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# Sustainable Development and Integral Ecology: The Philippine Ecological Experience

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# Sustainable Development and Integral Ecology: The Philippine Ecological Experience

#### **Abstract**

Two of the most important concepts that are related to environmental care and our present ecological situation are sustainable development and integral ecology. Pope Francis in his encyclical letter Laudato Si' focused on these concepts and stressed the need to safeguard our environment to ensure that while we meet the needs of the present generation we also do not compromise the needs of the future generation. He proposes a development that is both sustainable and integral, a development that is authentically just and for the common good. In this paper I discuss the ideals of sustainable development and integral ecology as expounded by various scholars and from both the western and oriental perspectives and as discussed in Pope Francis' Laudato Si'. The last section of the paper highlights the Philippine ecological situation to serve not as an ideal but a kind of mirror as to what is happening in a developing country like the Philippines which is situated in an area where different ecological factors converge. The Philippines has always been at the center of the many ecological crises mainly because of human and natural factors. In the end, I stress that sustainable development must be premised on integral ecology and this should be the case not only in the Philippines but in the entire planet.

# Sustainable Development and Integral Ecology in the *Laudato Si'* and the Philippine Ecological Experience

Jove Jim S. Aguas, PhD

#### Introduction

Our Common Home - Mother Earth is in a crisis! The challenge of the present generation is to take care of the Earth and its natural resources and environment and preserve them for future generations. The task is not only to protect the environment but also to ensure an economic betterment for all people, not only for the rich but more importantly for the poor and marginalized. In relation to this, two important concepts or ideals that have emerged today are "sustainable development" which was contained in the 1987 "Brundtland Report" and "integral ecology" which has been discussed by scholars from various fields and is a center piece of Pope Francis encyclical letter *Laudato Si'*. Both documents focused on safeguarding our environment to ensure that while we meet the needs of the present generation we also do not compromise the needs of the future generation; both proposes a development that is both sustainable and integral, a development that is authentically just and for the common good, that is good not only for the rich but more importantly to the poor and the marginalized sectors of the society, good not only for the present generation but more importantly for the future generations, the common good that is not only for the human but also for the non-human inhabitants of this earth.

In 1984 the United Nations gathered different individuals from different countries in order to address the pressing environmental problems of the world. This was known as the *World Conference on Environment and Development WCED*). An important concept that came out from their report "Our Common Future" in 1987 is the concept of "sustainable development," a development that addresses the needs of the present without compromising the needs of the future.

In 2015, almost thirty years after that report, Pope Francis in the very timely and significant encyclical letter *Laudato Si'*, (On Care for Our Common Home) calls and appeals to "every person living on this planet" for an inclusive dialogue about how we are shaping the future of our planet. Pope Francis calls on the Church and the world to acknowledge the urgency of the environmental challenges that the world faces today. With hope and resolve Pope Francis appeals to everyone to focus on the exigency of embarking on a new path to secure our home – Mother Earth and our common future with candor and humility.

This paper will focus on the notions of sustainable development and integral ecology and using the Philippines ecological situation as case for the significance of sustainable development and integral ecological framework. There is a very close connection between these two concepts, in fact Pope Francis notes that the concern for the Earth includes a "concern to bring the whole human family together to seek a sustainable and integral development." The Philippines for its part was in fact abreast in conceptualizing and strategizing towards this kind of development. But base on the Philippine experience the problem is not in conceptualizing and strategizing but in putting into practice these strategies. Putting them into practice will require change in our attitude, a reconfiguration of our way of life.

#### I. Sustainable Development

# I. Sustainable Development <sup>1</sup>

We have never seen such rapid development than in the last several decades. This started during the second half of the 19th century triggered by industrialization, urbanization and shift in political ideology. This further continued with the advancement in technology and science more particularly with the development of electronic computers in the 1950s. With the computers and the development of the internet in the 1970s telecommunication has rapidly change the landscape of communication, business, politics and economics. This rapid development transformed into the global phenomenon of globalization. We can now say that most countries have made significant advances both in their economies as their gross domestic products increased and in their human resource indexes.

However, the overall development on a world scale has been met with two major criticisms. First, that the benefits of development have been unevenly distributed and that economic inequalities remain and has increased over time. "The global numbers of extremely poor and malnourished people have remained high, and in some areas have increased, even as a global middle class has achieved relative affluence." Second is that there have been major negative impacts of development on the environment and on existing social structures. "Many traditional societies have been devastated by development of forests, water systems, and intensive fisheries. Urban areas in developing countries commonly suffer from extreme pollution and inadequate transportation, water, and sewer infrastructure."

The environmental destruction that has been the offshoot of development if unchecked will definitely undermine the achievements of development during the last decades and will lead to the total collapse of our natural environment and the essential ecosystems. Many critics of development consider these inequality and destruction of the environment as endemic to development. Richard Norgaard, sees them as indicative of fundamental error stressing that development brought about by modernism have actually betrayed the progress that it promised.

While a few have attained material abundance, resource depletion and environmental degradation now endanger many and threaten the hopes of all to come . . . Modernism betrayed progress by leading us into, preventing us from seeing, and keeping us from addressing interwoven environmental, organizational, and cultural problems.<sup>4</sup>

## A. The Brundtland Report

In 1984 the United Nations (UN) gathered people from different member states with the task of identifying the long-term environmental strategies for the development of the international community.

<sup>&</sup>lt;sup>1</sup> Part of the discussion of this section is based on a section of a paper read during the World Congress of Philosophy in 2013 in Athens, Greece. Jove Jim S. Aguas, "Intercultural Dialogue and Social Participation as Essential Keys to Sustainable Development in the South East Asian Region," a paper presented during the Round Table discussion on Cultural Traditions and Sustainable Development in South East Asia, sponsored by the Council for Research in Values and Philosophy (CRVP) at the 23rd World Congress of Philosophy (WCP) held at the School of Philosophy, National and Kapodistrian University of Athens, Greece, from August 4-10, 2013.

<sup>&</sup>lt;sup>2</sup> Jonathan M. Harris, "Basic Principles of Sustainable Development," Global Development and Environment Institute Working Paper 00-04, Tufts University, Medford MA 02155, USA, 2000. <a href="http://ase.tufts.edu/gdae/publications/working-papers/Sustainable%20Development.pdf">http://ase.tufts.edu/gdae/publications/working-papers/Sustainable%20Development.pdf</a>.

<sup>3</sup> Ibid.

<sup>&</sup>lt;sup>4</sup> Richard Norgaard, *Development Betrayed: The End of Progress and a Coevolutionary Revisioning of the Future*, New York and London: Routledge, 1994, p. 2.

In 1987, this independent group known as World Conference on Environment and Development WCED) published their report entitled "Our Common Future" known as the "Brundtland Report" named after its chair, the then Prime Minister of Norway, Gro Harlem Brundtland. The report used the term "sustainable development" which it defined as "the development that meets the needs of the present without compromising the ability of future generations to meet their own needs."

Since then, sustainable development has been a common policy of many governmental and non-governmental units and in recent years it has been the agendum of several important international conferences which discussed among others actions that must be taken toward sustainable development. In the midst of the ecological changes and the complex social problems that confront the world of today majority of governments has accepted sustainable development as a desirable policy that would foster a development that would not only serve the needs of the present but more importantly safeguards the resources of the earth for future generations.

While various disciplines have come up with different definitions of sustainable development based on their assumptions about the basic relationship between society and nature, there is one fundamental feature of these different notions of sustainable development and this is the recognition of the interdependence between man and nature. While man depends on nature for his sustenance, man, and society in general, must take care of nature because, if man will not act wisely as to preserve nature, then nothing will be left of it and man's future will be compromised. So while man harnesses the resources of nature for his present consumption and for his economic benefit, the use of these resources must not endanger the continuous preservation and cultivation of such resources so that the future can have its own resources.

But what is precisely sustainable development? There are more or less 70 definitions of sustainable development in circulations.<sup>7</sup> As mentioned earlier, the WCED defines it as a "development that meets the needs of the present without compromising the ability of future generations to meet their own needs." It contains within it two key concepts: the concept of 'needs', in particular the essential needs of the world's poor, to which overriding priority should be given, and the idea of limitations imposed by the state of technology and social organization on the environment's ability to meet present and future needs." While the rich countries have the technology to harness the resources of nature and satisfy their needs, there are more poor people who can hardly meet their basic needs. If the rich and developed countries with their technology will continue to maximize the resources of nature what will happen to these resources, what will be left for the future generations? As this is unfolding the resources are depleted and the divide between the rich and the poor is getting wider and consequently economic and social inequality continues to persist. These concerns are addressed by sustainable development.

