

Earth and Health: Building a Safer Environment

INTRODUCTION

Earth is unique in all the planets, where life exists. About 10,000 years ago, when mankind changed from hunter gatherers living in wilderness areas such as forests and grasslands into agriculturists and pastoralists, we began to change the environment to suit our own requirements. As our ability to grow food and use domestic animals developed, these natural ecosystems were converted into agricultural lands. Green revolution took place and we have begun to use cross breeding, hybridisation, fertilizers and pesticides, mechanisation to further boost the yield from the same amount of land. At the same time mankind has taken several changes in their life to ease their work, lives, improve their life standards. In this process industrialisation has grown up enormously – like steel, cement, petroleum, aluminium etc. Deforestation and concretisation is changing the weather everywhere. However, we now realize that all this has led to several undesirable changes in the environment of earth, as we are interfering with nature in doing all these.

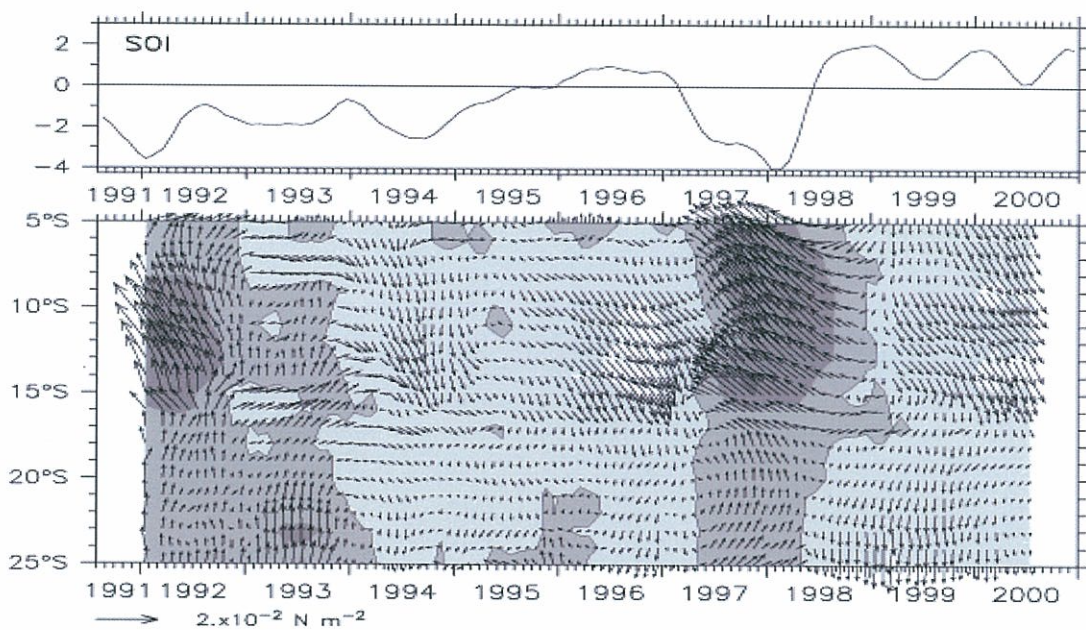


EARTH AND HUMAN HEALTH

Health as defined by WHO, comprises those aspects of human health, including the quality of life, that are determined by physical, chemical and psycho-social factors. The factors that affect health come in a variety of ways. Climate and weather affect human health. Public health depends on sufficient amount of good quality food, safe drinking water, clean and pollution free environment and adequate shelter. Natural disasters such as storms, hurricanes, floods and tsunamis still kill many people every year. Unprecedented rainfall triggers epidemics of malaria and water-borne diseases. Global climatic changes also bring with them serious health implications. Many countries still have to adopt to uncertain climatic conditions due to global warming. As our climate is changing, we may no longer know what to expect. There are increasing storms in some countries, earthquakes, droughts and volcano eruptions in others and temperature rises throughout the world due to depletion in ozone layer and mankind is being affected.

