

CHAPTER- III

ENVIRONMENTAL ETHICS, SUSTAINABLE DEVELOPMENT AND FUTURE GENERATIONS: SOME OBSERVATIONS

It is a fact that due to the increasing and unintended result of human's economic activity and rapid population growth, twenty first century saw an unprecedented environmental change. This change involves exhaustion of natural resources and extensive pollution like air, water, soil and sound pollution. These changes have an unprecedented impact on climate, life-sustaining systems in our planet. These changes also undermine the conditions that are necessary for economic activity to continue⁴⁴. Thus, economic activity of human beings in the present is considered to be unsustainable. One may say though economic growth resulted into environmental degradation but this does not follow that to abandon growth will be a remedy for unsustainability. Rather zero growth will lead to global war, in the form of environmental degradations and hazards.

Environmental ethics is one of the most important modern environmental conservation and sustainable development tools. It is also a global issue to its implications in development. But some people in the underdeveloped and developed countries are not aware of its importance. Considering the necessity of environmental ethics, it is very easy for all of us to carry out our duties and responsibilities properly that may lead to sustainable development which we could hope for a healthy environment for our future generations. Environmental ethics is interlinked with sustainable environment and development as a whole. It teaches us to be healthy and reciprocal to global environment and development. This virtue is basically based on international humanitarian law, international human rights, and international environmental law under public international law. Modern societies including the United Nations Organization (UNO) and its specialized agencies, International Union for Conservation of Nature (IUCN) and other national and regional organizations, etc., have been playing significant role in the process of implementing environmental ethics for our society in order to attain sustainable development. The compliance with the

⁴⁴ Holland, A. *Sustainability: A Companion to Environmental Philosophy* edit. Jamieson, D. Blackwell Publishing Company: USA 2001 p. 391.

existing laws and policies along with environmental ethics are also crucial for our existence. It deals with environmental rights, moral education, traditional knowledge and environmental conservation issues, which are very important for sustainable development.

3.1: Sustainable Development:

The World Commission for Environment and Development defined Sustainable Development as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs”.⁴⁵ This principle and definition of sustainable development can be compared with J.S. Mill’s Principle of Liberty, where Mill says that the pursuit of liberty must be compatible with a similar liberty for all. Also, the principle of sustainable development says that the pursuit of quality of life must be compatible with a similar equality of life for all including future generation. Such a principle seems to protect the future of environment.

There are some ambiguities in the concept of sustainable development and sustainability. Say for example, Amartya sen asks: what are we trying to sustain?⁴⁶ Is it the nature around us or the lives that we can lead on nature? These two points are not the same. Let us discuss Amartya Sens example. Suppose there is a wonderful magazine with which James is involved. It produces lovely pictures of animals, for example, the Royal Bengal Tiger and some others. It may be the fact that having Royal Bengal Tiger does not affect our standard of living in any way, but that does not mean that we do not value it because human beings are capable of valuing things which are not connected with their standard of living. Amartya Sen states that, we might say that it is important that no species are to go out of existence, but it can be a case that, we also believe that survival of some of the species has no effect on our living standard or on anyone else.

Paul Hawken in *The Ecology of Commerce* defined sustainability as follows: “Sustainability is an economic state where the demands placed upon the environment by people and commerce can be met without reducing the capacity of the environment to provide for future generations. It can also be expressed in the simple terms of an economic golden rule for the restorative economy: Leave the world better than you

⁴⁵ *World Commission for Environment and Development: Our Common Future*, Oxford University Press: New York, 1987, p.8.

⁴⁶ www.cyber.vt.edu/LSG/3104/enviro/html.

found it, take no more than you need, try not to harm life or the environment, make amends if you do.”⁴⁷

The term sustainable development contains two key concepts.⁴⁸ Firstly, the concept of needs, in particular the vital need of the world’s poor, to which (overriding) priority should be given, and the idea of limitations imposed by the state of technology and secondly, social organization on environment’s ability “to meet present and future needs”. In addition to these two key concepts four interlinked dimensions of sustainable development may be introduced such as, economic, environmental, social and cultural, because if development is to be sustainable in the long-term, there needs to be a balance between these four dimensions. Let us discuss the four dimensions in detail.

I) Environmental dimension:

The environmental dimension of sustainable development maintains a solid base of natural resources and avoids excessive use of such resources. This involves conservation of biodiversity, attaining atmospheric balance, productivity of soil as well as other systems of natural environment which are usually classified as noneconomic resources. In resolving the problems of sustainable development, environmentalists tend to focus on what is known as environment borders. As a concept it means that each natural environment system has certain limits that should not be exceeded by excessive consumption for which it will be deteriorated. Therefore, from an environmental point of view, sustainable development means setting limits for consumption, population growth and pollution, as well as the faulty ways of production including wastage of water and deforestation.

II) Economic dimension:

Economic dimension of sustainable development means providing economic welfare to the present as well as to the future while paying more attention to the ‘natural capital’, such as plants, soil, animals, fish, and bio-environmental system. Economic sustainability can be reached through optimised distribution of goods and services. Income generation and poverty reduction are the main issues in this area. Economic sustainability reflects the need to strike the balance between the costs and benefits of economic activity, within the confines of the carrying capacity of the

⁴⁷ Hawken, P. *The Ecology of Commerce: a Declaration of Sustainability*, Harper-Business, A Division of Harper-Collins Publishers. 1993. P.139.

⁴⁸ www.foundation.novartis.com/sustainable_development_print.html

environment.⁴⁹ Economic progress should not be made at the expense of intergenerational equity. Therefore, resources should not be exploited to the extent that their regenerative ability is compromised.

III) Social dimension:

Development is considered to be socially sustainable if it achieves social justice in conformity with equitable resource allocation, eradicates poverty, and provides social services, such as education, health and others to all members of the society, especially the neediest one. The social dimension of sustainable development is, thus, based on the notion that human beings constitutes an important means of development and its prime target who should strive to achieve this notion for both present and future generations.

Social dimension of sustainable development relates to the maintenance of political and community values, and social values and norms, relate to ethics, value systems, language, education, work attitudes, class systems etc., that influence social relation. Social dimension of sustainable development also deals with the satisfaction of basic human needs within the society such as food, clothing, and shelter. The sustainability of social needs and values indicates to the quality of growth that occurs in the economy. Equity in the allocation of properties is integral to social sustainability. According to the Brundtland Report “economic and social development should be mutually reinforcing”⁵⁰.

IV) Cultural dimension:

Cultural dimension may be defined as a compromise between cultural diversity and common values. Protection of various cultural identities is the key to cultural sustainability. Some thinkers argue that this is a part of social dimension. However, there is a clear distinction between social and cultural issues, in sustainable development.

The aim of cultural dimension in sustainable development is to raise the significance of culture and its factors in local, regional and global sustainable development. Culture is an important aspect of sustainable development, as it refers to how we understand and appreciate natural resources and each other. However, the role

⁴⁹ David, M. “Sustainability: Rhetoric or Reality?” In *A Sustainable World*, edit. Thaddeus C. Trzyna, & Julia K. Osborn. California: International Center for the Environment and Public Policy. 1995.

⁵⁰ *World Commission on Environment and Development Our Common Future*, Oxford University Press, Oxford. 1987, P. 54.

and meaning of culture within the framework of sustainable development is relatively unclear both in science and policy. Culture has been treated as a component of social sustainability and sometimes as a fourth pillar of sustainable development even sometimes as a key dimension of sustainable development. However, the term culture is becoming more powerful along with the increasing ecological, economic and social challenges to meet the objectives of sustainability. Cultural sustainability is gradually emerging out of the realm of social sustainability and being recognized as having a separate, distinct, and integral role in sustainable development. Within the community development, culture is defined broadly as being “the whole complex of distinctive spiritual, material, intellectual and emotional features that characterize a society or social group. It includes the modes of life, the fundamental rights of human beings, value systems, traditions and beliefs”⁵¹. The Declaration of the principles of International Cultural Cooperation states that “each culture has a dignity and value which must be respected and preserved and cultures from part of the common heritage belonging to mankind”.⁵²

Cultural sustainability can be defined as “the ability to retain cultural identity and to allow change to be guided in ways that are consistent with the cultural values of people”. According to Doubleday, MacKenzie, & Dalby sustainability integrates both dynamic understandings of culture and the recognition that place matters because the practice that is in need of sustaining, as well as those that pose threats, happen in particular communities and in specific geographic contexts. Sustainability also requires considerations of the dynamics of complex cultural arrangements in particular places, rather than assumptions of either peoples or their ecological contexts.⁵³ Within the sustainability field, culture is discussed in terms of cultural capital, defined as “traditions and values, heritage and place, the arts, diversity and social history”. The accumulation of cultural capital, both tangible and intangible, is what we inherit from our earlier generations and what we will pass onto upcoming generations.

From a philosophical perspective, Pilotti & Rinaldin discuss how the “sustainability of cultural resources means an increase over time of a better quality of

⁵¹ UNESCO. *The Cultural Dimension of Development: Towards a Practical Approach*. Culture and Development Series. UNESCO Publishing, Paris. 1995. P. 22.

⁵² Declaration of the Principles of International Culture Cooperation, Resolutions, Gen. Conf. of UNESCO, Nov. 4, 1966 (Sess. 14).

⁵³ Duxbury, N. & Gillette, E. *Culture as a Key Dimension of Sustainability: Exploring Concepts, Themes and Models*. Creative City Network of Canada. 2007. P. 4.

life defined as a better knowledge of ourselves”⁵⁴. From a more tangible perspective, in *Ecology of Place*, Beatley & Manning note that sustainable communities must foster a sense of place that stimulates and reinforces social attachment:

“Communities must nurture built environment and settlement patterns that are uplifting, inspirational, and memorable, and that engender a special feeling of attachment and belonging.... A sustainable community respects the history and character of those existing features that nurture a sense of attachment to, and familiarity with, place. Such “community landmarks” may be natural a meadow or an ancient tree, an urban creek or built a civic monument, a local diner, an historic courthouse or clock tower. Finally, in a sustainable place, special effort is made to create and preserve places, rituals, and events that foster greater attachment to the social fabric of the community”⁵⁵.

3.2: Ethical Approach to Sustainable Development:

Sustainable development is commonly understood to require a balanced pursuit of three goods such as ecological health, social equity, and economic welfare. It is grounded on the ethical commitment to the well-being not only of present generation population but also the wellbeing and enhanced opportunities of future generation. Sustainable development is about ethics, because it calls on present people not only to consider the condition of the current impoverished population, but also the potential condition of future populations who are the responsibility of our production and consumption patterns.

Inherent in the definition of Sustainable development is the proposed responsibility of contemporary society for the quality of life in today’s population, in addition to the preservation of resources, environment, other ingredients needed for future populations, and quality of life. This is an enormous and difficult job and it requires huge changes in thinking, policy, and basic assumptions about the economy for its full implementation. For the contemporary, more scientifically cultured societies would have to contribute substantially and through a wide range of assistance programmes to increase the wealth of poorer nations, to help them in developing the capability to provide the basic needs of their population. It means confirming the availability of a wide range of resources like: natural, cultural, mineral, educational,

⁵⁴ Luciano, P. & Marina, R. *Culture & Arts as Knowledge Resources Towards Sustainability for Identity of Nations and Cognitive Richness of Human Being*. Department of Economics University & Departmental Working Papers. Milan, Italy. www.economia.unimi.it/uploads/wp/wp187.pdf, 2004, November. P.1.

⁵⁵ Beatley, Timothy & Manning, Kristy. edit. *The Ecology of Place: Planning for Environment, Economy, and Community*, Island Press, Washington D.C, 1997, P.32.

food, clean air and water, genetic diversity, and many others that support a good quality of life for future generations. One may ask why do we apply the sustainability framework? To respond these question concepts like rights, obligations, and interdependence must be introduced. Everyone on the Earth has a right to food, shelter, and clothing. Present people have an obligation to future generations to provide them an intact and functioning planet in at least as good state as they received it. We all are interdependent upon present and future generations, but it is the present generation in the wealthier countries that control the fate of future. The application of sustainability framework therefore, requires a better understanding of the ethical concepts which support it. Among these ethical concepts are the precautionary principle, the chain of obligation, the distributional principle, the land ethic, and the rights of the other species.⁵⁶ Through a better understanding of the ethics of sustainability, it becomes clear why sustainability framework is not only an approach to address and solve many difficult problems. Why is it in fact the right approach, the right thing to do.

The world faces numerous political, economic, and social challenges that threaten to undermine the welfare of people all over. Sustainability provides just the type of approach which is needed to address these challenges and the ethics of sustainability gives sustainability legitimacy as a framework. The ethics of sustainability provides a clear sense of the principles that make sustainability more than just a simple problem-solving system, but make it an idea that is grounded in commonly understood ethical principles. In short, the ethics of sustainability provides a moral authority behind sustainability as a fair and equitable approach in making the world a better place.⁵⁷

Sustainability is a human construct in which human use their environment for a range of objectives, including subsistence, commodity production and aesthetic pleasure. These objectives have their basis in the desire to sustain human life, enhancement of standards of living, maintenance of culture and protection of environmental quality for generations to follow. The different objectives for the use of environmental resources lead to different expectations as to what is to be sustained and who is to have claims on environmental services.

⁵⁶ <http://www.unescap.org/ru/node/12538>, (*Integrity, Ethics and the Future We Want*, Delivered at the 28th Convocation Ceremony of the Lahore University of Management Sciences in Lahore, Pakistan.)

