because of the prevalence in the utilization of nuclear power. Nuclear energy has the least effect on nature since it doesn't discharge any gasses like methane and carbon dioxide, which are the primary “greenhouse gasses.” There is no unfavorable impact on water, land or any territories because of the utilization of nuclear power.
2. **Low Operating Costs:** Nuclear power produces very inexpensive or cheaper electricity cost wise. The cost of the uranium, which is utilized as a fuel in this process, is low. Also, even though the expense of setting up nuclear power plants is moderately high, the expense of running them is quite low. The normal life of nuclear reactor is anywhere from 40-60 years, depending on how often it is used and how it is being used. These variables, when consolidated, make the expense of delivering power low. Even if the cost of uranium goes up, the impact on the cost of power will be that much lower.
3. **Reliability:** It is estimated that with the current rate of consumption of uranium, we have enough uranium for another 70-80 years. A nuclear power plant when in the mode of producing energy can run uninterrupted for even a year. Unlike solar and wind energy are dependent upon weather conditions, nuclear power plant has no such constraints and can run without disruption in any climatic condition.
4. **More Proficient than Fossil Fuels:** The other primary point of interest of utilizing nuclear energy is that it is more compelling and more proficient than other energy sources. A number of nuclear energy innovations have made it a much more feasible choice than others. They have high energy density as compared to fossil fuels. The amount of fuel required by nuclear power plant is comparatively less than what is required by other power plants as energy released by nuclear fission is approximately ten million times greater than the amount of energy released by fossil fuel atom.

Cons of Nuclear Energy

1. **Environmental Impact:** One of the biggest issues is environmental impact in relation to Uranium. The process of mining and refining uranium hasn't been a clean process. Actually transporting nuclear fuel to and from plants represents a pollution hazard. Also, once the fuel is used, you can't simply take it to the landfill – it's radioactive and is very dangerous for human health.
 2. **Radioactive Waste Disposal:** As a rule, a nuclear power plant creates 20 metric tons of nuclear fuel per year, and with that comes a lot of nuclear waste. When you consider each nuclear plant on Earth, you will find that that number jumps to approximately 2,000 metric tons a year.
- The interesting part of this waste transmits radiation and high temperature, implying that it will inevitably consume any compartment that holds it. It can also cause damage to living things in and around the plants.

3. Nuclear Accidents: The radioactive waste produced can pose serious health effects on the lives of people as well as the environment. The Chernobyl accident that occurred on 26 April 1986 at the Chernobyl Nuclear Power Plant in Ukraine was the worst nuclear accident in the history. Its harmful effects on humans and ecology can still be seen today. Then there was another accident that happened in Fukushima in Japan followed by a huge tsunami. Although the casualties were not that high, but it caused serious environmental concerns.

4. High Cost: At present, the nuclear business let waste cool for a considerable length of time before blending it with glass and putting away it in enormous cooled, solid structures. This waste must be kept up, observed and watched to keep the materials from falling into the wrong hands and causing problems. These administrations and included materials cost cash – on top of the high expenses needed to put together a plant, which may make it less desirable to invest in. It requires permission from several international authorities and it is normally opposed by the people who live in that region.

Eg: US President Calls for Nuclear safety last week

5. Uranium is Finite: Just like other sources of fuel, Uranium is also finite and exists in few of the countries. It is pretty expensive to mine, refine and transport uranium. It produces considerable amount of waste during all these activities and can result in environmental contamination and serious health effects, if not handled properly.

6. Hot Target for Militants: Nuclear energy has immense power. Today, nuclear energy is used to make weapons. If these weapons go into the wrong hands, that could be the end of this world. Nuclear power plants are prime target for terrorism activities. Little lax in security can be brutal for mankind.

The Future of Nuclear Power

Nuclear energy is a powerful force. Attempts have been made to find other constructive ways of harnessing it. Nuclear power is an important source of energy in many countries. 442 nuclear reactors are now operating worldwide with a total power producing capacity of 300,000 MW. Two and a half times this number will be added by 2030 and four times as many by 2050, says the International Atomic Energy Agency (IAEA), the stronghold of the global nuclear community.

Higher oil and gas prices make alternatives such as nuclear power more attractive and are expected to lead to growth in nuclear generating capacity worldwide.

Improvements in reactor design enhance safety, increase efficiency, and reduce costs, making nuclear generation an economically attractive source of energy. Many countries, including the UK, have recently affirmed their intention to continue their use of nuclear energy for . Nuclear waste disposal or radioactive waste management is an important part of nuclear power generation and there are a number of very important and strict guidelines that have to be followed by nuclear power plants and other companies

Dangers / Hazards of Nuclear Waste disposal...

1. Long Half Life: The products of nuclear fission have long half lives, which means that they will continue to be radioactive – and therefore hazardous- for many thousands of years. This means that, if anything were to happen to the waste cylinders in which nuclear Since hazardous nuclear waste is often not sent off to special locations to be stored

2. Storage: Another problem with nuclear waste disposal that is still being discussed today is the issue of storage. Many different storage methods have been discussed throughout history, with very few being implemented because of the problematic nature of storing such hazardous material that will remain radioactive for thousands of years. Amongst the suggestions that were considered as above ground storage, ejection into space, ocean disposal and disposal into ice sheets.

3. Affects on Nature: One of the biggest concerns that the world has with the disposal of nuclear waste is the affect the hazardous materials could have on animals and plant life. Although most of the time the waste is well sealed inside huge drums of steel and concrete, sometimes accidents can happen and leaks can occur. Nuclear waste can have drastically bad effects on life, causing cancerous growths, for instance, or causing genetic problems for many generations of animal and plants. Not disposing of nuclear waste properly can therefore have huge environmental impacts that can harm many millions of animals and hundreds of animal species.

Effects of Nuclear Waste Disposal

1. Accidents: Although most of the time a lot of emphasis is placed on the safe disposal of nuclear waste, accidents do occur. Throughout history there have unfortunately been a number of examples of times where radioactive material was not disposed of in the proper ways. This has resulted in a number of disastrous

situations, including nuclear waste being spread by dust storms into areas that were populated by humans and animals and contaminated of water, whether ponds, rivers or even the sea. These accidents can have disastrous knock on effects for the animals that reside in or around these areas or that rely on the water of lakes or ponds to survive.

Drinking water can become contaminated, too, which is absolutely disastrous for locals and residents close to the epicenter of the disaster. Even if nuclear waste just seeps into the ground, it can eventually get into reservoirs and other water sources and, from there, can reach the homes of people who unwittingly drink high radioactive material. There are examples of these sorts of accidents from all over the world and from all time periods, with severe accidents happening very rarely.

2. Scavenging: A particularly bad problem in developing nations, people often go scavenging for abandoned nuclear waste that is still radioactive. In some countries there is a market for these sorts of scavenged goods, which means that people will willingly expose themselves to dangerous levels of radiation in order to make money.

Usually, people who scavenge these sorts of materials will end up in hospital and may even die of problems related to or caused by the radioactive materials. Unfortunately, once someone has been exposed to nuclear waste, they can then expose other people who have not opted to go scavenging for nuclear waste to radioactive materials.

Eg: The DU Case & the Russian Spy Case

3. Transportation: Transporting nuclear waste from power plants can occasionally result in problems. If poor shipping casks are used for the containment of radioactive material, for instance, then a slight knock or bump or even crash could cause the contents to spill and affect a wide radius. Despite all the cautions that are put into place when transporting nuclear waste, accidents still occur and can have a devastating effect on all those in the vicinity of the crash.

4. Health Effects: The biggest concern is the negative effects that can have on the human body when exposed to radiation. Long term effects to radiation can even cause cancer. It is interesting to know that we are exposed to radiations naturally by living our lives that comes from the ground below us. Radiation can cause changes in 'DNA' that ensures cell repair.

5. Expense: If one of these accidents does occur, the cost of cleaning everything up and making everything safe once again for people, animals and plants is very high. There is no simple or easy route when trying to clean up spilled radioactive material: instead, it can take years to ensure that an area is safe to live in or even to visit once again. In the case of very serious accidents, it may take many tens of years until things start growing or living normally once again.

Urban and Industrial Waste

What is Urban Waste?

Urban Solid Wastes are the material that arises from various human and economic activities. It is being produced since the beginning of civilization. Ever increasing population growth, urbanization and industrialization are contributing to the generation of solid waste in huge quantities.

Waste is enviable; waste is by product of human activity. The term waste refers to the useless material generated from different sources such as household, public places, hospital, commercial centre construction sites and production of waste from industries.

Types of Solid Wastes:

Depending on the nature of origin, solid wastes are classified into...

1. Urban Or Municipal Wastes
2. Industrial Wastes and
3. Hazardous Wastes

Sources of Urban Wastes:

Urban wastes include the following...

Domestic wastes: This containing a variety of materials thrown out from homes

Ex: Food waste, Cloth, Waste paper, Glass bottles, Polythene bags, Waste metals, etc.

Commercial wastes: It includes wastes coming out from shops, markets, hotels, offices, institutions, etc.

Ex: Waste paper, packaging material, cans, bottle, polythene bags, etc.

Construction wastes: It includes wastes of construction materials.

Ex: Wood, Concrete, Debris, etc.

Biomedical wastes: It includes mostly waste organic materials

Ex: Anatomical wastes, Infectious wastes, etc.

Classification of Urban Wastes...

Urban Waste can be classified through various methods on the basis of physical state (solid, liquid and gaseous) and then within solid waste.

Bio-Degradable Wastes - Those wastes that can be degraded by micro organisms are called bio-degradable wastes

Ex: Food, vegetables, animal/human excreta, dry plants/leaves, etc.

Non-Biodegradable Wastes: Urban solid waste materials that cannot be degraded by micro organisms are called non-biodegradable wastes.

Ex: Plastic bags, scrap metals, earthen pots, materials, glass bottles, etc.

The main source of industrial wastes are chemical industries, metal and mineral processing industries.

Ex: Nuclear Power plants: It generated radioactive wastes

Thermal power plants: It produces fly ash in large quantities

Chemical Industries: It produces large quantities of hazardous and toxic materials.

Other industries: Other industries produce packaging materials, rubber, organic wastes, acid, alkali, scrap metals, tyres, plastic, paper, glass, wood, oils, paints, dyes etc.

Effect of Improper Solid Waste Management:

Due to improper disposal of municipal solid waste on the roads and immediate surroundings, biodegradable materials undergo decomposition producing foul smell and become a breeding ground for various diseases.

Industrial solid wastes are the source for toxic metals and hazardous wastes that affect soil characteristics and productivity of soils when they are dumped on various landfills. Toxic substances may percolate into the ground and contaminate the groundwater.

Burning of industrial or domestic wastes (cans, pesticides, plastics, toxin materials and batteries) produce furans, dioxins and polychlorinated biphenyls that are harmful to human being.

Steps Involved In Solid Waste Management:

Two important steps involved in solid waste management are:

Reduce, Reuse and Recycle (#3R) of Waste Materials

Reduce - If usage of raw materials is reduced, the generation of waste also gets reduced...

Reuse - Refillable containers that are discarded after use can be reused, Eg: Rubber rings can be made from discarded tubes and this reduces waste generation during manufacturing of rubber bands.

Recycle- Recycling is the reprocessing of discarded materials into new useful products, Eg: Old aluminum cans and glass bottles are melted and re-casted into new cans and bottles or Preparation of cellulose insulation from waste paper, currency notes...

Discarding Wastes:

The following methods are adopted for discarding the wastes:

1. Landfill
2. Incineration /Burning and
3. Composting

LANDFILL: Solid wastes are placed in a sanitary landfill in which alternate layers of 80 cm thick refuse is covered with selected earth-fill of 20 cm thickness. After 2-3 years solid waste volume shrinks by 25-30% and land is used for parks, roads and small buildings. This is the most common and cheapest method of waste disposal and is mostly employed in Indian cities.

Advantages of Landfill...

- > It is simple and economical
- > Segregation of wastes is not required
- > Land filled areas can be reclaimed and used for other purposes
- > Converts low-lying, marshy waste-land into useful areas.
- > Natural resources are returned to soil and recycled.

Disadvantages:

- > Large area is required
- > Land availability is away from the town, transportation costs are very high
- > Leads to bad odour if landfill is not properly managed.
- > Land filled areas will be sources of mosquitoes and flies and require application of insecticides and pesticides.
- > Causes fire hazard due to formation of methane in wet weather.

Eg: Recent Fire @ Mulund Suburb

Incineration or Burning:

It is a hygienic way of disposing solid waste. It is suitable if waste contains more hazardous material and organic content. It is a thermal process and very effective for detoxification of all combustible pathogens. It is expensive when compared to composting or land filling.

In this method municipal solid wastes are burnt in a furnace called incinerator. Combustible substances such as rubbish, garbage, dead organisms and non-combustible matter such as glass, porcelain and metals are separated before feeding to incinerators. The non-combustible materials can be left out for recycling and reuse. The leftover ashes and clinkers may account for about 10 to 20% which need further disposal by sanitary landfill or some other means.

Incineration or Burning:

Advantages...

- > Residue is only 20-25% of the original and can be used as clinker after treatment
- > Requires very little space
- > Cost of transportation is not high if the incinerator is located within city limits
- > Safest from hygienic point of view
- > An incinerator plant of 3000 tons per day capacity can generate 3 Mega Watt of power.

Disadvantages...

- > Its capital and operating cost is high
- > Operation needs skilled personnel
- > Formation of smoke, dust and ashes needs further disposal and that may cause air pollution.

COMPOSTING

It is another popular method practiced in many cities in our country. In this method, bulk organic waste is converted into fertilizer by biological action.

Separated compostable waste is dumped in underground trenches in layers of 2 meters and finally covered with soil of 20 cm and left for decomposition. Sometimes, Actinomycetes are introduced for active decomposition. Within 2 to 3 days biological action starts. Organic matter is destroyed by Actinomycetes and lot of heat is liberated increasing the temperature of compost by 75 Centigrade and the refuse is finally converted into powdery brown coloured odour less mass called "Humus" that has a fertilizing value and can be used in agriculture. Humus contains lot of Nitrogen essential for plant growth apart from phosphates and other minerals.

COMPOSTING**Advantages...**

- > Manure added to soil increases water retention and ion-exchange capacity of soil.
- > This method can be used to treat several industrial solid wastes.
- > Manure can be sold thereby reducing cost of disposing wastes
- > Recycling can be done

Disadvantages...

- > Non-consumables have to be disposed separately
- > The technology has not caught-up with the farmers and hence does not have an assured market.

Industrial Waste

Control Measures of Urban and Industrial Wastes:

Indiscriminate disposal of solid wastes, especially of hazardous industrial wastes causes adverse environmental effects.

The main objective of solid waste management is to minimize these adverse effects before it becomes too difficult to rectify in the future.

Solid waste management is a manifold task involving many activities like:

1. Collection of solid wastes.
2. Disposal of solid wastes.
3. Waste utilization.

Collection of Solid Wastes:

Collection includes all the activities associated with the gathering of solid wastes and the hauling of the wastes collected to the location from where the collection vehicle will ultimately transport it to the site of disposal.

There are three basic methods of collection.

(a) Community storage point:

The municipal refuse is taken to fixed storage bins and stored till the waste collection agency collects it daily for disposal in a vehicle.

b) Kerbside Collection:

In advance of the collection time, the garbage is brought in containers and placed on the footway from where it is collected by the waste collection agency.

(c) Block Collection:

Individuals bring the waste in containers and hand it over to the collection staff who empties it into the waiting vehicle and returns the container to the individuals.

Disposal of Solid Wastes:

Before the solid waste is ultimately disposed of it is processed in order to improve the efficiency of solid waste disposal system and to recover usable resources out of the solid wastes.

The processing techniques such as compaction i.e. mechanical volume reduction or incineration i.e. thermal volume reduction and manual component separation i.e. manual sorting of the waste are employed to increase the efficiency of solid waste management.

Due to heterogeneity of the city's garbage it is important to select the most appropriate solid waste disposal method keeping in view the following objectives:

- (a) It should be economically viable i.e. the operation and maintenance costs must be carefully assessed.
- (b) It should not create a health hazard.
- (c) It should not cause adverse environmental effects.
- (d) It should not be aesthetically unpleasant i.e. it should not result in offending sights, odours, and noises.
- (e) It should preferably provide opportunities for recycling of materials.

The commonly used methods of disposal are:

(1) Salvage or Manual Component Separation:

Before ultimate disposal, the manual separation of solid waste components is accomplished to achieve the recovery and reuse of materials. Cardboard, newsprint, high quality paper, glass, metals, wood and aluminum cans etc. are manually sorted out or salvaged either for recycling or for resale.

(2) Compaction or Mechanical Volume Reduction:

After separation of reusable or disposable articles, compacters are used to compress the waste materials directly into large containers or to form bales that can be then placed in large containers. Compaction increases the useful life of landfills.

(3) Incineration or Thermal Volume Reduction:

Highly combustible wastes like plastics, cardboard, paper, rubber and combustible wastes like cartons, wood scrap, floor sweepings, food wastes etc. are subjected to incineration i.e. burning at very high

temperatures. Incineration results in air pollution and so proper control equipment needs to be installed to avoid contamination of environment.

(4) Open Dumping:

Open dumping of solid wastes is done in low lying areas and outskirts of the towns and cities. Being comparatively cheaper, this method of disposal is used extensively in India.

(5) Sanitary Land filling or Controlled Tipping:

Sanitary land filling involves the disposal of municipal wastes on or in the upper layers of the earth's mantle especially in degraded areas in need of restoration. In land filling, the solid wastes are compacted and spread in thin layers each layer being uniformly covered by a layer of soil.

(6) Land farming:

In this waste disposal method, the biodegradable industrial wastes are treated by the biological, physical and chemical processes occurring in the surface of the soil.

The organic wastes are either applied on top of the land or injected below the soil surface with suitable equipment, where they undergo bacterial and chemical decomposition. At frequent intervals, the land farming sites can be reused without any adverse effects provided the land farming site is properly managed.

(7) Composting or Biodegradation:

Bacterial decomposition of the organic components of the municipal solid wastes result in formation of humus or compost and the process is known as composting. In this process a compost pile is constructed by making alternate layers of organic matter and soil (source of micro-organisms).

Some fertilizer and water is periodically added to the compost pile to stimulate microbial (bacteria and fungi) action and to maintain the necessary moisture content (55%). Periodically, the garbage is turned over to allow aeration i.e. penetration of oxygen to all parts of the organic refuse to facilitate aerobic bacterial decomposition.

Waste Utilization:

A developing country cannot afford wastage. By proper utilization of solid waste a developing country like India can avail of many advantages, for instance:

- (a) Waste utilization directly or indirectly contributes to economic development.
- (b) Waste utilization generates employment* opportunities.
- (c) Unused solid wastes create environmental hazards by spreading diseases and causing air and water pollution.
- (d) Waste utilization helps in conservation of natural resources.
- (e) Waste utilization helps to generate many useful products which are the basic necessities of life.
- (f) Cattle dung is used in "gobar gas plants" for making cooking gas.
- (g) Cattle dung is used as a manure.
- (h) Garbage is used for making compost.
- (i) Waste paper is recycled to form paper, cardboard, good quality paper and paper bags etc.
- (j) Scrap glass is used in production of new glass.
- (k) Aquatic weeds like water Hyacinth (Eichhornia) is utilized by conversion into fertilizers, bio-gas, animal feed, paper etc.

Examples of Waste Utilization:

- (l) Plastic is recycled to make new packs, soft waxes, greases and adhesives etc.
- (m) Used tyres casings are reused in the manufacture of synthetic rubber and
- (n) Fly ash is used as a cement substitute to make bricks etc. Efforts are required to be made to minimize the generation of these wastes and to treat them to recover useful materials i.e. waste utilization, and to make the residual innocuous safe and harmless.

Natural Disaster

Natural disasters happen all over the world and they can be utterly devastating for people's lives and the environments in which they live.

Although natural disasters are caused by nature and there is nothing that we can do to prevent them happening, there are many different natural causes that lead to natural disasters, and being aware of these causes enables us to be better prepared when such disasters do arrive.

Flooding:

One common natural disaster is flooding, which occurs when a river bursts its banks and the water spills out onto the floodplain. This is far more likely to happen when there is a great deal of heavy rain, so during very wet periods, flood warnings are often put in place.

There are other risk factors for flooding too: steep-sided channels cause fast surface run-off, while a lack of vegetation or woodland to both break the flow of water and drink the water means that there is little to slow the floodwater down. Drainage basins of rainproof rock also cause the water to run faster over the surface.

Earthquakes:

Earthquakes are another common natural disaster that can cause many fatalities. The movements of the tectonic plates in the earth's crust cause them. These plates do not always move smoothly and can get stuck, causing a build-up of pressure. It is when this pressure is released that an earthquake occurs.

In turn, an earthquake under the water can also cause a tsunami, as the quake causes great waves by pushing large volumes of water to the surface.

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Forest Fire:

One of the most common natural disasters, but also one of the most commonly forgotten, is wildfires. These take place in many different countries all over the world, particularly during the summer months, and can be caused by a range of different things. Some of the things that can start the wildfires can be totally natural, while others can be manmade, but the speed at which they spread is entirely down to nature.

The two natural causes of wildfires are the sun's heat and lightning strikes, while they can also be caused by campfires, smoking, fireworks and many other things. The reasons that they spread so quickly are prolonged hot, dry weather, where the vegetation dries out, which is why they often take place in woodland.

Cyclones in India:

The states most exposed to cyclone-related hazards, including strong winds, floods and storm surges, are West Bengal, Odisha, Andhra Pradesh and Tamil Nadu along the Bay of Bengal.

The impact of these cyclones is confined to the coastal districts, the maximum destruction being within 100 km from the centre of the cyclone and on either side of the storm track, which is relatively dense population and poor economic condition complicate the situation. The population density in some of the coastal districts is as high as 670 persons per square km.

Flood in India:

Natural calamities like earthquakes, avalanche volcanoes floods, etc. create havoc, time and again, in our lives. Flood is one such calamity which not only brings untold miseries to people but because of its recurring nature it leaves our country in ruins every year. Can there be a more terrible sight than when we see entire villages being washed away and people stranded with nothing to live on?

The ravages of flood and its consequences are beyond description. Rural poverty and general backwardness have been further aggravated by these floods occurring every year.

Three factors account for the frequent occurrence of flood in India.

They are –

- (i) India being in the Monsoon region
- (ii) The existence of vast plains in the north and,
- (iii) Long stretch of mountainous region in the North and North East. The north and north-eastern part of India lie in the heart of Monsoon belt and as a result experiences heavy annual rainfall. Continuous rain causes the numerous streams and rivers of the vast plains of the north to overflow, resulting in the flooding of the low lying areas of the Gangetic and Brahmaputra plains. Recent studies have found that global warming resulting in ice melting in the river upstream creates flood havoc. The July 2004 floods which affected the people of Assam is a result of this global warming.

- (iv) Flood causes terrible loss of life and property. In Assam alone about 22.43 lakh hectares of land was flooded in July 2004 floods. Thousands of people are rendered homeless. Their houses are flooded and their cattle and goods get washed away.
- (v) Many villages and towns are submerged forcing the inhabitants to flee for life. It destroys properties worth crores of rupees. Crops are destroyed and cultivable lands go under water. Bridges are broken, roads get destroyed and communication links are disrupted.

As soon as flood occurs, the government immediately takes certain relief measures. Relief measures are of two types:

- (i) Short-term measures and
- (ii) Long-term measures. The short-term relief measures consist of setting up of relief camps, free distribution of food, clothes and medicines. While long-term measures include distribution of seedlings, remission of dues to the government, granting of loans and subsidies for construction of houses, compensation for loss of crops, etc.

India's rivers carry huge sedimentation due to the Himalayan connection. Under these circumstances a few favorable multipurpose projects in selected northern tributaries will be fruitful.

- Moreover, frequent erosion of river banks at different places in one of the major problem that needs to be controlled by proper protection measures in areas like Majuli in Assam. Restoration and conservation of forests is another very important protection measure against erosion of soil and the management of flood.
- Food disaster management in the flood prone areas of our country is necessary where technically qualified people such as scientists, engineers, geologists, meteorologists, etc. can prepare a successful plan.
- This is very important for immediate planning at the time of flood and after the flood for rehabilitations and also for forecasting along with preparedness. In this manner the severe consequences of this major natural calamity can be minimized.

Earthquakes in India:

- The term earthquake is applied to any tremor or shaking of the ground. Many earthquakes are so gentle as to pass almost unrecognized, others are sufficiently pronounced to excite general alarm, while some spread enormous destruction. Destructive earthquakes are usually confined to limited regions.
- The usual phenomena recorded in well-known earthquakes are first a trembling, next one or more severe shocks, and then a trembling which gradually dies away. In most cases, each shock lasts only a few seconds, but the trembling that follow may continue for days, weeks, or even months.
- Noises of various kinds usually accompany an earthquake. They have been likened to the howling of storm, the growling of thunder, the clanking and clashing of iron chains, or the rumbling of heavy wagons along a road.
- Such noises are conducted through the ground, or they may travel through the sea or air, and are often heard at great distances from the place where the shock is felt.
- Some earthquakes, however, are not accompanied by these noises. At the time of the terrible shock which destroyed Riobamba in Ecuador on February 4, 1797, a complete silence reigned.
- Many changes are produced on the earth's surface by earthquakes. They cause landslips and cracks in the earth, which will sometimes alter the water drainage of river system of a country. They are frequently accompanied by great sea waves, which will often sweep rocks and sand great distances inland called Tsunami.
- Permanent elevations and depressions of land are sometimes caused. After the great earthquakes of 1750, the coast of Chili was found to have been permanently raised from three to four feet.

Cyclones in India:

India's 7,517 kms coastline has been raked by cyclones for centuries. The term 'Cyclone' denote all tropical storms; it is called 'hurricane' in the Atlantic and the Eastern Pacific, typhoon" in the western Pacific, 'willy-willy' in Australia and bagius in the Philippines.

Cyclones are usually located approximately 30 degrees above and below the equator. They vary in diameter from 50 kms to 320 kms, but their effects dominate thousands of sq. kms of ocean surface and the lower atmosphere.

The perimeter may measure 1,000 km but the powerhouse is located within the 100 kms radius. Nearer the eye, winds may hit 320 km ph. Tropical cyclones are intensifying swirls of cloud and rain which then progress into tropical storms. They spin clockwise in the northern Hemisphere and anti-clock wise in the southern hemisphere.

Between five and 20 kms tall when fully formed, they become self- sustaining and bloat until they hit cool land or ocean being of oceanic origin, they generally hit the east coast of the continents. The Indian subcontinent is the worst cyclone affected part of the world as a result of a low-depth ocean bed topography and coastal configuration. Stretches along the Bay of Bengal Coast-line have the world's shallowest waters.

The relatively dense population and poor economic condition completes the picture. The population density in some of the coastal districts is as high as 670 person per square km compared to the state average of 26 persons per sq km. Cyclone strike here in May-June and October- November, with the monsoon's onset and retreat.

Cyclones of a diameter of 600 kms or more is one of the most destructive and dangerous atmospheric storms on the earth.

With about 6 per cent of the world wide cyclones, the Indian sub-continent is the worst cyclone affected areas. No universally acknowledged theory of occurrence of tropical cyclone is known today

A tropical cyclone can form when the horizontal temperature gradients are exceedingly high around a weakly developed area of low pressure. The cyclone is the heat engine whose heater is the oceanic surface. The released heat after condensation converts it into kinetic energy for the cyclone. The following are the stages in the formation of a cyclone:

- (a) Temperature of the oceanic surface over 26°C
- (b) Low pressure dropping below 1000 mb
- (c) Areas of circular movement, first spreading to a radius of 30-50 kms then increasing gradually to 100-200 kms and even to 1000 kms. And
- (d) Vertically the wind speed first rising to a height of 6 km, then much higher.

Structure of Tropical Cyclones:

- Tropical cyclones have large pressure gradients 14-17 mb/ 100 kms; in some cyclones it is as high as 60 mb/ 100 kms. The wind belt can spread to a distance of 10 to 150 kms from the centre and at times even further. Cyclonic circulation at the surface converts into anti-cyclonic at the higher level. The tropical cyclones have a warm core. In the centre of the cyclone there is generally a cloudless spot known as the eye of the storm.
- The eye is encircled by a cloud of great vertical extent. The average rainfall in a tropical cyclone amounts to over 50 cm, sometime rising to over 100 cm. The cyclone moves forward at an average speed of about 20 kms per hour.

Reducing Impact of Damage:

- Most damage from cyclones is caused by the strong winds, torrential rain and high storm tides. Floods generated by cyclonic rainfall are more destructive than the winds. Today, due to the significant improvement in the cyclone warning system and adequate and timely steps taken, loss of human lives is comparatively less. Other measures like construction of cyclone shelters, embankments, dykes, reservoirs and coastal afforestation help immensely.
- The insurance of crops and cattle also a long way in helping people cope with the losses. The warning about the path of cyclone is possible by the satellite images that are available; the computer generated models can predict with fair accuracy the direction and intensity of the winds and direction of the cyclone.

India's Efforts Cyclone Warning System:

- India, according to the World Meteorological Organization, suffers only six per cent of the total cyclones worldwide. China and Japan face up to 30 per cent (calling them typhoons), and the Americas 23 per cent (hurricanes). But these regions do not suffer such massive devastation. Clearly, there is a way to prevent it. But that needs a comprehensive disaster-management policy.
- India has an efficient cyclone warning system. Tropical cyclones are tracked with the help of:
- Regular observation from weather network of surface and upper air observation stations;

- Ships reports;
- Cyclone detection radars;
- Satellites, and
- Reports from commercial aircraft.
- About 280 ships of merchant fleet have meteorological instruments for taking observations at sea. A network of ten cyclone detection radars have been set up along the coast at Kolkata, Paradip, Visakhapatnam, Machilipatnam, Chennai, Karaikal, Cochin, Goa, Mumbai and Bhuj. The range of coastal radars, its intensity and movement is monitored with weather satellites.

Warnings are issued by the area cyclone warning centres located at Kolkata, Chennai and Mumbai, and cyclone warning centres at Bhubaneswar, Visakhapatnam and Ahmedabad.

The IMD still largely depends on DoT's telegraph and telecommunication channels for transfer of data to area cyclone centres as well as dissemination of warnings to various users like district collectors, state government officials, etc. As the storm approaches the coasts, many of these channels completely breakdown.

To overcome these difficulties, IMD has developed a system known as Disaster Warning System (DWS) to transmit cyclone warning bulletins through INSAT-DWS to the recipients. This consists of the following elements:

- (i) The cyclone warning centre for originating the area code of the districts and disaster warning message.
- (ii) The earth station located near the cyclone warning centre with uplink facility in C-band and suitable communication links.
- (iii) The C/S band transponder on board INSAT.
- (iv) The INSAT-DWS receivers located in cyclone prone areas. The IMD has also published the tracks of the cyclones since 1981 and updates that every months in its quarterly Journal "Mausam".

Landslides in India

A landslide is the rapid sliding of large masses of bed rocks or regoliths. Whenever mountain slopes are steep there is a possibility of large disastrous landslide. Landslides are triggered by earthquakes or sudden rock failures. They can also result when the base of a slope is over steepened by excavation or river erosion.

Severe earthquakes in mountainous regions are a major cause of landslides. In the Himalayas, the Western Ghats, and along the river valleys landslides are a common feature. Natural removal of soil and rock from slopes is known as mass wasting. Landslide as a hazard has long been recognized by the people living in the mountains. It becomes specially dangerous when there is heavy rainfall or snowfall on the slip and break and carry with it the soil and debris.

The extent of landslides depends on the steepness of the slope, the bedding plane of rocks, the amount of vegetation cover and the extent of folding and faulting of the rocks. It is the rocks that break.

A major cause which triggers off the landslide is the weight of the overlying material and the presence of a lubricating material like water, this is known as solifluction. Freezing and thawing of the rocks on mountain slopes cause them to break and roll down the slopes. The overbearing weight of snow or ice or water which has seeped into the soft permeable rocks also lead to slipping and breakage of hill slopes.

Other causes of the landslides are the volcanoes and earthquakes. In areas which have sedimentary rock and steep slopes tremors dislodge the rock structures and cause falls.

Often near sea coasts as for example the Kanara coast; cliffs are eroded at the base by sea waves and the rocks jutting out on top break off and fall. Landslides occur frequently during the rains.

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Deforestation as a result of felling of trees for timber and removal of vegetation cover for developmental activities are also responsible for soil erosion and destabilization of slopes.

It is estimated that the construction of just one kilometre long road requires removal of 40,000 to 80,000 cubic metres of debris, which slide down the slopes, killing vegetation and choking mountain streams. Humans often make changes in the natural slope for construction of roads and buildings. Such changes make hill sides more vulnerable to mass wasting and landslides.

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Disaster Management:

Disaster is a state subject in India; it is, therefore, the responsibility of the state to provide every kind of support and assistance to the victim. The Central Government has a facilitating role. It, with proper coordination with various ministries, extends all required support and helps to the states, namely defence services, air dropping, rescuing, searching, transport of relief goods, availability of rail and ferry services, health personnel and medical support, etc. In the State, the Relief Commissioner or Disaster Management Secretary is the specific authority responsible for handling and management of the disaster.

At the state level there is a State Level Disaster Management Committee consisting of senior secretaries of various departments and representatives of the NGOs. At national level, there is a Crisis Management Committee headed by the Cabinet Secretary and secretaries from major departments of governments. In 1999 a high powered Committee on Disaster Management was set up by the Government of India to look into the existing disaster management system in the country and to suggest measures to improve it. Besides, a Calamity Relief Fund has been constituted with contribution in ratio 3: 1 between the Centre and the respective State Government.

Contemporary Social issues

Contemporary Meaning belonging to or occurring in the present.

Social Issues in India

India is an ancient country and according to some estimates, Indian civilization is about ten thousand years of age. Therefore, it is natural that its society will also be very old and complex.

Throughout its long period of history, India has witnessed and received several waves of immigrants such as Aryans, Muslims etc. These people brought with themselves their own ethnic varieties and cultures and contributed to India's diversity, richness and vitality.

Therefore, Indian society is a complex mix of diverse cultures, people, beliefs and languages which may have come from anywhere but now is a part of this vast country. This complexity and richness gives Indian society a unique appearance of a very vibrant and colorful cultural country.

Currently as many as 780 different languages are spoken and 86 different scripts are used in India. While it surely is a fact to celebrate the diversity of the country, the sad part is we have lost nearly 250 languages in the last 50 years or so... The official Indian languages are Hindi (with approximately 420 million speakers) and English, which is also widely spoken.

Languages of India

There are several languages in India belonging to different language families, the major ones being the Indo-Aryan languages spoken by 75% of Indians, the Dravidian languages spoken by 20% of Indians and other languages by rest of Indians.

In addition, the Government of India has awarded the distinction of *classical language* to Tamil, Sanskrit, Kannada, Telugu, Malayalam and Odia.

Odia (formerly spelled *Oriya*) is an Indo-Aryan language. Odia is the primary language in the Indian state or state of Odisha. Native speakers comprise 80% of the population in Odisha. This language is being spoken in eastern India over 1,500 years ago.

The history of Odia language can be divided to Old Odia (7th century–1200), Early Middle Odia (1200–1400), Middle Odia (1400–1700), Late Middle Odia (1700–1850) and Modern Odia (1850 till present day).

Reasons of Social Problems:

But the very same complexity brings with itself complex nature of social problems and issues. In fact every society of the world has their social issues unique to their society. So does the Indian society.

Indian society is very rooted in religious beliefs; there are people of different religious beliefs such as Hindus, Muslims, Jains, Sikhs, Parsis, Buddhist etc. These all adds to the socio-cultural varieties of the country. India's social problems are also rooted in the religious practices and beliefs of it people.

Almost all forms of social issues and problems find their origin in the religious and cultural practices of the people of India. These social problems are developed in a long period of times and are still continuing in one form or other.

Furthermore, India has witnessed several wars of large proportions; several foreign invaders attacked India in its long history among whom few made this country as their own and tried to force their socio-religious practices which also deteriorated social conditions; the long period of British rule crippled the country and had thrown it into backwardness. Thus, many such reasons may be cited for India's social problems but the fact remains that we have these issues and only we can solve them.

Population Explosion

The literal meaning of population is the whole number of people or inhabitants in a country or region (Webster's dictionary), and the literal meaning of population explosion is a pyramiding of numbers of a biological population.

- Population Explosion refers the sudden and rapid rise in the size of Population. Population explosion is not only a problem in India; it has reached a menacing proportion all over the world, especially in the poorer countries.
- The developed countries in the West or in countries like Japan which are rich enough to employ all their people according to their abilities the growth of population may prove to be a boon, for the rapid growth of industries and national wealth always need greater work-force to implement the programs of development in ever-expanding spheres.
- But in developing countries like India, with a backward economy and little scope for fruitful employment, millions of people find no work to do. The unemployed, having nothing to do and without an ensured living, are left frustrated and demoralize, losing their faith in life itself.
- As it happens in India and several underdeveloped countries in Asia and Africa, the unemployed threaten the very process of development and plunge the country in gloom. Those who are born with two hands consider it a curse when they are denied the simple right to work and earn a living.
- It may sound funny, but the law is that the poorer a country the greater is the growth rate of its population. India, caught in the morass or mess of her age-old poverty, finds herself in the midst of a population explosion.
- The population that was less than 400 million in the 1940's was found to be about 1.21 billion in 2011 (Census). As a result of this even the six plans completed by now have so far failed to cope with the enormous problem of unemployment. Currently, The Planning Commission been replaced by Niti Aayog, by the current Government.
- In absolute terms, there were 966.3 million Hindus(79.8%) in 2011, while there were 172.2 million Muslims(14.2%), 27.8 million Christians, 20.8 million Sikhs (1.7 per cent of the country's total population), 8.4 million Buddhist (0.7 per cent), and 4.5 million Jains (0.4 per cent). The proportion of Christians in the country's population remained constant at 2.3 per cent in all these years.

Demographic transition explains a form of relationship between population and economic development. In the western countries it has been found that they have moved from a condition of high birth and death rates, to a condition of low birth and death rates which led to a slow rate of growth of population. This demographic change is known as 'Demographic Transition'.

In other words, demographic transition describes the passage through which countries move from high birth and death rates to low ones. This has been the experience of countries going through a process of modernizing economic and social development.

Effects of the rapid population growth in India...

Providing employment to growing population: This is so because in developing economies majority of the population are illiterate. The burden of school age population has already shown signs of becoming unbearable.

The proportion of children in schools is increasing fast and, vast numbers are still not covered. The absolute number of illiterate persons increases every year. This is only an indication of the wastage of human resources for want of appropriate development opportunities.

Problem of utilization of manpower: Better educated manpower aspires for occupations of greater prestige, which are opened up by the new development efforts. Because of its capital intensive nature, the ability, of the new economy for employment generation becomes restricted.

Simultaneously, it renders many of the old occupations out of day and redundant. As a result, under-employment and unemployment, including unemployment of educated persons, increases. There is thus wastage of even developed human capital.

Over-strained Infrastructure: Facilities such as housing, transportation, health care, and education become inadequate. The worst symptoms of congestion in every aspect of living conditions are manifested in the urban areas.

In countries such as India, a situation of "over urbanization" prevails which puts unbearable strain on urban amenities. Overcrowded houses, slums and unsanitary localities, traffic congestion and crowded hospitals have become common features in our country as well as the various developing countries.

Pressure on land and other renewable natural resources: Common properties such as forest and water are over-exploited. This results in deforestation and desertification(a process by which fertile land becomes inappropriate for agriculture) with permanent damage to the renewable resources.

Increased cost of production : Human ingenuity and technological advancement makes it possible to increase production of goods and services. But, it must be kept in mind that, the cost of production of the basic necessities of life, such as food, increases when the population is growing fast and worse lands are brought into cultivation with costly irrigation etc.

Inequitable distribution of income: Both at the international and national levels income disparities increase. The increase in gross national product (GNP) is greatly reduced in per capita terms on account of the rapidly growing population.

In the face of a rapidly growing population, the major concern of a developing country tends to be focused more on economic growth as such. Considerations of unequal distribution of income are pushed to background. So inequalities within the country tend to widen further.

Balance between Birth and Death rates: The rapid population growth in many third world countries and persistence of poverty has given rise to the view of over-population possibility. There is, therefore, a major move throughout the world to bring down the growth rate of population.

Development experience of recent years shows that there is a long run trend towards slow growth of population in a country. This is secured by balance between birth and death rates.

Relationship between Population and Development: Today's developing countries are experiencing a much faster growth in their population under conditions different than those faced by the developed countries.

Thus they are faced with huge problems of imparting education, employment, urban development and environmental degradation. The need to tackle these problems has led to the necessity a clearer understanding of the relationship between population and development.

Relationship between Development and Fertility: The major problem faced by the developing countries is to bring down their birth rates, i.e. fertility. Therefore, understanding of the relationship between development and fertility becomes very significant. There are experts who think that unless fertility is first restricted, sustained economic development is not possible.

Social issues in our country which are leading to over population...

Early Marriage and Universal Marriage System: Even though legally the marriageable age of a girl is 18 years, the concept of early marriage still prevails and getting married at an young age prolongs the child bearing age. Also, in India, marriage is a sacred obligation and a universal practice, where almost every woman is married at the reproductive age.

Poverty and Illiteracy: Another factor for the rapid growth of population is poverty. Impoverished families have this notion that more the number of members in the family, more will be the numbers to earn income. Some feel that more children are needed to look after them in their old age.

Strange but true, Indian still lag behind the use of contraceptives and birth control methods. Many of them are not willing to discuss or are totally unaware about them. Illiteracy is thus another cause of over population.

Age old cultural norm: Sons are the bread earners of the families in India. This age old thought puts considerable pressure on the parents to produce children till a male child is born. More the better.

Steps to Control Population in India...

- The Government of India, politicians, policy makers should initiate a bold population policy so that the economic growth of the country can keep pace with the demands of a growing population. Major

steps which have been already implemented but still need to be emphasized more to control population.

- By increasing the welfare and status of women and girls, spread of education, increasing awareness for the use of contraceptives and family planning methods, sex education, encouraging male sterilization and spacing between births, free distribution of contraceptives among the poor, encouraging female empowerment, more health care centers for the poor, to name a few, can play a major role in controlling population.
- India's strengths in the global world in various fields cannot be ignored, whether in science & technology, medicine and health care, business and industry, military, communication, entertainment, literature and many more.
- Experts including me are hopeful that by increasing public awareness and enlisting strict population control norms by the Government will definitely lead the way for the country's economic prosperity and control of population.

Poverty

Poverty is a condition in which a household is not able to fulfill its basic needs for survival i.e. food, clothing and shelter. Poverty is a widespread condition in India. Now, it is the 21st Century and poverty still is a big issue in our country.

India happens to be country wherein the disparities between the haves and the have-nots are extremely wide. It needs to be taken into account that although our economy has shown some visible signs of progress in the last two decades, this progress has been uneven across various sectors or areas. The growth rates are higher and better in states like Gujarat and Delhi (NCR) as compared to Bihar and Uttar Pradesh.

In India, nearly half of the population doesn't have proper shelter, access to a decent sanitation system, villages do not have a nearby clean water source, and villages also do not have a primary/secondary school and so also lack proper roads.

The element which further complicates and deteriorates the situation is the government PDS/ Subsidies system which has huge leakages in the public distribution system. They seldom reach the targeted households.

