CREATING ENVIRONMENTAL AWARENESS AMONG RURAL HOMEMAKERS

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INTRODUCTION

Man no longer lives overwhelmed by the scale of his natural environment. It is the environment that is beginning to be overwhelmed by man. Man interacts with the natural environment through a complex system of relationships embracing the entire planet in which causes and effects are often separated by dimensions of space and time that transcend conventional, geographical, national and instructional boundaries. His life and well being largely depends on a healthy equilibrium between environment and man (Rohrlich, 1976).

Environment is a horizon sweeping word and represents the totality of social, biological and physico-chemical factors, individually or collectively, that compose the natural and man made surroundings (Rathore, 197).

To sum up this is an aggregate of all the extârnal conditions and influences affecting life and developmentof human being, animal and plants including air, climate, culture, water, noise, temperature and soil which affect the health and development of life (Diwan, 1987).

Man himself is the greatest factor in changing or affecting his environment. (Bacon, 1964). Benjamin (1982) indicates that uncontrolled consumption patterns deplete non-renewable natural resources, upon which future the development depends. Mukherjee (1985) stresses that environmental conservation is the very basis of all development.

Vyas (1988) states that development involves exploitation of non-renewable (coal, ores, petroleum etc) and renewable (air, water, plants and animal life etc) natural resources and this leads to a discharge of waste products which pollute air, water and land. Sometimes the wastes are discharged at a rate beyond the carrying capacity of the environment, degrading the quality of the environment.

Moreover the exponential growth of human population, rapid industrialisation supported by the scientific and nuclear technology has put higherdemands on the environment. To add to this, manipulation of production and consumption of material and energy and release of pollutants damage our environment (Kumbhaj, 1988).

Increasing deforestation, soil erosion, pollution of sea and river waters, increasing use of chemicals and radiation, atomic tests, industrial effluents are identified

as causes of environmental pollution. Verma (1988) points out that the indiscriminate degradation of environment poses a serious danger to the environmental stability. The necessity to protect and improve such environmental stability has recetly been recognized by almost all the developed and developing countries.

At this juncture, environment hygiene is a very urgent problem. Its solution will save nature while failure could mean the destruction of natural environment. Shrimal (1988) rightly points out that it is the duty of each generation to maintain the productive capacity of land, air, water and wild life to leave a healthy environment.

The most important historic event in the present decade is the people's concern about the environment. Never before, the people were so alarmed about the deteriorating environment which is a store home of all livings on this planet (Saxena, 1986). Increased emphasis had been placed during the decade on environmental education and public awareness with non governmental organisation playing an important role.

The governmental effortsby themselves may not be sufficient in preventing, controlling and abating environmental pollution. It has to be made a mass movement. People have

to be educated and made aware of the problems. They have to bemade aware of their rights and duties with regard to prevention, control and abatement of environmental pollution and the co-operation of the public is essential (Bahadur and Nathawat, 1988) and Raj, (1982).

Enlightened understanding by a human being of the environment is a prerequisite to saving the environment says, Polunin (1988). Hence the solution of environmental problems requires the active participation of scholars and practioners from various disciplines such as biologist, physical scientists, earth scientists, social scientists and law (Vyas, 1988).

India lives in its villages. India's environmental concerns should start in the villages where 85 per cent of the population lives.

More than 40 per cent of population lives below poverty line. Poverty is the main factor which leads to many ill effects. Due to poverty and illiteracy the economic conditions of the rural mass have not yet reached its basic minimum.

In rural area environmental pollution starts at home. More than 80 per cent of the pollution is caused by ignorance

of the rural people about the proper use of sanitary facilities, dumpting of household waste around the house, pollution of main pathways with human waste, stagnant water around the house and poor personal hygiene causing degradation of the environment. As far as environmental awareness is concerned attention has to be paid to the rural people (Khoshoo, 1988).

Village habitated area do not increase despite increase in population and added sanitation and latrine problems. Latrine facility is a far off dream in many villages as a result, men, women and children attend to their nature calls either in open space in neighbourhood village or in farms or on the village roads (Kamble, 1984).

In urban areas industries and factories are polluting the environment. But in villages people pollute their own environment. Hence educating the rural mass about the need for safe and pure environment is the cry of the day.

Environmental education helps an individual to develop his potential to the full, to increase his peoductivity and to become a useful and responsible member of the society. In the education four distinct but interrelated components are recognisable that is awareness, real life situation, conservation, and sustainable developments (Hasan, 1976).

In India government and non-government bodies are emphasising very much to protect the environment. Our government has taken up many measures for the prevention and control of environmental pollution.

Government's programmes on preserving environment are at the high levels and urban oriented. They never reach the poor illiterate mass living in rural areas.

As pointed out by Shastri (1988) Indian women have fought more valiant battles, have made greater sacrifices, have exhibited greater love than man of environmental protection, Indian woman shall rise against all cruelties perpetrated against mother nature leading to environmental pollution or ecological imbalances. If rural women are educated properly they can protect their home environment and village environment from degradation.

Hence this study has been taken up by the investigator to create environmental awareness among rural homemakers with the following objectives:

1. To assess the prevailing environmental conditions
2. To find out the extent of awareness of the homemakers regarding environmental degradation
3. To educate homemakers and children on environmental problems and protection
4. To evaluate the knowledge acquired by homemakers through educational programmes.

Review of Literature

II REVIEW OF LITERATURE

The literature pertaining to the study on "Creating Environmental Awareness Among Rural Homemakers", is reviewed under the following headings:

A. Importance of Environment

B. Health Hazards of Environmental Degradation

C. Environmental Education.

A. Importance of Environment:

Man lives on earth. A deep relationship exists between the environment on earth and his life. The main factors of environments are biological and physical. The physical environment consists of land, water and air, biosphere provides the food and other requirements of man. Environment creates favourable conditions for the existence and development of different creatures (Dayal, 1987).

Enviroment is the sum of substances and forces external to the organism in such a way that it affects the organisms existence.

By environment we mean not only our immediate surrounding but also a variety of issue connected with human activity, productivity, basic living and its impact on

natural resources such as land, water, atmosphere, forests, dams, habitat, health, energy, resources and wild life (Srivastava, 1989). The environment may be defined as the outer physical and biological system in which man and other organisms live with many interacting components (Mohan, 1989).

The environment is indivisible. It has no geographical or ideological frontiers, and further it is common to all living organisms - man, animals and plants (Desh Bandhu and Aulakh, 1987). The environment is not just pretty trees tigers, threatened plants and ecosystem. It is literally the entity on which we all subsist and on which our entire agricultural and industrial development depends (Agarwal, 1984).

Our environment is the asset of our generations to come. He who does violence to nature for transcient pleasure or profit is a butcher of the future for the people as a whole. Those who polluted nature including air, water and vegetation are truly the enemies of the nation. When growth is a contradiction of conservation we have to abandon that goal and weave a new harmony between man and nature. They will have to preserve our environment is the first requisite of the economics of development (Singh, 1988).

Every living thing is interacting continually with its environment which consists of other animals and plants and the physical surroundings. In the present world man is moving away from the natural environment and is more and more compelled to be in an artificial environment whether he is working, resting, travelling or recreating (Kopardekar, 1987).

Man had developed his own anthroparea, depending upon the basic needs and laboured upon the surrounding environment for his survival first. Later his behaviour tilted towards mass exploitation of the natural resources of the biosphere.

It is seen that even though the activities of modern man have altered the natural environment of our planet these changes usually represent a sum total of local influences of the environmental process. In the present age human activities exert enormous influence on the natural conditions of the entire planet (Bawa and Singh, 1987).

Environment is an interdisciplinary field and includes a wide variety of issues concenning human settlements, natural resources, plants, animal life and pollution of all sorts (Kameswaran, 1982).

It is well known that the earth's surface and the environment surrounding it is important to human health. The nature of the soil, air, water, temperature, barometric pressure, wind, sunshine, cloud, rainfall, humidity and latitude must all in the last resort have determined man's health and welfare. By controlling animal and vegetable life, man supplied himself with the essentials of life including clothing, housing and food (Kumar, 1987).

Man in contrast to other living organisms, has not only the ability to adopt himself to many different natural conditions, but can also change his environment and has enormous technological powers to do so (Reckia, 1987).

B. Health Hazards of Environmental Degradation:

On a global basis, the combination of man's increasing numbers and intensification of his activities is placing growing pressures on renewable and onon-renewable resources, and these pressures cannot continue indefinitely without placing the future of all mankind in serious jeopardy (Rohrlich, 1976).

The environmental crisis affects every person living in that area and it implies the deterioration of environment in which we live. The environmental deterioration may

be caused by single or interactive effects of the several sources of environmental pollution like air, water, food, pesticide, contamination, forests and wild life, solid wastes and noise etc. (Diwan, 1987).

Man has played a very important part in shaping his environment. He has been responsible for degrading the quality of his environment. At first he contaminated the atmosphere by the use of fire which addedgases, smoke and ash to it.

The degradation of the environment was caused mostly by his activities such as burning of wood, smelting of ores, tanning leather, primitive methods of sewage disposal. With the advent of industrial revolution, coupled with urbanisation all kinds of impurities began to be added to the natural air, water, as well as soil, causing almost irreparable damage to environment (Deshpande, 1987).

Doraisamy (1988) defines environment as that bundles of resources which support, develop or enrich human life. Environmental hazards are considered from the stand point of the media for example air, water, food and insect and rodent vectors and other community influences eg., home, work place and culture that are involved in the exposure of man to actual and potential hazards.

The Indian environment has been viciously affected and destroyed in the last century due to unrestricted feeling of the forests. The consequences of excessive deforestation are increasing floods, soil erosion, heavy siltation of dams built at an enormous expense and changes in micro climates, in other words a progressive depletion of the countries ecological bank, driving it incessantly towards bankruptly (Dayal, 1987).

The environmental pollution can be attributed to several factors like urbanisation, industrialisation, automation, unsound planning and lack of general awareness in the mass. Though the environmental problems have many facets, the pollution of water, air, and land is one of the most pressing environmental problems in India (Srivastava, 1989).

