



livelihoods

today and tomorrow

October 2018

**'7L' - Life, Living,
Leadership, Learning and
Love**

Natural Livelihoods



People have always been dependent on earth for their basic needs like air, water and food. They have relied on natural resources for shelter, on water bodies for drinking water, on forest for wood, air etc. However, natural resources are decreasing year by year due to incessant, and often greedy, use by human beings.

People are using more natural resources than they need. According to the Living Planet report's calculations, humans are using 30% more resources than the earth can replenish each year, which is leading to deforestation, degraded soils, polluted air and water, and dramatic decline in numbers of flora and fauna.

If we travel down human history, it was just around 200,000 years ago, that we humans emerged as distinct species. While 10,000 years ago, there were only one million people living on the planet. Around 200 years ago, there were around one billion people. While 50 years ago, it touched the three billion figure. When it comes to the current times, the figure has increased drastically, as there are now over seven billion people living in the world. By the year 2050, the population could increase by nine billion people according to estimates. And by the end of this century, there will be at least 10 billion people or more living on this (by then beleaguered) planet.

Coming to the stats of our country, every year the population is increasing by leaps and bounds. In 1901, there were only around 24 crore living in India, but now a humongous 132 crore people. Every year, the population continues to increase in each and every country. With increase in population the utilization of natural resources also increases worldwide. If population levels continue to rise at the current rate, our grandchildren will see the Earth plunged into an unprecedented and disastrous environmental crisis.

In the context of India, the growing population requires more and more resources for the basic necessities of life and increased standard of living. As our population continues to grow, we continue to use more water, more food, more land, more transport and more energy. As a result, we are accelerating the rate at which we are changing our climate. For the sake of future generations, resources must be discovered and cleanly exploited, even as efforts to improve efficiency and increase recycling continue.

The problem is also getting worse as populations and its consumption needs are growing faster. In comparison to the rate at which technology is finding ways to expend, that which can be produced from the natural world. If we don't change the current trend, mankind would need not, one but two planets to sustain its lifestyle.

Earth is home to millions of species and is the only planet to host life in our solar system. From space probes findings, other planets' atmosphere, soil and climate are found, not conducive for nurturing of living species. Earth, on the other hand, has a safe atmosphere, fertile soil, comfortable climate, which gives us everything we need and continues to nourish life even while we wreck it, in our greed. But this won't do in the long run as earth is slowly losing its life in our race to growth. Therefore, we have to protect earth like the mother it is, if we want our posterity to live on this beautiful planet.

The earth and its ecosystems are our common home, and it is a necessity to promote harmony with nature. Emphasizing, the inevitability to attain a just balance between economic, social and environmental needs of present and future generations.

Earth is the living system and the only home we have. The Earth does not belong to any of us; we are all just a part of it. Nature is not just a set of resources that can be exploited, modified, altered, privatized, commercialized and transformed bearing no consequences. Our present ways of life, in particular our consumption and production patterns, have severely affected the Earth's carrying capacity.

Land, water and air, forest and biodiversity are the most vital natural resources bestowed on Earth, without which life cannot sustain. Turning a requisite to protect, maintain, and restore, these valuable assets for now and future. Unfortunately, we continue to exhaust these resources without even thinking about restoration. For which, proper management of natural resources has become the immediate necessity, so that our future generations can have enough of them.

Land is an important resource as it covers only about 30% of the total area of the earth's surface. While, around 95% of our basic needs and requirements like food, clothing and shelter are obtained from land. Land is home to many species of plants and animals, including humans, and so it can be termed the most valuable natural resource. Land as a resource is limited because only 43% of the total land area is plain which is suitable for agriculture activities, industrial development and set up of transport and communication systems and such economic activities. With around 27% of the total land area, covered with plateaus of moderate population. Mountains cover 30% of the total land area.

Land has further become a limited resource because of degradation taking place at a breakneck pace. Deforestation, water logging, construction of large dams, mining and over-grazing are only a few reasons. Modern farming techniques, which include usage of fertilizers and pesticides, mining and deforestation are resulting to the loss of soil fertility. Thus, essential to build and reclaim the existing, for to thou, not sight life shrouding in malnutrition.

