

# Social Issues and The Environment

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# From Understandable to Sustainable

- Sustainable development is defined as development that meets the needs of the present without compromising the ability of future generations to meet their own needs.
- It also looks at the equity between countries and continents, races and classes, gender and ages.
- It includes social development and economic opportunity on one hand and the requirements of environment on the other.
- It is based on improving the quality of life for all, especially the poor and deprived within the carrying capacity of the supporting ecosystems.
- It is a process which leads to a better quality of life while reducing the impact on the environment.
- Its strength is that it acknowledges the interdependence of human needs and environmental requirements

# From Understandable to Sustainable

- To ensure sustainable development, any activity that is expected to bring about economic growth must also consider its environmental impacts so that it is more consistent with long term growth and development.
- Many 'development projects', such as dams, mines, roads, industries and tourism development, have severe environmental consequences that must be studied before they are even begun.
- Thus for every project, in a strategy that looks at sustainable development, there must be a scientifically and honestly done EIA, without which the project must not be cleared.

# From Understandable to Sustainable

- Large dams, major highways, mining, industry, etc. can seriously damage ecosystems that support the ecological health of a region. Forests are essential for maintaining renewable resources, reducing carbon dioxide levels and maintaining oxygen levels in the earth's atmosphere.
- Their loss impairs future human development.
- Loss of forests depletes biodiversity which has to be preserved to maintain life on earth. Major heavy industries if not planned carefully lead to environmental degradation due to air and water pollution and generate enormous quantities of waste that lead to long term environmental hazards.

# From Understandable to Sustainable

- Toxic and Nuclear wastes can become serious economic problems as getting rid of them is extremely costly. Thus the economic benefits of a project must be weighed against the possible environmental costs before a project is permitted.
- We as citizens of our Nation, and increasingly as citizens of one common future at the global level, must constantly monitor the pattern of development. If we see that a development project or an industry is leading to serious environmental problems, it is our duty to bring this to the attention of authorities such as the local administration, the Forest Department or the Pollution Control Board, to look into the issue.

# From Understandable to Sustainable

- Further if new development projects are being planned in and around the place where we live it is our duty to see that this is brought about in accordance with environmental safeguards.
- While we all need to think globally, we need to act locally.
- If new projects of a large size are to be passed Government has made it compulsory to publish the summary report of the Environmental Impact Assessment (EIA) and conduct a 'Public Hearing'. It is essential that all of us as responsible citizens read, evaluate and respond to such public hearings held in our area and make comments on the possible impacts of the project

# URBAN PROBLEMS RELATED TO ENERGY

- Urban centers use enormous quantities of energy.
- In the past, urban housing required relatively smaller amounts of energy than we use at present. Traditional housing in India required very little temperature adjustments as the materials used, such as wood and bricks handled temperature changes better than the current concrete, glass and steel of ultra modern buildings.
- Until the 1950s many urban kitchens were based on fuelwood or charcoal. This was possible and practical when homes had chimneys and kitchens were isolated from the rest of the house.

# URBAN PROBLEMS RELATED TO ENERGY

- Smoke became a problem once this changed to apartment blocks. Kerosene thus became a popular urban fuel. This changed to electrical energy and increasingly to natural gas by the 1970s in most parts of urban India.
- Urban centers in hot climates need energy for cooling. The early systems of fans changed into air-conditioning, which consumes enormous quantities of energy. New buildings in our country have taken to using large areas covered by glass. While in cold climates this uses the green house effect to trap the warmth of the sun inside, in our hot climate this adds several degrees to the temperature inside. Thus it requires even more energy to run large central air conditioning units. High rise buildings in urban centers also depend on energy to operate lifts and an enormous number of lights



# **WATER CONSERVATION, RAINWATER HARVESTING, WATERSHED MANAGEMENT**

## **Water Conservation**

- **New water policy for the country**
- Saving water in agriculture: Drip irrigation supplies water to plants near its roots through a system of tubes, thus saving water. Small percolation tanks and rainwater harvesting can provide water for agriculture and domestic use.
- Rainwater collected from rooftops can be stored or used to effectively recharge subsoil aquifers

# **WATER CONSERVATION, RAINWATER HARVESTING, WATERSHED MANAGEMENT**

- **New water policy for the country**
- Saving water in urban settings: Urban people waste large amounts of water. Leaking taps and pipes are a major source of loss of water. Canals and pipes carrying water from dams to the consumer lead to nearly 50% loss during transfer.
- Reducing the demand for water by saving it is more appropriate than trying to meet growing demands

# **WATER CONSERVATION, RAINWATER HARVESTING, WATERSHED MANAGEMENT**

- **Rain water Harvesting**
- As our world faces serious water shortages, every drop of water we can use efficiently becomes of great value. One method is to manage rain water in such a way that it is used at the source.
- If as much water as possible is collected and stored this can be used after the rainy season is over. In many parts of the world especially in very dry areas this has been traditionally practiced.
- However the stored water has to be kept pollution free and clean so that it can be used as drinking water. Stored water can grow algae and zooplankton (microscopic animals). This can be pathogenic and cause infections. Thus keeping the water uncontaminated is of great importance.