Absolute Poverty

When Income of a person is not sufficient to provide the basic necessities of life, he/she is said to be in absolute poverty.

Relative Poverty

Relative poverty occurs when a comparison of the standard of living or income distribution of various income groups is undertaken in a country. The income inequalities between different groups are a reflection of relative poverty.

In India people living below poverty line are quite high as compared to other Asian countries like Malaysia, Thailand and China.

Measurement of Poverty

Then, The Planning Commission of India set up a Study Group in July 1962 to examine the question of poverty in the country.

The Study Group suggested a private consumption expenditure of Rs. 20 (at 1960-61 prices) per capita per month as a basic minimum requirement of life, below which are regarded as poor.

In 1979, following the recommendation of the Task Force on Projection of Minimum Needs and Effective Consumption Demand, the poverty line is defined as "the per capita monthly expenditure needed to obtain the consumption of 2,400 calories per-capita per day in rural areas (Rs. 49.10 /PM) and 2,100 in urban areas (Rs. 56.60/PM).

International Poverty Line

In October 2015, the World Bank updated international poverty line to US\$1.90 a day. In 2008, the World Bank came out with a figure (revised largely due to inflation) of \$1.25 at 2005 purchasing-power parity (PPP).

Then what we mean by PPP?

Purchasing Power Parity' (PPP)

PPP is used worldwide to compare the income levels in different countries. PPP thus makes it easy to understand and interpret the data of each country.

Definition: The theory aims to determine the adjustments needed to be made in the exchange rates of two currencies to make them at par with the purchasing power of each other. In other words, the expenditure on a similar commodity must be same in both currencies when accounted for exchange rate. The purchasing power of each currency is determined in the process.

Example: Let's say that a pair of shoes costs Rs 2500 in India. Then it should cost \$37.87 in United States of America when the exchange rate is at 66 between the dollar and the rupee.

Indian Poverty Line

Poverty in India is a historical reality. From late 19th century through early 20th century, under the British colonial rule, poverty in India intensified, peaking in 1920s. Famines and diseases killed millions each time.

After India gained its independence in 1947, mass deaths from famines were prevented, but poverty increased, peaking post-independence in 1960s. Rapid economic growth since 1991, has led to sharp reductions in extreme poverty in India.

India today, lack basic essentials of life such as safe drinking water, sanitation, housing, health infrastructure as well as malnutrition impact the lives of hundreds of millions.

The World Bank reviewed and proposed a revisions in May 2014, to its poverty calculation methodology and purchasing power parity basis for measuring poverty worldwide, including India...

According to this revised methodology, the world had 872.3 million people below the new poverty line, of which 179.6 million people lived in India.

In other words, India with 17.5% of total world's population, had 20.6% share of world's poorest in 2011.

India's official poverty line, in 2014, was Rs. 972 (US\$14) a month in rural areas and Rs. 1407 (US\$21) a month in cities. India's nationwide average poverty line differs from each state's poverty line.

For example:

in 2011-2012, Pondicherry had its highest poverty line of Rs. 1301 (US\$19) a month in rural and Rs. 1309 (US\$19) a month in urban areas, while Odisha had the lowest poverty thresholds of Rs. 695 (US\$10) a month for rural and Rs. 861 (US\$13) a month for its urban areas.

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Latest New poverty line: Rs 32 in villages, Rs 47 in cities

Those spending over Rs. 32 a day in rural areas and Rs. 47 in towns and cities should not be considered poor, an expert panel headed by Former RBI Governor C. Rangarajan said in a report in 2014.

Based on the Suresh Tendulkar panel's recommendations in 2011-12, the poverty line had been fixed at Rs. 27 in rural areas and Rs. 33 in urban areas, levels at which getting two meals may be difficult.

According to the India Rural Development Report 2013-14, 6.84 per cent of the rural population was categorized as "very poor" in 2011-12, down from 16.3 per cent in 2004-05.

Chhattisgarh had the highest percentage of "very poor" across major states-15.32 per cent- followed by Madhya Pradesh (15.04 per cent), Odisha (11.46 per cent), Bihar (10.45 per cent) and Jharkhand (9.23 per cent).

Poverty among occupational groups in rural areas is the highest among Agricultural Labour (40 per cent), followed by other Labour at 33 per cent and the self-employed in agriculture at 22 per cent.

Vicious Circle of Poverty

The vicious circle of poverty refers to the interconnectedness of different factors that reinforce each other for generating poverty. According to Nurkse and Kindleberger the reasons for this vicious circle of poverty can be classified into three groups.

- Supply side factors
- Demand side factors
- Market imperfection

Supply Side Factors

- The supply side of the vicious circle indicates that in underdeveloped countries, productivity is so low that it is not enough for capital formation.
- According to Samuelson, "The backward nations cannot get their heads above water because their production is so low that they can spare nothing for capital formation by which their standard of living could be raised."
- The main reason of poverty is the low level of saving. Consequently, investment is not possible in production channels. A huge chunk of GDP is used for consumption purposes. People cannot save money. So, there is lack of investment and capital formation.
- Although rich people can save, they spend their surplus in some on luxurious goods instead of saving. They gave preference to high priced items and imported products. Thus, their demand does not enlarge the size of the market. The developing countries, therefore, lack investment facilities.

Demand Side Factors

- According to Nurkse, poverty is caused by several factors in the demand side. In underdeveloped countries the inducement to invest is low because of the low purchasing power of the people, which is due to their small real income.
- The main reason for poverty in these countries is the low level of demand. Consequently, the sizes of markets remain low. The small size of the market becomes a hurdle in the path of inducement to invest.

Market Imperfections

- According to Meier and Baldwin, the existence of market imperfections prevents optimum allocation and utilization of natural resources, and the result is underdevelopment, and this in turn, leads to poverty.
- The development of natural resources depends upon the character of human resources. But due to lack of skill and low level of knowledge and for political reasons the natural resources remain unutilized, in certain cases underutilized and misused.
- Eg. Wind Power, Small Hydro Power and Solar Power... Agriculture, Spectrum, Thorium for Nuclear Reactor

Reasons and Causes of Poverty in India

- Colonial Exploitation: Colonial rule in India is the main reason of poverty and backwardness in India. The Indian economy was purposely and severely de-industrialized through colonial privatizations. British rule replaced the wasteful warlord aristocracy by a bureaucratic-military establishment. However, colonial exploitation caused backwardness in India.
- Lack of Investment for the Poor: There is lack of investment for the development of poorer section of the society. Over the past 60 years, India decided to focus on creating world class educational institutions for the elite, whilst neglecting basic literacy for the majority.
- Social System in India: The social system is another cause of poverty in India. The social subsystems are so strongly interlocked that the poor are incapable of overcoming the obstacles.
- India's Economic Policies: In 1947, the average annual income in India was US\$439, compared with US\$619 for China, US\$770 for South Korea. But South Korea became a developed country by the 2000s. License Raj prevailed with elaborate licenses, regulations and accompanying red tape. Corruption flourished under this system.
- Over-reliance on Agriculture: In India there is high level of dependence on primitive methods of agriculture. There was a surplus of labour in agriculture.
- Farmers are a large vote bank and use their votes to resist reallocation of land for higher-income industrial projects. While services and industry have grown at double digit figures, the agriculture growth rate has dropped from 4.8 per cent to 2 per cent.
- High Illiteracy: Indian literacy rate rose almost tenfold during the British era. In 1947, India's literacy rate matched China's. However, in 2007, China reported at 91 per cent literacy rate versus 66 per cent for India.
- Now India suffers from about 35 per cent illiteracy among the adult population. Literacy levels among SC, ST and females are very low.
- High Illiteracy: Indian literacy rate rose almost tenfold during the British era. In 1947, India's literacy rate matched China's. However, in 2007, China reported at 91 per cent literacy rate versus 66 per cent for India.

- Now India suffers from about 35 per cent illiteracy among the adult population. Literacy levels among SC, ST and females are very low.
- Lack of Entrepreneurship: The industrial base of India has remained very slender or meager. The industrial sickness is very widespread. The whole industrial sector suffers from capital deficiency and lack of entrepreneurial spirit.

Remedies for Poverty

- Increase in Saving: In order to get rid of the supply side vicious circle in these countries, efforts should be made to increase savings so that investment in productive channels may be encouraged. To increase saving, expenditure on marriages, social ceremonies, etc., should be curtailed. In under developed countries, the possibility of voluntary savings is slim.
- Thus, in this regard, government interference is necessary. The government can increase saving, by altering its fiscal policy. The government can impose heavy taxes on luxury goods. Moreover, it can increase the role of direct taxes. Thus, the government can curtail consumption by altering the tax system.
- Increase in Investment: To break the vicious circle of poverty, apart from increasing savings, investment of saving in productive channels is also of immense use. The policies of short run and long run investment should be coordinated. By short period investment, people can get the necessary goods at fair rates, which will have a favourable impact on their skill.
- Moreover, along with short period investment, investment in the establishment of multipurpose projects, iron and chemical fertilizers etc should be properly encouraged. In UDCs, proper monetary and banking policies should be adopted which may provide facilities and encouragement to small savings.
- Balanced Growth: To resolve the demand side vicious circle in underdeveloped countries, the extension of the market is to be done so that people may get inducement to invest. In this regard, Prof. Nurkse advocated the doctrine of balanced growth. According to the principle of balanced growth, investment should be made in every sphere of an economy so that demand of one sector can be fulfilled by another sector.
- Thus, an increase in demand will lead to extension of the market, and would provide inducement to investments. On the other hand, economists like Hirschman, Singer, and Fleming do not consider the policy of balanced growth effective. According to them, the policy of unbalanced growth would be more useful.
- Human Capital Formation: In underdeveloped countries, the main obstacle to economic growth is the backwardness of human capital. Human capital should no longer be neglected. Many suggestions can be made to increase skill of manpower. For instance, in these countries, education, technical knowledge, and vocational training should be enlarged. Health facilities should be enhanced, which may increase the efficiency of the workers. Transportation and communication should be developed.
- Industrialization: Poverty can be eradicated by a self-sustaining process of industrialization. All industries should have linkage to build a powerful process of ancillary industries and occupations. The percolation effect of industries can be strong through the establishment of auxiliary industries. Industry should be linked to agricultural growth.
- Agro-based industries should grow to provide employment to village people as they are very much labour intensive. Industrialization can contribute to the growth process and bring improvement in the standard of living of people.

What is the government doing to eradicate poverty?

- Ever since coming to power, the current government has come up with several programmes in order to ease the burden of poverty holding India back. The Pradhan Mantri Jan Dhan Yojana (PMJDY) is one such programme. It looks to provide economically-disadvantaged people access to different financial services such as a basic savings account, insurance, credit as and when needed, pension and remittances.
- People who invest in this scheme can earn interest on the amount deposited by them, and have accidental insurance cover. The programme does not have a minimum amount that has to be always maintained.
- The programme provides life insurance worth Rs. 30,000 and accountholders can avail overdraft facilities after six months. The maximum amount of overdraft in case of a single household is Rs. 5,000.

- The PMJDY also helps them get access to other insurance and pension-based financial products. The accountholders are also provided RuPay debit cards. The programme was launched on 8th April 2015.
- Insurance Programmes
- On 9th May, a couple of insurance programmes were launched for members of lower income groups and economically-backward sections – Pradhan Mantri Jeevan Jyoti Bima Yojana (PMJJBY) and Pradhan Mantri Suraksha Bima Yojana (PMSBY). The age group covered by PMJJBY is 18-50 years. People willing to be insured under this programme need to pay a yearly premium of Rs. 330 and they will be provided a life cover amounting to Rs. 2 lakhs.
- The PMSBY covers people between the age group of 18-70 years. The yearly premium for this policy is only Rs. 12. The accountholders get Rs. 1 lakh in case of partial disability in an accident and Rs. 2 lakh for complete disability and death for the same reason.
- Agricultural Schemes
- The Kisan Vikas Patra, which had been introduced for the first time by India Post way back in 1998, was re-launched. Farmers can invest in this programme in denominations like 1,000; 10,000; 5,000; and 10,000. Investors can expect their money to be doubled after 100 months. The saving certificate scheme can be issued either in the name of one person or many at a time. It can also be used as collateral to get loans and account holders get an interest rate of 8.7%.
- The Krishi Ambani Bima Yojana tries to help the farmers who are facing financial issues owing to natural causes that have hindered their farming and affected their produce. The Pradhan Mantri Gram Sinchai Yojana attempts to provide water for irrigation to different parts of the country.
- Rural Schemes
- Started on 11th October 2014, the Pradhan Mantri Sansad Adarsh Gram Yojana places the responsibility of rural development on the MPs. It is their duty to develop the infrastructural facilities – physical and socio-economic – of three villages each and this has to be done by 2019. By 2024, they have to develop eight villages each. The first village has to be completed by 2016. It is expected that by 2024, about 6,433 “Aadarshgram” will be created.
The Deen Dayal Upadhyaya Gram Jyoti Yojana (DDUGJY) programme is supposed to provide rural areas continuous supply of power. As a part of the plan, the national administration will invest Rs. 75,600 Crores. It has replaced the Rajiv Gandhi Grameen Vidyuti Karan Yojana.
- The Deen Dayal Upadhyaya Grameen Kaushalya Yojana was launched on 25th September 2014, which is the 98th birth anniversary of Pandit Deendayal Upadhyay. It looks to provide jobs in rural India to people between the age group of 18-35 years
- National Rural Employment Guarantee Act (NREGA)
- The NREGA bill was passed in 2005 and it became effective from 2006. It became the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) in 2008. As per the programme, 100 days of work are guaranteed to people in villages across the country. It has been a successful programme as far as increasing the income levels of poor people in the rural areas is concerned. It provides work opportunities to people as and when they ask for it.
- Even though it involves mostly unskilled manual work, it does provide some sort of safety net for the economically impoverished. The income from this programme helps them build some assets that make their lives that much better. This programme is implemented primarily by the Ministry of Rural Development.
- Indira AwasYojana (IAY)
- The Indira Awas Yojana provides rural housing benefits. The aim of the programme is to create 20 Lakh houses across the country and 65% of these are supposed to be in the rural areas. As per the scheme, subsidized loans are provided in order to help people, who would otherwise not be able to do so, make their own houses. The programme had been originally launched in 1985.
- Integrated Rural Development Programme (IRDP)
- The Integrated Rural Development Programme is said to be one of the most ambitious ones of its kind in the world. The programme looks to provide assets, generated by the dint of income, to the poorest people in India. The programme was launched in 1978-79 at selected locations. However, by November 1980, the whole country had come under the programme’s purview.
- The programme’s main objective is to create sustainable assets and provide them to targeted families, so that they can be brought above the poverty line. Self-employment is a major component of the assistance provided as part of the scheme.

Following are some other plans initiated by the Indian Government for poverty alleviation in India keeping in mind with many a objectives :

- Annapurna
- Prime Minister's Integrated Urban Poverty Eradication Programme (PMIUPEP)
- Minimum Needs Programme (MNP)
- National Rural Employment Programme (NREP)
- National Maternity Benefit Scheme (NMBS)
- Rural Labour Employment Guarantee Programme (RLEGP)
- National Family Benefit Scheme (NFBS)
- TRYSEM Scheme
- National Old Age Pension Scheme (NOAPS)

Unemployment

The term unemployment can be understood as a situation in which no jobs are available for a person to earn means of livelihood. Or

Unemployment occurs when a person who is actively searching for employment is unable to find work.

Unemployment is often used as a measure of the health of the economy. The most frequently cited measure of unemployment is the unemployment rate. This is the number of unemployed persons divided by the number of people in the labour force.

Unemployment is found both in industrial and agricultural sector. In India, many factors have led to unemployment.

The main reasons...

1. Over population.
2. Seasonal nature of certain works.
3. Economic fluctuations/ downturn.
4. Extensive Automation and use of machines which has replaced man power.

In India, Unemployment problem is at an alarming rate. There is a significant increase in the rate of unemployment in recent times. Unemployment is found not only in urban sector but also in rural sector.

Types of Unemployment in India

Seasonal Unemployment

Normally when we talk of employed people we mean those who have work throughout the year. But this may not possible for all.

In agriculture, work is seasonal even though agricultural activities are performed throughout the year. During the peak agricultural seasons (when the crop is ready for harvesting) more people are required for work. Similarly in the sowing, weeding and transplantation period more labour is required. Employment therefore increases at this time.

Example: landless labourers and marginal farmers

Voluntary Unemployment

People who are unwilling to work at prevailing wage rate and people who get a continuous flow of income from their property or any other sources and need not to work, such people are voluntarily unemployed.

Frictional Unemployment

Frictional unemployment is the time period between jobs when a worker is searching for, or transitioning from one job to another. It is sometimes called search unemployment and can be based on the circumstances of the unemployed individual.

Causal Unemployment

Cyclical unemployment is based on a greater availability of workers than there are jobs for workers. It is usually directly tied to the state of the economy. Lower demand for products due to lack of consumer confidence, disinterest, or reduction in consumer spending results in the workforce cutting back on production.

Since production is reduced, companies that retail such products may also cut back on workforce, creating yet more cyclical unemployment.

Disguised Unemployment

There are also instances where we find too many people working when so many are not required. In agriculture we may find that all members of the family work. It is possible that 3-4 people can do a given work in the farm, but we find that the whole family of say 10 people doing the job. This may be because the excess

people are not able to find employment elsewhere, so rather than remain unemployed they prefer to do the work along with others. This is known as disguised unemployment.

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Rapid Population Growth: In the first place, the growth of population directly encouraged the unemployment by making large addition to labour force.

Secondly, the rapid population growth indirectly affected the unemployment situation by reducing the resources for capital formation. Any rise in population, over a large absolute base as in India, implies a large absolute number. It means large additional expenditure on their rearing up, maintenance, and education. As a consequence, more resources get used up in private consumption such as food, clothing, shelter.

Limited Land: Land is the gift of nature. It is always constant and cannot expand like population growth. Since, India population increasing rapidly, therefore, the land is not sufficient for the growing population. As a result, there is heavy pressure on the land. In rural areas, most of the people depend directly on land to earn their livelihood.

Seasonal Agriculture: In Rural Society agriculture is the only means of employment. However, most of the rural people are engaged directly as well as indirectly in agricultural operation. But, agriculture in India is basically a seasonal affair. It provides employment facilities to the rural people only in a particular season of the year.

Fragmentation of Land: In India, due to the heavy pressure on land of large population results the fragmentation of land. It creates a great obstacle in the part of agriculture. As land is fragmented and agricultural work is being hindered the people who depend on agriculture remain unemployed.

Backward Method of Agriculture: The method of agriculture in India is very backward. Till now, the rural farmers followed the old farming methods. As a result, the farmer cannot feed properly many people by the produce of his farm and he is unable to provide his children with proper education or to engage them in any profession. It leads to unemployment problem.

Decline of Cottage Industries:

In rural India, village or cottage industries are the only means of employment particularly of the landless people. They depend directly on various cottage industries for their livelihood. But, now-a-days, these are adversely affected by the industrialization process. Actually, it is found that they cannot compete with modern factories in matter of production. As a result of which the village industries suffer a serious loss and gradually closing down.

Defective education: The day-to-day education is very defective and is confined within the class room only. Its main aim is to acquire certificate only. The present educational system is not job oriented, it is degree oriented. It is defective on the ground that it is more general than the vocational. Thus, the people who have getting general education are unable to do any work. They are to be called as good for nothing in the ground that they cannot have any job.

Lack of transport and communication: In India particularly in rural areas, there are no adequate facilities of transport and communication. Owing to this, the village people who are not engaged in agricultural work are remained unemployed. It is because they are unable to start any business for their livelihood and they are confined only within the limited boundary of the village.

Inadequate Employment Planning: The employment planning of the government is not adequate in comparison to population growth. In India near about two lakh people are added yearly to our existing population. But the employment opportunities did not increase according to the proportionate rate of population growth. As a consequence, a great difference is visible between the job opportunities and population growth.

As a result of massive unemployment there is poverty and increase in social evils like robbery, pick pocketing, smuggling, drug trafficking and other crimes etc.

The social consequences of the educated unemployed are quite serious. We will find that people with superior qualifications are doing jobs which could be done by less qualified people. This results in under-utilization of one's capacity. We can find graduate engineers doing jobs which could be performed by diploma holders.

Rural and Urban Unemployment in India

The unemployment rate at all India level stood at 3.8 per cent while in rural and urban areas it was 3.4 per cent and 5 per cent respectively.

Unemployment rate is more in urban areas than in rural areas as in urban areas educated unemployed are more in numbers and also in urban areas it requires some vocational training or technical skill to do a job as compared to rural areas. Urban unemployment is that unemployment which exist in urban areas. It is not only painful at personal level but also at social level.

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Conclusion:

The educated are not the only ones who face the problem of unemployment in the urban areas. There are large numbers of people in the rural areas who do not have a high level of education and who are unemployed.

Child Rights...

Even though India's children account for more than one-third of its population, their interests have never been given priority. And their rights have been violated every single day.

"The Union Budget 2014-15, has on the overall, not laid much emphasis on social sectors, especially children.

Overall, the total allocation earmarked for children as proportion of Union Budget has declined marginally.

For much of human history and across different cultures, children less than 17 years old have contributed to family welfare in a variety of ways. UNICEF suggests that poverty is the big cause of child labour. The report also notes that in rural and impoverished parts of developing and undeveloped parts of the world, children have no real and meaningful alternative. Schools and teachers are unavailable. Child labour is the unnatural result.

A BBC report, similarly, concludes poverty and inadequate public education infrastructure are some of the causes of child labour in India.

Consequences of child labour

The presence of a large number of child labourers is regarded as a serious issue in terms of economic welfare. Children who work fail to get necessary education. They do not get the opportunity to develop physically, intellectually, emotionally and psychologically.

In terms of the physical condition of children, children are not ready for long monotonous work because they become exhausted more quickly than adults. This reduces their physical conditions and makes the children more vulnerable to disease.

Where they are Working???

1. Diamond industries
2. Fireworks manufacturer
3. Silk manufacturer
4. Carpet weaving
5. Domestic labour
6. Coal mining

Policy Decisions by Govt. of India...

7. In 2014-15, child budget stands at 4.52 percent compared to the figure of 4.56 percent in the previous year, with absolute amount increasing slightly from Rs. 72496.21 crore in 2013-14 (Revised Estimate) to Rs. 81075.26 Crores in 2014-15 (Budget Estimate). Total child budget in 2014-15 stands at meager 0.63 % of GDP.
8. However, given the child population of 42 percent (up to the age of 18) the allocation is not encouraging.

Policy Decisions by Govt. of India...

9. A few schemes only have referred to children, especially, Girls, including "Beti Bachao, Beti Padhao Yojana" with an allocation of Rs. 100 crores, the modernization of madarsas, and the announcement on ensuring toilets and drinking water in girls' schools.

10. The proposed National Programme on Malnutrition is an encouraging sign and acknowledges the need for urgent action to improve the nutritional status of almost 50 percent of our child population."

Govt. initiatives against child labour in India

11. In 1979, the Indian government formed the Gurupadswamy Committee to find about child labour and means to tackle it. The Child Labour Prohibition and Regulation Act was enacted based on the recommendations of the committee in 1986.

12. A National Policy on Child Labour was formulated in 1987 to focus on rehabilitating children working in hazardous occupations. The Ministry of Labour and Employment had implemented around 100 industry-specific National Child Labour Projects to rehabilitate the child workers since 1988.

Non-governmental organizations (NGO Initiative)

13. Many NGOs like Bachpan Bachao Andolan, Child Fund, CARE India, Talaash Association, Child Rights and You (CRY), Global march against child labour, RIDE India, Childline etc. have been working to eradicate child labour in India.

Demography of child labour in India...

- According to 2005 Government of India NSSO (National Sample Survey Organization), child labour incidence rates in India is highest among Muslim Indians, about 40% higher than Hindu Indians.
- Child labour was found to be present in other minority religions of India but at significantly lower rates. Across caste classification, the lowest caste Dalit children had child labour incidence rates of 2.8%, statistically similar to the nationwide average of 2.74%. Tribal populations, however, had higher child labour rates at 3.8%.
- Both the central and state governments have legislated Policy Decisions and Law on child labour. The major national legislative developments include the following:
- The Factories Act of 1948: The Act prohibits the employment of children below the age of 14 years in any factory. The law also placed rules on who, when and how long can pre-adults aged 15–18 years be employed in any factory.
- The Mines Act of 1952: The Act prohibits the employment of children below 18 years of age in a mine.
- The Child Labour (Prohibition and Regulation) Act of 1986: The Act prohibits the employment of children below the age of 14 years in hazardous occupations identified in a list by the law. The list was expanded in 2006, and again in 2008.

Terrorism

Definition:

An act of terror includes any intentional act of violence that causes death, injury or property damage, induces fear, and is targeted against any group of people identified by their political, philosophical, ideological, racial, ethnic, religious or any other nature.

Definition:

A common definition of terrorism is the systematic use or threatened use of violence to intimidate a population or government for political, religious, or ideological goals.

Home Ministry, Govt. of India

According to the Home Ministry, Terrorism poses a significant threat to the people of India. Terrorism found in India includes ethno-nationalist terrorism, religious terrorism, left wing terrorism and narco-terrorism.

Terrorism

Terrorism is an anxiety-inspiring method of repeated violent action, employed by semi-clandestine / concealed individual, group or state actors, for idiosyncratic, criminal or political reasons, whereby the direct targets of violence are not the main targets. The immediate human victims of violence are generally chosen randomly or selectively (representative or symbolic targets) from a target population, and serve as message generators. Threat and violence-based communication processes between terrorist organization, victims, and main targets are used to manipulate the main target / audiences, turning it into a target of terror, a target of demands, or a target of attention, depending on whether intimidation, coercion, or propaganda is primarily sought.

India subdivides terrorism in four major groups:

Ethno-Nationalist Terrorism - This form of terror focuses either...

- (a) on creating a separate State within India or independent of India or in a neighboring country,

Or

(b) on emphasizing the views/response of one ethnic group against another. EX: Violent Tamil Nationalist groups from India to address the condition of Tamils in Sri Lanka, as well as insurgent tribal groups in North East India are examples of ethno-nationalist terrorist activities.

Religious Terrorism - This form of terror focuses on religious imperatives, a presumed duty or in solidarity for a specific religious group, against one or more religious groups. Mumbai 26/11 terror attack in 2008 from an Islamic group in Pakistan is an example of religious terrorism in India.

Left Wing Terrorism - This form of terror focuses on economic ideology, where all the existing socio-political structures are seen to be economically exploitative in character and a revolutionary change through violent means is essential. The ideology of Marx, Engel, Mao, Lenin and others are considered as the only valid economic path. Maoist violence in Jharkhand, Odisha, AP and part of Maharashtra and Chhattisgarh are examples of left wing terrorism in India.

Narco Terrorism - This form of terror focuses on creating illegal narcotics traffic zones. Drug violence in northwest India is an example of narco-terrorism in India, particularly in Punjab, Goa, Metros and North-Eastern States.

Causes of terrorism

Religion: perhaps the most commonly held belief today is the terrorism is caused by religion. Though it is not the main cause for terrorism, religion does play a significant role in driving some forms of it. Today religion as a part of terrorism has been mainly attributed to Islamic fundamentalism.

Political Grievances: A lack of political inclusiveness in states or grievances against a certain political order may cause individuals to join or create terrorists groups. Left and right wing terrorist often seek to apolitical system. As well, many in nations with authoritarian regimes lack avenues for dissent.

Ethno-nationalism: the desire of population to break away from a government or ruling power and create a state of their own can cause the formation of terrorist groups. In the 20th century, this was seen often times with regions or states attempting to gain independence from their colonial era masters. Within many countries around the globe minority groups exist wishing to garner some form of independence, if not their own state altogether.

Socio- economic status: terrorists may also be driven by a sense of relative depravation and lack of upward mobility within society. Globalization and the modern media have given the have nots an acute awareness of their situation compared to the haves globalization creates an acute awareness about opportunities available elsewhere.

Effect of terrorism:

Law and order problem: terrorism poses a serious law and order problem and leads to disintegration of society. The incident of murder, torture, mutilation, kidnapping, arson and extortion create atmosphere of suspicion, fear and panic all around. Life becomes uncertain. The terrorists kill unarmed civilians including women and children.

Social disharmony: organized crime and violence cause social disharmony. The inert-relationship among various insurgent groups and their foreign linkages bring illegal money and encourages smuggling. Many insurgent groups collect certain percentage of money from the employees and businessmen on regular basis.

Political instability: the assassinations of 2 ex-PM of Indian, Mrs. Indira Gandhi, Mr. Rajeev Gandhi has jointed Indian politician economy at large. India had lost 2 of its strongest pillars which otherwise would have taken Indian politics, business and industry at unimaginable heights. Recently speaking the siege of south Mumbai gas taken toll as home minister Shivraj patil.

Global implication: India, post kargil war, then attack on parliament, now 26/11, has lost millions of business as the trade link between the two countries are frozen during such period. Agri exported in bordering states have taken heavy burns. This has resulted in unemployment in these regions, which in turn against triggers riots.

Long-term financial loss: the direct economic damage done by terrorist attacks-building and infrastructure destroyed, productive lives ended. The structural damages post 26/11 attacks was amounting to total of 500 crs, which subsequently took its toll on the insurance industry. Another form of longer-term costs security involves the opportunity cost of spending additional money to fight terrorism.

Loss of Human Capital: the human costs have been horrendous. Estimates are in past 5 years 4000+ were killed in terrorist attacks. This puts India next to Iraq both in terror death and terror attacks.

Investor behaviour: frequent attacks on commercial and government institutions shatter the confidence of the investors causing heavy investment drainage. One example of the same is the terrorist attack in Indian parliament in 2001, which internationally provoked insecurity and discourages the investors.

Control Measures for terrorism:

Poverty alleviation: poverty seems to be the major cause of terrorism. Lack of resources to make ends meet have triggered in growing its menace. Strong and effective efforts are required to reduce poverty. It is poverty which forces people to join terrorism.

Reduce unemployment: unemployment is also one of the main causes that help increase terrorism. When people are unemployed, they do not find opportunities to get a job to support their families and eventually they are made pawns in the hands of terrorists.

End injustice: there is a lot of injustice almost everywhere especially in the third world countries like in the tribal belt between Afghanistan and Pakistan, the situation is very disturbing in terms of obtaining justice. People cannot get speedy justice. Injustice in the system has supported increasing terrorism and therefore people take laws in their hands.

Corruption: corruption in the political system is increasing day to day. Political leaders especially in the third world countries seem to have no concern with the economic problems and terrorism and they are busy in making money through unfair means.

Lack of education: lack of education generally forces young generation to join hands of anti social elements. There is dire need to create opportunities for people so that they could educate their children.

Cyber crime

Introduction:

Cybercrime is a growing threat to society caused by the criminal or irresponsible actions of individuals who are taking advantages of the widespread use and vulnerability of computers and the internet and other network.

Types of Cyber Crime:

Hacking: this is a type of crime wherein a person's computer is broken into so that his personal or sensitive information can be accessed. In the United States, hacking is classified as a felony and punishable as such. This is different from ethical hacking, which many organisations use to check their internet security protection.

Theft: this crime occurs when a person violates copyrights and downloads music, movies, games and software. There are even peer sharing websites which encourage software piracy and many of these websites are now being targeted by FBI.

Identity theft: this has become a major problem with people using the internet for cash transactions and banking services. In this cyber-crime, a criminal accesses data about a person's bank account, credit cards, social security, debit card and other sensitive information to siphon money or to buy things online in the victim's name.

Child soliciting and abuse: this is also a type of cyber crime wherein criminals solicit minors via chat rooms for the purpose of child pornography.

Defamation: it is an act of imputing any person with intent to lower down the dignity of the person by hacking his mail account and sending some mails with using vulgar language to unknown persons mail account.

e-mail spoofing: a spoofed e-mail may be said to be one, which misrepresents its origin. It shows its origin to be different from which actually it originates.

Cyber Stalking: This is a kind of online harassment wherein the victim is subjected to a barrage of online messages and emails. Typically, these stalkers know their victims and instead of resorting to offline stalking, they use the Internet to stalk. However, if they notice that cyber stalking is not having the desired effect, they begin offline stalking along with cyber stalking to make the victims' lives more miserable.

Causes of Cyber Crime

Wherever the rate of return on investment is high and the risk is low, you are bound to find people willing to take advantage of the situation. This is exactly what happens in cyber crime. Accessing sensitive information and data and using it means a rich harvest of returns and catching such criminals is difficult. Hence, this has led to a rise in cyber crime across the world.

History of Cyber Crime

When computers and networks came into being in the 1990s, hacking was done basically to get more information about the systems. Hackers even competed against one another to win the tag of the best hacker. As a result, many networks were affected; right from the military to commercial organizations. Initially, these hacking attempts were brushed off as mere nuisance as they did not pose a long-term threat. However, with malicious software becoming ubiquitous during the same period, hacking started making networks and systems slow. As hackers became more skillful, they started using their knowledge and expertise to gain benefit by exploiting and victimizing others.

Cyber Crime in Modern Society

Today, criminals that indulge in cybercrimes are not driven by ego or expertise. Instead, they want to use their knowledge to gain benefits quickly. They are using their expertise to steal, deceive and exploit people as they find it easy to earn money without having to do an honest day's work.

Cybercrimes have become a real threat today and are quite different from old-school crimes, such as robbing, mugging or stealing. Unlike these crimes, cybercrimes can be committed single handedly and does not require the physical presence of the criminals. The crimes can be committed from a remote location and the criminals need not worry about the law enforcement agencies in the country where they are committing crimes. The same systems that have made it easier for people to conduct e-commerce and online transactions are now being exploited by cyber criminals.

Categories of Cyber Crime

Cybercrimes are broadly categorized into three categories, namely crime against

1. Individual
2. Property
3. Government

Each category can use a variety of methods and the methods used vary from one criminal to another.

Individual: This type of cybercrime can be in the form of cyber stalking, distributing pornography, trafficking and "grooming". Today, law enforcement agencies are taking this category of cybercrime very seriously and are joining forces internationally to reach and arrest the perpetrators.

Property: Just like in the real world where a criminal can steal and rob, even in the cyber world criminals resort to stealing and robbing. In this case, they can steal a person's bank details and siphon off money; misuse the credit card to make numerous purchases online; run a scam to get naïve people to part with their hard earned money; use malicious software to gain access to an organization's website or disrupt the systems of the organization. The malicious software can also damage software and hardware, just like vandals damage property in the offline world.

Government: Although not as common as the other two categories, crimes against a government are referred to as cyber terrorism. If successful, this category can wreak havoc and cause panic amongst the civilian population. In this category, criminals hack government websites, military websites or circulate propaganda. The perpetrators can be terrorist outfits or unfriendly governments of other nations.

How to Tackle Cyber Crime

It has been seen that most cyber criminals have a loose network wherein they collaborate and cooperate with one another. Unlike the real world, these criminals do not fight one another for supremacy or control. Instead they work together to improve their skills and even help out each other with new opportunities. Hence, the usual methods of fighting crime cannot be used against cyber criminals. While law enforcement agencies are trying to keep pace with cyber criminals, it is proving to be a Herculean task. This is primarily because the methods used by cyber criminals and technology keeps changing too quickly for law enforcement agencies to be effective. That is why commercial institutions and government organizations need to look at other methods of safeguarding themselves.

The best way to go about is using the solutions provided by Cross-Domain Solutions. When organizations use cross domain cyber security solutions, they can ensure that exchange of information adheres to security protocols. The solution allows organizations to use a unified system comprising of software and hardware that authenticates both manual and automatic transfer and access of information when it takes places between different security classification levels. This allows seamless sharing and access of information within a specific security classification, but cannot be intercepted by or advertently revealed to user who is not part of the security classification. This helps to keep the network and the systems using the network safe.

Cross Domain Solution offers a way to keep all information confidential by using safe and secure domains that cannot be tracked or accessed. This security solution can be used by commercial and governmental

organization to ensure an impenetrable network while still making sure that users can get access to the required information easily.

Corruption:

Corruption is a form of dishonest or unethical conduct by a person entrusted with a position of authority, often to acquire personal benefit. Corruption may include many activities including bribery and embezzlement, though it may also involve practices that are legal in many countries.

BRIBERY: this is by far the most prolific form of corruption. It can take place between two private individuals or a public official and a private individual.

Fraud: this is another form of corruption by which officers of the company or public officials misuse their office powers for personal gain.

Embezzlement: taking the company's good or public funds for personal gain is called embezzlement. Persons with the authority to re-direct the funds or the ability to hide the fact the funds are missing are typically the offenders.

Kickback: these are payments made to business by vendors or payments made to government officials by business persons in exchange for contracts that over-inflate the cost of the work performed at the expense of those receiving the services.

Causes of Corruption:

Low Pay scales/ Wages: Most of the employees in government sector are paid low wages and salaries. Hence some employees revert to corruption for more financial benefits.

2. **Low Job opportunities.** This is another cause of corruption. Due to lack of job opportunities at will, there are many people who like to go for corruption mode to get the job offer. They will be ready to pay lump sum amounts for the job offer to the higher officials or politicians.

3. **Lack of Strict and fast punishments:** Even if someone is found guilty or even caught red-handed by the anti-corruption officials or media, the convicts get less punishment. First they will be suspended for few months or weeks and then re-posted to another location with same Job grade and pay. So this means the official who did the corrupt practice is given a free license to continue his practice.

If the government is so strict that any such corrupt incidents will lead to permanent removal from job and also punishment like several years imprisonment then the corruption will come down to a large extent.

4. **Lack of ill fame:** If a person is found to be corrupt or has done some unacceptable misconduct, he or she has to be avoided and not be respected. But in India those with corruption and other offense related history are given prominent positions like the Member of Parliament or even higher posts. Instead of being disrespected they are respected.

5. **Lack of Unity in public:** Public openly criticize corruption but interestingly there is no unity among the public to stop corruption. If a person wants to get his done his work, he gets it done by corruption means if possible and then later criticizes the corrupt official. If the public stands united against corruption in such a way that no one is ready to offer bribes to get their work done then the corrupt officials will have no other option but to work in corruption free manner.

During election, politicians try to lure the people by offering money and other things. If these politicians win and get power, they try to regain 10 to 100 times the amount spent for their elections.

6. **Lack of transparency in affairs and deals:** Many seat selection processes like in education, contracts for job, employee income reports (wealth possession), etc lack transparency. For this purpose, there is a new act namely RTI : right to information, but the act is not strong enough to prevent malpractices.

7. **Lack of Independent detective agency:** India has no independent detective agency which can investigate with full power and freedom to expose the corrupt individuals. The existing agencies like Central Bureau of investigation are named by the highest court of Indian judicial system as a parrot which indicates how free these investigating agencies to work. Hence anyone who commits offense will not be so afraid of the investigation as they can escape from it by taking help of ruling political party.

8. **Option of many political parties:** In India anyone can establish a political party. So there are many political parties in India. If the political party wins, then the members in it will desire to expand the party to all over the country. To do so, they need enough financial reserves. For this, once they come into power, they opt for corrupt means to make the wealth needed to expand the party.

9. Lack of enough powers to the judicial system and other independent organization. Like the election commission cannot ban a politician from contesting in case they make a mistake or do not comply with the rules during election campaign (like distributing money to people etc.).

10. Lack of accountability: In government there is a big trend of corruption. This is because of lack of accountability. The employee's on government offices do not perform to their par excellence. If they receive 100 files to be cleared in a week they may not even clear 50 of them in that week. They tend to post-pone the clearance of the files. So those who are in urgency of the clearance have to get them done by rewarding the officials involved in the clearance office. This lack of accountability in government offices is chief cause of corruption.

Measures to combat corruption:

1. The first tool is 'education'. With the help of education we can reduce corruption. According to a survey conducted by *India today* the least corrupt state is Kerala, the reason being that in Kerala literacy rate is highest in India. So we can see how education effects education. In most of the states, normally a fairly large number of people are uneducated. Those who are uneducated do not know about the process, provisions and procedures through which they can get justice. Corrupt public servants try to make fool of them and often demands for bribe. It is due to unawareness in the field of law, public rights and procedures thereof that a common and an uneducated suffer out of the corrupt society. This suggests that if we are educated, we can understand our rights well.
2. We need to change the government processes. If the members of the governing body are government officials, there will certainly be less reports of the criminal cases. The reverse may be possible only when there are no more criminal politician in our government. The provision is that, if there is any case filed against a person then he would not be eligible for election. But if we see hundred politicians then about sixty percent of them would be criminal in nature. If these criminal politicians command us and make laws, what types of law would be formed, we can guess! Thus during election, we should keep in mind the person for whom we shall not vote. In India there is a provision that no person as a criminal shall be allowed as a Member of Parliament or member of legislative. Unfortunately a fairly large number of them are a part of it.
3. We can reduce corruption by increasing direct contact between government and the governed. E-governance could help a lot towards this direction. In a conference on, *"Effects of Good Governance and Human Rights"* organized by *National Human Right Commission*, A. P. J. Abdul Kalam gave an example of Delhi metro rail system and online railway reservation as good governance and said that all the lower courts should follow the explanation of the Supreme Court and High Court and make the judgments online. Similarly, Sivraj Patil said that the Right to information should be used for transparency. We have legal rights to know any information. According to this act, (Right to Information act 2005), generally people should follow the procedure of law given to them when their work is not being implemented in a proper way in public services. This act is a great help in the order to control corruption.
4. Lack of effective corruption treatment is another reason. That means, instruments which are in use, are not running properly. For example Prevention of Corruption Act 1988 came into force on 9th September, 1988. But corruption is still flourishing. Why? Because of weak actions and proceedings towards corrupt people. People don't have any fear of this act and the court. The act may thus be revised for its better implementation.
5. Lack of transparency and professional accountability is yet another big reason. We should be honest to ourselves. Until and unless we will not be honest, we can't control corruption. If each of us is honest towards our profession, then corruption will automatically decrease. We need to pay attention towards professional accountability i.e., how much we are faithful and truthful towards our profession. Corruption may be controlled by handling five major professions: *lekhpal*, medical, revenue, police and judicial.

Inequality

Economic inequality means, it is the difference in the distributing of economic assets and income within or between population and individual. The term typically refers to inequality among individuals and groups within a society, but can also refer to inequality among countries.

Labour market: a major cause of economic inequality within modern market economies is the determination of wages by the market. Some small part of economic inequality is caused by the difference in the supply and demand for different types of work.

Growth factor: as development, the earnings of different groups rise differently. The incomes of the upper-income and middle income groups rise more rapidly than those of the poor. This happens in the early stages of growth through which India is passing at present.

Highly unequal asset distribution: in India a few own a large chunk of income-earning assets. Some others, who do not own, or banks, cooperatives, etc and acquire/ hire productive assets. These inequalities enable the few to get incomes in the form of rent, interest and profit.

Lack of educational opportunities: one important factor in the certain of inequality is variation in individual access to education. Education, especially in an area where there is a high demand for workers, creates high wages for those with this education however, increases in education first increase and then decrease res growth as well as income inequality.

