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Environment and Food Safety

Mrs. LILY ROY*

Introduction

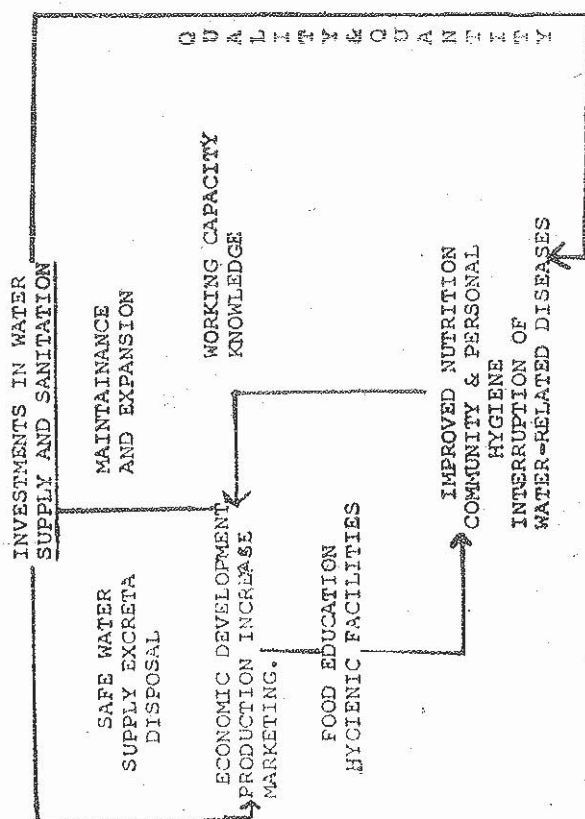
Safe environment is essential for healthy living. India is still lagging far behind many countries in the field of environment. Much of the ill health is due to poor sanitation.

Basic and fundamental needs of individual and community are safe drinking water, basic sanitation, safe food, control of pollution and prevention of harmful health behaviour.

Water and Sanitation

If we consider the total environment, water and sanitation comes first because safe water is a basic need for health. In India alone it is estimated that over 73 millions man days are lost every year as a consequence of water borne diseases. The cost to India in terms of Medical treatment and lost production

Direct and Indirect Effects of Water and Sanitation for Health is Explained in the Chart



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is around 4,000 million rupees annually. Instead of spending to fight the said amount, can be spent for more safe water.

1981-1990 is the international decade for safe drinking water and sanitation. For India, However the achievement of the target poses a formidable problem. At the beginning of the decade i.e. 1981 only 31% of the rural population had access to water. But at the end of the 1985 W.H.O. estimated that 23% of urban populations were without access to safe and adequate water supplies and W.H.O. forecast that a large number of people will be without it in 1990. In 1981, negligible percentage of rural population had latrines and very high percentage of urban population used open defecation.

The target is to provide access to sanitary facilities for disposal of human waste to 25% rural population by 1990.

Statistics indicates that the intestinal group of diseases claims about 5 million lives every year. 50 Million people suffer from these infections. By improved sanitation and safe water supply morbidity and mortality rate can be reduced.

Pollution

As we know there are numerous sources of water and soil pollution. Those are mostly for urbanization and industrialization.

Some of those are :-

- (a) Sewage.
- (b) Industrial and Trade Washes, which contain toxic agents ranging from metal salts and complex synthetic chemicals.
- (c) Agricultural pollutions such as Fertilizers, Pesticides.
- (d) Physical, like Thermal pollutions, Radio active substances, carcasses, dead bodies, etc.

Conclusion

Inspite of Investing money for safe water—

—Prevention of wastage and

—Peoples participation specially once when the problem is solved, may help partially for the problem.

Air

The human has every right to live in fresh and healthy air. Not only man, all forms of life depends on air.

Pollution

Air is mainly polluted by—

- (a) Respiration (man and animal)
- (b) Combustion of coal, gas etc.
- (c) Decomposition of organic matter.
- (d) Trade, Traffic and manufacturing process etc.

Air Pollution

Cities and industrial zones are facing acute shortage of fresh and pure air in many parts of the world. Automobiles are causing serious problems of air pollution in some area, of the cities like Bombay and Calcutta, as many industries are situated in Bombay

and close to Calcutta. Air is polluted by the gas and fume, of the industry.

Forests are the best medicines in this context.

According to scientists, forests not only clean the air but also free from pathogenic microbes. Thus the green filter belts grown around the industrial zones and complexes and densely polluted cities will ensure healthy climate in such areas.

Housing

There is a close relationship between housing and health. The residential is one, in which the family can develop and flourish physically, mentally and socially, grossly insufficient and degraded shelter has a severe and pervasive impact on health, particularly in developing countries.

Roughly one quarter of the World's population does not have adequate shelter and lives in extremely unhealthy conditions and some thousand million people have no shelter at all. They sleep in the streets, under bridges, in vacant plots and door ways. The health effects on more than thousand million people who occupy inadequate and degraded shelter. Most of the urban poor live in low quality over crowded and self made shelter which is only marginally served by public utilities and usually lacks adequate water supplies and other facilities.

It is common to see rotting garbage, human faeces and associated insects and rodent infestations. They have no access to health care.

Noise

We are living in the century of noise. Loudness or intensity depends upon the amplitude of the vibrations, which initiated the noises.

Normal conversation produces a noise of 60-65 dB (whispering 20-30 dB) heavy street traffic 60-80 dB and boiler, factories about 120 dB.