# **WATER CONSERVATION, RAINWATER HARVESTING, WATERSHED MANAGEMENT**

- **Rain water Harvesting**
- Current technologies of rainwater harvesting require that all roof and terrace water passes down into a covered tank where it can be stored for use after the monsoon. This is most advantageous in arid areas where clean water is very scarce. However there are practical difficulties such as constructing large storage tanks which are expensive.
- Another way of using rooftop rainwater harvesting is to collect it so that it percolates into the ground to recharge wells instead of flowing over the ground into rivers. Thus by recharging ground water harvested from rooftops, the water table rises and the surrounding wells retain water throughout the year.

# **WATER CONSERVATION, RAINWATER HARVESTING, WATERSHED MANAGEMENT**

- **Watershed Management**
- Rivers originate in streams that flow down mountains and hill slopes. A group of small streams flow down hillsides to meet larger streams in the valley which forms the tributaries of major rivers. The management of a single unit of land with its water drainage system is called watershed management. It is a technique that has several components.
- This includes soil and water management and developing vegetative cover. The natural drainage pattern of a watershed unit if managed appropriately can bring about local prosperity by a year round abundance of water that improves the quality of human life in the area

# **WATER CONSERVATION, RAINWATER HARVESTING, WATERSHED MANAGEMENT**

- **Watershed Management**
- As it provides water throughout the year, this improves health in the community, as clean water becomes available. Watershed management enhances the growth of agricultural crops and even makes it possible to grow more than one crop in a year in dry areas.
- Watershed management begins by taking control over a degraded site through local participation.
- People must appreciate the need to improve the availability of water both in quantity and quality for their own area. Once this is adequately demonstrated, the community begins to understand the project, people begin to work together in the activities that lead to good watershed management.

# Watershed Management

- The first technical step is to take appropriate soil conservation measures. This is done by constructing a series of long trenches and mounds along contours of the hill to hold the rainwater and allow it to percolate into the ground. This ensures that underground stores of water are fully recharged. This is enhanced by allowing grasses and shrubs to grow and by planting trees (mainly local species) which hold the soil and prevents it from being washed away in the monsoon. Local grass cover can however only increase if free grazing of domestic animals is prevented by stall feeding.
- The next measure is to make 'nala' plugs in the streams so that the water is held in the stream and does not rush down the hillside. In selected sites, several small check dams are built which together hold back larger amounts of water. All these measures constitute sound watershed management. It improves the water table and keeps the streams and nalas flowing throughout the year.

# RESETTLEMENT AND REHABILITATION OF PEOPLE: ITS PROBLEMS AND CONCERNS

- Major projects such as dams, mines, expressways, or the notification of a National Park disrupts the lives of the people who live there and may also require moving them to an alternative site. None of us would like to give up the home we grew up in. Uprooting people is a serious issue. It reduces their ability to subsist on their traditional natural resource base and also creates great psychological pressures.
- Especially tribal people, whose lives are woven closely around their own natural resources, cannot adapt to a new way of life in a new place. Thus no major project that is likely to displace people can be carried out without the consent of the local people. In India, lakhs of people have been unfairly displaced by thousands of dams created since independence to drive the green revolution.



# RESETTLEMENT AND REHABILITATION OF PEOPLE: ITS PROBLEMS AND CONCERNS

- The dams have been built virtually at the cost of these poor local people who have been powerless to resist the Government's will.
- Resettlement requires alternate land. However, in our overpopulated country, there is no arable high quality land available. Thus most project affected persons are given unusable wasteland. Rehabilitation involves more than just giving land.
- In most cases this is also not adequately done. The greatest battle to save their own precious land has been carried out by the tribal people of the Narmada River. They have fought to save their lands for decades. The Narmada Bachao Andolan has shown how bitter people can get over this issue.

# RESETTLEMENT AND REHABILITATION OF PEOPLE: ITS PROBLEMS AND CONCERNS

- Resettlement not only puts pressure on the project affected people but also on the people who have been living in the area that has been selected for resettlement. Thus both the communities suffer and conflict over resources is a distinct possibility in future.
- There are however situations where communities request for shifting to a new site. This is often observed where people live inside or on the periphery of a National Park or Wildlife Sanctuary.
- In these situations, such as the Gir in Gujarat, the local people have asked to be given alternate land where they could live peacefully away from lions that kill their cattle, but the Government has been unable to find suitable areas where they can be shifted for decades.

