

6. Major Challenges of Sustainable Development Today: The Need for a Comprehensive Global Environmental Policy

Ms Shreyasi Ghosh

Basanti Devi College, Kolkata, West-Bengal, India
ORCID ID: <https://orcid.org/0000-0001-7492-0852>

Abstract:

Sustainable development emerged as a concept in the early sixties when the ruthless industrialization in the developed countries started showing visible signs of natural degradation and problems of pollution and ill health. Sustainable development became a wholesome word after the Brundtland Commission Report of 1987 (World Commission on Environment and Development, & Brundtland, G. H., 1987). It has three fundamental principles of inter-generational equity and justice, intra-generational equity and justice and that of the respect for the carrying capacity of the land. Since the definition given by the report fails to define the processes underlying the complexities and contradictions within which international decisions are taken, the industrialized and the less-industrialized countries have defined the term to suit their own requirements. However, there is a basic value inherent in this concept which everyone agrees to and that is the respect for human needs only in relation to the environmental capability to support the largest number of people to the longest possible time frame. However, only within the last decade have these activities focused more directly on pollution prevention and is suffering major challenges thereby there is a need for a comprehensive global environmental policy. Despite the substantial efforts that are now aimed at improving source reduction as well as tailoring processes to separate, recycle and reuse by-products, still, there is a need to seriously act on the need for survival.

Keywords:

Sustainable, Environment, Survival, Biodiversity, Development

**Vol. 7 No. 1 and 2 (2019): Environmental Policy: Issues and Prospects at the Global Level
SOCRATES SPECIAL ISSUE ON ENVIRONMENTAL POLICY**

ISSN 2347-6869(E) and ISSN 2347-2146(P)

Major Challenges of Sustainable Development Today, by Shreyasi Ghosh, Page No. 62-79

DOI: 10.5958/2347-6869.2019.00008.6

DOS: 2019-08-13 DOP: 2020-01-29

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Major Challenges of Sustainable Development Today: The Need for a Comprehensive Global Environmental Policy

Introduction

The concept of sustainable development has been taken from the Brundtland Commission on Environment and Development, 1987 (World Commission on Environment and Development, & Brundtland, G. H., 1987). It is a concept which deals with the development that meets the need of the present without compromising the ability of future generations to meet their own needs. Sustainable Development is also concerned with improving the well being of people, like raising living standards, improving education, health, equality of opportunity. The meeting the needs of poor in this generation is also an essential aspect of sustainability. The concept of sustainable development also emphasizes on environmental conservation. The basing the developmental and environmental policies on a comparison of benefits and costs and on careful macro-economic analysis will strengthen environmental protection and sustainable levels of welfare.

There are five major processes which threaten Sustainable Development:

- i. The tremendous increase in population
- ii. Deterioration of land quality and accumulation of wastes
- iii. Pollution of oceans and rivers
- iv. Depletion of biodiversity
- v. Changes that we have brought about in the chemistry of the atmosphere.

Due to all these problems, there is a rapid deterioration of natural resources and also the level of pollution is rising. Thus, there is an essential requirement for sustainable development. In order to fulfil his desires, man exploits the environmental factors to a greater extent, by which the

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environment loses its natural capacity for self-stabilization. The impact of man's various activities that are detrimental to the environment are:

- i. Increase in population density.
- ii. Rapid urbanization
- iii. Massive industrial growth
- iv. Inadequate food and
- v. Depletion of resources.

To meet the increasing demands of time, human beings deliberately exploit the natural environment to improve their quality of life. Unknowingly, different environmental activities such as the construction of roads dams, airports, buildings, irrigation projects, power plants and industries have some negative repercussions on the environment in which man lives. Thus, the developmental activities are unsustainable for the global ecosystem. But we cannot stop these activities. For the development of the nation, these activities are essential. Industrial growth is directly related to the nation's economy. Construction of major and minor irrigation projects and development of new power plants must not be frozen.

Hence at the present context, when a man has reached the twenty-first century, nobody would want for technological stagnation. On the other hand, excessive exploitation of the environment through these technological implications leads to disaster. Hence, there is the problem of one word "pollution." So what is needed is the environmental management and sustainable development.

