



Biodiversity Conservation and Sustainable Development: India's Heritage Contribution

Vinay Kumar Singh

Department of Botany, K.S. Saket P.G. College, Ayodhya

Corresponding author: vk Singh77saket@gmail.com

ABSTRACT

Biodiversity, the variety of life on earth, is vital to social and economic development, and is indeed fundamental to our survival. Over the years, retrospective wisdom and the development experiences have guided us in favor of the commonsensical understanding that protecting the variety of life forms and their infinitely complex interactions; form the very basis for long-lasting and inclusive development. In other words, environment, or more specifically biodiversity and its invaluable and often irreplaceable ecosystem services, from the air we breathe to the water we drink, are the very foundation on which viable long –term development rests.

INTRODUCTION

The challenge before India to imbibe and translate the theme of 'Biodiversity for Sustainable Development' is imperative in the light of our privileged status as a megabiodiverse country, past and projected demographic transitions and commitment to democracy as a political principle. These three facets make it non-negotiable that we galvanize the political will, scientific and technological know-how and financial resources to contribute to the agenda set out in the outcome document from the Rio+20 Conference, 'the future we want'.

Nature has generously endowed our country. With only 2.4% of the world's land area, India has 7-8% of the recorded species of the world, with over 46,000 species of plants and 91,000 species of animals. India is also an acknowledged centre of crop diversity, and harbors many wild and domesticated animals, fish and millions of microbes and insects. The ecosystem diversity is also unparalleled. These are the strengths to draw upon to meet the goals of ending poverty and hunger; achieving food security and improved nutrition and promoting sustainable agriculture; ensuring healthy lives and promoting well-being for all at all ages; ensuring availability and sustainability and sustainable management of water and sanitation for all and in making cities and human settlements inclusive, safe, resilient and sustainable. Promoting multiple varieties of staple food grains; switching to cropping patterns, wider

seed and plant variety choices, water conservation and utilization patterns, and farming practices that combine the best of traditional wisdom and science with a whole system perspective; valuing the therapeutic properties and medicinal uses of various parts of plants and animals; all form key aspects of the way ahead.

Biodiversity Conservation in Ancient Period:

The culture of conservation of nature dates back to the ancient Vedic period. The four Vedic i.e. Rig-Veda, Samaveda, Yajurveda and Atharvaveda are full of hymns which explicitly advocate the supremacy of different natural power. The Rigvedic hymns refer to many gods and goddesses that is just the personification of natural entities like sun god, moon god, thunder, water god, rivers as mother, rain, lightening, trees etc. They have been glorified and worshipped as givers of health, wealth and prosperity. The rain god Indra has the largest number of hymns associated to him. Sun worship is vital importance in Vedic worship. Today it has been confirmed that solar energy is the ultimate source of energy that regulates the flow of energy through water chain, food chain and drives various other nutrient cycles and in this way establish a control over the earth ecosystem, but it was well understood and realized by the ancient Indians. Ancient Indian civilization also shows the importance of nature and in this regard several principles were developed and practiced in ancient india which is very much similar to

Rio principles. The Vedic, Jain, Buddhist, and Kautilya's Arthashastra established the principles of sustainability centuries ago. For example, the first principle of Rio Earth Summit implies that human being should be the centre of sustainable development but it should always be in concurrence with nature.

Our saints and rishis also give due respect to nature which can be seen in their prayer that "maintain us in well being in summer, winter, dew time, spring, autumn, and rainy season. Grant us happiness in cattle and children. May we enjoy your protection!" The Prithvisukta especially advocate man's close association with ecology and nature. The fourth principle of Rio earth summit asserts that environmental protection should be an essential part of development. Several Vedic hymns explicitly guide man not to harm water, vegetation and ecology. The seventh Rio principle advice that the earth ecology should be conserved preserved and restore.

Biodiversity Conservation in Indian Religions and Culture:

Religious preaching's, traditions and customs played a prominent role in this reference. All Indian religions are the great supporter and promoter of environmentalism. They promote such guidelines and principles among common people that ensured an intimate contact and sense of belonging with nature. It comes up in the form of directive principles and orders to the followers of religion, to perform certain rites and rituals that became a part of their life and ensure environmental sustainability.

Ravindra Nath Tagore in his essay Tapovan, 'Forest of Purity' elucidate that "Indian civilization has been directive in locating its source of regeneration, material and intellectual, in the forest, not in the city. India's best ideas have come where man was in communion with trees and rivers and lakes, away from the crowds. The peace of the forest has helped the intellectual evolution of man. The culture of the forest has fuelled the culture of Indian society. The culture that has arisen from the forest has been influenced by the diverse processes of renewal of life, which are always at play in the forest, varying from species to species, from season to season, in sight and sound and smell. The unifying principle of life diversity, of democracy pluralism, thus became the principle of Indian civilization."