# ENVIRONMENTAL ETHICS: ISSUES AND POSSIBLE SOLUTIONS

- Includes:
- Resource consumption patterns and the need for their equitable utilisation
- Equity – Disparity in the Northern and Southern countries
- Urban – rural equity issues
- The need for Gender Equity
- Preserving resources for future generations
- The rights of animals
- The ethical basis of environment education and awareness
- The conservation of ethic and traditional value systems of India

# ENVIRONMENTAL ETHICS: ISSUES AND POSSIBLE SOLUTIONS

- Environmental ethics deals with issues related to the rights of individuals that are fundamental to life and well being. This concerns not only the needs of each person today, but also those who will come after us. It also deals with the rights of other living creatures that inhabit our earth.
- Environmental ethics deals with issues that are related to how we utilise and distribute resources.
- In a just world, there has to be a more equitable sharing of resources than we encounter at present. The just distribution of resources has global, national and local concerns that we need to address.

# ENVIRONMENTAL ETHICS: ISSUES AND POSSIBLE SOLUTIONS

- There are rich and poor nations. There are rich and poor communities in every country. And there are rich and poor families. In this era of modern economic development, the disparity between the haves and have-nots is widening.
- Our human environments in the urban, rural and wilderness sectors, use natural resources that shift from the wilderness (forests, grasslands, wetlands, etc.) to the rural sector, and from there to the urban sector.
- In 1985, Anil Agarwal published the first report on the Status of India's Environment. It emphasized that India's environmental problems were caused by the excessive consumption patterns of the rich that left the poor poorer

- Anil Agarwal brought forth a set of 8 propositions which are of great relevance to the ethical issues that are related to environmental concerns. These include:
  1. Environmental destruction is largely caused by the consumption of the rich.
  2. The worst sufferers of environmental destruction are the poor.
  3. Even where nature is being 'recreated', as in afforestation, it is being transformed away from the needs of the poor and towards those of the rich.
  4. Even among the poor, the worst sufferers are the marginalised cultures and occupations, and most of all, women.

5. There cannot be proper economic and social development without a holistic understanding of society and nature.
6. If we care for the poor, we cannot allow the Gross Nature Product to be destroyed any further. Conserving and recreating nature has become our highest priority.
7. Gross Nature Product will be enhanced only if we can arrest and reverse the growing alienation between the people and the common property resources. In this we will have to learn a lot from our traditional cultures.
8. It is totally inadequate to talk only of sustainable rural development, as the World Conservation Strategy does. We cannot save the rural environment or rural people dependent on it, unless we can bring about sustainable urban development.

# Equity – Disparity in the Northern and Southern countries

- Environmental ethics are concerned with, who owns resources and how they are distributed.
- This can be looked upon at different levels. At the global level it deals with the great North – South divide between the rich industrialized nations of North America and Europe, as against the needs of developing countries of the South such as in South and Southeast Asia and South America.
- People living in the economically advanced nations use greater amounts of resources and energy per individual and also waste more resources. This is at the cost of poor people who are resource dependant and live in developing nations.



# Equity – Disparity in the Northern and Southern countries

- The economically advanced West has exploited their own natural resources to such an extent that they have exhausted them nearly everywhere.
- They now buy their resources from resource rich but economically deprived nations at a low cost. This depletes the developing nations of natural resources on which their poor depend for their livelihood.
- Changing this unfair economic practice to a more just and fair way in managing trade would require a new thinking on the part of people who live in the super rich countries.

# Urban – rural equity issues

- The common property of rural communities has increasingly been used to supply the needs of the urban sector. Land itself that was once held as a common property resource of villages is being taken over by the urban and industrial sectors as it expands. The rural sector not only supplies food, but also a part of the energy needs (mainly fuelwood) to most towns and cities in India, at a pittance.
- As a result, the commons of the rural sector are being depleted of their resources. Thus while the cities get richer, the rural sector, especially the landless, get poorer.
- The urban rich must appreciate where their resources are derived from and be willing to pay a fair price for using them.

# The need for Gender Equity

- All over India, especially in the rural sector, women work on the whole longer hours than men.
- Unfortunately women have not been given an equal opportunity to develop and better their lot. This begins with the lack of attention given to girls whose education is always given less attention than the boys in the family.
- Unless society begins to see that development cannot be planned by a male dominated society from the male perspective alone, will we be able to create a better living environment for women and their children?

# Preserving resources for future generations

- If we overuse and misuse resources and energy from fossil fuels, our future generations would find survival much more difficult. A critical concern is to preserve species and natural undisturbed ecosystems that are linked with bioresources, which must be protected for the use of future generations.
- Our current development strategies have led to environmental resources being overused and misused by our present generation, without a thought for the needs of future unborn generations.
- We need to appreciate that the next generation and those that will come later also have a right to the earth's natural resources. As they are not here today to exercise their rights, it is our generation's responsibility to appreciate the needs of future generations.
- We have no right to destroy their claim to the use of the earth's resources just because of the accident of being born before them. Development strategies have not looked at the sustainable levels at which we can use resources so that the rights of future generations are protected.
- We are not given the earth so that we can use up its resources. It is given to us to hold in trust so that future generations are given their just share of the earth's resources

# The rights of animals

- The plants and animals that share the earth with us too have a right to live and share our earth's resources and living space.
- We have no right to push a species that has taken millions of years to evolve towards extinction. Not only do wild and domesticated animals have a right to life, but have the right to a dignified existence.
- Cruelty to an animal is no different ethically from cruelty to another human being. Human beings are one small cog in the wheel of life on earth.