Water is one of the important natural resource. People are using water for different purposes such as drinking, agricultural, industrial, household, recreational, and environmental activities. All living things require water to survive, grow and reproduce. About 97% of the water on earth is salt water, with fresh water constituting only three percent. Nowadays, the world is running out of clean drinking water. There is over-exploitation and stress due to growing needs increasing, due to population growth.

Around the world, people are facing a lot of problems due to water crisis. It has been estimated that roughly 1.1 billion people are facing difficulty in accessing water. A total of 2.7 billion encounter water scarcity at least once a month a year. Water borne illness such as cholera, typhoid, fever etc. is also a prominent problem faced by 2.4 billion people. Approximately, two million people, mostly children, die each year from diarrheal diseases alone.

Water bodies like rivers, lakes are drying up and exposed to over pollution, deeming them to be un-consumable. More than half the world's wetlands have disappeared. Also agriculture consumes more water with wastage occurring due to inefficiencies.

Climate plays a significant role on water resources around the world due to the close connection between the climate and hydrological cycle. Rising temperature is also one of the reasons for increase in evaporation leading to increase in precipitation, though there will be regional variations in rainfall. Climate change is altering patterns of weather and water around the world, causing shortages and droughts in some areas and floods in others.

Both droughts and floods may become more frequent in the future, while dramatic changes in snowfall and snowmelt are expected in mountainous areas. In the near future, two thirds of population may face water shortages, with ecosystems losing the balance.

Air is a critical resource for humans, plants, animals and all other organisms. Air in our atmosphere is a mixture of gases composed of 78% Nitrogen, 21% Oxygen and very small percentage of water vapor and other gases. The balance of gases in our atmosphere is just right for the nurturing of life. The oxygen in the air is essential for animals to survive. The carbon dioxide we breathe out is in turn required for plants to trap energy and prepare its food.

India is the seventh most environmentally unsafe country in the world. Most of the industries here do not stick to the environmental guidelines, regulations and laws. Pollution caused by burning fuelwood and biomass is one of the main causes of the Asian brown cloud. This cloud is the reason for delay of the monsoon as evident.

India is the third largest producer of coal in the world and about 70% of the air pollution is caused by vehicles. According to a NDTV report, Delhi is the most polluted city in the world after Beijing, with Industrial and vehicular emissions being the primary reason, as researched. It was found that, in Delhi each day, 1400 new vehicles hit the roads. Non-communicable diseases accounting to 62% of total diseases are showing increasing trends in India. Around 30% of children in Bangalore suffer from Asthma due to air pollution.

Prevention is better than cure. Consequently, India has been working hard to improve the air quality. For regulating air pollution, the Air (Prevention and Control Pollution) Act has been passed in 1981. However, there is a need to

put in efforts of effectiveness to ease the situation at least a bit. Public awareness to be raised and stringent measures are to be facilitated to regulate the vehicular emission. Switching onto public transport and usage of energy efficient appliances through renewable sources is the need of the hour. There is strong propulsion to save our planet from air, water and soil pollution. Polluting the air by release of hazardous chemicals can threaten the existence of life and alter climatic patterns. If the same proceeds, mass-extinction is in the closest period possible.

Forests are an extremely important natural resource. The total forest cover in our country is 708273 square km, which is 21.54% of the total land in our country. India targets to bring 33% of its geographical area under forest cover.

Forests provide fuel for cooking and warmth, medicinal plants, food, wildlife habitat, clean water, spiritual, cultural touchstones etc. Approximately 70% of animals and plants make their home in forests, while more than 25% of the world's people i.e. nearly 1.6 billion rely on forest resources for their livelihoods; of them, 1.2 billion use trees to generate food and cash.

We cannot survive on this planet without forests. In a sense, they are the lungs of the Earth, absorbing carbon dioxide from our atmosphere and producing the oxygen we require in return. And as a result, forests help to regulate the global climate, absorbing nearly 40 percent of the fossil-fuel emissions, we humans produce.

World-over, deforestation and forest degradation are the biggest threats to forests. Since 1960s, over half of the tropical forests worldwide have been destroyed. And every second more than one hectare of tropical forest is destroyed or degraded. Deforestation and forest degradation impact the lives of the 1.6 billion people whose livelihoods depend solely on forests.

