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**Environmental Ethics and Ecological Theology:  
Ethics as Integral Part of Ecosphere  
from an Indonesian Perspective**

**Robert Patannang Borrong**

VRIJE UNIVERSITEIT

Environmental Ethics and Ecological  
Theology: Ethics as Integral Part of Ecosphere  
from an Indonesian Perspective

ACADEMISCH PROEFSCHRIFT

ter verkrijging van de graad van Doctor aan  
de Vrije Universiteit Amsterdam,  
op gezag van de rector magnificus  
prof.dr. T. Sminia,  
in het openbaar te verdedigen  
ten overstaan van de promotiecommissie  
van de faculteit der Godgeleerdheid  
op dinsdag 4 oktober 2005 om 10.45 uur  
in de aula van de universiteit,  
De Boelelaan 1105

door

Robert Patannang Borrong

geboren te Sandana, Indonesië

promotor: prof.dr. A. van de Beek  
copromotor: prof.dr. E.M. Conradie

## Preface

In 1999 BPK Gunung Mulia Jakarta published my book *Etika Bumi Baru*. This was a broad overview on ecology and Christian ethics of environment. Such an overview was needed in the Indonesian context. Nevertheless it is not sufficient. All topics I dealt with in the book need more in depth elaboration. Therefore I decided to select at least some of the issues for a more profound investigation as a contribution to a deeper understanding of the requirements of Christian ecological ethics in the Indonesian context.

I am truly grateful to Prof.dr. Abraham van de Beek, my supervisor (promoter) at *Vrije Universiteit Amsterdam*, the Netherlands, who has patiently guided me with many insightful suggestions concerning my rough drafts. Without his sincere painstaking stylistic corrections and warm encouragement the present form would not have been achieved. I am also very grateful to my co-advisor (co-promoter) Prof.dr. Ernst M. Conradie at the University of the Western Cape, Bellville, South Africa, who has responded to my drafts with keen criticism and inquiries. His brilliant comments on my drafts were extremely helpful in improving the quality of this dissertation.

Much of the research for this book was undertaken in the Library of the *Vrije Universiteit* in Amsterdam, the Library of *Universiteit Utrecht*, the Library of *Interuniversitair Instituut voor Missiologie and Oecumina (IIMO)* and the Library of the *Hendrik Kraemer Instituut* in Utrecht. I am grateful for the support of those responsible for these libraries.

I would like also to thank my colleagues at Jakarta Theological Seminary, particularly dr. Semual Hakh, who served as Acting Principal during my absence and Mrs. Ruth Kadarmento, MA, who acted as Dean of Students and Public Service. Both of them bore the extra burden of some of my responsibilities as the Principal of Jakarta Theological Seminary while I was studying in the Netherlands.

I remain particularly indebted to drs. Hub Lems and his esteemed colleagues in Eukumindo who supported my study financially. I would also like to gratefully acknowledge the support from the SOW Kerken (now Protestant Church) in the Netherlands, particularly those who are responsible for the Asia Desk - drs. Ad Mook, drs. Feije Duim and Mrs. Klassin Pelt and

also Henk van der Woerdt and his colleagues in the guest house of the Landelijke Dienstencentrum of the Protestant Church in the Netherlands in Utrecht.

Several people provided me with commendable assistance in this study. In particular, I would like to thank the Parapak family in Jakarta, the Daniel Pangruruk family in Amsterdam, Ds. H.P. Brandsma, drs. Mien van der Klis, Phina Ruiters, Piet and Maria Bikker, family Jan de Vries, family Louwerse and many others.

I am very grateful to Drs. Elias Latumeten, who translated the original draft into English. I am also very grateful to Mrs Anne Parapak, M.Eng, as an English native speaker, who corrected the whole manuscript of this dissertation. The corrections she made on this manuscript is not only concerning the language but also ideas and content of this dissertation.

Finally, and most importantly, I would like to thank my wife, Ety Kusmiaty, my beloved daughter Edel Yemima Buralino, and my sons Erik Yohanes Eranlangi and Enry Yakobus Duapadang. They have with patience borne the long absences in the Netherlands and they have welcomed me back from the distraction of too much cogitation. Of all the family Edel has suffered most in her life as a small girl needing daddy. It is to her that I dedicate this book.

While I appreciate the assistance many people provided me in this research, as the author, all the discussions and conclusions in this book are my responsibility. If readers identify facts or ideas that they believe would enhance this book, I would be happy to receive their suggestions.

Robert Patannang Borrang

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# Chapter 1

## Introduction

### **I. Background**

The motivation for this study is found in the environmental crisis that Indonesia is facing. Of course, this crisis is not limited to Indonesia, but its impact on these densely populated islands is high. Working as an Indonesian in an Indonesian context I see it as my first responsibility to face the crisis as it is shaped in this country. Therefore I focus first of all on *Indonesia*.

In order to make clear the urgency of a study on ethics in our dealing with environment<sup>1</sup> I will shortly display some of the most striking facts.

#### **1.1. *Economic Growth***

According to Radius Prawiro, to promote development, governments of Indonesia generally concentrate on employment, infrastructure, and the production of goods and services. The unfortunate by-products of economic development, however, are exploitation of natural resources, pollution and environmental degradation. In contemporary Indonesia, the most prominent consequences of economic development are air pollution, water pollution from industry and human waste, and solid waste, such as product packaging. Such forms of pollution have become a problem, even in remote rural villages.<sup>2</sup> Though Indonesia is now trying to follow a sustainable development paradigm in its new development policy, the pace of development has been so rapid that adverse effects have been unavoidable and excessive. The problems facing Indonesia in its development program are not only pollution but also the problem of exploitation of natural resources, especially forest loss.