# The ethical basis of environment education and awareness

- The Honorary Supreme Court of our country has thus ordered that every young individual at school and college level be exposed to a course on environment.
- It is not to create only an awareness of environmental issues, but also to bring about pro environmental action.
- There are two aspects that are closely connected with ethical issues that are related to our environment.
- These are based on valuing nature and appreciating the beauty of nature and treasuring the magnificence of the wilderness.

# The ethical basis of environment education and awareness

- **Valuing nature as a resource:**
- It is essential that a value system that is based on environmental concern becomes a part of the thinking that we as responsible citizens of our country and our earth need to bring into our own daily lives.
- For our ancestors, Nature was considered to be like a mother. This has been essentially forgotten.
- In ancient India, forests were considered sacred. We now know that forests clean up our air, and act like a sponge that can hold water for the dry season. In the Hindu scriptures, Buddhist philosophy and especially in the Jain religion, each and every species on earth is supposed to have a place in the scheme of life.

# The ethical basis of environment education and awareness

- Appreciating the beauty of Nature and treasuring the magnificence of the Wilderness:
- Once we realise that the wilderness has a value all its own, this puts man in his rightful role as a custodian of nature rather than an exploiter. Visit
- Value the beauty of wilderness area, a forest, lakeside, waterfall, or seashore
- The problem is how much of the wilderness can we preserve in the presence of an ever-growing hunger for land and resources for its utilitarian values. Unless we begin to see the ecological values of the wilderness, an ethic for its conservation cannot become part of our daily lives. And without the wilderness the earth will eventually become unlivable.



# The conservation ethic and traditional value systems of India

- In ancient Indian traditions people have always valued mountains, rivers, forests, trees and several animals. Thus much of nature was venerated and protected. Forests have been associated with the names of forest gods and goddesses both in the Hindu religion as well as in tribal cultures. 'Tree' goddesses have been associated with specific plant species. *Ficus religiosa*, the peepal tree, is venerated and is thus not to be cut down. The Banyan tree in some regions such as Maharashtra, is venerated once a year by tying a thread around it as a symbol of respect. The Tulsi plant is grown on the doorstep outside every home.

# The conservation ethic and traditional value systems of India

- Patches of forest have been dedicated to a deity in many Indian cultures especially in tribal areas. These traditionally protected forest patches depict the true nature of undisturbed vegetation and have a large number of indigenous plant species as their exploitation has been controlled through local sentiments.
- Certain species of trees have been protected as they are valued for their fruit or flowers. The mango tree is protected for its fruit around most farms even when wood becomes scarce.
- Concepts that support nature's integrity must thus become a part of our modern educational systems. This constitutes a key solution to bring about a new ethic of conserving nature and living sustainable lifestyles.

# WASTELAND RECLAMATION

- Loss of vegetation cover leads to loss of soil through erosion, which ultimately creates wastelands.
- This is one of the pressing problems of the country. Loss of soil has already ruined a large amount of cultivable land in our country.
- If it remains unchecked, it will affect the remaining land. Unless we adequately safeguard our 'good' lands, we may eventually face a serious shortage of food grains, vegetables, fruit, fodder and fuel wood.
- Wasteland can be classified into three forms: (1) Easily reclaimable, (2) Reclaimable with some difficulty, (3) Reclaimable with extreme difficulty.

# WASTELAND RECLAMATION

- Easily reclaimable wastelands can be used for agricultural purposes. Those which can be reclaimed with some difficulty can be utilized for agro forestry. Wastelands that are reclaimed with extreme difficulty can be used for forestry or to recreate natural ecosystems

# WASTELAND RECLAMATION

- **Need for wasteland development:**
- Wasteland development provides a source of income for the rural poor. It ensures a constant supply of fuel, fodder and timber for local use. It makes the soil fertile by preventing soil erosion and conserving moisture. The program helps maintain an ecological balance in the area.
- The increasing forest cover helps in maintaining local climatic conditions. Regenerated vegetation cover helps in attracting birds which feed on pests in the surrounding fields and function as natural pest controllers. The trees help in holding back moisture and reduce surface run off rates thus helping in the control of soil erosion