In technical terms, sustainable development can be defined as a development path along which the maximization of human well-being for today's generations does not lead to declines in future well-being. In more simple terms, it is a development that allows man to cultivate and utilize the natural

<sup>&</sup>lt;sup>5</sup> See Aguas, "Intercultural Dialogue and Social Participation as Essential Keys to Sustainable Development in the South East Asian Region."

<sup>&</sup>lt;sup>6</sup> Ibid.

<sup>&</sup>lt;sup>7</sup> J. Holmberg & R. Sandbrook, ed. "Sustainable Development: What is to be done?" in *Policies for a Small Planet : from the International Institute for Environment and Development.* (London: Earthscan Publication, 1992), pp. 19-38.

<sup>&</sup>lt;sup>8</sup> Report of the World Commission on Environment and Development: Our Common Future, Part I, chapter 2.

<sup>&</sup>lt;sup>9</sup> See *Policy Brief Sustainable Development: Critical Issues*, Observer, Organization for Economic Co-Operation and Development, (September 2001), p. 2.

resources for him to satisfy his present needs and at the same time preserves the natural resources so that the future generation can also satisfy their needs. In order to attain this, what is required is to eliminate those negative externalities that depletes the natural resources and degrades the environment. It also requires that those public goods that are essential for economic development are secured to last for the future generation, like those that are provided by well-functioning ecosystems, a healthy environment and a cohesive society. <sup>10</sup> Sustainable development also stresses the importance of the ability to respond to future challenges or setbacks even when their probability and effects can hardly be assessed accurately. <sup>11</sup>

Beyond this technical understanding the concept of sustainable development has gained a broader political usage and relevance. In a much broader perspective it embodies a "concern for taking a broad view of what human welfare entails" and it recognizes the need to balance "the goals of economic efficiency, social development and environmental protection." Consequently, sustainable development is not limited to environmental preservation; it covers the environmental or biological, the economic and social. These pertain to the three pillars of sustainable development, namely: the biological system, economic system and social system. Sustainable development ensures the protection of the environment and the integrity of our biological system which should bring about genetic diversity, resilience and biological productivity. It ensures efficiency of economic system which must result to poverty reduction, enhancement of equity and increase of useful goods and services. It safeguards the social system which must result to recognition and promotion of cultural diversity, institutional sustainability, social justice and participation. The ultimate aim is to realize the goals of each of these systems and in order for these goals to be achieved there must at certain point and degree a critical balance among these systems.

A report published few years ago stresses that a sustainable development path builds on a global framework for cooperation to address the four dimensions of sustainable development and should be based on four related normative concepts, namely: (i) the right to development for every country, (ii) human rights and social inclusion, (iii) convergence of living standards across countries, and (iv) shared responsibilities and opportunities.<sup>15</sup>

#### II. The Development of Integral Ecology

In 1866, the German biologist Ernst Haeckel coined the word *oecologie* (from the Greek *oikos*, meaning "household" or "dwelling") to develop an inquiry into the household of nature. In 1859 Charles Darwin developed his theory of evolution in his pioneering work *The Origin of the Species* and referred struggle for survival or existence of the species. Haeckel's intention was to make ecology as a further development of the evolutionary theory of Darwin. He defined ecology as the scientific study of relations between organisms and their environmental conditions and deals with all those complex interrelations that Darwin referred to as the conditions of the struggle for existence. <sup>16</sup> By focusing on the

<sup>&</sup>lt;sup>10</sup> *Ibid*.

<sup>&</sup>lt;sup>11</sup> *Ibid*.

<sup>12</sup> Ibid

<sup>&</sup>lt;sup>13</sup> Edward B. Barbier, "The Concept of Sustainable Economic Development" *Environmental Conservation*, 14, (1987), pp. 101-110.

<sup>14</sup> See Ihid

<sup>&</sup>lt;sup>15</sup> An Action Agenda for Sustainable Development, Sustainable Development Solutions Network (June 6, 2013), p. ix.

<sup>&</sup>lt;sup>16</sup> See Sam Mickey, *On the Verge of a Planetary Civilization: A Philosophy of Integral Ecology*, London: Rowman & Littlefield International, Ltd, 2014, pp. 10-11.

complex interrelations, Haeckel extended the study of biology to include a more thorough explanations of the conditions of existence or survival for living beings.<sup>17</sup> Furthermore, Haeckel conceived ecology not only as a science but also as a theological vision for which evolution "now leads the reflecting human spirit" to a metaphysical truth about the "order of the cosmos." This means that ecology should be understood both as a science and spirituality, a model for analyzing biological phenomena and a model for living one's life.<sup>18</sup>

After this initial development of the notion of ecology, the concept would show up in many different ways throughout mainstream media and would become popular by-word especially in the technologically developed world. Ecology would make the environment especially the natural environment the center of world attention lifting it from the background and making it prominent in everyday affairs. Ecology would transform from a biological study of the interrelations that comprise the Earth "household" (*oikos*) to a "household" word with a vast spectrum of meanings and connotations within and beyond scientific and academic communities. <sup>19</sup> Hence, according to Sam Mickey "The task of becoming ecological, then, does not end with an understanding of the crises and evolutionary dynamics of our disjointed time. It also involves an integrative task: responding to ecological problems by crossing boundaries between disciplines of the sciences and humanities in a way that accounts for ecological realities in their numerous and varied aspects."

But the task of becoming ecological was not that simple. The task of becoming ecological found its first formulation the work of Felix Guattari, *The Three Ecologies* (1989). In this work Guattari develops a "generalized ecology"—an ecological philosophy which he also calls *ecosophy*. <sup>21</sup> Guattari conceives of ecosophy as a response to ecological disturbances and the degradation of the exterior environment as well as the progressive deterioration of human modes of life, both individual and collective – a social ecology. <sup>22</sup> Acknowledging the ecological crisis that we are in Guattari suggests that instead of advancing the need for austerity to save the environment what is needed is the reconfiguration of life within the existing techno-scientific system. This would imply considering a set of ecologies that forms new nascent subjectivities, "new systems of valorization," and the revitalization of the planet's many non-human organisms and systems supported by technology. The aim of Guattari's social ecology is to emancipate individuals and social systems from unjust conditions, particularly the unjust conditions of what he called the "Integrated World Capitalism"— the network of financial and commercial relations homogenizing the planet. <sup>23</sup> Hence he addresses collective relations of subjectification, which include relations of politics, economics, "social struggle," movements of "mass consciousness-raising," and "the technological evolution of the media."

The term "integral ecology" was first used by Hilary Moore in a 1958 marine ecology textbook, in which Moore proposes that ecologies that focus on ecosystems (synecology) and on their component organisms (autecology) should be supplemented by an "integral ecology" that would reconnect the ecosystem and its components into a whole.<sup>24</sup> Moore's strictly scientific approach yields a relatively narrow sense of integral ecology compared with the integral ecologies that would arise later.

<sup>&</sup>lt;sup>17</sup> *Ibid*.

<sup>&</sup>lt;sup>18</sup> *Ibid.* p. 11.

<sup>&</sup>lt;sup>19</sup> *Ibid*.

<sup>&</sup>lt;sup>20</sup> *Ibid.* p. 13.

<sup>&</sup>lt;sup>21</sup> *Ibid*. p. 16.

<sup>&</sup>lt;sup>22</sup> See Félix Guattari. *The Three Ecologies*, trans. Ian Pindar and Paul Sutton, London: Ahtlone Press, 2000, p. 27.

<sup>&</sup>lt;sup>23</sup> *Ibid.* p. 31.

<sup>&</sup>lt;sup>24</sup> See Mickey, p. 16.

Early in the 1980s the term "social ecology" was first introduced by Murray Bookchin with the publication of his books *Towards an Ecological Society* (1980) and *The Ecology of Freedom: The Emergence and Dissolution of Hierarchy* (1982). Bookchin writes, "Put quite simply, ecology deals with the dynamic balance of nature, with the interdependence of living and nonliving things." Bookchin further stresses that since nature also includes human beings, the science must include humanity's role in the natural world-specifically, the character, form, and structure of humanity's relationship with other species and with the inorganic substrate of the biotic environment. From a critical viewpoint, ecology opens to wide purview the vast disequilibrium that has emerged from humanity's split with the natural world. One of nature's very unique species, homo sapiens, has slowly and painstakingly developed from the natural world into a unique social world of its own. As both worlds interact with each other through highly complex phases of evolution, it has become as important to speak of a social ecology as to speak of a natural ecology.