⁵⁷ <http://rio20.net/wp-content/uploads/2012/01/Ethics-of-Sustainability-Textbook.pdf>. (Charles J. Kibert, Leslie Thiele, Anna Peterson, Martha Monroe. *The Ethics of Sustainability*, P.8.)

Equity is an important aspect of this approach to sustainability. Environmental view of sustainable development focuses on the stability of biological and physical systems. The emphasis here is on preserving the resilience and dynamic ability of such systems to adapt change, rather than conservation of some ideal static state. Natural resource degradation, pollution and loss of biodiversity reduce system resilience. Reconciling these various concepts and implementing them as a means to achieve sustainable development is a challenging task, since all these above three elements of sustainable development must be given a balanced consideration.

Ethical approach on sustainable development emphasizes on protection of environment which is a major objective of sustainable development. Economic development ultimately depends on the institutions that can protect and maintain environment's carrying capacity and resilience. The behaviour of humans in relation to their use of environment is critical to the design and implementations of effective environmental protection. It should be noted that ethics and rules are effective in modulating the interaction between humans and their environment and this must reflect both general principles and specific social and ecological context. Ecological context contains the structure of eco-systems in which humans live and work, as well as the particular functional properties of those ecosystems.

Many philosophers have written on this topic though it is only developed in the 1970s due to increased awareness in the 1960s of what technology, industrial economic expansion and population growth were having on the environment. Some thinkers like Thomas Hobbes have concentrated on man's native egoism and insatiate greed. Others point out that self-regard and benevolence are both natural to man. Machiavelli argued that social and political order has by right an ethical basis. It is not imposed on its subjects but itself grows out of the tissue of the institution of normal human life. Radical ecologists are of the view that ethical extensionism is inadequate because it is stuck in traditional ways of thinking that led to those environmental problems in the first place. Their opinion is that it is too human centered. Social ecology and deep ecology are of the view that environmental crisis lies in the dominant ideology of western societies. Ecofeminism points to the link between social domination and the domination of the natural world. By mid 1970s feminists had raised the issue of whether patriarchal modes of thinking encouraged not only widespread inferior and colonizing of women but also people of color, animals and nature. Ecofeminism

calls for radical overhaul of the prevailing philosophical perspective and ideology of Western society.

From the above discussion it can be said that thoughts on environmental ethics demonstrate that, ethics has an important role to play in ensuring sustainability in a contemporary society. However, ethics alone cannot be effective to deal with the major causes of pollution and these include poverty, rapid population growth, deforestation and wars among others. Ethical behaviour could inspire a collaborative culture of new thinking and unconventional ideas that push change in unexpected way. Degradation has reached an alarming stage that it is vital to create greater awareness of environmental problems. Hence it is crucial to see how we comprehend our relationship between our daily practices and thinking and sustainability of natural world. We can affirm that any deliberate attempt to reach a rational and enduring state of equilibrium by planned measures, rather than by chance or catastrophe must ultimately be founded on the basic change of values and goals at individual, national and global level⁵⁸. Let us discuss some normative principles in sustainable development.

Some Normative Principles of Sustainable Development:

The term sustainable development is associated with a number of normative principles. Normative principles are moral statements that specify what is good or bad, and guide human behaviour. Normative principles in Brundtland Report are primarily associated with meeting of human needs, especially the needs of the poor and the protection of environmental resources, including global environmental systems. The following are the basic normative principles of sustainable development.

- a) Common but differentiated responsibilities,
- b) Intra-generational equity,
- c) Inter-generational equity,
- d) Justice, and
- e) Gender equality.

a) Common but differentiated responsibilities

This principle of ‘common but differentiated responsibilities’ provides a way of distributing responsibilities and tasks associated with the promotion of sustainable development more fairly among the Third World and industrial countries. The principle acknowledges that industrial countries have been the main contributor to environmental

⁵⁸ Schiffman, Howard S. edit. *Green Issues and Debates: An A-to-Z Guide*, Sage Publications Ltd., 2011, P.230.

problems through their patterns of resource exploitation, production and high consumption. It also recognizes the unequally borne economic effects of implementing international environmental laws and agreements. Further, it takes account of different capacities, including financial and technical capacities, available within the countries to address the problem. In short, the use of the principle of common but differentiated responsibilities is driven by equity considerations.

While drawing upon considerations of equity, the use of the principle of common but differentiated responsibilities has a strong functional logic. It is often used as a means of ensuring that developing countries sign up and continue to participate in international environmental management regimes, such as climate change. Developing countries may be more motivated to implement conventions that acknowledge their vulnerability in the face of an environmental crisis that they did not primarily cause. When international conventions are faced with pervasive, multi-causal problems that traverse national boundaries, such participation is highly valued⁵⁹. The use of the principle thus helps to ensure that efforts to promote sustainable development have a more global reach. Thus, care and attention needs to be taken in the way in which the principle is put into practice if it is to promote sustainable development at the global level.

b) Intra-generational equity

Intra-generational equity refers to equity within our own generation. This highlights the importance of meeting the basic needs of present generations, given the widely uneven pattern of global development. The notion of equity within generations owes much to the work of John Rawls's *A Theory of Justice*, although Rawls's work pre-dates current concerns about global environment. The principle of equity is fundamental to Rawls's theory of justice, in which he argues for equality in the distribution of basic social good, such as liberty and opportunity, income, wealth and social respect⁶⁰.

Contemporary concern about equity admits the inequity in resource use between the rich and poor, while at the same time seeing poverty as both a cause and a consequence of unsustainable behaviour. Poverty can lead to over-exploitation of resources of a local environment to satisfy immediate needs. 'Those who are poor and

⁵⁹ Iles, A. 'Rethinking differential obligations: equity under the Biodiversity Convention', *Leiden Journal of International Law*, 16:02, 2003. P. 217–51.

⁶⁰ Rawls, J. *A Theory of Justice*, Harvard University Press; Cambridge. 1971. P.92.

hungry will often destroy their immediate environment in order to survive⁶¹. Poverty, caused by the failure to address land reform, for example, can lead landless farmers to use ecologically harmful ‘slash and burn’ agricultural techniques, as is happening in the Amazon rain forest. Poverty can also lead to the growth of urban slums, which lack adequate infrastructure, especially for sewage and waste disposal, resulting in both health and environmental hazards. There is thus a relationship between poverty and exposure to the negative consequences of environmental degradation, such as polluted water. Such concerns led to the development of environmental justice movement. This movement primarily addresses the negative impacts of environmental degradation on human health⁶². The concerns of environmental justice movement, however, are narrower than those raised in the sustainable development agenda. The broader remit of the later encompasses issues not just of health, but of environmental protection, and maintenance of biodiversity as well as issues of global equity and justice of access to, and use of, resources.

According to Brundtland report, there is a strong functional relationship between social justice and sustainable development; because poverty is a major cause of environmental deterioration and the reduction in poverty is a precondition for environmentally sound development.⁶³ It is said that,

“Developing countries must operate in a world in which the resource gap between developing and industrial nations is widening, in which the industrial world dominates in the rule making of some key international bodies, and in which the industrial world has already used much of the planet’s ecological capital. This inequality is the planet’s main ‘environmental’ problem; it is also its main development problem”.⁶⁴

However, Brundtland report gives priority to the world’s poor, independent of any poverty environment relationship. This is because poverty is seen ‘as an evil in itself’ and sustainable development requires meeting the basic needs of all, thus extending to all the opportunity to fulfill their aspirations to a better life. The relationship between social and economic justice and physical sustainability is not just

⁶¹ WCED (World Commission on Environment and Development) *Our Common Future*, Oxford: Oxford University Press, 1987, P. 28.

⁶² Martinez-Alier, J. ‘The socio-ecological embeddedness of economic activity: the emergence of a transdisciplinary field’, E. Becker & T. Jahn, edit. *Sustainability and the Social Sciences: A Cross-disciplinary Approach to Integrating Environmental Considerations into Theoretical Reorientation*, London: Zed Books, 1999. P. 112–140.

⁶³ WCED (World Commission on Environment and Development) *Our Common Future*, Oxford: Oxford University Press, 1987.

⁶⁴ *Principles of Environmental Conservation and Sustainable Development: Summary and Survey*, A Study in the Field of International Law and Related International Reports, Prepared for the Earth Charter Project by Steven C. Rockefeller, Revised April 1996, P.46.

functional that is, it does not merely serve a particular, practical and efficiency purpose but it is also normative that is, it is based upon ethical considerations⁶⁵.

Making the relation between poverty and environmental harm is not to deny that many Third World communities have devised sustainable coping strategies to deal with resource use problems. In addition, it is not only the poor who overuse environmental resources but the rich as well, so that the alleviation of poverty does not necessarily lead to the end of environmental degradation. Poverty relief needs to be combined with other policies if environmental degradation is to be stopped.⁶⁶

c) Inter-generational equity

Inter-generational equity refers to equity between generations, which includes the needs of future generation in the design and implementation of current policies.⁶⁷ The idea of inter-generational equity dates as far back as the political philosophy of Immanuel Kant, who developed the idea of posterity benefiting from the work of its ancestors⁶⁸. Edmund Burke also wrote about the idea of inter-generational partnership⁶⁹. Brundtland argued that today's society might compromise, in many different ways, the ability of future generation to meet their essential needs.⁷⁰ Rather than focusing upon the ways in which the actions of present generation may help those of the future, Brundtland report focused upon how today's unsustainable behaviour can narrow the options available for future generations. Promoting sustainable development requires shutting out as few future options as possible.⁷¹ Environmental philosophers have developed Brundtland's ideas further, to suggest that our relation with other generations creates obligations. This poses a problem however; as it is unclear how far into the future these obligations stretch. It would seem insufficient to restrict concern to the next generation only, as many environmental problems or processes work on a very long-term scale. Reflections of inter-generational equity also raise another very difficult political issue, namely how future generations can be given some form of voice or

⁶⁵ Langhelle, O. 'Why ecological modernisation and sustainable development should not be conflated', *Journal of Environmental Policy and Planning*, 2000, 2(4): P. 303–22.

⁶⁶ Dobson, A. *Justice and the Environment: Conceptions of Environmental Sustainability and Dimensions of Social Justice*, Oxford: Oxford University Press, 1998.

⁶⁷ World Commission on Environment and Development *Our Common Future*, Oxford: Oxford University Press 1987, P. 5-6.

⁶⁸ B, Susan. *Sustainable development: Routledge introductions to the environment series*, Routledge Taylor & Francis Group 2006, P.40.

⁶⁹ Ball, T. 'The earth belongs to the living: Thomas Jefferson and the problem of intergenerational relations', *Environmental Politics*, 2000, 9(2): P. 61–77.

⁷⁰ *Ibid.*

⁷¹ *Ibid.* P. 46.

consideration in present policy making. The question remains, how to find out what the interests or needs of future generations will be. In addition, environmental management tasks, such as planning, monitoring and evaluation, typically do not fit in with the longer-term period needed to take account of future generations. As such, considerations of inter-generational equity require considerable extension of the time scale of current planning and policymaking models and practices.

Other theorists have argued that the principle of inter-generational equity brings with it more stringent requirements. Dobson in particular has argued that the principle means that future generations' human needs have to take precedence over the present generation's human wants. He argues that:

“It would be odd for those who argue for the sustaining of ecological processes to put the wants of the present generation of human beings which might threaten those processes ahead of the needs of future generations of human beings who depend upon them.”⁷²

It has also been argued that once the interests of future generations are taken into account, then concern for many features and aspects of the *non-human* natural world can be generated. This would include concern for other species, which may be an essential prerequisite for future generations to meet their needs.

One may say that there are three basic principles of intergenerational equity. First, each generation should be required to preserve the diversity of the natural and cultural resource base, so that it does not excessively restrict the options available to future generations in solving their problems and satisfying their own values, and should also be allowed to diversity comparable to that enjoyed by previous generations. This principle is called “conservation of options”. Second, each generation should be required to maintain the quality of the planet so that it is passed on in no worse condition than in which it was received, and should also be entitled to planetary quality comparable to that enjoyed by previous generations. This is the principle of “Conservation of equality”. Thus, each generation should provide its members with equitable rights of access to the legacy of past generations and should conserve this access for future generations. This is the principle of “conservation of access”.⁷³

⁷² Dobson, A. *Justice and the Environment: Conceptions of Environmental Sustainability and Dimensions of Social Justice*, Oxford: Oxford University Press, 1998, P. 46.

⁷³ Weiss, E. Brown. Reprint. *Our Rights and Obligations to Future Generations for the Environment*, American Journal of International Law, Vol.-13, American Society of International Law 1990. P.6.

These principles of intergenerational equity form the basis of a set of intergenerational obligations and rights, planetary rights and obligations that are held by each generation. These rights and responsibilities derive from each generation's position as part of the inter-temporal object of human society.

d) Justice

The concept of justice pleads everyone, whether a philosopher, scientist, social reformer, poet or even an ordinary human. Craving so much about justice surmises that there is a crisis of justice in the present form of environment. When human beings are anthropocentric in nature, where materialism, individualism, subjectivism, egoism is the order of the day, when the greedy propensity of human beings counts the most and overlaps their basic needs, when the society reaches its principal in terms of 'can' instead of 'ought', the point of justice appears in a much more relevant manner. Since, from Plato, Aristotle, Socrates, down to Rawls and Amartya Sen, there we find various formulations of justice. But the question is what is justice? Justice in the relative sense means what is just. The reflection of just vision of individuals is a sign of justice. Just vision is the true reflection of humanity that can be fulfilled with the three concepts, like liberty, equality and fraternity.