Effects of Inequality:

1. Social cohesion: there is a clear link between income inequality and social cohesion. In more equal societies, people are much more likely to trust each other, measures of social capital suggest greater community involvement, and homicide rates are consistently lower.
2. Crime rates: inequality in society has also shown to be highly correlated with crime rates. Most studies looking into the relationship between crime and inequality have concentrated on homicide since homicides are almost identically defined across all nations and jurisdiction.
3. Economic incentives: many people accept inequality as a given, and argue that the prospect of greater material wealth provides incentives for competition and innovation within an economy. Some modern economic theories, such as the neo classical school, have suggested that a functioning economy requires a certain level of unemployment.
4. Economic growth: several recent economists have investigated the relationship between inequality and economic growth using econometric, in their study for the world in state for development economic research.
5. Population health: the effects of inequality on health are not limited to human population. Mortality is strongly associated with higher income inequality, but, within levels of income inequality, not with per capita income.

Measures to reduce inequality:

(i) Fixing Minimum Wage:

One step that can be taken in the direction of more egalitarian society is to guarantee each citizen a minimum wage consistent with a minimum standard of living. In India in 1948, the Minimum Wages Act was passed in pursuance of which minimum wages are being fixed for agricultural labour and labour in what are called the 'sweated trades'. This is a step which will level up the incomes from below.

(ii) Social Security:

Another important measure is the introduction of a comprehensive social security scheme guaranteeing to each individual a minimum standard of economic welfare. The social security scheme that we envisage must include provision of free education, free medical and maternity aid, old-age pension, liberal unemployment benefits, sickness and accident compensation, provident fund and schemes of social insurance, etc. In that manner, substantial benefits can be assured to persons whose incomes are low. Such benefits of course have a money value. This will be another step towards leveling up incomes.

(iii) Equality of Opportunity:

The Government may devise and set up some sort of machinery which may provide equal opportunities to all rich and poor in getting employment or getting a start in trade and industry. In other words, something may be done to eliminate the family influence in the matter of choice of a profession. For example, the government may institute a system of liberal stipends and scholarships, so that even the poorest in the land can acquire the highest education and technical skill.

(iv) Steeply-graded Income Tax:

Mere leveling up will not bridge the gulf between the rich and the poor. It will also be necessary to raze to the ground the high mountains of privilege. For this purpose all possible fiscal devices should be adopted. One such device is the steeply progressive taxes on incomes. This will prevent, to some extent, a rich man from getting richer still. Other direct taxes like the super tax, excess profits tax, and capital gains tax and limitation of dividends, etc., may also be imposed.

(v) High Taxes on Luxuries:

All conspicuous consumption by the rich may be ruthlessly crushed by means of heavy taxation of the consumption of luxuries by them. This will take away from the rich the power to display their wealth. This will also take away the incentive to amassing wealth for exclusive private enjoyment. Expenditure tax in India sought the same objective. (This tax has, however, been abolished.)

(vi) Steep Succession Taxes and Estate Duty and Wealth tax:

Lest inequities should be perpetuated from generation to generation, steeply-graded estate duty and/or wealth tax may be imposed. In 1964-65 and again in 1966-6, rate of estate duty were made steeper in India. They went up to 40%, which is almost expropriation. (However in the Finance Act of 1985 the Estate duty was abolished and wealth tax rates were also reduced.)

Caste Inequality

Caste Inequality is a hereditary [stratification system](#). In Hindu tradition, a person is born into a caste with little to no mobility. This caste determines one's lifestyle, prestige, and occupational choices. The five castes of Hindu are the elite class, warrior class, merchant class, servant caste, and the 'untouchables'. This last caste of Hindu people was required to hide from or bow in the presence of anyone of a higher caste (Newman 300).

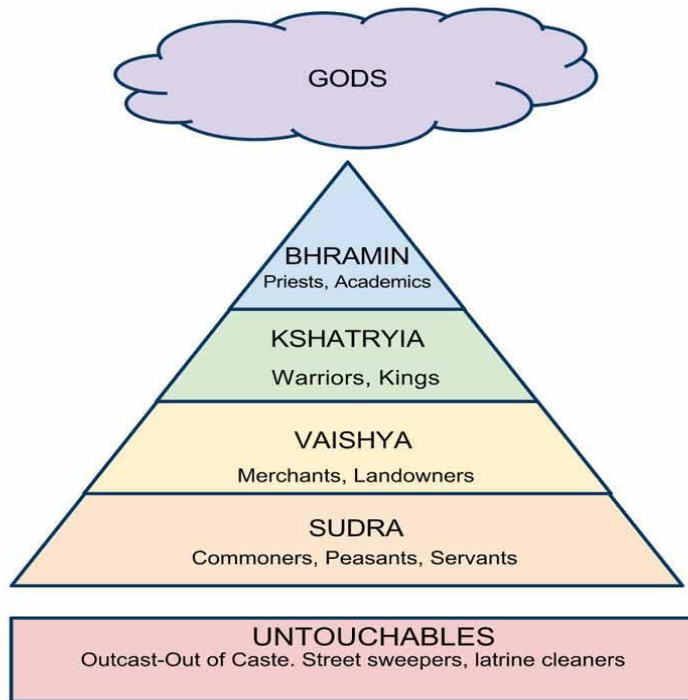
Factors responsible for changes in caste system India:

Modern education:

Modern liberal education introduced into the country by the British has played a crucial role in undermining the importance of caste in Indian social life. Modern education is based on such democratic values like equality, liberty and fraternity. It is also grounded on such scientific values like reason and observation. Hence it is quite natural that with the spread of modern education, the people's belief in the divine origin of caste, Karma and Karmaphala has received a severe setback.

2. Industrialization:

The process of industrialization has affected caste structure to a remarkable extent. Industrial growth has provided new sources of livelihood to people and made occupational mobility possible. Factories, mills and offices are agog with activity.



Urbanization:

Industrialization has given rise to the process of urbanization. New townships have emerged. The ruralites migrate to these towns in order to avail better employment opportunities. With the coming up of big hotels, restaurants, theatres, clubs and educational institutions it is not at all possible to observe communal inhibitions and taboos against food-sharing. Kingsley Davis rightly observes that the anonymity, congestion, mobility, secularism and changeability of the city make the operation of the caste virtually impossible.

Modern means of transport and communication:

Modern means of transport and communication are instrumental in increasing spatial mobility of the people and thereby put an end to the caste system. Means of transport like train, bus, tram, airplane etc. cannot provide for distinctions between castes, and a leveling effect has been brought into the society.

Increase in the importance of wealth:

Under the caste system, birth was taken as the basis of social prestige. But today, wealth has replaced birth as the basis of social prestige. Occupations are now no longer caste-based. People while choosing their occupations attach greater importance to income rather than anything else.

The new legal system:

The new legal system, introduced by the British Government, has given a severe blow to the caste system in India. Equality before law irrespective of castes has been firmly instituted. Consequently, the age old discrimination against the lower castes has been removed.

Westernization:

The term 'Westernization' was coined by Srinivas to signify the changes in the Indian society during the British rule. By promoting education, egalitarianism, rationalism, humanism and above all a critical outlook towards various social issues and problems, westernization has gone a long way in undermining the influence of the caste system.

Secularization:

The role of secularization in weakening the caste system is great. By legitimizing secular ideologies and formal legal doctrines and promoting rationality, scientific attitude and differentiation, secularization has affected certain characteristics of the caste system especially the concept of purity and pollution, commensality, fixity of occupation etc.

Socialistic ideas:

Caste system is based on the ideas of high birth and low birth. On the other hand, socialists say, “the differences between human beings have been created by society; hence the society only can remove them.” As a result of such socialist thought, caste system is breaking.

Gender inequality:

Gender inequality refers to unequal treatment or perceptions of individuals based on their gender. It arises from differences in socially constructed gender roles.

Legal and Constitutional Safeguards against Gender Inequality

Indian Constitution provides for positive efforts to eliminate gender inequality; the Preamble to the Constitution talks about goals of achieving social, economic and political justice to everyone and to provide equality of status and of opportunity to all its citizens. Further, women have equal right to vote in our political system. Article 15 of the Constitution provides for prohibition of discrimination on grounds of sex also apart from other grounds such as religion, race, caste or place of birth. Article 15(3) authorizes the State to make any special provision for women and children. Moreover, the Directive Principles of State Policy also provides various provisions which are for the benefit of women and provides safeguards against discrimination.

Other than these Constitutional safeguards, various protective Legislations have also been passed by the Parliament to eliminate exploitation of women and to give them equal status in society. For instance, the Sati (Prevention) Act, 1987 was enacted to abolish and make punishable the inhuman custom of Sati; the Dowry Prohibition Act, 1961 to eliminate the practice of dowry; the Special Marriage Act, 1954 to give rightful status to married couples who marry inter-caste or inter-religion; Pre-Natal Diagnostic Techniques (Regulation and Prevention of Misuse) Bill (introduced in Parliament in 1991, passed in 1994 to stop female infanticide and many more such Acts. Furthermore, the Parliament time to time brings out amendments to existing laws in order to give protection to women according to the changing needs of the society, for instance, Section 304-B was added to the Indian Penal Code, 1860 to make dowry-death or bride-burning a specific offence punishable with maximum punishment of life imprisonment.

So there are varied legislative safeguards and protection mechanisms for women but the ground reality is very different. Despite all these provisions women are still being treated as second rate citizens in our country; men are treating them as an object to fulfill their carnal desires; crimes against women are at alarming stage; the practice of dowry is still widely prevalent; female infanticide is a norm in our homes.

How we can Eliminate Gender Inequality

The list of legislations as well as types of discriminations or inequalities may go on but the real change will only come when the mentality of men will change; when the male species of human beings would start treating women as equal and not subordinate or weaker to them. In fact not only men but women also need to change their mindset as through cultural conditioning they have also become part of the same exploitative system of patriarchy and are playing a supportive role in furthering men's agenda of dominating women.

Therefore, what is needed is the movement for Women's empowerment where women can become economically independent and self-reliant; where they can fight their own fears and go out in the world fearless; where they can snatch their rights from the clutches of men and they don't have to ask for them; where women have good education, good career, ownership of property and above all where they have freedom of choice and also the freedom to make their own decisions without the bondages.

Module –III Business Ethics

What is ethics?

Ethics: a branch of philosophy which is the systematic study of reflective choice (decision problems), of the standards of right and wrong (moral principles) by which it is to be guided, and of the good or bad (consequences) toward which it may ultimately be directed. An ethical problem occurs when you must make a choice among alternative actions and the right choice is not absolutely clear. Often that choice affects the well-being of other persons.

Ethics is studying and talking about what is right and wrong, good and bad. It is also studying what makes something good or bad. This helps decide whether *other* things are good or bad.

Why ethics is important?

For what reason do people most often sacrifice their integrity and act unethically?

- Need for popularity
- Greed for money
- Desire for power
- Ambition to be famous
- Something else

Business ethics:

According to Keith Davis and associate, ethics are a set of rules that define right and wrong conduct. These rules tell us when our behavior is acceptable and when it is disapproved and considered to be wrong. Business ethics concentrate on moral standards as they apply to business policies, institutions and behavior. Business ethics are nothing but the application of ethics in business. Business ethics are rules of business conduct, by which the propriety of business activities may be judged. It also relates to the behavior of managers.

Nature of ethics:

- Ethics deals with human beings only. Only human beings are endowed with the freedom of choice.
- The science of ethics is a normative science. Normative science deals with standards or norms by which we can judge human actions to be right or wrong. Ex- logic.
- Ethics is not a practical science. (Realization of an end or ideal. It teaches us to know how to do medical science to remove diseases.)

Scope of ethics:

Stakeholder level

- **Employees:**
 - Security job.
 - Better working conditions
 - Participative management
 - Welfare facilities.
- **Customers:**
 - Better quality of goods
 - Goods and services at reasonable price
- **Shareholders:**
 - Ensure capital appreciation.
 - Disclose all relevant information
- **Banks and other lending institutions:**
 - Guarantee safety of borrowed funds
 - Prompt repayment of loans
- **Government:**
 - Complying with rules and regulation
 - Honesty in paying taxes and other dues
- **Personal policy level:**

- Not to use office car, stationary and other facilities for personal use.
- No to misuses others for personal
- Not to indulge in politics to gain power.
- **Societal level:**
- Concern for poor and downtrodden.
- No discrimination against any particular section or group.
- Concern for clean environment.
- **Internal policy level:**
- Fair practices relating to requirement, compensation, layoff, perks, promotion.
- Better communication.

How ethics and law are related?

- Law is what is enacted by government and has to be enforce by police. This is based on values determined by the government.
- Ethics are inner guides to action, based on values- such values are determined by intellect and conscience.

Money Laundering

- Money obtained from the process of creating the appearance that large amounts of money obtained from serious crimes, such as extortion, insider trading, drug trafficking, illegal gambling and tax evasion is "dirty".
- Money can be laundered by many methods, which vary in complexity and sophistication.

Extortion: illegal use of one's official position or powers to obtain property, funds.

- Insider trading: buying or selling of a security by someone who has access to material, non-public information about the security.
- Drug trafficking: sales and distribution of illegal drugs.
- Tax evasion: Tax evasion is the illegal evasion of taxes by individuals, corporations and trusts.
- Ex-Evasion of customs duty:
- Customs duties are an important source of revenue in developing countries.
- Importers purport to evade customs duty by (a) under-invoicing and (b) mis declaration of quantity and product-description. When there is ad valorem import duty, the tax base can be reduced through under invoicing.

Business that treats their employees with dignity and integrity reap many rewards in the form of high morale and improved productivity.

- In spite of this certain ethical problems occur for the following reasons:
- Personal gain
- Individual values Vs organizational goals
- Managers values and attitude
- Competitive pressure

Business that treats their employees with dignity and integrity reap many rewards in the form of high morale and improved productivity.

In spite of this certain ethical problems occur for the following reasons:

- ***Personal gain***
- ***Individual values Vs organizational goals:***

- A company if it pursues goals or uses methods that are not acceptable to some of its employees will create ethical conflicts in business.
- Whistle blowing would be the outcome, if employee goes public with a complaint which results after he fails to convince the company to correct the alleged abuse.
- **Managers values and attitude:**
- **Manager ask three key questions when making decision:**
 1. Will it work?(pragmatic approach).
 2. Is it right?(ethical approach)
 3. Is it pleasant?(affective approach)
- **Values most likely to influence managers at work are:**
 1. Service to customers
 2. Ability
 3. Company loyalty
 4. Achievement
 5. Organizational efficiency
 6. High productivity
- **Pragmatic ethics** is one of the three main schools under the umbrella of ethical relativism. **Ethical relativism** teaches that right and wrong, good and bad, are relative to the situation, circumstances, or personal conviction. **Cultural relativism** is another school of relativism, but it is less an ethical framework than tools for anthropologists to use to remind themselves that other culture have different social mores. **Moral relativism** teaches that morality is merely the following of any ethical framework—one is as good as another. Moral imperatives: moral values are deep seated ideas and feelings that manifest themselves as behavior or conduct.
- **ethical approach(moral code):**
- Ethical consideration influencing behavior towards actions and decisions, judged to be right and away from those judged to be wrong.
- Ex- road safety
- **Is it pleasant?(affective approach):**(feeling)- suggest an evaluative framework guided by hedonism. Hedonism is one behaves in ways that increase pleasure and decrease pain.
- **Competitive pressure**

Value: values are a general term referring to those things which people regard as good, bad, right, wrong, desirable, and justifiable.

Business is driven by values. Values determine:

- **What business people do?**
- **How other react?**

Values are potent sources of conflict as well of co-operation, control and self-control. Though values, business can and does create value in the form of goods, services, employment and much else. Some values prevent this process from working properly or at all. It is also noted that in extreme cases business and whole industries can cease to function because their continued existence is inconsistent with certain powerful values. Some values are more defensible and constructive than others.

Features of Values:

The feature of ethical values are grouped under as DNA

- **Descriptive(something like using 'is' of ethics)(comparative)**

- Different societies have different moral standards. This is a true and factual statement which offers no judgments or conclusions. (Arabian society)
- Ex- Kohlberg questioned a group of boys about what would be a right or wrong action for a man facing a moral dilemma: should he steal a drug to save his wife, or refrain from theft even though that would lead to his wife's death?
- **Normative: (something like using 'ought to be' of ethics).** This action **is** wrong in this society, but it **is right** in another. This is a **normative** claim because it goes beyond simply observing.
- Ex- "Smoking causes cancer"
- **Analytical (something like using 'why' of ethics).** This position argues that there are no moral standards independent of our social groups, and hence whatever a social group decides is right **is** right and whatever it decides is wrong **is** wrong .
- Ex- dowry system

Value can be classified as under in general:

1. Primary value:

For many of entrepreneurs and working professionals, their overriding personal values *require* them to be a workaholic, stressed out, and out of balance. They may say they want more free time to spend with their families but they never achieve it because it doesn't support their stronger personal values. At one point in your life, just a few short years ago, you would work seven days a week, 80 to 100 hours, and often slept in my office because I had so much to do. I was frequently so exhausted that I could hardly see straight. All of this gave me a major sense of accomplishment and proved to me that I was a hard worker.

- It wasn't until I was completely burned out that I realized all of my happiness came from working hard and not actually enjoying my life with the people who mattered most. Finally, I figured out that I needed to list out my real, true personal values which originally looked like this:
- Significance
- Achievement
- Confidence
- Discipline
- Integrity
- Learning

Terminal values/instrumental values:

Instrumental Values are **core values, permanent in nature**, comprise personal characteristics and character traits. Instrumental Values refer to preferable modes of behavior and include values like honesty, sincerity, ambition, independence, obedience, imaginativeness, courageousness, competitiveness, and also some negative traits too. For example, the instrumental values of a PSU will differ from that of an MNC though both may be in the same business.

In our personal lives, Terminal Values are those things that we can work towards or we think are most important and we feel are most desirable – terminal values are desirable states of existence. Terminal

Values include things like happiness, self-respect, family security, recognition, freedom, inner harmony, comfortable life, professional excellence, etc.

- **Ethical subjectivism and relativism:**
- **Ethical subjectivism:**

Subjectivism: it is doctrine knowledge is merely subjective and that there is not external or objective test of truth. Simple subjectivism asserts that ethical statements reflect sentiments, such as personal preference and feelings rather than facts.

- **Emotivism means tending to execute emotion.** Emotivism holds that moral judgments of right or wrong behavior are a function of the positive or negative feelings evoked by the behavior.
- **Emotivism sees a moral judgment as an expression of feeling, not a statement that's literally true. Moral judgments are exclamations: "X is good" means "Hurrah for X!" – and "X is bad" means "Boo on X!"**

Psychology egoism: it asks many questions it faces not upon what people ought to do but what actually do and the motives explaining why people act as they do. A study of the human soul or mind. Psychological egoism confuses three important matters by making equivalent

- Equates selfishness with self-interest
- Equates self-interest with the pursuit of pleasure
- Equates concern for one's welfare with having no concern for the welfare of others.

What is right for you may not be right for me?

This idea if taken and formulated into a more systematic account, it seems to encompass. A negative claim (something it denies)- there are no universal moral norms. A positive claim (something it asserts) - no single standards for all human beings. Ex- In Hindu society, married women wear mangal sutra and also binds on their foreheads. In some societies, women have to cover their heads with sarees. Saree wearing is a must in all festivals and religious function. Polygamy is permissible in some culture.

Ethical relativism:

We are taught the difference between right and wrong as children, and what we come to believe is right or wrong is the result of our upbringing. The normal forms of a given society change over time so that what was considered wrong at one time in a given society may be considered right at that time.

Ethical relativism in interpreted in two ways:

- **Empirical claims:** is a source of knowledge acquired by means of observation or experimentation.
- Ex-for example "All bachelors are unmarried"(*priori* knowledge)(independent experience).
- (for example "Some bachelors are very happy"). (*posteriori* knowledge)(dependent on experience).

Normative claims: *normative* is used to describe statements that are based on values. A normative statement is a claim about how things *ought* to be.

- The following are examples of normative statements:

- Everyone should get a formal education.
- Kindness is a virtue.
- Raising and killing animals for their meat is wrong.

So Normative means relating to an ideal standard of or model, or being based on what is considered to be the normal or correct way of doing something.

Moral development: (Kohlberg's 6 stages of moral development)

The general belief is that a person's values are formed during his childhood and do not change subsequently. As per the research the people grow, they change their values. The changes found in people'.

Level1: pre - conventional stages:

- **Stage1: punishment and obedience orientation:**
- **Stage2 :instrument and relativity orientation**

Child is able to respond to rules and social expectation. Can apply the labels good, bad, right, wrong. Rules are externally imposed on the self: may be pleasant or painful consequences of actions or in terms of the physical power of those who set the rules.

Ex- ask a child of 5 to 6 years whether stealing is wrong.

- He / she says yes.
- Why it is wrong?
- He / she don't have the answer.
- Even if he says "mummy will punish me".
- If I steal the child will only see the situation from his point of view.
- He doesn't have the ability to identify with others.
- The primary motivation is self-centered.

Level 2: conventional stages

- **Stage3 : interpersonal concordance orientation**
- **Stage4 : law and order orientation**
- Maintaining the expectation of one's own family, peer group or nation as valuable I is own its norms. Exhibits loyalty to the group and its norms. The adolescent at this level asked "why wrong" "why right". He replies what my family has taught me?
- What my friends think?
- What our law says?
- What we Indians hold?

Adolescent is now able to see situation form the view point of others. Adolescent is now able to see situations from the view point of others. Adolescent takes up are the familiar view points of the people who belong to his level social groups (family, peers, organization, nation, social class etc.). He assumes that everyone is like them. Person is motivated to conform to the group's norms: Subordinates the needs of the individual to the group

Stages 5 & 6: post-conventional autonomous or principal stages:

- **Stage5: social contract orientation**

- **Stage6: universal ethical principal orientation.**

The person does not accept the valuable and norms of the groups to which he belongs. He sees situations from a point of view that takes everyone's interest into account. He questions the laws and values that society has adopted. Redefines them in terms of self chosen moral principles that can be justified in rational terms. The proper laws and values are those that conform to principles to which any reasonable person would be motivated to commit himself.

Ethics and business:

Ethics conflicts with profits. Business always chooses profits over ethics. Ex- many companies will not invest in research and development projects since they have good reason to suspect that they will prove unprofitable. Many cases of companies choose profits over ethic is like:

1. Some often engage in unethical behavior for profit
2. Customers buy from a business which is honest and trustworthy or from a company being dishonest and crooked.
3. company with a regulation for ethical behavior has an advantage over one with a reputation for being unethical.

Points for bringing ethics into business:

Ethics should govern all voluntary human activities and because business is a voluntary human activity, ethics should also govern business.

Ethics should be part of business, points out that business activities, like any other human activities cannot exist unless the people involved in the business and its surrounding community adhere to some minimal standard of ethics.

Ethics should bring into business by showing that ethical considerations are consistent with business pursuits, in particular with the pursuit of profit.

Long standing ethical culture-one of the most spectacularly profitable companies of all time are Xerox, HP, J&J, Starbucks coffee.,Tatas, HUL, wipro.

Many difficulties also arise in trying to study whether ethical companies are more profitable than unethical ones. Here are many different ways of:

- Measuring profit
- Factors that can affect a company's profits
- Along which companies can be compared in dimensions.

Despite the above difficulties, several studies have been made regarding correlation of profitability with ethical behavior. The results have been mixed.

Myth of moral business?

Through a creative use of myth, corporation could help to fill a vacancy in the cultural landscape. Myths express beliefs and moral goals. The lack of myth is a loss of language even to begin to communicate meaning fully on such issues. Living in a mythical vacuum leads to ethical rootlessness, for there is not structure through which the society's beliefs may be heard and felt.

Ethical Decision making:

Moral philosophy is a set of principle setting forth what is believed to be the right way to have. Role is something that is moral conforms to a standard of acceptability. A philosophy is a study of the general principles of a subject, such as morality. Individuals learn the

1. **Utilitarianism: (teleological):** it determine the ethics of an act by looking at the process of the decision.(ends). Rightness of actions is determined solely by the good consequences they produce.
 - According to utilitarianism, our obligation or duty in any situation is to perform the action that will result in the greatest possible balance of good/ evil.
 - In classical utilitarianism, pleasure is taken to be ultimately the only good and evil is the opposite of pleasure or pain; goodness here is human well being. Whatever makes human beings generally better off or provides some benefit is good.
 - Utilitarianism is a powerful and widely accepted ethical theory that has specific relevance to problems in business. It fits easily, with the concept of value in economics and the use of cost benefit analysis in business.

The principle of Jeremy Bentham's versions of utilitarianism

The principle of utility means that principle which approves or disapprove of every action whatsoever:

- According to the tendency which it appears to have to argument
- Diminish the happiness of the party work interest is in question.
- What is the same thing in other words to promote or to oppose that happiness.

The principle requires that the requires that the consequences can be measured in some way so that the pleasure and pain of different individuals can be added together and the results of different courses of action compared.

Form the economic point of view, cost-benefit analysis is simply a means for achieving an efficient allocation of resources. The chief advantage of cost benefit analysis is that the price of many goods is let by the market, so that the need to have knowledge of people's pleasures or preference ranking is largely eliminated. It is not used as a basis for personal morality but as a means for making major investment decisions and decisions on broad matters of public policy.

Cost-effective analysis: already agreed upon end exists what is the most efficient means for achieving. (eg-reducing injuries from defective products or protecting the environment)

Cost-benefit analysis: used to select both the means to ends and the ends themselves.

Difference between:

Deontology	utilitarianism
<ul style="list-style-type: none"> • Principle inherent in the action. • Individuals are valuable in themselves. • Theory asserts that there are some actions that are always wrong, no matter what the consequences. 	<ul style="list-style-type: none"> • Outside the action. • Criticized because it appears to tolerate sacrificing some people for the sake of others. • Right or wrong are dependent on the consequences vary with the circumstances.

2. Deontology: deontological word derives from deon, the greek word for duty. Deontology is the science of duty. It is not because of their consequences but because we have a duty not to do bad. This is a deontological theory than a teleological approach to ethical reasoning.

Eg. Bribery is wrong, by its very nature regardless of the consequences. Non- consequential reasoning in ethics includes argument based on principles such as the golden rule.

Kantianism:

Kantianism is an ethic of duty. Non- consequentialism in ethics is an approach labeled deontological. Its classic, indeed definitive formulation, is that provided by the German philosopher Immanuel kant. It clears one thing and only one thing is good in itself. An action is morally right as per kant, only if the person performing it is motivated by a good will.

Two definitions centered on this are:

- I ought never to act except in such a way that I can also will that my maxim should become a universal law.
- Act on such a way that you always treat humanity never simply, as a means , but always at the same time as an end.
- Ex- a personnel officer decides to break employee confidentiality, he might may be acting on a maxim like- I shall do so!
- When I am asked to disclose “personal information, I will disclose what is non- confidential.

Universalizing is a maxim means that the principle upon which we act should be one wish we can, with consistency, wish all other people to act upon. Some maxims can be universalized, while others cannot be done. Actions performed under it are in accordance with the categorical imperative.

Virtue ethics:

Virtue ethics theory does three things:

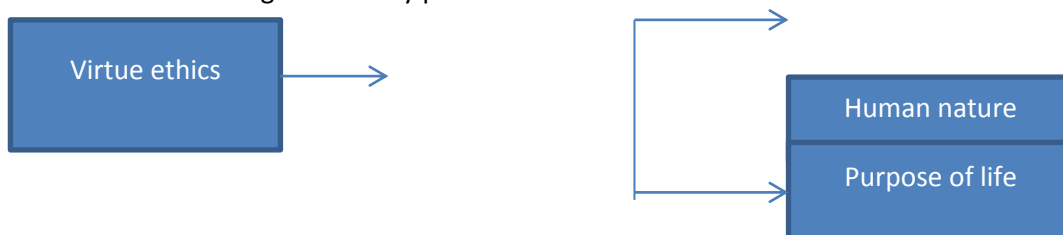
- It defines the concept of a virtue
- It must offer some list of the virtues and a list of their corresponding virtues.
- It offers some justification of that list and explain how we define what are virtues and vice.

Eg- honesty is in the list of the virtues.

Aristotle defines virtue as a charter trait that manifests itself in habitual action. Honesty for example cannot consist in telling the truth once. It is the tract of a person who tells the truth as general practice.

Virtue ethics = excellences of human character

A person possessing such qualities exhibited the excellences of human charter. Virtue theorist tries to identify the list virtues and to give an account of each. They give an account of why the virtue is important. Virtues are acquired traits. Mere feeling like hanger is not virtues according to Aristotle. Honesty on the other hand cannot consist in telling the truth once. It is rather trait of a person who tells the truth as a general practices. A virtue is also something we actually practice.



The possibility of applying virtue to business depends on a context that includes:

- Some conception of the nature
- Purpose of business

Virtue ethics could be applied to business, if the virtue of good business person is the same as those of a good person. A moral virtue is an acquired disposition that is valued as part of the character of a morally good human being and that is exhibited in the person's habitual behavior. A person is said to have moral value when the person is disposed to behave habitually in the way and with the reasons, feelings and desires that are characteristics of a morally good person. A moral virtue must be acquired and not merely a natural characteristic such as intelligence, beauty or natural strength.

He further argues that individuals are embedded in communities and that business is essentially a communal activity in which people work together for a common good.

Economic justice: justice is the philosophy used in making ethical decisions to ensure the equal distribution of burdens and benefits. These principles include a belief that people should be treated equally, that rules should be applied consistently and that people who harm others should be held responsible and make restitution.

A justice decision is one that is fair, impartial, and reasonable in the light of the rules that apply to the situation.

Example: many people will be eager to know when budget is presented on 29th march every year in India. As they would like to know what would be the burden and who will escape paying their fair share? A fair distribution does not mean equal distribution.

Types of justice:

1. Distributive justice:

Justice, like rights, is an important moral concept with a wide range of applications. We use it to evaluate not only the actions of individuals but also social, legal, political and economic practices and institutions. Though the word just is sometimes used interchangeably with right and good, it is generally has a more restricted meaning that is closer to fair. Distributive justice arises mostly in the evaluation of our social, political and economic intuitions, where the benefits and burdens of engaging in cooperative activities must be spread over a group. A just distribution is one in which each person shares equally, but in others, unequal sharing is just if the inequality is in accord with some principle of distribution.

Economic justice:

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3. Libertarian justice:

The term libertarianism originally referred to a philosophical belief in free will but later became associated with anti-state socialism and Enlightenment-influenced political movements critical of institutional authority believed to serve forms of social domination and injustice. Contemporary Harvard philosopher John Rawls is known as the father of an ethical theory called distributive justice, which holds that ethical acts or decisions are those that lead to an equitable distribution of goods and service.

It follows from the system of distributive ethical justice is measured by the capacity of the act in question to enhance cooperation among members of society. Rawls suggest that we consider how we would distribute goods and services if we were under a veil of ignorance that prevented us from knowing our status in society.

Ethical issues in Functional Areas of Business

Marketing:

Marketing consist of the performance of business activities that direct the flow of goods and services from producer or consumers or user. A number of distinct functions is coming under this broad characterization which includes;

- Product development
- Distribution
- Pricing
- Promotion
- Sales

Virtually all aspects of marketing from the development of new products to pricing, promotion and sales – raise ethical questions that do not always have an easy answer. Advertisement, similar to safety in the development of new products raises numerous ethical concerns.

Ethics are standards of moral conduct. To act in an ethical fashion is to conform to an accepted standard of moral behavior. Undoubtedly, virtually all people prefer to act ethically. Marketing executives face the challenges of balancing their own interests in the form of recognition, pay, and promotion, with the best interests of consumers, their organizations and society into a workable guide for their daily activities. Codes of ethics strengthen a company's hand in dealing with customers or prospects that encourage unethical behavior.

Four Pragmatic reasons for ethical behavior:

Buyers often form an impression of an entire organization based on their contact with one person. That person represents the marketing functions. He should build up the image of the entire company acting in a dignified way. He should be highly ethical. Marketing executives wield a great deal of social power as they influence markets and speak out one economic issue. There is responsibility tied to that power. If marketers do not use their power in a socially acceptable manner, that power will be lost in the long run. We hear sometimes about misleading package labels, false claims in ads, phony list prices and infringements of well-established trademarks. Due to this the reputation of all marketers are damaged. Business leaders hence must demonstrate convincing that they are aware of ethical responsibility and fulfil it.

Business apathy, resistance of token response to unethical behavior simply increase the probability of more government regulation.

Most of the governmental limitations on marketing are the result of managements failure to live up to its ethical responsibilities at one time or another.

To protect the image of the organization:

- Buyers often form an impression of an entire organization based on their contact with one person.
- That person represents the marketing functions.
- He should build up the mage of the entire company acting in a dignified way.

To retain he power granted by society:

- Marketing executive wield a great deal of social power as they influence markets and speak out on economic issues.
- There is responsibility tied to that power.
- If marketer does not use their power in a socially acceptable manner, that power be lost in the long run.

To reverse declining public confidence in marketing:

- We hear sometimes about misleading package labels, false claims in ads and infringements of well-established trademarks.
- Due to this the reputations of marketers are damaged.
- Business leaders hence must demonstrate convincing that they are aware of ethical responsibility and fulfil it.
- Management interest is to be concerned with the well being of consumers, as the latter are the lifeblood of a business.

To avoid increases in government regulation

- Most of he governmental limitations on marketing are he result of management failure to live up to its ethical responsibilities at one time or another.

Marketing ethics and consumer rights:

Marketing consists of the performance of business activities that direct the flow of goods and services from producer or manufacturer to consumer or user. A number of distinct functions is coming under this broad characterization which includes:

1. Product development
2. Distribution
3. Pricing
4. Promotion
5. Sales

Ethical challenges in marketing executives:

- Balancing their own interest in the form of recognition, pay and promotion, with the best interests of consumers, their organizations and society into a workable guide for their daily activities.
- Arthur Anderson and company has developed an ethical reasoning model that can be taught to current and future managers.
- **The procedure consist of:**
- Step1: identifying the decision options and the likely consequences of each.

- Step2: identifying all individuals and organization that will be positively or negatively affected by the consequences of each option.
- Step3: estimating the negative impact(cost) and positive impact (benefit) of each option from the point of view of each affected party, taking into consideration their particular interests and needs.
- Step4: ranking the costs and the benefits of each option and making a decision.

Unethical marketing behavior:

Product :

Safety	Manufacture of flammable stuffed animals
Inadequate warranties	Warranties which insufficient time or parts coverage
Environmental pollution	Manufacture of non-biodegradable plastic products
Mislabel product	Flavored sugar water sold as apple juice for babies

• B. Price:

Excessive markups	High prices used by retailers to connect quality
Price differentiation	Yield management pricing of airline tickets, resulting in day to day differential pricing of adjacent seats.
Price discrimination	Favoured pricing to preferred ethnic groups

• C. Promotion:

Exaggerated claims	One blade company claims its razor as the smoothest, most comfortable shave known to man.
Tasteless advertising	Sexual innuendoes and gender disparagement.
Naïve audience	Bill boards for cigarette and alcohol in poor urban neighborhood where many people are dying from related causes.
Telemarketing	Offers of fabulous prizes in return for credit card purchases of good

• Distribution:

• Fraudulent sales	That sales to be licensed and regulated pursuant to the provisions of this Act
Bait and switch tactics	Living consumers with ads for low priced merchandise for the purpose of switching them to high priced models.

Naïve audience	Bill boards for cigarette and alcohol in poor urban neighborhood where many people are dying from related causes.
Direct marketing	Deceptive, misleading product size and performance claims.

- **E. packing:**

Deceptive quantities: some marketers use “packaging to price” tactics that mask a decrease in product quantity while maintaining the same price and additional package size.

Unethical consumer practices:

- **Shop lifting**
- **Switching price tag**
- **Returning cloth that has been worn**
- **Abusing products and returning them as damaged goods**
- **Redeeming coupons that have expired**
- **Returning cloth bought at full price and demanding a refund for the sales price differential.**
- **Copying copyrighted material (books, videotape)**

Product liability:

The right of consumers to be protected from harmful products raises a number of problems for manufacturers as products can injure, and even kill people.

The due care standard:

The standard of due care for manufacturers or other persons involved in the sale of a product to a consumer including wholesalers and retailers, covers a wide range of activities.

Among them are:

Design: designed in accordance with government and industry standards to be safe

Material: material specified in the design should meet government and industry.

Production: due care should be taken in fabricating parts to specifications and assembling them correctly.

Quality control: a systematic programme to inspect product between operations at the end to ensure that they are of sufficient quality.

Packaging, labeling and warning: product should be packaged so as to avoid any damage in transit.

Notification: the manufacturers of some products should have a system of notifying consumers of hazards that only appear later.

Advertising is wasteful: (criticized)

Production costs are the costs of the resources consumed in producing or improving a product.

Selling costs are the additional costs of resources that do not go into changing the product, but are invested instead in persuading people to buy the product. Example: advertising, critics claim etc. These are not used to improve the product, but to merely persuade people to buy it. Such resources, critics conclude are wasted because they are expended without adding to consumer utility in any way.

Advertising adds to the consumer utility by serving as an incentive to greater consumption and thereby indirectly motivating a greater productivity, efficiency and a lower price structure. It is felt that many advertising serves to produce beneficial rise in demand for all products.

Unethical advertising:**INTRODUCTION**

- In this era of globalization and deregulation, advertising has acquired a new status.
- As a matter of fact, advertising creates employment opportunities, provides information regarding the developments taking place in the society, contributes to economic growth, and provides information about products and services available in the market which helps in taking buying decisions.

HOW ETHICAL ISSUES ARISE IN ADVERTISING

- An advertisement of Nestle India Ltd (Maggie healthy soup) claimed that "Happy Heart" "Healthy Soup".
- The claim created an impression that consumption of Maggie soup leads to better heart and health, while on testing by independent agency, it has been found that it contains high levels of salt which releases sodium into body which in turn, causes hypertension and high blood pressure instead of good heart and health.
- Therefore, on complaint, ASCI declared the advertisement as case of misleading by implication and ambiguity. Therefore, Nestle India Ltd assured ASCI to modify its advertisements.

UNETHICAL ADVERTISING

Advertisement is considered unethical in the following situations:

- o *When it has degraded or underestimated the substitute or rival's product.*
- o *When it gives false or misleading information on the value of the product.*
- o *When it fails to give useful information on the possible reaction or side effects of the product. And*
- o *When it is immoral.*

BASIC PRINCIPALS OF ADVERTISING

- Decency
- Honesty
- Social Responsibility
- Truthful presentation
- Comparisons
- Imitation
- Safety and health
- Avoidance of Harm
- Environmental behavior

ADVERTISING AND UNTRUTHFUL OR DECEPTIVE



General mistrust of advertising among consumers. Many do not perceive ads as honest or believable

Abuses involving sales promotions such as contests, sweepstakes, premium offers

Unethical and/or deceptive practices involving mail order, telemarketing and other forms of direct marketing

Internet scams and abuses

WAYS OF UNETHICAL ADVERTISEMENT

- Surrogate advertisement
- Puffery
- Exaggeration
- Unverified claims
- Women stereotyping
- Women used as sex symbols for promoting products
- Comparative advertisements
- Use of children in advertising

Surrogate advertising is prominently seen in cases where advertising a particular product is banned by law.

Advertisement for products like cigarettes or alcohol which are injurious to health are prohibited by law in several countries and hence these companies have to come up with several other products that might have the same brand name and indirectly remind people of the cigarettes or beer bottles of the same brand. Common examples include:

Fosters and Kingfisher beer brands, which are often seen to promote their brand with the help of surrogate advertising.

PUFFERY ADVERTISING

- **Puffery** as a legal term refers to promotional statements and claims that express *subjective* rather than *objective* views, such that no reasonable person would take literally.
- A two-year old might believe that polar bears enjoy sipping Coca-Cola, but we know better 😊.

EXAGGERATION

- Using false claims in the advertisements about the product.
- For example:-Ghari detergent - “Pehle Istemaal kare phir vishvaas kare.”, Tide detergent – “White ho to Tide ho.”, Vodafone Essar – “Wherever you go our network follows.”



White ho to
Tide ho



One Drop Challenge



Wherever you go our
network follows.

UNVERIFIED CLAIMS

- It includes advertisements of “energy drinks” which tells us about the number of vitamins and how they help children to grow strong and tall.
- There is no way of verifying these false claims.
- For example:-Horlicks, Maltova, Tiger biscuits.



WOMEN STEREOTYPING

Women are generally associated with household works and is not supposed to be a good decision maker which contributes to women stereotyping.



UNHEALTHY BRAND COMPARISONS

Nowadays advertisers are engaged in unhealthy brand comparison with the help of advertising.

Such comparisons create problems and confusions for the right choice of the product as far as audience are concerned.

Example can be cited of colgate and pepsodent toothpaste.



CHILDREN IN ADVERTISING

Children are easily persuaded and have a large pull on today's markets, as is known by all advertisers, even ones who do not intend for their products to be consumed by children.



Children's TV Watching Behavior

Children ages 2-11 watch an average of 22 hours of TV per week and see 30,000 commercials per year

80% of all advertising targeted to children falls in four product categories: Toys, cereal, candy & fast food restaurants

Ethical issues in HRM

- Ethics in HRM indicates the treatment of employees with ordinary decency and distributive justice.
- **Areas of HRM activities:**
 - Basic human right
 - Civil and employment fight(job security, freedom, safety in the workplace, privacy(right to be let alone))
 - Equal employment opportunity

Role of HR in promoting ethics:

Improve recruitment and selection test:

- Follow the recruitment policy
- That is identification of recruitment needs, monetary aspects, criteria of selection.

Conduct ethics training:

- Ensure that there are no pitfalls in performance appraisal.
- The main purpose of the training is productivity, high employee morale, less supervision, less wastage.

Performance appraisal:

- Rewards and disciplinary system improve and facilitate two way communication.
- Avoid any kind of discrimination among the employees based on certain factors like caste, colour, culture, religion, EEO.

Unethical practices of HRM adopted by companies(employers):

- Creating split in union Labour
- Biased attitude in selection, transfer and promotion.
- Off-shoring(relocation) and exploiting cheap Labour markets.
- Child Labour
- Physical violence
- Linger inflexible working hour
- Putting more stress on employees for productivity.

Unethical practices of HRM adopted by employees:

Some of the common problems are:

- False claim of personal details like age, qualification etc.
- Producing false certificates

- Taking decision per their convenience

Unethical practices of HRM adopted by Government:

- Announcing the vacancies and not taking action further.
- Functioning of government office is not transparent.
- Selection committee will be excessively caution of reservation quotas.

Ethics and Fair Treatment at Work:

- *Ethics* are principles of conduct that govern an individual or a group
- The law is not the best guide as things that are legal are not always the right thing to do and sometimes the right thing to do isn't legal
- Ethics means making decisions that represent what you stand for, not just what the laws are

Ethics in the Workplace:

- **Ethical companies**

What Treat Employees Fairly?

- To avoid workplace unfairness issues such as low productivity and high turnover
- To avoid legal ramifications because employees have both legal and moral rights

What Shapes Ethical Behavior at Work?

- Individual factors
- Traits
- Organizational pressures
- Ethics policies and codes
- Enforcement
- Organizational culture

Employee Discipline and Privacy

HRM must adhere to the *Three Pillars* in order to create a fair and just disciplinary system

- Clear rules and regulations
- A system of progressive penalties
- Maintain an appeals process

Fair Discipline Guidelines:

- Make sure the evidence supports the charge of employee wrongdoing
- Make sure to protect the employees' due process rights
- Adequately warn the employee of the disciplinary consequences of his or her alleged misconduct.
- The penalty should be reasonably related to the misconduct and to the employee's past work history
- Maintain the employees' right to counsel
- Don't rob your subordinate of his or her dignity
- Remember that the burden of proof is on you
- Don't act while angry

- Use ombudsman (public advocate is usually appointed by the government or by parliament, but with a significant degree of independence, who is charged with representing the interests of the public by investigating and addressing complaints of maladministration or a violation of rights.)