In 1995, three different theorists used the word integral to call the boundary-crossing approaches to ecology. First is the cultural historian and "Earth scholar" Thomas Berry, then the Brazilian liberation theologian Leonardo Boff, and the Integral theorist Ken Wilber. <sup>26</sup>

For Thomas Berry, the historical mission of human beings today what he refers to as our "Great Work," is "for us to reinvent ourselves and our cultural traditions so that our contact with the Earth community becomes mutually beneficial instead of destructive." The crisis that we are currently in and the destruction that afflicts our planetary community is largely the result of forms of human consciousness and behavior that disconnect humans from the natural world and thus fail to develop a conscience that participates in "a single integral community of the Earth." Berry suggests that to become integral with the Earth community human beings must understand themselves as members of one single yet multiform community that includes all of the planet's habitats and inhabitants, ideas and societies, humans and nonhumans.<sup>29</sup>

Leonardo Boff also described his approach to ecology as an "integral ecology." This is an integral approach to ecology that brings together the approaches that have developed in the sciences, humanities, and in movements of conservation, preservation, and environmentalism.<sup>30</sup> The task is to develop an integral ecology that can bring together the many different approaches in efforts to create a "new alliance between societies and nature, which will result in the conservation of the patrimony of the earth, socio-cosmic well-being, and the maintenance of conditions that will allow evolution to continue."<sup>31</sup>

Boff presented four different approaches to ecology, namely: environmental, social, mental, and integral, which follows Guattari's thee ecologies. The environmental approach engages ecological issues through sciences and technological development. The social approach addresses issues of social justice

<sup>&</sup>lt;sup>25</sup> Murray Bookchin, *The Ecology of Freedom: The Emergence and Dissolution of Hierarchy*, Palo Alto: Cheshire Books, 1982, p. 22.

<sup>&</sup>lt;sup>26</sup> Mickey, p. 17.

<sup>&</sup>lt;sup>27</sup> *Ibid*.

<sup>&</sup>lt;sup>28</sup> Thomas Berry, *The Great Work: Our Way into the Future* (New York: Bell Tower, 1999),4.

<sup>&</sup>lt;sup>29</sup> Mickey, p. 17.

<sup>&</sup>lt;sup>30</sup> *Ibid.*, p. 19

<sup>&</sup>lt;sup>31</sup> Leonardo Boff and Virgilio Elizondo, "Ecology and Poverty: Cry of the Earth, Cry of the Poor" Concilium: International Journal of Theology 5 (1995) ix–x.

and sustainable social institutions like education, health care, economy, etc. Social well-being is not exclusively human; it includes the socio-cosmic meaning the non-human beings in nature, the plants, the animals, the microorganisms, because all together they constitute the planetary community. The mental approach focuses on consciousness; this implies that the ecological problems require not only for healthier and more sustainable societies and environments but also for healthier processes of subjectivity, processes that revitalize socio-cosmic well-being by renewing vital engagements with the natural world and with cultures, gender roles, religious worldviews, and unconscious desires.<sup>32</sup> These approaches (environmental, social, and mental) include the various fields of ecology that have emerged from the biophysical sciences, social sciences, and humanities. Integral ecology includes the environmental, social, and mental and presents a new vision of Earth and the humans as situated in the evolutionary becoming of the cosmos – the processes of cosmogenesis.<sup>33</sup>

Ken Wilber expresses his notion of Integral ecology in terms of a "Theory of Everything" (TOE)—a theory that "attempts to include matter, body, mind, soul, and spirit as they appear in self, culture, and nature. According to integral theory, there are at least four irreducible perspectives (objective, interobjective, subjective, and intersubjective) that must be consulted when attempting to understand and remedy environmental problems. These perspectives are represented by four quadrants: the interior and exterior of individual and collective realities. These four quadrants represent the intentional ("I"), cultural ("we"), behavioral ("it"), and social ("its") aspects of ecological issues.<sup>34</sup>

From its initial development and through the conceptual contributions of scholars from different fields and the activisms of cause oriented groups and other stakeholders and those who simply care for our planet and the natural environment integral ecology has transformed into a comprehensive framework for characterizing ecological dynamics and resolving environmental problems. Esbjörn-Hargens and Zimmerman describe integral ecology as a "framework of integrating multiple approaches to ecology and environmental studies into a complex, multidimensional metadisciplinary approach to the natural world and our embeddedness within it. Integral ecology unites valuable insights from multiple perspectives into a comprehensive theoretical framework, one that is already being put to use around the globe." Further they write:

It is comprehensive in that it both draws upon and provides a theoretical scheme for showing the relations among a variety of different methods, including those at work in the natural and social sciences, as well as in the arts and humanities. Integral ecology unites, coordinates, and mutually enriches knowledge generated from different major disciplines and approaches. Integral ecology can be: a) applied within a discipline (e.g., by integrating various schools of ecology); b) applied as a multidisciplinary approach (e.g., by investigating ecological problems from several disciplines); c) applied as an interdisciplinary approach (e.g., by using social science methods to shed light on economic or political aspects of environmental values); and d) applied as a transdisciplinary approach (e.g., by helping numerous approaches and their methodologies interface through a well-grounded meta-framework).<sup>36</sup>

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<sup>&</sup>lt;sup>32</sup> Mickey, p. 20.

<sup>&</sup>lt;sup>33</sup> Mickey, p. 20.

<sup>&</sup>lt;sup>34</sup> Sean Esbjörn-Hargens & Michael E. Zimmerman, "An Overview of Integral Ecology: A Comprehensive Approach to Today's Complex Planetary Issues," in *Integral Institute, Resource Paper* No. 2, March 2009, p. 2.
<sup>35</sup> *Ibid*.

<sup>&</sup>lt;sup>36</sup> Ibid.

Indeed, these perspectives offer us a new understanding of our relationship with nature and the environment. But this understanding of the relations and interconnection of the beings in the universe is not something new from the oriental perspective. The oriental people have always viewed reality specifically nature from a spiritual perspective. While the oriental thinkers did not call it integral ecology, the oriental mind has always considered the inherent harmony and wholeness of the cosmos. The ancient Chinese sage Lao Tzu, views reality is holistically which encompasses the totality of the cosmos. In the *Tao Te Ching* he expresses that the universe expresses harmony, purpose, order and calm power, but when we attempt to separate things just to understand the parts without understanding the whole what result are error, suffering and unhappiness. Taoist philosophy proposes that the universe works harmoniously according to its own ways. When someone exerts his will against the world, he disrupts that harmony. Taoism does not identify man's will as the root problem. Rather, it asserts that man must place his will in harmony with the natural universe. Taoist philosophy recognizes that the Universe already works harmoniously according to its own ways; as a person exerts their will against or upon the world, they disrupt the harmony that already exists.

The Buddhist teachings is a good source of how to care for the environment. Siddhartha Gautama – the Lord Buddha already developed the notion of interdependent origination which means that everything is dependent on and connected to other things. Nothing in the nexus is independent; everything arises from something else. The Buddha as the enlightened saw himself and all life as part of an unending process of change; the whole universe is a system of interconnected, inseparable parts and composed of all varieties of life forever moving from one form to another. belief that everything is impermanent, changing, and interrelated. Buddhist philosophy teaches that we should practice the *Eight-fold path*, namely right understanding, right intention, right speech, right action, right livelihood, right effort, right mindfulness, and right concentration and cultivate the sublime attitudes, referred to as the *Brahmaviharas*, namely, loving-kindness, compassion, sympathetic joy, and equanimity. Lord Buddha taught people to consume less and consume only those things which are necessary for living, to live in harmony with nature, other people, and other creatures and to use nature wisely, and learn from nature to help improve their minds and behaviors.<sup>37</sup>

# III. Integral Ecology in Laudato Si'38

In the past it has been assumed that human and natural systems can be treated independently. However, recent studies and opinions suggest that natural and social systems behave not in parallel and independent ways but that social and ecological systems behave as integrated systems. Pope Francis in the *Laudato Si'* stresses this integration of the natural and social systems. Similar to the understanding of scholars who have developed their idea of integral ecology the overarching idea that runs through the document is that all existing beings in the universe are interrelated to each other. In Chapter IV \_ Integral Ecology of the encyclical letter the Pope highlights not just the biological or environmental but also the human and social dimensions of human life. The Holy Father stresses that since everything is closely interrelated what we need is an integral ecology. Ecology in general focuses on the relationship between living organisms and the environment in which they develop. However, "environment"

<sup>&</sup>lt;sup>37</sup> See Kongsak Thathong, "A spiritual dimension and environmental education: Buddhism and environmental crisis." *Procedia - Social and Behavioral Sciences* 46 (2012), pp. 5065.

