

Perspective on diversity and  
Sustainable Developm

Edited by  
Taj Uddin Khan  
Anup Dey

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ASSAM COLLEGE TEACHERS'  
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**PERSPECTIVE ON BIODIVERSITY  
AND  
SUSTAINABLE DEVELOPMENT**

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We are very thankful to Assam College Teachers' Association, H.O. Guwahati, Assam for publishing this book with patience, care and interest. We are confident that the book will be widely accepted by the Undergraduate and Post Graduate students, teachers, scientists and researchers in the field of Natural Sciences, Economics, Arts, Humanities, Social Sciences and Environmental Sciences. The present book, we do hope, will help the contributors for shaping their career and will add another feather in the cap of honour of the ACTA

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Taj Uddin Khan  
Anup Dey

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10. International tourist circuit can be identified and a specific programme may by an integrated effort of the neighboring countries

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## Sustainable Development and Women

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*In today's world when pollution is attacking the human life everywhere, the term sustainable development is very useful. Sustainable development assures us about the fulfilment of present needs without hampering the future generations. Women are closely associated with environmental development and protection. Worldwide movements were started by women to protect environment. Mention may be made of Green Belt Movement, Chipco movement etc. In this article the role of women in sustainable development is discussed elaborately.*

The term "sustainable development" occupies an important place in environmental protection. It also assures the quality of gender for environmental conservation and free from pollution. Women both literate and illiterate are closely associated with environmental development and conservation. Women bear child nourish them and try to protect themselves from all kind of problems in life. Without women it is not possible. They are always the proctor of bio-diversity. In spite of a number of difficulties faced by the women they are very much active to protect the environment from pollution. It may be consciously or unconsciously, for their daily need.

To protect a healthy environment world-wide organization and movement have been started by women. For example the Green Belt Movement of Kenya. This movement was launched in Kenya in 1977 by Kenya's environmental activist Wangari Maathai (1940-

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2011) who achieved the Nobel Prize in 2004 for her work in the field of sustainable development. The aim of this movement was to develop relation between women and natural resources in the grass root level. A number of indigenous trees were planted by women under this movement. This Green Belt movement created much enthusiasm among the people. 6,000 villages came under the fold of this movement. It prevents desertification, restores soil and protects water from pollution. About 20 million trees were planted by the 50,000 women members of this movement.

Another important movement for protection of environment which started in India is Chipco Movement. It was mainly a forest conservation movement in India in 1973. Sundarlal Bahuguna a prominent environmentalist of Garhwal launched this movement. But the idea of this Chipco Movement was of his wife. Here people embraced trees to save it from jungle cutter. Many female activists played very important role in this movement. Garia Devi, Suresha Devi, Bachni Devi were most prominent among them.

In 1974 the word Eco-feminism is coined by the French feminist Francoise d'Eaubonne. It is a recent concept which opines that environmentalism is a feminist issue and feminism is also partly an environmental issue. The prominent ecofeminist thinker of India is Vandana Shiva. Eco-feminism throw light on the positive role of women in sustainable development. It cannot be denied that women are very closely connected with environment. Participation of women to protect renewal resources like plantation, fishery development etc. play a very important role in a society as conservation of renewable resources is very much necessary for human life. In developing areas women are mostly engaged in agriculture. They work hard along with male workers and produce food grains. Women produce upto 80% in Africa, 60% in Asia, 30-40% in Latin America. From seed collection to conservation in all these works women do hard labour.

Though in urban areas women are not closely related with

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environment but in rural areas they have a deep relation with nature. As they are to prepare food for their family, they collect water, fuel, vegetables, food grains and other requirements. They go to jungle, collect firewood not by cutting trees but by accumulating dry parts of trees or plants in the jungle. As they women are working in fields connected with environment they learn more about nature, productivity of soil, water, trees etc. That is why many common women are closely related with various environmental movements. As the women are very much conscious about the economic condition of their own family as well as society, they have a special sympathy for nature and do work for sustainable development and protection of biodiversity. Not only in forest and field, but also in villages' women rare animals and birds, which also help very much in sustainable development. Women of this subcontinent especially of India are very much advanced in protecting and recreating natural products. They love nature. Here mention may be made of Medha Patkar, the leader of "Narmada Bachao Andolan" and Maneka Gandhi, prominent environmentalist and the Central Government minister, in this respect.

Women are closely associated with culture and rituals of their own society. In every society there are some rituals which are related with environment. In our society we perform various worship and rituals which indicate the protection of environment. For example woman of Hindu religion worship Devi Lakshmi in home and in doing so they need leaf of mango tree, flowers, tulsi leaves etc. So these trees should be planted and protected. In Hindu societies fasting for different pujas are performed in which various trees are worshiped by women. No doubt it is a clear indication of protection of environment.

But it is unfortunate that the efforts and contributions of women do not get proper recognition in a family, in a society or in a country. Women always have to fight for the establishment of their work. It

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is difficult for a woman to work in a society maintaining her home. But yet women are working for the betterment of family, society as well as the country. Besides lacking of proper education many women do not know how to use agrochemicals, prevent water pollution, fishery management, control erosion of soil etc. The Government, NGO's, and the society can take responsibility in this respect. By organising proper training course, workshop etc. this problem can be solved in a great extent. If there are proper education, security, support and sympathy women can contribute a lot in bio-diversity, and sustainable development which may save our environment from pollution.

Today, the world has been suffering from pollution, scarcity of food, various diseases etc. No medicine is sufficient to protect the health of human beings. In this situation nature can be helpful to provide some relief and remedy to man and that is why the sustainable development is very much necessary. Women with the help of society can do a lot to protect the world from pollution and supply food to the mouth of the starved.

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## Latest Development of Molecular Markers for the Analysis of Genetic Diversity

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#### Introduction

Genetic diversity refers to any variation in nucleotides, genes, whole genomes of organisms. Genetic diversity could be evaluated among different organisms within same species (intraspecific), among species (interspecific) and between genus and families. The genetic diversity serves as a way for organisms to adapt to environmental variation and stress [1, 2]. Genetic diversity within and between species and populations is the basis of evolutionary change. Widespread genetic diversity has been observed in natural populations since its early discovery in different biomolecules (enzymes, proteins, polysaccharides DNA and RNA). Many studies explained genetic diversity in nature, however, the origin, nature, function, and maintenance of genetic diversity in nature remains controversial. The basic question regarding genetic diversity is, how much of diversity present in nature at both the coding and noncoding genomic level, and how much degrees of mutations taking place in populations and their nature (adaptive or non--adaptive or deleterious. Molecular markers are the most powerful tools for genetic diversity analysis. Currently, various types of molecular markers are in use to increase the understanding of genetic diversity in various taxa across phylogeny, and to summarize the potential prospects of genetic diversity [3].

Molecular markers are detected on the basis of variation at the