When we are talking about liberty, equality and fraternity, we are talking about social justice. But what do we mean by environmental justice? Environmental justice is the fair treatment and meaningful involvement of all people regardless of race, colour, sex, national origin or income with respect to the development, implementation and enforcement of environmental laws, regulations, and policies.⁷⁴ Thus, environmental justice is served when people can realise their highest potential. Unlike social and political justice, environmental justice is much wider in scope; it incorporates every biotic animal and even it can be extended to future generation as well.

Thus, environmental justice indicates the expansion of the class of those who are the beneficiaries of justice. The word 'environment' of environmental justice actually refers to a condition on the pursuit of justice. 'Environmental' can be understood as modifying 'justice' in much the same way as 'sustainable' can be understood as modifying 'development'⁷⁵. Thus, the only permissible paths to development are those which are sustainable. Environmental justice unlike traditional

⁷⁴ <https://www.epa.gov/environmentaljustice>.

⁷⁵ Jamieson, Dale. *Global Environmental Justice*, in *Philosophy and the Natural Environment*, edit. Robin Attfield and Andrew Belsey, Cambridge University Press, 1994. P.202.

or classical concept of justice is environmental friendly or environmental preserving. The cause of concern of environmental justice is to redress inequitable distributions of environmental burdens. Therefore, the root cause of environmental injustices includes institutionalised racism, the co-modification of land, water, energy and air; unresponsive, unaccountable government policies and regulations; and lack of resource and power in affected communities. According to Alexander Solzhenitsyn, Justice is conscience, not a personal conscience but the conscience of the whole of humanity. Those who clearly recognize the voice of their own conscience usually recognize the voice of justice⁷⁶.

Environmental justice fights against destruction of environment to protect our mother Earth and reestablish our spiritual interdependence to the sacredness of our Mother Earth; to respect and celebrate each of our cultures, languages and beliefs about the natural world and our roles in healing ourselves; to promote economic alternatives which would contribute to the development of environment for safe livelihoods. The principles of environmental justice are the following⁷⁷:

1. Environmental Justice affirms the sacredness of Mother Earth, ecological unity and the interdependence of all species, and the right to be free from ecological destruction.
2. Environmental Justice demands that public policy be based on mutual respect and justice for all peoples, free from any form of discrimination or bias.
3. Environmental Justice mandates the right to ethical, balanced and responsible uses of land and renewable resources in the interest of a sustainable planet for humans and other living things.
4. Environmental Justice calls for universal protection from nuclear testing, extraction, production and disposal of toxic/hazardous wastes and poisons and nuclear testing that threaten the fundamental right to clean air, land, water, and food.
5. Environmental Justice affirms the fundamental right to political, economic, cultural and environmental self-determination of all peoples.

⁷⁶ J. Grana Sheryl. *Women and Justice*, Rowman & Littlefield Publishers, Inc. USA. 2010. P.5.

⁷⁷ <http://www.ejnet.org/ej/principles.html> (accessed on 05.06.2015), (Delegates to the First National People of Color Environmental Leadership Summit held on October 24-27, 1991, in Washington DC, drafted and adopted 17 principles of Environmental Justice. Since then, The Principles have served as a defining document for the growing grassroots movement for environmental justice.)

6. Environmental Justice demands the cessation of the production of all toxins, hazardous wastes, and radioactive materials, and that all past and current producers be held strictly accountable to the people for detoxification and the containment at the point of production.
7. Environmental Justice demands the right to participate as equal partners at every level of decision-making, including needs assessment, planning, implementation, enforcement and evaluation.
8. Environmental Justice affirms the right of all workers to a safe and healthy work environment without being forced to choose between an unsafe livelihood and unemployment. It also affirms the right of those who work at home to be free from environmental hazards.
9. Environmental Justice protects the right of victims of environmental injustice to receive full compensation and reparations for damages as well as quality health care.
10. Environmental Justice considers governmental acts of environmental injustice a violation of international law, the Universal Declaration On Human Rights, and the United Nations Convention on Genocide.
11. Environmental Justice must recognize a special legal and natural relationship of Native Peoples to the U.S. government through treaties, agreements, compacts, and covenants affirming sovereignty and self-determination.
12. Environmental Justice affirms the need for urban and rural ecological policies to clean up and rebuild our cities and rural areas in balance with nature, honoring the cultural integrity of all our communities, and provided fair access for all to the full range of resources.
13. Environmental Justice calls for the strict enforcement of principles of informed consent, and a halt to the testing of experimental reproductive and medical procedures and vaccinations on people of colour.
14. Environmental Justice opposes the destructive operations of multi-national corporations.
15. Environmental Justice opposes military occupation, repression and exploitation of lands, peoples and cultures, and other life forms.

16. Environmental Justice Calls for the education of present and future generations which emphasizes social and environmental issues, based on our experience and an appreciation of our diverse cultural perspectives.
17. Environmental Justice requires that we, as individuals, make personal and consumer choices to consume as little of Mother Earth's resources and to produce as little waste as possible; and make the conscious decision to challenge and reprioritize our lifestyles to ensure the health of the natural world for present and future generations.

e) Gender equality

Prompting sustainable development without considering the needs of women which is half of the world's population is an empty gesture⁷⁸. At a minimum, it breaches the principles of inter-generational and intra-generational equity. This means that due account has to be taken of the fact that environmental degradation affects men and women differently. This arises from the different societal tasks men and women have, from their different roles in relation to reproduction and from the differences in access to and distribution of power.

Equitable participation of women in environmental decision making is also a minimum requirement for the promotion of sustainable development. This opens a space for a female-sensitive identification of needs. In addition, by drawing upon the insights, experience and knowledge that women can bring to the problem, it can help to identify a wider range of policy solutions.

Thus the above normative principles have come to be associated with sustainable development led to the elaboration of specific rights and obligations for states, and these are the guidelines for international and national environmental regulations and laws. These normative principles have widened the scope of those to whom environmental obligations are owed beyond states and beyond present generations. They also place obligations upon the individual, especially as a consumer. These normative dimensions stretch their demands into the policy-making system, or system of governance, to require that the policy-making processes become more inclusive and gender-sensitive, and facilitate the fuller participation of societal actors in decision making that affects their future.

⁷⁸ Dobson, A. 'Representative democracy and the environment', W.M. Lafferty & J. Meadowcroft, edit. *Democracy and the Environment: Problems and Prospects*, Cheltenham: Edward Elgar, 1996, P. 124–39.

When economists suggest to achieve sustainability on the basis of capital, they make a distinction between two kinds of capital i.e., nature-made capital and human-made capital.⁷⁹ Human-made capital comprises of all attributes including human and social capital i.e., people, their skill, intelligence, virtues, and institutions. Natural capital comprises of all natural occurring organic and inorganic resources including genetic information, biodiversity, life-support systems and sinks. These two distinctions make another two divisions of sustainability i.e. weak sustainability and strong sustainability. Let us discuss the two divisions as follows:

Strong and Weak sustainability:

- ❖ Weak sustainability stipulates an undiminished capital bequest irrespective of how it is composed. On the other hand Strong sustainability stipulates an undiminished bequest of natural capital.
- ❖ The followers of weak sustainability are committed to unlimited substitutability between natural and human-made capital. For them all value of all kinds of capital is comparable. But this is different from which we are going to value and that can be substituted. For example, the visit to cinema might cost as much as a good meal, but this does not follow that it can replace a good meal. On the other hand the followers of strong sustainability hold that the value of human-made and natural capital is comparable in terms of economic value.
- ❖ Weak sustainability is characterized by the goal to sustain a constant level of consumption or utility. To achieve this goal, nature and capital goods can be substituted with each other. Neither nature nor capital has an intrinsic value, but is an instrumental value to achieve the highest possible level of utility. On the other hand Strong sustainability can be seen as a series of thresholds that must not be crossed. In impact assessment, any outcome of a proposed intervention must fall within those thresholds. Lacking such a threshold is largely a matter of socially and politically determined preferences, but also a matter of resilience: to what extent is a system able to recover from shocks and stress?
- ❖ Weak sustainability is the idea that natural capital can be used up as long as it is converted into manufactured capital of equal value. On the other hand Strong sustainability is the idea that there are certain functions that the environment performs that cannot be duplicated by humans. The ozone layer is one example

⁷⁹ Pearce, D., Markandya, A., Barbier, E.B., *Blueprint for a Green Economy*. London: Earth Scans, 1989, p. 5-34.

of an ecosystem service that is difficult for humans to duplicate. Weak sustainability deals with the following factors:

- a human-centered worldview is adopted;
- there is an emphasis on a growth-oriented approach to economic development;
- there is a relative lack of consideration given to the need for radical change in people's demands on the earth and
- there is a perpetuation of the view that nature is merely a collection of natural resources that can be subdued by the human race.

On the other hand Strong sustainability deals with the two principal arguments that are ecosystem services and stewardship. According to the earlier, human life survives only by the grace of nature, which provides a number of vital services termed ecosystem services. We damage these systems at our peril. The second argument is an ethical one, i.e. we do not have the right to abolish the right to life of other species, or that we must preserve the beauty and diversity of our natural environment for our own satisfaction as well as for future generations.

- ❖ Weak sustainability is the prevailing approach to sustainability in the western, industrialized world. Weak sustainability is a human-centered approach to sustainability. On the other hand Strong sustainability is the old approach in the Indian Traditional scripture and culture. Strong sustainability is an eco-centric approach to sustainability.
- ❖ For Weak sustainability the next generation should inherit a stock of wealth, containing man-made assets and environmental assets, no less than the stock inherited by the previous generation. On the other hand for strong sustainability the next generation should inherit a stock of environmental assets no less than the stock inherited by the earlier generation.
- ❖ Weak sustainability reuse, recycle and repair of consumer goods; product life cycle management. It sustains the substitution of natural capital with human capital; harvesting of biodiversity resources. The Initial moves to local economic self-sufficiency; minor initiatives to alleviate the power of global markets. On the other hand Strong sustainability Changes in patterns and levels of consumption; shift from growth to non-material aspects of development;

necessary development in Third World. It Maintains the critical natural capital and biodiversity. It heightened local economic self-sufficiency, promoted in the context of global markets; Green and fair trade.

The distinctive feature of strong sustainability is that it is not indifferent to natural and Human-made capital, but requires natural capital to be maintained. It requires natural capital to be maintained where substitution of human-made capital is possible. From the environmental perspective the defect of weak sustainability is that it permits natural environment to be degraded if and only if human well-being can be secured. The approaches of economics to achieve the objective of sustainable development have several advantages which are as follows:⁸⁰

- Environmental conservation cannot economic costs and burdens and economic benefits carry environmental cost crucially.
- It measures the benefits of environmental conservation against other forms of expenditure like, military, health etc.
- The concept of “natural capital” says that we should not regard our use of environmental resources as living off income.

The moral objection to construe nature as capital is that, the natural world is not a resource but contains sentient beings that have the capacity to claim moral consideration. Natural world embodies value apart from the value for human beings. It has inherent value rather than instrumental value. All values are not commensurable and they cannot be assessed according to the common economic need. To implement the principle of sustainable development it requires the presence of certain sorts of social and political institution. Technology has failed to attain sustainable development on the basis that it does not have a reach to each and every part of natural resources. Therefore, it needs a cultural sustainability, which is discussed below.

Cultural Sustainability:

The aim of cultural sustainability is to raise the significance of culture and its factors in local, regional and global sustainable development. It refers how we understand and appreciate natural resources and each other. However, the term culture is becoming more powerful along with the increasing ecological, economic and social challenges to meet the aims of sustainability. Cultural sustainability is gradually

⁸⁰ Holland, A. *Sustainability: A Companion to Environmental Philosophy* edit. Jamieson, D. Blackwell Publishing Company: USA 2001 p. 397.

evolving out of the realm of social sustainability and being recognized as having a separate, distinct, and integral role in sustainable development. The Cultural sustainability is consisting as follows,

- Resilient political institutions,
- Effective regulation,
- Appropriate social skills and technology, and
- A climate of trust.

Question may be raised how to implement these criteria's for future generations. The response may be future generation can reciprocate by worshipping their predecessors or striving to fulfill their hopes. Sustainable development does not prejudice future development. As a criterion of environmental modification it says that we may not be able to predict the 'need' of future but we can be sure that future human development will require resources, sinks, and life-sustaining systems. There must be a minimization of human impact on resources and changes to life-supporting systems. Thus there must be a supporting social fabric to achieve the environmental targets. What a generation leaves for the next/future includes not only "costs" but also "benefits". It is true that environmental degradation has economic costs, but it does not follow that economic values only measure the costs. If our assessment of economic value is determined by the economic system then it is hard to see how the translation of that value system into the environmental sphere can produce a just estimate of environmental value or enforce the re-evaluation of environmental goods.⁸¹

Ecological Sustainability:

When we talk about sustainable development in a developed country we understand that the so called country is an ecologically developed country, because sustainability unconditionally requires ecological sustainability. It is a necessary, not a sufficient condition. Ecological sustainability requires significant economic, technological, social, political and cultural changes in most of all countries. When we say underdeveloped countries from the perspective of sustainable development we mean all ecologically unsustainable countries. Even the richest industrial country is not a developed country if it is not in the process of ecological sustainability.

⁸¹ Holland, Alan. Sustainability, in *A Companion to Environmental Philosophy*, edit. Dale Jamieson, Blackwell Publishers Ltd. 2001. P.400.