As Mehta points out environmental degradation undermines development and damages human health. Ill-health on the other hand affects the work force, hinders development and leads to environmental degradation. Environmental development and health are thus closely interlinked.

Healthy environment is the most essential prerequisite of human life. All compenents of environment like air, water, soil, noise etc are so sadly affected by the

pollutants that the whole environment has been polluted. All aspects of pollution or environment are directly or indirectly related to human health and well being (Diwan, 1987).

Sanitation is way of life. It is the quality of living that is expressed in the clean home, the clean farm, the clean neighbourhood and the clean community. Being a way of life it must come from within the people (Krishna, 1976).

Sanitation refers to the means adopted to protect the health of the general public and not that of individuals. This is known as "public hygiene" or "public health". Public hygiene deals with the disposal of all kinds of refuse in towns and villages, the making and cleaning of roads, drains, sewers, latrines, stables and cattle shed and the construction of houses. It also deals with the supply of water, prevention of the pollution of water and air, the notification of infectious diseases, the masures required to prevent their spreading and the registration of births and deaths.

We can observe the rules of health and hygiene

Live in well ventilated rooms

Cultivate clean habits

Breathe pure air, drink pure water

Eat wholesome and good food,

Appreciate the value of sanitation.

Eat not unwashed fruits and vegetables
Acquire a knowledge of hygiene and sanitation
You will have wonderful health and vitality,
Peace, prosperity and longevity.

(Swami Sivananda, 1957).

Every citizen, every individual is directly and intimately concerned in the preservation of the health and welfare not only to himself but of the community as a whole (Kamble, 1984).

A good home environmental is a good learning aid. So parents should help children to inculcate healthy habits. Proper care should be taken for personal hygene (Dhillon, 1973).

Personal hygiene deals with matters that pertain to the health of the individual. Cleanliness is next to Godliness, cleanliness bestows good health (Swami Sivananda, 1957).

Parents and other family members should follow the proper health practices such as hand washing, bathing, combing of hair, cleaning of teeth, spitting at proper places, proper disposal of excreta, use of handkerchief while coughing and sneezing. The children also need proper clothing, plenty of sleep, fresh air, exercise, play and rest (Dhillon, 1973).

So all sickness and death is probably caused directly or indirectly by our extremely poor and depressing sanitation and public hygiene. The lack of closed or underground drainage for the disposal of domestic sewage and industrial effluent, inefficient removal and disposal of garbage, the lack of water closet latrines, the want of consciousness regarding general public hygiene that results in spitting anywhere and committing acts of nuisance in public places, they are not merely unclean and unaesthetic, so they cause directly sickness, suffering and death in the community (Chandra Shekar, 1970).

Poverty itself is one of the main causes of environmental problems especiallyin marginal settlements where the forest people live without essential requirements such as pure water, shelter, clothes and food. Minimal sanitation facilities have created a number of acute environmental problems. The pressure of growing numbers of urban poor has resulted in environmental degradation of the whole area (Biswas, 1987).

The many other ways in which poverty contributes to the cycle of destruction are equally far reaching. Lack of adequate shelterincreases vulnerability to natural diasters, and the marginal settlements in the rapidlyexpanding urban areas of the developing world are prime examples of degraded environment. Desertification, deforestation, soil erosion

and salinization result as inappropriateagricultural practices are used to meet the desperate need for food.

The effect of population increases peoples pattern of consumption and production has been to upset the ba lance between people and resources, hence leading to deterioration of the environment (Vobra, 1988). Major environmental problems also occur because of the unchecked use of often environmentally imprudent technologies or the use of technology in a manner inappropriate in the light of current knowledge. Examples of such problems are toxic wastes, threats to the ozone layer and to coastal areas, effluents from feeding lots, possible climate changeetc. The economic effectsworldwide of such environmental problems could be severe.

Health hazards of various pollutions:

The word pollution is derived from a Latin word "polluere" which means "to soil" or "to defile" (Srivastava, 1989).

The simplest definition of pollution may perhaps be a right thing in the wrong place. eg., salt in the sea is not pollution but salt in the river is pollution (Waghule, 1987).

Pollution means an undesirable change in physical, chemical or biological characteristics of air, land and water

that may or will harmfully affect the human, animal and plant life. Contamination of environment with impurities making it unfit for its intended use is known as pollution (Srivastava,1989).

Effects of air pollution:

According to Hinshaw and Garland (1963), "The air we breathe like the food we eat should be sanitary, wholesome and enjoyable".

Air pollution could be traced back to the industrial revolution and the discovery of steam engine and increased use of coal and the smoke and sulphur compounds emanating from it began to contaminate the atmosphere more and more.

The World Health Organisation (1989) has defined air pollution as "Substances put into air by the activity of mankind in concentration sufficient to cause harmful effect to his health, vegetables, property or to interfere with the enjoyment of his property."

The American Medical Association Council of industrial health has defined 'air pollution' as "the concentration of foreign matters in the air which adversely affects the well being of the individual or cause the damage to the property (Chitnis, 1987).

Engineers' Joint Council for Air Pollution and its Control (1989) defines that air pollution means the presence in the outdoor atmosphere of one or more contaminants, such as dust, fumes, mist, odour, smoke, or vapour in quantities of characteristics and duration, such as to be injurious to human, plant or animal life or to property, or which unrasonably interferes with the comfortable enjoyment of life and property (Srivastava, 1989).

The presence in the ambient atmosphere of substances produced by the activities of man, in concentration sufficient to interfere directly or indirectly with his comfort, safety, health or with the full use and enjoyment of his property.

The air pollution is mainly due to the emergencies of industrial pollutants and discharge of automobile vehicle smoke. The smoke from the industries settles over the buildings and makes the furnishings and furniture dirty. The smoke and soot in the atmosphere makes the housewives feel frustrated and defeat to maintain their cleanliness (Krishna, 1976).

Human activities like industrial production, motor transport and burning of fossil fuel are also causes air pollution. The more dangerous gases which are not noticeable

are also present in the atmosphere. This include Carbon monoxide, sulphur dioxide, nitrogen oxide and cancer producing hydro-carbons (Shrimal, 1988).

The effluent from chimneys, both industrial and domestic can also be poisonous. Smoke contains benezypyrene, a cancer producing substance that probably plays a part in the causation of lung cancer (Pirrie and Dalzell, 1962).

The air pollutants affect human health in general and affect lungs and the skin. Air pollution may cause occupational diseases like Anthrax, ulcer of cornea of eye, skin cancer, tumor of bladder, silicosis, asbestosis, byssinoses etc. It also causes innumerable health hazards sudden respiration distress, difficulty in breathing, respiratory cancer, lung cancer, asthma, increased bronchitis, coughs, eye irritation have been found to be associated with polluted air (Chitnis (1987) and Srivastava (1989).

To prevent and control air pollution, pollution control devices such as setting chambers, bug filters, wet collectors, electrostatic precipitators, incinerators, gas scrubbers, absorbers, catalytic combustion agent need to be used. Construction of tall chimneys for vertical dispersion of pollutants is another alternative. More trees should be planted and looked after because they purify air.

Effects of water pollution:

Water as a part of human environment occurs in four main forms as ground water, in fresh water surface, masses in the sea and as vapour in the atmosphere.

It is estimated that man can survive for twenty days without food, but starts struggling for life in the absence of water just one day. Water is needed for the maintenance of life of plants and animals for navigation, hydro-electric power and for disposal of sewage. It has been estimated that 3/4th of the population are affected due to unsafe drinking water (Sheela (1985)).

Water is considered "polluted" when it is altered in composition or conditions so that it becomes less suitable for any or all of the functions and purposes for which it would be suitable in its natural state (Sheela, 1985).

As per Fair and Geyer (1989) water pollution may be defined as "introduction into a body of water of substances of such character and in such quantity that its natural quality so altered as to impair its usefulness or render it offensive to the sense of sight, taste or smell."

Pollution may be accidental and most often caused by the controlled disposal of sewage and other liquid wastes resulting from domestic uses of water, industrial wastes containing a variety of pollutants, agricultural effluents from animal husbandry and drainage of irrigation water and urban run off.

The most important contributors to pollution of water are sewage, oil, industrial and agricultural wastes.. These can be divided as degradable and non-degradable. Degradable pollutants mostly domestic, sewage can be rapidly decomposed by natural process. Non-degradable pollutants (inorganic chemicals such as salts, chlorides, metallic oxides and toxic and other waste producing materials) are those substances in which these are not evolved natural treatment process that can keep up the rate of man madeinput eco system. These either do not degrade or degrade only very slowly in the natural envrionment (Deshpande, 1987).

Water pollution not only changes the physical properties of water such as colour, odour, turbidity, taste and temperature but also makes it acidic, alkanine or saline due to the persence of dissolved or suspended chemical substances.

Water pollution is caused due to physical, chemical and bacteriological impurities in water. Changes in the physical, chemical and biological properties of water or such discharges of liquid, gaseous or solid substances into water as will or are likely to create nuisance or render such water harmful to public health, safety or welfare.

When water is in short supply every source, good, bad, or worse is used untreated water results in widespread of waterborne diseases. The methods used for the disposal of human waste are some of the greatest causes of contamination of water and spread of certain diseases (Sheela, 1985).

The deposting of human faeces by roadside, field and steams, washing of clothes of sick persons near wells and the use of improperly operated latrines and sewage system are responsible for large number of infectious diseases (Sheela, 1985).

About 2/3rd of all illness is related to waterborne diseases such as ringworm, dysentry, diarrhoea due to the community waste from human settlements are being discharged untreated into the water courses (Shrimal, 1988).

Most of the epidemics are caused through water borne diseases suchas typhoid, cholera, dysentry and jaundice. Enhancement of bacterial, viral and other parasitic population

in polluted waters endanger human health. To prevent and control water pollution it is essential to have sewage water treatment plants for every town and city so that the biodegradable and non-degradable pollutants can be removed from it and pure water obtained by recirculation (Srivastava, 1989).