"Sustainable development is implied to regulate the demands of man in such a manner that the ability of the same environment to sustain his development will remain un-repaired," — is the version of Bindu N. Lohani. Hence much emphasis is given on environmental management and sustainable development. "It is as a discipline by itself is growing rapidly and no way it proposes to halt economic growth and to stop technical development; rather it aims at achieving that sustainable rate of economic growth which is necessary to meet man's material needs whilst conserving scarce

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natural resources and protecting both the external and the internal environments,” says Dr Uma Shankar, senior faculty member of Management Development Institute, New Delhi. Hence, sustainable development and environmental management are essential for improving both the quality of the environment and the quality of human life. For that source, areas are identified to give utmost priorities. These are:

- i. Population stabilization.
- ii. Protection of forest areas and revitalization.
- iii. Conservation of biodiversity.
- iv. Control of pollution in water and air.
- v. Development of non-polluting renewable energy sources.
- vi. Recycle of wastes and residues.
- vii. Environmental education and public awareness.
- viii. Implementation of environmental protection laws.

Hence conservation for sustainable development and environmental management should be given priority at the present context. We should follow what our former President Mr R. Venkataraman has told:

The sustainable development and management perspectives should aim to:

- i. Preserve what needs to be conserved;
- ii. Protect what needs to be protected;
- iii. Regulate exploitation to acceptable limits and
- iv. Assess the absorptive capacity of the environment to take adverse impacts.

Problems of sustainable development are rooted in issues of resource use and their pattern of distribution and ownership. Thus a policy towards sustainable development cannot be framed in isolation to politics and state regulations. The world community is confronted by a chicken and egg controversy; economic problems aggravate resources crisis and environmental despoliation and this leads to constrained economic revival due to which nations find it more difficult to solve problems of

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unsustainable use of the environment. In a world where progress depends on a complex set of national and international economic ties, any step towards sustainable patterns of growth involves as yet unresolved problems and challenges. In the 1970s the debate on development was safely mortised between the issue of environment and development. This decade saw a major revision in the thought of development itself and that has presented a major challenge to the conventional consensus on economic development. New expressions such as 'sustainable development' have added a new dimension to development debates. The problem today is not primarily one of absolute physical shortage but of economic and social mal-distribution and misuse.' Thus United Nations Environment Programme (UNEP) 1975 explains 'environmental management implies sustainable development'. Since then the challenge as expressed in the Brundtland Report also as 'the process of economic development (which) must be more soundly based on the stock of capital that sustains it.'

Issues of sustainable development

Issues of sustainable development have become centre stage to economic debates and are now setting the pattern of economic growth and world trade. The conventional agenda of the transnational businesses are found to be inadequate for sustainable development programmes of developing and transitional countries and international institutions are required to implement inter and intra-generational equity and justice in trade pacts. The challenge of changing lifestyles and mode of production would require a technological change towards a just order. Economic growth cannot be translated into economic well being until the distribution of costs and benefits of both financial and natural resources in economic policies is accounted for. It has been found that the costs of development are generally borne by the poor and subsistence community but the benefits are always falling into the pockets of the rich.

This is also translated into international relations where the poor countries over-extract their resources to meet the requirements of the international market under the pressure of debt and amortization payments leaving them with no choice but to abuse their environmental resources in an

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unsustainable manner. Thus the primary requirement of sustainable economic prosperity in the world is to make the international economic system more equitable and just so that the developing countries can access it more vibrantly. It would also need a firm action towards debt servicing so that the poor countries may come out of the debt trap and participate in the world economic recovery programmes. The success of sustainable development is dependent upon the capacity development of developing countries and environmental management. The main purpose of this programme would be to establish better management practices for both the human and the natural resources through innovations in technology, social policies, political and cultural paradigms.