According to Arne Naess, “there is ecological sustainability if and only if the richness and diversity of life forms is sustained”.⁸² The word ‘richness’ not only refers to the sufficiency of species but also to their wide distributions. Also ‘richness’ is applicable to the Planet Earth as a whole, region, nations, societies and to some localities. We can talk about Ecological unsustainability in some areas of monoculture. For the growing population more and more cities are needed to contain the population. There is no global sustainability if some regions do not contain the growing populations. The term development as used in sustainable development is ambiguous and it must be used properly in policy making. Naess presents one of its proper uses and says that “development is globally sustainable if and only if there is a long term trend that assures, or that may justifiably be considered to assure, global ecological sustainability, and also assures long range elimination of object poverty”⁸³.

Ecological sustainability is a necessary support to realize sustainable development. To satisfy the vital needs even the just needs of human beings biodiversity is required, and this is to be realized in this present ecological and environmental problems. Therefore biodiversity must be protected for its own sake as well as for humanity. The United Nations World Charter for Nature has acknowledged the richness of biodiversity and tried to implement the initiatives. A group of poor nations implicated the initiatives to this charter and the general assembly of United Nations adopted it in 1982 on the basis of a vote. The resolution passed in the general assembly was that biodiversity has a value in itself apart from its usefulness. It also helps people to maintain its implications in their day-to-day life. The humanitarian perspective of biodiversity will result in to ecologically negative policies. They are short-termed and can be avoided by the cooperation of both poor and rich nations worldwide in a greater extent. The sole thing, which makes a barrier in a global sustainable development, is the size of the human population. Human population must be seen from a cultural philosophical perspective which helps a long range future and slow decrease of the human population that will increase the chances of full biodiversity, sustainable development, deep cultural diversity and the prospect of satisfying vital needs and reaching the cultural and philosophical goals. *Our Common Future* suggests that ecologically sustainable development is:

⁸² Arne Naess, “Sustainability: the integral approach”, presented in the Conference, organized by Environment For Europe, Dobris Castle, Czechoslovakia, June 21-23, 1991.

⁸³ *Ibid.*

“a process in which the exploitation of resources, the direction of investments, the orientation of technological development and institutional change [will] ... all ... [be] in harmony, and enhance both the current and future potential to meet human needs and aspirations⁸⁴.”

A closer look of the term sustainable development reveals “Humanity has the ability to make development sustainable.” A narrow interpretation of it says that what must be considered sustainable is compatible with maximum destruction of life conditions on Earth, a maximum extinction of life forms and habitats, a maximum interference of humans with ecosystem. These maximums are conceived at any time to permit the satisfaction of human needs. Artificial trees plantations which grow very fast do not support the biodiversity of a forest. The number of species in them may be very less in comparison to the real forest. So if our aim is to make a distinction between the forests itself and the species and life forms, then there will be maximal destruction. Consequently, it will be incompatible with the satisfaction of the vital needs of the future generations. In this conflicting situation the narrow interpretation of sustainable development is convenient for the destructive policies, because it is very difficult to convince people that, future generations will lack the ability to take care of themselves, when it is found to be suitable. People can read and understand the technological inventions and revolutions, which push the limits of growth indefinitely. But they don't read about the lack of economical growth and political will to make global use of the inventions made in the previous years.

Paradigm Shifts in Sustainable Development:

Sustainable development is the most popular concept in economic development. The concept of sustainable development deals with two immediate related aims. i.e. a) to ensure the proper, safe, good life for all people this is the aim of development, and b) to live and work according to the biophysical boundaries of the environment this is the aim of sustainability. These two aims may seem contradictory, but still they can be achieved simultaneously. Additionally, there emerges an ethical necessity for the insurance of opportunities for the future generations, which would be analogous to those used by earlier generations. The ethical necessity alongside the scientific certitude and the motives of long term pragmatic selfishness is treated as the normative basis for the sustainable development and allows approaching the sustainable development ethics as a new ethics.

⁸⁴ WCED, World Commission on Environment and Development, 1987, P. 53.

It is easy to say that acting for the benefits of the present and immediate future generations than for acting for the benefit of distant future generations hence the sustainability debate is very much rooted in the present. It is difficult to plan for the needs of future generations we should rather enable them to meet their own needs. Hence, the need to preserve natural capital is a prime factor in sustainability.

In the early 1990s emphasis was given on cleaner production and pollution prevention. In the Mid-1990s it was on eco-efficiency and environmental management and in the early 21st century there is an emphasis on sustainable development. Environmentalism in the present century is giving a way to sustainability in a process that is aided by complementary shifts in economic, social, ethical and political arenas. The shift towards sustainable development is beginning to take place because the mood of the time is ready to promote its early stages. But the question is ‘are we seriously prepared to transform our lifestyle into a sustainable lifestyle?’ i.e. ‘Are we able to adopt simple in means and rich in ends?’ Let us discuss the paradigm shifts in sustainable development.

From physical to biological

- From productivity and pollution towards renewable resource exploitation beyond rates of regeneration.
- Habitat destruction, loss of biodiversity and ecological services.

From discrete to systematic

- Move towards the holistic evaluations.
- Feedback rather than linear cause-effect chains.
- Patterns of change rather than static snapshots.

From direction to destination

- Old models (say, for example, pollution prevention) pointed “in the right direction” reduce environmental impacts.
- Sustainability models develop absolute benchmarks.

From natural to social

- New awareness of interdependencies between poverty, gender bias, population growth, environmental degradation.
- “Bottom-up” approach ecological health, social justice, and economic progress.

From loads to impacts

- Traditional model based on reducing loads (footprints) on environment.

- Shift towards impacts and consequences for eco-social systems.

3.3: Environmental Ethical Theories and Sustainable Development:

Sustainable Development and Anthropocentrism:

So far as the definition of sustainable development is concerned it meets the needs of the present without compromising the needs of future generation and sustainable development contains two key concepts. The first is the essential needs of the poor that should be given overriding priority, with an eye of environment's ability to meet the present and future needs. The second involves the carrying capacity of ecosystems, its recuperative ability and availability of natural resources. Thus, sustainable development considers both the needs and interest of human being and environment. It also follows that there is an urgent need to evaluate the availability of environmental resources and how they relate to the requirements of a rapidly growing human population. All our basic resources, such as land, water, energy and biota, are inherently limited. As human population continues to expand, finite resources will be divided among the increasing number of people. Consequently it is very difficult to maintain prosperity and quality of life and personal freedom will decline.

There are two basic theories in environmental ethics i.e. anthropocentrism and non-anthropocentrism. Anthropocentrists emphasizes upon human centrality because humans are the only species who are intrinsically valuable and moral standing. Non-anthropocentrists claim that other living things as well as nature are intrinsically valuable.

Sustainable development presupposes that “development that meets the needs of the present without compromising the ability of future generations to meet their own basic needs⁸⁵”. But the Brudtland Report foresees a *new era of economic growth* and believes that such a growth is absolutely essential for the relief of poverty. On the other hand it also believes that growth is not sufficient to relieve poverty and sees the need for *new development path*, which will sustain environmental capacity. Thus the approach seems to be anthropocentric as it aims at the benefit for humanity. The two versions of anthropocentrism must be distinguished in this context i.e., strong and weak anthropocentrism. Strong anthropocentrism presupposes the despot like attitude of

⁸⁵ The World Commission on Environment and Development: *Our Common Future* the Brudtland Report, Oxford: Oxford University Press 1987, P. 8.

human beings towards nature, while weak anthropocentrism considers environmental values remaining within the anthropocentric purview.

Therefore, we can say that weak anthropocentrism supports some of the principles and objectives of sustainable development as defined by both the World Commission on Environment and Development and the *Brudtland Report*. Because weak anthropocentrism supports the vital interests of human beings like, if human populations need to clear other species out of their habitats, if the survival of human beings depends on the exploitation of natural resources. Apart from these above mentioned cases there are so many vital needs to fulfill, for which weak anthropocentric attitude is supported by the principle of sustainable development. At the same time weak anthropocentric attitude supports environmental values, and sustainable development also supports the priority of the needs of present and future generations and the carrying capacity of ecosystems and restorative ability of environment.

Sustainable Development and Non-anthropocentrism:

There are two varieties non-anthropocentrism i.e. biocentrism and ecocentrism. Let us make a comparison between the two varieties of non-anthropocentrism with sustainable development. Biocentrism can be understood that human being's attitude towards nature must be evaluated on the basis of how they affect living beings including humans and other individual species. According to biocentrists apart from human individuals other individual organisms are under the moral purview. Ecocentrism views that people's attitude towards nature should be evaluated on the basis of how they affect species, the whole ecosystem, but not merely individual living beings. It is true that various versions of environmental ethical theories disagree about which natural things have intrinsic values. However we have to gather more information, whether these theories support the principle of sustainable development. The theories, which give importance to human beings than other living things, will be much closer to weak anthropocentrism when it comes under the concept of sustainable development and environmental policies.

The presupposition given by a weak anthropocentist is explicitly stated in the World Commission's book *Our Common Future* and the United Nation's *Agenda 21*. Similar documents expressing the presuppositions of biocentrism and ecocentrism are harder to find. In the Rio Conference it has been declared that human beings are at the

center of concern for sustainable development. Thus the goal of weak anthropocentrism in the context of sustainable development is to ensure that natural resources are to subserve the purpose of humans in an efficient and farsighted way so that the needs of the present and future human generation can be satisfied⁸⁶ i.e. to create an ecologically sustainable situation.

If we compare sustainable development and biocentrism, we can get a good hint in Tom Regan, who explicitly states that the overarching goal of wild-life management should ensure maximum sustainable yield; it should be to protect the wild animals from those who would violate their rights.⁸⁷ It goes against the declaration of World Commission that it is not merely the well-being of humans, but also the interest of animals and ecosystems, which is the ultimate goal of sustainable development and environmental development policies. Thus the goal of biocentrism from the perspective of sustainability is, to ensure that humans in their treatment of nature need not violate the rights of other living things and they are to be left alone and to flourish.⁸⁸

Ecocentrism from the perspective of sustainable development ensures that humans in their approach towards nature need not violate the integrity and stability of the biotic community and its individual members. When we make sustainable policy making, we must consider the health and flourishing of species, ecosystem, wetlands, rain forests and endangered species and think that they are at the heart of concern whether or not they benefit the human community.

Some issue must be cited here that the goals for sustainability and environmental policy making envisioned by anthropocentrists and nonanthropocentrists are not the same. Rather both the approaches support divergent policies to such an important extent that we become aware that what should be the goal of environmental protection and sustainable development. The value commitments in both the theory are different and they generate divergent policies for attaining sustainable development. Two basic areas of sustainability may be discussed here. These are human population and wildlife preservation.

Human Population:

In the contemporary age population growth is in such an increasing state that, available environmental resources cannot sustain for which potentiality of ecosystem is

⁸⁶ Stenmark, M. 'The relevance of environmental ethical theories in policymaking' *Environmental Ethics*, 24:2, 2002, P. 137.

⁸⁷ Regan, T. *The Case For Animal Rights*, Berkley: University of California Press 1983, p. 357.

⁸⁸ *Ibid.*

threatened. Therefore urgent steps are needed to prevent population boom. In this regard The World Commission for Environment and Development suggests that the issue is not only population growth but also consumption of available resources. The commission argues that government needs to develop long population policies, because sustainable development can only be pursued, if population size and growth are in harmony with the changing productive potentiality of an ecosystem. It also says that the critical issues are the balance between population size and available resources and the rate of population growth in relation to the capacity of the economy to provide for the basic needs of the population, not just today but for generations.⁸⁹ Thus, our responsibility towards human generation requires a “stabilization policy” which ensures that the size of the population stabilizes at a level compatible with the productive capacity of the supporting ecosystem. It cannot be stabilized unless the objective of ensuring a sustainable level of population is achieved.⁹⁰

According to Rolston, it is more important than the needs, and welfare of existing people⁹¹. Arne Naess in his key principles in *Deep Ecology* suggests that the flourishing of human life and culture is compatible with a substantial decrease of the human population. The flourishing of nonhuman life requires such a decrease⁹². Naess recommended that how many people could be supported on the earth today with a normal living standard on the basis of the present worldwide industrial, agricultural and technological development and resource use. Callicott suggests that a global population of more than four billion persons and showing no signs of an orderly decline is at present a global disaster for the biotic community⁹³.

Ethical Concern of Population Control:

Ethically, almost all the countries will favour a low or stabilized population growth. This is because, they think that problems of peace, poverty, racism, disease, pollution, urbanization, ecosystem simplification and resource depletion will be very difficult to solve due to the increased population. At the same time, almost all the developing and under-developing countries feel that population control along with the

⁸⁹ The World Commission on Environment and Development: *Our Common Future* [the Brundtland Report] Oxford: Oxford University Press 1987, P. 89.

⁹⁰ Ibid. P. 49.

⁹¹ Rolston III, *Conserving Natural Value*, New York; Columbia University Press, 1994, p. 233.

⁹² Arne Naess, *Ecology, Community and Life Style: Outline of an Ecosophy* trans. and edit. Rothenberg, D. Cambridge: Cambridge University Press, 1989, P. 29.

⁹³ Callicott, J.B. ‘Animal liberation: a triangular affair’ *Environmental Ethics* 2:1980, P. 27.

status of international economic order poses a threat to those people who are below poverty line and oppressed. These nations suggest that there must be a reorganization of both economic and political power if population control is to be accepted. Human ingenuity and technology can solve the problems of resource depletion and pollution, as it is a fact that human beings are the most vital part of world's resources. Economic growth can be stimulated if more people will be engaged, consequently production will be more.

