

WOMEN AND ENVIRONMENTAL DEGRADATION

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Abstract

The environment of any organism needs to be free of any hazardous condition or problem. This is never possible because of certain human activities that degrade the environment. This paper looks into various environmental problems; various ways women cause environmental degradation which include among others; agricultural practices, rapid population growth, Deforestation, improper waste disposal. Recommendation made to minimize the environmental problems include -proper treatment of hazardous waste by solidification; reforestation, biodiversity conservation, creating awareness in women of the need for environmental conservation, organizing seminars and workshops for women by the officials of Agricultural extension services through women forum and bringing down the cost of kerosene and cooking gas by the government.

Introduction

Environment means surrounding. According to Macmillan Dictionary of the environment, it is the physical, chemical and biotic conditions surrounding a living organism. Ajiwe (2003), in his lecture note gave broad definition of environment as given in section 1(c) of the Ontario Environmental Assessment Act, 1977 - 1980, 1982, to mean air, land or water, plant and animal life, including man; the social, economic and cultural conditions that influence the life of man or community; any building, structure, machine or other device or thing made by man.

Man being part of the environment has the technology to introduce certain factors into the environment that may better the system. These actions may have environmental impact, which may vary in their intensity and duration. Human activities have mostly resulted in environmental degradation. The rate in which man has caused environmental problems is far reducing the environmental self-capacity to regenerate. These problems according to UNICEF (1997), in Dike (2001), comes in the form of pollution, under-regulated use of herbicides, pesticides and fertilizers, unsanitary conditions in our urban and rural areas, over-exploitation coupled with the limited appreciation of their complex interdependence.

Women are among the initiators of the events result into these environmental problems. Nigeria with a population of over 100 million, women constitute about 50% (Okebukola and Fatubarin, 1999). The percentage of this population of women engaged themselves in practices that enhance environmental degradation e.g. farming practices. This paper therefore, looks into some of the ways women cause environmental degradation and goes further to highlight some solutions and control of women-caused environmental problems.

The concern for the continuous threats to our environment is growing more and more. Some of these threats include among others:

- *Global Warming and Green House Effect:* Global warming is a natural or human induced increase in the average global temperature of the atmosphere near the Earth's surface (Moss and Lins (1989) in Ogun Sola-Bandele (1997). Water vapour and several other gases, including carbon (VI) oxide, methane, and chlorofluorocarbon (CFCs) warm the earth atmosphere because they absorb and re-emit radiation. The trapping or warming is somewhat similar to a green house, which also trap heat; thus the process has been called Green house effect.
- *Ozone Layer Depletion:* Ozone (O₃) is a triatomic form of oxygen, which is also called Ozone shield because it absorbs most of the ultra violet radiation that is damaging to life on Earth. Scientific studies revealed that Ozone layer is depleted by the presence of Chlorofluorocarbon

(CFCs). With the depletion of Ozone layer, life on Earth is exposed to harmful ultra-violet radiation.

- **The Depletion of Fresh Water Supplies:** The root of this problem is the combination of ever-increasing demands made upon water resources due to population growth, in addition to industrial and agricultural development, and the regional distribution of these resources (Stan, 1991), in (Kola-Olusanya, 2000).
- **Loss of Soil Productivity:** Many billion tons of topsoil are continually lost by farmers from their croplands annually. Its consequences are felt in the loss of soil productivity, which in turn creates economic and developmental problem, increased pollution of waterways and atmosphere.
- **Loss of Genetic Diversity/Biodiversity:** Biodiversity expresses the extent of the living natural resource of an area. The loss of Biodiversity is recognized as major threat to the continued existence of many plants and animals. The loss is a problem because once extinct, a species is lost forever which leads to scarcity of bio-resources and denies us of the opportunity of obtaining new species to meet new challenges in Medicine, society and agriculture.
- **Tropical Deforestation and Desertification:** Deforestation is the widespread harvesting, destruction of tropical rainforest. Deforestation is seen contributing to the loss of plants and animals species and soil productivity thereby, causing desertification if continue, leaving the soil bare.
- **Problem of Disposing of Contaminated and Hazardous Materials:** This includes the discharge of hazardous material into the environment such as chlorofluorocarbons (CFCs); the long-term negative side effects of substances such as pesticides, fertilizers, and other chemicals that reside in the ground, water or air.

Ways By Which Women Cause Environmental Degradation

The ways by which women cause environmental degradation are summarized below.