Effects of soil pollution:

Soil pollution is usually a consequence of insanitary habits. Various agricultural practices and incorrect methods of disposal of solid and wastes but can also result from fallout atmospheric pollution.

Man has been responsible for disturbing the natural environment of the soil in various ways, through his dometic, agricultural and industrial activities which have directly or indirectly polluted the soil.

Fertilizers and pesticides are most important factors for increasing population but their continuous used particularly of the pesticides is fraught with danger. Under pressure of population which is increasing, man is forced to use the land more extensively and intensively and employ more technology and industrial inputs which is not an unmixed blessing, as numerous problems of land degradation also to appear.

Soil errosion results in huge loss of nutrients in suspension which are removedaway causing depletion.

The major sources of land pollution are the industriessuch as pulp and paper mills, oil refineries, power and heating plants, chemicals and fertilizer manufacture, iron and steel plants, plastic and rubber producing complexes.

Pollution arising from pesticide useage have been among the greatest causes of concern in the field of agricultural pollution.

A large amount of solid rubbish is contributed by our households in the form of domestic wastes. Some are groceries, food scraps, vegetable remains, packing materials, paper, remants of used coal, ash, wood, metals, platics, ceramcs, glass etc. Many of these are non-reusable. If it is not properly disposed this proves perilous.

Such places often become a home for rats, flies, bacteria, mosquitoes and large number of other vectors, having the potential of causing many human diseases.

So to prevent and control land pollution appropriate methods should be developed to dispose off or utilize the othe type of pollutants. Low lying watery areas and

ditches can also be filled with the trash and land thus reclaimed used for making gardens, parks, playgorunds or even apartment complexes. Animals refuse and agricultural waste can be utilized as manure and for the production of biogas which helps to generate electricity (Srivastava, 1989).

Effects of noise pollution:

Noise may be defined as "unwanted sound" and "noise pollution" as unwanted sound dumped into the atmosphere without regard to the adverse effects it may have. The term "noise" in the electronic communication system is also referred to as perturbation that interfere with communications.(Srivastava, 1989).

The pollution by noise is the product of the modern age and it has increased in multifarious direction with the development of Science, technology and high speed means of transport (Varshney, 1987).

Noise is one of the main pollutants of the environment causing various hazardous consequences for human life. (Varshney, 1981). Noise is unwanted sound. One man's music can be another man's noise (Chitnis, 1987).

Noise pollution imbibes itself a serious threat to the quality of man's environment (Srivastava, 1989).

As soon as a person is born he or she comes in contact with the pollution of noise. It is due to alarm bells, radio, television, loudspeakers, school bells, motor vehicles, aeroplanes, trams, trains, industrial machineries, artillery practice by armed forces and a lot of others which produce noise (Varshney, 1987).

And also motors, horns, printing presses, rivetors, drills, lathes, heavy machinery work and movement roadside amusements, blaring loudspeakers and radios, supersonic aeroplanes, construction works in urban areas, urban corwding and all assets of industrial revolution have become our irritants and source of environmental annoyance (Varshney, 1987).

Noise pollution is dangerous for human life. It not only impairs our sensibilityto auditory by making effects, it has behaviour and psychological consequences also (Varshney, 1987).

The unit of measurement of intensity of sound is called the decibel abbreviated as dB. Human ear is sensitive to an extremely wide range intensity from 0 to 180 dB, 0 dB being the threshold of hearing, whereas 140 dB makes the threshold of pain. Threshold means the lowest intensity at which stimulus becomes perceptible. (Srivastava, 1989). The

average of noise decibel for an urban dweller is 90 dB. (Chitnis, 1987).

In the community generally noise is distracting, fatiguing and canproduce anxiety and inefficiency. Industry, high frequency soundsof high intensity can produce nerve deafness. With increase of noise pollution, heart and mental diseases are on the increase in addition to human annoyance. (Pirrie and Dalzell, 1962).

The effect of noise on human body are very serious, it disturbs the nerves, lessens efficiency, disturbs sleep and it can make a person neurotic. And also it affects the brain and prolonged exposure to noise may cause blood vessels to contract, sometimes resulting in hypertension (Varshney, 1987).

The effects on human body by noise pollution are: Physiological effects: Intense and shrilling noise may over power the simple and combined tones and the auditory receptors fail to respond to the stimulus proper. Thus the auditory threshold will go up.

Behavioral effects: Sudden noise distracts a person and can create nervousness to him. Housewives working in kitchen with all kinds of electric gadgets have been seen to get head ache due to noise and vibration of these gadgets. People working

in printing presses become deaf due to such noise.

Personological: If the injurious effects of noise tend to persist for long, they cause stable maladaptic reactions in the individual disturbing his total personality. The lowered performance level among children may develop a feeling of inadequacy, lack of confidence, poor perception of one's own self which may jeopardize their optimal personological development as a growing child (Varshney, 1987).

The safe limit of noise is 90 dB. The existing ordinances, acts against noise pollution should be revised from time to time depending upon the changing nature of the source.

So, for keeping up the environment the fundamental duty of every citizen is "to protect and improve the natural environment including forests, lakes and wildlife and to have compassion for living creatures."

The problem has to be tackled by public education, public concern or awareness and public cooperation which should be from the "Environmental Welfare Triangle". And let us understand that "There is no price to be paid for personal control to keep cleaner environment." (Misra, 1979).

C. Environmental Education:

It is through education process that man's attitude towards environment is to be shaped. Environmental education is a life long continuing process and has to be imparted in all levels (Bandhu and Dwivedi, 1987).

Environmental education can be defined as a process of learning about the existing situation through which sufficient knowledge can be gained to understand environmental problems and contribute towards solving them (Srivastava, 1989).

By environmental education we understand all kinds of education and information which aim at creating the correct approach of man to his natural environment in the sense of conservation, wise use and management (Cerousky, 1969).

Environmental education is a very vast field dealing with diverse aspects like, human settlements, land, forests, mountains, islands, coastal and other ecosystems, soil, water, genetic resources, wildlife, marine resources etc (Srivastava, 1988).

Environmental education helps to develop a sense of responsibility and solidarity among countries and regions as the foundations for a new international order which will guarantee the conservation and improvement of the environment (Desh Bandhu, 1987).

Environmental education helps to understand the intimate relationship between the quality of the environment and human well being has an important role to play in the direction of preserving the environment and ensuring the quality of life (Desh Bandhu, 1987).

The general goals of environmental education as given by UNESCO (1986), Desh Bandhu (1987) and Dwivedi et al (1987) are:

- to foster clear awareness of and concern about social, economic, political and ecological interdependence in urban and rural areas
- to provide every person with opportunities to acquire the knowledge (values, attitudes, commitment) and skills needed to protect and improve the environment
- to create new patterns of behaviour of individuals, groups and society as a whole towards the environment.

The chief objectives of environmental education are that individuals and social groups should acquire awareness and knowledge, develop attitudes and skills and abilities and participate in solving real life problems with a practical bias for developing a healthy environment around (Srivastava, 1989).

Environmental education would have to aim at producing a citizenry, creating a constituency of environmentally oriented people, that is knowledgable regarding the biophysical and man made environment and its problems, aware of how to solve these problems, and motivated enough to work towards their solution. Such a challenge to be taken by educational institution and among these universities and colleges have to show the leadership (Dwivedi, et al, 1987).

The major goals of environmental education should be to help individuals to acquire:

1. A clear understanding that man is an irreparable part of the biosphere which consists of man and his built in environment, the existing biophysical environment, and the sustenance of the ecological balance.
2. A broad understanding of the biophysical environmental and its importance to human race.
3. A fundamental understanding of the nature of environmental problems confronting, how these problems may be solved, the basic responsibility of the society and government to work for solving such problems.
4. Development of environment ethics which will motivate people to participate in the decision making process and to demand for a protection of the environment so as to advance human and dignity (Dwivedi, et al, 1987).

Chittibabu (1987) and Srivastava (1989) state that environmental education provides:

- A comprehensive knowledge with working of nature and environment.
- An empreience in valuing environment quality.
- An understanding of the impact of personal choices of actions on environmental quality.
- A source of guidance to the people to act as more responsible citizens with an increased civic sense.

The crucial aim of environmental education in the development of behaviour which is in accordance with environmental needs. This means to transform knowledge and experience into everyone's life. Therefore environmental education should be related to the problems as the exist in the immediate living environment, on the other hand it should aim at finding concrete solutions to problems (Lob, 1987).

Environmental education must motivate the youth of the country to study the range of environment problems faceing India today and to project responsiblesolution that are consistent with the economic, political and social temper of our country and are practicable (Srivastava, 1989).

India needs now is a fully developed comprehensive policy on environmental education and research. A national

policy and programme is needed, so that the country is able to protect the environment, enhance the quality of life and conserve resources for future generations (Dwivedi et al, 1987).

The badic and fundamental nature of environmental education is multidisciplinary and includes all factors related to environmental problems, the study of man made and natural environmental and is concerned with total human activity and his environment. The environmental education rederes to not only to scientific problems such as contamination of water, air and soil, the detection surveillance and maintaining of pollutants and their impact on human health and on all other species, but also to the socioeconomic and legal aspects of controlling the damage done to the environment whichgrow out of our dependence upon technology.

Broad (1969) suggested environmental education as an important aspect of conservation management for solving the vast problems of biological resources. For making education meaningful, suitable information material must be developed for describing the general featureof the area, improved land use practices, restoration zones, socioeconomic aspects of life of local people through documentary films, public meetings, training camps and setting up of small museums.

Newspapers as well as the breadcasting and television systems present regular features on environmental topics make relevantsuggestions to change the behaviour and integrate increasingly environmental aspects into entertainment (Lob, 1987).