<sup>1</sup> The use of concepts in the ecological debate is not easy. We will preferably use them according to common usage in order to avoid constructing an artificial and thus uneasy language. See chapter 2.

<sup>2</sup> Radius Prawiro, *Indonesia's struggle for Economic Development*, Oxford New York: Oxford University Press, 1998, 338

**1.2. Forest loss**

Greenpeace has argued that Indonesia has the highest rate of forest loss in the world.<sup>3</sup> According to the Global Forest Watch, Indonesia has lost an estimated 72 percent of her original frontier forest. The rate of forest loss is accelerating. On average, about one million ha per year were cleared in the 1980's, rising to about 1.7 million ha per year in the first part of 1990's. Since 1996, deforestation appears to have increased to an average of 2 million ha per year.<sup>4</sup> Deforestation in Indonesia is largely the result of a corrupt political and economic system that regards natural resources, especially forests, as a source of revenue to be exploited for political ends and personal gain. Now, Indonesia is facing the problem of illegal logging. Faith Doherty of the Environmental Investigation Agency calls this a case of 'forest crime'. According to her, timber that is stolen from Indonesia's forests finds its way on to the international market either directly or through neighboring states, especially Malaysia and Singapore where the timber is successfully laundered and sent on to marketplaces in the United States, Europe, Japan, Taiwan and Mainland China.<sup>5</sup> In fact, illegal logging was high on the agenda at the meeting of international donors to Indonesia in January 24, 2003. The Indonesian Minister for Forestry has called on major consuming countries to take urgent action to curb illegal imports of Indonesian wood, claiming that their failure to do so is making them accessories to forest crime.<sup>6</sup>

These illegal actions are not in accord with the Broad Outlines of State Policy (the GBHN) policies in the field of forestry, which greatly emphasize the enhancement of environmental-friendly integrated exploitation of forest and which also benefits the local people. The GBHN concerning forestry contains the following statement:

The exploitation of forests must be integrated and enhanced with environmental insight to preserve and maintain the function of land, water, air and climate and to provide the biggest benefits to the people ... The conservation of dry land forest, marshland forest and diluted forests and the special characteristics of its nature including its flora and fauna must be continuously enhanced to protect the germ plasma, diversity and safety of living matters and the ecosystem and its elements.<sup>7</sup>

<sup>3</sup> <http://forests.org/articles/reader.asp?linkid=23223>

<sup>4</sup> <http://www.globalforestwatch.org/english/indonesia/forests.htm>,

<sup>5</sup> Faith Doherty, *Illegal Logging in Indonesia*, [http://www.abc.net.au/4corners/content/2002/timber\\_mafia/vie.../viewpoints\\_doherty.ht](http://www.abc.net.au/4corners/content/2002/timber_mafia/vie.../viewpoints_doherty.ht)

<sup>6</sup> <http://www.globalpolicy.org/security/natres/timber/2003/0305com.htm>.

<sup>7</sup> GBHN Field of Forestry Economy, b.,94

What is developed here is, however, just a theory or an idea, because in reality the policy of forest exploitation in Indonesia has often paid little attention to the importance of forests and the living beings in them. Instead, economic and material profits are emphasized. In the meantime, damage to forests, especially tropical forests, has a huge influence on the global environment.

### 1.3. Agriculture

With the increase of the population, a larger land area is needed for agriculture, settlement and for other facilities. Problems will thus arise in the provision of fertile land for agriculture, because, on one hand, the development of settlements and other facilities has often taken over agricultural land so that agricultural land has shrunk. If fertile land is converted into settlement areas or used for industry, it is possible that humankind will continuously face food deficiencies in the future. Technology is not able to help multiply the production of agriculture products on limited land without the availability of sufficient energy. In the meantime, the addition of fertilizers can also damage the soil if it is used excessively and continuously.

According to research by Peter Gardiner, agricultural land on the island of Java has been shrinking by 8% per year due to conversion into new settlements as a result of urbanization.<sup>8</sup> As this research was conducted in 1991 data may have changed. On the island of Java, during the 1990s, the development of an industrial area in the region of *Cikarang* used about two thousand hectares of rich and fertile *sawah* (*wet ricefield*) land in West Java. This reality is very much against the Broad Outlines of the State Policy (GBHN), which underlined the need for the rehabilitation of critical land. One of the items in the GBHN concerning the field of agriculture underlines the importance of prioritizing fertile land as agriculture land:

Agricultural development must be supported by the arrangement of land use and land layout so that the utilization of fertile land is prioritized for agricultural purposes. The use, right, ownership and transfer of rights on land must be able to guarantee agricultural activities.<sup>9</sup>

It is evident that the regulations in effect since the GBHN of 1983 have not been implemented as they should. A lot of fertile agricultural land has been converted for the development of settlement facilities, offices, shops and transportation.

<sup>8</sup> Peter Gardiner and Mayling Gardiner, *Pertumbuhan dan Perluasan Kota di Indonesia*, Jakarta : Kompas Daily, Tuesday, 7 May 1991

<sup>9</sup> See GBHN 1998, Field of Agriculture Economy, no.d, 76.