<sup>&</sup>lt;sup>38</sup> Pope Francis, Encyclical Letter Laudato Si', (On Care for Our Common Home), 2015. (Henceforth LS).

extends to the relationship between nature and society and as human beings we are at the center of this relationship. Harmony in our planet can be made possible through the recognition of the complementary functioning and mutual dependence of all beings in the planet. What is needed therefore is the recognition that "all entities that exist, animate and inanimate, are in relationships and through relationships they verify the identity inscribed in the form of their existence and their tasks." From the oriental perspective this is not something new. As mentioned already the Lord Buddha teaches that everything is dependent on and connected to other things and that nothing in their core is independent and that the whole universe is a system of interconnected, inseparable parts and composed of all varieties of life forever moving from one form to another. We and everything in this planet are part of nature and we are part of the society.

From a Christian perspective caring for the Earth and the environment is based on our roles as stewards of the God's creation. We are created by the same God who created the entire universe and everything in it and God gave us the responsibility to look after his creation, and thus it is our responsibility as Christian stewards to see to it that the earth and everything in it, human and non-human, animate and inanimate are protected and preserved according to the will of the Creator. Indeed, we "may not be the master of creation, but the manager and also the partner of God."<sup>40</sup>

# A. The Ecological Condition of the World Today

In the first chapter Pope Francis notes the "continued acceleration of change" which affects us and our planet and has intensified the pace of life and work. The pace of the change has speed up human activity in contrast to the slow pace of biological evolution. Moreover, the goals of such rapid and constant change are not always geared toward the common good or integral and sustainable development. Although change is something to be desired it is not always good in itself especially when it becomes a source of anxiety and can cause harm to the world and to the quality of life of man. <sup>41</sup> Pope Francis outlines what could be considered as the negative situation of our common home.

Pollution, Climate Change and Water - According to Pope Francis some forms of pollution are part of people's daily experience. Diverse pollutants produce a broad spectrum of health hazards which affect people especially the especially for the poor and causes millions of premature deaths. People suffer from breathing high levels of smoke from fuels used in cooking or heating, from transport vehicles and industrial fumes. Toxic substances fertilizers, insecticides, fungicides, herbicides and agrotoxins in general contribute to the acidification of soil and water. Pope Francis relates pollution which what he calls the "throw away culture." He observes that each year hundreds of millions of tons of waste are generated, much of which are non-biodegradable, highly toxic and radioactive. As a result the earth has become like a big garbage bin. People instantly turn things into rubbish instead of recycling them. Even our industrial system has not developed the capacity to absorb and reuse waste and by-products. We have yet to develop a model of production that is capable of preserving resources for present and future generations and limits as much as possible the use of non-renewable resources and moderate their consumption, maximize their efficient use and reuse and recycle them. 42

<sup>&</sup>lt;sup>39</sup> Andrzej Proniewski, "Theological Issues in the Ecological Encyclical Laudato Si" *Rocznik Teologii Katolickiej*, tom XIV/1, rok 2015, p. 51.

<sup>&</sup>lt;sup>40</sup> *Ibid.*, p. 52.

<sup>&</sup>lt;sup>41</sup> LS, # 18.

<sup>&</sup>lt;sup>42</sup> LS, # 22.

While the climate is a common good that belongs to all of us it is also one of the "principal challenges facing humanity in our day." "Climate change is a global problem with grave implications: environmental, social, economic, political and for the distribution of goods." In recent decades climate change or global warming has been accompanied by a constant rise in the sea level and the frequency of extreme weather conditions and disturbances. One major cause is the use of fossil fuels which cause greenhouse gases and deforestation for agricultural purposes. Another major concern is the availability of clean and fresh drinking water especially for the poor. Water, especially its sources is increasingly being polluted, privatized, and wasted, leading to the scarcity of potable water which causes a lot of problems for the poor. According to the Pope access to safe drinkable water is a "basic and universal human right, since it is essential to human survival and, as such, is a condition for the exercise of other human rights."

Loss of Biodiversity - The earth's resources are also being plundered because of "short-sighted approaches to the economy, commerce and production." The majority of species of plant and animals that are becoming extinct are dying off for reasons related to human activity. The Pope stresses that we should not consider the different species only for as mere potential resources for human consumption because they have value in themselves. Unfortunately, even some of our interventions to help are causing greater problems with biodiversity. The construction of new highways, new plantations, the fencing-off of certain areas, the damming of water sources, and similar developments, crowd out natural habitats which affect the animal population preventing them to migrate or roam freely. It only shows that the care for ecosystems demands far-sightedness and preemptive action. 47

Decline in the Quality of Human Life and the Breakdown of Society - Pope Francis also emphasizes that human beings too are creatures and habitants of this world and therefore must also enjoy a right to life and happiness, and endowed with unique dignity. There is a need to consider the effects on people's lives of environmental deterioration, current models of development and the throwaway culture. He observes that cities are becoming too large and have become unhealthy to live in not just because of pollution caused by toxic emissions but also because of urban chaos, poor transportation, and visual pollution and noise. He further observes that many cities are huge, inefficient structures, excessively wasteful of energy and water. He laments that we were "not meant to be inundated by cement, asphalt, glass and metal, and deprived of physical contact with nature." Even the social dimensions of global change have resulted to a number of social problems like social exclusion, inequitable distribution and consumption of energy and other services, social breakdown, increased violence and a rise in new forms of social aggression, drug trafficking, and drug use by young people, and the loss of identity. These are manifestations that the progress of the past two centuries has not always led to an integral development and improvement in the quality of human life. <sup>50</sup>

<sup>&</sup>lt;sup>43</sup> LS, # 25.

<sup>&</sup>lt;sup>44</sup> The Pope strongly recommends the need to push for a public policy that should reduce carbon emissions and promote renewable sources of energy.

<sup>&</sup>lt;sup>45</sup> LS, # 30.

<sup>&</sup>lt;sup>46</sup> LS, # 32.

<sup>&</sup>lt;sup>47</sup> LS, # 42. In relation to this the Pope recommends a greater investment on research which is "aimed at understanding more fully the functioning of ecosystems and adequately analyzing the different variables associated with any significant modification of the environment.

<sup>&</sup>lt;sup>48</sup> LS, # 43.

<sup>&</sup>lt;sup>49</sup> LS, # 44.

<sup>&</sup>lt;sup>50</sup> LS, # 46.

Another aspect of modern living is the omnipresence of the media and digital world. However, while they have their own positive use, they have also prevented us to live wisely, think deeply and to love generously. True wisdom, according to the Pope is "the fruit of self-examination, dialogue and generous encounter between persons" and it is "not acquired by a mere accumulation of data which eventually leads to overload and confusion, a sort of mental pollution." Real relationships with others cannot be replaced by "a type of internet communication which enables us to choose or eliminate relationships at whim, thus giving rise to a new type of contrived emotion which has more to do with devices and displays than with other people and with nature."

Global Inequality - Deterioration of the human and natural environments is related. "We cannot adequately combat environmental degradation unless we attend to causes related to human and social degradation."53 Hence, to fix environmental problems we have to also fix "human and social degradation." Natural and social degradation both disproportionately hurt the poor. For example, the depletion of fishing reserves negatively affects small fishing communities who are without the means to replace those resources; water pollution adversely affects the poor who cannot buy bottled water; and rises in the sea level mainly affect impoverished coastal populations who have nowhere else to go. And although the majority of the world's population who are poor are the ones who are adversely affected they are not really the primary cause of the deterioration of the environment and the depletion of the natural resources but highly urbanized and industrialized societies like those in the West. 54 The threat to the planet was the industrialized countries consumption of the world's resources. The consumption of the majority who are poor was very minimal almost negligible compared to that of the industrialized world. Hence, while imbalances in population density are a concern, the primary problem according to the Pope is "extreme and selective consumerism on the part of some" rather than population growth. Inequity affects not only individuals but entire countries and an "ecological debt" exists between the global north and south. Poor countries (which often have natural resources) fuel the development of richer nations.<sup>55</sup>

Weak Responses and Variety of Opinions - According to Pope Francis the world needs an international legal framework to "set clear boundaries and ensure the protection of ecosystems" but, so far, the "international political responses" have been "weak." Although there are several conferences and global summits on the environment and development the deterioration of the environment and the depletion of our natural resources continue at an ever faster pace and the plight of the poor majority gets worsen almost every year. The failure of these conferences and summits only shows that our efforts and political will to do what is right are always affected and subjected to economic, financial and technological considerations. The Pope says that there are too many special interests and economic interests easily undermine the common good and manipulates the information in order to mislead us so that their own vested interests will not be affected. And while some countries provide positive examples of dealing with the environment but such efforts are not sufficient.