# CONSUMERISM AND WASTE PRODUCTS

- Modern societies that are based on using large amounts of goods, especially those that are manufactured for one time use, are extremely wasteful. The increasing consumption of natural resources has led to serious environmental problems around the world. Current consumption patterns are depleting non-renewable resources, poisoning and degrading ecosystems, and altering the natural processes on which life depends. The present pattern of consumption, especially in affluent societies, is mainly responsible for the high level of utilization of resources.
- People in the industrialized countries make up 20% of the world population but consume 80% of the world's resources and produce 80% of wastes. This is due to a pattern of economic development that ensures that people go on consuming even more than they actually need.
- India is rapidly moving into this unsustainable pattern of economic growth and development

# CONSUMERISM AND WASTE PRODUCTS

- **Reduce, reuse, recycle**
- Reduce, Reuse, Recycle, or the 3Rs principle, is the new concept in waste management. But what does it actually mean? Although some waste is inevitable in any society, we must minimize the generation of waste at the source by using minimal resources. Do not use what you do not need. The goal of every society should be to reach a low-waste or no waste society.
- The residual waste can be converted into a useable resource. In developed countries waste is used to produce energy.

# CONSUMERISM AND WASTE PRODUCTS

- The waste material generated which can neither be reused or recycled, must be disposed off in a proper manner with minimum impact to the environment.
- Non toxic solid waste should be properly segregated and disposed off in landfills that are properly sealed to avoid leakage and contamination of surrounding land and groundwater.
- Toxic wastes should be treated or disposed off separately in a proper manner
- Sewage and industrial wastewater should be adequately treated and raw materials recovered from it where possible before it is released into our rivers and waterways



# CONSUMERISM AND WASTE PRODUCTS

- The 3R principle of Reduce, Reuse, Recycle, should be followed in that order.
  - Reduction is the best option. If we reduce at source, there is a smaller chance of waste generation and the pressure on our already stretched natural resources is reduced.
  - Reuse is the next best option, as the product is reused in its current form without any energy expended to convert it into a new item.
  - Recycling is the last option, as although it converts a waste into a resource, it uses energy to transform that resource into a new useable product.

- **3Rs principle in the following ways**

1. Use only as much as you need, be it any resource – water, food, paper, etc.
2. Next time you throw away something, think about whether it is really a waste. If it is of no use to you, could someone else use it? Reuse rinse water to water your garden, etc. Donate old clothes to the needy, instead of throwing them away.
3. If you are sure the item is not usable in its present form, can it be recycled? Paper, plastics, glass, metal can all be recycled.
4. Segregate your waste into wet and dry garbage. Wet garbage includes most kitchen wastes. Most of this can be used for composting. Most dry garbage is recyclable. The amount of dry waste generated in your household is an indicator of how well you are following the 3Rs principle. A lot of dry waste means you should go back to the 'Reduce and Reuse' principles and try to follow them better.

- **3Rs principle in the following ways**

5. Avoid the use of non-biodegradable materials such as Styrofoam and certain types of plastics.
6. Do not litter or throw garbage in public places. Garbage and litter is a visual contaminant and can cause diseases health problems. Proper disposal of garbage is an important part of waste management.
7. Be a conscious consumer and do not buy products that are over packaged. Try choosing products that are made from recycled material or are organically grown

# THE ENVIRONMENT (PROTECTION) ACT

- The Environment (Protection) Act, 1986 not only has important constitutional implications but also an international background. The spirit of the proclamation adopted by the United Nations Conference on Human Environment which took place in Stockholm in June 1972, was implemented by the Government of India by creating this Act.
- This Act was passed to protect the environment, as there was a growing concern over the deteriorating state of the environment. As impacts grew considerably environmental protection became a national priority in the 1970s. The decline in the environmental quality, was evidenced by increasing pollution, loss of forest cover and an increasing threat to biodiversity.

# THE AIR (PREVENTION AND CONTROL OF POLLUTION) ACT

- The Government passed this Act in 1981 to clean up our air by controlling pollution. Sources of air pollution such as industry, vehicles, power plants, etc. are not permitted to release particulate matter, lead, carbon monoxide, sulfurdioxide, nitrogen oxide, volatile organic compounds (VOCs) or other toxic substances beyond a prescribed level. To ensure this, Pollution Control Boards (PCBs) have been set up by Government to measure pollution levels in the atmosphere and at certain sources by testing the air. This is measured in parts per million or in milligrams or micrograms per cubic meter.
- The particulate matter and gases that are released by industry and by cars, buses and two wheelers is measured by using air sampling equipment.

# THE AIR (PREVENTION AND CONTROL OF POLLUTION) ACT

- **The main objectives of the Act are as follows:**
  - (a) To provide for the Prevention, Control and abatement of air pollution.
  - (b) To provide for the establishment of Central and State Boards with a view to implement the Act.
  - (c) To confer on the Boards the powers to implement the provisions of the Act and assign to the Boards functions relating to pollution.