Mankind faces an enormous challenge. The pattern of development which humanity has been following, the greedy ways of modern society have resulted in massive degeneration of natural resources and pollution of the environment which threaten to destroy the vital life support system on our planet. It is not that the entire humanity has prospered by the exploitation of resources. Two-third of the world's population still lives in shabby hutments, in want, in misery and unhygienic conditions. In order to improve a lot of world's poor under-developed citizens, on one hand, we have to accelerate economic development which alone can build up our capacity to protect the environment. On the other hand, this development should be conservation linked development or sustainable development.

Basic Objectives of Environmental Management

No one can argue against the desirability of sustainable development, a development which provides for the legitimate needs of the present generation without compromising the ability of future generations to meet their own needs. The basic objectives of management of all types of environmental problems should, therefore, be:

- i. To provide for the legitimate needs of all people of the present generation and to bring them to a reasonable standard of life.

- ii. To manage economic development in such a way as to enhance and widen our resource base so that the ability of our future generations, which is likely to be more numerous than we are, to meet their own needs is not compromised.
- iii. To protect and preserve the environmental quality for the present and future generations of mankind.

No doubt these objectives are not easy to attain. It shall require all of the man's skill, ingenuity, efforts and above all his willingness to share resources, means and products of development.

There has been an increasing awareness in recent years that protection of the environment is necessary to sustain in the economic and social progress of a country. This awareness was reflected at the Earth Summit in Rio de Janeiro in June 1992, where more than a 100 heads of government adopted a global action plan called Agenda 21 aimed at integrating environmental imperatives with developmental aspirations and reiterated through the U.N. General Assembly Special Session on Environment held in 1997.

The Indian Government's Policy towards Environment is guided by the principles of Agenda 21. The Government of India has issued Policy Statements on:

- i. Forestry
- ii. Abatement of Pollution
- iii. National Conservation Strategy
- iv. Environment and Development

The main environmental problems in India relate to air and water pollution, degradation of common property resources, the threat to biological diversity, solid waste disposal and sanitation. Increasing deforestation, industrialization, urbanization, transportation and input-intensive agriculture are some of the other major causes of environmental problems faced by the country.

Air Quality

Air pollution, a severe environmental problem in urban areas, can cause chronic and acute respiratory diseases, ventilatory malfunction, heart disease, cancer of lungs and even death. The

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blood lead levels of persons in Ahmedabad, Bombay and Calcutta have been reported to be higher than the corresponding levels of persons in lead-free gasoline areas. In most of the cities, while the SPM levels are significantly higher than the CPCB Standards, the levels of SO₂ and NO₂ are within the CPCB Standards.

Water Resources and Water Quality

In India, three sources of water pollution are domestic sewage, industrial elements and run-off from agriculture. The most significant environmental problem and the threat to public health in both rural and urban India is inadequate access to clean drinking water and sanitation facilities. The diseases commonly caused by contaminated water are diarrhoea, trachoma, intestinal worms, hepatitis etc. Many of the rivers and lakes are contaminated from industrial effluents and agricultural run-off, with toxic chemicals and heavy metals which are hard to remove from drinking water with standard' purification facilities.

Solid Wastes and Hazardous Chemicals

There has been a significant increase in the generation of domestic, urban and industrial wastes in the last few decades, owing to rapid population growth and industrialization. The per capita solid waste generated in Mumbai is 0.20 ton, in Delhi, it is 0.44 tones and 0.29 tones in Chennai.

Land Degradation and Soil Loss

Soil erosion is the most serious cause of land degradation. Estimates show that around 130 million hectares of land (45 per cent of total geographical area) is affected by serious soil erosion through ravine and gully, cultivated wastelands, water-logging, shifting cultivation etc. It is also estimated that India loses about 5310 million tones of soil annually. The accumulation of salts and alkalinity affect the productivity of agricultural lands in arid and semi-arid regions, which are under irrigation. The magnitude of water logging in irrigated command has recently been estimated at 2.46 million hectare. Besides, 3.4 million hectares suffer from surface water stagnation. Fertilizers and pesticides are important inputs for increasing agricultural production. Their use has increased significantly

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from the mid-60s. Over and unbalanced use of these chemicals is fraught with danger. However, fertilizers and pesticide use are concentrated in certain areas and crops.