The El Nino winds

The El Nino winds affect weather worldwide. The event of 1997-98 had serious impacts on health and well-being of millions of people in many countries. It created serious droughts, floods and triggered epidemics.



THE CARELESS SITING OF INDUSTRIES

The careless siting of industries and relatively poor regulatory controls leads to ill health in the environment of earth.

The Bhopal gas tragedy on December 2nd 1984, where Union Carbide's Plant leaked 43 tons of Methyl Isocyanate and other substances, used in the manufacture of pesticides is one of the worst industrial accidents in the recent past. Of the 5,20,000 people who were exposed to the gas - 8,000 died during the first week and another 8,000 later. The impact of the survivors is visible even today.



DeathSmog Day



The Union Carbide Factory at Bhopal, India

INCREASE IN DEMAND FOR RESOURCES

With the increase in world population, there is an ever increasing demand on Earth i.e. for its resources. Population of the world has increased from 2.59 billion in 1951 to 6.30 billion in 2003. However population is concentrating more in urban cities and will continue in future also. The UN has shown that by 2025 there will be 21 mega-cities most of which will be situated in developing countries.

In many cities population outgrowth often outstrips the planner's ability to respond in time to the needs of the citizens.

ECONOMIC INEQUALITIES AND ENVIRONMENTAL CHANGES

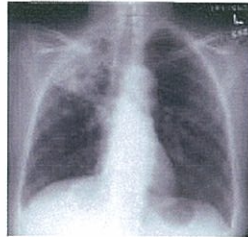
Economic inequalities and environmental changes are closely connected to each other. Poor countries are unable to meet required emission standards to slow down climatic changes. Development strategies that do not incorporate ecological safeguards often lead to ill-health, while strategies that can promote health invariably also protect the environment of the earth. An improvement in health is central to sound environmental management of the earth. However, this is rarely given sufficient importance in planning developmental strategies.

SUSTAINABLE DEVELOPMENT+
HEALTHY ENVIRONMENT
= HEALTHY PEOPLE



GLOBALIZATION: A WORLDWIDE PROCESS

Globalization is a worldwide process on this earth now. It has the potential to enhance the lives and living standards of population worldwide. But the process of globalization has led to the spread of the virus related to various diseases from one country to another. For eg., TB - It is estimated that between 2002-2020, approximately 1000 million people will be newly infected, over 150 million people will get sick and 36 million people will die of TB if its control is not rapidly strengthened.



TB: A DEADLY DISEASE

ARSENIC IN DRINKING WATER

Arsenic in drinking water is a serious hazard to human health. This could eventually lead to an epidemic of cancers and other fatal diseases. Natural arsenic contamination also occurs in Argentina, Chile, China, India and the US. In China exposure to arsenic leads to Gangrene also known as Black-Foot disease.



Arsenic Poisoning

TRADITIONAL APPROACH

Traditional medicine has maintained its popularity in all regions of the developing world and its use is rapidly spreading in the whole world. While there are advantages to traditional medicine as it is cheap and locally available, over-harvesting of the raw material for herbal medicines and other health care products poses a threat to biodiversity.