The government of Indonesia opened peat moss land in Kalimantan to replace the fertile *sawah* land on the island of Java in a project known as the 'one million hectare peat moss land' project. However, thus far this project has not succeeded in replacing the fertile agricultural land on the island of Java. If this project does succeed, it will have a new impact on the environment, namely the decrease of natural forests that then will be used for agriculture. This would certainly mean a reduction in the natural support of the earth's ecosystem, particularly as the island of Kalimantan has become one of the mainstay reserves of tropical forests in the world. In addition to that, modern agriculture has the characteristics of not being sustainable, because of the intensive use of chemicals, and chemical fertilizers (additional energy) and the practice of monoculture. The use of chemicals and the practice of monoculture have caused soil infertility because of the disappearance of all microorganisms, which are actually needed and always exist in the structure of natural soil.

Damage to agricultural land is caused by many factors, but almost all factors are related to the activities of human beings, personally, or through institutions or through government policies. For instance, the exploitation of forests has very much influenced the quality of agricultural land surrounding it. The same is the case with the expansion of industry. As well as taking over fertile land, industry has polluted the environment through the disposal of industrial waste, which has affected the quality of agricultural land. Another factor that is no less important is the use of fertilizers and pesticides on the agricultural land itself, which has evidently influenced the quality of the soil. In short, humankind's cultivation of land, which does not take into consideration the preservation of the environment, has caused damage to the remaining agricultural land, which could disturb ecosystems and, at the same time, threaten the food supplies for human beings.

Concerning the relationship between human's attitude and the damage of land, Meadows said: "Loss of the agricultural resource base is a consequence of many factors, including poverty and desperation, expansion of human settlements, overgrazing and over cropping, mismanagement, ignorance, and economic rewards for short term production rather than long term stewardship".<sup>10</sup>

The above situation is made worse by the problem of erosion. According to Donella Meadows, the Third World has experienced major problems of land degradation due to erosion. It is estimated that 6-7 million hectares of

<sup>10</sup> Donella Meadows, D.L. Meadows and J. Rauders, *Beyond the Limits: Confronting Global Collapse, Envisioning a Sustainable Future*, Post Mills : Chelsea Green Publishing, 1992, 53.

agricultural land have become non-productive due to erosion, while 1.5 million hectares have experienced damage due to other reasons.<sup>11</sup> Other causes of damage to land include conversion of agricultural land with the objective of building settlements, new industries and other facilities.

The situation pictured above has caused the development of agriculture not to follow the earth's natural ecosystem but rather a system of land use which does not care about the principles of sustainable development. As a result, not only has the ecosystem been damaged, the future supply of food is also threatened. The government and agricultural experts must work hard to give priority to sustainable development in the field of land utilization that can, on the one hand, support the availability of sufficient food for humankind, and also guarantee the preservation of fertile land to support the earth's ecosystem.

According to data of the Central Bureau of Statistics in Indonesia, productive land already cultivated in Indonesia totals 17,665 thousand hectares. A large portion of this, or 12,417 thousand hectares is dry land. The remaining 5,248 thousand hectares is wetland or *sawah*.<sup>12</sup> These figures indicate that the expansion of dry land has accelerated and this means that we are facing an ever-increasing risk of erosion and denuding of forestland, because, the increased conversion of dry land to plantations means the opening of new land or the clearing of forests. To this should be added the accompanying impact of forest fires due to the practice of forest clearing through burning. Many forests in Kalimantan and Sumatera have been burnt down.

The land problem in Indonesia consists of several challenges, namely erosion, use of pesticides, and weak regulations concerning the land use system.<sup>13</sup> The most serious of these three challenges is that of weak regulations and no clear system, which results in a lot of fertile land being converted for other objectives. As a result, increasing areas of forestland are opened for products which are not the same as those grown on the fertile land, use of which has already converted. Besides that, the conversion of land has also caused other problems, namely pollution because fertile land is generally converted into industrial locations which cause pollution, influencing the quality of the air, water and soil around them. Once again we see an instance of the relationship between environmental damage and the attitude, behavior and

<sup>11</sup> Donella Meadows, D.L. Meadows and J. Rauders, *Beyond the Limits*, 52-54.

<sup>12</sup> Central Bureau of Statistics, *Statistics during 50 years of Indonesia's Independence*, Jakarta: 1997, 29.

<sup>13</sup> Carol Warren & Kylie Elson, *Environmental Regulation in Indonesia*, Perth: University of Western Australia Press, 1994, 36.

responsibility of human beings. The role of man is most dominant in all the problems related to the damage of agricultural land.

#### **1.4. Energy**

Compared to advanced industrialized countries, the consumption of energy in developing countries, especially Indonesia, is still relatively small. For example, Japanese consumption of energy in 1993 reached a figure of 4,236 SLM (equal to one liter oil), while Indonesia's energy consumption was only 425 SLM. However, from the viewpoint of annual growth of energy consumption, the growth of energy consumption in Indonesia is very high. The growth of the world's energy consumption is at this time already 2 percent per year, but in countries in the Asia Pacific the growth is 5 percent per year. Indonesia itself has reached a growth rate of 8 percent per year in energy consumption. The increase in energy consumption in Indonesia has mainly been stimulated by the industry and transportation sectors.<sup>14</sup> Not only has this growth in energy consumption been a significant cause of the pollution of the living environment, but it has also become a pushing factor for the exploitation of forests and expansion of land conversion in Indonesia.