Forest, Wild-Life and Bio-Diversity

Forests are important for maintaining ecological balance and preserving the life-supporting system of the earth. They are essential for food production, health and other aspects of human survival and sustainable development. Indian forests constitute 2 per cent of the world's forest area but are forced to support 12 per cent of the world's human population and 14 per cent of the world's livestock population. This is sufficient to indicate the tremendous biotic pressure they face. Forests in India have been shrinking for several decades owing to the pressure of population on land for competing uses, such as agriculture, irrigation & power projects, industry, roads etc. Another concern relating to the state of forest resources is that of biodiversity and extinction of species. India has a rich heritage of species and genetic strains of flora and fauna. Out of the total eighteen-bio-diversity hot-spots in the world, India has 2, one is North-East Himalayas and the other is the Western Ghats. At present, India is home to several animal species that are threatened, including over 77 mammals, 22 reptiles and 55 birds and one amphibian species. For in-situ conservation of bio-diversity, India has developed a network of protected areas including national parks, sanctuaries and biosphere reserves. Environment problems and issues received special attention of the Government of India during the beginning of the Fourth Five Year Plan. As a follow-up step, a National Committee of Environment Planning and Co-ordination (NCEPC) were set up in 1972 under the Department of Science and Technology. A separate Empowered Committee was set up in 1980 for reviewing the existing legislative measures and administrative machinery for ensuring environmental protection and for recommending ways to strengthen them. On the recommendations of this Empowered Committee, a separate Department of Environment was set up in 1980, which was subsequently upgraded to a full-fledged Ministry of Environment and Forests in 1985 to serve as the focal point in the administrative structure of the Government of India for the planning, promotion and coordination of environmental and forestry programmes.

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Flora and Fauna

The Botanical Survey of India (BSI) was established in 1980, with its headquarters in Calcutta, is responsible for surveying and identifying plant resources of the country. The Zoological Survey of India (ZSI) was established in 1916, with its headquarters in Calcutta, is responsible for carrying out surveys of the faunal resources of India. The Forest Survey of India (FSI) was established in 1981, with its headquarters in Dehradun, is entrusted with the task of surveying the forest resources of India.

Wetland, Mangroves and Coral Reefs

The system of conservation and management of mangroves was initiated in 1986. The main activities under the programme are survey and identification of problems, protection and, conservation measures like natural regeneration, afforestation, nursery development, education, and awareness programmes and research on various aspects of mangrove ecosystems and coral reef. It is an ongoing activity. Review meetings for both research projects and management action plans are periodically held to monitor the progress. Four coral reefs have been identified for intensive conservation and management. These include Gulf of Kutch, Gulf of Mannar, Andaman and Nicobar Islands and Lakshadweep. The scheme on conservation and management of the wetland was initiated in 1987. India is one of the few countries which have Forest Policy since 1894, which was revised in 1952 and then in 1988. The main plank of the Forest Policy of 1988 is protection, conservation and development of forests. In order to operationalize the National Forest Policy 1988, a National Forestry Action Programme (NFAP) is being prepared. Under the provisions of the Forest (Conservation) Act, 1980, prior approval of the Central Government is required for the diversion of forest lands for non-forest purposes. Joint Forest Management (JFM) is being practised in 21 states of the country. To help in controlling forest fire, UNDP-assisted Modern Forest Fire Control Projects which was started in 1984 in Chandrapur (Maharashtra) and Haldwani/Nainital (U.P), is in operation in 11 states of the country. At present, the protected area network comprises 84 national parks and

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447 sanctuaries covering 4.5 per cent of the total geographical area of the country. The Wildlife (Protection) Act, 1972 adopted by all states except Jammu and Kashmir (which has its own Act), governs wildlife conservation and protection of endangered species. An Inter-State Committee has been set up to review the Wildlife (Protection) Act, 1972 and other laws. India is a signatory to the Convention on International Trade in Endangered Species of Wild Flora and Fauna (CITES). Under Project Tiger, launched in April 1973, 25 Tiger Reserves have been set up in 14 states. The Animal Welfare Board of India, established in 1962 under the provisions of the Prevention of Cruelty to Animals Act, 1960 is an autonomous organization of the Ministry of Environment and Forests working for the cause of animal welfare in the country. Animal Welfare Fortnight is celebrated from 14 January every year.