Discipline Without Punishment:

- Issue an oral reminder
- Should another incident arise within six weeks, issue a formal written reminder and place a copy in the employee's personnel file
- Give a paid, one-day "decision-making leave"
- If no further incidents occur in the next year or so purge the one-day paid suspension from the person's file

Employee Privacy;

People view invasions of privacy as unethical and unfair!

- Privacy violations include:
- Intrusion
- Publication of private matters
- Disclosure of medical records
- Appropriation of an employee's name or likeness for commercial purpose

Employee monitoring issues such as managing and monitoring e-mail, biometrics and location monitoring are an urgent problem!

- About 1/3 of US companies recently investigated suspected leaks, via e-mail, or confidential or proprietary information
- HRM must take legal issues into consideration

Employee at will:

- It is a doctrine connected with the moral and legal basis for this particular assignment of rights for employers and employee.
- Employment, according to this doctrine, is an "at will" relation that comes into existence when two parties willingly enter into an agreement and the relation continues to exist only as long as both parties will that it do so.

Ethics in finance:

- **Fairness and efficiency in financial market:**
- **Creative accounting:** a phrase which is popularly associated with cooking the books.
- **Equity accounting:** is another technique of enhancing profits. In U.K, if the firm owns more than 20% of another firm, it may declare that proportion of the other firm's profits as its own.

Accountability and acquisitions:

- Buying a business makes sense when the benefit exceeds costs.

- This means to find a seller who expects too low a price, so that you can secure a benefit from acquisition by improving the targets performance.

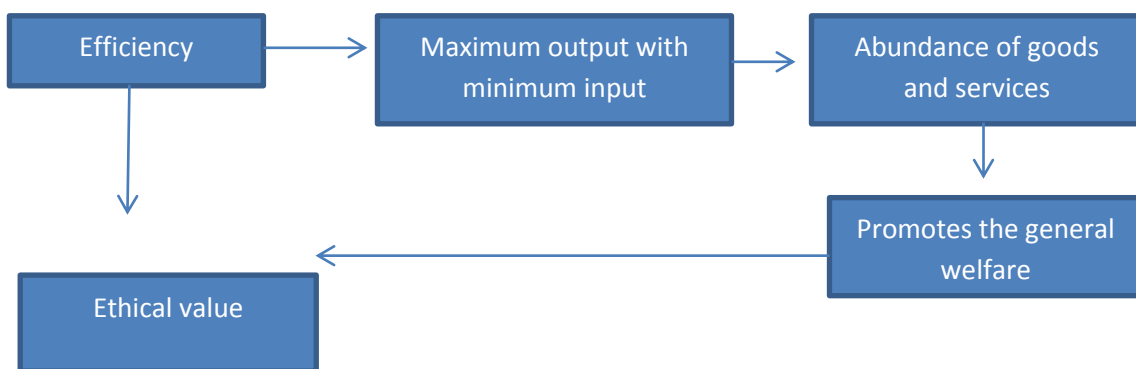
Fair value:

- Merger accounting calls for the assets and liabilities of a target business to be brought into the buyers consolidated accounts at their previous book values(investment is the price paid for a security), subject only to adjustments to achieve consistency with the buyer accounting policies.
- Acquisition accounting is different and requires adjustments to ensure that the consolidated balance sheet at the end of acquisition reflects the fair values (is a rational and unbiased estimate of the potential market price of a good, service, or asset) of the targets separable assets and liabilities.

Finance and ethics:

- Ethical issues in finance are important because they bear on our financial well being .
- Ethical misconduct as everyone knows, may be by individuals acting alone or by financial institutions has the potential to rob people of their life saving.

Efficiency in market:



Unfairness in market: The main kinds of unfairness are:

Fraud and manipulation:

- The main purpose of security regulation is to prevent fraud and manipulation practices in the sale of securities.
- Investment (buyers and sellers) are vulnerable to fraud because the value of financial instruments depends almost entirely on information that is difficult to verify.

The company that fails to report proper information may be committing fraud, even though the buyer of that company's stock buys it from previous owner who may or may not be aware of the news.

Manipulation involves the buying or selling of securities in order to create false or misleading impression about the direction of their price so as to induce other investor to buy or sell the securities.

Equal information:

- Every one play by the same rules.
- Equally equipped to compete
- Posses same information.
- Equally access to information

Competition between parties with unequal information is widely regarded as unfair because the playing field is tilted in favors of the player with superior information.

Equal bargaining power: the fairness of bargained agreements assumes that the parties have relatively equal bargaining power. A trader who negotiates for a future contact that results in great loss has only himself or herself to blame. Unequal bargaining power can result from many sources.

Efficient pricing:

- Fairness in financial markets includes efficient prices that reasonably reflect all available information.
- Volatility results from a mismatch of buyers and sellers in eventually self-correcting.
- Volatility also affects the market by reducing investors' confidence and driving them away. The loss of confidence depresses stock prices.

Green mail:

- **Greenmail or greenmailing** is the practice of purchasing enough shares in a firm to threaten a takeover, thereby forcing the target firm to buy those shares back at a premium in order to suspend the takeover.
- Let's assume an entity that Company XYZ considers unsavory (we'll call it Party X) is attempting to acquire control of Company XYZ by offering to buy shares at a premium from Company XYZ's shareholders.
- To avoid being purchased by Party X, Company XYZ's board of directors might offer to purchase Party X's shares for a price above the current market price.
- This of course makes Party X go away , but the transaction can also be construed as Party X blackmailing (or greenmailing) Company XYZ by threatening to take over the company if it does not pay a particular premium to Party X.

Golden parachutes:

- Golden parachute is the name gives to the benefit provided, usually to top executives, that provides income when the person is terminated or forced out of the company before the end of a specific period of time.
- , Termination agreement he term golden parachute usually is reserved for the large severance arrangement paid to a top executive. In an attempt to make a job offer more attractive to a top candidate the company may offer that executive a large salary, a big benefit package and a number of other incentives.

- One of those incentives often is a package of cash, stock, continuation of insurance and club memberships, and anything the executive requests that will be paid if the executive is terminated. This package is called a golden parachute.
- The golden parachute is called that because it provides a "soft landing" for a terminated executive. Golden refers to the fact that it's money or other income.
- Also Known As: Severance package

IT: Privacy, Accuracy, Property, Accessibility:

The principal ethical issues of concern with regard to information systems have been identified as the issues of:

- Privacy
- Accuracy
- Property
- Access

Privacy:

- **Privacy** is the right of individuals to retain certain information about themselves without disclosure and to have any information collected about them with their consent protected against unauthorized access.
- Invasion of privacy is a potent threat in an information society. Individuals can be deprived of opportunities to form desired professional and personal relationships, or can even be politically neutralized through surveillance and gathering of data from the myriad databases that provide information about them.
- The Privacy Act serves as a guideline for a number of ethics codes adopted by various organizations. The Act specifies the limitations on the data records that can be kept about individuals. The following are the principal privacy safeguards specified:
 - No secret records should be maintained about individuals
 - No use can be made of the records for other than the original purposes without the individuals consent.
 - The individual has the right of inspection and correction of records pertaining to him or her.
 - The collecting agency is responsible for the integrity of the record-keeping system

Accuracy

- Pervasive use of information in our societal affairs means that we have become more vulnerable to misinformation. **Accurate information** is error-free, complete, and relevant to the decisions that are to be based on it.
- Professional integrity is one of the guarantors of information accuracy. An ethical approach to information accuracy calls for the following:
 - 1. A professional should not misrepresent his or her qualifications to perform a task.

- 2. A professional should indicate to his or her employer the consequences to be expected if his or her judgment is overruled
- 3. System safeguards, such as control audits are necessary to maintain information accuracy. Regular audits of data quality should be performed and acted upon.
- 4. Individuals should be given an opportunity to correct inaccurate information held about them in databases.
- 5. Contents of databases containing data about individuals should be reviewed at frequent intervals, with obsolete data discarded.
- **Property**
 - The right to property is largely secured in the legal domain. However, intangibility of information is at the source of dilemmas which take clarity away from the laws, moving many problems into the ethical domain. At issue primarily are the rights to **intellectual property**: the intangible property that results from an individual's or a corporation's creative activity.
 - Intellectual property is protected in the United States by three mechanisms:
 - 1. **Copyright**
 - - A method of protecting intellectual property that protects the form of expression (for example, a given program) rather than the idea itself (for example, an algorithm).
 - **Patent**
 - - Method of protecting intellectual property that protects a non-obvious discovery falling within the subject matter of the Patent Act.
 - **Trade secret**
 - - Intellectual property protected by a license or a non-disclosure agreement
 - Computer programs are valuable property and thus are the subject of theft from computer systems. Unauthorized copying of software (**software piracy**) is a major form of software theft because software is intellectual property which is protected by copyright law and user licensing agreements.
- **Access**
 - It is the hallmark of an information society that most of its workforce is employed in the handling of information and most of the goods and services available for consumption are information-related. Three necessities for access to the benefits of an information society include:
 - 1. The intellectual skills to deal with information
 - 2. Access to information technology
 - 3. Access to information
 - One should strive to broaden the access of individuals to the benefits of information society. This implies broadening access to skills needed to deal with information by further enabling literacy, access to information technology, and the appropriate access to information itself.

- Intensive work is being done on developing **assistive technologies** - specialized technologies than enhance access of the handicapped to the information technology and, in many cases, to the world at large.

Impacts of Information Technology on the Workplace:

- Due to the pervasive use of information technology and its dual potential to be used for good or bad, we need to consider the specific issues that arise when people work with information systems.
- **Positive and Negative Potential of Information Technology**
- The ACM Code of Ethics and Professional Conduct commits computer professionals to design and build information systems that enhance the quality of working life.
- It has been established that people experience job satisfaction when:
 - They have a sense that their work is meaningful
 - They feel a sense of responsibility for the results of their work and have a sense of autonomy and control
 - They receive feedback about their accomplishments

Some of the negative effects of information technology include:

- **Use of computers has displaced workers in middle management (whose primary purpose was to gather and transfer information) and in clerical jobs.**
- Some categories of work have virtually disappeared which has created unemployment for a number of workers.
- May create a permanent underclass who will not be able to compete in the job market.
- Computer crime is a growing threat (money theft, service theft, software theft, data alteration or theft, computer viruses, malicious access, crime on the internet).
- Health issues.
- Societal issues (privacy, accuracy, property, and access).
- The ability to work from remote locations.
- Access to individuals with disabilities
- Medical diagnosis
- Computer-assisted instruction (learning aids)
- Environmental quality control
- Law enforcement

Ergonomics - solutions to some health problems are based on the science of ergonomics, sometimes called human factors engineering. The goal of ergonomics is to design health work environments that are safe, comfortable, and pleasant for people to work in, thus increasing employee morale and productivity.

Ergonomics stresses the healthy design of the workplace, workstations, computers and other machines, and even software packages. Other health issues may require ergonomic solutions emphasizing job design, rather than workplace design.

Whistle blowing - According to the full text of the ACM Code of Ethics and Professional Conduct, a computing professional has an obligation to report any signs of systems dangers that might result in serious personal or

social damages. @ If one's superiors do not act on the warning, the professional may find it his or her ethical obligation to report the violations outside of the organization.

- However, an extremely careful assessment of all the relevant aspects of risk and responsibility must precede such an act. Otherwise, the reporting itself may be harmful.
- Ethical behavior of employees is highly dependent on the corporate values and norms - on the corporate culture as a whole.
- Open debate of ethical issues in the workplace and continuing self-analysis help keep ethical issues in focus. Many corporations have codes of ethics and enforce them as part of a general posture of social responsibility.

Broader ethical issues in society:

Corporate crime:

- In [criminology](#), corporate crime refers to crimes committed either by a [corporation](#) (i.e., a [business entity](#) having a separate legal personality from the [natural persons](#) that manage its activities), or by individuals acting on behalf of a corporation or other business entity .

White-collar crime :

- **White-collar crime** refers to financially motivated nonviolent **crime** committed by business and government professionals. Within criminology, it was first defined by sociologist Edwin Sutherland in 1939 as "a crime committed by a person of respectability and high social status in the course of his occupation".

blue-collar crime:

- In [criminology](#), **blue-collar crime** is any crime committed by an individual from a lower [social class](#) as opposed to [white-collar crime](#) which is associated with crime committed by someone of a higher-level social class.

Types of White-collar crime:

- **Bank Fraud:**
To engage in an act or pattern of activity where the purpose is to defraud a bank of funds.
- **Blackmail:**
A demand for money or other consideration under threat to do bodily harm, to injure property, to accuse of a crime, or to expose secrets.
- **Bribery:**
When money, goods, services, information or anything else of value is offered with intent to influence the actions, opinions, or decisions of the taker. You may be charged with bribery whether you offer the bribe or accept it.
- **Cellular Phone Fraud:**
The unauthorized use, tampering, or manipulation of a cellular phone or service. This can be accomplished by either use of a stolen phone, or where an actor signs up for service under false identification or where the actor clones a valid electronic serial number (ESN) by using an ESN reader and reprograms another cellular phone with a valid ESN number.
- **Computer fraud:** Where computer hackers steal information sources contained on computers such as: bank information, credit cards, and proprietary information.
- **Counterfeiting:**
Occurs when someone copies or imitates an item without having been authorized to do so and passes the copy off for the genuine or original item. Counterfeiting is most often associated with money however can also be associated with designer clothing, handbags and watches.
- **Credit Card Fraud:**
The unauthorized use of a credit card to obtain goods of value.

- **Currency Schemes:**
The practice of speculating on the future value of currencies.
- **Environmental Schemes:**
The overbilling and fraudulent practices exercised by corporations which purport to clean up the environment.
- **Extortion:**
Occurs when one person illegally obtains property from another by actual or threatened force, fear, or violence, or under cover of official right.
- **Forgery:**
When a person passes a false or worthless instrument such as a check or counterfeit security with the intent to defraud or injure the recipient.
- **Health Care Fraud:**
Where an unlicensed health care provider provides services under the guise of being licensed and obtains monetary benefit for the service.
- **Insider Trading:**
When a person uses inside, confidential, or advance information to trade in shares of publicly held corporations.
- **Insurance Fraud:**
To engage in an act or pattern of activity wherein one obtains proceeds from an insurance company through deception.
- **Investment Schemes:**
Where an unsuspecting victim is contacted by the actor who promises to provide a large return on a small investment.

Black marketing:

- A black market *or underground economy*' is a [market](#) in which goods or services are traded illegally.
- The key distinction of a black market trade is that the transaction itself is illegal.
- The goods or services may or may not themselves be [illegal](#) to own, or to trade through other, legal channels.
- Because the transactions are illegal, the market itself is forced to operate [outside the formal economy](#) that is supported by the established state power.
- Common motives for operating in black markets are to trade contraband (Contraband is defined as goods that are against the law to trade or to be imported or exported, or goods that are smuggled) avoid taxes.
- Black market transactions usually occur "under the table" to let participants avoid government price controls or taxes. The black market is also the venue where highly controlled substances or products such as drugs and firearms are illegally traded.
- A black market is one where the buying and selling of products and services take place in an illegal manner.
- A black economy is a highly organized and vast market where the regular taxation rules and norms of trade are not adhered to.

- A black market is known by several names, including black economy, underground market, shadow economy, underdog and parallel economy.

The variety of goods traded in this market is enormous and the most commonly traded black market items are

- weapons
- currency
- electronics and watches
- fashion goods (perfumes, jewelry and bags)
- clothes and accessories
- pirated media (CDs and DVDs for music, films and software)
- drugs
- alcohol
- tobacco

Grey Market:

- A grey market involves the buying and selling of goods and services that are not illegal, but the channels used in their distribution are either unauthorized or unofficial.
- A good example is the trading of crude oil by an individual.
- The grey market includes services that are typically unregistered to evade taxes.
- Perfectly legitimate occupations, such as domestic help, babysitters, part time beauticians and freelancers, may not be registered.
- Not only is it difficult to detect such defaulters, the punishment is usually mild.

Hoarding:

- Hoarding is basically no different than buying and keeping a commodity.
- However, if the investor's intent is to corner or otherwise monopolize a commodity, then it may be considered an illegal act.
- In 1933, owning more than \$100 worth of gold became a criminal act called hoarding, but holding/hoarding as much gold as you can afford to buy was re-legalized in 1974.
- Unfortunately for traders and regulators, it is not always easy to distinguish hoarding from a deliberate intent to manipulate the market.

Shoplifting:

- **Shoplifting** (also known as boosting and five-finger discount) is a popular term used for theft of goods from a retail establishment.
- The **shoplifting** and **shoplifter** has not been defined in Law.
- The word shrinkage is not a synonym for **shoplifting**, as it includes merchandise loss by means other than **shoplifting**.

Religious morality:

- **Morality:**

- principles concerning the distinction between right and wrong or good and bad behavior.
- A religion is an organized collection of beliefs, cultural systems, and world views that relate humanity to an order of existence.
- **Morality and religion** is the relationship between [religious](#) views and [morals](#). Many religions have value frameworks regarding personal behavior meant to guide adherents in determining between right and wrong.
- Ethics in [Buddhism](#) are traditionally based on the [enlightened](#) perspective of the [Buddha](#)

Bribery:

- Bribery is an act of giving money or gifts that alters the behavior of the recipient. Bribery constitutes a crime and is defined by as the [offering](#), [giving](#), [receiving](#), or [soliciting](#) of any item of value to influence the actions of an official or other person in charge of a public or [legal duty](#).
- Gifts of money or other items of value which are otherwise available to everyone on an equivalent basis, and not for dishonest purposes, is not bribery.
- Offering a discount or a refund to all purchasers, is a legal [rebate](#), and is not bribery.
- For example, it is legal for an employee of a Public Utilities Commission involved in electric rate regulation to accept a rebate on electric service that reduces their cost for electricity, when the rebate is available to other residential electric customers.
- If the rebate was done to influence them to look favorably on the electric utility's rate increase applications, however, *that* would be bribery, and unlawful.

Forms of bribery:

- **Many types of bribes exist:**
- [tip](#), [gift](#), [sop](#), [perk](#), [skim](#), favor, [discount](#), [waived](#) fee/ticket, free food, free ad, free trip, free tickets, [sweetheart deal](#), [kickback/payback](#), [funding](#), inflated sale of an object or property, lucrative contract, [donation](#), [campaign contribution](#), [fundraiser](#), [sponsorship](#)/backing, higher paying job, [stock options](#), [secret commission](#), or [promotion](#)

What is corruption?

- By its nature corruption can be difficult to detect as it usually involves two or more people entering into a secret agreement.
- The agreement can be to pay a financial inducement to a public official for securing favour of some descript.
- In overseas corruption this can manifest itself in a UK company paying a bribe for the benefit of an overseas public official in order to win a contract.
- This can be done through a third party - commonly known as an agent or advisor - who then passes the bribe on to the public official or directly by the UK company to the public official. ion in return.

Corruption indicators:

- abnormal cash payments.
- pressure exerted for payments to be made urgently or ahead of schedule.

- payments being made through a third party country - for example, goods or services supplied to country 'A' but payment is being made, usually to a shell company in country 'B'.
- an abnormally high commission percentage being paid to a particular agency. This may be split into two accounts for the same agent, often in different jurisdictions.
- private meetings with public contractors or companies hoping to tender for contracts.
- lavish gifts being received

Corruption

- Here are some definitions on some corruption-related terms that you may have heard of:
- **bribery** - giving or receiving something of value to influence a transaction.
- **illegal gratuity** - giving or receiving something of value after a transaction is completed, in acknowledgment of some influence over the transaction.
- **extortion** - demanding a sum of money (or goods) with a threat of harm (physical or business) if demands are not met.

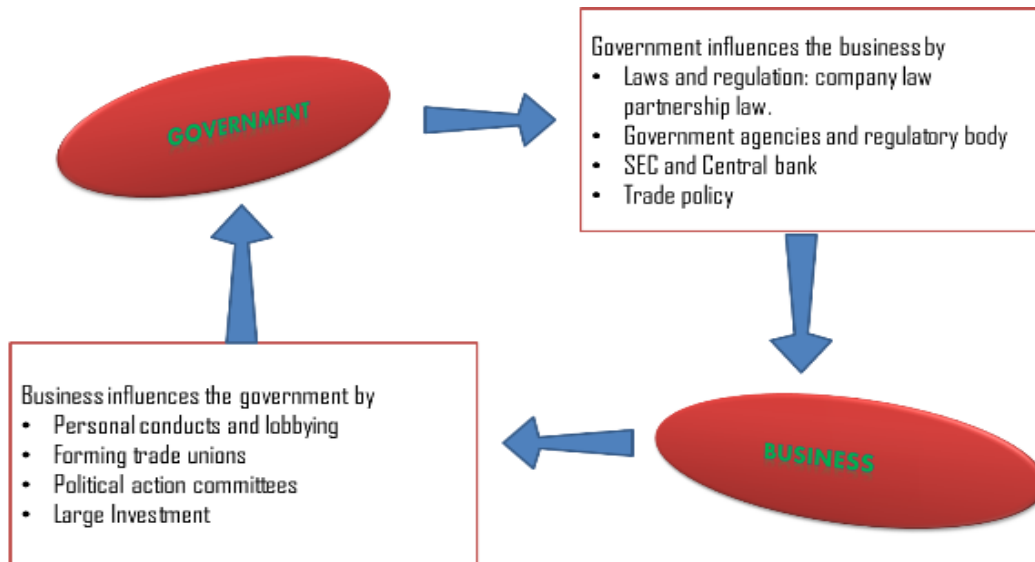
Bribery & Corruption:

- **conflict of interest** - where an employee has an economic or personal interest in a transaction.
- **kickback** - a portion of the value of the contract demanded as a bribe by an official for securing the contract.
- **corporate espionage** - theft of trade secrets, theft of intellectual property, or copyright piracy.
- **commission/fee** - used by a UK company or individual to obtain the services of an agent/agency for assistance in securing a commercial contract

Cheating the investors:

- Property developer held for cheating investors in Delhi
- Property developer Sunil Dahiya, a director of Vigneshwara Developers Private Ltd, has been arrested for allegedly cheating nearly 700 investors to the tune of Rs.160 crore.
- It is alleged that Dahiya – wanted in connection with three cases registered by the Delhi Police Economic Offences Wing and evaded his arrest by staying at five star hotels for some time – lured people to invest in his projects by promising unrealistic returns.

Relation between business and government:



- Government and business institutions in a country in many ways are interrelated and interdependent on each other.
- In today's global economy, its businessmen and entrepreneurs are the driving forces of the economy.

For maintaining a steady and upward economic growth The Government must try to make the environment for business organizations suitable.

- And the organizations must follow the laws of governments' to run the businesses smoothly and making sure there is a level playing field.
- The main goal of businesses is to make profit and governments' goal is to ensure economic stability and growth. Both of them are different but very co-dependent.
- For this the government and organizations or businesses always tries to influence and persuade each other in many ways for various matters.

How Business Organizations Influences the Government:

- **Personal Conducts and Lobbying**
- The corporate executives and political leaders and government officials are in the same social class. This creates a personal relationship between both parties. Also organizations formally forms group to present its issues to government bodies.

Forming Trade Unions And Chamber Of Commerce

- Trade unions and chamber of commerce are associations of business organizations with common interest. They work to find the common issues of organizations and present reports, holds dialogue to discuss on them with government bodies.

- **Political Action Committees:**

- Recently in the 2012 US elections, the term “super PACs” was a common topic in many discussions.
- Political action committees (PACs) or are special organizations formed to solicit money and distribute to political candidates.
- Most times the rich executives donate money to the political candidates whose political views are similar to them.

- **Large Investment:**

- The companies if can make a very large investment in industries or projects, then could somehow effect the government policies.
- These works in other way around, where government tries to implement polices to attract foreign investment.

- **How Government Influences the Business Organizations:**

- The government attempts to shape the business practices through both directly and indirectly implementing rules and regulations.
- The government most often directly influences organizations through establishing regulations, laws and rules that dictate what organizations can and cannot do.

To implement legislation, the government generally creates special agencies to monitor and control certain aspects of business activity.

For example, environment protection agency handles Central Bank, Food and Drug Administration, Labor Commission, Securities and Exchange Commission and many more.

- These agencies directly creates, implements laws and monitors its application in organization
- Governments sometimes take an indirect approach to shape the activities of business organizations.
- These are also done by implementing laws or regulations but they are not always mandatory.
- For instance, the government sometimes tries to change organizations polices by their tax codes.
- Government could give tax incentives to companies that have an environment friendly waste management system in production factory.
- Or, tax incentives could be provided to companies that has established its production facilities in a less developed region in the country.
- As a result, more often the businesses would probably do so. However these regulation and its implementation must be at a optimal degree.

What Are the Key Components of a Code of Ethics in Business?

- **Values**

- Business values typically are expressed in terms of how the company performs its day-to-day interactions with suppliers, employees and customers.
- A primary objective of the code of ethics is to define what the company is about and make it clear that the company is based on honesty and fairness.
- Another commonly defined value is respect in all interactions, regardless of the circumstances.

- **Principles:**

- Principles are used to further support the business values by including operational credos employees should follow.

- Customer satisfaction, business profitability and continuous improvement are key factors in documenting business principles.
- Corporate responsibility to the environmentally friendly use of natural resources is another business principle that often is found in code of ethics.

Management Support:

- Manager support of the values and principles may be documented in the code of ethics.
- Open door policies for reporting ethics violations can be included in the code, along with a process to anonymously report any code of ethics issues.
- To reflect how seriously management considers the code, some businesses display the code of ethics with management signatures in prominent areas, such as the break room, where employees will see it on a daily basis.

MODULE- II

ENVIRONMENTAL ISSUES AND CONTROLLING MEASURES CAUSE, EFFECT AND CONTROL MEASURES OF POLLUTION

Air Pollution in India:

The presence in or introduction into the air of a substance which has harmful or poisonous effects.

What is Air pollution?

Pollution is now a common place term that our ears are attuned to. We hear about the various forms of pollution and read about it through the mass media. Air pollution is one such form that refers to the contamination of the air, irrespective of indoors or outside.

A physical, biological or chemical alteration to the air in the atmosphere can be termed as pollution. It occurs when any harmful gases, dust, smoke enters into the atmosphere and makes it difficult for plants, animals and humans to survive as the air becomes dirty.

Air pollution can further be classified into two sections-

1. Visible air pollution and
2. Invisible air pollution.

The Ozone layer considered crucial for the existence of the ecosystems on the planet is depleting due to increased pollution. Global warming, a direct result of the increased imbalance of gases in the atmosphere has come to be known as the biggest threat and challenge that the contemporary world has to overcome in a bid for survival.

Air Pollutants:

They are the substances which pollute the air. Some of the common pollutants are dust, soot, ash, carbon monoxide, excess of carbon dioxide, Sulphur dioxide, oxides of nitrogen, hydrocarbons, chlorofluorocarbons (CFC), lead compounds, asbestos dust, cement dust, pollens and radioactive rays.

Sources of Air Pollution:

The pollution of air can be caused by natural processes or by human activities. The sources of air pollution are classified into two groups:

1. Natural Sources
2. Manmade sources

Natural Sources of Air Pollution: They are dust storms, forest fires, ash from smoking volcanoes, decay of organic matters and pollen grains floating in air.

Manmade Sources of Air Pollution:

They are population explosion, deforestation, urbanization and industrialization, whose effects can be explained as follows:

1. Burning of fuels like wood, cow dung cakes, coal and kerosene in homes pollute the air.
2. Exhaust gases emitted by motor vehicles which pollute the air are the major source of air pollution in big cities.
3. Industries pollute air by releasing various types of pollutants such as sulphur dioxide, oxides of carbon, nitrogen oxide, chlorine, asbestos dust and cement dust.
4. **Manmade Sources of Air Pollution:**
5. 4. Thermal power plants pollute air by emitting sulphur dioxide and fly-ash.
6. 5. Nuclear power plants pollute air by releasing radioactive rays.
7. 6. Use of fertilizers and pesticides in agriculture pollute the air.
8. 7. Mining activities releases particulate matter into the air and pollutes it.
9. 8. Indiscriminate cutting of trees and clearing of forests increases the amount of carbon dioxide in the atmosphere and thereby pollutes it.
10. 9. Use of chlorofluorocarbons in refrigeration, fire extinguishers and aerosol sprayers pollutes air by depleting the ozone layer.
11. 10. Smoke pollutes air by emitting carbon monoxide.

Other Causes of Air pollution:

1. **Burning of Fossil Fuels:** Sulfur dioxide emitted from the combustion of fossil fuels like coal, petroleum and other factory combustibles is one the major cause of air pollution. Pollution

emitting from vehicles including trucks, cars, trains, airplanes cause immense amount of pollution. We rely on them to fulfill our daily basic needs of transportation.

But, there overuse is killing our environment as dangerous gases are polluting the environment. Carbon Mono-oxide caused by improper or incomplete combustion and generally emitted from vehicles is another major pollutant along with Nitrogen Oxides, that is produced from both natural and manmade processes.

Other Causes of Air pollution:

2. Agricultural activities: Ammonia is a very common by product from agriculture related activities and is one of the most hazardous gases in the atmosphere. Use of insecticides, pesticides and fertilizers in agricultural activities has grown quite a lot. They emit harmful chemicals into the air and can also cause water pollution.

3. Exhaust from factories and industries: Manufacturing industries release large amount of carbon monoxide, hydrocarbons, organic compounds, and chemicals into the air thereby depleting the quality of air.

Manufacturing industries can be found at every corner of the earth and there is no area that has not been affected by it. Petroleum refineries also release hydrocarbons and various other chemicals that pollute the air and also cause Agricultural land/soil pollution.

Eg. Taj Mahal getting yellowish-black because of Mathura Refinery

4. Mining Operations: Mining is a process wherein minerals below the earth are extracted using large equipment. During the process dust and chemicals are released in the air causing massive air pollution. This is one of the reason which is responsible for the deteriorating health conditions of workers and nearby residents.

5. Indoor air pollution: Household cleaning products, painting supplies emit toxic chemicals in the air and cause air pollution. You may have noticed that once you paint walls of your house, it creates some sort of smell which makes it literally impossible for you to breathe.

Suspended particulate matter popular by its acronym SPM, is another cause of pollution. Referring to the particles afloat in the air, SPM is usually caused by dust, combustion etc.

Effects of Air pollution

1. Respiratory and Heart problems: The effects of Air pollution are alarming. They are known to create several respiratory and heart conditions along with Cancer, among other threats to the body. Several millions are known to have died due to direct or indirect effects of Air pollution. Children in areas exposed to air pollutants are said to commonly suffer from pneumonia and asthma.

2. Global Warming: Another direct effect is the immediate alterations that the world is witnessing due to Global warming.

With increased temperatures worldwide, increase in sea levels and melting of ice from colder regions and icebergs, displacement and loss of habitat have already signaled an impending disaster if actions for preservation and normalization aren't undertaken soon.

3. Acid Rain: Harmful gases like nitrogen oxides and sulfur oxides are released into the atmosphere during the burning of fossil fuels. When it rains, the water droplets combines with these air pollutants, becomes acidic and then falls on the ground in the form of acid rain. Acid rain can cause great damage to human, animals and crops.

4. Eutrophication: Eutrophication is a condition where high amount of nitrogen present in some pollutants gets developed on sea's surface and turns itself into algae and adversely affect fish, plants and animal species. The green colored algae that is present on lakes and ponds is due to presence of this chemical only.

5. Effect on Wildlife: Just like humans, animals also face some devastating affects of air pollution. Toxic chemicals present in the air can force wildlife species to move to new place and change their habitat. The toxic pollutants deposit over the surface of the water and can also affect sea animals.

6. Depletion of Ozone layer: Ozone exists in earth's stratosphere and is responsible for protecting humans from harmful ultraviolet (UV) rays. Earth's ozone layer is depleting due to the presence of chlorofluorocarbons, hydro chlorofluorocarbons in the atmosphere. As ozone layer will go thin, it will

emit harmful rays back on earth and can cause skin and eye related problems. UV rays also have the capability to affect crops.

Solutions to curb Air Pollution

1. Use public mode of transportation: Encourage people to use more and more public modes of transportation to reduce pollution. Also, try to make use of carpooling. If you and your colleagues come from the same locality and have same timings you can explore this option to save energy and money.
2. Conserve energy: Switch off fans and lights when you are going out. Large amount of fossil fuels are burnt to produce electricity. You can save the environment from degradation by reducing the amount of fossil fuels to be burned.
3. Understand the concept of Reduce, Reuse and Recycle: Do not throw away items that are of no use to you. In-fact reuse them for some other purpose. For e.g. you can use old jars to store cereals or pulses.
4. Emphasis on clean energy resources: Clean energy technologies like solar, wind and geothermal are on high these days. Governments of various countries including India have been providing grants to consumers who are interested in installing solar panels for their home. This will go a long way to curb air pollution.
Eg: The Canal in Gujarat and A village near Ladakh
5. Use energy efficient devices: CFL/LED lights consume less electricity as against their counterparts. They live longer, consume less electricity, lower electricity bills and also help you to reduce pollution by consuming less energy.

Some measures that can be adopted in this direction are:

1. Using unleaded petrol
2. Using fuels with low Sulphur content
3. Encouraging people to use public transport, walk or use a cycle as opposed to private vehicles
4. Ensure that houses, schools, restaurants and playgrounds are not located on busy streets
5. Plant trees along busy streets as they remove particulates, carbon dioxide and absorb noise
6. Industries and waste disposal sites should be situated out side the city preferably on the downwind of the city.
7. Catalytic converters should be used to help control emissions of carbon monoxide and hydrocarbons

Control measures in Industrial Centers...

1. Emission rates should be restricted to permissible levels by each and every industry and that must be monitored by National Green Tribunal (NGT).
2. Incorporation of air pollution control equipment in design of plant layout must be made mandatory NGT.
3. Continuous monitoring of the atmosphere for pollutants should be carried out to know the emission levels by NGT.

Water & Marine Pollution in India

Water Pollution

Our Earth is with about 70% of its cover being water, it undeniably becomes one of our greatest resources. As young students, we learned about the various ways to conserve water; coming to think of it, water is used in almost every important human chores and processes.

It is an important element in both domestic as well as industrial purposes. However a closer inspection of our water resources today, give us a rude shock!!!

Water Pollution has taken toll of all the surviving species of the earth. Almost 60% of the species live in water bodies.

It occurs due to several factors; the industrial wastes dumped into the rivers and other water bodies cause an imbalance in the water leading to its severe contamination and death of aquatic species.

Also spraying insecticides, pesticides like DDT on plants pollutes the ground water system and oil spills in the oceans have caused irreparable damage to the water bodies. Eutrophication is another big source; it

occurs due to daily activities like washing clothes, utensils near lakes, ponds or rivers; this forces detergents to go into water which blocks sunlight from penetrating, thus reducing oxygen and making it inhabitable.

Water pollution not only harms the aquatic beings but it also contaminates the entire food chain by severely affecting humans dependent on these. Water-borne diseases like cholera, diarrhoea have also increased in all places.

Water pollution is an appalling problem, powerful enough to lead the world on a path of destruction. Water is an easy solvent, enabling most pollutants to dissolve in it easily and contaminate it. The most basic effect of water pollution is directly suffered by the organisms and vegetation that survive in water, including amphibians. On a human level, several people die each day due to consumption of polluted and infected water.

As per the “Economist Report” (in 2008) each day over 1000 children die of diarrheal sickness in India and the numbers have only increased alarming in the last five years.

Water is polluted by both natural as well as man-made activities. Volcanic eruptions, earthquakes, Tsunamis etc are known to alter water and contaminate it, also affecting ecosystems that survive under water.

Sources of Water Pollution

There are various classifications of water pollution. The two chief sources of water pollution can be seen as ...

Point and Non Point

Point refer to the pollutants that belong to a single source. An example of this would be emissions from factories into the water.

Non Point on the other hand means pollutants emitted from multiple sources. Contaminated water after rains that has traveled through several regions may also be considered as a Non point source of pollution.

Causes of Water Pollution

1. **Industrial Waste:** Industries produce huge amount of waste which contains toxic chemicals and pollutants which can cause air pollution and damage to us and our environment. They contain pollutants such as lead, mercury, sulphur, asbestos, nitrates and many other harmful chemicals. Many industries do not have proper waste management system and drain the waste in the fresh water which goes into rivers, canals and later in to sea.

The toxic chemicals have the capability to change the color of water, increase the amount of minerals, also known as Eutrophication, change the temperature of water and pose serious hazard to water organisms.

2. **Sewage and Waste Water:** The sewage and waste water that is produced by each household is chemically treated and released in to sea with fresh water. The sewage water carries harmful bacteria and chemicals that can cause serious health problems. Pathogens are known as a common water pollutant; The sewers of cities house several pathogens and thereby diseases.

Microorganisms in water are known to be causes of some very deadly diseases and become the breeding grounds for other creatures that act like carriers. These carriers inflict these diseases via various forms of contact onto an individual. A very common example of this process would be Malaria.

3. **Mining activities:** Mining is the process of crushing the rock and extracting coal and other minerals from underground. When these elements extracted in the raw form contains harmful chemicals and can increase the amount of toxic elements when mixed up with water which may result in health problems.

Mining activities emit several metal waste and sulphides from the rocks and is harmful for the water.

4. **Marine Dumping:** The garbage produce by each household in the form of paper, aluminum, rubber, glass, plastic, food if collected and deposited into the sea in many a countries. These items take from 2 weeks to 200 years to decompose. When such items enter the sea, they not only cause water pollution but also harm animals in the sea.

5. **Accidental Oil leakage:** Oil spill pose a huge concern as large amount of oil enters into the sea and does not dissolve with water; there by opens problem for local marine wildlife such as fish, birds and sea otters.

For e.g.: A Ship carrying large quantity of oil may spill oil if met with an accident and can cause varying damage to species in the ocean depending on the quantity of oil spill, size of ocean, toxicity of pollutant.

6. Burning of fossil fuels: Fossil fuels like coal and oil when burnt produce substantial amount of ash in the atmosphere. The particles which contain toxic chemicals when mixed with water vapor result in acid rain. Also, carbon dioxide is released from burning of fossil fuels which result in global warming.

7. Chemical Fertilizers and Pesticides: Chemical fertilizers and pesticides are used by farmers to protect crops from insects and bacterial infections. They are useful for the plants growth. However, when these chemicals are mixed up with water produce harmful for plants and animals. Also, when it rains, the chemicals mixes up with rainwater and flow down into rivers and canals which pose serious damages for aquatic animals.

8. Leakage from sewer lines: A small leakage from the sewer lines can contaminate the underground water and make it unfit for the people to drink. Also, when not repaired on time, the leaking water can come on to the surface and become a breeding ground for insects and mosquitoes.

Eg: Cases from Cuttack & Sambalpur

11. Urban Development: As population has grown, so has the demand for housing, food and cloth. As more cities and towns are developed, they have resulted in increase use of fertilizers to produce more food, soil erosion due to deforestation, increase in construction activities, inadequate sewer collection and treatment, landfills as more garbage is produced, increase in chemicals from industries to produce more materials.

12. Leakage from the landfills: Landfills are nothing but huge pile of garbage that produces awful smell and can be seen across the city. When it rains, the landfills may leak and the leaking landfills can pollute the underground water with large variety of contaminants.

13. Animal Waste: The waste produce by animals is washed away into the rivers when it rains. It gets mixed up with other harmful chemicals and causes various water borne diseases like cholera, diarrhea, jaundice and typhoid.

14. Underground storage leakage: Transportation of coal and other petroleum products through underground pipes is well known. Accidentals leakage may happen anytime and may cause damage to environment and result in soil erosion.

Control measures of Water Pollution...

- Administration of water pollution control should be in the hands of state or central government...
- Scientific techniques should be adopted for environmental control of catchment areas of rivers, ponds or streams...
- Industrial plants should be based on recycling operations as it helps prevent disposal of wastes into natural waters but also extraction of products from waste...
- Plants trees and create forest covers to control pollution as they act as natural air conditioners...
- Trees are capable of reducing sulphur dioxide and nitric oxide pollutants and hence more trees should be planted.
- No pollutants/waste (treated, partially treated or untreated) should be discharged into any natural water body.
- Industries should develop closed loop water supply schemes and domestic sewage must be used for irrigation after purification process.
- Qualified and experienced experts must be consulted from time to time for effective control of water pollution.
- Public awareness must be initiated regarding adverse effects of water pollution across media platforms.
- Laws, standards and practices should be established to prevent water pollution and these laws should be modified from time to time based on current requirements and technological advancements. This been achieved by the formation of NGT.
- Basic and applied research in public health engineering should be encouraged by the current Govt.

Eg: Swach Bharat India Campaign by Govt. India

Marine Pollution

Pollution can then be defined as any form of contamination in an ecosystem with a harmful impact upon the organisms in this ecosystem, by changing the growth rate and the reproduction of plant or animal species, or by interfering with human amenities, comfort, health, or property values. In a broader sense, the terms contamination and pollution also include any physical modification that alters the energy or radiation flow in an environment (such as a heat source or a radioactive elements), or even the presence of an invasive species. Hence, marine pollution as defined by the Group of Experts on the Scientific Aspects of Marine Pollution (GESAMP), as part of the basic framework of the UN Convention on the Law of the Sea (UNCLOS) 1982 (Article 1.4), is: “the introduction by man, directly or indirectly, of substances or energy into the marine environment (including estuaries) resulting in such deleterious effects as harm to living resources, hazards to human health, hindrance to marine activities including fishing, impairment of quality for use of sea water, and reduction of amenities.”

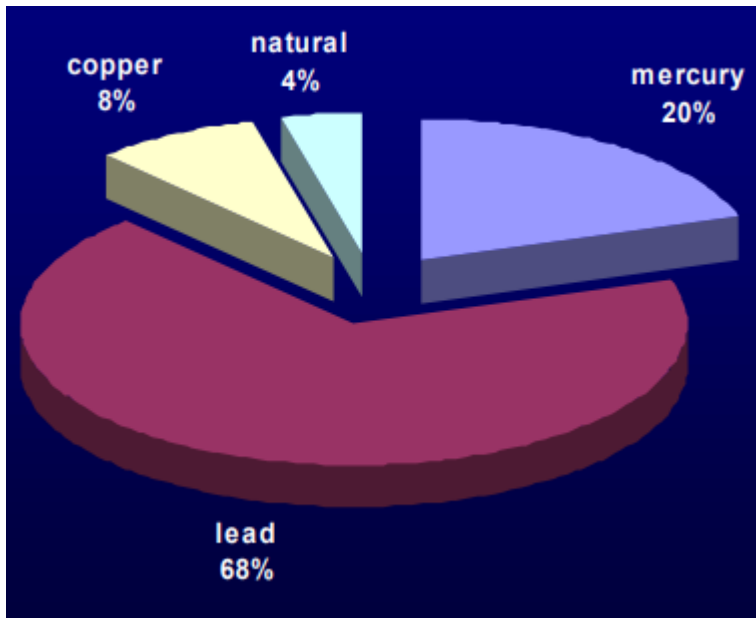
Types of Marine Pollution

- Sedimentation
- Agricultural runoff (herbicides, pesticides and nutrients)
- Energy (thermal and light)
- Sewage (Faecal Coliform and nutrients)
- Solid Waste
 - Chemicals, Metals and Radioactive Substances
- Oil
- Biological **Major Marine Pollutants Worldwide**
 - 10 billion tonnes of ballast water with invasives
 - Est. 10,000 million gallons of sewage annually
 - 3.25 million metric tonnes of oil annually
 - Millions of tonnes of Solid waste

Major Marine Pollutants – Metals

- Introduced dangerous metals include mercury, lead, and copper
- Heavy Metals Heavy Metals Heavy Metals are a great concern because they enter the food chain
- Fuel combustion, electric utilities, steel and iron manufacturing, fuel oils, fuel additives and incineration of urban refuse are the major sources of oceanic and atmospheric contamination by heavy metals
- Copper is dangerous to marine organisms and has been used in marine anti-fouling paints
- Mercury and lead poisoning cause brain damage and behavioral disturbances in children
- Contaminated land runoff, rain of pollutants from the air, and fallout from shipwrecks pollute the ocean with dangerous metals
- Human activities release 5 times as much mercury and 17 times as much lead as is derived from natural sources.