The myth that the supply of fossil fuel energy will not be exhausted because there are still many reserves which have not yet been detected is not supported by actual facts. That is why reducing the use of fossil fuels is obligatory. The wasting of fossil fuel is not only increasing the burden of pollutants in the atmosphere, but also endangering the economy which is relying on the use of fossil fuel and would face disaster if fuel energy suddenly ran out. Indonesia serves as an example of the ever-increasing need for energy from oil. Indonesia's fossil fuel reserves, especially oil, are very limited. According to data of the Directorate General of Electricity and Energy Development, natural oil reserves in Indonesia based on the status on the 1<sup>st</sup> of January 1996, totaled 9,097.6 billion barrels, compared to the world's oil reserves of 916.6 billion barrels. Thus, Indonesia's natural oil reserves account for only 1 percent of the world's natural oil reserves, while natural gas reserves account for only 2 percent of the world's natural gas reserves.<sup>15</sup>

The GBHN underlines the importance of finding alternative energy sources. In the section on mining, the GBHN states that: 'With the limited reserves and the difficulty of finding new oil and natural gas reserves, the efforts to utilize

<sup>14</sup> Source: Directorate General of Electricity and Energy Development, year 1996.

<sup>15</sup> Source : Directorate General of Electricity and Energy Development, year 1996.



mining products and processed mining products outside oil and natural gas, particularly coal and geothermal energy must be continuously enhanced so that the dependency on energy from oil and natural gas can be further reduced, while State revenues can be increased'.<sup>16</sup> Indeed, alternative energy can still not guarantee the preservation of the living environment. Although coal and natural gas are deemed to be safe, they still have various other impacts like the removal of the local community/local inhabitants or the contamination of air from the burnt waste of coal. However, it is of utmost importance that other alternative energy sources be found, which are more environmentally friendly than energy from fossil fuels. This fact has been emphasized in the GBHN field of energy as follows: "New renewable energy sources like geothermal energy, hydro energy, biomass energy, peat moss energy, solar energy, wind energy, sea waves energy and nuclear energy must be utilized based on the principle of technical and economical feasibility, safe for the community, and socially and culturally accepted by the community, and not causing damage to the environment".<sup>17</sup>

### 1.5. Mining

Large-scale mining projects have often influenced a larger living environment over a long period of time. For example, offshore mining can influence a very large area around it. The same is true of mining in the upper course of rivers, which can damage the living environment along the whole river course up to the sea. However, the main problem is related to the exploitation of minerals. Although deposits are significant, they could be completely depleted or shrink to the extent that our grand children might only be able to use recycled metals. As with oil, so with minerals its natural function in the ecosystem of the earth is not yet understood well. It is therefore extremely important that a reserve of minerals be maintained and that the supply is not completely mined. It is possibly already time that the world must retrieve materials that have been used previously. From the aspect of economizing, the development of the recycling industry is very important.

An example concerning the relation between metal mining and the damage to the living environment which has received a lot of publicity is the case of Freeport in Papua (*Irian Jaya*), Indonesia. This Freeport case has already

<sup>16</sup> GBHN Field of Mining Economy, d., 91.

<sup>17</sup> GBHN Field of Energy Economy, c., 93.

been much debated and even brought to a court of justice in Indonesia. There are indications that this mining project has polluted the living environment through three main sources, namely through the material waste of the mine, water waste of the mine and pollution of the air during the operation of the mine. The estimate of the pollution caused by the Freeport mine covers the damage of the mining environment over an area of 5 kilometers for a period of 100 years after the mine is closed; pollution of river water for 20-40 kilometers causing fish and other water biota to die and the contamination of the river deltas and shores which are located 100 kilometers from the location of the mine. The destructive impact on river deltas is estimated to last over a period of 100 years after the mine is closed.<sup>18</sup> Apart from the truth of the above estimate, any mining operation not only leaves tracks of pollution, but also depletes the minerals, which are non-renewable resources.

Big mining projects have sometimes also influenced a larger living environment through a long process. For example, offshore mining can influence a very large area around it. The same is true with mining in the upper course of rivers, which can damage the environment along the river banks up to the sea. However, the main problem is related to the exploitation of minerals, which, in spite of significant deposits, will be completely depleted or shrink so that our grand children will only be able to use recycled metals. As it is with oil, the natural function of minerals in the ecosystem of the earth is not yet understood adequately. It is therefore extremely important that mineral reserves must be kept and not completely mined.

### **1.6. Global Warming**

Research in Indonesia has estimated that several regions have already suffered material losses resulting from global warming. According to research by a UN team on the coastline near *Karawang*, *Bekasi* and *Subang* some time ago, Indonesia suffered a loss of US\$ 55 million in 1990 or around Rp.120 billion as a result of global warming. It is said that the sea surface in those three regions had at that time risen by around 80 cm. The same researchers stated that the increase in the air temperature in Indonesia was recorded to be 0.01° C every year. The increase of the temperature is still considered to be low, but the impact on nature is very significant.<sup>19</sup> Bigger losses would be suffered all over Indonesia, particularly in the shore areas where people have businesses,

<sup>18</sup> Paper: 'Environmental Impacts of Freeport Grasberg Copper Mine in West Papua', Delft: Study Information Center Papua People.