In contrast, it may be argued that ethically there must be a limit to population growth, because more people will be added to the population of the least-developed countries, where education, health and nutrition levels are so low and slow that rapid population growth would result into millions into an early death. The nations which favour limited population growth feel that, if we encourage rapid birth rate, then some one may be born to solve the world's pollution and resource problems in an inhumane way to preserve the lives of the present existing people. Also the nations which encourage better education, nutrition, health care and work opportunities for a smaller population feel that, ethically this approach will make greater change for making technological breakthroughs without adding human suffering. The enormous population problem can be combated if proper urban planning is adopted in both rural and urban areas in India. Development should lead towards sustainable eco-houses and eco-towns. Incentives and rewards for small families will help to control the population boom. The population problem has no technical solution; it requires a fundamental extension in morality.

Wildlife Preservation:

We all know that in 21st Century, the world population is growing on and if population continues to grow then many areas of earth must be transformed into agricultural land to satisfy the needs of people. Therefore, the main objective of world commission is to conserve "a representative sample of Earth's Ecosystems" which is an inseparable part of sustainable development. The authors of *Our Common Future* and *Agenda-21* maintain that we have a duty to the future generations to make them understood for not to exploit wilderness areas.

We have a duty to protect the wilderness that remains, to ecosystem itself rather for future people. An ecocentrist may claim to form a wildlife preservation policy, which ensures that the remaining areas of wilderness must be set aside and kept non-

exploited. Though there is a difference between the pioneers of sustainable development and an ecocentrist, regarding how much wilderness area is to be protected but both of them converge into one another regarding the protection of wilderness areas. Therefore, there is no difference between ecocentrism and weak anthropocentrism so far as sustainable development is concerned in the short run. But in the long run they do diverge.

The advocates of sustainable development think that species and natural ecosystem make many important contributions to human welfare particularly they contain useful genetic material. But wilderness areas contribute important genetic material if they are allowed to use these areas. Thus it seems that nothing will be required that the twelve percent of wilderness areas remain protected or untouched in the future. Rolston III, on the other hand says that any further exploitation of the wilderness areas will upset an already unbalanced ecosystem⁹⁴. Whatever present or future generation may use the wilderness areas, they ought to be left alone in now and forever. Thus weak anthropocentric preservation of wilderness areas ensures that at least some part of the landscape remains wild for human generations.

In the strong sense ecocentrist will not satisfy the preservation policy of wilderness areas. For example, Callicott holds that it is the well being of the biotic community, and not of the human community, that ought to be the center of concern of any environmental policy and sustainable development⁹⁵. Therefore the ecocentrist's view implies that human being should live in such a way that less of the natural ecosystem would be modified for human purposes than the actual case. Bill Devall and George Sessions in *Deep Ecology* states that we should live with minimum rather than maximum impact on other species and on the Earth in general⁹⁶.

So far as sustainable development is concerned, intrinsic value of the entire biotic community leads them to an environmental protection programme, which not only consists of wilderness preservation policy but also a restoration policy to make development sustainable. Thus, the restoration policy in sustainable development can be defined as a policy, which states that we should rehabilitate those areas of

⁹⁴ Rolston, III, H. *Conserving Natural Value*. New York: Columbia University Press, 1994. P. 27.

⁹⁵ S, Mikael. The Relevance of Environmental Ethical Theories for Policy Making, *Environmental Ethics* Vol. 24, P. 145.

⁹⁶ D. Bill & S. George, "Deep Ecology," in Donald VanDeVeer and Christine Pierce, eds., *The Environmental Ethics and Policy Book*, Belmont, Calif.: Wadsworth, 1994, P. 217.

wilderness, which, can still be restored to enrich nature. Human beings' responsibility is to reverse from these areas, which is occupied by natural objects for the sake of wildlife, so that they can live there without any external interference. This human intervention may not be required in the ecosystems because the ecocentrists approve a population limitation policy, which implies a reduction of the number of human beings in future. Thus nature can take its own course of rehabilitation, for sustainable development.

3.4: Some observations on sustainable development:

The concepts of "Sustainable Development" raises several objections at different levels, and let us discuss these in the following paragraphs.

Growth:

Generally it is said that growth is a fundamental cause of overusing nature. Therefore, it can be said that the cause of the problem is not the same time its solution. However, unlimited growth itself is not possible. Nature has limits, such as the surface of the planet, and therefore unlimited growth within limits is not possible. "As long as the concept of sustainable development is based on the imperative of growth, sooner or later the limits to growth will be met." Growth is not separable from consuming nature. Say for example, to produce two houses requires more natural resources than to produce one. Under this assumption, it follows the fact that ecological systems have limits in providing resources, and this gives a fundamental insight that nature has limits for human emissions, too. Therefore, a sustained growth cannot exist. Hence, a conception of sustainable development claiming sustained growth is paradox in its aims. From the above discussion it can be said that "sustainable growth is impossible".

Efficiency:

We know that increase in efficiency is essential for capitalist firms. Any company, which would not increase its efficiency, would not continue to exist. Increasing efficiency decreases the production costs of the company. This means that increase in efficiency is much more an economic mechanism than an ecological one. Increasing the efficiency is part of the economical rationality, and leads over using of natural resources. Therefore, efficiency increases ecological crisis and fail to heal it.

The Concept of "Needs":

Sometimes to know "the needs of future generations" is not possible. Since future generations do not exist, they cannot formulate them. Thus, to evaluate them, it

is necessary to assume certain values, to imply our needs for these future generations. This presupposes the premises of temporal and trans-cultural continuity. Both premises assume an essentialistic concept of “needs”. The needs would be part of the nature of human beings. One may say that needs are historically, socially, and culturally shaped; they are constructed in discourses, which take place in the context of power relations, and the hegemonic definition of sustainable development that talk about “future needs” is ethnocentric and thus useless.

If future generations should have the same options as we have today, we would need to stop any interventions in nature immediately. The idea of substitution of non-renewable resources, for example, is based on a certain idea of the function of the resource within our historically, socially, and culturally shaped perspective. Future generations might want to use the resource from a different perspective. Thus, sustainable development should not be defined on the idea of “needs” or “options”, but concentrates on how far it is acceptable in certain historically, socially, and culturally shaped context to cut options for future generations normatively.

Consequences:

According to John Baden the notion of sustainable development is dangerous because the consequences have unknown effects. He writes: “In economy like in ecology, the interdependence rule applies. Isolated actions are impossible. A policy which is not carefully enough thought will carry along various perverse and adverse effects for the ecology as much as for the economy. Many suggestions to save our environment and to promote a model of ‘sustainable development’ risk indeed leading to reverse effects.”⁹⁷ Moreover, he evokes the bounds of public action which are underlined by the public choice theory the quest by politicians of their own interests, lobby pressure, partial disclosure etc. According to him, “the improvement of environment quality depends on the market economy and the existence of legitimate and protected property rights.”⁹⁸

Basis:

Sylvie Brunel, French geographer and specialist of the Third World in 2008 asks: who benefits from sustainable development? For her, sustainable development, with its binary vision of the world, can be compared to the Christian vision of Good

⁹⁷<http://greenplanetethics.com/wordpress/sustainable-development-can-we-balance-sustainable-development-with-growth-to-help-protect-us-from-ourselves/>

⁹⁸ *Ibid.*

and Evil, an idealized nature where human being is an animal like others. Nature as Rousseau thought is better than human beings. It is a parasite, harmful for nature. But human is the one who protects biodiversity, where normally only the strong survive. Moreover, she deliberates that the main ideas of sustainable development are the hidden form of protectionism by developed countries impeding the development of other countries.

Measurability:

In 2007 a report for the U.S. Environmental Protection Agency stated: “While much discussion and effort has gone into sustainability indicators, none of the resulting systems clearly tells us whether our society is sustainable. At best, they can tell us that we are heading in the wrong direction, or that our current activities are not sustainable. More often, they simply draw our attention to the existence of problems, doing little to tell us the origin of those problems and nothing to tell us how to solve them.”⁹⁹ Nevertheless a majority of authors assume that a set of well-defined and harmonised indicators is the only way to make sustainability tangible.

The most common criticisms are related to the matters like data quality, comparability, objective function and the essential resources. However a more common criticism is coming from the project management community. How can a sustainable development be reached at global level if we cannot monitor it in any single project?

Some Objections on the Brundtland’s definition of Sustainable Development:

It is not enough to agree quickly on the Brundtland definition of sustainable development, this definition has serious problems. However, only through detailed and fundamental criticism it is possible to know the problems in the definition. As a guiding principle one needs to question the Brundtland definition, to comprehend the historical development of the concept “sustainable development”, to critically examine Agenda 21 and other follow-up documents. From such a critically brief analysis of the definition are five points emphasised:

- ❖ First, modernity is reproduced through sustainability in the hegemonic sense.
- ❖ Second, the epistemological question, how to deal with future needs, has to be addressed.

⁹⁹ Hecht, Joy E. *Can Indicators and Accounts Really Measure Sustainability? Considerations for the US Environmental Protection Agency*, May, 2007. P.12.

- ❖ Third rationality, technology, and management as solutions to the ecological crisis are reflected.
- ❖ Fourth, the issue of resources is briefly touched, and from this point the social aspect of the ecological crisis is pointed out.
- ❖ Finally the concept and the analysis of sustainable development is reflected as taking place in a political context.

The hegemonic discourse of sustainable development is characterised by the hope to renew modernity, which finds itself in a crisis, with the means of modernity: This is called ecological modernisation. By that, the institutions of modernity are reproduced. Yet, those institutions are very much the cause of the existing crisis. Science is one of these institutions, besides governments, the capitalistic mode of production, and others. Also management is part of these institutions, which are seen as both, cause as well as remedy. The modern hegemonic approach to sustainable development, therefore, could degenerate the problems, which it is supposed to solve. For this kind of a paradox situation a critical approach towards sustainability is needed.

To a large amount it is a consensus that sustainability should contain both, inter and intra-generational justice. The idea of justice is based on rights and needs. However, it has been shown that it is not that much easy to cope with the epistemological problems of 'sustainability'. The intergenerational approach of sustainable development should be appreciated, however, we cannot know what kind of future needs exist, or how needs are evaluated. Further, we cannot know how the effects of today's actions are valued one generation later. Thus, we cannot know whether an object, and our dealing with the object, has the attribute sustainable in the sense that future generations would appreciate our decision to sustain or destroy the object.

However, some socio-cultural critics says that the mainstream Sustainable Development is a trick, yet another attempt to reduce the aspirations and needs of marginalized populations across the planet is needed in the name of green development. Some critics, while broadly sympathetic towards its goals, point out Sustainable Development's fundamental lack of attention to the powerful political and economic structures of the international system that constrain and shape even the most well-

intentioned policies¹⁰⁰. For critics grounded in the ecological sciences Sustainable Development is unforgivably anthropocentric and thus unable to dissolve the false barriers between the human sphere of economic and social activities and the ecological sphere that sustains these activities¹⁰¹.

One may wonder; that does sustainability exist or are we joking? Is it not simply an oxymoron? “Development” in sustainable development implies instability and change and “sustainable” implies a notion of equilibrium as a momentary and transient state in the process of development. It can be said that development cannot be stopped and science and technology will continue. Thus, sustainability sounds like a paradox i.e. to have a society and nature co-evolving in one directional arrow of time, simultaneously maintaining their relationships and not depleting their potential resources.

Still the question remains; does sustainability imply how to continue to exploit environment, and at the same time live healthy and happily? Or how to continue current anthropocentric predatory processes led by human beings towards nature and society and at the same time to preach about governmental and citizen-based mechanisms designed to ensure greater accountability of business and industry? Does responsibility to future generations imply sustainability? Is sustainability a subsidiary to fulfill responsibility? These are the questions to be addressed when we talk about sustainability.

The major impact of sustainable development is the rejection of the notion that environmental conservation necessarily constrains development or that development necessarily means environmental pollution which is certainly not an insignificant gain. One may wonder, sustainable development has faltered in its inability to develop a set of concepts, criteria and policies that are coherent or consistent both externally and internally. The formulation of sustainable development suffers from the following significant weaknesses in:

¹⁰⁰ Redclift's early work on sustainable development, published roughly the same time as the Brundtland Report, is quite sympathetic to the goals of the WCED, although he is often cited as an outspoken critic of mainstream SD. He states quite clearly that “the Brundtland Commission is expressing views similar to those expressed” in Sustainable Development: Exploring the Contradictions, and that the full document (at the time unpublished) will be “worth serious attention” (Redclift, 1987, p. 14). In a testament to his prescience, he also asserts that it “remains unlikely. . .that the developed countries (or even the developing ones) will put into action the measures advocated by the Brundtland Commission” (Ibid.).

¹⁰¹ Richardson gives a particularly harsh assessment of the Brundtland Report, calling it a “sham” process and a “political fudge” that fails to face up to the basic contradiction of how to reconcile the “expansionist nature of industrial society” with the limitations presented by the planet's array of self-regulating ecological systems. 1997, P. 57.

- its characterization of the problems of poverty and environmental degradation.
- its conceptualization of the objectives of development, sustainability and participation and
- the strategy it has adopted in the face of incomplete knowledge and uncertainty.

3.5: Future Generation:

The definition of Sustainable development as explained by the World Commission on Environment and Development as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs”. This principle says that the pursuit of quality of life must be compatible with a similar equality of life for all including future generation. Such a principle seems to protect future generation and environment. Thus, according to this principle, we have a duty to conserve the resource of nature because they are essential to all human life both at present and in the indefinite future. Here the moral significance falls less on our responsibilities to other species or to nature in itself, and more on the duties we have towards it in virtue of the obligations we have towards future generations. Whereas obligations to future generations have major significance, they can also affect choices that do not have their major impact on future generations. For example, if one has a choice between allocating funds to medical programme providing acute care for persons presently ill or for preventive programs, obligations to future generation might incline in favour of funding preventive programmes.