A daily exposure up to 85 dB is about the limit of the people which can tolerate without damage to hearing.

Sources of Noise

(a) —Automobiles

—Factories

—Industries

—Aircraft. Railways

(b) Domestic noise producing from

—Radio, Television, Transistor, Speaking loudly at home, Shouting etc.

(c) Other sources

Collection of many people at one place, Loud speaker, Micro Phones, Fire arms, Fire works, even stray dogs disturb human sleep and peace.

Effects

Auditory fatigue in 90 dB and is greatest at 4000 HZ.

Deafness—Many permanent or Temporary.

Most temporary hearing loss occurs in frequency range between 4000 to 6000 HZ repeated on continued exposure to noise around 100 decibels may result a permanent hearing loss, exposure to noise about 100 dB may rupture the tympanic membrane and cause permanent deafness.

Non-Auditory

—Rise of blood pressure.

—A rise in intracranial pressure.

—Increased heart rate and breathing.

—Sweating, annoyance, sleeplessness are mostly effects of noise.

Drug, Alcohol & Smoking

Behaviour like drug addiction, alcoholism and smoking are the cause of ill health. Drug abuse is a global problem for developed and developing countries.

The non-medical use of alcohol and other psychoactive drugs has become a matter of serious concern in many countries.

The drugs which are most commonly used are:

I. Amphetamines and Cocain.

II. Barbiturates.

III. Cannabies (Hasish or Charas)

IV. Heroin.

V. L.S.D.—(Lysergic acid diethyl amide)

VI. Alcohol.

The danger of the drug abuse and smoking is known to all.

On Smoking

Those who smoke have a higher death rate than those who do not.

Most Common Effects are

I. Lung Cancer along with all types of respiratory tract disease.

II. Coronary artery occlusion, angina pectoris.

III. Cancer of mouth, Pharynx, Larynx and oesophagus cancer of the bladder, Peptic Ulcer.

IV. Growth retardation of foetus for the pregnant mother etc.

On Drug

Drug abuse has been a source of many personal and social problems. They do harm physical, mental, and moral life of the individual. The use of drug, result in series of problems of crimes, social insecurity and juvenile delinquency in the society.

Food Safety

Food is prime factor which quality and quantity is vital for human surviving, unsafe food dangers human life and sometimes causes death.

Despite great advance in modern technology, keeping food safe remain a Public Health Problem in both developing and developed countries.

Contaminated food is responsible for a high proportion of diarrhoeal and other infectious diseases particularly in the developing world. W.H.O. estimates that in 1984 there were about 1000 million episodes of acute diarrhoea among children under 5 years of age in Africa, Asia and Latin America.

Food Contamination

Most food contamination: Microbiological in origine. However wide spread use of chemical substances throughout the food production chain, has increased the risk of chemical contamination in recent years.

They are commonly

—Agricultural, Pesticides and Fertilizers, Veterinary drugs, Growth stimulants and food additive.

Other Sources

Like lead, during processing etc.

From sellers

Ready food Contaminated due to poor hygiene, poor handling, displaying and preserving.

—Stale and rotten food serving from hotels and restaurants.

—From housewives from preparation to consumption etc.

Food Adulteration

Food adulteration is very common specially to the developing countries.

Most Common Factors are

- (a) Make the food attractive with harmful colours.
- (b) Increased quantity by adding:

Non food articles as well as harmful materials like: Sand, stone chips, saw dust, grass seeds, dry cowdung, Tanned dust, substandard food, other seeds to cooking oil etc.

Food Safety Hints

(I) Ensure that food is cooked or reheated long enough to kill all bacteria. Do not prepare food too far in advance.

(II) Avoid direct or indirect contact between raw and cooked foods on kitchen surfaces, on the chopping board or in the food store.

(III) Keep perishable food stuff below 10°C or above 60°C.

(IV) Wash hands before handling and cooking food and particularly after using the toilet.

(V) Keep kitchen surfaces and food utensils clean.

(VI) Make sure that any sore or cuts on your fingers and hands do not come in contact with food;

they might spread infection to others.

(VII) Avoid coloured food as harmful colours may be added.

(VIII) Soak vegetables and fruits in water to remove agricultural pesticides if any.

Education is the Remedy

Maintenance of safe environment and healthy habits can be achieved through education, specially female education. Both basic and health education are needed for health consciousness.

It is proved that with the increase of educational status, health status is also improved.

Literacy rate is highest in Kerala in India and birth rate, infant mortality rate, maternal mortality rate etc are lowest there.

According to 1981 census total literacy rate in Kerala was 69.17. Male-literacy was 74.03 and female literacy was 64.48.

The data of India shows that India is still far behind in total literacy than many other countries.

In 1981

The literacy rate was only 36.17% of the total where female literacy was only 24.88%.

In 1985, the rate was raised to 57% in case of male and 29 in case of female.

Education can increase knowledge, awareness, change attitude and thus can create a strong public opinion which can help to prevent health hazards due to poor environment.

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Control of Diseases and Immunization

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IN the industrialised countries of the World, some 1985 out of every 1,000 children born will live to enjoy their fifth birthday. In some parts of the third World not far short of 500 out of each 1000 will die before they are five years old. Of which many die from infectious disease and some other diseases caused by unhygienic practices at birth, many more from chronic malnutrition, chronic diarrhoea caused

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