- **What can an individual do to control air pollution?**

- 1) When you see a polluting vehicle take down the number and send a letter to the Road Transport Office (RTO) and the Pollution Control Board (PCB).
- 2) If you observe an industry polluting air, inform the Pollution Control Board in writing and ascertain if action is taken.
- 3) Use cars only when absolutely necessary. Walk or cycle as much as possible instead of using fossil fuel powered vehicles.
- 4) Use public transport as far as possible, as more people can travel in a single large vehicle rather than using multiple small vehicles which add to pollution.
- 5) Share a vehicle space with relatives and friends. Carpools minimise the use of fossil fuels.
- 6) Do not use air fresheners and other aerosols and sprays which contain CFCs that deplete the ozone layer.
- 7) Do not smoke in a public place. It is illegal and endangers not only your own health but also that of others.
- 8) Coughing can spread bacteria and viruses. Use a handkerchief to prevent droplet infection which is air borne. It endangers the health of other people

# THE WATER (PREVENTION AND CONTROL OF POLLUTION) ACT

- The Government has formulated this Act in 1974 to be able to prevent pollution of water by industrial, agricultural and household wastewater that can contaminate our water sources.
- Wastewater with high levels of pollutants that enter wetlands, rivers, lakes, wells as well as the sea are serious health hazards.
- Controlling the point sources by monitoring levels of different pollutants is one way to prevent pollution by giving a punishment to a polluter. However it is also the responsibility of people in general to inform the relevant authority when they see a likely source of pollution.



# THE WATER (PREVENTION AND CONTROL OF POLLUTION) ACT

- Individuals can also do several things to reduce water pollution such as using biodegradable chemicals for household use, reducing use of pesticides in gardens, and identifying polluting sources at workplaces and in industrial units where oil or other petroleum products and heavy metals are used.
- Excessive organic matter, sediments and infecting organisms from hospital wastes can also pollute our water. Citizens need to develop a watchdog force to inform authorities to take appropriate actions against different types of water pollution.
- A polluter must pay for his actions.

- **What can individuals do to prevent water pollution?**
  1. Inform the Pollution Control Board of any offender who is polluting water and ensure that appropriate action is taken. One can also write to the press.
  2. Do not dump wastes into a household or industrial drain which can directly enter any water body, such as a stream, river, pond, lake or the sea.
  3. Do not use toilets for flushing down waste items as they do not disappear but reappear at other places and cause water pollution.
  4. Use compost instead of chemical fertilizers in gardens.
  5. Avoid use of pesticides at home like DDT, Melathion, Aldrin, and use alternative methods like paste of boric acid mixed with gram flour to kill cockroaches and other insects. Use dried neem leaves to help keep away insects.

# THE WILDLIFE PROTECTION ACT

- This Act passed in 1972, deals with the declaration of National Parks and Wildlife Sanctuaries and their notification. It establishes the structure of the State's wildlife management and the posts designated for Wildlife Management.
- It provides for setting up Wildlife Advisory Boards. It prohibits hunting of all animals specified in Schedules I to IV of the Act. These are notified in order of their endangeredness. Plants that are protected are included in schedule VI.
- The Amendment to the Wildlife Protection Act in 2002 is more stringent and prevents the commercial use of resources by local people. It has brought in new concepts such as the creation of Community Reserves.

# THE WILDLIFE PROTECTION ACT

- **Penalties:** A person who breaks any of the conditions of any license or permit granted under this Act shall be guilty of an offence against this Act. The offence is punishable with imprisonment for a term which may extend to three years or with a fine of Rs 25,000 or with both.
- An offence committed in relation to any animal specified in Schedule I, or Part II of Schedule II, like the use of meat of any such animal, or animal articles like a trophy, shall be punishable with imprisonment for a term not less than one year and may extend to six years and a fine of Rs 25,000.
- In the case of a second or subsequent offence of the same nature mentioned in this sub-section, the term of imprisonment may extend to six years and not less than two years with a penalty of Rs.10,000

# THE WILDLIFE PROTECTION ACT

- **What can an individual do?**

- 1) If you observe an act of poaching, or see a poached animal, inform the local Forest Department Official at the highest possible level. One can also report the event through the press. Follow up to check that action is taken by the concerned authority. If no action is taken, one must take it up to the Chief Wildlife Warden of the State.
- 2) Say 'no' to the use of wildlife products and also try to convince other people not to buy them.
- 3) Reduce the use of wood and wood products wherever possible.
- 4) Avoid misuse of paper because it is made from bamboo and wood, which destroys wildlife habitat. Paper and envelopes can always be reused.

# THE WILDLIFE PROTECTION ACT

- **What can an individual do?**

- 5) Create a pressure group and ask Government to ensure that the biodiversity of our country is conserved.
- 6) Do not harm animals. Stop others from inflicting cruelty to animals.
- 7) Do not disturb birds nests and fledglings.
- 8) When you visit the Zoo do not tease the animals by throwing stones or feeding them, and prevent others from doing so.
- 9) If you come across an injured animal do what you can to help it.
- 10) If the animal needs medical care and expert attention contact the Society for the Prevention of Cruelty to Animals in your city.