Agricultural Practices

According to the report of rural agricultural survey by Federal Office of statistics in 1984, on farm practice in Nigeria, 48% of all females fully participate in agricultural production. Agricultural practices involve the clearing and burning of the bushes, tilling of the soil and cultivating the land, sowing of seeds and planting of crops, weeding and application of insecticide, pesticide and fertilizers.

Each of the above practices involved has direct effect on the environment and through them, women contribute greatly to environmental problems as discussed below:

- **Clearing the Bush:** In the process-clearing bush, many important medicinal plants are destroyed and other trees felled.
- **Burning the Bush:** Fire through heating the surface of soil, reduce the moisture and the humus content and useful micro-organisms in the soil thereby reducing its fertility. Burning as well as clearing exposes soil to leaching which leads to low fertility. Smoke and dust raised from the practice of burning and clearing cause air pollution.

Agricultural Waste: Women greatly use artificial fertilizer and waste from animal and poultry husbandry for increased productivity of their farm crops. Most of the women do not recognize the instruction given on the use of these fertilizers and over use them. The excess fertilizers, insecticides, pesticides and animals wastes being washed into streams, ponds and rivers, produce ammonia which is toxic to aquatic life and bring their destruction. The use of artificial fertilizers in a right quantity may increase crop yield but of inferior quality that decays and are more susceptible to disease as have been confirmed by some farmers and consumers.

- **Rapid Population Growth:** Majority of women, due to their low status, are restricted to their home environments; heavily tied down and entrusted with the responsibilities of "increasing and multiplying" children. Women contribute a great deal to rapid increase in human population in Nigeria through rapid bearing. Increase in human population growth triggers off agricultural production in order to meet the nutrient needs of increasing population. Increase in agricultural production resulted in population problem due to the use of fertilizers, herbicides and insecticides etc; disposal problem due to more waste generation (both solid and sewage) and consequently

- reduces the availability of land and quality of water body for dumping.
- Another environmental degradation caused by over population is the lost of biodiversity. This is mainly the lost of plants and animals as a result of:
 - Over-Exploitation:* This is due to excessive exploitation of some plant and animal species because of the usefulness of their parts for food; medicine or other industrial uses. - *Destruction of Habitat:* Increase population pressure, completing land uses and increasing demand for food, fibre and wood products, lead to destruction of natural forest and tree crops which effects sources of seeds and many plant species.
 - **Deforestation and Desertification:** This is felling or removing of trees from the forest leaving the soil bare (process of desertification) exposing it to accelerated erosion. Majority of women population use firewood as traditional fuel to substitute kerosene and cooking gas that are at high cost.

Women as a result of fetching firewood for domestic and commercial purposes, fell down so many trees valuable to the natural economy without replacing new ones. Frequency felling of trees leaving the soil bare leads to other environmental problems, which includes: desertification, accelerated soil erosion, declining soil fertility and loss of agricultural land, flooding, siltation of water body. Most importantly, is the lost of biodiversity. Biodiversity refers to the wealth of the living world, the variety of life-forms found on the planet, and the millions of plants and animals. Biodiversity loss will lead to disappearance of wild life. Increase cutting down of forest implies a loss of many valuable species of plants (edible and medicinal plants) and animals. Most of Nigerians indigenous plant species have because they could only thrive in the forests that have been left long untouched are fast disappearing with frequent cutting down of forest. Examples of such plants are *hongoronema latifolium* (utazi), *Genetum, bucholziamin* (afang), etc (Ogunyemi, 1993 in Nzewi, 1999).

Desertification: This is the spreading of desert feature into an area. Rapid population growth is the major cause of desertification. This reduces land available to individuals and leads to over-intensive utilization (like deforestation, over-grazing, devegetation), which leads to the deterioration of land, erosion and low productivity (Ivowi, 1999).

- **Improper Waste Disposal**
Wastes include solid, liquid and gaseous wastes. Women contribute to excess accumulation of domestic and municipal solid wastes from household activities and commercial activities. These include biodegradable materials such as food waste, garden trimming, vegetable and leaf wrappers.

Sometimes, these are deliberately dumped along the roads where the bad odours contribute to air pollution. Other kitchen waste like paper bags, rubber, leather, and plastic containers are burnt and smoke release into atmosphere contribute to air pollution. Non-biodegradable wastes such as bottles, empty cans, glass etc are dumped on the soils and into aquatic habitats. This pollute ground water supplies and some serve as breeding ground for mosquitoes, flies and cockroaches (disease causing organisms), Hazardous wastes may pollute soil, air, surface water or underground water, affect the life of people who live on it, plants that put roots into it and animals that move over it.