<sup>&</sup>lt;sup>51</sup> LS, # 47.

<sup>&</sup>lt;sup>52</sup> Ibid.

<sup>&</sup>lt;sup>53</sup> LS, # 48.

<sup>&</sup>lt;sup>54</sup> In fact, while the Brundtland Report cited the growing population as a major threat to the planet, by the time it was published in 1987 population growth was no longer seen as the major threat to the harmony of the planet. Almost all of it was among poorer people. And it was not the poor who were consuming the planet's supply of fossil fuels, warming the globe with their carbon emissions, depleting its ozone layer, poisoning soil and water with their chemicals, or wreaking ecological havoc with their oil spills.

<sup>&</sup>lt;sup>55</sup> LS, # 48.

In the meantime, the Pope observes, "economic powers continue to justify the current global system where priority tends to be given to speculation and the pursuit of financial gain," which fail to take into consideration the effects on human dignity and the natural environment. Here we see according to the Pope the close connection between environmental deterioration and human and ethical degradation. Meanwhile, there two extreme opinions as to how we can fix the environment. The first says that ecological problems will be solved by new technology and the second says that population should be reduced to prevent ecological harm. The Pope suggests that we must have dialogue in order to find the "viable future scenarios" between these extremes. But suffice it to say many studies have shown that population is not the root cause of the problem.

# B. Human Knowledge and the Function of Technology

Pope Francis emphasizes that the natural environment is a collective good, the patrimony of all humanity and the responsibility of everyone.<sup>57</sup> Therefore we have to care for it, not only for ourselves but also for others, especially the poor and the future generations. In Chapter 3 of the encyclical the Holy Father focuses on the human roots of the present ecological crises. He acknowledges that we have entered into the technological era and during the last two centuries we have benefited from enormous waves of change: steam engines, railways, the telegraph, electricity, automobiles, airplanes, chemical industries, modern medicine, information technology, and in more recent years the digital revolution, robotics, biotechnologies and nanotechnologies. Those who have the knowledge and especially the economic resources to use them have acquired an impressive dominance over the whole of humanity and the entire world.<sup>58</sup>

The problem however is how this knowledge and its consequent power is utilized. Humanity has never had such power over nature except perhaps during the Renaissance and nothing ensures that it will be used wisely, particularly when we consider how it is currently being used. We only have to think of the nuclear bombs dropped in the middle of the twentieth century, or the array of technology which Nazism, Communism and other totalitarian regimes have employed to kill millions of people, not to mention the increasingly deadly arsenal of weapons available for modern warfare. Indeed, though the contemporary man has been handed with enormous technological knowhow and therefore power, the contemporary man does not know how to use this power well because of the fact that this immense technological has not been accompanied by human responsibility, values and conscience.<sup>59</sup>

According to the Holy Father it appears that not only do we have a limited awareness of its own limitations, we are also unable to grasp the gravity of the challenges now before us. Day by day there is the growing danger that we will not use our knowledge power the way we should. Power is never considered together with its inherent responsibility. Power has given us so much freedom but we failed to see that with this enormous freedom and power come greater responsibility. As human beings we are not completely autonomous. Our freedom fades when it is handed over to the blind forces of the unconscious, of immediate needs, of self-interest, and of violence. In this sense, we stand naked and

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<sup>&</sup>lt;sup>56</sup> LS, # 56.

<sup>&</sup>lt;sup>57</sup> LS, # 95.

<sup>&</sup>lt;sup>58</sup> Technoscience, when well directed, can produce important means of improving the quality of human life, from useful domestic appliances to great transportation systems, bridges, buildings and public spaces. It can also produce art and enable men and women immersed in the material world to "leap" into the world of beauty. Advancements like nuclear energy, biotechnology, information technology, knowledge of our DNA, and many other abilities which we have acquired, have given us tremendous power. LS, #103

<sup>&</sup>lt;sup>59</sup> LS, # 105

exposed in the face of our ever-increasing power for we lack the ability to control it; <sup>60</sup> in the end we become a slave to it.

The problem even becomes bigger and deeper especially when we look at the way that man has taken up technology and its development according to an undifferentiated and one-dimensional paradigm of mastery, transformation and manipulation. This paradigm "exalts the concept of a subject who, using logical and rational procedures progressively approaches and gains control over an external object. This subject (man) makes every effort to establish the scientific and experimental method, which in itself is already a technique of possession, mastery and transformation." Man finds itself in the presence of something formless that is completely open to his own control and manipulation. In the past man has always intervened in nature but in a way that we respect the possibilities offered by the things themselves; in a sense we just receive what nature itself has given.

But now we are the ones who lay our hands on things and extracts everything possible from them while frequently ignoring or forgetting the reality in front of us, that such reality has its own limitation and that if we do not respect them in the end such reality could turn against us. Human beings and the natural things are no longer seen as symbiotic and their relationship has become confrontational. The natural world was seen as something that must be manipulated in order to extract what men of vested interests falsely assumed as infinite resources that could fuel infinite or unlimited growth. But it is a false assumption that there is an infinite supply of the earth's goods and that an infinite quantity of energy and resources are available and that they can be renewed quickly, and that the negative effects of the exploitation of the natural resources can be easily absorbed.

This attitude is based on an orientation which unconsciously accepts the method and aims of science and technology as an epistemological paradigm that shapes the lives of individuals and the workings of society. However, the Holy Father argues that the effects of imposing this model on human and social realities has resulted in the deterioration of the environment. Such orientation is a sign of a reductionism which affects every aspect of human and social life. He reminds us that technological products are not neutral because "they create a framework which ends up conditioning lifestyles and shaping social possibilities along the lines dictated by the interests of certain powerful groups." In effect it conditions the kind of society that we want to build.

Technology is supposedly an instrument that enhances the quality of human life and as an instrument it must be under the control of man and must be guided by some ethical values. From the very beginning when man develop certain machines and implements he considered them merely as tools to enhance labor but later on as the tools become more developed through science and technology the tools became very useful and indispensable. Technology then through the tools that it developed slowly took a hold and controlled man to the point that man can no longer work efficiently with technology. Humans are under the control of technology and human existence defined by technology. So instead of man controlling technology it is technology that dominates man. Life is gradually becoming a kind of surrender to situations conditioned by technology which is now viewed as the principal key to the meaning of existence. Now integrating values to technology is a very big challenge today. Because according to the Pope even a genuine ethical alternative seems to be difficulty to attain. Technological paradigm has dominated many aspects of our life – political, economic, social and even cultural. Our

<sup>&</sup>lt;sup>60</sup> Ibid.

<sup>&</sup>lt;sup>61</sup> LS, # 106.

<sup>&</sup>lt;sup>62</sup> LS, # 107.

present human condition manifests symptoms that will tell us that there is something wrong in our present situation - environmental degradation, anxiety, a loss of the purpose of life and of community living.

The concern of the Pope about technology has also been the subject of philosophical discourse in contemporary philosophy. According to the German philosopher Martin Heidegger, there is something wrong with the modern and technological culture and the way we interpret technology. 63 Originally technology was seen as a way of revealing being, or interpreting being. In this technological age, however, reality is interpreted as raw material as a "standing reserve;" reality is always at our disposal. This is how through the ages we have understood the world – our understanding of "being," of what reality or the meant "to be." In our time "to be" has a character of a technological 'framework', from which humans approach the world in a controlling and dominating way. Technology reveals the world as a raw material to be manipulated and controlled. According to Heidegger this technological understanding of 'being,' is a dangerous proposition. First, men could also interpret themselves as raw materials, in fact, we now consider human beings as "objects" and human resources. Second, the technological will to power would lead us to further manipulation and domination. Since there is an uncontainable desire to "reveal" and dominate more, then we would move towards a new interpretation of being, this would itself be a technological intervention: we would manipulate our manipulation, exerting power over our way of exerting power. There is no escape therefore from technology. The only way out is a constant questioning of the essence of technology so that we do not become controlled and enslaved by it. We need to open up the possibility of relying on technologies while not becoming enslaved to them and seeing them as manifestations of an understanding of being. Indeed while technology gives power we need to be cautious as it can also overpower.