Methodology

III EXPERIMENTAL PROCEDURE

The procedure followed for the study on "Creating Environmental Awareness Among Rural Homemakers"consists of the following aspects:

A. Household Survey

B. Creating Environmental Awareness Through Planned Education

C. Evaluation of Environmental Education

A. Household Survey:

Survey is any procedure in which data is systematically collected from a population, or a sample there of through some form, a direct solicitation, such as face to face interviews, telephone interviews or mail questionnaires (Closly, 1983).

The survey provides learning experience for the participants, stimulates awareness of community conditions and problems, afford a useful body of factual knowledge for those interested in learning more about their community. Hence the survey was conducted which consisted of the following aspects:

1. Selection of area
2. Selection of sample
3. Selection of method
4. Formulation of tool
5. Pretesting and finalising the tool
6. Conducting the survey
7. Analysing and presenting the data.

1. Selection of area:

Sarkaraamakulam Panchayat Union of Coimbatore District was selected as the area in consultation with the Block Development Officer. In that block Saravanampatty village was selected based on the help rendered by the local leaders and the cooperation extended by the homemakers, earlier rapport established in the village and availability of transport facility.

Rapport was established with the village people through frequent visits to the village and contacting the leaders of women's club and youth club and school authorities.

2. Selection of sample:

A sample of 100 homemakers were selected at random to know about the prevailing environmental conditions since women play an important role in preserving household environment.

3. Selection of method:

Vatsyayan (1988) opines that in the interview method the observer faces the informant and questions across the table noting down the information which the questions elicit.

In this method it is possible to judge the adequacy of information and also to ensure that no questions are left. Supplementary information about the informants' characteristics can also be elicited through this method. Hence interview method was selected for the present study.

4. Formulation of tool:

According to Goode and Halt (1976) schedule is the name usually applied to a set of questions which are asked and filled in by an interviewer in a face to face interview. Hence a detailed interview schedule was formulated to get precision data with the following facts such as the socio-economic background, source of water supply, medical facility, education, disposal of the wastes including human excreta, personal hygiene, environmental awareness, pollution and other problems.

5. Pretesting and finalising the schedule:

A pilot study is usally considered to be a trial investigation of specific research problems that will be

treated more intensively at a later date. It helps to discover and ameliorate mechanical problems associated with interviews, questionnaires and the like. It also helps researchers to develop meaningful methods of categorising data to be collected. Hence a pilot study was carried out to test the reliability and comprehensiveness of the schedule (Black, et al 1976).

In the light of the results of the pilot study the interview schedule was modified and finalised as shown in Appendix I.

6. Conducting the survey:

Rapport was established with the homemakers. The data were collected through the verbal interaction between the respondent and the interviewer at a time convenient to the homemakers.

7. Analysing and presenting the data:

The collected data were consolidated, analysed and presented in Chapter IV Results and Discussion.

B. Creating Environmental Awareness Through Planned Education.

According to Stapp (1971), environmental education is aimed at producing a citizenery that is knowledgeable

concerning the biophisical environment and its associated problems, aware of how to help, solve these problems and motivated to work. Hence an environmental education programme was planned. The main theme of the programme was preserving household environment. The following Table presents the course content and the methods used for educating the rural women.

TABLE I

COURSE CONTENT AND THE METHOD USED

LECTURE	EXHIBITION	DEMONSTRATION	FILM SHOW	CULTURAL PROGRAMME	MEETING
• Importance of clean environment	• Need for clean environment	• Methods of using low cost devices	• Importance of personal hygiene	• Importance of tree and method of disposing solid wastes.	• Highlighting all factors.
• Role of women in preserving environment	• Preserving household environment		• Role of public in keeping the environment pollution free.		
• Preserving household environment using low cost devices.	• Personal hygiene		• Health hazards of pollution		
	• Health hazards of various pollution.				
	• Models of low cost devices.				

Apart from the above mentioned methods cleanliness of the house, hygiene of children were observed with the help of a score card.(APPENDIX-II)

Lecture:

The lecture is an excellent method for presenting information to a large number of persons in a short period of time. Members of audience listen in terms of their interest and remember in terms of motivation (Reddy, 1987).

Hence lectures were arranged for homemakers on the subject matters like preserving household environment, personal hygiene and importance of environmental protection (Figure 1).

Exhibition:

Exhibition is a systematic display of models, specimens, charts, information and posters in a sequence so as to be significant in teaching or creating interest in the participating members. Exhibition covers three stages arousing interest, creating desire to learn and providing a chance to take a decision. (Esminger, 1952).

Hence an exhibition was put in the village explaining the importance of clean environment, how to preserve household environment and importance of personal hygiene through charts, posters and models (Figure 2).

FIGURE 1

LECTURE ON PERSONAL HYGIENE

FIGURE 2

EXHIBITION

Demonstration:

Demonstration is a simple and effective teaching method. It is a public showing, emphasising the salient points such as merits, utility and efficiency of an article or product. It is a short time demonstration given before a group to show how to do in a better way any old practice or entirely new practice.

Demonstrations were conducted for explaining the working mechanisms of the low cost devices such as solar cooker, smokeless chulah, mud water filter, janatha refrigerator, hay box and hot case and their role in preserving natural resources (Figure 3).

Film Show:

Films are one of the most effective means of arousing interest. Films arouse interest and help to change the attitude of the people. They present facts in an interesting way and help to bring new practices to a village in a short time. Films can reach illiterate as well as literate people. It also creates an awareness among the people in the village (FAO, 1955).

Three films were screened to the public in a common place highlighting the following areas (Figure 4).

FIGURE 3
DEMONSTRATION ON LOW COST DEVICES

FIGURE 4
FILMSHOW

1. Importance of preserving environment
2. Deforestation and soil erosion
3. Importance of hygiene and sanitation.

Cultural Programme:

Villagers have a great fascination for folk songs and dances. So this is a method for conveying information on better ways of living. It adds entertainment to the meetings and can help to break the monotony of the discussions of a serious nature. This attracts a larger village audience. It is a source of entertainment as well as education.

Hence a dance programme and a group song were planned along with the meeting with the help of local school children to attract more audience for the meeting and to motivate the public to participate in environmental programmes. (Figure 5a).

Meeting:

Through the meetings information is passed on for consideration and future action to a large group.

Hence a meeting was organised to stress the need for environmental protection involving various categories of people in the village (Figure 5 b).

FIGURE 5a
DANCE PROGRAMME

FIGURE 5b
MEETING

Competition:

The competitions are effective motivating factors which help to draw the attention of the target group towards our efforts.

Along with the above mentioned methods various competitions like oratorical contest, quiz and drawing were conducted for women, youth and children on the subject matters like - their role in preserving environment and importance of environment.

The prizes were distributed to the winners in the meeting organised to motivate the whole village to protect their environment (Figure 6).

C. Evaluation of Environmental Education:

Evaluation together with plan formulation and implementation form an integrated part of an effective planning process. A timely feedback provided by the evaluation studies helps to introduce necessary corrective changes in the design as well as the implementation of development programmes as given by Singh (1980).

QUIZ COMPETITION - HOMEMAKERS

DRAWING COMPETITION - CHILDREN

FIGURE 6

ORATORICAL COMPETITION - YOUTH

PRIZE DISTRIBUTION FOR THE WINNERS

FIGURE 6

An evaluation proforma was prepared to know the impact of environmental education programmes on rural homemakers who participated in all the programmes.

Results and Discussion

IV RESULT AND DISCUSSION

The findings of the study on Creating 'Environmental Awareness Among Rural Homemakers' are discussed under the following headings:

A. Findings of the Household Survey

B. Outcomes of Environmental Education

A. Findings of the Household Survey:

The findings of the household survey are analysed and discussed as follows:

1. Details on socioeconomic status
2. Facilities available in the selected village
3. Details on existing environmental condition

1. Details on socioeconomic status:

Type of family, age, education, occupation, income and type of house of the selected families are covered under this heading.

a. Type of family:

Disintegration of joint family system into nuclear family system is common even in rural families because of the migration of families from rural to urban in search of better job, for higher education of their children and to enjoy the facilities in the city. It is very clear from the survey that 82 percent of the families belonged to nuclear family.

b. Distribution of members according to age:

The total population of the selected families were 410 with 207 male and 203 female. Table II presents the distribution of members according to age.

TABLE II

DISTRIBUTION OF MEMBERS ACCORDING TO AGE

S.No	Age	Percentage of members			
		Male		Female	
		Number	Per cent	Number	Per cent
1.	0 - 5	11	5	10	5
2.	5 -10	28	14	17	8
3.	10--15	17	8	17	8
4.	15 -20	19	9	26	13
5.	20 -25	22	11	33	17
6.	25 -30	28	14	17	8
7.	30 -35	17	8	17	8
8.	35 -40	10	4	19	9
9.	40 -45	14	7	16	8
10.	45 -50	11	5	10	5
11.	50 and above	30	15	21	11

Around 48 per cent of the sample consisted of children.

The majority (62 per cent) of the homemakers belonged to the age group of 25 - 45 years.

c. Educational status of the homemakers:

Among 100 homemakers 42 members were illiterates and 58 were literates with different levels of education as given in Table III.

TABLE III

EDUCATIONAL STATUS OF THE HOMEMAKERS

S.No.	Level of Education	Percentage of homemakers N = 58
1.	Primary School	33
2.	Middle School	33
3.	High School	26
4.	Higher Secondary	5
5.	College	3

The majority of 66 per cent of homemakers had primary and middle school levels of education. The educational status of the homemakers shows that the changing trend in women's education at rural areas also.

d. Occupational Status of the head of the families:

Table IV shows the occupational status of head of the families of the selected households.

TABLE IV

OCCUPATIONAL STATUS OF THE HEAD OF THE FAMILIES

S.No.	Occupation	Percentage of the Head
1.	Industrial labourer	30
2.	Government employees	29
3.	Coolie	25
4.	Agriculturist	7
5.	Business	4
6.	Self Employment	3
7.	Doctor	2

Among the selected families 30 per cent of the head of the families were industrial labourers. Twenty nine per cent were Government employeesworking in Government hospital, electricity board, schools andeducational institutions. Twenty five were coolies.