<sup>19</sup> See *Suara Pembaruan Daily*, 10 March 1995.

like fish ponds and shrimp ponds, rise and fall *sawah* cultivation and various other businesses. These losses are related to erosion of the shores and the encroachment of seawater onto coastline areas. Instability of the dry and rainy seasons also impacts crops. For instance, a long dry season over the past few years has caused a drop in agricultural production, especially rice.

### 1.7. Pollution

Liquid and solid waste originate from industries that are using water in their processing system such as water for washing or cooling of machinery and water containing raw materials. The water used in the processing system, water for washing together with water coming out of the raw materials, is usually disposed of as waste and with it a quantity of solid matter and particles which are solvable or precipitate in water. In addition to this, waste water also contains a number of poisonous and dangerous chemicals. Polluted wastewater has identifiable physical characteristics like the colour, feel and smell, while the change of chemical characteristics of water can be identified only through a laboratory test.<sup>20</sup>

The possibility of mercury pollution and pollution by other chemicals in the Bay of Jakarta has already been investigated and it has been proved that the mercury pollution in the Bay of Jakarta is already at a level which gives great cause for concern and has possibly already claimed victims. According to research conducted by the National Oceanic Institute together with EPOS (a study group concerning environmental pollution) in 1980, fish and shrimps in the Jakarta waters contained mercury exceeding the safe threshold for consumption.<sup>21</sup> Research conducted by an NGO consisting of medical doctors and called 'Kelompok 10' (group of 10) led by Dr. Meizar Syafei, have found indications of the transmission of the *Minamata* disease to children of fishermen in the region of *Pasar Ikan*, Bay of Jakarta, who suffer from a strange disease. These children are believed to have been poisoned by mercury through the fish they have consumed. This fish is thought to contain methyl mercury. These children, who are in general suffering from mental disorders, paralysis, convulsions and poor eyesight are known to have consumed fish every day, as did their mothers during pregnancy. It is believed that these children have been poisoned with mercury by eating such polluted fish.<sup>22</sup>

<sup>20</sup> Gintings, *Mencegah dan Mengendalikan Pencemaran Industri*, Jakarta: Pustaka Sinar Harapan, 1992, 44.

<sup>21</sup> Bachrun, 'Ikan Rawan di Teluk Jakarta', in *Tempo Weekly*, June 1980, 45; Tresna Sstrawijaya, *Pencemaran Lingkungan*, Jakarta: Rineka Cipta, 1991, 62.

<sup>22</sup> Anonymous, "Pencemaran Teluk Jakarta, Bencana di Ambang Ibukota". in *Kartini Weekly*, August 1983, 8-11, 25.

The above instance is deemed sufficient to provide an illustration of the danger of water pollution caused by industry. Industrial waste has already caused danger to all creatures living in the water and also to mankind. Water that is polluted by industrial waste through various poisonous and dangerous substances causes the extinction of sea biota, namely animals living in the sea like shrimp, lobster, fish and shells. Besides being dangerous towards sea animals these substances are also dangerous for sea plants, mainly due to insufficiency of oxygen, the growth of algae and seaweeds called *eutrophication*.<sup>23</sup> The danger of water pollution to human beings happens either at the time such polluted water is consumed, or indirectly through the food chain.

### **1.8. Pesticides**

Pesticides are a deadly poison. Pesticides cover many types of chemicals used to fight insects, which disturb plants and also human beings. New chemical compounds which function to kill weeds and also to stimulate the growth of leaves and fruits are also included in the group of pesticides. Pesticides are chemical agents, most often artificial, that kill plants and pests. The general term pesticides also covers insecticides, herbicides and fungicides.<sup>24</sup> Pesticides is a generic term referring to all kinds of chemicals used to kill organisms inimical to human purposes. They can be classified by chemical composition, by the kind of organism they aim to destroy (insecticides, herbicides, rodenticides, for examples) or by other characteristics such as persistence or toxicity.<sup>25</sup>

All types of pesticides are dangerous to human beings and the environment if used in excess of the determined amount. The misuse of pesticides in agriculture has already caused contamination which has affected all living beings. Agriculture all over the world uses more than 2 billion kilograms of pesticides every year, which is equal to 400 grams one pound for every living man, woman and child in the world. Pesticides enter the human body through the food chain. According to WHO, there are around 400,000 cases of pesticide poisoning resulting in 10,000 deaths in the Third World every year.<sup>26</sup>

<sup>23</sup> Bernard S. Caney (ed.), *Encyclopedia Americana*, (International Edition, vol 1, 22, 28), New York: 1972, 441.

<sup>24</sup> Michael Allaby, *Macmillan Dictionary of Environment*, London: Macmillan Press, 1983, 373.

<sup>25</sup> Sterling Brubaker, *To Live on Earth*, Baltimore: The John Hopkin, 1972, 108.

<sup>26</sup> Muhammad Idris, *For a Sane Green Future*, Penang : Consumer's Association of Penang, 1990, 205.

There are 444 formulas of pesticides registered in Indonesia, of which 74 are insecticides, 67 herbicides, 61 fungicides and the remaining 42 other types of pesticide products. The three main pesticides used in agriculture in Indonesia are insecticides (63%), herbicides (22%) and herbicides (15%).<sup>27</sup> As indicated by the above data, the most used type are insecticides.