#### C. On the Environment

Pope Francis echoes what has been said by scholars and thinkers both from the western and oriental perspectives that everything is interconnected even time and space are dependent of one another. Nothing in the universe can be understood apart from the other parts or objects in the universe. So "just as the different aspects of the planet – physical, chemical and biological – are interrelated, so too living species are part of a network which we will never fully explore and understand." Given the interconnection of things we have to understand the term "environment" in terms of the relationship that exists between nature and society. Nature and society are inseparable. Society as the organization of men cannot be taken as separate from nature. Nature cannot be considered as a neutral and passive place in which we live; we do not just "dwell" in nature, we are part of nature and therefore there is a constant interaction between us and nature. Therefore, Pope Francis stresses that if we need to know why a given area is polluted or why the natural environment is degraded then we must study the workings of society, its economy, its behavior patterns, and the ways it grasps reality.

However, the Holy Father assesses that given the enormous degradation of our natural environment a specific and particular solution is no longer feasible, we need to seek a comprehensive solution that will integrate both natural and social considerations. "It is essential to seek comprehensive

<sup>&</sup>lt;sup>63</sup> See Martin Heidegger, *The Question Concerning Technology*. (1977), pp 3–35. <a href="http://www.psyp.org/question\_concerning\_technology.pdf">http://www.psyp.org/question\_concerning\_technology.pdf</a>. Accessed November 25, 2018. <a href="https://www.psyp.org/question\_concerning\_technology.pdf">https://www.psyp.org/question\_concerning\_technology.pdf</a>. Accessed November 25, 2018. <a href="https://www.psyp.org/question\_concerning\_technology.pdf">https://www.psyp.org/question\_concerning\_technology.pdf</a>. Accessed November 25, 2018.

solutions which consider the interactions within natural systems themselves and with social systems."<sup>65</sup> Further he adds:

We are faced not with two separate crises, one environmental and the other social, but rather with one complex crisis which is both social and environmental. Strategies for a solution demand an integrated approach to combating poverty, restoring dignity to the excluded, and at the same time protecting nature.<sup>66</sup>

Each organism, as a creature of God, is good and admirable in itself; the same is true of the harmonious ensemble of organisms existing in a defined space and functioning as a system. So, when we speak of "sustainable use", consideration must always be given to each ecosystem's regenerative ability in its different areas and aspects.<sup>67</sup>

# D. On Economic and Social Ecology

As discussed already Pope Francis observes that the technocratic paradigm tends to dominate economic and political life. The economy accepts every advance in technology with a view to profit, without concern for its potentially negative impact on human beings. Finance overwhelms the real economy. The lessons of the global financial crisis have not been assimilated, and we are learning all too slowly the lessons of environmental deterioration. Some circles maintain that current economics and technology will solve all environmental problems, and argue, in popular and non-technical terms, that the problems of global hunger and poverty will be resolved simply by market growth. The complex problems that confront us today especially about the poor and the environment cannot be dealt with and solve from a single perspective or interest alone lest from an economic and technological perspective. A particular science which would offer solutions to the complex problems we face today will have to consider the date or the contributions of other fields of knowledge like philosophy and social ethics. Thus, as we deal with more complex ecological problems we need to include as many of these valid perspectives on nature as possible. Wilber's version of integral ecology

While economic growth tends to produce predictable reactions and certain standardization with the aim of simplifying procedures and reducing costs what we need is an "economic ecology" which is capable of appealing to a broader vision of reality. The protection of the environment is in fact "an integral part of the development process and cannot be considered in isolation from it". What we need therefore is a humanism that can bring together the different fields of knowledge, science, economics and the social science and ethics in the service of a more integral and integrating vision. Today, the analysis of environmental problems cannot be separated from the analysis of human, family, work-related and urban contexts, nor from how individuals relate to themselves, which leads in turn to how they relate to others and to the environment. There is an interrelation between ecosystems and between the various spheres of social interaction.

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<sup>65</sup> LS, # 139.

<sup>66</sup> LS, # 139

<sup>&</sup>lt;sup>67</sup> LS, # 140.

<sup>&</sup>lt;sup>68</sup> LS, # 109.

<sup>69</sup> LS, # 109

<sup>&</sup>lt;sup>70</sup> LS, # 109.

<sup>&</sup>lt;sup>71</sup> See Esbjörn-Hargens and Zimmerman, p. 10.

<sup>&</sup>lt;sup>72</sup> LS, # 141.

The Pope also advances the idea of social ecology. As mentioned already the term social ecology was first introduced by Murray Bookchin in the early 1980s. Bookchin emphasized that ecology deals with the dynamic balance of nature, with the interdependence of living and nonliving things. The environmental crisis that we experience today is rooted to the hierarchical organization of power & the authoritarian mentality rooted in the structures of our society. From the hierarchical organization and the mentality of domination that characterize our society today arises also the ideology of dominating the natural world. Hence, we must promote an ecological, reconstructive, and communitarian view of society. Social ecology as Bookchin envisions tries to reconstruct and transform our perspectives on both social issues and environmental factors while promoting a communal democracy. It advocates a society based on ecological principles; an organic unity in diversity, free of hierarchy and based on mutual respect for the interrelationship of all aspects of life. If we change the way we constitute our society then our relationship with the rest of nature will become transformed. If we do away with the concepts of scarcity and hierarchy in the economy then we can envision a world in which human communities work together in harmony with nature and promote diversity, creativity and freedom. Hence, a flourishing eco-system maximizes diversity and interaction and minimizes hierarchy and domination.<sup>73</sup>

Pope Francis echoes the basic principles of social ecology. Since there is an intimate relationship between our ecosystems and our social systems we also need a "social ecology." Such social ecology is "necessarily institutional and gradually extends to the whole of society, from the primary social group, the family, to the wider local, national and stratum, and between them, institutions develop to regulate human relationships." Further he stresses that anything which weakens those institutions has negative consequences, such as injustice, violence and loss of freedom. A number of countries have a relatively low level of institutional effectiveness, which results in greater problems for their people while benefiting those who profit from this situation.

## E. Cultural Ecology

Culture can be understood as an "ideal of human perfection and an embodiment of universal and absolute values." And "as an embodiment of peoples' core ideals and principles, culture expresses the meaning and value in their lives as they live in a particular society." It expresses itself in diverse concrete ways like the arts, literatures, religious practices, without being reducible to mere "works" or "objects." There is no fixed and closed culture. A culture transforms and evolves through its interaction with other cultures. "Culture is a living and open totality that evolves through the constant integration of individual and collective choices that are taken in interaction with other similar wholes."

Now, according to Pope Francis culture is more than what we have inherited from the past; it is also, and above all, a living, dynamic and participatory present reality, which cannot be excluded as we rethink the relationship between human beings and the environment. In our society today it is not only our natural environment and natural patrimony that is threatened our historic, artistic and cultural patrimony is threatened as well. Our cultural patrimony is a part of the shared identity of each place and a foundation upon which to build a habitable city. What is needed according to the Pope is to integrate

<sup>76</sup> Aguas, Ibid.

<sup>&</sup>lt;sup>73</sup> See Social Ecology https://www.thegreenfuse.org/socialecology.htm.

<sup>&</sup>lt;sup>74</sup> I S # 142

<sup>&</sup>lt;sup>75</sup> Jove Jim S. Aguas, "Emerging Realities and their Impact on Cultural Values and Identity," *Annals of the University of Bucharest, Philosophy Series*, 2015 Number II, p. 54.

the culture, history and architecture of a particular place to preserve its original cultural identity. We cannot just demolish the structures of a particular place which has been symbols of their cultural heritage and thus have become part of its cultural identity just to build new buildings or new roads or new structures. A cultural ecology then endeavors to protect the cultural treasures of humanity in the broadest sense. More specifically, it requires that we focus on local cultures when we study environmental problems, by fostering a dialogue between scientific-technical language and the language of the people.

Unfortunately the Pope notes the prevailing consumerist ideology "encouraged by the mechanisms of today's globalized economy has a levelling effect on cultures, diminishing the immense variety which is the heritage of all humanity." By resolving the complex social problems through uniform regulations or technical interventions we tend to ignore the complexities of local problems. Resolving the complex social problems especially at the local level necessarily entails the active participation of all members of that particular community, because it is their community in the first place and they are the ones who will be affected by any regulation or technical intervention. Technical solutions simply address the symptoms but not the underlying reasons of the problem which are deeply connected to the very values of the people and community. Therefore, "there is a need to respect the rights of peoples and cultures, and to appreciate that the development of a social group presupposes an historical process which takes place within a cultural context and demands the constant and active involvement of local people from within their proper culture."