Forest area continues to decrease at an alarming rate due to the expansion of agriculture, timber production, urbanization, and road constructions. According to the last Global Forest Resources Assessments released, each year more than seven million hectares of natural forests are being lost and 50 million hectares of forestland is set in ablaze. The only realistic way to conserve our forests is to apply sustainable forest management practices.

Plastic is very harmful for the environment. Our country generates around 25,940 tonnes of plastic waste a day, which amounts to 1.6 million tones a year. India consumes 16.5 million tonnes of plastic. Overall, 43% of plastics are used in packaging and they are single use plastic. Consumption has clearly outstripped India's capacity to recycle. Burning of plastic in the open air leads to environmental pollution due to the release of poisonous chemicals. The polluted air when inhaled by humans and animals affects health causing respiratory problems.

Harmony with Nature: The point to be reiterated is that earth and its ecosystem are our common home and we need to balance the economic, social and environmental needs of present and future generations to come.

The depletion of natural resources and rapid environmental degradation are the result of unsustainable consumption and production patterns. This is leading to adverse consequences for both the Earth and well-being of humanity. Our present way of life, in particular our consumption and production patterns, have severely affected the Earth's carrying capacity.

In order to meet the basic needs of a growing population within the limits of the Earth's finite resources. There is a need to devise a more sustainable model for production, consumption and the economy as a whole. Devising a new world will require a new relationship with the Earth and with humankind's own existence.

There is an inseparable bond between man and nature. For man, there cannot be an existence excluding nature. However, because of his thoughtless actions, the equilibrium in nature is getting disturbed; the pulse of human life is becoming erratic too. Air and water have become polluted. Rivers are drying up. New diseases are spreading. If things continue this way, the human race is in for a monumental catastrophe.

Mother Nature has blessed humankind with bounty. If we are not ready to change, Nature's boons will turn into curses. We cannot delay anymore. We must make the right decisions and embark on the right course of actions.

Our natural resources are getting affected more and more by our actions. Land is degrading, water percentage is decreasing, air is getting polluted, Forest is degrading. People are suffering from health problems, drinking water crisis, decreased agriculture yields, unseasonal rains and less rainfall etc. The time has come for humans to get back into harmony with nature.

Modern agriculture practices have a major impact on the environment. Climate change, deforestation, genetic engineering, irrigation problem, pollutants, soil degradation, and waste are some of the concerns that are connected with agriculture. Excessive use of fertilizers such as urea, nitrate, phosphorous, along with many other pesticides is also affecting air, water, and soil quality.

In agriculture, people are using more chemical pesticides and fertilizers for better yields. Though they may get better yields for time being, they are facing losses due to increased input cost. These losses, are leading farmers into committing suicide. Yet, the spending hasn't come down leading to decreased soil fertility. Earlier, farmers were cultivating more food crops than cash crops but now the case is the reverse. Sustainable or natural farming can be a workable solution to ease these issues.

The textile manufacturing industry also consumes resources like water, fuel, and chemicals generating significant amounts of waste. Textile mills produce atmospheric emissions. Gradually, handloom industry was decreasing or dying due to the development of power loom industry despite the negative impact on the environment. The main environmental problems associated are caused by the discharge of untreated effluents released as outputs. It is good for environment to practice natural methods in weaving.

People in the country are doing different types of livelihoods like artisan livelihoods, construction works, non farming livelihoods, businesses etc. and are practicing modern methods in their livelihood development to get more income. But these people are thinking of more income and not thinking about the environmental impact they create. Modern methods are harmful to the environment.

Unregulated Industrial pollution is a big issue as most of the pollution is caused by industries, making it the most significant form of pollution on the planet. Industrialization, while important for the economic growth and development of a society, can also be harmful to the environment. Industrial process can cause climate change, pollute air, water and soil increasing health issues, extinction of species and more.

Uttarakand was there

Chennai was there

Kerala was there

North east was there

Nepal was there

So, we are, not far away from it. We cannot run away from the consequences. Nor can we stand back with our voices shut. Time to gather and restrain all our senses to take a U-turn in life to listen, see and above all feel the reality of the vulnerable, for, one day, theirs can be ours. ❖