Among 100 homemakers selected only 15 per cent were employed ascoolies and industrial labourers.

e. Income of the selected families:

Source and size of income have the greatest impact on the living condition of the people. Table V presents the income range of the selected families per month.

TABLE V

INCOME OF THE SELECTED FAMILIES

S.No.	Income	Percentage of Households
1.	Low income (up to Rs.1500)	88
2.	Middle income (Rs.1500-2500)	8
3.	High income (above Rs.2500)	4

It is clear from the above Table that 88 per cent of the selected families belonged to low income group. Only 4 per cent belonged to high income group. This shows the living condition of the rural people is not yet improved. The income of the families were classified based on the classification given by Housing and Urban Development Corporation (1985).

f. Type of house:

The environmental cleanliness to some extent depend upon the type of house where they live. Sixty three per cent of the families lived in own house. Ninety nine per cent of the houses were tiled house whether it was owned or rented.

2. Facilities available in the selected village:

This reveals the facilities such as water, electricity, medical, recreational and educational facilities in the selected village.

The source of water supply for the village was bore well. The water was supplied by the Panchayat daily through the common taps in each street.

Even though the village got electricity facility only 82 per cent had electricity connection to their individual houses. The economic condition of 18 per cent of the families did not allow them to go for electricity connection.

There were a public health centre and a private clinic in the village. A medical officer visits the public health centre daily.

There was a cinema theatre in the village for recration. There were Mahalir Mandram and youth club in the village.

Only one Panchayat Union primary school was there. For higher studies children were going to nearby town area and to Coimbatore city.

3. Details on existing environment condition:

This is analysed with respect to the following aspects:

1. Waste disposal
2. Latrine facility
3. Cleanliness of children
4. Cleanliness of the exterior
5. Cleanliness of the interior

1. Waste disposal:

Disposal of waste water and garbage is discussed under this heading.

a. Disposal of Waste water:

The following Table VI shows the ways by which the waste water from the households were disposed.

TABLE VI

DISPOSAL OF WASTE WATER

S.No.	Method of disposal	Percentage of Households
1.	Common drainage	58
2.	Stagnant	26
3.	Kitchen garden	9
4.	Soakage pit	5
5.	To the roadside	2

Only 58 per cent of the households had common drainage facility to dispose waste water. The waste water was let out of the house and stagnate around the house in 26 per cent of the households. Only very few used waste water for kitchengarden.

b. Disposal of garbage:

The common waste occured in the most of the houses were vegetable peelings, left over foods, packing materials and rag.

There was no dust bin provided by the panchayat. A majority of 68 per cent of families dumped the solid wastes occured in the home, near the house or on the street corners which were rarely removed by the panchayat. Twenty seven per cent made profit out of waste by having manure pits.

2. Latrine facility:

There was a public latine in the village constructed by the panchayat. Only 11 per cent of the households had individual latrine in their houses. Very few of them (18 per cent) used public latrine. Others were going to the open fields for defaecation.

The reasons for not using public latrine as mentioned by the majority 9(65 per cent) of the members are unhygenic condition of the latrine and lack of water facility.

3. Hygiene of children:

The hygienic condition of children between the age group of 0-10 years was observed. Table VII shows the hygienic condition of the children.

TABLE VII

HYGIENE OF CHILDREN

S.No.	Particulars	Percentage* of children* N = 66
1.	Uncleaned body	86
2.	Uncombed hair	83
3.	Dirty nails	70
4.	Watery nose	61
5.	Unclean teeth	52
6.	Dirty dress	45
7.	Sore eyes	15

*Multiple response

The hygienic condition of children was far from satisfactory. They rarely bathed and washed orchanged their clothes. Watery nose, sore eyes, uncleaned teeth and uncombed hair were a common sight.

4. Cleanliness of the exterior:

The Table VIII shows the sanitary condition of the exterior of the houses.

TABLE VIII

CLEANLINESS OF THE EXTERIOR

S.No.	Particulars	Percentage of Households*
1.	Dumping of garbage	88
2.	Growth of unwanted weeds	76
3.	Stagnation of water	62
4.	Throwing of other wastes	58
5.	Presence of human excreta	54
6.	Breeding of flies and mosquitoes	24
7.	Uncleaned wall	24

*Mulitiple response

The observations of the investigator had an insight intothe insanitary conditions of the sapce around the households. There was indiscriminate throwing of household waste all over the surroundings and thesurroundings were polluted with human excreta. The kitchen waste water as well as the bath water was stagnating around the houses.

5. Cleanliness of the interior:

The sanitary condition of the houses is important to have healthy and happy living. The cleanliness of the interior tells about the quality of living of the people. The Table IX indicated the cleanliness of the interiors of the households.

TABLE IX

CLEANLINESS OF THE INTERIOR

S.No	Particulars	Percentage of Households*
1.	Dirty floors andwalls	80
2.	Haphazard dumping of clothes	62
3.	Faulty arrangement of article	60
4.	Presence of smoke	48
5.	Dusty furniture	36
6.	Presence of cobweb	36
7.	Presence of cracks in the wall	22

* Multiple response

It is clear from the above Table that the houses were not maintained well. The walls and floors were dirty and the articles were arranged haphazardly.

B. Outcomes of the Environmental Education Programme:

The chief objectives of environmental education are that individuals and social groups should acquire awareness and knowledge, develop attitudes and skills and abilities and participate in solving real life problems with the practical bias for developing a healthy environment around.

Hence environmental education was imported through various extension methods such as lecture, meeting, film show, competition, cultural programme and exhibition.

The resultant outcomes of the educational programme was considered as a solid proof for the impact of the education on the inhabitants. The responses for all the programmes were very good. Many women, men, youth and children participated in all the programmes. The same 100 homemakers who surveyed were selected to evaluate the programme by using an evaluation proforma on various aspects.

The sanitary practices prevailed in the village were assessed by using a scorecard. The scores obtained formed the basis for judging the environmental conditions of the households and also helped to compare the scores obtained after the educational programme.

The effect of the environmental education was analysed in relation to the resultantaction and presented in the following headings:

1. Scores obtained by the children for cleanliness
2. Scores awarded for the cleanliness of the households
3. Environmental awareness of the selected homemakers.

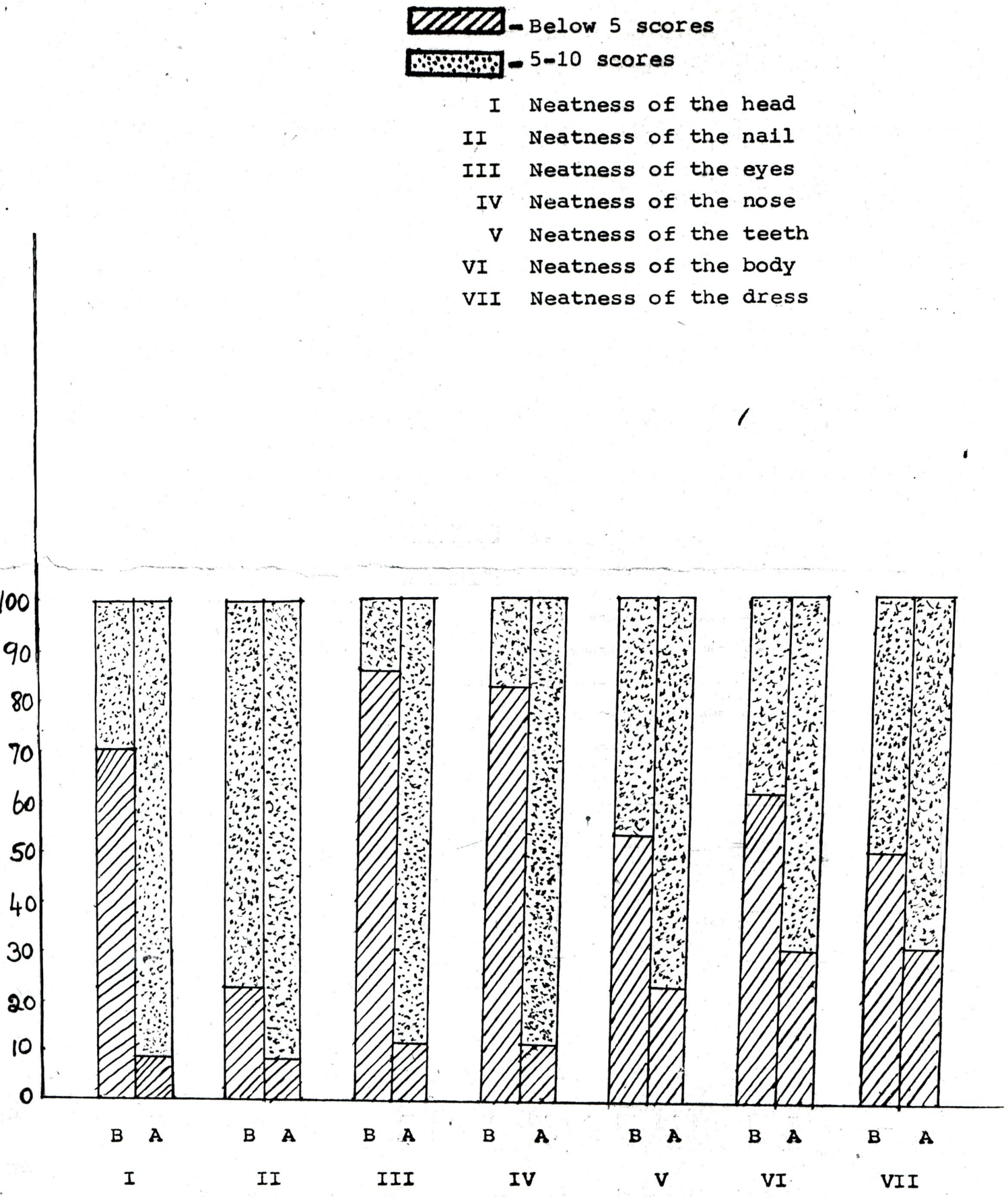
1. Scores obtained by the children for cleanliness;

Table X and Figures 7 and 8 give the scores obtained by the children for their cleanliness before and after the environmental education programme.