# THE WILDLIFE PROTECTION ACT

- **What can an individual do?**

11) Create awareness about biodiversity conservation in your own way to family and friends.

12) Join organizations, which are concerned with protection of biodiversity, such as Worldwide Fund For Nature –India (WWFI), Bombay Natural History Society (BNHS), or a local conservation NGO.

# FOREST CONSERVATION ACT

- To appreciate the importance of the Forest Conservation Act of 1980, which was amended in 1988, it is essential to understand its historical background. The Indian Forest Act of 1927 consolidated all the previous laws regarding forests that were passed before the 1920's. The Act gave the Government and Forest Department the power to create Reserved Forests, and the right to use Reserved Forests for Government use alone. It also created Protected Forests, in which the use of resources by local people was controlled. Some forests were also to be controlled by a village community, and these were called Village Forests



# FOREST CONSERVATION ACT

- **What can an individual do to support the Act?**
  - 1) Be alert to destructive activities in your local green areas such as Reserved Forests and Protected Forests, and in Protected Areas (National Parks and Wildlife Sanctuaries). Report any such act to the Forest Department as well as the Press. Report of violations can be made to the Conservator of Forest, District Forest Officer, Range Forest Officer, Forest Guard or the District Commissioner, or local civic body.
  - 2) Acquaint yourself with the laws, detailed rules and orders issued by the Government.
  - 3) Be in touch with concerned local NGOs and associations. Organize one with other like minded people if none exist in your area.

# FOREST CONSERVATION ACT

- **What can an individual do to support the Act?**
  - 4) Create awareness about the existence and value of National Parks and Sanctuaries and build up a public opinion against illegal activities in the forest or disturbance to wildlife.
  - 5) Pressurize the authorities to implement the forest and wildlife laws and rules to protect green areas.
  - 6) Take legal action if necessary and if possible through a Public Interest Litigation (PIL) against the offending party. Use the help of NGOs who can undertake legal action.
  - 7) Help to create public pressure to change rules laws and procedures when necessary.

# FOREST CONSERVATION ACT

- **What can an individual do to support the Act?**
- 8) Use better, ecologically sensitive public transport and bicycle tracks. Do not litter in a forest area.
  - 9) Participate in preservation of greenery, by planting, watering and caring for plants
- **Whom should forest offences be reported to?**
  - If you as a citizen come across anyone felling trees, encroaching on forest land, dumping garbage, cutting green wood, lighting a fire, or creating a clearing in Reserved Forests, Protected Forests, National Park, Sanctuary or other forest areas, you must report it to the forest / wildlife officers concerned. For urgent action one can contact the police. In fact you should file an FIR in any case because it serves as an important proof that you have made the report.

# ISSUES INVOLVED IN ENFORCEMENT OF ENVIRONMENTAL LEGISLATION

- Environmental legislation is evolved to protect our environment as a whole, our health, and the earth's resources. The presence of a legislation to protect air, water, soil, etc. does not necessarily mean that the problem is addressed.
- Once a legislation is made at the global, National or State level, it has to be implemented.
- For a successful environmental legislation to be implemented, there has to be an effective agency to collect relevant data, process it and pass it on to a law enforcement agency. If the law or rule is broken by an individual or institution, this has to be punished through the legal process. Information to law enforcement officials must also come from concerned individuals.

# ISSUES INVOLVED IN ENFORCEMENT OF ENVIRONMENTAL LEGISLATION

- In most situations, if no cognizance is given, the interested concerned individual must file a Public Interest Litigation (PIL) for the protection of the environment.
- There are several NGOs in the country such as WWF-I, BEAG and the BNHS which take these matters to court in the interest of conservation. Anyone can request them to help in such matters. There are also legal experts such as MC Mehta who have successfully fought cases in the courts to support environmental causes.

# ISSUES INVOLVED IN ENFORCEMENT OF ENVIRONMENTAL LEGISLATION

- **Environment Impact Assessment (EIA):**
- For all development projects, whether Government or Private, the MoEF requires an impact assessment done by a competent organisation.
- The EIA must look into physical, biological and social parameters. EIAs are expected to indicate what the likely impacts could be if the project is passed.
- The Ministry of Environment and Forests (MoEF) has identified a large number of projects that need clearance on environmental grounds. The EIA must define what impact it would have on water, soil and air. It also requires that a list of flora and fauna identified in the region is documented and to specify if there are any endangered species whose habitat or life could be adversely affected.

# ISSUES INVOLVED IN ENFORCEMENT OF ENVIRONMENTAL LEGISLATION

- New projects are called 'green field projects' where no development has been done. Projects that already exist but require expansion must also apply for clearance. These are called 'brown field projects'.
- After the Environmental Protection Act of 1986 was passed, an EIA to get an environmental clearance for a project became mandatory.
- An EIA is not intended to stop all types of development. The siting of an industry can be selected carefully and if it is likely to damage a fragile area an alternate less sensitive area must be selected.