Heavy Metals Entering Oceans

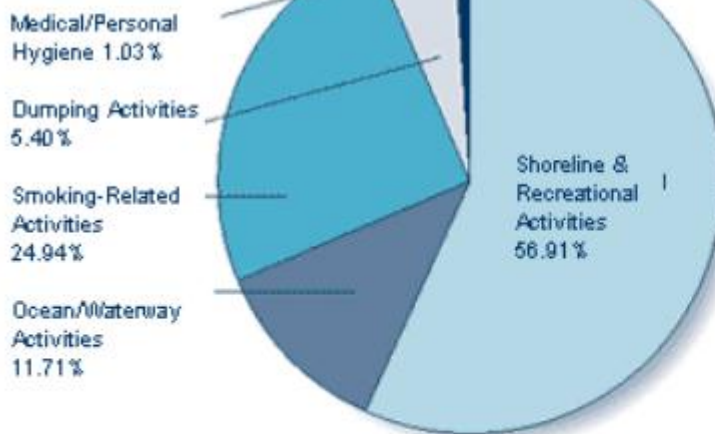


Major Marine Pollutants - Solid Waste

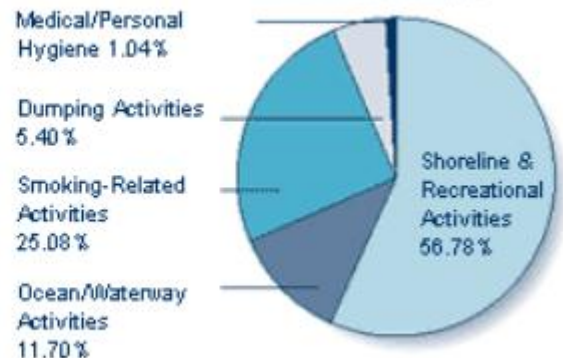
International – Marine Debris Sources

Debris Collected from...

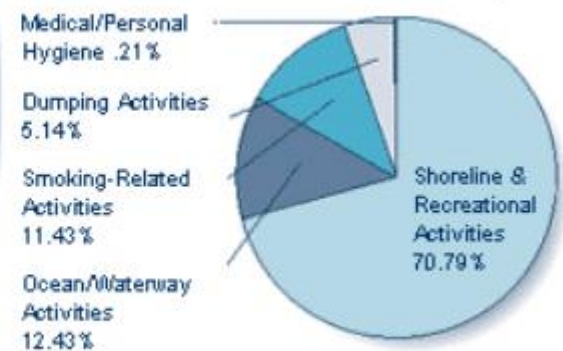
...Land and Underwater Cleanups



...Land Cleanups



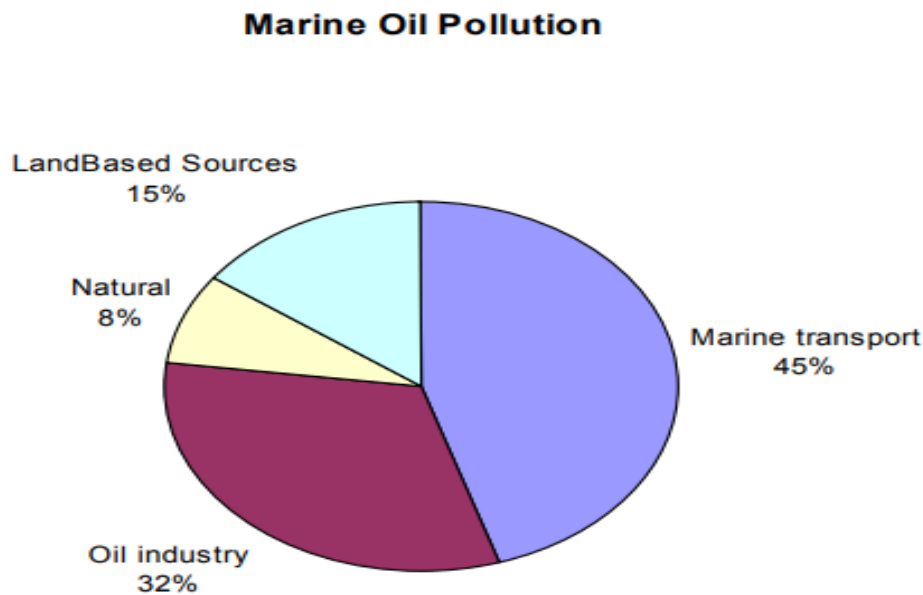
...Underwater Cleanups



- A large portion and great danger is non biodegradable plastic
- 46,000 pieces of floating plastic/sq mile of ocean surface off the N.E U.S. coast.
- Sea turtles mistake plastic bags for jellyfish and die from internal blockages.

- Seals and sea lions starve after being entangled by nets or muzzled by six-pack rings (decomposition time 400 years).
- Plastic debris kills 100,000 marine mammals and 2 million sea birds die annually

Major Marine Pollutants - Oil



Major Marine Pollutants - Biological

International Maritime Organization top ten: Cholera, Cladoceran Water Flea, Mitten Crab, toxic algae (R,G,B tides), Round Goby, European Green Crab, Asian kelp, Zebra Mussel, North Pacific Seastar, North American Comb Jelly.

- Spreading infestation of Jamaican waters by a Green mussel

Sources of Pollution

From Land

- 80% of non-biological marine pollution comes from land based activities
- Most obvious inputs via pipes discharging directly into marine waters(sewage, industrial,chemical and food processing wastes)
- Riverine flows into the sea carry pollutants from the entire catchment area.

From Air

- Global atmospheric inputs to the sea from air discharges

Maritime

- Oily discharges from ballast water and bilge water) during routine ship operations and illegal dumping of solid waste
- Designated dumping grounds at sea (dredged spoil, old munitions, sewage sludge, fly ash, oil based drilling muds)
- Accidental spills from Ships carrying hazardous substances, oil, gas etc.

Impacts of Marine Pollution

Generally marine pollution affects ecosystem health, public health, recreational water quality and economic viability in the following ways:

- Mechanical
- Eutrophication
- Saphrogenic
- Toxicity
- Mutagenic and Carcinogenic

Solutions to Pollution

Two main methods

- Correction – costly and time intensive
- Prevention – requires attitude changes

Coastal Scientists believe that prevention is better than cure since the effects of marine pollution may be irreversible and we may therefore be creating everlasting damage to the marine ecosystem. “An ounce of prevention is worth a pound of cure”.

Marine Pollution Conventions

There are no less than 6 international marine pollution conventions. Some are listed below:

- Convention for the Prevention of Marine Pollution by Dumping from Ships and Aircraft (1972) The Oslo Convention
- Convention for the prevention of pollution from ships (1973)MARPOL
- Convention for the Prevention of Marine Pollution from Land-based Sources (1974) The Paris Convention
- Convention for the Protection of the Marine Environment of the North-East Atlantic (1992) The OSPAR Convention

Soil Pollution in India

Soil contamination or soil pollution is caused by the presence of xenobiotic (human-made) chemicals or other alteration in the natural soil environment. It is typically caused by industrial activities, agricultural use of chemicals, or improper disposal of waste.

With the rise of concrete buildings and roads, one part of the Earth that we rarely see is the soil. It has many different names, such as dirt, mud and ground. However, it is definitely very important to us.

The plants that feed us grow in soil and keeping it healthy is essential to maintaining a beautiful planet. However, like all other forms of nature, soil also suffers from pollution. The pollution of soil is a common thing these days, and it happens due to the presence of man made elements.

The main reason why the soil becomes contaminated is due to the presence of man made waste. The waste produced from nature itself such as dead plants, carcasses of animals and rotten fruits and vegetables only adds to the fertility of the soil.

However, our waste products are full of chemicals that are not originally found in nature and lead to soil pollution.

Main Causes of Soil Pollution

1. Industrial Activity: Industrial activity has been the biggest contributor to the problem in the last century, especially since the amount of mining and manufacturing has increased. Most industries are dependent on extracting minerals from the Earth.

Whether it is iron ore or coal, the by products are contaminated and they are not disposed off in a manner that can be considered safe. As a result, the industrial waste lingers in the soil surface for a long time and makes it unsuitable for use.

2. Agricultural Activities: Chemical utilization has gone up tremendously since technology provided us with modern pesticides and fertilizers. They are full of chemicals that are not produced in nature and cannot be broken down by it. As a result, they seep into the ground after they mix with water and slowly reduce the fertility of the soil. Other chemicals damage the composition of the soil and make it easier to erode by water and air. Plants absorb many of these pesticides and when they decompose, they cause soil pollution since they become a part of the land.

3. Waste Disposal: A growing cause for concern is how we dispose of our waste. While industrial waste is sure to cause contamination, there is another way in which we are adding to the pollution. Every human produces a certain amount of personal waste products by way of urine and human waste.

While much of it moves into the sewer the system, there is also a large amount that is dumped directly into landfills in the form of diapers. Even the sewer system ends at the landfill, where the biological waste pollutes the soil and water. This is because our bodies are full of toxins and chemicals which are now seeping into the land and causing pollution of soil.

4. Accidental Oil Spills: Oil leaks can happen during storage and transport of chemicals. This can be seen at most of the fuel stations. The chemicals present in the fuel deteriorates the quality of soil and make them unsuitable for cultivation. These chemicals can enter into the groundwater through soil and make the water undrinkable.

Eg: News Reports Kerosene type material

5. Acid Rain: Acid rain is caused when pollutants present in the air mixes up with the rain and fall back on the ground. The polluted water could dissolve away some of the important nutrients found in soil and change the structure of the soil.

Effects of Soil Pollution

1. Effect on Health of Humans: Considering how soil is the reason we are able to sustain ourselves, the contamination of it has major consequences on our health. Crops and plants grown on polluted soil absorb much of the pollution and then pass these on to us. This could explain the sudden surge in small and terminal illnesses.

Eg: News Report of Ban of sale of Leafy Vegetables in Bhopal from specific areas

2. Effect on Growth of Plants: The ecological balance of any system gets affected due to the widespread contamination of the soil. Most plants are unable to adapt when the chemistry of the soil changes so radically in a short period of time. Fungi and bacteria found in the soil that bind it together begin to decline, which creates an additional problem of soil erosion.

The fertility slowly diminishes, making land unsuitable for agriculture and any local vegetation to survive. The soil pollution causes large tracts of land to become hazardous to health. Unlike deserts, which are suitable for its native vegetation, such land cannot support most forms of life.

3. Decreased Soil Fertility: The toxic chemicals present in the soil can decrease soil fertility and therefore decrease in the soil yield. The contaminated soil is then used to produce fruits and vegetables which lacks quality nutrients and may contain some poisonous substance to cause serious health problems in people consuming them.

4. Toxic Dust: The emission of toxic and foul gases from landfills pollutes the environment and causes serious effects on health of some people. The unpleasant smell causes inconvenience to other people.

5. Changes in Soil Structure: The death of many soil organisms (e.g. earthworms) in the soil can lead to alteration in soil structure. Apart from that, it could also force other predators to move to other places in search of food.

Solution:

A number of ways have been suggested by experts to curb the current rate of soil pollution. Such attempts at cleaning up the environment require plenty of time and resources to be pitched in.

Industries have been given regulations for the disposal of hazardous waste, which aims at minimizing the area that becomes polluted. Organic methods of farming are being supported, which do not use chemical laden pesticides and fertilizers.

Use of plants that can remove the pollutants from the soil is being encouraged. However, the road ahead is quite long and the prevention of soil pollution will take many more years.

1. Make people aware about the concept of Reduce, Recycle and Reuse.
2. Reduce the use of pesticides and fertilizers in agricultural activities.
3. Avoid buying packages items as they will lead to garbage and end up in landfill site.
4. Ensure that you do not litter on the ground and do proper disposal of garbage.
5. Buy biodegradable products.
6. To practice Organic gardening and eat organic food that will be grown without the use of pesticides.
7. Create dumping ground away from residential areas.

Noise Pollution in India**Definition...**

“Noise pollution takes place when there is either excessive amount of noise or an unpleasant sound that causes temporary disruption in the natural balance”.

Most of us are very used to the sounds we hear in everyday life. Loud music, the television, people talking on their phone, the traffic and even pets barking in the middle of the night. All of these have become a part of the urban culture and which rarely disturb us.

This definition is usually applicable to sounds or noises that are unnatural in either their volume or their production. Our environment is such that it has become difficult to escape noise. Even electrical appliances at home have a constant hum or beeping sound.

By and large, lack of urban planning increases the exposure to unwanted sounds.

Causes of Noise Pollution

1. **Industrialization:** Most of the industries use big machines which are capable of producing large amount of noise. Apart from that, various equipment's like compressors, generators, exhaust fans, grinding mills also participate in producing big noise. Therefore, you all must have seen workers in these factories and industries wearing ear plugs to minimize the effect of noise.
2. **Poor Urban Planning:** In most of the developing countries, poor urban planning also play a vital role. Congested houses, large families sharing small space, fight over parking, frequent fights over basic amenities leads to noise pollution which may disrupt the environment of society.
3. **Social Events:** Noise is at its peak in most of the social events. Whether it is marriage, parties, pub, DJ or place of worship, people normally flout rules set by the local administration and create nuisance in the area. People play songs on full volume and dance till midnight which makes the condition of people living nearby pretty worse. In markets, you can see people selling clothes via making loud noise to attract the attention of people.
4. **Transportation:** Large number of vehicles on roads, Aero planes flying over houses, trains produce heavy noise and people get it difficult to get accustomed to that. The high noise leads to a situation wherein a normal person lose the ability to hear properly.
5. **Construction Activities:** Under construction activities like mining, construction of bridges, dams, buildings, roads, flyovers take place in almost every part of the world. These construction activities take place everyday as we need more buildings, bridges to accommodate more people and to reduce traffic congestion. The important point is that these construction equipment's are too noisy.
6. **Household Chores:** We people are surrounded by gadgets and use them extensively in our daily life. Gadgets like TV, mobile, mixer grinder, pressure cooker, vacuum cleaners, washing machine, dryer, cooler, and air conditioners are minor contributors to the amount of noise that is produced but it affects the quality of life of your neighborhood in a bad way.

While this form of pollution may seem harmless, it in fact has far reaching consequences. The adverse effects on the human health as well as of the environment are quite severe. Not only is the local wildlife affected by the pollution, humans also facing a number of problems due to it.

Effects of Noise Pollution

1. **Hearing Problems:** Any unwanted sound that our ears have not been built to filter can cause problems within the body. Our ears can take in a certain range of sounds without getting damaged. Man made noises such as hammers, horns, machinery, airplanes and even vehicles can be too loud for our hearing range.
Constant exposure to loud levels of noise can easily result in the damage of our ear drums and loss of hearing. It also reduces our sensitivity to sounds that our ears pick up unconsciously to regulate our body's rhythm.
2. **Health Issues:** Excessive noise pollution in working areas such as offices, construction sites, bars and even in our homes can influence psychological health.
Studies show that the occurrence of aggressive behavior, disturbance of sleep, constant stress, fatigue and hypertension can be linked to excessive noise levels. These in turn, can cause more severe and chronic health issues later in the life span.
3. **Sleeping Disorders:** Loud noise can certainly hamper your sleeping pattern and may lead to irritation and uncomfortable situations. Without a good night sleep, it may lead to problems related to fatigue and your performance may go down in office as well as at home. It is therefore recommended to take a sound sleep to give your body proper rest.
4. **Cardiovascular Issues:** Blood pressure levels, cardio-vascular disease and stress related heart problems are on the rise. Studies suggest that high intensity noise causes high blood pressure and increases heart beat rate as it disrupts the normal blood flow.
5. **Trouble Communicating:** High decibel noise can put trouble and may not allow two people to communicate freely. This may lead to misunderstanding and you may get difficult understanding the other person. Constant sharp noise can give you severe headache and disturb your emotional balance.
6. **Effect on Wildlife and Animals:** Wildlife faces far more problems than humans because noise pollution since they are more dependent on sound. Animals develop a better sense of hearing than us since their

survival depends on it. The ill effects of excessive noise begin at home. Pets react more aggressively in households where there is constant noise.

Solutions:

As of now, there are many solutions to reduce sound pollution. On a personal level, everybody can help reducing the noise in their homes by lowering the volume of the radio, music system and the television. Listening to music with headphones is also a good step forward. Removal of public loudspeakers is another way in which the pollution can be countered, controlling the sound levels in clubs, bars, parties and discos.

Better urban planning can help in creating 'No-Noise' zones, where honking / hooting and industrial noise is not tolerated. It is only when our understanding noise pollution is complete, can we take steps to eradicate this issue completely.

Nuclear Hazards

What is Nuclear Energy?

Nuclear energy is the energy stored in the nucleus of an atom. It is being used to produce electricity. The enormous energy that is stored in the bonds that hold atoms together can be released by two processes: nuclear fission or nuclear fusion.

What is Radioactive/Nuclear Waste?

"Radioactive wastes are wastes that contain radioactive material. Radioactive wastes are usually by-products of nuclear power generation and other applications of nuclear fission or nuclear technology, such as research and medicine. Radioactive waste is hazardous to most forms of life and the environment, and is regulated by government agencies in order to protect human health and the environment."

The process to produce electricity from nuclear reactor is similar to most types of reactor. The only difference is that "chain reaction" is used to produce the heat. Nuclear power plants use nuclear fission to produce electricity.

A nuclear power reactor uses uranium rods as nuclear fuel to generate heat that will be used to generate electricity. Carbon dioxide and water is then used to take the heat away to produce steam. The steam then turn turbines which drives the generators and generate electricity.

Nuclear Energy Pros and Cons

As of today, nuclear energy is considered as one of the most environmentally friendly source of energy as it produces fewer greenhouse gas emissions during the production of electricity as compared to traditional sources like fossil fuel based power plant and coal power plants. Nuclear fission is the process that is used in nuclear reactors to produce high amount of energy using element called "**Uranium**".

Pros of Nuclear Energy

1. **Low Pollution:** Nuclear power also has a lot fewer greenhouse emissions. It has been determined that the amount of greenhouse gases have decreased by almost half because of the prevalence in the utilization of nuclear power. Nuclear energy has the least effect on nature since it doesn't discharge any gasses like methane and carbon dioxide, which are the primary "greenhouse gasses." There is no unfavorable impact on water, land or any territories because of the utilization of nuclear power.
2. **Low Operating Costs:** Nuclear power produces very inexpensive or cheaper electricity cost wise. The cost of the uranium, which is utilized as a fuel in this process, is low. Also, even though the expense of setting up nuclear power plants is moderately high, the expense of running them is quite low. The normal life of nuclear reactor is anywhere from 40-60 years, depending on how often it is used and how it is being used. These variables, when consolidated, make the expense of delivering power low. Even if the cost of uranium goes up, the impact on the cost of power will be that much lower.
3. **Reliability:** It is estimated that with the current rate of consumption of uranium, we have enough uranium for another 70-80 years. A nuclear power plant when in the mode of producing energy can run uninterrupted for even a year. Unlike solar and wind energy are dependent upon weather conditions, nuclear power plant has no such constraints and can run without disruption in any climatic condition.
4. **More Proficient than Fossil Fuels:** The other primary point of interest of utilizing nuclear energy is that it is more compelling and more proficient than other energy sources. A number of nuclear energy innovations have made it a much more feasible choice than others. They have high energy density as compared to fossil fuels. The amount of fuel required by nuclear power plant is comparatively less than

what is required by other power plants as energy released by nuclear fission is approximately ten million times greater than the amount of energy released by fossil fuel atom.

Cons of Nuclear Energy

1. **Environmental Impact:** One of the biggest issues is environmental impact in relation to Uranium. The process of mining and refining uranium hasn't been a clean process. Actually transporting nuclear fuel to and from plants represents a pollution hazard. Also, once the fuel is used, you can't simply take it to the landfill – it's radioactive and is very dangerous for human health.

2. **Radioactive Waste Disposal:** As a rule, a nuclear power plant creates 20 metric tons of nuclear fuel per year, and with that comes a lot of nuclear waste. When you consider each nuclear plant on Earth, you will find that that number jumps to approximately 2,000 metric tons a year.

The interesting part of this waste transmits radiation and high temperature, implying that it will inevitably consume any compartment that holds it. It can also cause damage to living things in and around the plants.

3. **Nuclear Accidents:** The radioactive waste produced can pose serious health effects on the lives of people as well as the environment. The Chernobyl accident that occurred on 26 April 1986 at the Chernobyl Nuclear Power Plant in Ukraine was the worst nuclear accident in the history. Its harmful effects on humans and ecology can still be seen today. Then there was another accident that happened in Fukushima in Japan followed by a huge tsunami. Although the casualties were not that high, but it caused serious environmental concerns.

4. **High Cost:** At present, the nuclear business let waste cool for a considerable length of time before blending it with glass and putting away it in enormous cooled, solid structures. This waste must be kept up, observed and watched to keep the materials from falling into the wrong hands and causing problems. These administrations and included materials cost cash – on top of the high expenses needed to put together a plant, which may make it less desirable to invest in. It requires permission from several international authorities and it is normally opposed by the people who live in that region.

Eg: US President Calls for Nuclear safety last week

5. **Uranium is Finite:** Just like other sources of fuel, Uranium is also finite and exists in few of the countries. It is pretty expensive to mine, refine and transport uranium. It produces considerable amount of waste during all these activities and can result in environmental contamination and serious health effects, if not handled properly.

6. **Hot Target for Militants:** Nuclear energy has immense power. Today, nuclear energy is used to make weapons. If these weapons go into the wrong hands, that could be the end of this world. Nuclear power plants are prime target for terrorism activities. Little lax in security can be brutal for mankind.

The Future of Nuclear Power

Nuclear energy is a powerful force. Attempts have been made to find other constructive ways of harnessing it. Nuclear power is an important source of energy in many countries. 442 nuclear reactors are now operating worldwide with a total power producing capacity of 300,000 MW. Two and a half times this number will be added by 2030 and four times as many by 2050, says the International Atomic Energy Agency (IAEA), the stronghold of the global nuclear community.

Higher oil and gas prices make alternatives such as nuclear power more attractive and are expected to lead to growth in nuclear generating capacity worldwide.

Improvements in reactor design enhance safety, increase efficiency, and reduce costs, making nuclear generation an economically attractive source of energy. Many countries, including the UK, have recently affirmed their intention to continue their use of nuclear energy for Nuclear waste disposal or radioactive waste management is an important part of nuclear power generation and there are a number of very important and strict guidelines that have to be followed by nuclear power plants and other companies

Dangers / Hazards of Nuclear Waste disposal...

1. **Long Half Life:** The products of nuclear fission have long half lives, which means that they will continue to be radioactive – and therefore hazardous- for many thousands of years. This means that, if anything were to happen to the waste cylinders in which nuclear Since hazardous nuclear waste is often not sent off to special locations to be stored

2. Storage: Another problem with nuclear waste disposal that is still being discussed today is the issue of storage. Many different storage methods have been discussed throughout history, with very few being implemented because of the problematic nature of storing such hazardous material that will remain radioactive for thousands of years. Amongst the suggestions that were considered as above ground storage, ejection into space, ocean disposal and disposal into ice sheets.

3. Affects on Nature: One of the biggest concerns that the world has with the disposal of nuclear waste is the affect the hazardous materials could have on animals and plant life. Although most of the time the waste is well sealed inside huge drums of steel and concrete, sometimes accidents can happen and leaks can occur. Nuclear waste can have drastically bad effects on life, causing cancerous growths, for instance, or causing genetic problems for many generations of animal and plants. Not disposing of nuclear waste properly can therefore have huge environmental impacts that can harm many millions of animals and hundreds of animal species.

Effects of Nuclear Waste Disposal

1. Accidents: Although most of the time a lot of emphasis is placed on the safe disposal of nuclear waste, accidents do occur. Throughout history there have unfortunately been a number of examples of times where radioactive material was not disposed of in the proper ways. This has resulted in a number of disastrous situations, including nuclear waste being spread by dust storms into areas that were populated by humans and animals and contaminated of water, whether ponds, rivers or even the sea. These accidents can have disastrous knock on effects for the animals that reside in or around these areas or that rely on the water of lakes or ponds to survive.

Drinking water can become contaminated, too, which is absolutely disastrous for locals and residents close to the epicenter of the disaster. Even if nuclear waste just seeps into the ground, it can eventually get into reservoirs and other water sources and, from there, can reach the homes of people who unwittingly drink high radioactive material. There are examples of these sorts of accidents from all over the world and from all time periods, with severe accidents happening very rarely.

2. Scavenging: A particularly bad problem in developing nations, people often go scavenging for abandoned nuclear waste that is still radioactive. In some countries there is a market for these sorts of scavenged goods, which means that people will willingly expose themselves to dangerous levels of radiation in order to make money.

Usually, people who scavenge these sorts of materials will end up in hospital and may even die of problems related to or caused by the radioactive materials. Unfortunately, once someone has been exposed to nuclear waste, they can then expose other people who have not opted to go scavenging for nuclear waste to radioactive materials.

Eg: The DU Case & the Russian Spy Case

3. Transportation: Transporting nuclear waste from power plants can occasionally result in problems. If poor shipping casks are used for the containment of radioactive material, for instance, then a slight knock or bump or even crash could cause the contents to spill and affect a wide radius. Despite all the cautions that are put into place when transporting nuclear waste, accidents still occur and can have a devastating effect on all those in the vicinity of the crash.

4. Health Effects: The biggest concern is the negative effects that can have on the human body when exposed to radiation. Long term effects to radiation can even cause cancer. It is interesting to know that we are exposed to radiations naturally by living our lives that comes from the ground below us. Radiation can cause changes in 'DNA' that ensures cell repair.

5. Expense: If one of these accidents does occur, the cost of cleaning everything up and making everything safe once again for people, animals and plants is very high. There is no simple or easy route when trying to clean up spilled radioactive material: instead, it can take years to ensure that an area is safe to live in or even to visit once again. In the case of very serious accidents, it may take many tens of years until things start growing or living normally once again.

Urban and Industrial Waste

What is Urban Waste?

Urban Solid Wastes are the material that arises from various human and economic activities. It is being produced since the beginning of civilization. Ever increasing population growth, urbanization and industrialization are contributing to the generation of solid waste in huge quantities.

Waste is enviable; waste is by product of human activity. The term waste refers to the useless material generated from different sources such as household, public places, hospital, commercial centre construction sites and production of waste from industries.

Types of Solid Wastes:

Depending on the nature of origin, solid wastes are classified into...

1. Urban Or Municipal Wastes
2. Industrial Wastes and
3. Hazardous Wastes

Sources of Urban Wastes:

Urban wastes include the following...

Domestic wastes: This containing a variety of materials thrown out from homes

Ex: Food waste, Cloth, Waste paper, Glass bottles, Polythene bags, Waste metals, etc.

Commercial wastes: It includes wastes coming out from shops, markets, hotels, offices, institutions, etc.

Ex: Waste paper, packaging material, cans, bottle, polythene bags, etc.

Construction wastes: It includes wastes of construction materials.

Ex: Wood, Concrete, Debris, etc.

Biomedical wastes: It includes mostly waste organic materials

Ex: Anatomical wastes, Infectious wastes, etc.

Classification of Urban Wastes...

Urban Waste can be classified through various methods on the basis of physical state (solid, liquid and gaseous) and then within solid waste.

Bio-Degradable Wastes - Those wastes that can be degraded by micro organisms are called bio-degradable wastes

Ex: Food, vegetables, animal/human excreta, dry plants/leaves, etc.

Non-Biodegradable Wastes: Urban solid waste materials that cannot be degraded by micro organisms are called non-biodegradable wastes.

Ex: Plastic bags, scrap metals, earthen pots, materials, glass bottles, etc.

The main source of industrial wastes are chemical industries, metal and mineral processing industries.

Ex: Nuclear Power plants: It generated radioactive wastes

Thermal power plants: It produces fly ash in large quantities

Chemical Industries: It produces large quantities of hazardous and toxic materials.

Other industries: Other industries produce packaging materials, rubber, organic wastes, acid, alkali, scrap metals, tyres, plastic, paper, glass, wood, oils, paints, dyes etc.

Effect of Improper Solid Waste Management:

Due to improper disposal of municipal solid waste on the roads and immediate surroundings, biodegradable materials undergo decomposition producing foul smell and become a breeding ground for various diseases.

Industrial solid wastes are the source for toxic metals and hazardous wastes that affect soil characteristics and productivity of soils when they are dumped on various landfills. Toxic substances may percolate into the ground and contaminate the groundwater.

Burning of industrial or domestic wastes (cans, pesticides, plastics, toxin materials and batteries) produce furans, dioxins and polychlorinated biphenyls that are harmful to human being.

Steps Involved In Solid Waste Management:

Two important steps involved in solid waste management are:

Reduce, Reuse and Recycle (#3R) of Waste Materials

Reduce - If usage of raw materials is reduced, the generation of waste also gets reduced...

Reuse - Refillable containers that are discarded after use can be reused, Eg: Rubber rings can be made from discarded tubes and this reduces waste generation during manufacturing of rubber bands.

Recycle- Recycling is the reprocessing of discarded materials into new useful products, Eg: Old aluminum cans and glass bottles are melted and re-casted into new cans and bottles or Preparation of cellulose insulation from waste paper, currency notes...

Discarding Wastes:

The following methods are adopted for discarding the wastes:

1. Landfill
2. Incineration /Burning and
3. Composting

LANDFILL: Solid wastes are placed in a sanitary landfill in which alternate layers of 80 cm thick refuse is covered with selected earth-fill of 20 cm thickness. After 2-3 years solid waste volume shrinks by 25-30% and land is used for parks, roads and small buildings. This is the most common and cheapest method of waste disposal and is mostly employed in Indian cities.

Advantages of Landfill...

- > It is simple and economical
- > Segregation of wastes is not required
- > Land filled areas can be reclaimed and used for other purposes
- > Converts low-lying, marshy waste-land into useful areas.
- > Natural resources are returned to soil and recycled.

Disadvantages:

- > Large area is required
- > Land availability is away from the town, transportation costs are very high
- > Leads to bad odour if landfill is not properly managed.
- > Land filled areas will be sources of mosquitoes and flies and require application of insecticides and pesticides.
- > Causes fire hazard due to formation of methane in wet weather.

Eg: Recent Fire @ Mulund Suburb

Incineration or Burning:

It is a hygienic way of disposing solid waste. It is suitable if waste contains more hazardous material and organic content. It is a thermal process and very effective for detoxification of all combustible pathogens. It is expensive when compared to composting or land filling.

In this method municipal solid wastes are burnt in a furnace called incinerator. Combustible substances such as rubbish, garbage, dead organisms and non-combustible matter such as glass, porcelain and metals are separated before feeding to incinerators. The non-combustible materials can be left out for recycling and reuse. The leftover ashes and clinkers may account for about 10 to 20% which need further disposal by sanitary landfill or some other means.

Incineration or Burning:

Advantages...

- > Residue is only 20-25% of the original and can be used as clinker after treatment
- > Requires very little space
- > Cost of transportation is not high if the incinerator is located within city limits

- > Safest from hygienic point of view
- > An incinerator plant of 3000 tons per day capacity can generate 3 Mega Watt of power.

Disadvantages...

- > Its capital and operating cost is high
- > Operation needs skilled personnel
- > Formation of smoke, dust and ashes needs further disposal and that may cause air pollution.

COMPOSTING

It is another popular method practiced in many cities in our country. In this method, bulk organic waste is converted into fertilizer by biological action.

Separated compostable waste is dumped in underground trenches in layers of 2 meters and finally covered with soil of 20 cm and left for decomposition. Sometimes, Actinomycetes are introduced for active decomposition. Within 2 to 3 days biological action starts. Organic matter is destroyed by Actinomycetes and lot of heat is liberated increasing the temperature of compost by 75 Centigrade and the refuse is finally converted into powdery brown coloured odour less mass called "Humus" that has a fertilizing value and can be used in agriculture. Humus contains lot of Nitrogen essential for plant growth apart from phosphates and other minerals.

COMPOSTING

Advantages...

- > Manure added to soil increases water retention and ion-exchange capacity of soil.
- > This method can be used to treat several industrial solid wastes.
- > Manure can be sold thereby reducing cost of disposing wastes
- > Recycling can be done

Disadvantages...

- > Non-consumables have to be disposed separately
- > The technology has not caught-up with the farmers and hence does not have an assured market.

Industrial Waste

Control Measures of Urban and Industrial Wastes:

Indiscriminate disposal of solid wastes, especially of hazardous industrial wastes causes adverse environmental effects.

The main objective of solid waste management is to minimize these adverse effects before it becomes too difficult to rectify in the future.

Solid waste management is a manifold task involving many activities like:

1. Collection of solid wastes.
2. Disposal of solid wastes.
3. Waste utilization.

Collection of Solid Wastes:

Collection includes all the activities associated with the gathering of solid wastes and the hauling of the wastes collected to the location from where the collection vehicle will ultimately transport it to the site of disposal. There are three basic methods of collection.

(a) Community storage point:

The municipal refuse is taken to fixed storage bins and stored till the waste collection agency collects it daily for disposal in a vehicle.

b) Kerbside Collection:

In advance of the collection time, the garbage is brought in containers and placed on the footway from where it is collected by the waste collection agency.

(c) Block Collection:

Individuals bring the waste in containers and hand it over to the collection staff who empties it into the waiting vehicle and returns the container to the individuals.

Disposal of Solid Wastes:

Before the solid waste is ultimately disposed of it is processed in order to improve the efficiency of solid waste disposal system and to recover usable resources out of the solid wastes.

The processing techniques such as compaction i.e. mechanical volume reduction or incineration i.e. thermal volume reduction and manual component separation i.e. manual sorting of the waste are employed to increase the efficiency of solid waste management.

Due to heterogeneity of the city's garbage it is important to select the most appropriate solid waste disposal method keeping in view the following objectives:

- (a) It should be economically viable i.e. the operation and maintenance costs must be carefully assessed.
- (b) It should not create a health hazard.
- (c) It should not cause adverse environmental effects.
- (d) It should not be aesthetically unpleasant i.e. it should not result in offending sights, odours, and noises.
- (e) It should preferably provide opportunities for recycling of materials.

The commonly used methods of disposal are:

(1) Salvage or Manual Component Separation:

Before ultimate disposal, the manual separation of solid waste components is accomplished to achieve the recovery and reuse of materials. Cardboard, newsprint, high quality paper, glass, metals, wood and aluminum cans etc. are manually sorted out or salvaged either for recycling or for resale.

(2) Compaction or Mechanical Volume Reduction:

After separation of reusable or disposable articles, compacters are used to compress the waste materials directly into large containers or to form bales that can be then placed in large containers. Compaction increases the useful life of landfills.

(3) Incineration or Thermal Volume Reduction:

Highly combustible wastes like plastics, cardboard, paper, rubber and combustible wastes like cartons, wood scrap, floor sweepings, food wastes etc. are subjected to incineration i.e. burning at very high temperatures. Incineration results in air pollution and so proper control equipment needs to be installed to avoid contamination of environment.

(4) Open Dumping:

Open dumping of solid wastes is done in low lying areas and outskirts of the towns and cities. Being comparatively cheaper, this method of disposal is used extensively in India.

(5) Sanitary Land filling or Controlled Tipping:

Sanitary land filling involves the disposal of municipal wastes on or in the upper layers of the earth's mantle especially in degraded areas in need of restoration. In land filling, the solid wastes are compacted and spread in thin layers each layer being uniformly covered by a layer of soil.

(6) Land farming:

In this waste disposal method, the biodegradable industrial wastes are treated by the biological, physical and chemical processes occurring in the surface of the soil.

The organic wastes are either applied on top of the land or injected below the soil surface with suitable equipment, where they undergo bacterial and chemical decomposition. At frequent intervals, the land farming sites can be reused without any adverse effects provided the land farming site is properly managed.

(7) Composting or Biodegradation:

Bacterial decomposition of the organic components of the municipal solid wastes result in formation of humus or compost and the process is known as composting. In this process a compost pile is constructed by making alternate layers of organic matter and soil (source of micro-organisms).

Some fertilizer and water is periodically added to the compost pile to stimulate microbial (bacteria and fungi) action and to maintain the necessary moisture content (55%). Periodically, the garbage is turned over to allow aeration i.e. penetration of oxygen to all parts of the organic refuse to facilitate aerobic bacterial decomposition.

Waste Utilization:

A developing country cannot afford wastage. By proper utilization of solid waste a developing country like India can avail of many advantages, for instance:

- (a) Waste utilization directly or indirectly contributes to economic development.
- (b) Waste utilization generates employment* opportunities.
- (c) Unused solid wastes create environmental hazards by spreading diseases and causing air and water pollution.
- (d) Waste utilization helps in conservation of natural resources.
- (e) Waste utilization helps to generate many useful products which are the basic necessities of life.
- (f) Cattle dung is used in “gobar gas plants” for making cooking gas.
- (g) Cattle dung is used as a manure.
- (h) Garbage is used for making compost.
- (i) Waste paper is recycled to form paper, cardboard, good quality paper and paper bags etc.
- (j) Scrap glass is used in production of new glass.
- (k) Aquatic weeds like water Hyacinth (Eichhornia) is utilized by conversion into fertilizers, bio-gas, animal feed, paper etc.

Examples of Waste Utilization:

- (l) Plastic is recycled to make new packs, soft waxes, greases and adhesives etc.
- (m) Used tyres casings are reused in the manufacture of synthetic rubber and
- (n) Fly ash is used as a cement substitute to make bricks etc. Efforts are required to be made to minimize the generation of these wastes and to treat them to recover useful materials i.e. waste utilization, and to make the residual innocuous safe and harmless.

Natural Disaster

Natural disasters happen all over the world and they can be utterly devastating for people's lives and the environments in which they live.

Although natural disasters are caused by nature and there is nothing that we can do to prevent them happening, there are many different natural causes that lead to natural disasters, and being aware of these causes enables us to be better prepared when such disasters do arrive.

Flooding:

One common natural disaster is flooding, which occurs when a river bursts its banks and the water spills out onto the floodplain. This is far more likely to happen when there is a great deal of heavy rain, so during very wet periods, flood warnings are often put in place.

There are other risk factors for flooding too: steep-sided channels cause fast surface run-off, while a lack of vegetation or woodland to both break the flow of water and drink the water means that there is little to slow the floodwater down. Drainage basins of rainproof rock also cause the water to run faster over the surface.

Earthquakes:

Earthquakes are another common natural disaster that can cause many fatalities. The movements of the tectonic plates in the earth's crust cause them. These plates do not always move smoothly and can get stuck, causing a build-up of pressure. It is when this pressure is released that an earthquake occurs.

In turn, an earthquake under the water can also cause a tsunami, as the quake causes great waves by pushing large volumes of water to the surface.

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Forest Fire:

One of the most common natural disasters, but also one of the most commonly forgotten, is wildfires. These take place in many different countries all over the world, particularly during the summer months, and can be caused by a range of different things. Some of the things that can start the wildfires can be totally natural, while others can be manmade, but the speed at which they spread is entirely down to nature.

The two natural causes of wildfires are the sun's heat and lightning strikes, while they can also be caused by campfires, smoking, fireworks and many other things. The reasons that they spread so quickly are prolonged hot, dry weather, where the vegetation dries out, which is why they often take place in woodland.

Cyclones in India:

The states most exposed to cyclone-related hazards, including strong winds, floods and storm surges, are West Bengal, Odisha, Andhra Pradesh and Tamil Nadu along the Bay of Bengal.

The impact of these cyclones is confined to the coastal districts, the maximum destruction being within 100 km from the centre of the cyclone and on either side of the storm track, which is relatively dense population and poor economic condition complicate the situation. The population density in some of the coastal districts is as high as 670 persons per square km.

Flood in India:

Natural calamities like earthquakes, avalanche volcanoes floods, etc. create havoc, time and again, in our lives. Flood is one such calamity which not only brings untold miseries to people but because of its recurring nature it leaves our country in ruins every year. Can there be a more terrible sight than when we see entire villages being washed away and people stranded with nothing to live on?

The ravages of flood and its consequences are beyond description. Rural poverty and general backwardness have been further aggravated by these floods occurring every year.

Three factors account for the frequent occurrence of flood in India.

They are –

- (i) India being in the Monsoon region
- (ii) The existence of west plains in the north and,
- (iii) Long stretch of mountainous region in the North and North East. The north and north-eastern part of India lie in the heart of Monsoon belt and as a result experiences heavy annual rainfall. Continuous rain causes the numerous streams and rivers of the vast plains of the north to overflow, resulting in the flooding of the low lying areas of the Gangetic and Brahmaputra plains. Recent studies have found that global warming resulting in ice melting in the river upstream creates flood havoc. The July 2004 floods which affected the people of Assam is a result of this global warming.
- (iv) Flood causes terrible loss of life and property. In Assam alone about 22.43 lakh hectares of land was flooded in July 2004 floods. Thousands of people are rendered homeless. Their houses are flooded and their cattle and goods get washed away.
- (v) Many villages and towns are submerged forcing the inhabitants to flee for life. It destroys properties worth crores of rupees. Crops are destroyed and cultivable lands go under water. Bridges are broken, roads get destroyed and communication links are disrupted.

As soon as flood occurs, the government immediately takes certain relief measures. Relief measures are of two types:

- (i) Short-term measures and
- (ii) Long-term measures. The short-term relief measures consist of setting up of relief camps, free distribution of food, clothes and medicines. While long-term measures include distribution of seedlings, remission of dues to the government, granting of loans and subsidies for construction of houses, compensation for loss of crops, etc.

India's rivers carry huge sedimentation due to the Himalayan connection. Under these circumstances a few favorable multipurpose projects in selected northern tributaries will be fruitful.

- Moreover, frequent erosion of river banks at different places in one of the major problem that needs to be controlled by proper protection measures in areas like Majuli in Assam. Restoration

and conservation of forests is another very important protection measure against erosion of soil and the management of flood.

- Food disaster management in the flood prone areas of our country is necessary where technically qualified people such as scientists, engineers, geologists, meteorologists, etc. can prepare a successful plan.
- This is very important for immediate planning at the time of flood and after the flood for rehabilitations and also for forecasting along with preparedness. In this manner the severe consequences of this major natural calamity can be minimized.