Our thoughts and talk are replete with reference to the future, with reference to “what will be”. We think that we can in fact change and affect the future, and more often than not we act accordingly. So we may say that our actions have a direction towards future. Our present actions have bearing on especially future people, people we have no chance of encountering in our lifetime. This is something we are increasingly realising with the degradation of environment looking right at our face as a constant warning about the world that we are leaving behind us. But ethical questions regarding future have always been an issue that was worth discussing even outside the purview of environmental ethics.

Our present actions, decisions may not only have bearing on the wellbeing of future generation, but also determine whether future generation would exist at all. Our actions may help the proliferation of life in future, as well as help the proliferation of

good life for such future beings. So, with regard to these future people, and the future of these future people, we may have certain basic questions:

1. Are we responsible for deciding which future people will come into being?
2. Are our decisions in bringing these people into existence morally valuable with respect to these people?
3. Would it be right to bring them into existence at all?
4. Would we be benefiting them, by just bringing them into being?
5. If it were so responsible for bringing people into being should we feel any obligation in a way that they have a life worth living?
6. How long downstream are we to be held responsible for the existence as well as wellbeing of these future people?
7. What right do we have in deciding what would count as a good life for future people?
8. Along with this we are faced with the more fundamental question of what would constitute good life and whether life had some intrinsic value beyond the question regarding good or bad life.
9. All these questions are related to a more basic question, which makes ethics of posterity at the same time so difficult and so interesting. What is the metaphysical as well as ethical status of future people?

All the ethical principles, which we have so far used in coming to decisions about ethical problems, involve reciprocal moral relations between people involved in the ethical dispute. This presupposes that these people involved in the ethical dispute exist. In the case of ethics of posterity this is the element which is precisely missing. Another question that arises here is: Are lives of non-existing future people can be judged better or worse? If we go through the ethics of posterity, we may review our principles which are based on the idea of reciprocal moral relations. We may judge actions in themselves while the hey days of consequentialism or contractualism are gone. This is why raising the relevant questions in posterity matter in the relevant way is so essential.

There raises two more fundamental questions, when we discuss about future generation. Firstly, what do we mean by future, or to be more precise future people? The reason why this needs to be clarified is that it seems in a way that we who presently exist should be morally bound to the beings that do not exist now and may not

even ever exist, people who have no reciprocal moral relation with us. We understand how confusing the phrase 'future people' is as soon as we realise that future persons may mean so many things. Our understanding may be expressed in the following way.

- A baby who is to be born tomorrow is a future person.
- A baby yet to be conceived but is very much likely to be conceived is a future person.
- A generation to be born constitutes future generation. Even we may think of generations which might possibly exist centuries ahead of ours and so on.

Secondly, why do people think about future? In the end we cannot but think about the future. It is an existential burden for all of us to carry, some more constructively than others. The great psychologist Abraham Maslow said that thinking about future and planning for future are central attributes of a healthy human personality¹⁰².

At a practical level, people think about future because they want future to be kind to them or to others, such as their grandchildren; and planning for future thoughtfully choosing today's actions with regard to their future consequences may help that to happen. Even when it appears that one's future situation cannot be influenced by today's actions, it may still be judged useful to plan responses to the occurrence of any of various scenarios of possible futures. People also think about aspects of future in a disinterested way, that is, without interpreting what might unfold in terms of their own self-interest. This sort of thinking may just be curiosity driven or it may stem from a concern for others, for society if we prefer. We may say that we have to review our ethical stand in view of the following questions about future generation.

- Do we have obligation to future generation at all?
- Are we permitted to discount future course of events?
- Which ethical theory should govern our assessment of future events?
- Should the ethical approach towards future generation be egalitarian or utilitarian?

¹⁰² Cocks D. *Deep Futures: Our Prospects for Survival* McGill-Queen University Press, 2003. P. 135.

One may say that the issue of obligation towards future generations raises two more interesting questions.¹⁰³ The first question is concerned with the identity of future generations and this is usually center on the identity of future persons based on specific genetic criteria, i.e. they are persons linked to us genetically and form specific link between us and future people. However, one may not find any definition of identity dealing with the problem in light of the problem of identity over time. The question remains, what constitutes a link between ourselves and those to whom we supposedly have an obligation?

The second question is concerned with the possibility of perceiving future obligations as obligations to all future generations taken as a group, without any specific identity of the individuals in that group. Even if we do not know precisely who it will be, someone will live in generations after us. But moral obligations are usually undertaken in reference to one's own promises or commitments to specific individuals. It is unclear what type of obligation exists with reference to a group of people to whom no promises have been made.

3.5.1: Moral Status of Future Generation:

Moral status is a characteristic that we human moral agents attribute to entities, by virtue of which they matter morally for their own sake, so that we pay attention to their interests or integrity when we consider actions that might affect them, regardless of whether other beings are concerned about them. When an entity has moral status, we may not act towards it in any way we satisfy, disregarding its well-being, preferences, or continued existence. We owe some moral obligations to that entity itself. As a moral agent, we need to care to some degree about what it wants or needs, or simply what it is. This imposes some limitations on how we may act towards it. Moral status is also importantly different from moral goodness. A person's intentional conformity to moral principles might be one of the characteristics that enhance their moral status, relative to persons who routinely act immorally and to beings who are incapable of moral action. But being worthy of consideration in others' moral reasoning is conceptually distinct from acting morally oneself. Because moral status gives rise to moral obligations, what moral status different beings occupy is crucial to social existence and law.

¹⁰³ Stephen M. Clinton, 'The problem of future generations: as it relates to environmental ethics,' *Journal of the Evangelical Philosophical Society*, 14:1, 1991.

Moral status of future generation may involve nothing more than a simple extension of our moral community to include family, animals, ecosystems and persons who will be born after we have departed. By this account, our responsibilities to future generation would not be significantly different in kind from our responsibilities to present generations. It seems that given our knowledge and capacities, future persons have a right to our responsible care and forbearance on behalf of them.

If we have a closer look, it can be revealed that the ontological and epistemological status of future persons raises numerous and extraordinary moral and meta-ethical problems. Let us discuss some of them¹⁰⁴.

- Most fundamentally, future persons, qua future, do not exist now, when the alleged burdens of responsibility fall upon the living. Thus, question may be raised that can we have duties to non-existent beings? What sense can be made of attributing rights to those who do not exist?
- The more perplexing fact is that by initiating a policy to improve the lives of future persons, we will be causing different individuals to be born in future. But if so, then we can in no sense be said to be ‘improving the lives’ of particular future persons, who, but for our provision would not exist. We cannot know future people as individuals. Also, ‘posterity’ is an abstract category containing unnumbered and undifferentiated members. And yet, much moral concept is based upon the principle of “respect for autonomous individuals.”
- Our relationship with future generations is unidirectional and non-reciprocal. Future individuals will be unable to reward or punish us, as the case may be, for our provision for their lives.
- How can we tell with any confidence just what might benefit future persons i.e., what will or will not be ‘good’ to them?
- Who is entitled to act on behalf of future persons?

Thus, assigning moral significance to those not yet born, we are introducing and inviting problems that are unique to the history of moral philosophy. But we cannot extend our moral concern towards them as we do in the moral status of non-human species. All these questions are related to a more basic question, which makes ethics of

¹⁰⁴ Clowney, David & Mosto, Patricia. *Earthcare: An Anthology in Environmental Ethics*, Rowman & Littlefield Publishers, Inc. 2009, P. 639.

posterity at the same time so difficult and so interesting like, what is the metaphysical as well as ethical status of future people?

When we say that something counts morally in its own right, we are often said to be thinking of its intrinsic worth or value rather than its instrumental value. For example, if it were morally right to treat animals well only because this would promote kindness between persons, then animals would count morally i.e. only instrumentally. That is, they should be treated well not because of what they are in their own right, but because of the effects on others of treating them well. That is, if the animal counts morally in its own right, there is no further end that needs to be served by our treating animals well in order for us to have a reason to treat it well. If something is an end, in this limited sense, this need not mean that it has value that can never be trumped, or that it can never be treated as a mere means. At the minimum level, it means only that its condition can provide a reason for attitudes or actions appropriate to its moral worth, independent of other considerations. When we save a bird, we can do it for the bird's sake, because it will get something out of its continued existence and it could be harmed if it does not continue to exist. It seems that something is already have or have had the capacity for sentience or consciousness in order for it to be harmed by not continuing on in existence. This is because an entity must be able to get something out of its continuing existence and a capacity for sentience or consciousness seems to be necessary for this. We can say that an entity has moral status when in its own right, for its own sake, it gives us reason to help it and to refrain from destroying it.

On this account, a nonsentient, nonconscious embryo lacks moral status but could count morally in itself (for example, could give us reason in its own right not to destroy it) because of its intrinsic and extrinsic properties, such as what its potential is. This is different from its merely having instrumental value because it will in fact give rise to a future person that has moral status. In case of future generations we can say that they count morally in itself because of their intrinsic and extrinsic properties, such as what their potentialities are.

In his essay, Norman Care¹⁰⁵ presents doubts regarding "our ability to solve the motivation problem relative to what morality requires on behalf of future generations." He argues that (a) we can have no bonds of love or concern for indefinite future

¹⁰⁵ Care, N. "Future Generations, Public Policy, and the Motivation Problem," *Environmental Ethics*, Fall, 1982, P. 195.

persons: “their interests cannot interest us;” (b) we have no “community bond” with future persons no “sense of belonging to some joint enterprise;” and finally, (c) we feel no “extended or unbounded shared-fate motivation,” no “sense of common humanity.” This proposal immediately suggests two problems: first, it implies that childless individuals are incapable of caring for future generations, and thus are excused from making just provision. Second, Rawls’s “heads of families” condition presents a “discounting” problem even more severe than that of the economists, for a parent’s love and concern for a child is generally greater than for a grandchild, and so on, diminishing to insignificance within a very few generations.

The question of our responsibility to future generations cannot be returned to obscurity. For if our analysis of “moral responsibility” is correct, the only plausible escape from this responsibility would be a knowledge provided by sciences, and an abandonment of the capacity and choice bestowed by technology. But few people are willing to pay that price to avoid the moral accountability of our duty to posterity. On the other hand, we continue to support the development of science and technology, and yet ignore the long term consequences, if we will not avoid our moral duty, we will be in default thereof, and will be properly condemned by the generations that succeed us.

3.5.2: Obligations Towards Future Generation:

Obligations towards future generations examine moral issues concerning persons who have yet to born, but may come into existence. The questions it examines include whether future persons are morally significant, whether they have a right to exist, whether we are required to make certain sacrifices for the sake of their welfare, whether concern for future persons can abrogate moral obligations to existing persons, and what sorts of resources and institutions we are obligated to pass to them.

Philosophical concerns for future generation go back to at least Aristotle’s theory of distributive justice. In contemporary literature, obligations to future generations are often included within discussions on intergenerational justice, which concerns moral obligations, that presently existing moral agents owe to non-contemporaneous past and future generations, in part because of Rawls advocating its inclusion within the domains of justice.

Why do present generations have an obligation towards future generation? Present generation has obligations towards future generations because there remains a kinship relationship between the present generation and the future generations. It is a

biological fact that future generation would be causally linked with present generation. It is an attempt to extend notions of obligations of justice from those that apply to current existing persons and groups to those that apply over time.

Human being's actions affect natural system. We humans alone among all living creatures have the capacity to shape our relationship to environment. We can use it on a sustainable basis or we can degrade environmental quality and natural resource base. As part of the natural system, we have no right to abolish its integrity; nor is it in our interest to do so. Rather, as the most sentient of living beings, we have a special responsibility to care for the planet.

In recent years, lawyers have begun to join with the ecologists in debating whether there should be obligations to protect the interests of future generations.¹⁰⁶ This legal debate was preceded by a philosophical one, in the early 1970s, on the emergence of a new or "ecological ethics" redefining the relationship between man and nature in such a way as to ensure the survival of human species on Earth.¹⁰⁷ The background of the various ethical approaches has been an indisputable fact that humanity has accumulated a monstrous potential to destroy life on Earth, and that it is using natural resources and environment in a way that threatens the survival of future generations at a standard that we today consider worthy of human beings.

According to some law makers our responsibility towards future generations not only as a moral postulate, but also as a legal principle. The protection of future generations is mentioned specifically in various international instruments.¹⁰⁸ Also responsibility towards future generations is an implied subject of several recent developments. Our duties towards protecting future generations can be disputed and need to be justified. Duties towards future generations or rights of future generations ultimately rest on a value judgment. This is a fundamental assumption which reveals the fact that human species and all other species, should survive, and that future generations are entitled to live in dignity. According to Weiss, "future generations have rights and duties: rights flowing from preceding generations, duties towards the generations to follow." If we accept that there is a responsibility towards future

¹⁰⁶Gündling Lothar. *Our Responsibility to Future Generations* The American Journal of International Law, Vol. 84, No. 1 Jan, 1990, p. 207-212 Published by: American Society of International Law.

¹⁰⁷ Partridge, E. Responsibilities to Future Generations: *Environmental Ethics* edit. 1980. (Gündling Lothar. *Our Responsibility to Future Generations* The American Journal of International Law, Vol. 84, No. 1 Jan, 1990, p. 207-212 Published by: American Society of International Law.)

