



ENVIRONMENT

CONSERVATION

“I don’t want to protect the environment. I want to create a world where the environment doesn’t need protecting.”

- Sidney Sheldon

SAVE FUEL FOR A BETTER ENVIRONMENT

Since the industrial revolution, life has revolved around fuels. Our needs, largely fulfilled by fossil fuels, are constantly growing. In fact, India's energy consumption is set to grow by 4,2% a year by 2035, surpassing all major economies. However, fossil fuels including coal, natural gas and petroleum, are accompanied by a volley of environmental hazards.

Coal accounts for 55% of India's energy requirements. A large chunk of coal comes from strip mining. Strip mining requires clearing landscapes, wildlife and habitats, increasing the rate of soil erosion. Rains wash and remove topsoil into streams, polluting waterways, disrupting aquatic life and occasionally causing floods due to shifting river channels. Strip mining is accompanied by noise pollution and suspended coal dust. Heavy metals and minerals dissolve into mine wastewater forming orange acid drainage, while washing coal to remove waste create a toxic slurry which threaten water resources. Other forms of coal mining may generate quantities of waste rock.

Petroleum is another major conventional source of fuel in India. Petroleum and derived products pose a threat to human health. Adverse effects can be explained in a nutshell with the example of cancer alley. Deteriorating health is linked commonly to petroleum mining in the area, which also effects natural ecosystem; oil emulsions and spills often kill aquatic life and mammals. Formerly called the "petrochemical corridor", due to numerous reports of cancer from the region, it was nicknamed cancer alley.

Burning of fossil fuels releases green- house gases, such as carbon dioxide and other pollutants, like nitrogen oxides, sulphur dioxide, volatile organic compounds and heavy metals or radioactive materials. Ultimately, these generate acids which fall to earth as acid rain and cause water pollution.

Also 67% rural households rely on firewood for cooking. Since most households use traditional stoves, high amounts of PM are released in air by using firewood.

While growing needs cannot be eliminated, impact on the environment not be averted, wastage can be reduced and alternatives always found.

At a personal level, a lot can be done to conserve fuel.

In the kitchen, boiling pots must be covered to limit heat loss. Meals can be planned to avoid re-heating. Only the required quantity of food be cooked. Necessary spices and other things can be arranged near the stove to limit an idle flame.

Technology should be welcomed in the kitchen. In 2007, physicist Lee Hwang discovered the inefficiency of cooking vessels and devised more energy efficient counterparts. He added a heatsink, a device with an array of fins to cool computers (reversing the principle), to the bottom of the vessel. Hence, Hwang launched the 'Turbo Rots', a bit of inventive thinking to save fuel. On the road, public transports, carpools, walking and cycling must be preferred over driving personal vehicles. Parking under the shade prevents the car from heating up and results in lesser works for the ACs. Well-toned, serviced engines and clean air filters also prevents loss of fuel. Erratic driving should be controlled. Errand might be clubbed together to prevent repetitive trips.

At home, natural light can be amplified with lighter coloured walls and curtains. LED bulbs should replace regular ones. Buildings account for over 30% of India's electricity use, and two-thirds of the buildings to exist by 2030 are yet to be built. Depending upon the climate, sealing thermal bridges to prevent heat loss or modelling the building for cooling without using ACs, energy efficient and green homes are being built in parts of India.

Alternative include cleaner fuels like solar energy, in regions with abundant sunlight. Solar panels can be fitted I houses, solar coolers and community lighting may also be powered from solar energy. Firewood in rural households can be replaced by biogas which provides twin benefits of manure and clean energy. Total energy may be harnessed near the sea, geothermal near springs and wind energy near undulating plains.

Thus, to minimise environmental damage in coming decades, the country must walk on the path of sustainable development today, equipped with awareness, technology and ingenuity to conserve conventional fuels while simultaneously shifting to cleaner ones.

-NAVYA MUNJAL (S2-B)



SAVE FUEL, SAVE EARTH

Petrol is an imperative part of our lives, something we can't do about, and it is just wasted away, masking the situation for a perfect storm for our future generations. We once again are standing on thin ice. We should look before we leap, because there would be a time when there would be nothing left. A time will come when there wouldn't be any oil reserves in the whole nine yards. Once only gone, we would then be crying over spilt milk. Petroleum, in today's generation, is substantially used not only as a fuel for transportation and aviation, but also is extensively used in domestic and industrial heating, to generate electricity, lubricants and what not. Currently, our heavy dependence on this resource, despite rapidly escalating prices which cost an arm and a leg, is a matter of serious concern. Major oil reserves in the current scenario are present in Venezuela (around 20%), Saudi Arabia (around 18%), Canada (around 13%) and Iran (around 9%). The International Energy Agency (IEA) firmly believes that the oil will peak between "2013-2037", resulting in the sheer decline in the oil reserves of the world, especially in the middle - eastern part of the world. By this virtue, it is high time and obviously the end is closer than we think.

As our energy consumption is imprudent, and it is wasted away at the drop of a hat, industrialists would be using other alternatives such as oil shades, tar sands and heavy oils which are more polluting and are more expensive to extract. These alternatives will ultimately lead to a decline in the development and ruin the concept of sustainable development. The heedless attitude is definitely showing its repercussions. If we don't start now, then we would be biting the bullets, when the reserves are enervated with overuse, forcing us to start again from square one. The concern is quite serious as we are making a bubble of development that is taking place on the cost of overusing this

unparallel resource. Obviously, industrialists cannot make an omelette without breaking some eggs, or so they think. How can we pull ourselves from the bandwagon? We find that the debates and the deliberation about “green living” are much vogue in today’s life. But, do we actually apply this vogue in our prosaic lives? There are many reasons, perhaps, to switch from accustomed routine to “green living” such as to create a sustainable environment which gives importance to each and every organism in the ecosystem, reduction of global warming and lowering the amount of utility bills. According to me, green living is the final solution as we should not put all our eggs in one basket which is ‘development’, in today’s scenario. We can solve the problem to a great extent by incorporating policies based on the three R’s (Reduce, Reuse and Recycle), using public transport for commuting, servicing vehicles regularly, using electricity judiciously, using power efficient devices, pooling rides and ultimately spreading awareness about this issue and making common people an integral part of the campaign. These small gestures will make huge differences and lead to a plain sailing towards conservation. Making developed and developing countries a major pioneer of the campaign and passing out some utilitarian treaties, protocol (Lisbon 1994), Civil Liability for oil pollution damage (Brussels 1969) and oil pollution preparedness, response and cooperation, OPRC (London 1990) would also help to a great extent. We should at last remember that the clouds are on the horizon, and if we don’t start now, we will go down in flames, as the citizens of this planet, and the judges of our conscience. Once again, we find ourselves caught between two stools, but the choice is ultimately ours.

-MALLICA (S2-B)