Earthquakes in India:

- The term earthquake is applied to any tremor or shaking of the ground. Many earthquakes are so gentle as to pass almost unrecognized, others are sufficiently pronounced to excite general alarm, while some spread enormous destruction. Destructive earthquakes are usually confined to limited regions.
- The usual phenomena recorded in well-known earthquakes are first a trembling, next one or more severe shocks, and then a trembling which gradually dies away. In most cases, each shock lasts only a few seconds, but the trembling that follow may continue for days, weeks, or even months.
- Noises of various kinds usually accompany an earthquake. They have been likened to the howling of storm, the growling of thunder, the clanking and clashing of iron chains, or the rumbling of heavy wagons along a road.
- Such noises are conducted through the ground, or they may travel through the sea or air, and are often heard at great distances from the place where the shock is felt.
- Some earthquakes, however, are not accompanied by these noises. At the time of the terrible shock which destroyed Riobamba in Ecuador on February 4, 1797, a complete silence reigned.
- Many changes are produced on the earth's surface by earthquakes. They cause landslips and cracks in the earth, which will sometimes alter the water drainage of river system of a country. They are frequently accompanied by great sea waves, which will often sweep rocks and sand great distances inland called Tsunami.
- Permanent elevations and depressions of land are sometimes caused. After the great earthquakes of 1750, the coast of Chili was found to have been permanently raised from three to four feet.

Cyclones in India:

India's 7,517 kms coastline has been raked by cyclones for centuries. The term 'Cyclone' denote all tropical storms; it is called 'hurricane' in the Atlantic and the Eastern Pacific, typhoon" in the western Pacific, 'willy-willy' in Australia and bagius in the Philippines.

Cyclones are usually located approximately 30 degrees above and below the equator. They vary in diameter from 50 kms to 320 kms, but their effects dominate thousands of sq. kms of ocean surface and the lower atmosphere.

The perimeter may measure 1,000 km but the powerhouse is located within the 100 kms radius. Nearer the eye, winds may hit 320 km ph. Tropical cyclones are intensifying swirls of cloud and rain which then progress into tropical storms. They spin clockwise in the northern Hemisphere and anti-clock wise in the southern hemisphere.

Between five and 20 kms tall when fully formed, they become self- sustaining and bloat until they hit cool land or ocean being of oceanic origin, they generally hit the east coast of the continents. The Indian subcontinent is the worst cyclone affected part of the world as a result of a low-depth ocean bed topography and coastal configuration. Stretches along the Bay of Bengal Coast-line have the world's shallowest waters.

The relatively dense population and poor economic condition completes the picture. The population density in some of the coastal districts is as high as 670 person per square km compared to the state

average of 26 persons per sq km. Cyclone strike here in May-June and October- November, with the monsoon's onset and retreat.

Cyclones of a diameter of 600 kms or more is one of the most destructive and dangerous atmospheric storms on the earth.

With about 6 per cent of the world wide cyclones, the Indian sub-continent is the worst cyclone affected areas. No universally acknowledged theory of occurrence of tropical cyclone is known today

A tropical cyclone can form when the horizontal temperature gradients are exceedingly high around a weakly developed area of low pressure. The cyclone is the heat engine whose heater is the oceanic surface. The released heat after condensation converts it into kinetic energy for the cyclone. The following are the stages in the formation of a cyclone:

- (a) Temperature of the oceanic surface over 26°C
- (b) Low pressure dropping below 1000 mb
- (c) Areas of circular movement, first spreading to a radius of 30-50 kms then increasing gradually to 100-200 kms and even to 1000 kms. And
- (d) Vertically the wind speed first rising to a height of 6 km, then much higher.

Structure of Tropical Cyclones:

- Tropical cyclones have large pressure gradients 14-17 mb/ 100 kms; in some cyclones it is as high as 60 mb/ 100 kms. The wind belt can spread to a distance of 10 to 150 kms from the centre and at times even further. Cyclonic circulation at the surface converts into anti-cyclonic at the higher level. The tropical cyclones have a warm core. In the centre of the cyclone there is generally a cloudless spot known as the eye of the storm.
- The eye is encircled by a cloud of great vertical extent. The average rainfall in a tropical cyclone amounts to over 50 cm, sometime rising to over 100 cm. The cyclone moves forward at an average speed of about 20 kms per hour.

Reducing Impact of Damage:

- Most damage from cyclones is caused by the strong winds, torrential rain and high storm tides. Floods generated by cyclonic rainfall are more destructive than the winds. Today, due to the significant improvement in the cyclone warning system and adequate and timely steps taken, loss of human lives is comparatively less. Other measures like construction of cyclone shelters, embankments, dykes, reservoirs and coastal afforestation help immensely.
- The insurance of crops and cattle also a long way in helping people cope with the losses. The warning about the path of cyclone is possible by the satellite images that are available; the computer generated models can predict with fair accuracy the direction and intensity of the winds and direction of the cyclone.

India's Efforts Cyclone Warning System:

- India, according to the World Meteorological Organization, suffers only six per cent of the total cyclones worldwide. China and Japan face up to 30 per cent (calling them typhoons), and the Americas 23 per cent (hurricanes). But these regions do not suffer such massive devastation. Clearly, there is a way to prevent it. But that needs a comprehensive disaster-management policy.
- India has an efficient cyclone warning system. Tropical cyclones are tracked with the help of:
- Regular observation from weather network of surface and upper air observation stations;
- Ships reports;
- Cyclone detection radars;
- Satellites, and
- Reports from commercial aircraft.
- About 280 ships of merchant fleet have meteorological instruments for taking observations at sea. A network of ten cyclone detection radars have been set up along the coast at Kolkata, Paradip, Visakhapatnam, Machilipatnam, Chennai, Karaikal, Cochin, Goa, Mumbai and Bhuj. The range of coastal radars, its intensity and movement is monitored with weather satellites.

Warnings are issued by the area cyclone warning centres located at Kolkata, Chennai and Mumbai, and cyclone warning centres at Bhubaneswar, Visakhapatnam and Ahmedabad.

The IMD still largely depends on DoT's telegraph and telecommunication channels for transfer of data to area cyclone centres as well as dissemination of warnings to various users like district collectors, state government officials, etc. As the storm approaches the coasts, many of these channels completely breakdown.

To overcome these difficulties, IMD has developed a system known as Disaster Warning System (DWS) to transmit cyclone warning bulletins through INSAT-DWS to the recipients. This consists of the following elements:

- (i) The cyclone warning centre for originating the area code of the districts and disaster warning message.
- (ii) The earth station located near the cyclone warning centre with uplink facility in C-band and suitable communication links.
- (iii) The C/S band transponder on board INSAT.
- (iv) The INSAT-DWS receivers located in cyclone prone areas. The IMD has also published the tracks of the cyclones since 1981 and updates that every month in its quarterly Journal "Mausam".

Landslides in India

A landslide is the rapid sliding of large masses of bed rocks or regoliths. Whenever mountain slopes are steep there is a possibility of large disastrous landslide. Landslides are triggered by earthquakes or sudden rock failures. They can also result when the base of a slope is over steepened by excavation or river erosion.

Severe earthquakes in mountainous regions are a major cause of landslides. In the Himalayas, the Western Ghats, and along the river valleys landslides are a common feature. Natural removal of soil and rock from slopes is known as mass wasting. Landslide as a hazard has long been recognized by the people living in the mountains. It becomes specially dangerous when there is heavy rainfall or snowfall on the slip and break and carry with it the soil and debris.

The extent of landslides depends on the steepness of the slope, the bedding plane of rocks, the amount of vegetation cover and the extent of folding and faulting of the rocks. It is the rocks that break.

A major cause which triggers off the landslide is the weight of the overlying material and the presence of a lubricating material like water, this is known as solifluction. Freezing and thawing of the rocks on mountain slopes cause them to break and roll down the slopes. The overbearing weight of snow or ice or water which has seeped into the soft permeable rocks also lead to slipping and breakage of hill slopes.

Other causes of the landslides are the volcanoes and earthquakes. In areas which have sedimentary rock and steep slopes tremors dislodge the rock structures and cause falls.

Often near sea coasts as for example the Kanara coast; cliffs are eroded at the base by sea waves and the rocks jutting out on top break off and fall. Landslides occur frequently during the rains.

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Deforestation as a result of felling of trees for timber and removal of vegetation cover for developmental activities are also responsible for soil erosion and destabilization of slopes.

It is estimated that the construction of just one kilometre long road requires removal of 40,000 to 80,000 cubic metres of debris, which slide down the slopes, killing vegetation and choking mountain streams. Humans often make changes in the natural slope for construction of roads and buildings. Such changes make hill sides more vulnerable to mass wasting and landslides.

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changes in the natural slope for construction of roads and buildings. Such changes make hill sides more vulnerable to mass wasting and landslides.

Disaster Management:

Disaster is a state subject in India; it is, therefore, the responsibility of the state to provide every kind of support and assistance to the victim. The Central Government has a facilitating role. It, with proper coordination with various ministries, extends all required support and helps to the states, namely defence services, air dropping, rescuing, searching, transport of relief goods, availability of rail and ferry services, health personnel and medical support, etc. In the State, the Relief Commissioner or Disaster Management Secretary is the specific authority responsible for handling and management of the disaster.

At the state level there is a State Level Disaster Management Committee consisting of senior secretaries of various departments and representatives of the NGOs. At national level, there is a Crisis Management Committee headed by the Cabinet Secretary and secretaries from major departments of governments. In 1999 a high powered Committee on Disaster Management was set up by the Government of India to look into the existing disaster management system in the country and to suggest measures to improve it. Besides, a Calamity Relief Fund has been constituted with contribution in ratio 3: 1 between the Centre and the respective State Government.

Contemporary Social issues

Contemporary Meaning...belonging to or occurring in the present.

Social Issues in India

India is an ancient country and according to some estimates, Indian civilization is about ten thousand years of age. Therefore, it is natural that its society will also be very old and complex.

Throughout its long period of history, India has witnessed and received several waves of immigrants such as Aryans, Muslims etc. These people brought with themselves their own ethnic varieties and cultures and contributed to India's diversity, richness and vitality.

Therefore, Indian society is a complex mix of diverse cultures, people, beliefs and languages which may have come from anywhere but now is a part of this vast country. This complexity and richness gives Indian society a unique appearance of a very vibrant and colorful cultural country.

Currently as many as 780 different languages are spoken and 86 different scripts are used in India. While it surely is a fact to celebrate the diversity of the country, the sad part is we have lost nearly 250 languages in the last 50 years or so... The official Indian languages are Hindi (with approximately 420 million speakers) and English, which is also widely spoken.

Languages of India

There are several languages in India belonging to different language families, the major ones being the Indo-Aryan languages spoken by 75% of Indians, the Dravidian languages spoken by 20% of Indians and other languages by rest of Indians.

In addition, the Government of India has awarded the distinction of *classical language* to Tamil, Sanskrit, Kannada, Telugu, Malayalam and Odia.

Odia (formerly spelled *Oriya*) is an Indo-Aryan language. Odia is the primary language in the Indian state or state of Odisha. Native speakers comprise 80% of the population in Odisha. This language is being spoken in eastern India over 1,500 years ago.

The history of Odia language can be divided to Old Odia (7th century–1200), Early Middle Odia (1200–1400), Middle Odia (1400–1700), Late Middle Odia (1700–1850) and Modern Odia (1850 till present day).

Reasons of Social Problems:

But the very same complexity brings with itself complex nature of social problems and issues. In fact every society of the world has their social issues unique to their society. So does the Indian society.

Indian society is very rooted in religious beliefs; there are people of different religious beliefs such as Hindus, Muslims, Jains, Sikhs, Parsis, Buddhist etc. These all adds to the socio-cultural varieties of the country. India's social problems are also rooted in the religious practices and beliefs of it people.

Almost all forms of social issues and problems find their origin in the religious and cultural practices of the people of India. These social problems are developed in a long period of times and are still continuing in one form or other.

Furthermore, India has witnessed several wars of large proportions; several foreign invaders attacked India in its long history among whom few made this country as their own and tried to force their socio-religious practices which also deteriorated social conditions; the long period of British rule crippled the country and had thrown it into backwardness. Thus, many such reasons may be cited for India's social problems but the fact remains that we have these issues and only we can solve them.

Population Explosion

The literal meaning of population is the whole number of people or inhabitants in a country or region (Webster's dictionary), and the literal meaning of population explosion is a pyramiding of numbers of a biological population.

- Population Explosion refers the sudden and rapid rise in the size of Population. Population explosion is not only a problem in India; it has reached a menacing proportion all over the world, especially in the poorer countries.
- The developed countries in the West or in countries like Japan which are rich enough to employ all their people according to their abilities the growth of population may prove to be a boon, for the rapid growth of industries and national wealth always need greater work-force to implement the programs of development in ever-expanding spheres.
- But in developing countries like India, with a backward economy and little scope for fruitful employment, millions of people find no work to do. The unemployed, having nothing to do and without an ensured living, are left frustrated and demoralize, losing their faith in life itself.
- As it happens in India and several underdeveloped countries in Asia and Africa, the unemployed threaten the very process of development and plunge the country in gloom. Those who are born with two hands consider it a curse when they are denied the simple right to work and earn a living.
- It may sound funny, but the law is that the poorer a country the greater is the growth rate of its population. India, caught in the morass or mess of her age-old poverty, finds herself in the midst of a population explosion.
- The population that was less than 400 million in the 1940's was found to be about 1.21 billion in 2011 (Census). As a result of this even the six plans completed by now have so far failed to cope with the enormous problem of unemployment. Currently, The Planning Commission been replaced by Niti Aayog, by the current Government.
- In absolute terms, there were 966.3 million Hindus(79.8%) in 2011, while there were 172.2 million Muslims(14.2%), 27.8 million Christians, 20.8 million Sikhs (1.7 per cent of the country's total population), 8.4 million Buddhist (0.7 per cent), and 4.5 million Jains (0.4 per cent). The proportion of Christians in the country's population remained constant at 2.3 per cent in all these years.

Demographic transition explains a form of relationship between population and economic development. In the western countries it has been found that they have moved from a condition of high birth and death rates, to a condition of low birth and death rates which led to a slow rate of growth of population. This demographic change is known as 'Demographic Transition'.

In other words, demographic transition describes the passage through which countries move from high birth and death rates to low ones. This has been the experience of countries going through a process of modernizing economic and social development.

Effects of the rapid population growth in India...

Providing employment to growing population: This is so because in developing economies majority of the population are illiterate. The burden of school age population has already shown signs of becoming unbearable.

The proportion of children in schools is increasing fast and, vast numbers are still not covered. The absolute number of illiterate persons increases every year. This is only an indication of the wastage of human resources for want of appropriate development opportunities.

Problem of utilization of manpower: Better educated manpower aspires for occupations of greater prestige, which are opened up by the new development efforts. Because of its capital intensive nature, the ability, of the new economy for employment generation becomes restricted.

Simultaneously, it renders many of the old occupations out of day and redundant. As a result, under-employment and unemployment, including unemployment of educated persons, increases. There is thus wastage of even developed human capital.

Over-strained Infrastructure: Facilities such as housing, transportation, health care, and education become inadequate. The worst symptoms of congestion in every aspect of living conditions are manifested in the urban areas.

In countries such as India, a situation of "over urbanization" prevails which puts unbearable strain on urban amenities. Overcrowded houses, slums and unsanitary localities, traffic congestion and crowded hospitals have become common features in our country as well as the various developing countries.

Pressure on land and other renewable natural resources: Common properties such as forest and water are over-exploited. This results in deforestation and desertification(a process by which fertile land becomes inappropriate for agriculture) with permanent damage to the renewable resources.

Increased cost of production : Human ingenuity and technological advancement makes it possible to increase production of goods and services. But, it must be kept in mind that, the cost of production of the basic necessities of life, such as food, increases when the population is growing fast and worse lands are brought into cultivation with costly irrigation etc.

Inequitable distribution of income: Both at the international and national levels income disparities increase. The increase in gross national product (GNP) is greatly reduced in per capita terms on account of the rapidly growing population.

In the face of a rapidly growing population, the major concern of a developing country tends to be focused more on economic growth as such. Considerations of unequal distribution of income are pushed to background. So inequalities within the country tend to widen further.

Balance between Birth and Death rates: The rapid population growth in many third world countries and persistence of poverty has given rise to the view of over-population possibility. There is, therefore, a major move throughout the world to bring down the growth rate of population.

Development experience of recent years shows that there is a long run trend towards slow growth of population in a country. This is secured by balance between birth and death rates.

Relationship between Population and Development: Today's developing countries are experiencing a much faster growth in their population under conditions different than those faced by the developed countries.

Thus they are faced with huge problems of imparting education, employment, urban development and environmental degradation. The need to tackle these problems has led to the necessity a clearer understanding of the relationship between population and development.

Relationship between Development and Fertility: The major problem faced by the developing countries is to bring down their birth rates, i.e. fertility. Therefore, understanding of the relationship between development and fertility becomes very significant. There are experts who think that unless fertility is first restricted, sustained economic development is not possible.

Social issues in our country which are leading to over population...

Early Marriage and Universal Marriage System: Even though legally the marriageable age of a girl is 18 years, the concept of early marriage still prevails and getting married at an young age prolongs the child bearing age.

Also, in India, marriage is a sacred obligation and a universal practice, where almost every woman is married at the reproductive age.

Poverty and Illiteracy: Another factor for the rapid growth of population is poverty. Impoverished families have this notion that more the number of members in the family, more will be the numbers to earn income. Some feel that more children are needed to look after them in their old age.

Strange but true, Indian still lag behind the use of contraceptives and birth control methods. Many of them are not willing to discuss or are totally unaware about them. Illiteracy is thus another cause of over population.

Age old cultural norm: Sons are the bread earners of the families in India. This age old thought puts considerable pressure on the parents to produce children till a male child is born. More the better.

Steps to Control Population in India...

- The Government of India, politicians, policy makers should initiate a bold population policy so that the economic growth of the country can keep pace with the demands of a growing population. Major steps which have been already implemented but still need to be emphasized more to control population.
- By increasing the welfare and status of women and girls, spread of education, increasing awareness for the use of contraceptives and family planning methods, sex education, encouraging male sterilization and spacing between births, free distribution of contraceptives among the poor, encouraging female empowerment, more health care centers for the poor, to name a few, can play a major role in controlling population.
- India's strengths in the global world in various fields cannot be ignored, whether in science & technology, medicine and health care, business and industry, military, communication, entertainment, literature and many more.
- Experts including me are hopeful that by increasing public awareness and enlisting strict population control norms by the Government will definitely lead the way for the country's economic prosperity and control of population.

Poverty

Poverty is a condition in which a household is not able to fulfill its basic needs for survival i.e. food, clothing and shelter. Poverty is a widespread condition in India. Now, it is the 21st Century and poverty still is a big issue in our country.

India happens to be country wherein the disparities between the haves and the have-nots are extremely wide. It needs to be taken into account that although our economy has shown some visible signs of progress in the last two decades, this progress been uneven across various sectors or areas. The growth rates are higher and better in states like Gujarat and Delhi (NCR) as compared to Bihar and Uttar Pradesh.

In India, nearly half of the population doesn't have proper shelter, access to a decent sanitation system, villages do not have a nearby clean water source, and villages also do not have a primary/secondary school and so also lack proper roads.

The element which further complicates and deteriorates the situation is the government PDS/ Subsidies system which has huge leakages in the public distribution system. They seldom reach the targeted households.

Absolute Poverty

When Income of a person is not sufficient to provide the basic necessities of life, he/she is said to be in absolute poverty.

Relative Poverty

Relative poverty occurs when a comparison of the standard of living or income distribution of various income groups is undertaken in a country. The income inequalities between different groups are a reflection of relative poverty.

In India people living below poverty line are quite high as compared to other Asian countries like Malaysia, Thailand and China.

Measurement of Poverty

Then, The Planning Commission of India set up a Study Group in July 1962 to examine the question of poverty in the country.

The Study Group suggested a private consumption expenditure of Rs. 20 (at 1960-61 prices) per capita per month as a basic minimum requirement of life, below which are regarded as poor.

In 1979, following the recommendation of the Task Force on Projection of Minimum Needs and Effective Consumption Demand, the poverty line is defined as “the per capita monthly expenditure needed to obtain the consumption of 2,400 calories per-capita per day in rural areas (Rs. 49.10 /PM) and 2,100 in urban areas (Rs. 56.60/PM).

International Poverty Line

In October 2015, the World Bank updated international poverty line to US\$1.90 a day. In 2008, the World Bank came out with a figure (revised largely due to inflation) of \$1.25 at 2005 purchasing-power parity (PPP).

Then what we mean by PPP?

Purchasing Power Parity’ (PPP)

PPP is used worldwide to compare the income levels in different countries. PPP thus makes it easy to understand and interpret the data of each country.

Definition: The theory aims to determine the adjustments needed to be made in the exchange rates of two currencies to make them at par with the purchasing power of each other. In other words, the expenditure on a similar commodity must be same in both currencies when accounted for exchange rate. The purchasing power of each currency is determined in the process.

Example: Let's say that a pair of shoes costs Rs 2500 in India. Then it should cost \$37.87 in United States of America when the exchange rate is at 66 between the dollar and the rupee.

Indian Poverty Line

Poverty in India is a historical reality. From late 19th century through early 20th century, under the British colonial rule, poverty in India intensified, peaking in 1920s. Famines and diseases killed millions each time.

After India gained its independence in 1947, mass deaths from famines were prevented, but poverty increased, peaking post-independence in 1960s. Rapid economic growth since 1991, has led to sharp reductions in extreme poverty in India.

India today, lack basic essentials of life such as safe drinking water, sanitation, housing, health infrastructure as well as malnutrition impact the lives of hundreds of millions.

The World Bank reviewed and proposed a revisions in May 2014, to its poverty calculation methodology and purchasing power parity basis for measuring poverty worldwide, including India...

According to this revised methodology, the world had 872.3 million people below the new poverty line, of which 179.6 million people lived in India.

In other words, India with 17.5% of total world's population, had 20.6% share of world's poorest in 2011. India's official poverty line, in 2014, was Rs. 972 (US\$14) a month in rural areas and Rs. 1407 (US\$21) a month in cities. India's nationwide average poverty line differs from each state's poverty line.

For example:

in 2011-2012, Pondicherry had its highest poverty line of Rs. 1301 (US\$19) a month in rural and Rs. 1309 (US\$19) a month in urban areas, while Odisha had the lowest poverty thresholds of Rs. 695 (US\$10) a month for rural and Rs. 861 (US\$13) a month for its urban areas.

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Latest New poverty line: Rs 32 in villages, Rs 47 in cities

Those spending over Rs. 32 a day in rural areas and Rs. 47 in towns and cities should not be considered poor, an expert panel headed by Former RBI Governor C. Rangarajan said in a report in 2014.

Based on the Suresh Tendulkar panel's recommendations in 2011-12, the poverty line had been fixed at Rs. 27 in rural areas and Rs. 33 in urban areas, levels at which getting two meals may be difficult.

According to the India Rural Development Report 2013-14, 6.84 per cent of the rural population was categorized as "very poor" in 2011-12, down from 16.3 per cent in 2004-05.

Chhattisgarh had the highest percentage of "very poor" across major states-15.32 per cent- followed by Madhya Pradesh (15.04 per cent), Odisha (11.46 per cent), Bihar (10.45 per cent) and Jharkhand (9.23 per cent).

Poverty among occupational groups in rural areas is the highest among Agricultural Labour (40 per cent), followed by other Labour at 33 per cent and the self-employed in agriculture at 22 per cent.

Vicious Circle of Poverty

The vicious circle of poverty refers to the interconnectedness of different factors that reinforce each other for generating poverty. According to Nurkse and Kindleberger the reasons for this vicious circle of poverty can be classified into three groups.

- Supply side factors
- Demand side factors
- Market imperfection

Supply Side Factors

- The supply side of the vicious circle indicates that in underdeveloped countries, productivity is so low that it is not enough for capital formation.
- According to Samuelson, "The backward nations cannot get their heads above water because their production is so low that they can spare nothing for capital formation by which their standard of living could be raised."
- The main reason of poverty is the low level of saving. Consequently, investment is not possible in production channels. A huge chunk of GDP is used for consumption purposes. People cannot save money. So, there is lack of investment and capital formation.
- Although rich people can save, they spend their surplus in some on luxurious goods instead of saving. They gave preference to high priced items and imported products. Thus, their demand does not enlarge the size of the market. The developing countries, therefore, lack investment facilities.

Demand Side Factors

- According to Nurkse, poverty is caused by several factors in the demand side. In underdeveloped countries the inducement to invest is low because of the low purchasing power of the people, which is due to their small real income.
- The main reason for poverty in these countries is the low level of demand. Consequently, the sizes of markets remain low. The small size of the market becomes a hurdle in the path of inducement to invest.

Market Imperfections

- According to Meier and Baldwin, the existence of market imperfections prevents optimum allocation and utilization of natural resources, and the result is underdevelopment, and this in turn, leads to poverty.
- The development of natural resources depends upon the character of human resources. But due to lack of skill and low level of knowledge and for political reasons the natural resources remain unutilized, in certain cases underutilized and misused.
- Eg. Wind Power, Small Hydro Power and Solar Power... Agriculture, Spectrum, Thorium for Nuclear Reactor

Reasons and Causes of Poverty in India

- Colonial Exploitation: Colonial rule in India is the main reason of poverty and backwardness in India. The Indian economy was purposely and severely de-industrialized through colonial privatizations. British rule replaced the wasteful warlord aristocracy by a bureaucratic-military establishment. However, colonial exploitation caused backwardness in India.

- Lack of Investment for the Poor: There is lack of investment for the development of poorer section of the society. Over the past 60 years, India decided to focus on creating world class educational institutions for the elite, whilst neglecting basic literacy for the majority.
- Social System in India: The social system is another cause of poverty in India. The social subsystems are so strongly interlocked that the poor are incapable of overcoming the obstacles.
- India's Economic Policies: In 1947, the average annual income in India was US\$439, compared with US\$619 for China, US\$770 for South Korea. But South Korea became a developed country by the 2000s. License Raj prevailed with elaborate licenses, regulations and accompanying red tape. Corruption flourished under this system.
- Over-reliance on Agriculture: In India there is high level of dependence on primitive methods of agriculture. There was a surplus of labour in agriculture.
- Farmers are a large vote bank and use their votes to resist reallocation of land for higher-income industrial projects. While services and industry have grown at double digit figures, the agriculture growth rate has dropped from 4.8 per cent to 2 per cent.
- High Illiteracy: Indian literacy rate rose almost tenfold during the British era. In 1947, India's literacy rate matched China's. However, in 2007, China reported at 91 per cent literacy rate versus 66 per cent for India.
- Now India suffers from about 35 per cent illiteracy among the adult population. Literacy levels among SC, ST and females are very low.
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- Now India suffers from about 35 per cent illiteracy among the adult population. Literacy levels among SC, ST and females are very low.
- Lack of Entrepreneurship: The industrial base of India has remained very slender or meager. The industrial sickness is very widespread. The whole industrial sector suffers from capital deficiency and lack of entrepreneurial spirit.

Remedies for Poverty

- Increase in Saving: In order to get rid of the supply side vicious circle in these countries, efforts should be made to increase savings so that investment in productive channels may be encouraged. To increase saving, expenditure on marriages, social ceremonies, etc., should be curtailed. In under developed countries, the possibility of voluntary savings is slim.
- Thus, in this regard, government interference is necessary. The government can increase saving, by altering its fiscal policy. The government can impose heavy taxes on luxury goods. Moreover, it can increase the role of direct taxes. Thus, the government can curtail consumption by altering the tax system.
- Increase in Investment: To break the vicious circle of poverty, apart from increasing savings, investment of saving in productive channels is also of immense use. The policies of short run and long run investment should be coordinated. By short period investment, people can get the necessary goods at fair rates, which will have a favourable impact on their skill.
- Moreover, along with short period investment, investment in the establishment of multipurpose projects, iron and chemical fertilizers etc should be properly encouraged. In UDCs, proper monetary and banking policies should be adopted which may provide facilities and encouragement to small savings.
- Balanced Growth: To resolve the demand side vicious circle in underdeveloped countries, the extension of the market is to be done so that people may get inducement to invest. In this regard, Prof. Nurkse advocated the doctrine of balanced growth. According to the principle of balanced growth, investment should be made in every sphere of an economy so that demand of one sector can be fulfilled by another sector.
- Thus, an increase in demand will lead to extension of the market, and would provide inducement to investments. On the other hand, economists like Hirschman, Singer, and Fleming do not consider the policy of balanced growth effective. According to them, the policy of unbalanced growth would be more useful.

- **Human Capital Formation:** In underdeveloped countries, the main obstacle to economic growth is the backwardness of human capital. Human capital should no longer be neglected. Many suggestions can be made to increase skill of manpower. For instance, in these countries, education, technical knowledge, and vocational training should be enlarged. Health facilities should be enhanced, which may increase the efficiency of the workers. Transportation and communication should be developed.
- **Industrialization:** Poverty can be eradicated by a self-sustaining process of industrialization. All industries should have linkage to build a powerful process of ancillary industries and occupations. The percolation effect of industries can be strong through the establishment of auxiliary industries. Industry should be linked to agricultural growth.
- **Agro-based industries** should grow to provide employment to village people as they are very much labour intensive. Industrialization can contribute to the growth process and bring improvement in the standard of living of people.
What is the government doing to eradicate poverty?
- Ever since coming to power, the current government has come up with several programmes in order to ease the burden of poverty holding India back. The Pradhan Mantri Jan Dhan Yojana (PMJDY) is one such programme. It looks to provide economically-disadvantaged people access to different financial services such as a basic savings account, insurance, credit as and when needed, pension and remittances.
- People who invest in this scheme can earn interest on the amount deposited by them, and have accidental insurance cover. The programme does not have a minimum amount that has to be always maintained.
- The programme provides life insurance worth Rs. 30,000 and accountholders can avail overdraft facilities after six months. The maximum amount of overdraft in case of a single household is Rs. 5,000.
- The PMJDY also helps them get access to other insurance and pension-based financial products. The accountholders are also provided RuPay debit cards. The programme was launched on 8th April 2015.
- **Insurance Programmes**
- On 9th May, a couple of insurance programmes were launched for members of lower income groups and economically-backward sections – Pradhan Mantri Jeevan Jyoti Bima Yojana (PMJJBY) and Pradhan Mantri Suraksha Bima Yojana (PMSBY). The age group covered by PMJJBY is 18-50 years. People willing to be insured under this programme need to pay a yearly premium of Rs. 330 and they will be provided a life cover amounting to Rs. 2 lakhs.
- The PMSBY covers people between the age group of 18-70 years. The yearly premium for this policy is only Rs. 12. The accountholders get Rs. 1 lakh in case of partial disability in an accident and Rs. 2 lakh for complete disability and death for the same reason.
- **Agricultural Schemes**
- The Kisan Vikas Patra, which had been introduced for the first time by India Post way back in 1998, was re-launched. Farmers can invest in this programme in denominations like 1,000; 10,000; 5,000; and 10,000. Investors can expect their money to be doubled after 100 months. The saving certificate scheme can be issued either in the name of one person or many at a time. It can also be used as collateral to get loans and account holders get an interest rate of 8.7%.
- The Krishi Ambani Bima Yojana tries to help the farmers who are facing financial issues owing to natural causes that have hindered their farming and affected their produce. The Pradhan Mantri Gram Sinchai Yojana attempts to provide water for irrigation to different parts of the country.
- **Rural Schemes**
- Started on 11th October 2014, the Pradhan Mantri Sansad Adarsh Gram Yojana places the responsibility of rural development on the MPs. It is their duty to develop the infrastructural facilities – physical and socio-economic – of three villages each and this has to be done by 2019. By 2024, they have to develop eight villages each. The first village has to be completed by 2016. It is expected that by 2024, about 6,433 “Aadarshgram” will be created.

The Deen Dayal Upadhyaya Gram Jyoti Yojana (DDUGJY) programme is supposed to provide rural areas continuous supply of power. As a part of the plan, the national administration will invest Rs. 75,600 Crores. It has replaced the Rajiv Gandhi Grameen Vidyuti Karan Yojana.

- The Deen Dayal Upadhyaya Grameen Kaushalya Yojana was launched on 25th September 2014, which is the 98th birth anniversary of Pandit Deendayal Upadhyay. It looks to provide jobs in rural India to people between the age group of 18-35 years
- National Rural Employment Guarantee Act (NREGA)
- The NREGA bill was passed in 2005 and it became effective from 2006. It became the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) in 2008. As per the programme, 100 days of work are guaranteed to people in villages across the country. It has been a successful programme as far as increasing the income levels of poor people in the rural areas is concerned. It provides work opportunities to people as and when they ask for it.
- Even though it involves mostly unskilled manual work, it does provide some sort of safety net for the economically impoverished. The income from this programme helps them build some assets that make their lives that much better. This programme is implemented primarily by the Ministry of Rural Development.
- Indira Awas Yojana (IAY)
- The Indira Awas Yojana provides rural housing benefits. The aim of the programme is to create 20 Lakh houses across the country and 65% of these are supposed to be in the rural areas. As per the scheme, subsidized loans are provided in order to help people, who would otherwise not be able to do so, make their own houses. The programme had been originally launched in 1985.
- Integrated Rural Development Programme (IRDP)
- The Integrated Rural Development Programme is said to be one of the most ambitious ones of its kind in the world. The programme looks to provide assets, generated by the dint of income, to the poorest people in India. The programme was launched in 1978-79 at selected locations. However, by November 1980, the whole country had come under the programme's purview.
- The programme's main objective is to create sustainable assets and provide them to targeted families, so that they can be brought above the poverty line. Self-employment is a major component of the assistance provided as part of the scheme.

Following are some other plans initiated by the Indian Government for poverty alleviation in India keeping in mind with many a objectives :

- Annapurna
- Prime Minister's Integrated Urban Poverty Eradication Programme (PMIUPEP)
- Minimum Needs Programme (MNP)
- National Rural Employment Programme (NREP)
- National Maternity Benefit Scheme (NMBS)
- Rural Labour Employment Guarantee Programme (RLEGP)
- National Family Benefit Scheme (NFBS)
- TRYSEM Scheme
- National Old Age Pension Scheme (NOAPS)

Unemployment

The term unemployment can be understood as a situation in which no jobs are available for a person to earn means of livelihood. Or

Unemployment occurs when a person who is actively searching for employment is unable to find work.

Unemployment is often used as a measure of the health of the economy. The most frequently cited measure of unemployment is the unemployment rate. This is the number of unemployed persons divided by the number of people in the labour force.

Unemployment is found both in industrial and agricultural sector. In India, many factors have led to unemployment.

The main reasons...

1. Over population.
2. Seasonal nature of certain works.

3. Economic fluctuations/ downturn.

4. Extensive Automation and use of machines which has replaced man power.

In India, Unemployment problem is at an alarming rate. There is a significant increase in the rate of unemployment in recent times. Unemployment is found not only in urban sector but also in rural sector.

Types of Unemployment in India

Seasonal Unemployment

Normally when we talk of employed people we mean those who have work throughout the year. But this may not be possible for all.

In agriculture, work is seasonal even though agricultural activities are performed throughout the year. During the peak agricultural seasons (when the crop is ready for harvesting) more people are required for work. Similarly in the sowing, weeding and transplantation period more labour is required. Employment therefore increases at this time.

Example: landless labourers and marginal farmers

Voluntary Unemployment

People who are unwilling to work at prevailing wage rate and people who get a continuous flow of income from their property or any other sources and need not to work, such people are voluntarily unemployed.

Frictional Unemployment

Frictional unemployment is the time period between jobs when a worker is searching for, or transitioning from one job to another. It is sometimes called search unemployment and can be based on the circumstances of the unemployed individual.

Cyclical Unemployment

Cyclical unemployment is based on a greater availability of workers than there are jobs for workers. It is usually directly tied to the state of the economy. Lower demand for products due to lack of consumer confidence, disinterest, or reduction in consumer spending results in the workforce cutting back on production.

Since production is reduced, companies that retail such products may also cut back on workforce, creating yet more cyclical unemployment.

Disguised Unemployment

There are also instances where we find too many people working when so many are not required. In agriculture we may find that all members of the family work. It is possible that 3-4 people can do a given work in the farm, but we find that the whole family of say 10 people doing the job. This may be because the excess people are not able to find employment elsewhere, so rather than remain unemployed they prefer to do the work along with others. This is known as disguised unemployment.

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Rapid Population Growth: In the first place, the growth of population directly encouraged the unemployment by making large addition to labour force.

Secondly, the rapid population growth indirectly affected the unemployment situation by reducing the resources for capital formation. Any rise in population, over a large absolute base as in India, implies a large absolute number. It means large additional expenditure on their rearing up, maintenance, and education. As a consequence, more resources get used up in private consumption such as food, clothing, shelter.

Limited Land: Land is the gift of nature. It is always constant and cannot expand like population growth. Since, India population is increasing rapidly, therefore, the land is not sufficient for the growing population. As a result, there is heavy pressure on the land. In rural areas, most of the people depend directly on land to earn their livelihood.

Seasonal Agriculture: In Rural Society agriculture is the only means of employment. However, most of the rural people are engaged directly as well as indirectly in agricultural operation. But, agriculture in

India is basically a seasonal affair. It provides employment facilities to the rural people only in a particular season of the year.

Fragmentation of Land: In India, due to the heavy pressure on land of large population results the fragmentation of land. It creates a great obstacle in the part of agriculture. As land is fragmented and agricultural work is being hindered the people who depend on agriculture remain unemployed.

Backward Method of Agriculture: The method of agriculture in India is very backward. Till now, the rural farmers followed the old farming methods. As a result, the farmer cannot feed properly many people by the produce of his farm and he is unable to provide his children with proper education or to engage them in any profession. It leads to unemployment problem.

Decline of Cottage Industries:

In rural India, village or cottage industries are the only means of employment particularly of the landless people. They depend directly on various cottage industries for their livelihood. But, now-a-days, these are adversely affected by the industrialization process. Actually, it is found that they cannot compete with modern factories in matter of production. As a result of which the village industries suffer a serious loss and gradually closing down.

Defective education: The day-to-day education is very defective and is confined within the class room only. Its main aim is to acquire certificate only. The present educational system is not job oriented, it is degree oriented. It is defective on the ground that is more general than the vocational. Thus, the people who have getting general education are unable to do any work. They are to be called as good for nothing in the ground that they cannot have any job.

Lack of transport and communication: In India particularly in rural areas, there are no adequate facilities of transport and communication. Owing to this, the village people who are not engaged in agricultural work are remained unemployed. It is because they are unable to start any business for their livelihood and they are confined only within the limited boundary of the village.

Inadequate Employment Planning: The employment planning of the government is not adequate in comparison to population growth. In India near about two lakh people are added yearly to our existing population. But the employment opportunities did not increase according to the proportionate rate of population growth. As a consequence, a great difference is visible between the job opportunities and population growth.

As a result of massive unemployment there is poverty and increase in social evils like robbery, pick pocketing, smuggling, drug trafficking and other crimes etc.

The social consequences of the educated unemployed are quite serious. We will find that people with superior qualifications are doing jobs which could be done by less qualified people. This results in under-utilization of one's capacity. We can find graduate engineers doing jobs which could be performed by diploma holders.

Rural and Urban Unemployment in India

The unemployment rate at all India level stood at 3.8 per cent while in rural and urban areas it was 3.4 per cent and 5 per cent respectively.

Unemployment rate is more in urban areas than in rural areas as in urban areas educated unemployed are more in numbers and also in urban areas it requires some vocational training or technical skill to do a job as compared to rural areas. Urban unemployment is that unemployment which exist in urban areas. It is not only painful at personal level but also at social level.

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Conclusion:

The educated are not the only ones who face the problem of unemployment in the urban areas. There are large numbers of people in the rural areas who do not have a high level of education and who are unemployed.

Child Rights...

Even though India's children account for more than one-third of its population, their interests have never been given priority. And their rights have been violated every single day.

"The Union Budget 2014-15, has on the overall, not laid much emphasis on social sectors, especially children. Overall, the total allocation earmarked for children as proportion of Union Budget has declined marginally.

For much of human history and across different cultures, children less than 17 years old have contributed to family welfare in a variety of ways. UNICEF suggests that poverty is the big cause of child labour. The report also notes that in rural and impoverished parts of developing and undeveloped parts of the world, children have no real and meaningful alternative. Schools and teachers are unavailable. Child labour is the unnatural result.

A BBC report, similarly, concludes poverty and inadequate public education infrastructure are some of the causes of child labour in India.

Consequences of child labour

The presence of a large number of child labourers is regarded as a serious issue in terms of economic welfare. Children who work fail to get necessary education. They do not get the opportunity to develop physically, intellectually, emotionally and psychologically.

In terms of the physical condition of children, children are not ready for long monotonous work because they become exhausted more quickly than adults. This reduces their physical conditions and makes the children more vulnerable to disease.

Where they are Working???

1. Diamond industries
2. Fireworks manufacturer
3. Silk manufacturer
4. Carpet weaving
5. Domestic labour
6. Coal mining

Policy Decisions by Govt. of India...

7. In 2014-15, child budget stands at 4.52 percent compared to the figure of 4.56 percent in the previous year, with absolute amount increasing slightly from Rs. 72496.21 crore in 2013-14 (Revised Estimate) to Rs. 81075.26 Crores in 2014-15 (Budget Estimate). Total child budget in 2014-15 stands at meager 0.63 % of GDP.
8. However, given the child population of 42 percent (up to the age of 18) the allocation is not encouraging.

Policy Decisions by Govt. of India...

9. A few schemes only have referred to children, especially, Girls, including "Beti Bachao, Beti Padhao Yojana" with an allocation of Rs. 100 crores, the modernization of madarsas, and the announcement on ensuring toilets and drinking water in girls' schools.
10. The proposed National Programme on Malnutrition is an encouraging sign and acknowledges the need for urgent action to improve the nutritional status of almost 50 percent of our child population."

Govt. initiatives against child labour in India

11. In 1979, the Indian government formed the Gurupadswamy Committee to find about child labour and means to tackle it. The Child Labour Prohibition and Regulation Act was enacted based on the recommendations of the committee in 1986.
12. A National Policy on Child Labour was formulated in 1987 to focus on rehabilitating children working in hazardous occupations. The Ministry of Labour and Employment had implemented around 100 industry-specific National Child Labour Projects to rehabilitate the child workers since 1988.

Non-governmental organizations (NGO Initiative)

13. Many NGOs like Bachpan Bachao Andolan, Child Fund, CARE India, Talaash Association, Child Rights and You (CRY), Global march against child labour, RIDE India, Childline etc. have been working to eradicate child labour in India.

Demography of child labour in India...

- According to 2005 Government of India NSSO (National Sample Survey Organization), child labour incidence rates in India is highest among Muslim Indians, about 40% higher than Hindu Indians.
- Child labour was found to be present in other minority religions of India but at significantly lower rates. Across caste classification, the lowest caste Dalit children had child labour incidence rates of 2.8%, statistically similar to the nationwide average of 2.74%. Tribal populations, however, had higher child labour rates at 3.8%.
- Both the central and state governments have legislated Policy Decisions and Law on child labour. The major national legislative developments include the following:
- The Factories Act of 1948: The Act prohibits the employment of children below the age of 14 years in any factory. The law also placed rules on who, when and how long can pre-adults aged 15–18 years be employed in any factory.
- The Mines Act of 1952: The Act prohibits the employment of children below 18 years of age in a mine.
- The Child Labour (Prohibition and Regulation) Act of 1986: The Act prohibits the employment of children below the age of 14 years in hazardous occupations identified in a list by the law. The list was expanded in 2006, and again in 2008.

