

OIL CONSERVATION TOWARDS HEALTHY AND BETTER ENVIRONMENT

Crude oil, the largest source of energy, plays a vital role in today's world and is becoming a product in great demand. Most of our day to day chores are entirely dependent on petroleum and petroleum-based products. According to the BP Statistical Review of World Energy, world oil consumption reached 4,622 million tons in 2017. Between 2007 and 2017, world oil consumption grew at an average annual rate of one percent.

Studies show that if we do not decrease the current rate of consumption then the current reserves will sustain for not more than 40 years. This will result in a worldwide crisis wherein all the equipment dependent on oil will come to a stop; transportation dependent on oil would come to a halt, airplanes would be grounded, technology enabled agricultural production will come to a standstill and houses and offices warmed by oil would freeze in winter. It is time to focus on hardheaded solutions, like bringing in efficiency standards for air conditioners, using renewable sources of energy, phasing out fossil fuels subsidies, and finding alternatives for reducing methane emissions etc. We need to focus on closing the gap between current emissions trends and our long-term climate goals to build a more secure and sustainable energy future for all.

Like every other campaign "Oil Conservation" also encounters some basic issues of hindering growth and development. It is much easier to keep the boat sailing on the same course in countries, which lack research and capital.

More important aspects such as global warming is shaping the beliefs and ideologies of various governments and have proven the vitality of petroleum conservation. Fossil fuels emit high amount of toxic gases such as nitrogen oxides, sulphur dioxide, carbon dioxide, ozone and a host of hydrocarbons into the atmosphere. These are producers of one of the primary pollutants, carbon dioxide, which is responsible for the climate change, resulting in increasingly erratic weather patterns. It contributes to the creation of the greenhouse effect which is causing the gradual melting of the glaciers in the poles. The pollution caused due to the burning of crude oil is a great threat to the health of humans and animals alike. Deforestation for the purpose of setting up mines results in the loss of natural habitat for animals and leads to the extinction of a large number of flora and fauna. It greatly affects the biodiversity.

The increase in harmful toxins in the atmosphere also results in disorders and many diseases, such as asthmatic bronchitis and chronic bronchitis, a lifetime suffering. School going children and the working class are easy preys of such diseases due to their prolonged and unavoidable exposure. Diseases are not uncommon among animals either. The decrease in the number of migratory birds in the major cities of India hold the rising pollution levels in the areas as the cause.

There are many ways that people are trying to conserve oil on a day to day basis. These include switching on to solar and electric powered cars, carpooling and use of public transport. Long term solutions such as using more renewable sources of energy like solar and wind energy have

been initiated by the governments. Promotion of transport through the water bodies can also be resorted since the fuel consumption rate is comparatively low. For example, transportation through the river Yamuna can help in connecting Delhi with its neighboring states. This will ease the congestion in the capital, provide a faster mode of transport and also decrease the amount of pollution. Another way to conserve oil is by reducing the plastic consumption of each individual. Crude oil provides the principle source of carbon and hydrocarbons for the whole chemical industry from plastics to pharmaceuticals. Polyesters can be made independent of crude oil by using ethylene, which can be generated from bio mass.

The conservation of fuels can help in slowing down the rate of atmospheric warming and ocean acidification, giving sufficient time for the earth to heal itself. Even small gestures, like being energy efficient and switching to renewables can make huge differences. Without this respite, we may end up making our planet, the earth uninhabitable.

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PETROLEUM CONSERVATION

“There would be nothing left except fire and ice, if you continued your theft without being wise.” ~Nandini R. Maharana

It's often said that the Earth is a beautiful place to live in; no doubt it still is, but we humans have overused our natural resources tremendously. Ever since Industrial revolution, our life has revolved around fuels. In fact, research states that India's energy consumption is set to grow 4.2% a year by 2035! However, the overuse of fossil fuels is accompanied by a volley of environmental hazards. Very soon we can expect an energy crisis, if the condition remains the same. There would be an increase in pollution due to global warming and climate change.

As global citizens, we need to take care of certain things in order to create a safe and healthy environment. There are resources which are on their way to depletion, slowly but steadily. The never-ending consumption of such non-renewable resources is bound to create an existential crisis leading to its non-availability. It's even more alarming to realise that they will take thousands of years to get replenished.

One such precious resource is petroleum, something which is used in abundance in our day to day lives. Petroleum products like petroleum jelly, paraffin wax, oil based paints, electricity generation, fuel oils, so on and so forth. The list is endless as it can produce a large amount of energy. Its technology and infrastructure are already in place, but the sources are limited and it leads to environmental pollution.

This conventional source of fuel in India is a finite resource that can lead to environmental degradation. It's time we develop alternatives for a sustainable future. The usage of petroleum worldwide has resulted in its depletion, causing a hike in its price. This is indeed a matter of grave concern. If the price of oil increases, it will lead to inflation and reduced economic growth. Out of the major petroleum products consumed by the general public, only LPG and kerosene are controlled and subsidised by the government of India. This black gold, as it is called, is scarce and difficult to find in the Earth's sub-surface. A

number of complex studies and surveys are being carried out in order to find petroleum accumulation.

Out of the major petroleum products consumed by the general public, only LPG and kerosene are controlled and subsidised by the government. The surge in oil prices is a major issue; petroleum is depleting day by day, petroleum reserves are limited and it also takes millions of years to get replenished. Petroleum is called black gold. It is scarce and is very difficult to find in Earth's subsurface. A number of complex studies and surveys are carried out in order to find petroleum accumulation.

Lao Tzu rightly said that, the journey of a thousand miles begin with one step. The Indian government controls the prices by an indirect method of tinkering with excise duties. More and more strategic petroleum reserves should be set up in India. The strategic petroleum reserves are a hack used by the government in order to prevent the country from shortage of oil in case of emergency such as natural disasters, war or other calamities. This is a very good initiative which needs to be applauded. The government should keep aside a greater amount to build such reserves.

Aldo Leopold rightly said, "Conservation is a state of harmony between men and land." While our growing needs cannot be eliminated and its impact on the environment cannot be averted, wastage can surely be reduced and alternatives always found. Conservation of petroleum and development of alternatives will lead to minimisation of wastage and protection of the environment.

On a personal level, much can be done to conserve fuel. On the roads, the use of public transport, carpooling, walking or cycling must be preferred over driving private vehicles. Well-serviced engines and clean air filters also prevent the loss of fuel. Rash driving should be controlled and repetitive trips could be avoided by clubbing errands. Using alternatives like electric cars instead of vehicles would be a great option. Plastic bags and bottles should be replaced with jute, bamboo, banana or cotton bags and steel bottles. Water transportation should be used wherever possible.

Alternatives must include the use of cleaner fuels like wind, water or solar energy to generate electricity. We need to minimise the usage of petroleum products like paraffin wax, plastic, paints, tar, asphalt and petroleum jelly. Organic lip balms or ghee can be used instead of petroleum jelly and water colours can be used instead of oil based paints.

Using of alternatives would reduce the demand for petroleum products in the market, which will ultimately lead to lesser consumption. Both, the government and the people should take initiative of spreading awareness among others about the harmful effects of petroleum and the serious threat to its existence. Conservation of petroleum and other fossil fuels would help in healing the environment. Conservation of fossil fuels and development of alternatives is the key to a happy and healthy environment. Our country must walk on the path of sustainable development, equipped with awareness, technology and ingenuity to conserve conventional fossil fuels while simultaneously shifting to cleaner ones.

By: Nandini R. Maharana