Environment

A notification issued in January 1994 makes Environment Impact Assessment statutory for 29 categories of developmental projects under various sections such as industrial, mining, irrigation, power etc. The Environment Impact Assessment (EIA) Notification was amended in 1997. Authorities under Environment Protection Act, 1976- A National Environmental Appellate Authority has been constituted to hear appeals with respect to rejection of proposals from an environmental angle. The policy statement on Abatement of Pollution, adopted in 1992, provides instruments in the form of legislation and regulation, fiscal incentives, voluntary agreements, educational programmes and information campaigns to prevent and control pollution of water, air and land. The Central Pollution Control Board (CPCB) is the national apex body for assessment, monitoring and control of water and air pollution. The Ministry of Environment and Forests is the nodal agency for the management and control of hazardous substances which include Hazardous chemicals, waste and micro-organisms. The following rules have been notified under the Environment Protection Act (1986): (i) Manufacture, Storage and Import of Hazardous Chemicals, 1989; (ii) Hazardous Wastes (Management and Handling) Rules, 1989; (iii) Manufacture, Use, Import and Export and Storage of Hazardous Micro-organisms/Genetically Engineered Organisms 4xr Cell, 1989 and (iv) Biomedical

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Waste Rules, 1998. A Crisis Alert System had been established. The sub-scheme entitled 'Industrial Pocket-wise Hazard Analysis' has been in operation since the Eighth Five years Plan.

India is a signatory to the UNEP sponsored Convention on Control of Transboundary Movement of Hazardous Wastes which was adopted at Basel, Switzerland by 126 governments of the world in 1989. The Central Ganga Authority (CGA) established in 1985, lays down the policies for works to be taken up under the Ganga Action Plan (GAP). With the approval of the National River Conservation Plan (NRCP) in 1995, the CGA has been reconstituted as the National River Conservation Authority (NRCA) and the Ganga Project Directorate has been redesigned as National River Conservation Directorate (NRCD). The Ganga Action Plan, Phase II has been merged with the NRCP through a government resolution. The National Wasteland Development Board (NWDP) established in May 1985 was bifurcated into a new Department of Waste Land Development and a National Afforestation and Eco-Development Board (NAEB) in 1992. An Environment Information System (ENVIS) was set up by the Ministry of Environment and Forest in 1982 as a decentralized information network for collection, storage, retrieval and dissemination of environmental information. A new scheme, Paryavaran Vahini, was launched in 1992-93 to create environmental awareness and to ensure active public participation by involving the local people in activities relating to environmental protection. Paryavaran Vahinis are proposed to be constituted in 194 selected districts all over the country which have a high incidence of pollution and density of tribal and forest population. The National Museum of Natural History (NMNH) was set up in New Delhi in 1978, is concerned with the promotion of non-formal education in the area of environment and conservation.

Fellowships and Awards

- i. **Indira Gandhi Paryavan Puraskar:** Started in 1987; consists of 1 lakh rupee, a silver trophy and a citation.
- ii. **Indira Priyadarshini Vriksamitra Award:** Constituted in 1986 but started giving in 1993; 12 awards; each award carries a medallion, a citation and a cash of Rs. 50,000.

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- iii. **Mahavriksha Puraskar:** Started in 1993-94 by NAEB; award consists of Rs. 25,000, a plaque and a citation.
- iv. **Rajiv Gandhi Environment Award for Clean Technology:** Started in 1993.
- v. **Paryavaran Evam Van Mantralaya Vishist Vaigyanik Puruskar:** Instituted in 1992-93; 2 awards; award of Rs. 20,000 each.
- vi. **Pitambar Pant National Environment Fellowship Award:** Started in 1978 to encourage research in environmental science.