TABLE X

CLEANLINESS OF THE CHILDREN

S.No.	Particulars	Percentage of children: Scores obtained by the children			
		Before		After	
		Below 5	5-10	Below 5	5-10
1.	Neatness of the nail	70	30	9	91
2.	Neatness of the eyes	23	77	9	91
3.	Neatness of the body	86	14	11	89
4.	Neatness of the head	83	17	12	88
5.	Neatness of the dress	55	45	24	76
6.	Neatness of the nose	61	39	32	68
7.	Neatness of the teeth	52	48	33	67



CLEANLINESS OF CHILDREN

FIGURE 7

AFTER

BEFORE

FIGURE 8

CLEANLINESS OF CHILDREN BEFORE AND AFTER EDUCATION

The above Table clearly shows that the children have improved considerably with regard to personal cleanliness after the educational programme.

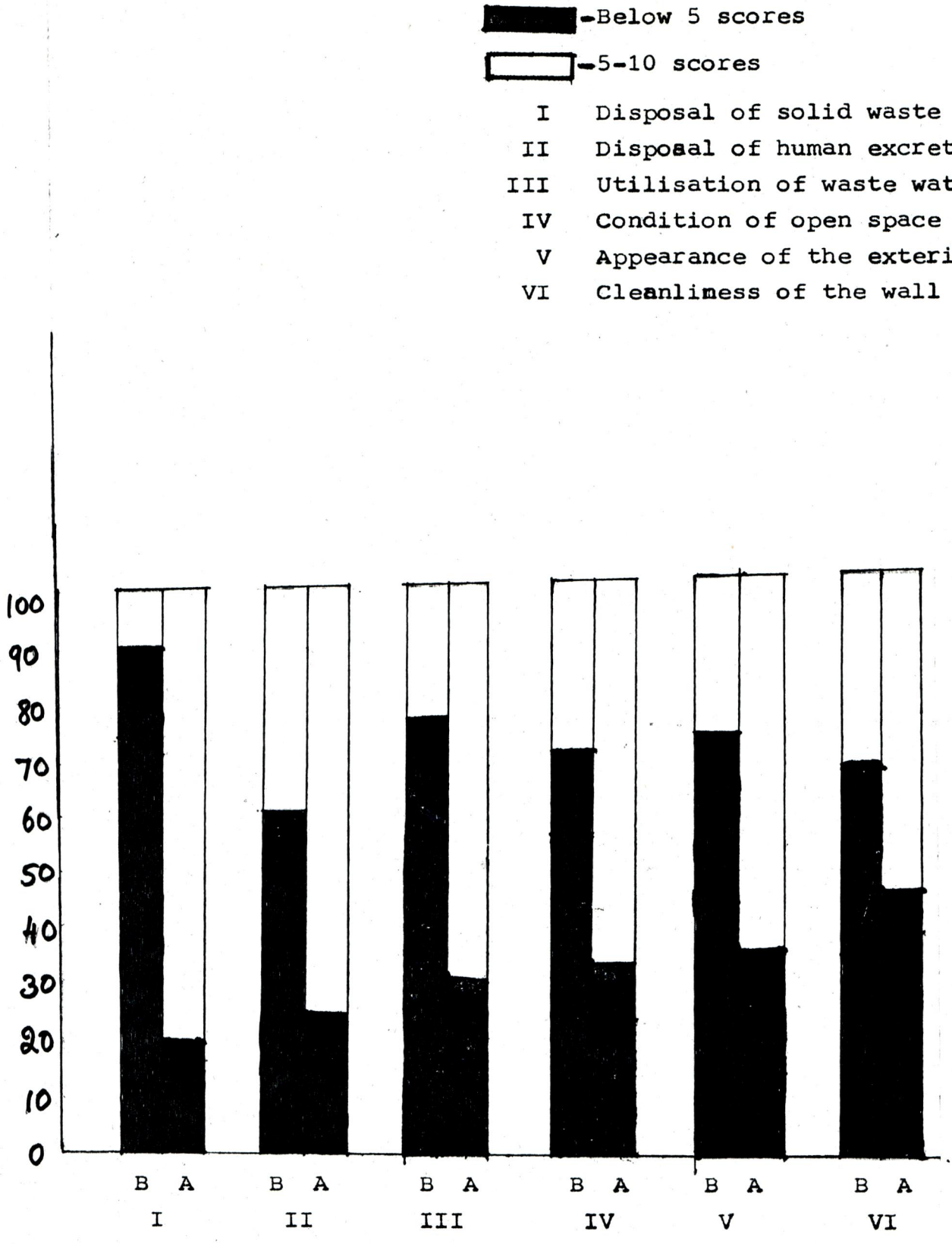
2. Scores awarded for the cleanliness of the households:

The interiors and exteriors of the selected households were observed before and after educational programme. The scores awarded for the cleanliness of exterior are given in Table XI and Figures 9 and 10.

TABLE XI

CLEANLINESS OF THE EXTERIOR

S.No.	Particulars	Percentage of households Score given to the households			
		Before		After	
		Below 5	5-10	Below 5	5-10
1.	Disposal of solid waste	90	10	20	80
2.	Disposal of human excreta	60	40	24	76
3.	Utilisation of waste water	76	24	30	70
4.	Condition of open space	70	30	32	68
5.	Appearance of the exterior	72	28	34	66
6.	Cleanliness of the exterior walls	66	34	44	56



CLEANLINESS OF THE EXTERIOR

FIGURE 9

BEFORE

AFTER

FIGURE 10

CLEANLINESS OF THE EXTERIOR BEFORE AND AFTER EDUCATION

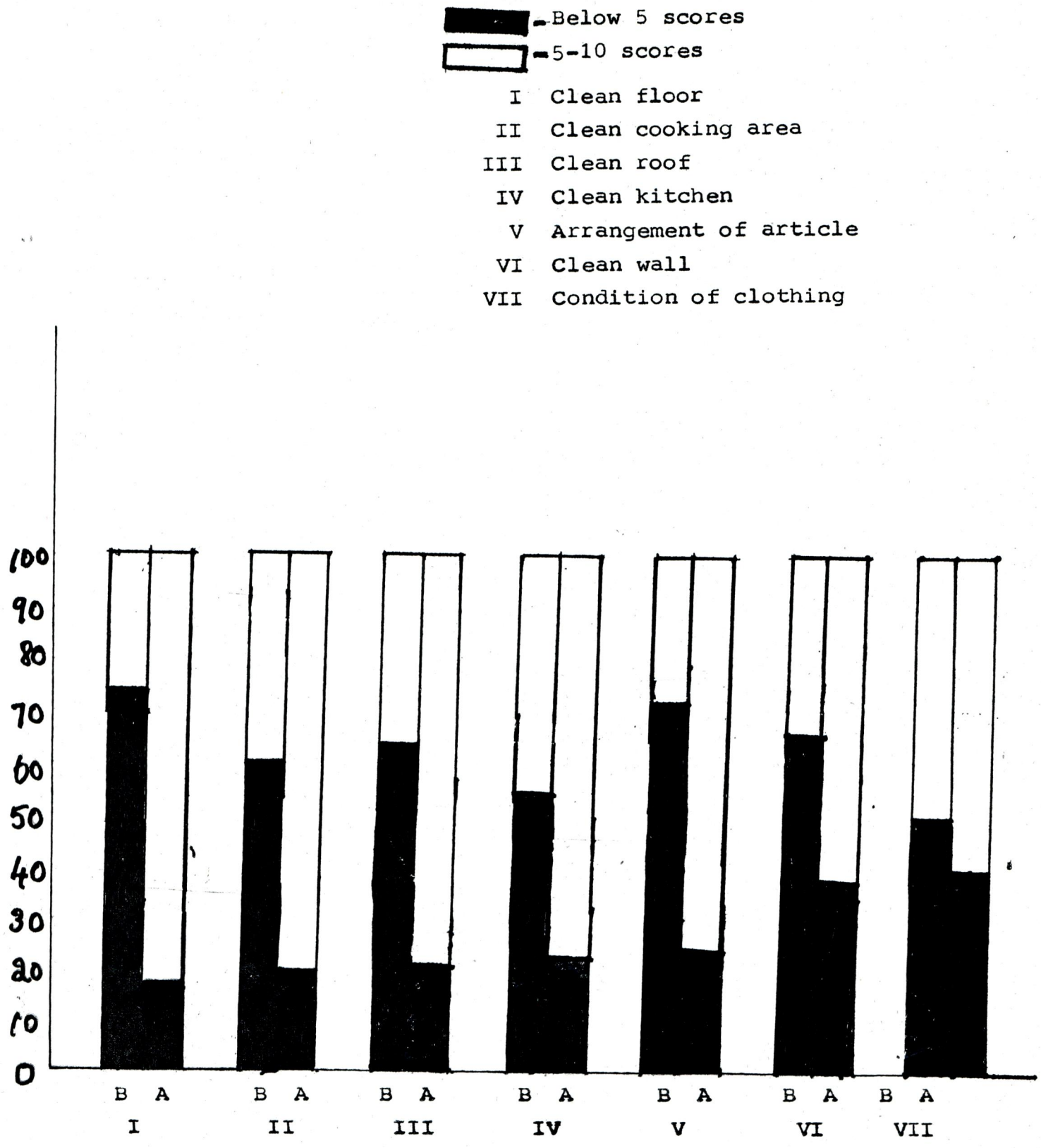
After education more than 70 per cent of the home-makers improved their sanitary condition around the houses. This shows proper method of approach will have definite impact upon people.

Table XII and Figures 11 and 12 show the scores awarded to the cleanliness of the interior of the households before and after educational programme.