Since insecticides were first introduced, DDT was also used in Indonesia. However the use of pesticides in the interests of agriculture really started on a large-scale level with the implementation of the *Bimas-Inmas* (mass guidance) programs in the beginning of the 1970s. The aim of these programs were to help Indonesia to reach food self-sufficiency. The government of Indonesia at that time subsidized up to 80% of the price of fertilizers and pesticides for the farmers. However, the subsidy was later completely stopped. There was also an increasing awareness of the risk of using pesticides, especially the various types of insecticides, like DDT, eldrin and dieldrin. In 1973, the government issued a regulation about the use of pesticides (Government Regulation Number 7 year 1973), because pesticides were deemed to be poisonous. In the same year the Minister for Agriculture issued a decree (Decree No. 429 year 1973) stipulating that, in the interests of safety, pesticides packages must be sealed and use a trademark, indicating the active contents and a sign that the contents are dangerous to human beings and to the environment.

In 1986, the government of Indonesia prohibited the use of 57 types of pesticides. Among the types of pesticides that are prohibited is DDT. DDT may only be used to fight mosquitoes. Besides that, the government organized a program called Integrated Pest Control (PHT), coordinated by *Bappenas* (National Development Planning Board) and involving many related parties. One of the objectives was to control the use of all pesticides. However, farmers still like to use pesticides, like DDT to fight pests. Various pesticides are sold freely in plastic packages in kiosks without any warning that they are dangerous and without proper packaging. This is also due to the community's lack of understanding of the danger of pesticides to the environment and to human beings themselves. The main consideration is the economic benefit to the farmers, as with the use of pesticides, especially insecticides, the farmers can safeguard 30% of paddy production and 20% of other agricultural products from being damaged by pests, compared to not using insecticides at all. Moreover, the pesticide products are of great benefit to the farmers so that these chemicals are often freely traded to the farmers who are ignorant of their dangerous characteristics.

<sup>27</sup> Peraturan Pemerintah Nomor 3 tahun 1986 tentang Larangan Penggunaan 57 Jenis Pestisida.

In 1991, the government finally prohibited the use of DDT for any purpose. But in reality, this dangerous chemical is still used to fight pests. One instance of the use of DDT is South Sulawesi. According to research conducted by the Foundation of the Indonesian Consumers' Institute in South Sulawesi in May 1993, tomatoes produced by the farmers in this province contained DDT residuals up to 0.5780 ppm which is quite a high residual content.<sup>28</sup> The prohibition of the use of DDT and several similar dangerous pesticides is certainly meant to lessen the impact on the environment, especially water and land and also on humans. Direct and indirect poisoning has often been reported from all over Indonesia. In fact, investigations have indicated that, as a result of the lack of control of the distribution and use of pesticides, 1123 cases of poisoning, 54 of which resulted in death, were recorded between 1989 and 1993 alone.<sup>29</sup>

Pesticide residuals are also detected in fish, vegetables, fruits and even cow milk. Through the food chain these pesticide residuals enter human bodies. Farmers who are using pesticides are often poisoned, because of their lack of understanding of the right way of using such pesticides. It is reported that in *Tegal*, Central Java, there have been 173 cases of onion farmers who have been positively poisoned by pesticides.<sup>30</sup> There is no need to illustrate the impact of the use of pesticides on the living environment any further. The impact of the use of pesticides towards the natural environment, living beings and human beings has been realized for many decades. Many people are of the opinion that the use of such chemicals is ecologically and economically more damaging than beneficial. As mentioned above, the background to the prohibition of the use of the 57 types of insecticides through Presidential Instruction No.3/1986 was the awareness that the subsidies given for insecticides and fertilizers to farmers at the end of the 1970s, which reached millions of US dollars, had been a total waste, because they had evidently not been able to stop the attack of pests, especially the plant hopper which attacks paddy and was the main target of the use of these insecticides.<sup>31</sup> The Indonesian government subsidy on insecticides from the 1970s, amounted to a huge sum of money. According to Dr. Peter E. Kenmore, Manager of the Integrated Pest

<sup>28</sup> Nining Irianingsih, "Di balik Kesegaran Sayuran dan Ranumnya Buah", in *Femina*, No. 37/XXII, September 1994, 30-33.

<sup>29</sup> Otto Soemarwoto, "15 Tahun Sesudah Stockholm", paper : signed and not published, 41.

<sup>30</sup> See *Suara Pembaruan Daily* Report, 24 May 1995.

<sup>31</sup> Sujud Swastoko & Noinson Rumapea, "Pengendalian Hama dalam Pertanian", in *Suara Pembaruan Daily*, 20 April 1995, 8.

Control on Paddy for Asia in 1993, the subsidy reached a figure of US\$ 128 million, or around Rp. 250 billion per year. According to data from *Bappenas* (National Development Planning Board) for the years 1976-1986, the subsidy reached a figure of US\$ 1.5 billion, or Rp.3.- trillion.

The use of pesticides in Indonesia is continuing from year to year. As mentioned above, the use of various types of pesticides is no longer being monitored as many are sold freely. The use of pesticides in Indonesia seems to be increasing year by year. The government has indeed endeavored through various regulations to control the use of pesticides. For example in 1997 the government issued a prohibition of the use of pesticides by people who do not have any certificate for that. However, farmers have already been spoiled by pesticides. What is needed is moral awareness on the part of traders and farmers not to trade in and use pesticides arbitrarily.