# PUBLIC AWARENESS

- **Using an Environmental Calendar of Activities:**
- **February 2:** World Wetland Day is celebrated to create awareness about wetlands and their value to mankind. On February 2nd 1971, the Ramsar Convention on Wetlands of International importance was signed at Ramsar in Iran.
- **March 21: World Forestry Day** can be used to initiate a public awareness campaign about the extremely rapid disappearance of our forests. The program must be action oriented and become an ongoing process with activities such as tree plantation



# PUBLIC AWARENESS

- **April 7: World Health Day** – The World Health Organisation (WHO) came into existence on this day in 1948. A campaign for personal sanitation and hygiene to understanding issues of public health, occupational health, etc. can be carried out.
- **April 18: World Heritage Day** can be used to arrange a visit to a local fort or museum. Environment also includes our cultural monuments. Students could use this opportunity to create awareness among the local people about their very valuable heritage sites

# PUBLIC AWARENESS

- **April 22: Earth Day** was first celebrated in 1970 by a group of people in the USA to draw attention to increasing environmental problems caused by humans on earth. This day is now celebrated all over the world with rallies, festivals, clean-ups, special shows and lectures.
- **June 5: World Environment Day** marks the anniversary of the Stockholm Conference on Human Environment in Sweden in 1972, where nations of the world gathered to share their concern over human progress at the expense of the environment.

# PUBLIC AWARENESS

- **June 11: World Population Day** is a day when the vital link between population and environment could be discussed in seminars held at college and other NGOs.
- **August 6: Hiroshima Day** could be used to discuss our own Bhopal Gas Tragedy and the Chernobyl disaster.
- **September 16: World Ozone Day** was proclaimed by the United Nations as the International Day for the preservation of the ozone layer. This is a good occasion for students to find out more about the threats to this layer and initiate discussion on what they can do to help mitigate this global threat. The day marks the Montreal Protocol signed in 1987 to control production and consumption of ozone depleting substances.

# PUBLIC AWARENESS

- **September 28: Green Consumer Day** could be used to create an awareness in consumers about various products. Students could talk to shopkeepers and consumers about excess packaging and a campaign to use articles which are not heavily packaged could be carried out.
- **October 1-7: Wildlife Week** can consist of seminars on conserving our species and threatened ecosystems. The State forest Departments organize various activities in which every student should take part. A poster display, a street play to highlight India's rich biodiversity can be planned. Wildlife does not only mean animals, but includes plants as well.

# What can I do?

- Most of us are always complaining about the deteriorating environmental situation in our country. We also blame the government for inaction.
- However how many of us actually do anything about our own environment?
- To improve your own environment. 'You' can make a difference to our world.
- The following are some of the things you can do to contribute towards our ecological security and biodiversity conservation.

# What can I do?

- **Dos:**
- 1. Plant more trees of local or indigenous species around your home and your workplace. Encourage your friends to do so. Plants are vital to our survival in many ways.
- 2. If your urban garden is too small for trees, plant local shrubs and creepers instead. These support bird and insect life that form a vital component of the food chains in nature. Urban biodiversity conservation is feasible and can support a limited but valuable diversity of life.
- 3. If you live in an apartment, grow a terrace or balcony garden using potted plants. Window boxes can be used to grow small flowering plants, which also add to the beauty of your house.

- **Dos:**
- 4. Whenever and wherever possible prevent trees from being cut, or if it is not possible for you to prevent this, report it immediately to the concerned authorities. Old trees are especially important.
- 5. Insist on keeping our hills free of settlements or similar encroachments. Degradation of hill slopes leads to severe environmental problems.
- 6. When shopping, choose products in limited packaging. It will not only help cut down on the amount of waste in landfills, but also helps reduce our need to cut trees for paper and packaging.
- 7. Look for ways to reduce the use of paper. Use both sides of every sheet of paper. Send your waste paper for recycling.
- 8. Buy recycled paper products for your home. For example sheets of paper, envelopes, etc.

- **Dos:**

9. Reuse cartons and gift-wrapping paper. Recycle newspaper and waste paper instead of throwing it away as garbage.

10. Donate used books and magazines to schools, hospitals, or libraries. The donations will not only help these organizations, but also will reduce the exploitation of natural resources used to produce paper.

11. Participate in the events that highlight the need for creating Sanctuaries and National Parks, nature trails, open spaces, and saving forests.

12. Support Project Tiger, Project Elephant, etc. and join NGOs that deal with environmental protection and nature conservation.

13. Involve yourself and friends in activities carried out during Wildlife Week and other public functions such as tree plantation drives and protests against destruction of the environment.



- Don'ts
- 1. Do not present flower bouquets instead give a potted plant and encourage your friends to do so.
- 2. Do not collect unnecessary pamphlets and leaflets just because they are free.
- 3. Do not use paper plates and tissues or paper decorations when you hold a party.