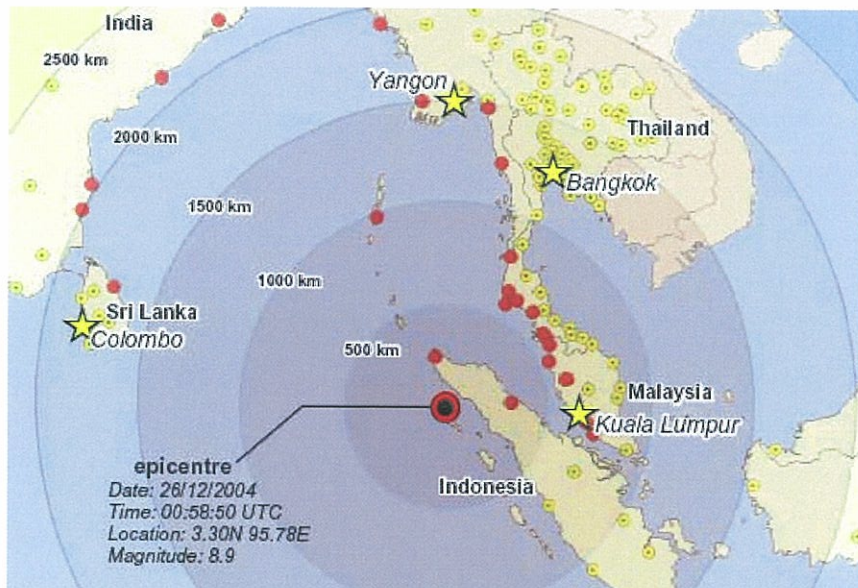


Traditional Medicine in Africa, Asia and China

NATURAL DISASTERS

Natural disasters have numerous impacts on nature and economy of various countries of the world. Natural disasters are of the types such as earthquakes, tsunami, hurricanes, floods, volcanic eruptions, plague and many more.

The sequel to natural disasters is the great loss of human lives and grave economic and social impacts. These disasters cause heavy destructions, alterations and many other localized damages.



The Strike of The Tsunami

NUCLEAR ACCIDENTS AND NUCLEAR HOLOCAUST

Nuclear energy was researched by man as an alternate source of energy compared to fossil fuels. Although this did happen along with the benefits came its downfall. In the short history of nuclear energy there has been a number of accidents that have surpassed any natural calamity. A single nuclear accident causes loss of life, long term illness and destruction of property on a large scale.



The Chernobyl Nuclear Disaster

EXISTENCE VALUE OF THE EARTH

However, there are other aesthetic, ethical values that are equally important aspects of the environment of our earth that we do not appreciate consciously. The lush splendor of an evergreen forest, the great power of the ocean's waves and the tranquility of the Himalayan mountains are things that each of us values even if we do not experience it ourselves. We value its being here on earth for us. This is called the *Existence Value of the Earth*.



The Himalayan Mountains



The splendor of the evergreen forests

Political interference and unplanned development of resources have affected the world on a larger scale. The social and economic problems whether poverty, illiteracy, poor health, low standard of living, poor agriculture, slow industrial development, pressure on the use of energy resources and a loss to wide diversity of genetic resources have all resulted in the degradation of environment of our earth. The option left with us is to adopt new concept of development and environment conservation by harmonizing the two. This objective should become the topmost priority of every environmentalist on this earth. Stress should be made on sustainable development with environmental considerations in mind.

STRATEGIES FOR SUSTAINABLE LIVING ON THIS EARTH

- Conservation of forests by means of afforestation and social forestry programmes should be encouraged.
- Extraction of endangered species from the wild should be stopped so as to keep a check over the loss of Bio-diversity.
- Energies like nuclear energy, atomic energy etc., should be utilized for peaceful projects which will prove useful to the humanity.
- Industries with proper emission standards should be located far from the residential areas.
- Warning systems should be invented in a more technological manner to predict the strikes of natural disasters in a more systematic way, so as to prevent huge loss of human lives and property.
- The management of a city should start undertaking actions that work towards the support of the environment. Thereby, providing a healthy and happy lifestyle for its people.
- The main strategy being that we must always care for **MOTHER EARTH** and not cause any damage to her knowingly or unknowingly.



Perfect Environmental Management

So, let us take up our task in buoyancy and hope and feel sure that the cause to **building a safer environment** will not suffer to fail among others. Get entitled at this juncture, at this time to claim the aid of all and to say

**COME THEN, LET US GO FORWARD TOGETHER WITH OUR UNITED
STRENGTH AND WORK TOWARDS THE PROTECTION OF
ENVIRONMENT**