TABLE XII

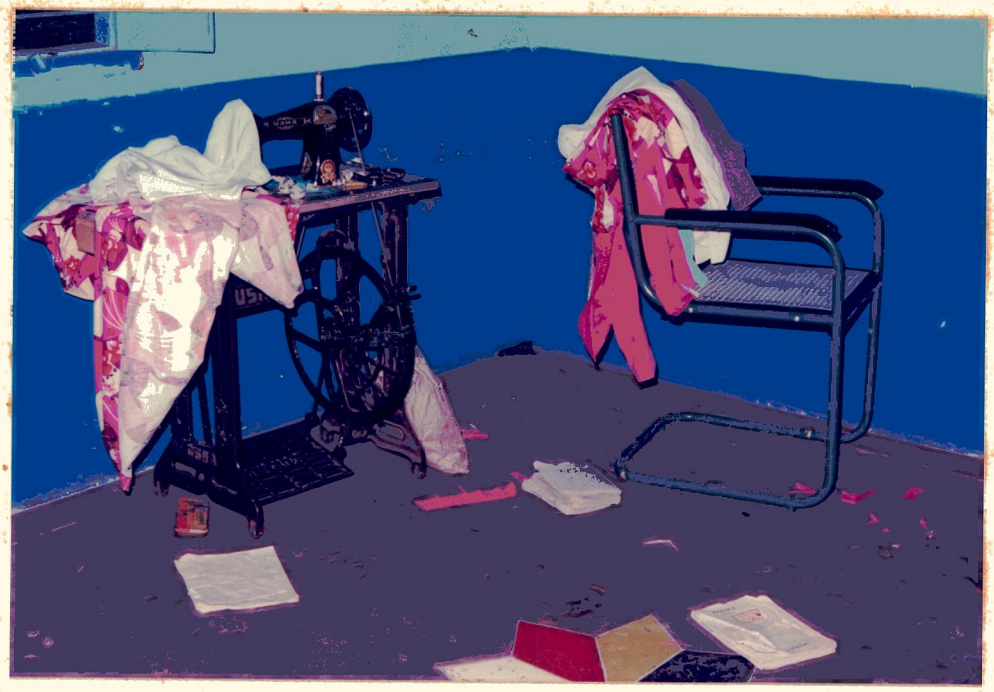
CLEANLINESS OF THE INTERIOR

S.No.	Particulars	Percentage of households Score given to the household			
		Before		After	
		Below 5	5-10	Below 5	5-10
1.	Proper arrangement of cloth	74	26	18	82
2.	Cleanliness of the floor	60	40	20	80
3.	Cleanliness of the kitchen	64	36	20	80
4.	Arrangement of the article	54	46	22	78
5.	Cleanliness of the cooking area	72	28	25	75
6.	Cleanliness of the wall	66	34	38	62
7.	Cleanliness of the roof	50	50	40	60



CLEANLINESS OF THE INTERIOR

FIGURE 11



BEFORE

AFTER

FIGURE 12

CLENLINESS OF THE INTERIOR BEFORE AND AFTER EDUCATION

The scores awarded to the cleanliness of the interior are much better than the scores given to the exteriors because the cleanliness of the exterior depended upon various factorslike wind, hygienic habits of the neighbours and frequency of cleaning of the surroundings by the panchayat.

3. Environmental awareness of the selected homeamkers:

Environmental awareness has to precede any attempt at environmental education. Hence environmental awareness of the selected homemakers wasstudied before giving environmental education and it was compared with the awareness developed by the homemakers after education.

a. Awareness of Environmental pollution:

Only 40 per cent of the homemakers were aware of mainly about water pollution before education. The environmental education programme created an insight on various pollution among selected homemakers.

The homemakers wereaware of only the water pollution and its impact upon health. Now, after education the homemakers improved their knowledge on the effect of various pollutions on human health.

The fact that the living pattern, hygienic practices and sanitary conditions prevailing in and around the houses were affecting the environmental condition and create pollution, was understood by the homemakers after education.

b. Hygienic practices:

Health is an important asset of a community and healthy community is the foundation of strong nation. Health is a statewhere one enjoys healthy body, active and keen minds greater resistance to disease and longer life. The ultimate goal of any family should be the attainment of healthy and happy living.

The importance of health and hygiene was not realised by the villagers. Persoanl hygiene is the basis for socio-economic development because proper health has an impact upon productivity, earning capacity and standard of living. Developing health habits among children is a fundamental factor which improves the state of environmental condition in any place. Hence the hygienic practices imparted by the homemakers in their children were analysed before and after education and presented in Table XIII and Figure 13.

TABLE XIII

HYGIENIC PRACTICES

S.No.	Hygienic practices	Percentage of homemakers	
		Before	After
1.	Drinking boiled water	42	85
2.	Brushing the teeth	25	80
3.	Washing hands before after meals	27	80
4.	Advising not to buy eatables from roadside	38	80
5.	Dressing up neatly	30	76
6.	Combing hair	52	75
7.	Bathing daily	20	75
8.	Avoiding nail biting	32	74
9.	Using latrine	10	20

More than 75 per cent of the homeamkers realised the importance of personal hygiene and the need for developing healthy citizen. After education they started educating their children on better hygienic practices. Because of the nonavailability of proper latrine the habit of using latrine was not given much importance.

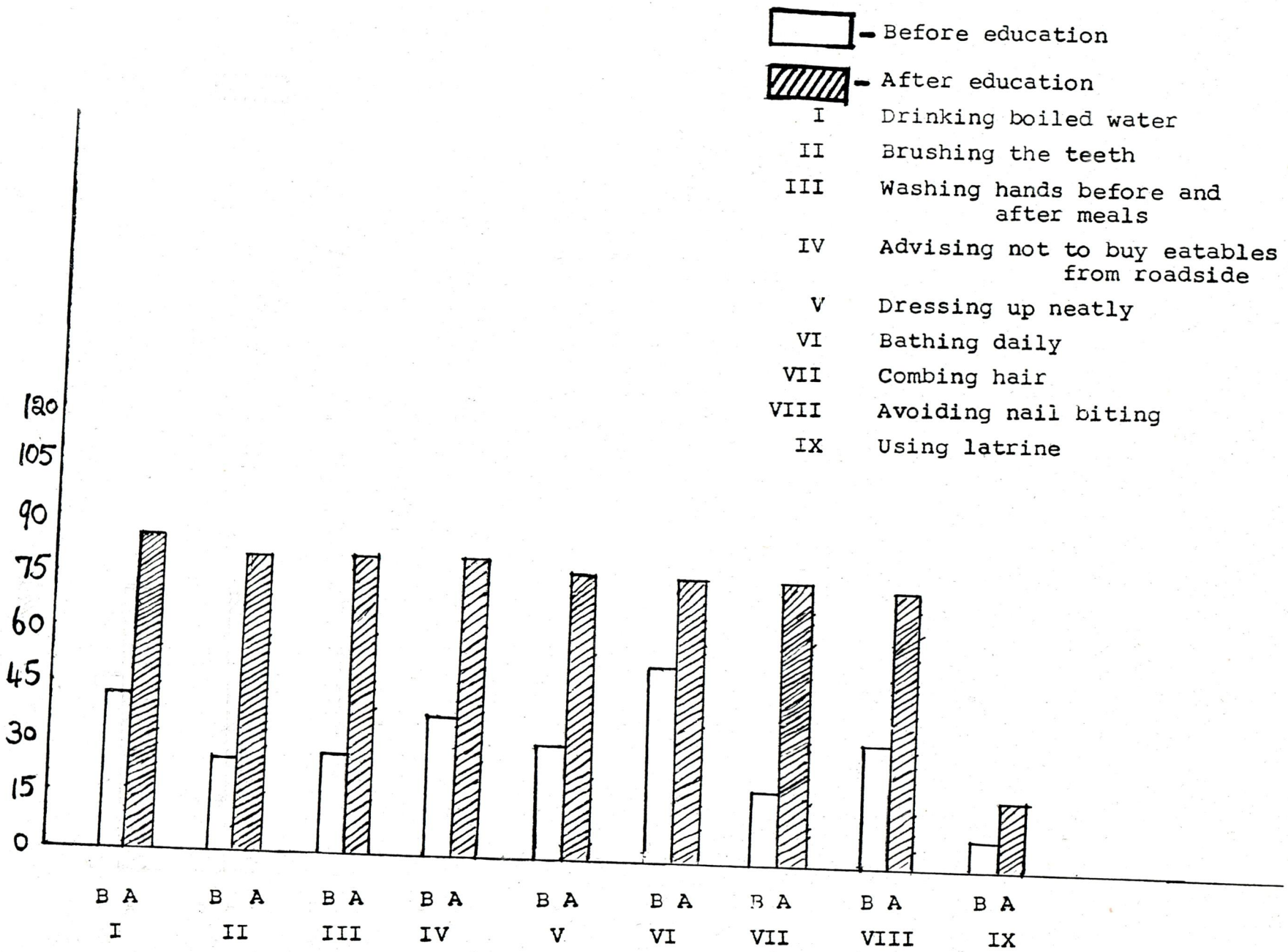

Before education
After education
I Drinking boiled water
II Brushing the teeth
III Washing hands before and after meals
IV Advising not to buy eatables from roadside
V Dressing up neatly
VI Bathing daily
VII Combing hair
VIII Avoiding nail biting
IX Using latrine
120
105
90
75
60
45
30
15
0
B A
I
II
III
IV
V
VI
VII
VIII
IX
HYGIENIC PRACTICES

FIGURE 13

c. Environmental concepts developed:

The various programmes improved the environmental concepts of the homemakers. Table XIV indicates the new concepts of environment learnt by the homemakers after education.