- **Increasing the Presence of Chlorofluorocarbon (CFCs) in the Stratosphere**
Everyday products such as hair spray, deodorants, insecticides and others that carry CFCs are highly used by women as hair and body spray. In this way CFCs would be released into stratosphere increasing the present level of CFCs, the compound known, causing ozone layer depletion.

Control Measures to Minimize Women-Caused Environmental Problems

Having discussed very many environmental problems contributed by women through their activities, which adversely affect life, the following control measures to minimize them are discussed below:

1. Hazardous wastes may be less hazardous by physical, chemical or biological treatment e.g. solidification of wastes by melting them and mixing them with binder which hardens the mix into an impenetrable mass. This method is better than incineration which solid left over may be disposed as

- hazardous waste.
2. Adoption of traditional method of farming and practice of shifting cultivation and crop rotation: Traditional method of mix cropping which is a close representation of the natural ecosystem and implies the substitution of required domesticated plant species for the wild ones destroyed during the process of clearance should avoid being dominated by monocropping which result in soil nutrient deficiency and as a result attract fertilizer application. Practice of shifting cultivation and crop rotation conserve biodiversity.
 3. Desertification can be arrested through reforestation i.e. to replace felled trees, discouraging bush burning to maintain land vegetation cover, afforestation to install wind-breaks, planting of zerophytes or plant resistant species in desert areas, establishment of a soil conservation programme (like land sand-dure fixation).
 4. Biodiversity conservative training: This involves a wide range of activities, and behaviours including protection of plant and animals species from reckless exploitation, sustaining food production without damage to the soil, raising and maintaining the level of cleanliness of the environment.
 5. Creating awareness in women of the need for environmental conservation: Environmental education is the key in any successful conservation programme where women will be made their interest. Some of the most popular approaches in Nigeria are the mass and environmental projects. The Radio and TV are made to flash warnings on the consequences of environmental problems before or after important events such as National news. Posters may be displayed to depict some aspect of general abuse on the environment. More details about environmental problems and their care are published in Newspapers, newsletters, magazines and booklets.
 6. Officials of Agricultural extension services should help to visit and deliver talks through women forum, even in August meetings and other gatherings on the methods, use and effect of some agricultural practices.
1. Government should cut down the prize of kerosene and cooking gas to the reach of any class of women, thus, to minimize relying on firewood as alternative source of energy.

Conclusion

The Nigerian environment is continuously being degraded as a result of certain human activities. Women are among the initiators of the events that result into these environmental problems, which are mostly due to their ignorance of the need for environmental conservation and functions of biodiversity. This and other factors contribute to the women attitude that lead to over-exploitation of natural resources without adequate replacement, and over-grazing. The paper discussed various control measures which include among others; the creation of awareness in women of environmental conservation and functions of biodiversity, government to cut down the prizes of kerosene and cooking gas to minimize total dependent on firewood as alternative source of energy, and replacing felled trees to maintain land vegetation cover. If the measures given are recognized and applied, they will help the women to avoid over exploitation of natural resources and other activities that degrade our environment.

References

- Ajiwe, G. I. (2003). Definition of Environment, in Section 1(c) of the Ontario Environmental Assessment Act 1977-1980, 1982.
- Dike, N. (2001). *Towards Enhancing Environmental Education For Nigerian Women: The Role of Women in Science Technology and Mathematics*. 42nd Annual Conference Proceedings of Science Teachers' Association of Nigeria, pp. 272 - 275.
- Ivowi, U. M. O. (1999). Environmental Education. Approaches to Desertification and Biodiversity Conservation. *Science Teachers Association of Nigeria Environmental Education Series 3*, p.6.
- Kola-Olu Sanya, A. (2000). *Toward Sustainable Development: Reinventing Education for enriching Environment Knowledge and Consciousness*. 41st Annual Conference Proceedings of Science Teachers

Association of Nigeria pp. 191 - 195.

Nzewi, U. M. (1999). *Updating content knowledge: Hardfacts about Biodiversity*. Association of Nigeria Environmental Education Series 3, pp. 30 - 39.

Ogun Sola-Bandele, M. F. (1997). *Strategies for Teaching Global Warming, Green House Effect and Ozone Layer Depletion*. Science Teachers' Association of Nigeria Environmental Education Series 1, pp. 8-18.

Okebukola, P. A. and Fatubarin, A. (1999). The Concept of Biodiversity. *Science Teachers Association of Nigeria Environmental Education Series 3*, pp. 13 - 17.