¹⁰⁸ Weiss, *The Planetary Trust: Conservation and Intergenerational Equity*, 11 Ecology L.Q. 495, 540ff 1984. Ibid. Vol. 84, No. 1 Jan, 1990, p. 207-212.

generations, the question arises whether this should be the “only” duties of present generations. Weiss argues strongly in favour of rights of future generations, for which she believes that rights of future generations would have “greater moral force” than obligations of present ones.

We do not have any difficulty in following Weiss’s concept of subscribing to the rights of future generations. Though it transcends the traditional understanding of rights that ordinarily has reference to the individuals. We can share the view that right of future generations has “greater moral force” than the mere obligations of present generations. However, it can be suggested that the whole controversy should not be concentrated on the issue of right or duties towards future generations. But the major problem is what we have to do today is to meet our responsibility towards future generations, what the concrete obligations are and how we can fulfill these obligations under the present circumstances of the international community. This remains the major problem even if we recognize right of future generations because, right is always connected to obligations. What we need is some basic principles for acting in the interest of future generation.

We cannot simply rely on the assumption that our way of dealing with nature and environment will turn out to be harmless. Nor can we expect that future generations will develop knowledge and technology which is necessary to cope with all the problems they inherit from us. Therefore, at present we need to take necessary preventive measures, or more precisely, precautionary action, which will ensure that natural resources are used sparingly and that degradation of environment is reduced to a minimum. This, will be achieved only if we change our basic system and thinking about values. We need to understand that economic growth is not an indicator of progress, nor is wealth necessarily an indicator of prosperity.

Our knowledge of our environment is very limited. For example, we do not know which plants and animals can still be discovered that can provide us with new types of food, medicines and other life sustaining resources. When we damage this complex biosphere, we endanger not just the life and health of the future generations, but also rob them of a world of intellectual, aesthetic and values, as a whole.

Environmental problems we face now show that the growth of our technological power calls for a new, more forward-looking notion of moral responsibility, which is helpless to trace and anticipate the far-reaching consequences of our present actions.

Traditional concepts of responsibility for our fault are irrelevant when the issue is one of agricultural or industrial practices are caused, inspired or even favoured by our present economic system. Rather than the notion of individuals having to answer for culpable actions committed in the past, in those cases, what is needed is the more forward-looking concept of collectivities economic or political entities bearing responsibility for the long-term risks which their policies create. One may derive an unacceptable conclusion that in the end responsibility rests, on our cultural priorities as a whole and on the structures in which these priorities are invested. To give its rightful place to the concept of a forward-looking responsibility which compels us to stretch our foresight as far as we can, and to base our actions on the worst possible scenario, we need to avoid the present as well as future potential dangers. This concept links up very well with the intuitive conception of intergenerational equity. What we need here is moral inspiration on the level of public action and organization.

Our concern for environment also raises the question of our responsibilities to future generations. How much do we owe to the future? From a 'social contract' view of ethics, the answer would seem to be nothing. Because we benefit them but they are unable to reciprocate. Most other ethical concepts, however, do give weight to the interests of generations to come. The fact that members of future generations do not exist, is no reason for giving less considerations to their interests than we give to our own. That it is sure that they will come and shall have interests that will be affected by what we do today, should be a reason enough for us to be more considerate. For example, in the case of the storage of radioactive wastes, it seems to clear that what we do will indeed affect the interests of generations to come.

However, the question becomes much more complex, when we consider that we can affect the size of future generations by the population policies we adopt. Most environmentalists believe that the world is already dangerously overcrowded and we are responsible for the existence of future generations. We can manage their size so that the resources of nature are more than enough for their needs and they live a sustainable life. We cannot allow the maximum numbers to come into existence so that per capita availability of resources and harsh environment compels them to live a life of want, misery and starvation¹⁰⁹.

¹⁰⁹Asthana, Dr. D.K & Asthana, Dr. M. *A Text Book of Environmental Studies*, S. Chand & Company Ltd., New Delhi, 2006. P.265.

Human beings are the temporary custodian of this planet, simply a link in the cycle of events, which has been operating since time immemorial. They do not have the right to spoil the resources, pollute environment and disrupt the very cycle of life of which forms a simple insignificant link. It will affect the future generations whether small or large. Just as we have inherited the resources of the world from our predecessors, should not we pass it on to our future generations in a clean and usable state? The concept of *Land Ethics* by Leopold affirms the right of all resources, including microbes, plants, animals and earth materials as well to continued existence in a natural state. Humans have an ethical responsibility of preservation and maintenance of biosphere, atmosphere, hydrosphere and lithosphere¹¹⁰.

3.6: SOME OBSERVATIONS ON THE OBLIGATION TOWARDS FUTURE GENERATION:

Discussion about the obligation to future generations will generate some problems, like (a) the non-identity problem, (b) the problem of circumstances of justice and (c) the problem of positive obligations.

The non-identity problem states that the choices between two policies, such as, P1 and P2, for example, between high risk and low-risk energy paths, will affect not just the state of well-being of future generations, but who will exist, their identity, S1 and S2. It may happen that one of the policies, such as, P1, might produce a much lower quality of life than the other. However, the argument runs, since the population S1 that is produced would not have existed were it not for P1, then providing their life is worth living, they cannot be said to have been harmed. As there is no specific person how can somebody be wronged or harmed? How can something be wrong if it does not wrong anyone? How can something be worse if it is not worse for anyone? The non-identity problem is sometimes used to deny that we have any obligations to future generations to produce a better rather than a worse future. It also raises questions about the nature of our obligations, and in particular about the status of person-affecting restrictions in ethics. The non-identity problem has been voiced with the slogan given by Temkin as: ‘One situation cannot be worse (or better) than another in any respect if there is no one for whom it is worse (or better) in any respect’.¹¹¹

The non-identity problem as a slogan is centred on person-affecting restriction and is used against certain versions of egalitarianism. It is often taken to support the

¹¹⁰ Leopold, A ‘*Land ethics*’ A Sand Country Almanac, Oxford Univ. Press: NY 1966 p.340.

¹¹¹ Temkin, Larry S. *Inequality*, Oxford: Oxford University Press, 1993, P.256..

levelling down objection to equality. The levelling down objection runs that if equality is in itself a good state of affairs, then one must allow that where equality is achieved through 'levelling down', creating a state of affairs in which none are better off and some worse. But how can it be better in any respect given that there is no one for whom it is better, while for some it is worse? Nothing can be good or bad unless it is good or bad for someone. However, given the implications of the slogan in the case of future generations, there may be good reason for scepticism about the slogan. Some policy decisions, for example, to deplete rather than to conserve, appear to be wrong even if there is no individual for whom it makes life worse. The non-identity problem then raises questions about the nature of our obligations to future obligations. Can the future generations who live following the resource-depleting policy decision claim that their rights have been violated? How can an action violate an individual's right not to be harmed if the individual would not have existed in absence of the action and hence would not have been better off? Thus the implication that can be drawn from the non-identity problem is that we need to move to a consequentialist and impersonal perspective on our obligations to future generations. This would maximize the total amount of good or to produce an equal distribution of goods.

However, there are various ways through which the position of non-identity problem can be resisted. One suggestion is that we need to distinguish between two claims that are normally conflated in the statement of the non-identity problem:

- (i) The claim that the choice of policy P1 does not harm or wrong anyone.
- (ii) The claim that P1 makes no one worse off than they would have been.

The argument runs that while the second claim may be true, that P1 does not make anyone worse off, the first claim that it does not wrong or harm anyone, does not necessarily follow. It is indeed possible to harm or wrong persons without necessarily making them worse off.

The second problem with extending conceptions of justice and ethical obligation that apply to current generation and future generation are those concerned with the absence of some of the circumstances of justice and ethical obligations on certain views of those obligations. According to contractarian theories of justice and obligation the point of moral rules or rules of justice is to serve as a means by which individuals of limited altruism can realise their long term interest in conditions where they are roughly equal in power and susceptibility. However, it has been claimed that

such theories have problems in extending obligations to future generation, for given that there is an inequality of power and susceptibility (we can harm them, they cannot harm us) the circumstance of justice or obligation are absent. According to communitarian view many obligation only exist in conditions in which we belong to the same community. It links particular obligations to others to the existence of community. Question may be raised that since future generations either cannot or may not belong to a community with ourselves, what kind of responsibilities do we have for them?

There are a number of responses one might make given these problems. One might accept the theories by viewing that we have only limited-obligations to future generations. Secondly, one might reject those conceptions of justice or ethical obligations since they fail to offer an account of our obligations to future generations. Thirdly, one might attempt to defend such conceptions by modifying them so as to include intergenerational obligations. For example, by introducing the notion of an intergenerational contact or by denying the supplementary claims, for example, that we cannot be harmed by future generation or the future generations and ourselves cannot belong to the same community. Here the second response is owed to contractual theories of ethical duties and the third to communitarian theories.

We also find different response to the problems for the communitarian view. It states that many of the projects we engage like, scientific, artistic, familial, political and everyday working activities actually guard for their point and their potential success on the future beyond us. It matters to us that future generations do belong to a community with ourselves. Future generations are capable of appreciating works of science and art, the good of non-human environment, and value of human skills. They are also capable of contributing to these values. According to this response, this is an obligation not only to future generations, but also to ourselves in present. We do not undermine our own achievements by rendering impossible to our own success, and to those of the past, so that their achievements continue to be both appreciated and extended. It further states that our obligations should not be understood as obligations to strangers but to members, a transgenerational community of which we are potentially be a part. The central point is that how we characterise the value of events in our lives actually hinges on a larger frame in which they occur and that frame itself depends upon a particular future. Hence, the future matters to us now, so as the future generations.

The third problem concerns with the apparently inegalitarian nature of many positive obligations that are taken to apply over generations, what Harzen called the ‘*chronological unfairness of human development*’.¹¹² This point is raised in Beckerman’s paper ‘Intergenerational Equity and the Environment’ which highlights the issue not just of how far egalitarian justice applies at all over generations, but also how far the language of ‘sustainable development’ captures any principle of egalitarian justice. Sustainable development is often understood in terms not of equality of welfare over generations, but of improving the welfare or quality of life of future generations. Obligations to the future generations may be counted as positive and negative. With regard to negative obligations, there is something *prima facie* unjust about our engaging in projects in which the benefits fall on ourselves while the harms fall on those who follow us. There is also a negative sense in which harms and suffering felt on one generation for the benefit of future generation can also be said to be unjust. One might also understand how such obligations might be grounded in considerations of equality outlined above. However, when it comes to positive obligations, notions of intergenerational justice and equality do not always appear to be the right language in which it will articulate our concerns.

One may ask, “But we don’t know what people in the future will want,”. “May be they will prefer a world of fast roads and vast shopping malls, and a world of luxury. So why preserve things for them that they may not even appreciate?” This is the argument from ignorance. In standard form it goes something like this:

- ❖ We can have obligations to beings only if we can know what those beings are like and what they need or desire, and
- ❖ We can’t know what future people will be like or what they will need or desire.

Therefore, we have no obligations to future people.

The argument is valid. And the first premise is probably accurate; if we knew absolutely nothing about a class of beings, then we could not know what was good or bad for them and would have no basis on which to act responsibly toward them. Our ignorance, moreover, would not be willful, since the first premise envisions a situation in which no information about these beings is available to us. But the second premise is false. We have a great deal of inductive evidence, based on the entire past history of humanity and on its biology, physiology and psychology, for what

¹¹² Rawls, J. *A Theory of Justice*, Oxford: Oxford University Press, 1972, P.290.

future people will be like and what they will need or desire. We can be virtually certain, for example at least with respect to people living in the next few centuries that they will need sources of food, clothing, shelter, and clean water and air. They will prefer an environment that is not dangerously contaminated with toxic or radioactive substances. It is very likely, given what we know of humans so far, that many of them will want open space and natural beauty. Clearly we know enough to act with some degree of responsibility towards future people. We may not hide behind the excuse of ignorance and there is a further point: we are to a certain extent responsible for shaping what future generations will want, not only in the way we educate people, but also in our shaping of the world. If we destroy wilderness, for example, then we ensure that future generations will never value wilderness; for how could they learn to love what they will never know? If, by contrast, we preserve wilderness, then we preserve at least the possibility of their valuing it. And, given the pervasive human appreciation of nature across history and culture, it is likely that many future people will realize that possibility. Thus, we know what future generations will need, not only because we know what human beings in general want, but also because to some extent we participate in shaping their values.

Utilitarian Approach Towards Future Generations:

According to classical utilitarianism which shapes much of our current ethical thinking, we should aim to maximize happiness for all people. It seems obvious that “all people” should include future generations. If so, then utilitarianism implies a doctrine of sustainability the idea of providing for the needs of future generations without reducing the ability of future generations to provide for themselves. This seems quite reasonable. But humanistic utilitarianism does not do so well when applied to the issue of population. For if the goal is to maximize the total quantity of happiness in the world and then we must recognize that with each new person born, provided that that person lives at least a marginally happy life, the quantity of happiness is increased. Utilitarianism therefore seems to imply a policy of population increase! Of course, if things get too crowded, so that, for example, there is mass starvation, then each additional person will decrease the world’s happiness. So what utilitarianism seems to recommend is a policy of increasing the population just up until the point where adding anyone else would produce enough misery actually to lower the total happiness. But that could well imply that each person’s quality of life, though still positive, is seriously

diminished, though the total happiness increases. That is, instead of having fewer very happy people, we may wind up with many only slightly happy people. Surely this is an absurd result. We may conclude, then, that classical humanistic utilitarianism is not an adequate theory for future population policy.