Socio-economic Significance of Biodiversity Conservation:

In India earth is honored as the mother. According Atharvaveda, earth is to be respected and protected like a mother "bhoomimataoutrohamprithvivyah". In many parts of India, communities have inherited the rich

tradition of love and reverence for nature through the ages. Communities that are inclusive and resilient are also the only ones that will be safe in the long run. The income-poor in India and the world over face the negative fallouts of depleting and degraded natural resources in disproportionate measure to those who are responsible for such depletion and degradation. Sustainable development rests on a viable and sound natural resource base. Science has revealed much of the importance of biodiversity, but an economic and social assessment is needed to communicate the fact that biodiversity loss also has an economic and social impact. Considerable costs will be faced in the protection or replacement of ecosystem services, so policy decisions are required if these costs are to be avoided. These decisions need to be guided by both an understanding of the value of biodiversity to current economic and social systems, and an appreciation of what the costs of inaction could be. Such a valuation does not imply that nature is all good. From a human perspective, many species have a negative impact on our utility, namely agricultural pests or bacterial disease. Taking a wider perspective, however, these pests and diseases are kept in check by a functioning ecosystem. Indeed, many species which may be better known as pests also play a critical positive part in this functioning of the ecosystem through interdependence and evolutionary adaptation.

National Efforts to Conserve Biodiversity:

National governments are vital to the preservation of biodiversity through the passing of laws requiring protection of species and habitats. If national laws do not protect species, then there is little hope of preserving them. However, it is not enough just to have laws; there must also be the will and the resources to enforce them. Even in economically developed nations, the necessary resources to properly enforce laws are not always made available. In under-developed nations, even the most basic resources for enforcement may be lacking. In addition, national laws may not in the end translate into local action, in which case they do not accomplish much. In democratic nations, national laws are also driven to large extent by the public opinion. They may in some cases be drafted more as a response to emotion than by actual scientific need.

India is the first country in the world to have made provisions for the protection and conservation of environment in its constitution. On 5th June, 1972, environment was first discussed as an item of an international agenda in the U.N. Conference on Human Development in Stockholm and there after 5th June is celebrated all over the world as the world environment day. Soon after the Stockholm conference our country took sustentative legislative steps for environmental

protection. The Wildlife (protection) Act was passed on 1972, followed by the Water (prevention and control of pollution) Act, 1974, the Forest (conservation) Act, 1980, Air (prevention and control of pollution) Act 1981, and subsequently the Environment (protection) Act, 1986.

International Efforts to Conserve Biodiversity:

Species and ecosystems are seldom neatly confined within national boundaries. Many species roam across countless national borders and the oceans are owned by none. Trade in endangered species is international and pollution produced on one side of the world may wind up affecting regions on the other side of the globe. Biodiversity conservation is this international problem requiring international solutions.

Several international conventions exist for the preservation of biodiversity. These include such conventions as the Ramsar Convention (1976) which provides for the conservation of internationally important wetlands and the Bern convention (1979) which requires the protection of endangered and vulnerable species of flora and fauna in Europe and their habitats. There are many others. Signatory nations to these conventions must ratify national laws to ensure compliance with the conventions. The role of international conservation organizations is a vital one, particularly in terms of brokering international agreements between governments concerned with protecting their nation's interests. The most far-reaching agreement on biodiversity in recent years is the convention on biodiversity, signed by 156 nations at the United Nations Conference on Environment and Development (the earth summit) in Rio 1992. Many others have signed since, as they ratify the convention, governments accept responsibility for safeguarding biodiversity in their nations. Many international conservation organizations including WRI (World Resources Institute) and IUCN (the World Conservation Union) contributed to the documents signed at the convention.

The 2015 United Nations Climate Change Conference, COP21 or CMP11 was held in Paris, France, from 30 November to 12 December 2015. It was the 21st yearly session of the Conference of the Parties (COP) to the 1992 United Nations Framework Convention on Climate

Change (UNFCCC) and the 11th session of the meeting of the parties to the 1997 Kyoto protocol. The conference negotiated the Paris Agreement, a global agreement on the reduction of climate change, the text of which represented a consensus of the representatives of the 196 parties attending it. The agreement will become legally binding if joined by at least 55 countries which together represent at least 55% of global greenhouse emissions. Such parties signed the agreement in New York between 22 April 2016 and 21 April 2017, and also adopt it within their legal systems (through ratification, acceptance, approval, or accession). The Paris scorecard is compromised by countries which put the protection of their immediate national interests ahead of a sustainable planet and a common future.

Conclusion:

The future we want thus depends heavily on the restorative and ameliorative action that we engage with, in relation to our wealth in biodiversity today. This challenge can only be met with broad stakeholder participation. From the right knowledge, to the right resources and the right spirit of working together for the common good, may this article help us draw synergies and the strengths across sectors to achieve the vision of Biodiversity for Sustainable Development.

Let us work together for conserving biodiversity to ensure the future we want for us and our coming generations. For, we have borrowed this earth from our children, and not inherited it from our ancestors.

REFERENCES:

- www.scrib.com/24708420/global-Sustainability-fromVedas. accessed online on december, 2019.
- http://www.iop.or.jp/1020/yamamoto_kuwahara.pdf accessed online on december, 2019.
- <http://en.wikipedia.org/wiki/sustainability>. accessed online on december, 2019.
- Borenstein, Seth 2015: earth is wilder, warmer place since last climate deal made.
- Sutter, John D. : Berlinger, Joshua (2015) Final Draft of Climate Deal in Paris.