But the various forms of environmental exploitation and degradation ignore the cultural values and rights of people so in the end not only do they exhaust the resources which provide the local communities with their livelihood they also damage the social and cultural structures which have been part of the cultural heritage of the local community and have shaped cultural identity and sense of the meaning of the local community. The Pope stresses that the destruction and disappearance of a culture can be just as serious, or even more serious, than the disappearance of a species of plant or animal. And again it shows that the imposition of a dominant lifestyle linked to a manner of production based purely on economic and technology can be just as harmful as the altering of ecosystems.<sup>79</sup>

The Pope therefore strongly suggests that we take special attention and care for the local communities most especially for indigenous communities and their cultural traditions. They cannot be reduced to merely the minority among many others because they are also principal partners in cultural dialogue especially when big infrastructure projects like agricultural and mining projects are proposed that would affect their community. For these indigenous people their land is not just a kind of commodity with an economic value; for them it is part of who they are, their land is their identity. It is a "gift from God and from their ancestors who rest there, a sacred space with which they need to interact if they are to maintain their identity and values." 80

## F. Ecology of Daily Life

<sup>&</sup>lt;sup>77</sup> LS, # 144.

<sup>&</sup>lt;sup>78</sup> LS, # 144.

<sup>&</sup>lt;sup>79</sup> LS, #145.

<sup>&</sup>lt;sup>80</sup> LS, # 147.

The Pope also stresses that authentic development must also include an integral improvement in the quality of human life. The quality daily living entails the setting which influence the way people think, feel and act in their homes, work places and neighborhood. The physical surrounding or environment may have certain limitation like being cramped, poorly lighted. Such physical environment and the extreme poverty experienced such areas which lack harmony, open spaces or potential for integration can be a breeding ground for incidents of brutality and exploitation by criminal organizations among others. But according to the Pope with generosity, kindness and friendliness a wholesome social life is still possible in such seemingly undesirable environment.

Those who design buildings, neighborhoods, public spaces and cities, must also consider through the insights of other disciplines people's thought, behavior, processes, language and ways of acting in their urban planning so that these people living in these areas can also experience a good quality of life. A properly designed common areas, visual landmarks and urban landscapes can increase people's sense of belonging and the feeling of being at home. To have a place one could call "home" is very much related to people's sense of personal dignity and the growth of families. And in cases where it is necessary to relocate them like for example in order to improve the place then adequate information must be provided beforehand and options of decent housing must also available and the people directly involved must be part of the process.

The Pope also notes the worsening transport system in many big cities which have become a source of burden and suffering for those who use them. The use of many cars causes traffic congestion, raises the level of pollution, and consumes enormous amount of non-renewable energy. Because of the big number of cars, it becomes necessary to build more roads and parking areas which consequently adversely affect the urban landscape.

#### G. The Principle of the Common Good and Justice between the Generations

One very important teaching in the Encyclical is the principle of common good. According to Pope Francis an integral ecology cannot be separated from the notion of the common good which is a central and unifying principle of social ethics. Quoting the *Second Vatican Ecumenical Council, Pastoral Constitution on the Church in the Modern World: Gaudium et Spes* the Pope says that the common good is "the sum of those conditions of social life which allow social groups and their individual members relatively thorough and ready access to their own fulfilment" He further stresses that the "underlying the principle of the common good is respect for the human person as such, endowed with basic and inalienable rights ordered to his or her integral development." 82

Aside from the respect for human dignity, the common good has to do with the overall welfare of society and the development of a various social groups. The most basic of these groups is the family as the basic unit of society. The common good also "calls for social peace, the stability and security provided by a certain order which cannot be achieved without particular concern for distributive justice; whenever this is violated, violence always ensues." It is the obligation of the society in general and the state in particular to defend and promote the common good. Sad to say that in the present society there is so much injustice and violation of human rights.

<sup>&</sup>lt;sup>81</sup> LS, # 156.

<sup>&</sup>lt;sup>82</sup> LS # 157.

<sup>&</sup>lt;sup>83</sup> LS, # 157.

According to Pope Francis the notion of the common good also extends to the future generations. Any global environmental and economic crises affect not only the present generation but also the future generations. Our welfare is related to the welfare of the next generation, what we do today affects the future. Solidarity should not be understood only in terms of the present; the Pope also talks about "intergenerational solidarity." So when we talk of sustainable development we also consider the welfare of the next generation. The natural resources is not only for us, it is also for the next generation and when we look at the environment as also the environment that we will leave for the next generations then we see it as something that we share with others. The natural world with all its resources is a gift that we receive and must be shared with others. Since the world is a shared world then we cannot regard it only for our own personal and selfish interest and benefits. Intergenerational solidarity and the common good require that we take care of the world for the benefit of those who will come after us.

The Pope urges us to ask ourselves about the kind of world we will leave behind for the next generation in order for us to see the direction we want to follow. But such question is related to the more fundamental question about values and meaning of life, the goal of our work and endeavors, and the meaning of the world for us. These questions touch on our dignity as persons and the ultimate meaning of our earthly sojourn.<sup>84</sup>

# IV. The Philippine Ecological Situation

In this section I want to highlight the Philippine ecological situation vis-à-vis the ideals of sustainable development and integral ecology as expounded by different scholars and especially as discussed in Pope Francis' *Laudato Si'*. The Philippine ecological situation can serve not as an ideal but a kind of mirror as to what is happening in a developing country like the Philippines which is situated in an area where different ecological factors converge. The Philippines is an archipelago comprising of over 7,100 islands, in southeastern Asia between the South China Sea and the Pacific Ocean. Being situated in the western Pacific Ocean it belongs to an area known as the typhoon belt which is often visited by strong typhoons coming off the Pacific and the active volcanic region known as the Pacific Ring of Fire. It also sits right in the geologically unstable region between the Pacific and Eurasian tectonic plates.

Because of its geographical situation the Philippines is prone to natural disasters, particularly typhoons, floods, landslides, volcanic eruptions, earthquakes, and tsunamis. Aside from these natural calamities the Philippines also suffers from human-caused environmental degradation including loss of agricultural lands, deforestation, soil erosion, air and water pollution, improper disposal of solid and toxic wastes, loss of coral reefs, mismanagement and abuse of coastal resources, and overfishing. It is therefore an exigent need for the Philippines to take a hard look at its present ecological and environmental situation and come up with a concrete plan of action if only to secure not only its present needs but also the needs of the future generation of Filipinos. It is not that the Philippines have not done its own share of thinking and planning of protecting and preserving the environment and fostering sustainable development at least for itself. Various governmental agencies and non-governmental organizations have done their own share of protecting the environment and ensuring a sustainable development for the country.

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<sup>&</sup>lt;sup>84</sup> LS, # 160.

As early as 1987, the Department of Environment and Natural Resources initiated the process of formulating a Philippine Strategy for Sustainable Development (PSSD). Through a series of consultations with the different sectors of society, the concept took form and substance. In a national workshop held on June 6, 1988, a formal resolution urging the President and the Congress of the Republic of the Philippines to adopt and implement a Philippine strategy for Sustainable Developments was passed. On November 29, 1989, the Cabinet passed Cabinet Resolution No. 37 approving the Conceptual Framework of the PSSD with the following modifications:

- 1. The Philippine Strategy for Sustainable Development shall address specifically the adverse impact of growth and development such as but not limited to pollution from factories and pesticide build up from agriculture; and the depletion and degradation of natural resources due mainly to misuse and over exploitation.
- 2. It shall consist of a set of general strategies to resolve and reconcile the diverse and sometimes conflicting environmental, demographic, economic and natural resource use issues arising from the country's development efforts; and sectoral strategies identified after a review of the current efforts being undertaken in each of the identified sectors.
- 3. The general strategies shall include the integration of environmental considerations in decision making, proper resource pricing, property rights reform, conservation of Biodiversity, rehabilitation of degraded ecosystem, strengthening of residual management (pollution control), control of population growth and human resources development, inducing growth in rural areas, promotion of environmental education and strengthening of citizen's participation.
- 4. The conceptual framework shall be the basis for the formulation of strategies for each of the identified sectors, namely: population, environment and natural resources, industry, infrastructure and energy.