Terrorism

Definition:

An act of terror includes any intentional act of violence that causes death, injury or property damage, induces fear, and is targeted against any group of people identified by their political, philosophical, ideological, racial, ethnic, religious or any other nature.

Definition:

A common definition of terrorism is the systematic use or threatened use of violence to intimidate a population or government for political, religious, or ideological goals.

~ Home Ministry, Govt. of India

According to the Home Ministry, Terrorism poses a significant threat to the people of India. Terrorism found in India includes ethno-nationalist terrorism, religious terrorism, left wing terrorism and narco-terrorism.

Terrorism

Terrorism is an anxiety-inspiring method of repeated violent action, employed by semi-clandestine / concealed individual, group or state actors, for idiosyncratic, criminal or political reasons, whereby the direct targets of violence are not the main targets. The immediate human victims of violence are generally chosen randomly or selectively (representative or symbolic targets) from a target population, and serve as message generators. Threat and violence-based communication processes between terrorist organization, victims, and main targets are used to manipulate the main target / audiences, turning it into a target of terror, a target of demands, or a target of attention, depending on whether intimidation, coercion, or propaganda is primarily sought.

India subdivides terrorism in four major groups:

Ethno-Nationalist Terrorism - This form of terror focuses either...

- (a) on creating a separate State within India or independent of India or in a neighboring country,

Or

- (b) on emphasizing the views/response of one ethnic group against another. EX: Violent Tamil Nationalist groups from India to address the condition of Tamils in Sri Lanka, as well as insurgent tribal groups in North East India are examples of ethno-nationalist terrorist activities.

Religious Terrorism - This form of terror focuses on religious imperatives, a presumed duty or in solidarity for a specific religious group, against one or more religious groups. Mumbai 26/11 terror attack in 2008 from an Islamic group in Pakistan is an example of religious terrorism in India.

Left Wing Terrorism - This form of terror focuses on economic ideology, where all the existing socio-political structures are seen to be economically exploitative in character and a revolutionary change through violent means is essential. The ideology of Marx, Engel, Mao, Lenin and others are considered as the only valid economic path. Maoist violence in Jharkhand, Odisha, AP and part of Maharashtra and Chhattisgarh are examples of left wing terrorism in India.

Narco Terrorism - This form of terror focuses on creating illegal narcotics traffic zones. Drug violence in northwest India is an example of narco-terrorism in India, particularly in Punjab, Goa, Metros and North-Eastern States.

Causes of terrorism

Religion: perhaps the most commonly held belief today is the terrorism is caused by religion. Though it is not the main cause for terrorism, religion does play a significant role in driving some forms of it. Today religion as a part of terrorism has been mainly attributed to Islamic fundamentalism.

Political Grievances: A lack of political inclusiveness in states or grievances against a certain political order may cause individuals to join or create terrorists groups. Left and right wing terrorist often seek to apolitical system. As well, many in nations with authoritarian regimes lack avenues for dissent.

Ethno-nationalism: the desire of population to break away from a government or ruling power and create a state of their own can cause the formation of terrorist groups. In the 20th century, this was seen often times with regions or states attempting to gain independence from their colonial era masters. Within many countries around the globe minority groups exist wishing to garner some form of independence, if not their own state altogether.

Socio- economic status: terrorists may also be driven by a sense of relative deprivation and lack of upward mobility within society. Globalization and the modern media have given the have nots an acute awareness of their situation compared to the haves globalization creates an acute awareness about opportunities available elsewhere.

Effect of terrorism:

Law and order problem: terrorism poses a serious law and order problem and leads to disintegration of society. The incident of murder, torture, mutilation, kidnapping, arson and extortion create atmosphere of suspicion, fear and panic all around. Life becomes uncertain. The terrorists kill unarmed civilians including women and children.

Social disharmony: organized crime and violence cause social disharmony. The inert-relationship among various insurgent groups and their foreign linkages bring illegal money and encourages smuggling. Many insurgent groups collect certain percentage of money from the employees and businessmen on regular basis.

Political instability: the assassinations of 2 ex-PM of India, Mrs. Indira Gandhi, Mr. Rajeev Gandhi has jointed Indian politician economy at large. India had lost 2 of its strongest pillars which otherwise would have taken Indian politics, business and industry at unimaginable heights. Recently speaking the siege of south Mumbai has taken toll as home minister Shivraj patil.

Global implication: India, post kargil war, then attack on parliament, now 26/11, has lost millions of business as the trade link between the two countries are frozen during such period. Agri exported in bordering states have taken heavy burns. This has resulted in unemployment in these regions, which in turn against triggers riots.

Long-term financial loss: the direct economic damage done by terrorist attacks-building and infrastructure destroyed, productive lives ended. The structural damages post 26/11 attacks was amounting to total of 500 crs, which subsequently took its toll on the insurance industry. Another form of longer-term costs security involves the opportunity cost of spending additional money to fight terrorism.

Loss of Human Capital: the human costs have been horrendous. Estimates are in past 5 years 4000+ were killed in terrorist attacks. This puts India next to Iraq both in terror death and terror attacks.

Investor behaviour: frequent attacks on commercial and government institution shatter the confidence of the investors causing heavy investment drainage. One example of the same is the terrorist attack in Indian parliament in 2001, which internationally provoked insecurity and discourages the investors.

Control Measures for terrorism:

Poverty alleviation: poverty seems to be the major cause of terrorism. Lack of resources to make ends meet have triggered in growing his menace. Strong and effective efforts are required to reduce poverty. It is poverty which forces people to join terrorism.

Reduce unemployment: unemployment is also one of the main causes that help increase terrorism. When people are unemployed, they do not find opportunities to get job to support their families and eventually they are made pawns in the hands of terrorist.

End justice: there is a lot of injustice almost everywhere especially in the third world countries like in the tribal belt between Afghanistan and Pakistan, the situation is very disturbing in terms of obtaining justice. People cannot get speedy justice. Injustice in the system has supported increasing terrorism and therefore people take laws in their hands.

Corruption: corruption in the political system in creasing day to day. Political leaders especially in the third world countries seem to have no concern with the economic problems and terrorism and they are busy in making money through unfair means.

Lack of education: lack of education generally forces young generation to join hands of anti social elements. Their is dire need to create opportunities for people so that they could educate their children.

Cyber crime

Introduction:

Cybercrime is a growing threat to society caused by the criminal or irresponsible actions of individuals who are taking advantages of the widespread use and vulnerability of computers and the interest and other network.

Types of Cyber Crime:

Hacking: this is a type of crime wherein a person's computer is broken into so that his personal or sensitive information can be accessed . in the united states, hacking is classified as a felony and punishable as such. This is different from ethical hacking, which many organisations use to check their internet security protection.

Theft: this crime occurs when a person violates copyrights and downloads much, movies, games and software. There are even peer sharing websites which encourage software piracy and many of these websites are now being targeted by FBI.

Identify theft: this has become a major problem with people using the internet for cash transactions and banking services. In this cyber-crime, a criminal accesses data about a person's bank account, credit cards, social security, debit card and other sensitive information to siphon money or to buy things online in the victim's name.

Child soliciting and abuse: this is also a type of cyber crime wherein criminals solicits minors via chat rooms for the purpose of child pornography.

Defamation: it is an act of imputing any person with intent to lower down the dignity of the person by hacking his mail account and sending some mails wit using vulgar language to unknown persons mail account.

e-mail spoofing: a spoofed e-mail may be said to be one, which misrepresents its origin. It shows it's origin to be different from which actually it originates.

Cyber Stalking: This is a kind of online harassment wherein the victim is subjected to a barrage of online messages and emails. Typically, these stalkers know their victims and instead of resorting to offline stalking, they use the Internet to stalk. However, if they notice that cyber stalking is not having the desired effect, they begin offline stalking along with cyber stalking to make the victims' lives more miserable.

Causes of Cyber Crime

Wherever the rate of return on investment is high and the risk is low, you are bound to find people willing to take advantage of the situation. This is exactly what happens in cyber crime. Accessing sensitive

information and data and using it means a rich harvest of returns and catching such criminals is difficult. Hence, this has led to a rise in cyber crime across the world.

History of Cyber Crime

When computers and networks came into being in the 1990s, hacking was done basically to get more information about the systems. Hackers even competed against one another to win the tag of the best hacker. As a result, many networks were affected; right from the military to commercial organizations. Initially, these hacking attempts were brushed off as mere nuisance as they did not pose a long-term threat. However, with malicious software becoming ubiquitous during the same period, hacking started making networks and systems slow. As hackers became more skillful, they started using their knowledge and expertise to gain benefit by exploiting and victimizing others.

Cyber Crime in Modern Society

Today, criminals that indulge in cybercrimes are not driven by ego or expertise. Instead, they want to use their knowledge to gain benefits quickly. They are using their expertise to steal, deceive and exploit people as they find it easy to earn money without having to do an honest day's work.

Cybercrimes have become a real threat today and are quite different from old-school crimes, such as robbing, mugging or stealing. Unlike these crimes, cybercrimes can be committed single handedly and does not require the physical presence of the criminals. The crimes can be committed from a remote location and the criminals need not worry about the law enforcement agencies in the country where they are committing crimes. The same systems that have made it easier for people to conduct e-commerce and online transactions are now being exploited by cyber criminals.

Categories of Cyber Crime

Cybercrimes are broadly categorized into three categories, namely crime against

1. Individual
2. Property
3. Government

Each category can use a variety of methods and the methods used vary from one criminal to another.

Individual: This type of cybercrime can be in the form of cyber stalking, distributing pornography, trafficking and "grooming". Today, law enforcement agencies are taking this category of cybercrime very seriously and are joining forces internationally to reach and arrest the perpetrators.

Property: Just like in the real world where a criminal can steal and rob, even in the cyber world criminals resort to stealing and robbing. In this case, they can steal a person's bank details and siphon off money; misuse the credit card to make numerous purchases online; run a scam to get naïve people to part with their hard earned money; use malicious software to gain access to an organization's website or disrupt the systems of the organization. The malicious software can also damage software and hardware, just like vandals damage property in the offline world.

Government: Although not as common as the other two categories, crimes against a government are referred to as cyber terrorism. If successful, this category can wreak havoc and cause panic amongst the civilian population. In this category, criminals hack government websites, military websites or circulate propaganda. The perpetrators can be terrorist outfits or unfriendly governments of other nations.

How to Tackle Cyber Crime

It has been seen that most cyber criminals have a loose network wherein they collaborate and cooperate with one another. Unlike the real world, these criminals do not fight one another for supremacy or control. Instead they work together to improve their skills and even help out each other with new opportunities. Hence, the usual methods of fighting crime cannot be used against cyber criminals. While law enforcement agencies are trying to keep pace with cyber criminals, it is proving to be a Herculean task. This is primarily because the methods used by cyber criminals and technology keeps changing too quickly for law enforcement agencies to be effective. That is why commercial institutions and government organizations need to look at other methods of safeguarding themselves.

The best way to go about is using the solutions provided by Cross-Domain Solutions. When organizations use cross domain cyber security solutions, they can ensure that exchange of information adheres to security protocols. The solution allows organizations to use a unified system comprising of software and hardware that authenticates both manual and automatic transfer and access of information when it takes places between different security classification levels. This allows seamless sharing and

access of information within a specific security classification, but cannot be intercepted by or advertently revealed to user who is not part of the security classification. This helps to keep the network and the systems using the network safe.

Cross Domain Solution offers a way to keep all information confidential by using safe and secure domains that cannot be tracked or accessed. This security solution can be used by commercial and governmental organization to ensure an impenetrable network while still making sure that users can get access to the required information easily.

Corruption:

Corruption is a form of dishonest or unethical conduct by a person entrusted with a position of authority, often to acquire personal benefit. Corruption may include many activities including bribery and embezzlement, though it may also involve practices that are legal in many countries.

BRIBERY: this is by far the most prolific form of corruption. It can take place between two private individuals or a public official and a private individual.

Fraud: this is another form of corruption by which officers of the company or public officials misuse their office powers for personal gain.

Embezzlement: taking the company's good or public funds for personal gain is called embezzlement. Persons with the authority to re-direct the funds or the ability to hide the fact the funds are missing are typically the offenders.

Kickback: these are payments made to business by vendors or payments made to government officials by business persons in exchange for contracts that over-inflate the cost of the work performed at the expense of those receiving the services.

Causes of Corruption:

Low Pay scales/ Wages: Most of the employees in government sector are paid low wages and salaries. Hence some employees revert to corruption for more financial benefits.

2. **Low Job opportunities.** This is another cause of corruption. Due to lack of job opportunities at will, there are many people who like to go for corruption mode to get the job offer. They will be ready to pay lump sum amounts for the job offer to the higher officials or politicians.

3. **Lack of Strict and fast punishments:** Even if someone is found guilty or even caught red-handed by the anti-corruption officials or media, the convicts get less punishment. First they will be suspended for few months or weeks and then re-posted to another location with same Job grade and pay. So this means the official who did the corrupt practice is given a free license to continue his practice.

If the government is so strict that any such corrupt incidents will lead to permanent removal from job and also punishment like several years imprisonment then the corruption will come down to a large extent.

4. **Lack of ill fame:** If a person is found to be corrupt or has done some unacceptable misconduct, he or she has to be avoided and not be respected. But in India those with corruption and other offense related history are given prominent positions like the Member of Parliament or even higher posts. Instead of being disrespected they are respected.

5. **Lack of Unity in public:** Public openly criticize corruption but interestingly there is no unity among the public to stop corruption. If a person wants to get his done his work, he gets it done by corruption means if possible and then later criticizes the corrupt official. If the public stands united against corruption in such a way that no one is ready to offer bribes to get their work done then the corrupt officials will have no other option but to work in corruption free manner.

During election, politicians try to lure the people by offering money and other things. If these politicians win and get power, they try to regain 10 to 100 times the amount spent for their elections.

6. **Lack of transparency in affairs and deals:** Many seat selection processes like in education, contracts for job, employee income reports (wealth possession), etc lack transparency. For this purpose, there is a new act namely RTI : right to information, but the act is not strong enough to prevent malpractices.

7. **Lack of Independent detective agency:** India has no independent detective agency which can investigate with full power and freedom to expose the corrupt individuals. The existing agencies like Central Bureau of investigation are named by the highest court of Indian judicial system as a parrot which

indicates how free these investigating agencies to work. Hence anyone who commits offense will not be so afraid of the investigation as they can escape from it by taking help of ruling political party.

8. Option of many political parties: In India anyone can establish a political party. So there are many political parties in India. If the political party wins, then the members in it will desire to expand the party to all over the country. To do so, they need enough financial reserves. For this, once they come into power, they opt for corrupt means to make the wealth needed to expand the party.

9. Lack of enough powers to the judicial system and other independent organization. Like the election commission cannot ban a politician from contesting in case they make a mistake or do not comply with the rules during election campaign (like distributing money to people etc.).

10. Lack of accountability: In government there is a big trend of corruption. This is because of lack of accountability. The employee's on government offices do not perform to their par excellence. If they receive 100 files to be cleared in a week they may not even clear 50 of them in that week. They tend to post-pone the clearance of the files. So those who are in urgency of the clearance have to get them done by rewarding the officials involved in the clearance office. This lack of accountability in government offices is chief cause of corruption.

Measures to combat corruption:

1. The first tool is 'education'. With the help of education we can reduce corruption. According to a survey conducted by *India today* the least corrupt state is Kerala, the reason being that in Kerala literacy rate is highest in India. So we can see how education effects education. In most of the states, normally a fairly large number of people are uneducated. Those who are uneducated do not know about the process, provisions and procedures through which they can get justice. Corrupt public servants try to make fool of them and often demands for bribe. It is due to unawareness in the field of law, public rights and procedures thereof that a common and an uneducated suffer out of the corrupt society. This suggests that if we are educated, we can understand our rights well.
2. We need to change the government processes. If the members of the governing body are government officials, there will certainly be less reports of the criminal cases. The reverse may be possible only when there are no more criminal politician in our government. The provision is that, if there is any case filed against a person then he would not be eligible for election. But if we see hundred politicians then about sixty percent of them would be criminal in nature. If these criminal politicians command us and make laws, what types of law would be formed, we can guess! Thus during election, we should keep in mind the person for whom we shall not vote. In India there is a provision that no person as a criminal shall be allowed as a Member of Parliament or member of legislative. Unfortunately a fairly large number of them are a part of it.
3. We can reduce corruption by increasing direct contact between government and the governed. E-governance could help a lot towards this direction. In a conference on, *"Effects of Good Governance and Human Rights"* organized by *National Human Right Commission*, A. P. J. Abdul Kalam gave an example of Delhi metro rail system and online railway reservation as good governance and said that all the lower courts should follow the explanation of the Supreme Court and High Court and make the judgments online. Similarly, Sivraj Patil said that the Right to information should be used for transparency. We have legal rights to know any information. According to this act, (Right to Information act 2005), generally people should follow the procedure of law given to them when their work is not being implemented in a proper way in public services. This act is a great help in the order to control corruption.
4. Lack of effective corruption treatment is another reason. That means, instruments which are in use, are not running properly. For example Prevention of Corruption Act 1988 came into force on 9th September, 1988. But corruption is still flourishing. Why? Because of weak actions and proceedings towards corrupt people. People don't have any fear of this act and the court. The act may thus be revised for its better implementation.
5. Lack of transparency and professional accountability is yet another big reason. We should be honest to ourselves. Until and unless we will not be honest, we can't control corruption. If each of us is honest towards our profession, then corruption will automatically decrease. We need to pay attention towards professional accountability i.e., how much we are faithful and truthful towards our

profession. Corruption may be controlled by handling five major professions: *lekhpal*, medical, revenue, police and judicial.

Inequality

Economic inequality means, it is the difference in the distributing of economic assets and income within or between population and individual. The term typically refers to inequality among individuals and groups within a society, but can also refer to inequality among countries.

Labour market: a major cause of economic inequality within modern market economies is the determination of wages by the market. Some small part of economic inequality is caused by the difference in the supply and demand for different types of work.

Growth factor: as development, the earnings of different groups rise differently. The incomes of the upper-income and middle income groups rise more rapidly than those of the poor. This happens in the early stages of growth through which India is passing at present.

Highly unequal asset distribution: in India a few own a large chunk of income- earning assets. Some others, who do not own, or banks, cooperatives, etc and acquire/ hire productive assets. These inequalities enable the few to get incomes in the form of rent, interest and profit.

Lack of educational opportunities: one important factor in the certain of inequality is variation in individual' access to education. Education, especially in an area where there is a high demand for workers, creates high wages for those with this education however, increases in education first increase and then decrease res growth as well as income inequality.

Effects of Inequality:

1. Social cohesion: there is a clear link between income inequality and social cohesion. In more equal societies, people are much more likely to trust each other, measures of social capital suggest greater community involvement, and homicide rates are consistently lower.
2. Crime rates: inequality in society has also shown to be highly correlated with crime rates. Most studies looking into the relationship between crime and inequality have concentrated on homicide since homicides are almost identically defined across all nations and jurisdiction.
3. Economic incentives: many people accept inequality as a given, and argue that the prospect of greater material wealth provides incentives for competition and innovation within an economy. Some modern economic theories, such as the neo classical school, have suggested that a functioning economy requires a certain level of unemployment.
4. Economic growth: several recent economists have investigated the relationship between inequality and economic growth using econometric, in their study for the world in state for development economic research.
5. Population health: the effects of inequality on health are not limited to human population. Mortality is strongly associated with higher income inequality, but, within levels of income inequality, not with per capita income.

Measures to reduce inequality:

(i) Fixing Minimum Wage:

One step that can be taken in the direction of more egalitarian society is to guarantee each citizen a minimum wage consistent with a minimum standard of living. In India in 1948, the Minimum Wages Act was passed in pursuance of which minimum wages are being fixed for agricultural labour and labour in what are called the 'sweated trades'. This is a step which will level up the incomes from below.

(ii) Social Security:

Another important measure is the introduction of a comprehensive social security scheme guaranteeing to each individual a minimum standard of economic welfare. The social security scheme that we envisage must include provision of free education, free medical and maternity aid, old-age pension, liberal unemployment benefits, sickness and accident compensation, provident fund and schemes of social insurance, etc. In that manner, substantial benefits can be assured to persons whose incomes are low. Such benefits of course have a money value. This will be another step towards leveling up incomes.

(iii) Equality of Opportunity:

The Government may devise and set up some sort of machinery which may provide equal opportunities to all rich and poor in getting employment or getting a start in trade and industry. In other words, something may be done to eliminate the family influence in the matter of choice of a profession. For example, the government may institute a system of liberal stipends and scholarships, so that even the poorest in the land can acquire the highest education and technical skill.

(iv) Steeply-graded Income Tax:

Mere leveling up will not bridge the gulf between the rich and the poor. It will also be necessary to raze to the ground the high mountains of privilege. For this purpose all possible fiscal devices should be adopted. One such device is the steeply progressive taxes on incomes. This will prevent, to some extent, a rich man from getting richer still. Other direct taxes like the super tax, excess profits tax, and capital gains tax and limitation of dividends, etc., may also be imposed.

(v) High Taxes on Luxuries:

All conspicuous consumption by the rich may be ruthlessly crushed by means of heavy taxation of the consumption of luxuries by them. This will take away from the rich the power to display their wealth. This will also take away the incentive to amassing wealth for exclusive private enjoyment. Expenditure tax in India sought the same objective. (This tax has, however, been abolished.)

(vi) Steep Succession Taxes and Estate Duty and Wealth tax:

Lest inequities should be perpetuated from generation to generation, steeply-graded estate duty and/or wealth tax may be imposed. In 1964-65 and again in 1966-6, rate of estate duty were made steeper in India. They went up to 40%, which is almost expropriator. (However in the Finance Act of 1985 the Estate duty was abolished and wealth tax rates were also reduced.)

Caste Inequality

Caste Inequality is a hereditary **stratification system**. In Hindu tradition, a person is born into a caste with little to no mobility. This caste determines one's lifestyle, prestige, and occupational choices. The five castes of Hindu are the elite class, warrior class, merchant class, servant caste, and the 'untouchables'. This last caste of Hindu people was required to hide from or bow in the presence of anyone of a higher caste (Newman 300).

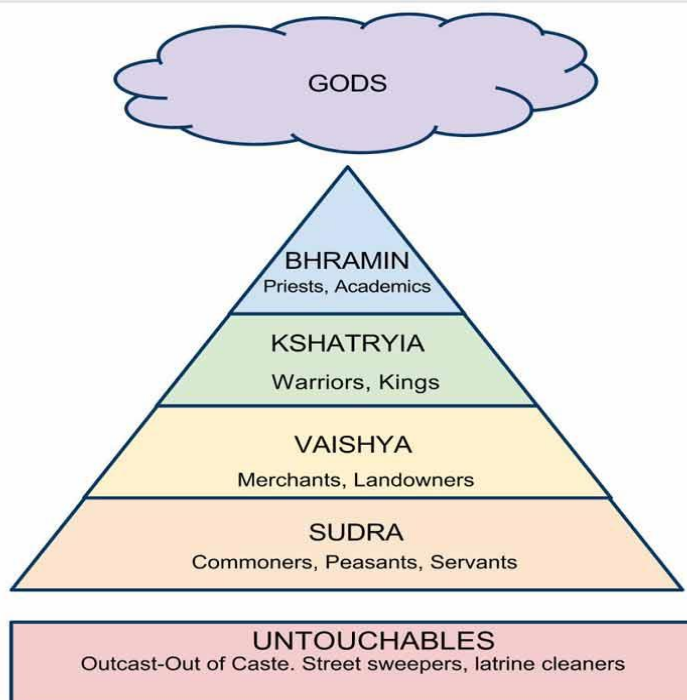
Factors responsible for changes in caste system India:

Modern education:

Modern liberal education introduced into the country by the British has played a crucial role in undermining the importance of caste in Indian social life. Modern education is based on such democratic values like equality, liberty and fraternity. It is also grounded on such scientific values like reason and observation. Hence it is quite natural that with the spread of modern education, the people's belief in the divine origin of caste, Karma and Karmaphala has received a severe setback.

2. Industrialization:

The process of industrialization has affected caste structure to a remarkable extent. Industrial growth has provided new sources of livelihood to people and made occupational mobility possible. Factories, mills and offices are agog with activity.



Urbanization:

Industrialization has given rise to the process of urbanization. New townships have emerged. The ruralites migrate to these towns in order to avail better employment opportunities. With the coming up of big hotels, restaurants, theatres, clubs and educational institutions it is not at all possible to observe

communal inhibitions and taboos against food-sharing. Kingsley Davis rightly observes that the anonymity, congestion, mobility, secularism and changeability of the city make the operation of the caste virtually impossible.

Modern means of transport and communication:

Modern means of transport and communication are instrumental in increasing spatial mobility of the people and thereby put an end to the caste system. Means of transport like train, bus, tram, airplane etc. cannot provide for distinctions between castes, and a leveling effect has been brought into the society.

Increase in the importance of wealth:

Under the caste system, birth was taken as the basis of social prestige. But today, wealth has replaced birth as the basis of social prestige. Occupations are now no longer caste-based. People while choosing their occupations attach greater importance to income rather than anything else.

The new legal system:

The new legal system, introduced by the British Government, has given a severe blow to the caste system in India. Equality before law irrespective of castes has been firmly instituted. Consequently, the age old discrimination against the lower castes has been removed.

Westernization:

The term 'Westernization' was coined by Srinivas to signify the changes in the Indian society during the British rule. By promoting education, egalitarianism, rationalism, humanism and above all a critical outlook towards various social issues and problems, westernization has gone a long way in undermining the influence of the caste system.

Secularization:

The role of secularization in weakening the caste system is great. By legitimizing secular ideologies and formal legal doctrines and promoting rationality, scientific attitude and differentiation, secularization has affected certain characteristics of the caste system especially the concept of purity and pollution, commensality, fixity of occupation etc.

Socialistic ideas:

Caste system is based on the ideas of high birth and low birth. On the other hand, socialists say, "the differences between human beings have been created by society; hence the society only can remove them." As a result of such socialist thought, caste system is breaking.

Gender inequality:

Gender inequality refers to unequal treatment or perceptions of individuals based on their gender. It arises from differences in socially constructed gender roles.

Legal and Constitutional Safeguards against Gender Inequality

Indian Constitution provides for positive efforts to eliminate gender inequality; the Preamble to the Constitution talks about goals of achieving social, economic and political justice to everyone and to provide equality of status and of opportunity to all its citizens. Further, women have equal right to vote in our political system. Article 15 of the Constitution provides for prohibition of discrimination on grounds of *sex* also apart from other grounds such as religion, race, caste or place of birth. Article 15(3) authorizes the State to make any special provision for women and children. Moreover, the Directive Principles of State Policy also provides various provisions which are for the benefit of women and provides safeguards against discrimination.

Other than these Constitutional safeguards, various protective Legislations have also been passed by the Parliament to eliminate exploitation of women and to give them equal status in society. For instance, the Sati (Prevention) Act, 1987 was enacted to abolish and make punishable the inhuman custom of Sati; the Dowry Prohibition Act, 1961 to eliminate the practice of dowry; the Special Marriage Act, 1954 to give rightful status to married couples who marry inter-caste or inter-religion; Pre-Natal Diagnostic Techniques (Regulation and Prevention of Misuse) Bill (introduced in Parliament in 1991, passed in 1994 to stop female infanticide and many more such Acts. Furthermore, the Parliament time to time brings out amendments to existing laws in order to give protection to women according to the changing needs of the society, for instance, Section 304-B was added to the Indian Penal Code, 1860 to make dowry-death or bride-burning a specific offence punishable with maximum punishment of life imprisonment.

So there are varied legislative safeguards and protection mechanisms for women but the ground reality is very different. Despite all these provisions women are still being treated as second rate citizens in our

country; men are treating them as an object to fulfill their carnal desires; crimes against women are at alarming stage; the practice of dowry is still widely prevalent; female infanticide is a norm in our homes.

How we can Eliminate Gender Inequality

The list of legislations as well as types of discriminations or inequalities may go on but the real change will only come when the mentality of men will change; when the male species of human beings would start treating women as equal and not subordinate or weaker to them. In fact not only men but women also need to change their mindset as through cultural conditioning they have also become part of the same exploitative system of patriarchy and are playing a supportive role in furthering men's agenda of dominating women.

Therefore, what is needed is the movement for Women's empowerment where women can become economically independent and self-reliant; where they can fight their own fears and go out in the world fearless; where they can snatch their rights from the clutches of men and they don't have to ask for them; where women have good education, good career, ownership of property and above all where they have freedom of choice and also the freedom to make their own decisions without the bondages.

Module –III Business Ethics

What is ethics?

Ethics: a branch of philosophy which is the systematic study of reflective choice (decision problems), of the standards of right and wrong (moral principles) by which it is to be guided, and of the good or bad (consequences) toward which it may ultimately be directed. An ethical problem occurs when you must make a choice among alternative actions and the right choice is not absolutely clear. Often that choice affects the well-being of other persons.

Ethics is studying and talking about what is right and wrong, good and bad. It is also studying what makes something good or bad. This helps decide whether *other* things are good or bad.

Why ethics is important?

For what reason do people most often sacrifice their integrity and act unethically?

- Need for popularity
- Greed for money
- Desire for power
- Ambition to be famous
- Something else

Business ethics:

According to Keith Davis and associate, ethics are a set of rules that define right and wrong conduct. These rules tell us when our behavior is acceptable and when it is disapproved and considered to be wrong. Business ethics concentrate on moral standards as they apply to business policies, institutions and behavior. Business ethics are nothing but the application of ethics in business. Business ethics are rules of business conduct, by which the propriety of business activities may be judged. It also relates to the behavior of managers.

Nature of ethics:

- Ethics deals with human beings only. Only human beings are endowed with the freedom of choice.
- The science of ethics is a normative science. Normative science deals with standards or norms by which we can judge human actions to be right or wrong. Ex- logic.
- Ethics is not a practical science. (Realization of an end or ideal. It teaches us to know how to do medical science to remove diseases.)

Scope of ethics:

Stakeholder level

- **Employees:**
 - Security job.
 - Better working conditions
 - Participative management
 - Welfare facilities.
- **Customers:**
 - Better quality of goods
 - Goods and services at reasonable price
- **Shareholders:**
 - Ensure capital appreciation.

- Disclose all relevant information
- **Banks and other lending institutions:**
- Guarantee safety of borrowed funds
- Prompt repayment of loans
- **Government:**
- Complying with rules and regulation
- Honesty in paying taxes and other dues
- **Personal policy level:**
- Not to use office car, stationary and other facilities for personal use.
- No to misuses others for personal
- Not to indulge in politics to gain power.
- **Societal level:**
- Concern for poor and downtrodden.
- No discrimination against any particular section or group.
- Concern for clean environment.
- **Internal policy level:**
- Fair practices relating to requirement, compensation, layoff, perks, promotion.
- Better communication.

How ethics and law are related?

- Law is what is enacted by government and has to be enforce by police. This is based on values determined by the government.
- Ethics are inner guides to action, based on values- such values are determined by intellect and conscience.

Money Laundering

- Money obtained from the process of creating the appearance that large amounts of money obtained from serious crimes, such as extortion, insider trading, drug trafficking, illegal gambling and tax evasion is "dirty".
- Money can be laundered by many methods, which vary in complexity and sophistication.

Extortion: illegal use of one's official position or powers to obtain property, funds.

- Insider trading: buying or selling of a security by someone who has access to material, non-public information about the security.
- Drug trafficking: sales and distribution of illegal drugs.
- Tax evasion: Tax evasion is the illegal evasion of taxes by individuals, corporations and trusts.
- Ex-Evasion of customs duty:
- Customs duties are an important source of revenue in developing countries.
- Importers purport to evade customs duty by (a) under-invoicing and (b) mis declaration of quantity and product-description. When there is ad valorem import duty, the tax base can be reduced through under invoicing.

Business that treats their employees with dignity and integrity reap many rewards in the form of high morale and improved productivity.

- In spite of this certain ethical problems occur for the following reasons:
- Personal gain

- Individual values Vs organizational goals
- Managers values and attitude
- Competitive pressure

Business that treats their employees with dignity and integrity reap many rewards in the form of high morale and improved productivity.

In spite of this certain ethical problems occur for the following reasons:

- **Personal gain**
- **Individual values Vs organizational goals:**
 - A company if it pursues goals or uses methods that are not acceptable to some of its employees will create ethical conflicts in business.
 - Whistle blowing would be the outcome, if employee goes public with a complaint which results after he fails to convince the company to correct the alleged abuse.
- **Managers values and attitude:**
- **Manager ask three key questions when making decision:**
 1. Will it work?(pragmatic approach).
 2. Is it right?(ethical approach)
 3. Is it pleasant?(affective approach)
- **Values most likely to influence managers at work are:**
 1. Service to customers
 2. Ability
 3. Company loyalty
 4. Achievement
 5. Organizational efficiency
 6. High productivity
- **Pragmatic ethics** is one of the three main schools under the umbrella of ethical relativism. **Ethical relativism** teaches that right and wrong, good and bad, are relative to the situation, circumstances, or personal conviction. **Cultural relativism** is another school of relativism, but it is less an ethical framework than tools for anthropologists to use to remind themselves that other culture have different social mores. **Moral relativism** teaches that morality is merely the following of any ethical framework—one is as good as another. Moral imperatives: moral values are deep seated ideas and feelings that manifest themselves as behavior or conduct.
- **ethical approach(moral code):**
- Ethical consideration influencing behavior towards actions and decisions, judged to be right and away from those judged to be wrong.
- Ex- road safety
- **Is it pleasant?(affective approach):**(feeling)- suggest an evaluative framework guided by hedonism. Hedonism is one behaves in ways that increase pleasure and decrease pain.
- **Competitive pressure**

Value: values are a general term referring to those things which people regard as good, bad, right, wrong, desirable, and justifiable.

Business is driven by values. Values determine:

- **What business people do?**
- **How other react?**

Values are potent sources of conflict as well of co-operation, control and self-control. Though values, business can and does create value in the form of goods, services, employment and much else. Some values prevent this process from working properly or at all. It is also noted that in extreme cases business and whole industries can cease to function because their continued existence is inconsistent with certain powerful values. Some values are more defensible and constructive than others.

Features of Values:

The feature of ethical values are grouped under as DNA

- **Descriptive(something like using 'is' of ethics)(comparative)**
- Different societies have different moral standards. This is a true and factual statement which offers no judgments or conclusions. (Arabian society)
- Ex- Kohlberg questioned a group of boys about what would be a right or wrong action for a man facing a moral dilemma: should he steal a drug to save his wife, or refrain from theft even though that would lead to his wife's death?
- **Normative: (something like using 'ought to be' of ethics).** This action **is** wrong in this society, but it **is right** in another. This is a **normative** claim because it goes beyond simply observing.
- Ex- "Smoking causes cancer"
- **Analytical (something like using 'why' of ethics).** This position argues that there are no moral standards independent of our social groups, and hence whatever a social group decides is right **is** right and whatever it decides is wrong **is** wrong .
- Ex- dowry system

Value can be classified as under in general:

1. Primary value:

For many of entrepreneurs and working professionals, their overriding personal values *require* them to be a workaholic, stressed out, and out of balance. They may say they want more free time to spend with their families but they never achieve it because it doesn't support their stronger personal values. At one point in your life, just a few short years ago, you would work seven days a week, 80 to 100 hours, and often slept in my office because I had so much to do. I was frequently so exhausted that I could hardly see straight. All of this gave me a major sense of accomplishment and proved to me that I was a hard worker.

- It wasn't until I was completely burned out that I realized all of my happiness came from working hard and not actually enjoying my life with the people who mattered most. Finally, I figured out that I needed to list out my real, true personal values which originally looked like this:
- Significance
- Achievement

- Confidence
- Discipline
- Integrity
- Learning

Terminal values/instrumental values:

Instrumental Values are **core values, permanent in nature**, comprise personal characteristics and character traits. Instrumental Values refer to preferable modes of behavior and include values like honesty, sincerity, ambition, independence, obedience, imaginativeness, courageousness, competitiveness, and also some negative traits too. For example, the instrumental values of a PSU will differ from that of an MNC though both may be in the same business.

In our personal lives, Terminal Values are those things that we can work towards or we think are most important and we feel are most desirable – terminal values are desirable states of existence. Terminal Values include things like happiness, self-respect, family security, recognition, freedom, inner harmony, comfortable life, professional excellence, etc.

- **Ethical subjectivism and relativism:**
- **Ethical subjectivism:**

Subjectivism: it is doctrine knowledge is merely subjective and that there is not external or objective test of truth. Simple subjectivism asserts that ethical statements reflect sentiments, such as personal preference and feelings rather than facts.

- **Emotivism means tending to execute emotion.** Emotivism holds that moral judgments of right or wrong behavior are a function of the positive or negative feelings evoked by the behavior.
- **Emotivism sees a moral judgment as an expression of feeling, not a statement that's literally true. Moral judgments are exclamations: "X is good" means "Hurrah for X!" – and "X is bad" means "Boo on X!"**

Psychology egoism: it asks many questions it faces not upon what people ought to do but what actually do and the motives explaining why people act as they do. A study of the human soul or mind. Psychological egoism confuses three important matters by making equivalent

- Equates selfishness with self-interest
- Equates self-interest with the pursuit of pleasure
- Equates concern for one's welfare with having no concern for the welfare of others.

What is right for you may not be right for me?

This idea if taken and formulated into a more systematic account, it seems to encompass. A negative claim (something it denies)- there are no universal moral norms. A positive claim (something it asserts) - no single standards for all human beings. Ex- In Hindu society, married women wear mangal sutra and also binds on their foreheads. In some societies, women have to cover their heads with sarees. Saree wearing is a must in all festivals and religious function. Polygamy is permissible in some culture.

Ethical relativism:

We are taught the difference between right and wrong as children, and what we come to believe is right or wrong is the result of our upbringing. The normal forms of a given society change over time so that what was considered wrong at one time in a given society may be considered right at that time.

Ethical relativism in interpreted in two ways:

- **Empirical claims:** is a source of knowledge acquired by means of observation or experimentation.
- Ex-for example "All bachelors are unmarried" (*priori* knowledge)(independent experience).
- (for example "Some bachelors are very happy"). (*posteriori* knowledge)(dependent on experience).

Normative claims: *normative* is used to describe statements that are based on values. A normative statement is a claim about how things *ought* to be.

- The following are examples of normative statements:
- Everyone should get a formal education.
- Kindness is a virtue.
- Raising and killing animals for their meat is wrong.

So Normative means relating to an ideal standard of or model, or being based on what is considered to be the normal or correct way of doing something.

Moral development: (Kohlberg's 6 stages of moral development)

The general belief is that a person's values are formed during his childhood and do not change subsequently. As per the research the people grow, they change their values. The changes found in people'.

Level1: pre - conventional stages:

- **Stage1: punishment and obedience orientation:**
- **Stage2 :instrument and relativity orientation**

Child is able to respond to rules and social expectation. Can apply the labels good, bad, right, wrong. Rules are externally imposed on the self: may be pleasant or painful consequences of actions or in terms of the physical power of those who set the rules.

Ex- ask a child of 5 to 6 years whether stealing is wrong.

- He / she says yes.
- Why it is wrong?
- He / she don't have the answer.
- Even if he says "mummy will punish me".
- If I steal the child will only see the situation from his point of view.
- He doesn't have the ability to identify with others.
- The primary motivation is self-centered.

Level 2: conventional stages

- **Stage3 : interpersonal concordance orientation**
- **Stage4 : law and order orientation**

- Maintaining the expectation of one's own family, peer group or nation as valuable I is own its norms. Exhibits loyalty to the group and its norms. The adolescent at this level asked "why wrong" "why right". He replies what my family has taught me?
- What my friends think?
- What our law says?
- What we Indians hold?

Adolescent is now able to see situation from the view point of others. Adolescent is now able to see situations from the view point of others. Adolescent takes up are the familiar view points of the people who belong to his level social groups (family, peers, organization, nation, social class etc.). He assumes that everyone is like them. Person is motivated to conform to the group's norms: Subordinates the needs of the individual to the group

Stages 5 & 6: post-conventional autonomous or principal stages:

- **Stage5: social contract orientation**
- **Stage6: universal ethical principal orientation.**

The person does not accept the valuable and norms of the groups to which he belongs. He sees situations from a point of view that takes everyone's interest into account. He questions the laws and values that society has adopted. Redefines them in terms of self chosen moral principles that can be justified in rational terms. The proper laws and values are those that conform to principles to which any reasonable person would be motivated to commit himself.

Ethics and business:

Ethics conflicts with profits. Business always chooses profits over ethics. Ex- many companies will not invest in research and development projects since they have good reason to suspect that they will prove unprofitable. Many cases of companies choose profits over ethic is like:

1. Some often engage in unethical behavior for profit
2. Customers buy from a business which is honest and trustworthy or form a company being dishonest and crooked.
3. company with a regulation for ethical behavior has an advantage over one with a reputation for being unethical.

Points for bringing ethics into business:

Ethics should govern all voluntary human activities and because business is a voluntary human activity, ethics should also govern business.

Ethics should be part of business, points out that business activities, like any other human activities cannot exist unless the people involved in the business and its surrounding community adhere to some minimal standard of ethics.

Ethics should bring into business by showing that ethical considerations are consistent with business pursuits, in particular with the pursuit of profit.

Long standing ethical culture-one of the most spectacularly profitable companies of all time are Xerox, HP, J&J, Starbucks coffee.,Tatas, HUL, wipro.

Many difficulties also arise in trying to study whether ethical companies are more profitable than unethical ones. Here are many different ways of:

- Measuring profit

- Factors that can affect a company's profits
- Along which companies can be compared in dimensions.

Despite the above difficulties, several studies have been made regarding correlation of profitability with ethical behavior. The results have been mixed.

Myth of moral business?

Through a creative use of myth, corporation could help to fill a vacancy in the cultural landscape. Myths express beliefs and moral goals. The lack of myth is a loss of language even to begin to communicate meaning fully on such issues. Living in a mythical vacuum leads to ethical rootlessness, for there is not structure through which the society's beliefs may be heard and falt.

Ethical Decision making:

Moral philosophy is a set of principle setting forth what is believed to be the right way to have. Role is something that is moral conforms to a standard of acceptability. A philosophy is a study of the general principles of a subject, such as morality. Individuals learn the

1. **Utilitarianism: (teleological):** it determine the ethics of an act by looking at the process of the decision.(ends). Rightness of actions is determined solely by the good consequences they produce.
 - According to utilitarianism, our obligation or duty in any situation is to perform the action that will result in the greatest possible balance of good/ evil.
 - In classical utilitarianism, pleasure is taken to be ultimately the only good and evil is the opposite of pleasure or pain; goodness here is human well being. Whatever makes human beings generally better off or provides some benefit is good.
 - Utilitarianism is a powerful and widely accepted ethical theory that has specific relevance to problems in business. It fits easily, with the concept of value in economics and the use of cost benefit analysis in business.

The principle of Jeremy Bentham's versions of utilitarianism

The principle of utility means that principle which approves or disapprove of every action whatsoever:

- According to the tendency which it appears to have to argument
- Diminish the happiness of the party work interest is in question.
- What is the same thing in other words to promote or to oppose that happiness.

The principle requires that the requires that the consequences can be measured in some way so that the pleasure and pain of different individuals can be added together and the results of different courses of action compared.