TABLE XIV

ENVIRONMENTAL CONCEPTS DEVELOPED

S.No.	Concepts	Percentage of homemakers
1.	Impact to protect environment on health	91
2.	Proper method of waste disposal	87
3.	Use of low cost devices to protect household environment	85
4.	Importance of sanitary latrine	82
5.	Importance of pure environment for happy living	75
6.	Importance of tree to prevent pollution	70

A majority of homemakers realised the need for pure environment to lead a healthy and happy life. They have learnt proper waste disposal methods, importance of sanitary latrine, and use of low cost devices to preserve household environment from degradation.

d. Satisfaction derived:

The homemakers satisfaction with regard to the environmental education and its outcomes are presented in Table XV

TABLE XV

SATISFACTION WITH REGARD TO THE ENVIRONMENTAL EDUCATION PROGRAMME

S.No.	Satisfaction	Percentage of homemakers*
1.	Helped to protect the environment	86
2.	Understood the importqnce of personal hygiene	84
3.	Understood the importance of environment	80
4.	Enjoyed seeing films	79
5.	Learnt the better method of waste disposal	76
6.	Informative for all age group	75
7.	Gained knowledge on preserving environment	68
8.	Maintained the house and surrounding neat and tidy	66
9.	Learnt to use low cost devices	64

* Multiple response

The above Table clearly indicates that the environmental education programme really had some impact upon people

and the satisfaction derived shows their interest and involvement in the programme.

e. Suggestions for future environmental programmes:

The selected homemakers were receptive to new ideas which had given them real personal satisfaction. They have given suggestions for better programmes in the future as given in Table XVI.

TABLE XVI

SUGGESTIONS FOR FUTURE ENVIRONMENTAL PROGRAMMES

S.No.	Suggestions	Percentage of homemakers*
1.	More involvement of public	88
2.	More films on environment	83
3.	Involvement of panchayat	80
4.	Activities along with voluntary Organisation (Mahalirmandram, Youth club)	76
5.	Frequent programmes	71
6.	Campaign for a week	57
7.	Involvement of different governmental and non governmental agencies	35

* Multiple response

More than 80 per cent of the homemakers suggested that the panchayat and the whole village people must be involved in such programmes and more films should be projected on various environmental factors.

Summary and Conclusion

V SUMMARY AND CONCLUSION

The study on Creating Environmental Awareness Among Rural Home makers included the aspects such as details on socioeconomic status, facilities available in the village, details on existing environmental condition and outcomes of the environmental education programme.

The findings of the study are summarised as follows:

1. A majority of the families were of nuclear type indicating the disintegration of joint family system.
2. More than 50 percent of the homemakers were literates. Only 15 percent of the home-makers were employed as coolies and industrial labourers. A majority of 88 per cent of the families belonged to low income group having the income upto Rs.1500. Sixty-three percent of the families lived in own house with tiled roof.
3. The village had the following facilities. The water was supplied by the panchayat daily through the common tap in each street. Inspite of electricity facility available

only 82 percent had connection to their individual houses. There were a public health centre, private clinic, cinema theatre, mahalir mandram and youth club.

4. The analysis of existing environmental condition revealed that their personal hygiene concept were far from satisfactory. There was indiscriminate pollution of the residential area with household waste, human excreta and stagnant water. The cleanliness of the interior was rather poor. Very few of them used public latrine because of unsanitary condition and lack of water facility. These posed a real threat to the environmental condition of the village.
5. Environmental education was imparted through various extension methods such as lecture, meeting, film show, competition, cultural programme and exhibition enlisting the cooperation from the mahalir mandram, youth club and local leaders.
6. The homemakers were spurred into various activities and aspirations. The imapct of environmental education evaluated by the resultant action programme and acceptance of the improvements by the homemakers. There was a considerable improvement in the personal cleanliness of

the children. The homemakers tried to keep their interior and exerior clean. They learnt proper waste disposal methods. There was a remarkable improvement in their knowledge of environmental concepts. They understood the interaction between personal hygiene, cleanliness of the near environment and environmental degradation.

7. A majority of the homemakers were satisfied with the programmes and suggested some improvements for future such programmes.

The study throws light on the facts that creating environmental awareness is a dire necessity in the rural areas prior to improving their living condition. So the development and welfare programmes designated for rural areas should concentrate on creating environmental awareness among rural people, hence promoting a healthy and happy life. The local organisations like the mahalir mandram, youth club and social workers should be involved in such programmes. If each household improves their sanitary condition in and around the house, will really improve the whole environment within a short time as liveable one and pollution free.

Women are at the heart of economic and social development. They are traditionally responsible for the health and well being of society in their, roles as wives, mothers, managers of the local environment and effective controllers of large sectors of the economy. So women should take up a challenge to pressure healthy domestic environment.

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Appendices

APPENDIX

INTERVIEW SCHEDULE TO ELICIT THE INFORMATION TO ASSESS THE PREVAILING ENVIRONMENTAL CONDITIONS IN SELECTED VILLAGE.

I. A. General Details:

Name of the interviewer :

Name of the head of the family :

Type of the family :

Place :

D.No. :

Address :

B. Family Background :

S.No.	Name	Relationship with the head of the family	Age	Education	Income (A)

II. Housing:

A. Type of the house :

a) Owned :

b) Rented :

B. Total area of the house :

C. Type of the building :

a) Thatched :

b) Tiled :

c) Terraced :

III. Facilities available:

A. WATER:

1) Source of water supply

a) Well :

b) Borewell :

c) Tap water :

2) Type of water

a) Hard water :

b) Soft water :

3) Frequency of water supply

a) Daily :

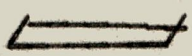
b) Once in 2 days :

c) Weekly :

d) Others specify :

B. ELECTRICITY:

1. Do you have electricity connection?

Yes  No 

If yes, type of connection

a) Individual connection :

b) Connected from the owners House :

If no, type of artifical lighting

2. Is the lighting facility aviaable to you proper?

Yes ☐ No ☐

If no, reasons

C. MEDICAL FACILITY:

1. Do your aware of the medical facility in the village?

Yes ☐ No ☐

If yes, type of medical facility do you have?

a) Primary health centre :

b) Maternity centre :

c) ESI :

d) Any other :

2. Details of the medical facility

Medical facility	Personnel incharge	Frequency of visit of the doctor

D. EDUCATION:

What type of facility do you have for the education of children?

Balwadi

Primary School

Middle School

High School

Higher Secondary School

E. RECREATIONAL FACILITY:

What are the recreational facilities in the village?

1. Theater :
2. Park :
3. Club :
4. Youth recreational centre :
5. Drama :
6. Watching TV :
7. Hearing radio? :

F. DISPOSAL OF THE WASTE:

1. WASTE WATER:

a) How is it disposed?

i) Diverted to kitchen garden
ii) Stagnant near the house
iii) Soakage pit
iv) Leave it as such on the road side
v) Any other specify
vi) Connected with the common drainage

2. Garbage:

a) What type of wastes occurs in the house?

b) How do you dispose the wastes?

S.No.	Disposal of the wastes	Reasons
1.	Put it in the dust bin	
2.	Throwing it out in the street or near the house	
3.	Burning it off	
4.	Manufe pit	

3. Excreta Disposal:

a) What facility do you have for disposing the excreta?

i) Individual latrine

ii) Common latrine

iii) No latrine

b) Type of latrine Individual latrine Common latrine

c) Do all the family members use the latrine?

Yes ☐ No ☐

If No, reasons:

d) Do you have proper water facilities in the latrine?

Yes ☐ No ☐

e) What is the role of panchayat in waste disposel:

Role of Panchayat	Frequency of cleaning			
	Daily	Alternate	Weekly	Monthly

IV A) PERSONAL HYGIENE:

How will you maintain your personal hygiene?

Hygienic practice	Frequency				
	Daily	Alternate Days	Once in 2 days	Weekly	Reason
TAKING BATH					
WASHING CLOTHES					
ARRANGEMENTS OF THE ARTICLES					
KEEPING THE CHULAM CLEANING					
COMBING HAIR					
KEEPING THE INTERIOR OF THE HOUSE CLEAN					
KEEPING THE EXTERIOR OF THE HOUSE CLEAN					

B. Do you inculcate the habit of personal hygiene to your children?

Yes ☐ No ☐

If yes, the type of hygiene habits:

1) Brushing the teeth :

2) Bathing daily :

3) Dressing up neatly :

4) Combing hair :

5) Washing hands before and after meals :

6) Avoiding nail biting :

7) Advising of not to buy ~~day~~ catables from roadsides :

8) Using latrine :

9) Drinking boiled :

10) Other

C. What are the health hazards of unhygienic practices?

V A. Environmental awareness:

1) Are you aware of environmental pollution?

Yes ☐ No ☐

If yes, type of pollution:

a) Air

b) Water

c) Soil

d) Noise

2. CAUSES FOR DIFFERENT POLLUTION:

	Type of Pollution	Causes
1	Air	
2	Water	
3	Soil	
4	Noise	

3. HEALTH HAZARDS OFDIFFERENT POLLUTION:

AIR	WATER	SOIL	NOISE

4. What is your role in keeping your environment neat and clean.

   a. Waste water :

   b. Garbage :

   c. Excreta disposal :

   d. Storm water :

   e. Cleanliness of the house :

      i) Exterior

      ii) Interior

   f. Personal cleanliness

      i) Maintaining hygiene

      ii) Inclucating the habit of hygiene to the children :

5. What do you expect from the panchayat to keep the environment clean?

6. What type of improvement do you need to have clean environment?

7. What type of education do you need to know about the importance of environment?

House wife Children Sanitary workers

SCORE CARD FOR ASSESSING THE CLEANLINESS

(Maximum Score - 10)

Criteria	Scores obtained Before	After
I Cleanliness of Children:		
1. Neatness of the head		
2. Neatness of the nail		
3. Neatness of the eyes		
4. Neatness of the nose		
5. Neatness of the teeth		
6. Neatness of the body		
7. Neatness of the dress		
Total		
II Cleanliness of the exterior:		
1. Disposal of solid waste		
2. Disposal of human excreta		
3. Utilisation of waste water		
4. Condition of open space		
5. Appearance of the exterior		
6. Cleanliness of wall		
Total		

III Cleanliness of the interior:

1. Cleanliness of the floor
2. Cleanliness of the cooking area
3. Cleanliness of the roof
4. Cleanliness of the kitchen
5. Arrangement of articles
6. Cleanliness of the wall
7. Condition of clothing

Total _____