### **1.9. Waste Pollution**

Waste has become one of the powerful pollutants of the environment through the tendency of the population from rural areas to move to urban regions. In other words, the waste problem has developed in line with the strong current of urbanization. The many people living in crowded conditions in big cities like Jakarta have caused an increase in waste. The more people disposing waste, the more the waste will pile up. The reduced land to accommodate city waste makes the situation worse. The waste problem has become a moral problem because it concerns people's awareness of the importance of creating a clean and healthy environment.

As with the pollution problem in general, the problem of waste has also created various moral and ethical implications in the community as well as in the living environment. In the community for instance, people who dispose of waste irresponsibly have acted unjustly towards their fellow human beings who live in the same neighborhood or in the area of the temporary waste dump as well as the final waste dump. The diseases that are spread through waste and rubbish are in general hitting poor people who live in unsanitary conditions. Irresponsible waste disposal is thus an injustice towards those poor people, who are the main victims and yet have no redress. Irresponsible waste disposal is not only unjust treatment towards our fellowman, but also unjust treatment towards the environment because the living beings that should actually be protected are becoming the victims of human irresponsibility.

The element of injustice can be clearly seen in the fact that the largest producers of waste are normally the rich. For instance, the owners of industries which pollute rivers are rich people who, for the sake of their wealth, sacrifice their fellow human beings and the environment. In the case of waste pollution, the largest producers of solid waste in the big cities would definitely be those in the higher-income categories. The higher a community's income level, the higher its waste production level. Wealthier people have a higher level of consumption and thus produce more waste.<sup>32</sup> Those living in poverty are the ones who spend the most on treatment of sicknesses such as diarrhea and light respiratory diseases which normally hit people living in insanitary conditions. The same is the case with the physical losses and material losses when floods hit the city of Jakarta. Most victims are people living in dirty settlements. These are examples of injustice which should be addressed. The production of industrial waste could be easily overcome by, for instance, the imposition of a pollution tax (polluters-pay principle).<sup>33</sup> Such regulations are based on the belief that pollution can be controlled but that this involves a cost. The cost of preventing pollution must be borne by producers of pollution. Although this cost is not directly related to the product manufactured, but more related to interests outside the company (external cost), producers are expected not to ignore their responsibility to the community and the environment. Thus these external costs should be internalized. This would cause an increase in prices for the consumer. The cost to fight pollution must be borne by both the producers in the form of reducing their profits and by the consumers through the increase of prices. Thus both polluters as well as consumers who buy the products which have been polluting the environment must bear the cost of repairing the damage to the environment. This is just and fair compared to the situation where the cost of reducing pollution and the repair to the damage of the living environment is borne by all people alike, both consumers who use the products as well as the people who do not use those products, but are also getting a share of the pollution.

In case of the production of solid waste, the situation is more complicated as, the poor, not only join in paying the cost of coping with waste together with those in the high-income category, but must also spend more to go to the doctor due to diseases caused by waste; even though they produce the least waste. Indeed, the imposition of waste retribution could differentiate between the high-income level members of the community and those with low-income

<sup>32</sup> Oelfah Hermanto, "Gerakan Kebersihan Perlu Berkesinambungan", in *Suara Pembaruan Daily*, 14 Maret 1987.

<sup>33</sup> Emil Salim, *Pembangunan Berwawasan Lingkungan*, Jakarta : LP3ES, 1986, 212.



levels. However, the cost spent by low-income people as a result of pollution by waste is far higher than the retribution spent by those in the high-income categories.

The moral and ethical implications of the problem of waste are very closely related to the life style, especially the consumptive life style of modern people. Indeed, the problem of waste is heavily loaded with various moral and ethical implications like the enforcement of law and regulations, the discipline of the bureaucracy, the political will of the government and the social responsibility of entrepreneurs. However, a moral problem arises when waste has become a problem. Waste is a product of people who live in a cultural and socio-environmental setting. That is why the problem of waste is a reflection of the ethos adhered to by the community.

The problem of waste is not only related to the problem of how to dispose of waste, but more particularly to the production of waste. That is why the main emphasis in handling the problem of waste must be on increasing the awareness of how to minimize the production of waste and not just how to take care of its disposal. There are many types of waste that cannot be handled completely through decomposition or through other processes. One example is plastic waste that does not easily deteriorate, so that it may remain intact for years. As a result, the coming generation must suffer from the carelessness of the present generation. On this basis, Nash said: "The moral question is not only how to arrange our responsibility concerning waste, but the way to prevent and radically reduce the volume of waste and the effecting of a regulation about waste, which could not be recycled or decomposed".<sup>34</sup>

Without an awareness of the need to minimize the production of waste, any efforts to dispose of waste will be difficult. That is why, what must be prioritized is to change the style and consumptive attitude of the people, so that the production of waste can be minimized and houses will not be full of plastic bags from shopping which then become waste.

### **1.10. Overpopulation**

We already referred to the pressure of population growth on the environment. Agriculture land is swallowed up by cities and infrastructure. Forests are devastated for the production of food or sustaining life on the short term. Waste is not only produced by rich people, but by everybody. Actually the population of Indonesia and especially Java is larger than its natural environment can bear.

<sup>34</sup> Nash, *Loving nature: Ecological Integrity and Christian Responsibility*, Nashville: Abingdon Press, 1991, 28.