Form the economic point of view, cost-benefit analysis is simply a means for achieving an efficient allocation of resources. The chief advantage of cost benefit analysis is that the price of many goods is let by the market, so that the need to have knowledge of people's pleasures or preference ranking is largely eliminated. It is not used as a basis for personal morality but as a means for making major investment decisions and decisions on broad matters of public policy.

Cost-effective analysis: already agreed upon end exists what is the most efficient means for achieving. (eg- reducing injuries from defective products or protecting the environment)

Cost-benefit analysis: used to select both the means to ends and the ends themselves.

Difference between:

Deontology	utilitarianism
<ul style="list-style-type: none"> • Principle inherent in the action. • Individuals are valuable in themselves. • Theory asserts that there are some actions that are always wrong, no matter what the consequences. 	<ul style="list-style-type: none"> • Outside the action. • Criticized because it appears to tolerate sacrificing some people for the sake of others. • Right or wrong are dependent on the consequences vary with the circumstances.

2. Deontology: deontological word derives from deon, the greek word for duty. Deontology is the science of duty. It is not because of their consequences but because we have a duty not to do bad. This is a deontological theory than a teleological approach to ethical reasoning. Eg. Bribery is wrong, by its very nature regardless of the consequences. Non- consequential reasoning in ethics includes argument based on principles such as the golden rule.

Kantianism:

Kantianism is an ethic of duty. Non- consequentialism in ethics is an approach labeled deontological. Its classic, indeed definitive formulation, is that provided by the German philosopher Immanuel kant. It clears one thing and only one thing is good in itself. An action is morally right as per kant, only if the person performing it is motivated by a good will.

Two definitions centered on this are:

- I ought never to act except in such a way that I can also will that my maxim should become a universal law.
- Act on such a way that you always treat humanity never simply, as a means , but always at the same time as an end.
- Ex- a personnel officer decides to break employee confidentiality, he might may be acting on a maxim like- I shall do so!
- When I am asked to disclose “personal information, I will disclose what is non-confidential.

Universalizing is a maxim means that the principle upon which we act should be one wish we can, with consistency, wish all other people to act upon. Some maxims can be universalized, while others cannot be done. Actions performed under it are in accordance with the categorical imperative.

Virtue ethics:

Virtue ethics theory does three things:

- It defines the concept of a virtue
- It must offer some list of the virtues and a list of their corresponding virtues.
- It offers some justification of that list and explain how we define what are virtues and vice.

Eg- honesty is in the list of the virtues.

Aristotle defines virtue as a character trait that manifests itself in habitual action. Honesty for example cannot consist in telling the truth once. It is the trait of a person who tells the truth as general practice.

Virtue ethics = excellences of human character

A person possessing such qualities exhibited the excellences of human character. Virtue theorist tries to identify the list virtues and to give an account of each. They give an account of why the virtue is important. Virtues are acquired traits. Mere feeling like hunger is not virtues according to Aristotle. Honesty on the other hand cannot consist in telling the truth once. It is rather trait of a person who tells the truth as a general practices. A virtue is also something we actually practice.



The possibility of applying virtue to business depends on a context that includes:

- Some conception of the nature
- Purpose of business

Virtue ethics could be applied to business, if the virtue of good business person is the same as those of a good person. A moral virtue is an acquired disposition that is valued as part of the character of a morally good human being and that is exhibited in the person's habitual behavior. A person is said to have moral value when the person is disposed to behave habitually in the way and with the reasons, feelings and desires that are characteristics of a morally good person. A moral virtue must be acquired and not merely a natural characteristics such as intelligence, beauty or natural strength.

He further argues that individuals are embedded in communities and that business is essentially a communal activity in which people work together for a common good.

Economic justice: justice is the philosophy used in making ethical decisions to ensure the equal distribution of burdens and benefits. These principles include a belief that people should be treated equally, that rules should be applied consistently and that people who harm others should be held responsible and make restitution.

A justice decision is one that is fair, impartial, and reasonable in the light of the rules that apply to the situation.

Example: many people will be eager to know when budget is presented on 29th march every year in India. As they would like to know what would be the burden and who will escape paying their fair share? A fair distribution does not mean equal distribution.

Types of justice:

1. Distributive justice:

Justice, like rights, is an important moral concept with a wide range of applications. We use it to evaluate not only the actions of individuals but also social, legal, political and economic practices and institutions. Though the word just is sometimes used interchangeably with good, it is generally has a more restricted meaning that is closer to fair. Distributive justice arises mostly in the evaluation of our social, political and economical intuitions, where the benefits and burdens of engaging in cooperative activities must be spread over a group. A just distribution is one in which each person shares equally, but in others, unequal sharing is just if the inequality is in accord with some principle of distribution.

Economic justice:**2. Distributive justice:**

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3. Libertarian justice:

The term libertarianism originally referred to a philosophical belief in free will but later became associated with anti-state socialism and Enlightenment-influenced political movements critical of institutional authority believed to serve forms of social domination and injustice. Contemporary Harvard philosopher John Rawls is known as the father of an ethical theory called distributive justice, which holds that ethical acts or decisions are those that lead to an equitable distribution of goods and service.

It follows from the system of distributive ethical justice is measured by the capacity of the act in question to enhance cooperation among members of society. Rawls suggest that we consider how we would distribute goods and services if we were under a veil of ignorance that prevented us from knowing our status in society.

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Ethical issues in Functional Areas of Business**Marketing:**

Marketing consist of the performance of business activities that direct the flow of goods and services from producer or consumers or user. A number of distinct functions is coming under this broad characterization which includes;

- Product development
- Distribution
- Pricing
- Promotion
- Sales

Virtually all aspects of marketing from the development of new products to pricing, promotion and sales – raise ethical questions that do not always have an easy answer. Advertisement, similar to safety in the development of new products raises numerous ethical concerns.

Ethics are standards of moral conduct. To act in an ethical fashion is to conform to an accepted standard of moral behavior. Undoubtedly, virtually all people prefer to act ethically. Marketing executives face the challenges of balancing their own interests in the form of recognition, pay, and promotion, with the best interests of consumers, their organizations and society into a workable guide for their daily activities.

Codes of ethics strengthen a company's hand in dealing with customers or prospects that encourage unethical behavior.

Four Pragmatic reasons for ethical behavior:

Buyers often form an impression of an entire organization based on their contact with one person. That person represents the marketing functions. He should build up the image of the entire company acting in a dignified way. He should be highly ethical. Marketing executives wield a great deal of social power as they influence markets and speak out on economic issues. There is responsibility tied to that power. If marketers do not use their power in a socially acceptable manner, that power will be lost in the long run. We hear sometimes about misleading package labels, false claims in ads, phony list prices and infringements of well-established trademarks. Due to this the reputation of all marketers are damaged. Business leaders hence must demonstrate convincingly that they are aware of ethical responsibility and fulfil it.

Business apathy, resistance or token response to unethical behavior simply increase the probability of more government regulation.

Most of the governmental limitations on marketing are the result of management's failure to live up to its ethical responsibilities at one time or another.

To protect the image of the organization:

- Buyers often form an impression of an entire organization based on their contact with one person.
- That person represents the marketing functions.
- He should build up the image of the entire company acting in a dignified way.

To retain the power granted by society:

- Marketing executive wields a great deal of social power as they influence markets and speak out on economic issues.
- There is responsibility tied to that power.
- If marketer does not use their power in a socially acceptable manner, that power will be lost in the long run.

To reverse declining public confidence in marketing:

- We hear sometimes about misleading package labels, false claims in ads and infringements of well-established trademarks.
- Due to this the reputations of marketers are damaged.
- Business leaders hence must demonstrate convincingly that they are aware of ethical responsibility and fulfil it.
- Management interest is to be concerned with the well being of consumers, as the latter are the lifeblood of a business.

To avoid increases in government regulation

- Most of the governmental limitations on marketing are the result of management failure to live up to its ethical responsibilities at one time or another.

Marketing ethics and consumer rights:

Marketing consists of the performance of business activities that direct the flow of goods and services from producer or manufacturer to consumer or user. A number of distinct functions is coming under this broad characterization which includes:

1. Product development
2. Distribution
3. Pricing
4. Promotion
5. Sales

Ethical challenges in marketing executives:

- Balancing their own interest in the form of recognition, pay and promotion, with the best interests of consumers, their organizations and society into a workable guide for their daily activities.
- Arthur Anderson and company has developed an ethical reasoning model that can be taught to current and future managers.
- **The procedure consist of:**
- Step1: identifying the decision options and the likely consequences of each.
- Step2: identifying all individuals and organization that will be positively or negatively affected by the consequences of each option.
- Step3: estimating the negative impact(cost) and positive impact (benefit) of each option from the point of view of each affected party, taking into consideration their particular interests and needs.
- Step4: ranking the costs and the benefits of each option and making a decision.

Unethical marketing behavior:

Product :

Safety	Manufacture of flammable stuffed animals
Inadequate warranties	Warranties which insufficient time or parts coverage
Environmental pollution	Manufacture of non-biodegradable plastic products
Mislabel product	Flavored sugar water sold as apple juice for babies

• **B. Price:**

Excessive markups	High prices used by retailers to connect quality
Price differentiation	Yield management pricing of airline tickets, resulting in day to day differential pricing of adjacent seats.
Price discrimination	Favoured pricing to preferred ethnic groups

• **C. Promotion:**

Exaggerated claims	One blade company claims its razor as the smoothest, most comfortable shave known to man.
Tasteless advertising	Sexual innuendoes and gender disparagement.
Naïve audience	Bill boards for cigarette and alcohol in poor urban neighborhood where many people are

	dying from related causes.
Telemarketing	Offers of fabulous prizes in return for credit card purchases of good

• **Distribution:**

• Fraudulent sales	That sales to be licensed and regulated pursuant to the provisions of this Act
Bait and switch tactics	Living consumers with ads for low priced merchandise for the purpose of switching them to high priced models.
Naïve audience	Bill boards for cigarette and alcohol in poor urban neighborhood where many people are dying from related causes.
Direct marketing	Deceptive, misleading product size and performance claims.

• **E. packing:**

Deceptive quantities: some marketers use “packaging to price” tactics that mask a decrease in product quantity while maintaining the same price and additional package size.

Unethical consumer practices:

- **Shop lifting**
- **Switching price tag**
- **Returning cloth that has been worn**
- **Abusing products and returning them as damaged goods**
- **Redeeming coupons that have expired**
- **Returning cloth bought at full price and demanding a refund for the sales price differential.**
- **Copying copyrighted material (books, videotape)**

Product liability:

The right of consumers to be protected from harmful products raises a number of problems for manufacturers as products can injure, and even kill people.

The due care standard:

The standard of due care for manufacturers or other persons involved in the sale of a product to a consumer including wholesalers and retailers, covers a wide range of activities.

Among them are:

Design: designed in accordance with government and industry standards to be safe

Material: material specified in the design should meet government and industry.

Production: due care should be taken in fabricating parts to specifications and assembling them correctly.

Quality control: a systematic programme to inspect product between operations at the end to ensure that they are of sufficient quality.

Packaging, labeling and warning: product should be packaged so as to avoid any damage in transit.

Notification: the manufactures of some products should have a system of notifying consumers of hazards that only apparent later.

Advertising is wasteful: (criticized)

Production costs are the costs of the resources consumed in producing or improving a product.

Selling costs are the additional coasts of resources that do not go into changing the product, but are invested instead in persuading people to buy the product. Example: advertising, critics claim etc. These are not used to improve the product, but to merely persuade people to buy it. Such resources, critics conclude are wasted because they are expended without adding to consumer utility in any way.

Advertising adds to the consumer utility by serving as an incentive to greater consumption and thereby indirectly motivating a greater productivity, efficiency and a lower price structure. It is felt that many advertising serves to produce beneficial rise in demand for all products.

Unethical advertising:

INTRODUCTION

- In this era of globalization and deregulation, advertising has acquired a new status.
- As a matter of fact, advertising creates employment opportunities, provides information regarding the developments taking place in the society, contributes to economic growth, and provides information about products and services available in the market which helps in taking buying decisions.

HOW ETHICAL ISSUES ARISE IN ADVERTISING

- An advertisement of Nestle India Ltd (Maggie healthy soup) claimed that "Happy Heart" "Healthy Soup".
- The claim created an impression that consumption of Maggie soup leads to better heart and health, while on testing by independent agency, it has been found that it contains high levels of salt which releases sodium into body which in turn, causes hypertension and high blood pressure instead of good heart and health.
- Therefore, on complaint, ASCI declared the advertisement as case of misleading by implication and ambiguity. Therefore, Nestle India Ltd assured ASCI to modify its advertisements.

UNETHICAL ADVERTISING

Advertisement is considered unethical in the following situations:

- o *When it has degraded or underestimated the substitute or rival's product.*
- o *When it gives false or misleading information on the value of the product.*
- o *When it fails to give useful information on the possible reaction or side effects of the product. And*
- o *When it is immoral.*

BASIC PRINCIPALS OF ADVERTISING

- Decency
- Honesty
- Social Responsibility
- Truthful presentation
- Comparisons
- Imitation
- Safety and health
- Avoidance of Harm
- Environmental behavior

ADVERTISING AND UNTRUTHFUL OR DECEPTIVE



General mistrust of advertising among consumers. Many do not perceive ads as honest or believable

Abuses involving sales promotions such as contests, sweepstakes, premium offers

Unethical and/or deceptive practices involving mail order, telemarketing and other forms of direct marketing

Internet scams and abuses

WAYS OF UNETHICAL ADVERTISEMENT

- Surrogate advertisement
- Puffery
- Exaggeration
- Unverified claims
- Women stereotyping
- Women used as sex symbols for promoting products
- Comparative advertisements
- Use of children in advertising

Surrogate advertising is prominently seen in cases where advertising a particular product is banned by law.

Advertisement for products like cigarettes or alcohol which are injurious to health are prohibited by law in several countries and hence these companies have to come up with several other products that might have the same brand name and indirectly remind people of the cigarettes or beer bottles of the same brand. Common examples include:

Fosters and Kingfisher beer brands, which are often seen to promote their brand with the help of surrogate advertising.

PUFFERY ADVERTISING

- **Puffery** as a legal term refers to promotional statements and claims that express *subjective* rather than *objective* views, such that no reasonable person would take literally.
- A two-year old might believe that polar bears enjoy sipping Coca-Cola, but we know better 😊.

EXAGGERATION

- Using false claims in the advertisements about the product.
- For example:-Ghari detergent - “Pehle Istemaal kare phir vishvaas kare.”, Tide detergent – “White ho to Tide ho.”, Vodafone Essar – “Wherever you go our network follows.”



White ho to
Tide ho



One Drop Challenge



Wherever you go our
network follows.

UNVERIFIED CLAIMS

- It includes advertisements of “energy drinks” which tells us about the number of vitamins and how they help children to grow strong and tall.
- There is no way of verifying these false claims.
- For example:-Horlicks, Maltova, Tiger biscuits.



WOMEN STEREOTYPING

Women are generally associated with household works and is not supposed to be a good decision maker which contributes to women stereotyping.



UNHEALTHY BRAND COMPARISONS

Nowadays advertisers are engaged in unhealthy brand comparison with the help of advertising.

Such comparisons create problems and confusions for the right choice of the product as far as audience are concerned.

Example can be cited of colgate and pepsodent toothpaste.



CHILDREN IN ADVERTISING

Children are easily persuaded and have a large pull on today's markets, as is known by all advertisers, even ones who do not intend for their products to be consumed by children.



Children's TV Watching Behavior

Children ages 2-11 watch an average of 22 hours of TV per week and see 30,000 commercials per year

80% of all advertising targeted to children falls in four product categories: Toys, cereal, candy & fast food restaurants

Ethical issues in HRM

- Ethics in HRM indicates the treatment of employees with ordinary decency and distributive justice.
- **Areas of HRM activities:**
- Basic human right
- Civil and employment right (job security, freedom, safety in the workplace, privacy (right to be let alone))
- Equal employment opportunity

Role of HR in promoting ethics:

Improve recruitment and selection test:

- Follow the recruitment policy
- That is identification of recruitment needs, monetary aspects, criteria of selection.

Conduct ethics training:

- Ensure that there are no pitfalls in performance appraisal.
- The main purpose of the training is productivity, high employee morale, less supervision, less wastage.

Performance appraisal:

- Rewards and disciplinary system improve and facilitate two way communication.
- Avoid any kind of discrimination among the employees based on certain factors like caste, colour, culture, religion, EEO.

Unethical practices of HRM adopted by companies(employers):

- Creating split in union Labour
- Biased attitude in selection, transfer and promotion.
- Off-shoring(relocation) and exploiting cheap Labour markets.
- Child Labour
- Physical violence
- Linger inflexible working hour
- Putting more stress on employees for productivity.

Unethical practices of HRM adopted by employees:

Some of the common problems are:

- False claim of personal details like age, qualification etc.
- Producing false certificates
- Taking decision per their convenience

Unethical practices of HRM adopted by Government:

- Announcing the vacancies and not taking action further.
- Functioning of government office is not transparent.
- Selection committee will be excessively caution of reservation quotas.

Ethics and Fair Treatment at Work:

- *Ethics* are principles of conduct that govern an individual or a group
- The law is not the best guide as things that are legal are not always the right thing to do and sometimes the right thing to do isn't legal
- Ethics means making decisions that represent what you stand for, not just what the laws are

Ethics in the Workplace:

- **Ethical companies**

What Treat Employees Fairly?

- To avoid workplace unfairness issues such as low productivity and high turnover
- To avoid legal ramifications because employees have both legal and moral rights

What Shapes Ethical Behavior at Work?

- Individual factors
- Traits
- Organizational pressures
- Ethics policies and codes
- Enforcement
- Organizational culture

Employee Discipline and Privacy

HRM must adhere to the *Three Pillars* in order to create a fair and just disciplinary system

- Clear rules and regulations
- A system of progressive penalties
- Maintain an appeals process

Fair Discipline Guidelines:

- Make sure the evidence supports the charge of employee wrongdoing
- Make sure to protect the employees' due process rights
- Adequately warn the employee of the disciplinary consequences of his or her alleged misconduct.
- The penalty should be reasonably related to the misconduct and to the employee's past work history
- Maintain the employees' right to counsel
- Don't rob your subordinate of his or her dignity
- Remember that the burden of proof is on you
- Don't act while angry
- Use ombudsman (public advocate is usually appointed by the government or by parliament, but with a significant degree of independence, who is charged with representing the interests of the public by investigating and addressing complaints of maladministration or a violation of rights.)

Discipline Without Punishment:

- Issue an oral reminder
- Should another incident arise within six weeks, issue a formal written reminder and place a copy in the employee's personnel file
- Give a paid, one-day "decision-making leave"
- If no further incidents occur in the next year or so purge the one-day paid suspension from the person's file

Employee Privacy;

People view invasions of privacy as unethical and unfair!

- Privacy violations include:
 - Intrusion
 - Publication of private matters
 - Disclosure of medical records
 - Appropriation of an employee's name or likeness for commercial purpose

Employee monitoring issues such as managing and monitoring e-mail, biometrics and location monitoring are an urgent problem!

- About 1/3 of US companies recently investigated suspected leaks, via e-mail, or confidential or proprietary information
- HRM must take legal issues into consideration

Employee at will:

- It is a doctrine connected with the moral and legal basis for this particular assignment of rights for employers and employee.
- Employment, according to this doctrine, is an "at will" relation that comes into existence when two parties willingly enter into an agreement and the relation continues to exist only as long as both parties will that it do so.

Ethics in finance:

- **Fairness and efficiency in financial market:**
- **Creative accounting:** a phrase which is popularly associated with cooking the books.
- **Equity accounting:** is another technique of enhancing profits. In U.K, if the firm owns more than 20% of another firm, it may declare that proportion of the other firms profits as its own.

Accountability and acquisitions:

- Buying a business makes sense when the benefit exceeds costs.
- This means to find a seller who expects too low a price, so that you can secure a benefit from acquisition by improving the targets performance.

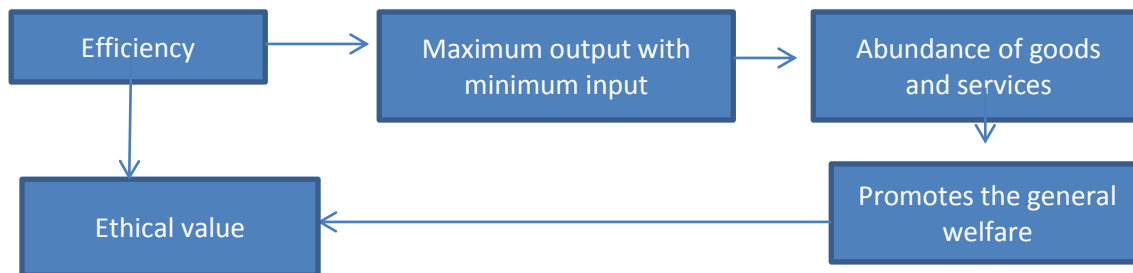
Fair value:

- Merger accounting calls for the assets and liabilities of a target business to be brought into the buyers consolidated accounts at their previous book values(investment is the price paid for a security), subject only to adjustments to achieve consistency with the buyer accounting policies.
- Acquisition accounting is different and requires adjustments to ensure that the consolidated balance sheet at the end of acquisition reflects the fair values (is a rational and unbiased estimate of the potential market price of a good, service, or asset) of the targets separable assets and liabilities.

Finance and ethics:

- Ethical issues in finance are important because they bear on our financial well being .
- Ethical misconduct as everyone knows, may be by individuals acting alone or by financial institutions has the potential to rob people of their life saving.

Efficiency in market:



Unfairness in market: The main kinds of unfairness are:

Fraud and manipulation:

- The main purpose of security regulation is to prevent fraud and manipulation practices in the sale of securities.
- Investment (buyers and sellers) are vulnerable to fraud because the value of financial instruments depends almost entirely on information that is difficult to verify.

The company that fails to report proper information may be committing fraud, even though the buyer of that company's stock buys it from previous owner who may or may not be aware of the news. Manipulation involves the buying or selling of securities in order to create false or misleading impression about the direction of their price so as to induce other investor to buy or sell the securities.

Equal information:

- Every one play by the same rules.
- Equally equipped to compete
- Posses same information.
- Equally access to information

Competition between parties with unequal information is widely regarded as unfair because the playing field is tilted in favors of the player with superior information.

Equal bargaining power: the fairness of bargained agreements assumes that the parties have relatively equal bargaining power. A trader who negotiates for a future contract that results in great loss has only himself or herself to blame. Unequal bargaining power can result from many sources.

Efficient pricing:

- Fairness in financial markets includes efficient prices that reasonably reflect all available information.
- Volatility results from a mismatch of buyers and sellers in eventually self-correcting.
- Volatility also affects the market by reducing investors' confidence and driving them away. The loss of confidence depresses stock prices.

Green mail:

- **Greenmail or greenmailing** is the practice of purchasing enough shares in a firm to threaten a takeover, thereby forcing the target firm to buy those shares back at a premium in order to suspend the takeover.
- Let's assume an entity that Company XYZ considers unsavory (we'll call it Party X) is attempting to acquire control of Company XYZ by offering to buy shares at a premium from Company XYZ's shareholders.
- To avoid being purchased by Party X, Company XYZ's board of directors might offer to purchase Party X's shares for a price above the current market price.
- This of course makes Party X go away, but the transaction can also be construed as Party X blackmailing (or greenmailing) Company XYZ by threatening to take over the company if it does not pay a particular premium to Party X.

Golden parachutes:

- Golden parachute is the name given to the benefit provided, usually to top executives, that provides income when the person is terminated or forced out of the company before the end of a specific period of time.
- , Termination agreement the term golden parachute usually is reserved for the large severance arrangement paid to a top executive. In an attempt to make a job offer more attractive to a top candidate the company may offer that executive a large salary, a big benefit package and a number of other incentives.
- One of those incentives often is a package of cash, stock, continuation of insurance and club memberships, and anything the executive requests that will be paid if the executive is terminated. This package is called a golden parachute.
- The golden parachute is called that because it provides a "soft landing" for a terminated executive. Golden refers to the fact that it's money or other income.
- Also Known As: Severance package

IT: Privacy, Accuracy, Property, Accessibility:

The principal ethical issues of concern with regard to information systems have been identified as the issues of:

- Privacy
- Accuracy
- Property
- Access

Privacy:

- **Privacy** is the right of individuals to retain certain information about themselves without disclosure and to have any information collected about them with their consent protected against unauthorized access.
- Invasion of privacy is a potent threat in an information society. Individuals can be deprived of opportunities to form desired professional and personal relationships, or can even be politically neutralized through surveillance and gathering of data from the myriad databases that provide information about them.
- The Privacy Act serves as a guideline for a number of ethics codes adopted by various organizations. The Act specifies the limitations on the data records that can be kept about individuals. The following are the principal privacy safeguards specified:
 - No secret records should be maintained about individuals
 - No use can be made of the records for other than the original purposes without the individuals consent.
 - The individual has the right of inspection and correction of records pertaining to him or her.
 - The collecting agency is responsible for the integrity of the record-keeping system

Accuracy

- Pervasive use of information in our societal affairs means that we have become more vulnerable to misinformation. **Accurate information** is error-free, complete, and relevant to the decisions that are to be based on it.
- Professional integrity is one of the guarantors of information accuracy. An ethical approach to information accuracy calls for the following:
 1. A professional should not misrepresent his or her qualifications to perform a task.
 2. A professional should indicate to his or her employer the consequences to be expected if his or her judgment is overruled
 3. System safeguards, such as control audits are necessary to maintain information accuracy. Regular audits of data quality should be performed and acted upon.
 4. Individuals should be given an opportunity to correct inaccurate information held about them in databases.
 5. Contents of databases containing data about individuals should be reviewed at frequent intervals, with obsolete data discarded.
- **Property**
 - The right to property is largely secured in the legal domain. However, intangibility of information is at the source of dilemmas which take clarity away from the laws, moving many problems into

the ethical domain. At issue primarily are the rights to *intellectual property*: the intangible property that results from an individual's or a corporation's creative activity.

- Intellectual property is protected in the United States by three mechanisms:
- 1. *Copyright*
 - - A method of protecting intellectual property that protects the form of expression (for example, a given program) rather than the idea itself (for example, an algorithm).
- *Patent*
 - - Method of protecting intellectual property that protects a non-obvious discovery falling within the subject matter of the Patent Act.
- *Trade secret*
 - - Intellectual property protected by a license or a non-disclosure agreement
- Computer programs are valuable property and thus are the subject of theft from computer systems. Unauthorized copying of software (*software piracy*) is a major form of software theft because software is intellectual property which is protected by copyright law and user licensing agreements.
- **Access**
 - It is the hallmark of an information society that most of its workforce is employed in the handling of information and most of the goods and services available for consumption are information-related. Three necessities for access to the benefits of an information society include:
 - 1. The intellectual skills to deal with information
 - 2. Access to information technology
 - 3. Access to information
 - One should strive to broaden the access of individuals to the benefits of information society. This implies broadening access to skills needed to deal with information by further enabling literacy, access to information technology, and the appropriate access to information itself.
 - Intensive work is being done on developing *assistive technologies* - specialized technologies that enhance access of the handicapped to the information technology and, in many cases, to the world at large.

Impacts of Information Technology on the Workplace:

- Due to the pervasive use of information technology and its dual potential to be used for good or bad, we need to consider the specific issues that arise when people work with information systems.

- **Positive and Negative Potential of Information Technology**

- The ACM Code of Ethics and Professional Conduct commits computer professionals to design and build information systems that enhance the quality of working life. @
- It has been established that people experience job satisfaction when:
 - They have a sense that their work is meaningful
 - They feel a sense of responsibility for the results of their work and have a sense of autonomy and control
 - They receive feedback about their accomplishments

Some of the negative effects of information technology include:

- **Use of computers has displaced workers in middle management** (whose primary purpose was to gather and transfer information) and in clerical jobs.
- Some categories of work have virtually disappeared which has created unemployment for a number of workers.
- May create a permanent underclass who will not be able to compete in the job market.
- Computer crime is a growing threat (money theft, service theft, software theft, data alteration or theft, computer viruses, malicious access, crime on the internet).
- Health issues.
- Societal issues (privacy, accuracy, property, and access).
- The ability to work from remote locations.
- Access to individuals with disabilities
- Medical diagnosis
- Computer-assisted instruction (learning aids)
- Environmental quality control
- Law enforcement

Ergonomics - solutions to some health problems are based on the science of ergonomics, sometimes called human factors engineering. The goal of ergonomics is to design health work environments that are safe, comfortable, and pleasant for people to work in, thus increasing employee morale and productivity. Ergonomics stresses the healthy design of the workplace, workstations, computers and other machines, and even software packages. Other health issues may require ergonomic solutions emphasizing job design, rather than workplace design.

Whistle blowing - According to the full text of the ACM Code of Ethics and Professional Conduct, a computing professional has an obligation to report any signs of systems dangers that might result in serious personal or social damages. @ If one's superiors do not act on the warning, the professional may find it his or her ethical obligation to report the violations outside of the organization.

- However, an extremely careful assessment of all the relevant aspects of risk and responsibility must precede such an act. Otherwise, the reporting itself may be harmful.
- Ethical behavior of employees is highly dependent on the corporate values and norms - on the corporate culture as a whole.

- Open debate of ethical issues in the workplace and continuing self-analysis help keep ethical issues in focus. Many corporations have codes of ethics and enforce them as part of a general posture of social responsibility.

Broader ethical issues in society:**Corporate crime:**

- In [criminology](#), corporate crime refers to crimes committed either by a [corporation](#) (i.e., a [business entity](#) having a separate legal personality from the [natural persons](#) that manage its activities), or by individuals acting on behalf of a corporation or other business entity.

White-collar crime :

- **White-collar crime** refers to financially motivated nonviolent **crime** committed by business and government professionals. Within criminology, it was first defined by sociologist Edwin Sutherland in 1939 as "**crime** committed by a person of respectability and high social status in the course of his occupation".

blue-collar crime:

- In [criminology](#), **blue-collar crime** is any crime committed by an individual from a lower [social class](#) as opposed to [white-collar crime](#) which is associated with crime committed by someone of a higher-level social class.

Types of White-collar crime:

- **Bank Fraud:**

To engage in an act or pattern of activity where the purpose is to defraud a bank of funds.

- **Blackmail:**

A demand for money or other consideration under threat to do bodily harm, to injure property, to accuse of a crime, or to expose secrets.

- **Bribery:**

When money, goods, services, information or anything else of value is offered with intent to influence the actions, opinions, or decisions of the taker. You may be charged with bribery whether you offer the bribe or accept it.

- **Cellular Phone Fraud:**

The unauthorized use, tampering, or manipulation of a cellular phone or service. This can be accomplished by either use of a stolen phone, or where an actor signs up for service under false identification or where the actor clones a valid electronic serial number (ESN) by using an ESN reader and reprograms another cellular phone with a valid ESN number.

- **Computer fraud:** Where computer hackers steal information sources contained on computers such as: bank information, credit cards, and proprietary information.

- **Counterfeiting:**

Occurs when someone copies or imitates an item without having been authorized to do so and passes the copy off for the genuine or original item. Counterfeiting is most often associated with money however can also be associated with designer clothing, handbags and watches.

- **Credit Card Fraud:**

The unauthorized use of a credit card to obtain goods of value.

- **Currency Schemes:**

The practice of speculating on the future value of currencies.

- **Environmental Schemes:**

The overbilling and fraudulent practices exercised by corporations which purport to clean up the environment.

- **Extortion:**

Occurs when one person illegally obtains property from another by actual or threatened force, fear, or violence, or under cover of official right.

- **Forgery:**

When a person passes a false or worthless instrument such as a check or counterfeit security with the intent to defraud or injure the recipient.

- **Health Care Fraud:**

Where an unlicensed health care provider provides services under the guise of being licensed and obtains monetary benefit for the service.

- **Insider Trading:**

When a person uses inside, confidential, or advance information to trade in shares of publicly held corporations.

- **Insurance Fraud:**

To engage in an act or pattern of activity wherein one obtains proceeds from an insurance company through deception.

- **Investment Schemes:**

Where an unsuspecting victim is contacted by the actor who promises to provide a large return on a small investment.

Black marketing:

- A black market *or underground economy* is a [market](#) in which goods or services are traded illegally.
- The key distinction of a black market trade is that the transaction itself is illegal.
- The goods or services may or may not themselves be [illegal](#) to own, or to trade through other, legal channels.
- Because the transactions are illegal, the market itself is forced to operate [outside the formal economy](#) that is supported by the established state power.
- Common motives for operating in black markets are to trade contraband (Contraband is defined as goods that are against the law to trade or to be imported or exported, or goods that are smuggled) avoid taxes.
- Black market transactions usually occur “under the table” to let participants avoid government price controls or taxes. The black market is also the venue where highly controlled substances or products such as drugs and firearms are illegally traded.
- A black market is one where the buying and selling of products and services take place in an illegal manner.

- A black economy is a highly organized and vast market where the regular taxation rules and norms of trade are not adhered to.
- A black market is known by several names, including black economy, underground market, shadow economy, underdog and parallel economy.

The variety of goods traded in this market is enormous and the most commonly traded black market items are

- weapons
- currency
- electronics and watches
- fashion goods (perfumes, jewelry and bags)
- clothes and accessories
- pirated media (CDs and DVDs for music, films and software)
- drugs
- alcohol
- tobacco

Grey Market:

- A grey market involves the buying and selling of goods and services that are not illegal, but the channels used in their distribution are either unauthorized or unofficial.
- A good example is the trading of crude oil by an individual.
- The grey market includes services that are typically unregistered to evade taxes.
- Perfectly legitimate occupations, such as domestic help, babysitters, part time beauticians and freelancers, may not be registered.
- Not only is it difficult to detect such defaulters, the punishment is usually mild.

Hoarding:

- Hoarding is basically no different than buying and keeping a commodity.
- However, if the investor's intent is to corner or otherwise monopolize a commodity, then it may be considered an illegal act.
- In 1933, owning more than \$100 worth of gold became a criminal act called hoarding, but holding/hoarding as much gold as you can afford to buy was re-legalized in 1974.
- Unfortunately for traders and regulators, it is not always easy to distinguish hoarding from a deliberate intent to manipulate the market.

Shoplifting:

- **Shoplifting** (also known as boosting and five-finger discount) is a popular term used for theft of goods from a retail establishment.
- The **shoplifting** and **shoplifter** has not been defined in Law.

- The word shrinkage is not a synonym for **shoplifting**, as it includes merchandise loss by means other than **shoplifting**.

Religious morality:

- **Morality:**
 - principles concerning the distinction between right and wrong or good and bad behavior.
 - A religion is an organized collection of beliefs, cultural systems, and world views that relate humanity to an order of existence.
 - **Morality and religion** is the relationship between [religious](#) views and [morals](#). Many religions have value frameworks regarding personal behavior meant to guide adherents in determining between right and wrong.
 - Ethics in [Buddhism](#) are traditionally based on the [enlightened](#) perspective of the [Buddha](#)

Bribery:

- Bribery is an act of giving money or gifts that alters the behavior of the recipient. Bribery constitutes a crime and is defined by as the [offering](#), [giving](#), [receiving](#), or [soliciting](#) of any item of value to influence the actions of an official or other person in charge of a public or [legal duty](#).
- Gifts of money or other items of value which are otherwise available to everyone on an equivalent basis, and not for dishonest purposes, is not bribery.
- Offering a discount or a refund to all purchasers, is a legal [rebate](#), and is not bribery.
- For example, it is legal for an employee of a Public Utilities Commission involved in electric rate regulation to accept a rebate on electric service that reduces their cost for electricity, when the rebate is available to other residential electric customers.
- If the rebate was done to influence them to look favorably on the electric utility's rate increase applications, however, *that* would be bribery, and unlawful.

Forms of bribery:

- **Many types of bribes exist:**
 - [tip](#), [gift](#), [sop](#), [perk](#), [skim](#), favor, [discount](#), [waived](#) fee/ticket, free food, free ad, free trip, free tickets, [sweetheart deal](#), [kickback/payback](#), [funding](#), inflated sale of an object or property, lucrative contract, [donation](#), [campaign contribution](#), [fundraiser](#), [sponsorship](#)/backing, higher paying job, [stock options](#), [secret commission](#), or [promotion](#)

What is corruption?

- By its nature corruption can be difficult to detect as it usually involves two or more people entering into a secret agreement.
- The agreement can be to pay a financial inducement to a public official for securing favour of some descript.
- In overseas corruption this can manifest itself in a UK company paying a bribe for the benefit of an overseas public official in order to win a contract.

- This can be done through a third party - commonly known as an agent or advisor - who then passes the bribe on to the public official or directly by the UK company to the public official. ion in return.

Corruption indicators:

- abnormal cash payments.
- pressure exerted for payments to be made urgently or ahead of schedule.
- payments being made through a third party country - for example, goods or services supplied to country 'A' but payment is being made, usually to a shell company in country 'B'.
- an abnormally high commission percentage being paid to a particular agency. This may be split into two accounts for the same agent, often in different jurisdictions.
- private meetings with public contractors or companies hoping to tender for contracts.
- lavish gifts being received

Corruption

- Here are some definitions on some corruption-related terms that you may have heard of:
- **bribery** - giving or receiving something of value to influence a transaction.
- **illegal gratuity** - giving or receiving something of value after a transaction is completed, in acknowledgment of some influence over the transaction.
- **extortion** - demanding a sum of money (or goods) with a threat of harm (physical or business) if demands are not met.

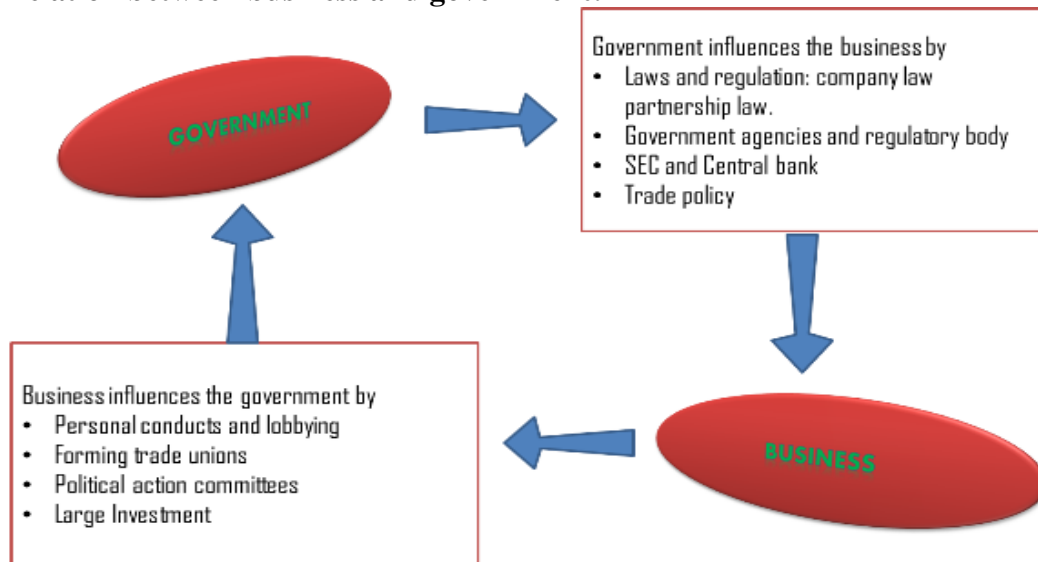
Bribery & Corruption:

- **conflict of interest** - where an employee has an economic or personal interest in a transaction.
- **kickback** - a portion of the value of the contract demanded as a bribe by an official for securing the contract.
- **corporate espionage** - theft of trade secrets, theft of intellectual property, or copyright piracy.
- **commission/fee** - used by a UK company or individual to obtain the services of an agent/agency for assistance in securing a commercial contract

Cheating the investors:

- Property developer held for cheating investors in Delhi
- Property developer Sunil Dahiya, a director of Vigneshwara Developers Private Ltd, has been arrested for allegedly cheating nearly 700 investors to the tune of Rs.160 crore.
- It is alleged that Dahiya – wanted in connection with three cases registered by the Delhi Police Economic Offences Wing and evaded his arrest by staying at five star hotels for some time – lured people to invest in his projects by promising unrealistic returns.

Relation between business and government:



- Government and business institutions in a country in many ways are interrelated and interdependent on each other.
- In today's global economy, its businessmen and entrepreneurs are the driving forces of the economy.

For maintaining a steady and upward economic growth The Government must try to make the environment for business organizations suitable.

- And the organizations must follow the laws of governments' to run the businesses smoothly and making sure there is a level playing field.
- The main goal of businesses is to make profit and governments' goal is to ensure economic stability and growth. Both of them are different but very co-dependent.
- For this the government and organizations or businesses always tries to influence and persuade each other in many ways for various matters.

How Business Organizations Influences the Government:

- **Personal Conducts and Lobbying**
- The corporate executives and political leaders and government officials are in the same social class. This creates a personal relationship between both parties. Also organizations formally forms group to present its issues to government bodies.

Forming Trade Unions And Chamber Of Commerce

- Trade unions and chamber of commerce are associations of business organizations with common interest. They work to find the common issues of organizations and present reports, holds dialogue to discuss on them with government bodies.
- **Political Action Committees:**
 - Recently in the 2012 US elections, the term “super PACs” was a common topic in many discussions.
 - Political action committees (PACs) or are special organizations formed to solicit money and distribute to political candidates.
 - Most times the rich executives donate money to the political candidates whose political views are similar to them.

Large Investment:

- The companies if can make a very large investment in industries or projects, them could somehow effect the government policies.
- These works in other way around, where government tries to implement polices to attract foreign investment.

How Government Influences the Business Organizations:

- The government attempts to shape the business practices through both directly and indirectly implementing rules and regulations.
- The government most often directly influences organizations through establishing regulations, laws and rules that dictate what organizations can and cannot do.

To implement legislation, the government generally creates special agencies to monitor and control certain aspects of business activity.

For example, environment protection agency handles Central Bank, Food and Drug Administration, Labor Commission, Securities and Exchange Commission and many more.

- These agencies directly creates, implements laws and monitors its application in organization
- Governments sometimes take an indirect approach to shape the activities of business organizations.
- These are also done by implementing laws or regulations but they are not always mandatory.
- For instance, the government sometimes tries to change organizations polices by their tax codes.
- Government could give tax incentives to companies that have an environment friendly waste management system in production factory.
- Or, tax incentives could be provided to companies that has established its production facilities in a less developed region in the country.
- As a result, more often the businesses would probably do so. However these regulation and its implementation must be at a optimal degree.

What Are the Key Components of a Code of Ethics in Business?

- **Values**
- Business values typically are expressed in terms of how the company performs its day-to-day interactions with suppliers, employees and customers.
- A primary objective of the code of ethics is to define what the company is about and make it clear that the company is based on honesty and fairness.
- Another commonly defined value is respect in all interactions, regardless of the circumstances.
- **Principles:**
- Principles are used to further support the business values by including operational credos employees should follow.
- Customer satisfaction, business profitability and continuous improvement are key factors in documenting business principles.
- Corporate responsibility to the environmentally friendly use of natural resources is another business principle that often is found in code of ethics.

Management Support:

- Manager support of the values and principles may be documented in the code of ethics.
- Open door policies for reporting ethics violations can be included in the code, along with a process to anonymously report any code of ethics issues.
- To reflect how seriously management considers the code, some businesses display the code of ethics with management signatures in prominent areas, such as the break room, where employees will see it on a daily basis.