One suggestion aims at to maximize, not the total happiness, but the average happiness. We may call this average utilitarianism. Average utilitarianism seems to recommend a policy of population reduction. Many of us would probably be happier if the world contained fewer people and there was less competition for resources. Of course, this could be carried too far. Very few of us would want to be the only person in the world or one of only a few people in the world, for this would lower our quality of life by limiting technology, companionship, etc. So the upshot seems to be that we should decrease population to a certain relatively small size and then keep it stable. So far, this sounds plausible. But there are problems with averaging utilitarianism, too. May be the most effective way to maximize average happiness is simply to eliminate i.e., unexpectedly and painlessly kill people who are chronically unhappy. But that wouldn't maximize average happiness if the survivors cared about or if the survivors feared in eliminating themselves. But suppose there was as large group of unhappy people whom none of the other relatively happy people really cared about. Then to eliminate this group would not reduce the survivors' happiness and would considerably increase the averaging happiness. It is quite plainly immoral. Any theory which implies such results, even in hypothetical cases, must be inadequate. Hence we must reject average utilitarianism.

There are many other theories of this sort that we might consider, including other variants of utilitarianism, various deontological theories, care ethics, and so on, but the fact is that a really adequate theory of moral obligations to future generations that deals with things like population policy has yet to be formulated. John Rawls thinks that government and social policy are best crafted by imagining the drawing up of rules for a society prior to that society's existence, under the assumption that we belong to that society but we don't know which role we play in it. This not-knowing of our place is the veil of ignorance. Its function is to provide certain objectivity; if we don't know who we will be in this society, we will not be influenced by our own prejudices to provide especially for ourselves or people in our social class. From this sort of thought experiment, Rawls deduces a wide variety of desiderata for a just

society. This strategy can also be applied to future generations. A number of thinkers have proposed that the veil of ignorance be made intergenerational that is, not only do we not know what position we will have in the society, we do not know what generation we will belong to. This gives us a perspective from which we treat all generations fairly. We can see immediately, for example, the unfairness of one generation's depleting resources such as fossil fuels or disrupting the climate for its own benefit and to the detriment of future generations. Thought experiments such as this can take us a long way toward crafting fair and rational policies that apply to future people as well as those of us who are now alive.

Finally, many claim that a key obligation we have towards future generations is to curb population growth, perhaps reduce population. Golding does not see how we could have such an obligation, because in effect it requires actions that would determine the membership of future generations.¹¹³ Also our obligations towards future must find a firm basis in social ethics: those obligations have to do with our conception of a just society. What moral forces can help us to enlarge the time horizon of that conception? From the environmental context it creates an additional challenge that forces us to think on a global level. Fundamental questions concerning the meaning of human history which go beyond social ethics then come into their own position.

Future generations are exposed to great harm by the way in which we, the living beings, exploit environmental resources of the earth. There is a sense in which the whole issue of obligations towards future generations is therefore part and parcel of ecological discourse in general. We need to strive for a new and more respectful relation with our natural environment. But in doing this, there is a danger of being tempted by the mysticism of "deep ecology" which obscures the specifically human aspect of the problem. It is surely legitimate to discover intrinsic value in the beauty of natural forms or in biological diversity. The believer can share such an experience in terms of respect for God's creation. Ecological awareness precisely consists in recognizing that mankind is part of a wider reality. But when we feel that we have duties towards future people, it is a specifically moral and anthropocentric perspective that we take. We are not dealing then with "nature" but with human beings, whom we

¹¹³ Others have argued in another way that if we have any obligations to future people then it must at least be to bring them into existence. Further, that if we are to be Utilitarian, we should bring into existence as many people as possible perhaps, within the limits of maximizing utility.

perceive to be the victims of a particularly strong handicap. As they do not yet exist, they cannot resist our uninhibited exploitation of the resources of the planet.

Kantian ethics seems to have significant implications for obligation towards future generations, but they are not elaborated by many philosophers. Perhaps the most fruitful Kantian approach is by the formula of the law of nature: “Act as though the maxim of your action were must both be able to conceive of the maxim becoming a law of nature on which everyone acts and be able to rationally will it.”¹¹⁴ For a maxim to be a law of nature the species must be able to continue and the time at which effects occur is irrelevant. Thus, dumping toxic waste that poison the environment would be condemned, because one cannot conceive of a system of nature with the species surviving where that done.¹¹⁵

The utilitarian tradition is concerned with maximizing net utility and this seems to be a good basis for being concerned with the happiness of future generations. However, if utilitarianism is restricted to the happiness of identifiable people, it directly falls in to the identity problem. No one is made worse off if actions results in different people were being born in the future provided their lives are at least minimally worth living.

Utilitarianism has been extensively discussed by philosophers, and many objections have been raised against it. Two objections are especially relevant here. Firstly, Utilitarianism is an extremely, even excessively demanding moral view. If we have a duty always to bring about the best outcome, then any time we can increase the wellbeing or others or ourselves, just about any time we have a moral duty to do so. There is no moral extension, no such thing as moral holiday. We are always duty bound to sacrificing something for the sake of benefits elsewhere. Secondly, Utilitarianism can favour unequal distribution of wellbeing, and in particular can impose severe deprivations on the few for the sake of gains for the many. Given its interpretation of impartiality, utilitarianism will count the deprivations of the few as a moral cost, but if they produce benefits for many other people, this cost will be outweighed and even as a severe inequality can be on balance approved.

¹¹⁴ Kant, I. *Foundation of the Metaphysics of Morals with Critical Essays*, trans. Lewis White Beck, ed. Robert Paul Wolff Indianapolis: Bobbs-Merrill, 1969, p.45.

¹¹⁵ Annette Baier, “For the Sake of Future Generations,” in *Earthbound: New introductory Eassy in Environmental Ethics*, ed. Tom Regan (New York: Random House, 1984), p.217.

To respond to the objections against our obligation to future generations, some philosophers have proposed replacing utilitarianism about future generations with a different, egalitarian view. This view cares not just about the sum of benefits across generations but also about equitable distribution, or about intergenerational equality. We do not sacrifice the worst-off generation for better-off generations, but in some way at equality of condition among them.

The natural environment, species and the generations that will succeed us lie in the fate of our hand. In this respect, environmental ethics represents a kind of ethical approach, which considers intrinsic value not only in the interest of individual sentient creature, but also in nature living creatures in the world. The reason is that we humans are complex beings and we make decisions about what to do, about what is right and wrong through thoughts and feelings, rational arguments and intuitions, head and heart, data and gut instinct. These varieties in human nature compel them to think and do accordingly in a responsible and sustainable manner.

To attain sustainable development, environmental planning and management is very necessary. Planning should be directed towards (i) an overall growth of the society and (ii) removal of socio-economic disparities through proper utilization of resources. Environmental management which is related to rational adjustment based on the principle of realization between man and nature involving judicious exploitation and utilization of natural resources without disturbing the ecological balance and ecosystem equilibrium is the need of the day. Environment management aims at improvement of human-environment relationship by imposing a check on destructive human activities, along with conservation, protection, regulation and regeneration of nature. Such management is sure to bring out socio-economic development on one hand and improvement of environmental quality on the other.

There are two approaches in environmental planning and management such as, the preservative approach and the conservative approach. First, the preservative approach promotes non-interference of human with nature and total adaptation of human to nature, i.e. human must surrender completely to the whims of nature. This approach is not practicable as it would lead to the total extinction of human. Second, the Conservative approach is in fact practicable as it advocates human-environment adjustment in terms of judicious utilization of natural resources for socio-economic development and at the same time maintenance of ecological balance, ecosystem,

stability and environmental quality by adoption of eco-friendly and pollution free technologies.

One may say that environmental planning and management needs to be based on the following ecological principles in order to attain sustainable development:

- (i) The biotic and abiotic components of the environment are interrelated which in turn are related to large scale biogeochemical cycles.
- (ii) Sustained life on Earth is a characteristic of eco-system.
- (iii) Resources of the planet are mostly finite.
- (iv) Resources are created over millions of years.
- (v) All living species and the physical environment are mutually reactive.
- (vi) Energy flow in the eco-system is governed by the first and the second law of thermodynamics.
- (vii) Productivity of the eco-systems depends on the availability of solar energy and the ability of the plants to transform solar energy into chemical energy.

Environmental planning and management based on the above mentioned ecological principles will foster harmonious living of all species within an ecologically balanced environment.

The question arises that how sustainable development should proceed? Restoration of environmentally degraded areas along with launching of new development projects in previously developed areas incurs large expenditure and at the same time may not be successful. Such development strategy cannot be called sustainable. In an eco-systemic sense sustainability of both eco-system and human life requires development. Therefore, in order to understand sustainability or carry out sustainable development in the eco-systemic sense, the good of all non-human entities needs to be recognized along with the good of human beings. Once it is recognized conditions favouring or assuring the good of all entities should be stably maintained. Thus human actions needs to be directed not only towards maintenance of human well-being or human good but also towards promotion of good or well-being of all non-human entities constituting the eco-systems and therefore the environment. Such an endeavour would be sustainable development of the society in the true sense of the term.

The question which arises is whether sustainable development can be achieved in its true sense without taking environmental justice into consideration? In fact,

sustainability, development and environmental justice are all interconnected or interlinked and the discussion of one by forfeiting the other makes our understanding incomplete. We all know that the environment is our habitat and we are all the constituents as well as the observers of the environment. We are therefore entitled to a healthy and protective life in harmony with nature. All biotic species indeed are entitled to acquire proper or qualitative living within a healthy environment. These entitlements involve duties or obligations on the part of international or national organization, governments of different countries with the aim to meet equitably the development and environmental needs of the present and future generations. The question of justice comes only when the desire and needs of human exceeds the means of satisfaction. Justice may usually be applied in areas of scarcity of resources. The scarce resource needs to be distributed equitably among the members residing in that area so that each gets their fair share. But it is even wrong to think that justice is not required when resources are plentiful. To allow people to utilize plentiful resources according to their desire will eventually jeopardize the environment.

We understand that we do require development, which can come through science and technology, but such development must protect the generative capacity of nature, natural environment in the true sense of the term. If any such development would be detrimental to the natural environment, degrade the so-called biosphere, transform the fertility of natural environment to barren land, such type of development must be resisted. So when we plead for environmental development through sustainability, we must resist the so-called modern scientific development based on consumerism, materialism, individual subjectivism where ups and downs, exploitation and subjugation, where superiority and inferiority in terms of material wealth is the sole criterion of cultural development, where development runs with empty ethical foundation, metaphysical basis. Such type of development is no longer sustainable. So sustainability is the criterion of development.

However, when we talk about sustainable development, we thereby rationalize ourselves, set a rational criterion of development which is associated with morality, ethics and metaphysics and it will rationalize human's desires. So it can be said that sustainable development in one sense is very much a form of enlightened anthropocentrism or popularly known as weak anthropocentrism, but it would require a different attitude of humans which is unlikely in the domain of strong

anthropocentrism. Environmental ethics in the form of non-anthropocentrism actually has tried to bring back humans attitude towards nature in a revolutionary manner. It tries to show or at least it gives opportunity to humans to re-look their own position through the realization process where they stand, what they are doing, what is wrong with them, and how they overcome the harmful actions that give rise to serious threat to the mankind in general.

We think that sustainability is not a pure form of non-anthropocentrism, but definitely it is an enlightened form of anthropocentrism and shallow ecological attitude by means of which environmental journey has started. There is no question of doubt that sustainability requires a drastic change of humans' attitude towards nature which is completely foreign in the domain of brute anthropocentrism. Sustainable development is intimately associated with environmental justice, because sustainable development can only be restored through the process of environmental justice. We should not abuse our natural resources and we should preserve our natural resources for future generations.

Since the 1970s, the topic of ethical obligations to future generations has been of interest to philosophers, economists, environmentalists, and others. While the context for application differs for each field, the central issues are the same: whether a current generation has moral obligations to non-contemporaneous future generations, the nature of those obligations, and whether those obligations require an earlier generation to make sacrifices for a future generation. For example, does the present generation have the right to exhaust the planet's resources or render the planet uninhabitable? Do future generations have rights which require the present generation to conserve resources and preserve the environment for future generations? All thoughtful people agree that we ought not to make the world a much less pleasant place for our descendants than the world we have inherited from our ancestor by dumping our wastes into rivers, lakes and oceans, cutting down our forests indiscriminately, and polluting the atmosphere with noxious gases. As temporary inhabitants of this planet, we do have certain duties to perform for future generations such as not to pollute the atmosphere, to protect threatened plant and animal species, to preserve the beauty of the wilderness areas, and artistic treasures of earlier human civilization. These are certain valuable objects, and things what we have inherited from our ancestors, and we must preserve them for our descendants. If we talk about the duties to future generation,

we imply that future generations have rights, which are morally obligated to respect. Joel Feinberg, on *The Rights of Animals and Unborn Generations*, emphasizes the interests of future generations to preserve endangered species. He says, “surely we owe it to future generations to pass on a world that is not a used up garbage heap”¹¹⁶. We as temporary inhabitants of this planet, therefore, have certain duties to perform for future human beings to leave a livable planet. Finally, it can be concluded that sustainable development is constructed in a way that it reflects how society wants to live in nature, about the expectations of society for the future, and the societal idea of justice. The construction is taking place in the presence of power. Thus, the concept sustainable development needs to be reflected philosophically and politically when used.

¹¹⁶ Feinberg, J. “*The Rights of Animals and Unborn Generations*”, in James E. White, (edit), “Contemporary Moral Problems”, New York, West Publishing Company, 1994, P. 434.