Five-Year Plan and Environment

Environment protection requires both preventive and curative measures. The strategy for environmental protection in the Five Year Plan- relies much on initiative and interventions through policies and programmes of different sectors, notably, Health and Family Welfare, Transport, Rural Development, Energy, Agriculture, Fertilizers and Chemical etc. In pursuance of the suggestions made by the Honourable Supreme Court of India for a separate Plan allocation for environmental protection of Taj Mahal in the context of a Civil Writ Petition in September 1996. the Central Government has made an allocation of Rs. 300 crore during the Five Year Plan on a 50:50 matching basis with the state government to cover the estimated cost of Rs. 600 crore to implement various schemes relating to the uninterrupted power supply to the industrial units of Agra, construction of Gokul and Agra barrage and improvement of drainage and sanitation in Agra city, all in the context of environment protection of Taj. It has been decided to provide Rs. 50 crore during 1997- 98 from the Budget of the Ministry of Environment and Forests for the aforesaid purpose. The Plan proposes the preparation of statistical data base and reports on the status and the trends in environmental quality with reference to air, water, soil and noise and depicting them on Atlas. It is also proposed to prepare a Zoning Atlas for industries in states. The Plan envisages regeneration of wasteland to release pressures on the forest and standardization of the definition of wastelands, assessment of their

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magnitude and their development by a re-orientation of the policy of 'open access' to 'common property resources'.

Way-out- India wants to give full respect to the agreed-upon principles and ideas that have been accepted by member states in recent times. It is important for the country that the principle of common but differentiated responsibility be accepted in its entirety and it does not wish to renegotiate the Rio+20 consensuses. However, ideological support notwithstanding, the huge gap opening up in India between the number of natural resources that the country uses and the amount that it possesses is alarming. This mounting natural capital gap was reported by the Global Footprint Network even as India is struggling to deal with the global financial crisis.

India now demands the bio-capacity of 'two India's' to provide for its consumption and absorb its wastes, according to a report released by Global Footprint Network and the Confederation of Indian Industry (CII). India's ecological footprint, based on the amount of productive land and sea area required to produce the resources to meet its consumption demand and absorb waste, has doubled since 1961, according to the report. Today, the country's total demand for bio-capacity is exceeded only by the United States and China. "India is depleting its ecological assets in support of its current economic boom and the growth of its population," says Jamshyd N Godrej, erstwhile Chairman of the CII Sohrabji Godrej Green Business Centre. "This suggests that business and government intervention is needed to reverse this risky trend, and ensure a sustainable future in which India remains economically competitive and its people may live satisfying lives." While India as a whole demands a significant per cent of the world's bio-capacity, its per-capita ecological footprint, at 0.8 global hectares, is smaller than that of many other countries, and well below the world average of 2.2 global hectares. Indeed, the ecological footprint of many Indians may need to increase to allow for sufficient food, shelter, electricity, sanitation, medicine and material goods. The United Nations estimates that India's population will reach 1.7 billion by 2050. In that case, the country is likely to face a widening ecological deficit even if its current per-capita levels of resource-consumption remain the same.

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Therefore, for Indian society to continue to prosper in an increasingly resource-constrained world, business and government leaders must work actively to protect the natural capital on which India's economy, and all human life, depends. In national and international debates on SDGs, the interests and livelihood of the poor and tribal people, which depend largely on access to common resources such as forests, water bodies and grazing lands, are woefully neglected. The commons, on which these sections depend often for their very survival, cannot be allowed to fall prey to pollution and the pursuit of unregulated private profit. India has to first put its own house in order before it can lead the developing world and the BRIC block with conviction in SDG dialogues and other negotiations. The biggest 'challenge' for Sustainable Development is the 'dilemma' of developing nations who seek a faster economic growth for the elimination of poverty, hunger, inequality, unemployment and social injustice without impacting the global environment further.