In its rationale the PSSD mentions that the "more revealing lessons learned during the past two decades of environmental awakening in the Philippines is that the maintenance of the earth's delicate balance by the mere prophylactics of pollution control and other ecological mitigation measures cannot ensure sustainable development."<sup>87</sup> Therefore there is "a compelling need to overhaul the traditional concepts of development, with its exclusive focus on economic principles and the political economy of natural resources."<sup>88</sup> It further cites what Rafael Salas said in 1979 about the emerging worldview. Salas said:

We are tending globally towards a more holistic view of development with its emphasis on relating environmental factors to programmes. Population growth and development patterns not only affect the demand for resources but also generate environmental changes which will have repercussions on the future carrying capacity of the earth. At the global level, it is not only necessary to take into account the resources required to feed, clothe and shelter a growing population but also the type of technology which will make this possible without worsening the environment. It is, indeed, proper to ask at this point

Philippine Strategy for Sustainable Development – Part: A Conceptual Framework. <a href="http://www.psdn.org.ph/agenda21/pssd.htm">http://www.psdn.org.ph/agenda21/pssd.htm</a>. Accessed April 27, 2017. On November 29, 1989, the Cabinet passed Cabinet Resolution No. 37.

<sup>86</sup> Ibid.

<sup>&</sup>lt;sup>87</sup> *Ibid*.

<sup>&</sup>lt;sup>88</sup> *Ibid*.

how far population and development plans are consistent with the prudent use of resources, and do not bring about the degradation of our environment.<sup>89</sup>

These are exactly the same concerns that would be raised by Pope Francis in his encyclical letter *Laudato Si'* almost thirty years after. The ecological condition of the present world that Pope Francis describes in his encyclical letter is very much evident in the Philippines. The Philippines serves as an example of the unfortunate ecological situation the Earth is in now. The sad thing is that while it mirrors the present ecological situation in the world especially in this part of the planet it does not learn from the ideals of integral ecology and fails to implement its own program for a sustainable development. It serves as a counter example to the ideals of sustainable development and integral ecology.

According to the PSSD most Filipinos still depend on natural resource systems for their subsistence; two thirds of the population live in the rural areas and depend on agriculture, fisheries and forestry. However, environmental problems like soil erosion, deforestation, pollution and declining fish catch show that that the limits of the natural carrying capacity are already being - exceeded. The Filipinos must therefore confront the reality of ecological imbalance and depletion of natural resources.

In its Conceptual Framework the PSSD mentions that the "only rational way of planning the country's national progress is through sustainable development: meeting the needs of citizens of today without limiting the options of future generations to fulfill their needs." This framework is consistent with the Brundland Report. This must be a development without destruction; a development that achieves material progress without compromising the life-support functions of natural systems and pursues the higher levels of quality of life while preserving or even enhancing environmental quality.

Among the general strategies proposed are: Integration of Environmental Considerations In Decision-Making, Proper Pricing of Natural Resources, Property Rights Reform, Establishment of an Integrated Protected Areas System, Rehabilitation of Degraded Ecosystems, Strengthening of Residuals Management in Industry (Pollution Control), Integration of Population Concerns and Social Welfare In Development Planning, Inducing Growth In the Rural Areas, Promotion of Environmental Education and Strengthening of Citizens' Participation and Constituency Building.

#### B. The Present Scenario

Let us move forward to the present.

On November 8, 2013 Typhoon Haiyan, known as Super Typhoon Yolanda in the Philippines, one of the most intense tropical cyclones on record and the strongest storm recorded at landfall devastated portions of Southeast Asia, particularly the Philippines. It is the deadliest Philippine typhoon on record killing at least 6,300 people, injuring 28,689 while 1,061 went missing in the Philippines alone. So immense were the destruction that its effects were not only economic, physical and environmental but also psychological on the part of the victims. Some survivors decided to leave their homes and transferred somewhere just to escape the horrors of the devastations.

<sup>&</sup>lt;sup>89</sup> Quoted by the PSSD from Salas, Rafael, M. Reflection on Population, Pergamon Press, New York, 1984. p. 63.

<sup>90</sup> Ibid.

<sup>&</sup>lt;sup>91</sup> Data gathered from the National Disaster Risk Reduction and Management Council (NDRRMC) as of April 17, 2014.

In its Philippines Environmental Situational Overview the Joint UNEP/OCHA Environment Unit mentioned some of the environmental concerns following the aftermath of Typhoon Yolanda:

- The environment is inextricably linked to the livelihoods of affected communities, in particular those who rely on fishing and agriculture.
- There is the need to consider the environment across all livelihoods interventions.
- Natural resources run the risk of depletion if the environment is not considered in humanitarian interventions, risking major impacts on livelihoods. For example, the potential impact of the overprovision of fishing boats on fishing stocks.
- Interventions to diversify livelihoods should carefully consider the environment. 92

Whatever happened to the PSSD we do not know, what we know now is the fact that the Philippines faces the same problems as already noted thirty years ago. And some solutions and strategies have already been formulated. Still the country faces the same environmental concerns and constantly suffers from environmental problems at an increasingly alarming pace and gravity. The Philippines also experiences the most pressing ecological problems that are also experienced in other parts of the world foremost of which global warming or climate change which has resulted in extreme heat, the frequency of low pressure typhoons to super typhoons, monsoon rains, flash floods and landslides. Aside from this global phenomenon, the urban areas in the country are also experiencing air pollution caused by smoke emitted by vehicles and factories, water pollution caused by clogged waterways, improper waste disposal among others. Another major concern is the depletion of natural resources caused by illegal activities like illegal fishing, logging and mining, the misused and abused of coastal and forest resources just to name a few. These problems are often aggravated by the over concentration of population in urban areas. While different administrations have boasted of the economic gains during their respective tenures more Filipinos are still living in poor living conditions. The Philippine Statistics Authority (PSA) reported that poverty incidence among Filipino in 2015 was estimated at 21.6 percent, although an improvement from 2012 which was at 25.2 percent. 93 While the statistics may look good that means in concrete terms one out of five Filipinos were poor in 2015, that is roughly 21.9 million out of almost one hundred million Filipinos living in poverty.

#### **Conclusion**

We know that our planet is in a bad situation right now; it is a fact that there is climate change and global warming. But the positive thing is that there is also an effort to save our planet and there are scholars and non-governmental organizations and individuals who contribute to this effort. Sustainable development and integral ecology are frameworks that can definitely save our planet.

In our local situation, sad to say that it seems that change is tragically dragging its feet to happen especially in the Philippines. Typhoon Yolanda is the most powerful typhoon to hit the Philippines but it is not the only the powerful typhoon that hit the Philippines and definitely it will not be the last. The country is visited by more than twenty-five typhoons annually. Powerful typhoons and the other natural

<sup>&</sup>lt;sup>92</sup> Typhoon Haiyan (Yolanda) Philippines Environmental Situational Overview 14 January 2014, Joint UNEP/OCHA Environment
Unit:

 $<sup>\</sup>underline{www.unocha.org/unephttp://reliefweb.int/sites/reliefweb.int/files/resources/Philippines\%20Haiyan\%20Environmental\%20Sit\\ \underline{uational\%20Overview\%2014-1-14.pdf}$ 

<sup>93</sup> https://psa.gov.ph/poverty-press-releases. Accessed May 8, 2016.

calamities and man-made disasters or problems like pollution and deforestation always provide a wake-up call for the people to take care of the environment. Other social problems like poverty and corruption also offer reminders that development must be inclusive and that whatever economic gains the country achieved they must trickle down to the poor and the marginalized. When we analyze the PSSD framework and the other environmental and social programs of different agencies and organizations it is obvious that the Philippines is not lagging behind the efforts to take care of the natural world and foster sustainable development. The PSSD came out just a year after the Brundtland came out. As shown in the PSSD the Philippines is not lacking in strategizing for a sustainable development, a development that will balance the human need and the natural resources, a development that will meet the need of the present generation of Filipinos while preserving the natural resources and protecting the environment for our future generations.

In general, we need is to renew our commitment to work together for the protection of the environment and the preservation of our natural resources while at the same time addressing the social issues and concerns that impact on our environment and our society today. Pope Francis' *Laudato Si*' is an urgent call to renew that commitment and commitment that should be based on the right attitude – the attitude of care for our common home. But that attitude of care must draw inspiration from the many insights of scholars and the lessons that the ancient traditions has taught us about the harmony, the interconnection of all the beings that inhabit our planet, both the human and non-human, the animate and the inanimate. Because after all, from our Christian perspective we are all created by the same Divine Creator who admonishes us to be the steward of His creation. A sustainable development must be premised on integral ecology in the way that I have described it this paper. This should be the case not only in the Philippines but in the entire planet.