The dilemma of sustainable development lies in the challenges for economic growth and development that are directly linked to the immense risk of climate change. The challenges for development are multiple and complex. The global economy is changing; it will experience a structural transformation in the next 10-15 years. It is likely to grow by more than half by then. One billion people globally are targeted to be released from extreme poverty. More people will migrate to live in cities. Technology advancements will continue to impact business and lifestyles. Further, it is estimated that approximately US\$90 trillion will be invested by 2030 in infrastructure in the world's urban, land use and energy systems. It means, therefore, the mother earth has to bear the burdens of huge consumption of its natural and mineral reserves to meet the increasing demands for food, energy, and water. On current trends, we need 1.6 planet earth now and would need twice the size by 2030 to meet our consumption demands of resources; warming could exceed 4°C by the end of the century, with extreme and potentially irreversible impacts due to an exponential rise in Co2 emission. Every action initiated now and in the next 15 years will, therefore, determine the future of the world's climate system. We stand today at a crossroad. While the developed nations are

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ISSN 2347-6869(E) and ISSN 2347-2146(P)

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DOI: 10.5958/2347-6869.2019.00008.6

DOS: 2019-08-13 DOP: 2020-01-29

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responsible for this situation, developing nations have been left to act responsibly and find solutions to come out of this dilemma of sustainable development. India, as the fastest growing economy, is undergoing this dilemma of sustainable development too. India's immediate priority is to provide livelihoods and employment to its population besides creating sustainable economic opportunities at both- micro & macro – levels to keep its promises to take the GDP growth of the country to an ambitious double-digit target of 10 per cent. India has to provide houses to millions, ensure food & nutritional security, and make health services accessible & affordable. For sustainable inclusive growth, jobs have to be created. In order to tackle its developmental challenges, and to push the economic growth further, India, apart from conventional development programs, plans to set up smart cities, construction of roads, railways, and other large infrastructure projects. Under 'Make in India' mission, it lays emphasis on the manufacturing sector which will help create jobs. But, all these actions put together will increase India's cumulative as well as per capita Co2 emission rate which will potentially weaken India's global position on responses to climate change.

The current political dispensation in India has shown the 'will' and accordingly decided to go on the path of growth without compromising its commitment to global action on climate change. As a result, despite several challenges, India has proactively ratified the Paris Agreement on Climate Action. India's Nationally Determined Contribution (NDC) targets to lower the emissions intensity of GDP by 33%-35% by 2030 below 2005 levels, to increase the share of non-fossil based power generation capacity to 40 per cent of installed electric power capacity by 2030, and to create an additional (cumulative) carbon sink of 2.5-3 GtCO₂e through additional forest and tree cover by 2030. The Prime Minister's appeal for doing business on the tenet of "Zero Effect & Zero Defect" is the evidence for dealing with the dilemma of sustainable development. This is where corporate India has to showcase business innovations – technology or commercial – to pursue the profit which is inclusive and green, and promote low carbon economy. Business, as usual, will not help us to get the future we

Vol. 7 No. 1 and 2 (2019): Environmental Policy: Issues and Prospects at the Global Level
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want. It is therefore critical for companies to change the ‘purpose of doing business’ which expects them to make profits with a greater social and environmental responsibility than ever before.

Conclusion

Sustainable Development is, therefore, a historic opportunity for the world communities to deliver inclusive growth, eliminate poverty and reduce the risk of climate change by changing perspectives and approaches to economic development. It entails everyone to participate in making efforts to achieve sustainable development. So, while well-thought-out policies will make growth and climate objectives mutually reinforcing in the short and long term, businesses will be required to make investments in the drive to the low carbon economy. And, we as individuals also have to grow into responsible consumers by committing to a changed lifestyle. If we do not act now, we will be delayed to reverse the impact. It is, therefore, critical that we approach pollution prevention on a comprehensive scale, including the commitment to both programmatic and technological improvements. Increasing efficiency or process yield and reducing waste production has long been a practice of the manufacturing industry. However, only within the last decade have these activities focused more directly on pollution prevention. Substantial efforts are now aimed at improving source reduction as well as tailoring processes to separate, recycle and reuse by-products. All these are proven pollution prevention tools.

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Cite this article:

APA:

Ghosh, S. (2020). Major Challenges of Sustainable Development Today: The Need for a Comprehensive Global Environmental Policy. *SOCRATES*, 7(1 and 2), 62-79. Retrieved from <https://www.socratesjournal.com/index.php/SOCRATES/article/view/388>

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