Here we come to one of the core problems, not only worldwide, but also and specifically in Indonesia. In overpopulation we see sharply the ambiguity of science. On the one hand many human beings are saved by better medical care and knowledge about health. Children death rates has decreased considerably. At the same time the children of today are at risk to block the way to future generations. The use of technology is aimed at improving the supply of food and other sustenance. It is rather successful in doing so by using fertilizers and pesticides. But again the help of today is the risk for tomorrow.

The present population of Indonesia (2003) is 213.276.000, compared to 61.000.000 in 1930. According to the 1930 census, the total population of Indonesia was estimated at 61 million. In the next census, conducted in 1961, the number was swelled to 97 million. A decade later, based on the 1971 census, the total population has increased to 119.2 million. It became 147.5 million in 1980. In 1990, the number has risen to 179.3 million and as mentioned above the present population was 213.2 million.<sup>35</sup> Based on the number of population in Indonesia as mentioned earlier, the rate of growth is considered high, ranging from 1.5% (1930-1961), 2.1% (1961-1971), 2.3% (1971-1980), 1.97% (1980-1990).<sup>36</sup> Even though, according to the Center for Statistic Board of Indonesia, the population growth rate had decreased sharply since 1980, from 1.97% per annum during the period of 1980-1990, to 1.49% per annum during the period of 1990-2003.<sup>37</sup> The figures for Java are respectively as follows. The 1930 census denotes that 41.7 million (68.7%) out of 61 million people in Indonesia are concentrated in Java. Thirty years later (1961), with a total population of 97 million, the composition of the population distribution became 63 (65%) in Java. A decade later (1971), with a total population of 119.2 million, Java still was the centre of concentration of the population, namely 76.1 million (63.8%). Such tendency was constant until about 1980. In 1980 decade with a population of 147.5 million, Java accommodated 91.3 million (61.9%) people. The result of study in 1990 still indicated the same pattern of distribution with a total population 179.3 million, Java still accommodated more than 60% of the population.<sup>38</sup>

<sup>35</sup> Badan Pusat Statistik. *Statistical Yearbook of Indonesia 2003*, Jakarta: 2003, 64. Compare: Kantor MNK/BKKBN, *25 Years Family Planning Movement*, Jakarta 1995, 5.

<sup>36</sup> *25 Years Family Planning*, 6.

<sup>37</sup> *Statistical Yearbook of Indonesia 2003*, 49-60.

<sup>38</sup> *25 Years Family Planning*, 6.

The consequences of this population pressure, especially on Java are enormous. The ecosystem is not able to sustain it. This problem, however, is hardly to be tackled if the attitude of leading people will not change from a perspective on economic growth to a more ecological paradigm.

### 1.11. *In Sum*

Exploitation and pollution have already caused the disappearance of many species. The quantitative decrease is followed by a decline in the quality of nature, like the clear cutting of forests, which has already reduced the area of tropical rain forests, reduced the number of species of flora and fauna that are living in the forests (quantity), and, at the same time, has caused the weakening of the supporting power of nature towards a fresh and healthy life of all beings (quality). The decline of nature's quality is especially related to the activities of production and consumption, especially the use of energy that has caused pollution and damage of the living environment. Production and consumption certainly have to do with global markets and human greed. But especially in the Indonesian context they cannot be separated from overpopulation. As long as the population pressure is still increasing, the pressure on environment and future life will increase as well.

## II. The Human Factor

The above examples only highlight the most striking problems. They are by no means exhaustive. It is not our intention to cover everything. Nor do we try to investigate causes and consequences of environmental damage in the field of biology, economy, techniques, and their interrelationships. We will focus on *the role human beings play* in the environmental crisis. Certainly, modern science and technology play an important role in the present crisis. But the damage to the environment is not the result of science and technology as such, but rather the result of human beings who have created and manipulated both technology and science to exploit nature, as in earlier times other factors caused crises – albeit that these were on a more local scale than the global crisis we have to face now. Exploitation and pollution are not caused by science and technology *an sich*, but by human beings who use technology as a tool. Human beings have taken advantage of nature. It is human beings who have polluted nature in the process of their activities.

Governments have tried to make regulations for conservation and recovering of nature and life. From the various international meetings concerning the natural environment – in Stockholm (1972) Rio de Janeiro (1992) and Johannesburg (2002) – various international treaties have been drawn up to protect the natural environment from the threat of destruction. Every nation has a number of laws and regulations about the management of the living environment. Indonesia itself has had a law concerning the handling of the living environment since 1982, namely Law No. 4 year 1982 about the Main Stipulations concerning the Management of the Living Environment. This law was replaced by Law No. 23 of 1997 concerning the Management of the Living Environment. In fact, since the year 1978 the problem of the management of the living environment has been included in the Broad Outlines of State Policy (GBHN) and a special minister has been appointed as State Minister for the Control of Development and Living Environment. This position is now called State Minister for the Living Environment and Analysis of Environmental Impact.

It may be argued that the aspect of planning the development of the living environment in Indonesia is conceptually sound. The balance between the principle of utilization and principle of conservation of natural resources is given due attention. Appreciation of the values of the culture and life of the people that support harmony with the living environment is very much observed. In short, the planning of the development of the living environment in Indonesia is endeavoring to create a balance, harmony and compatibility between the ecosystem, the economic systems and cultural systems in order to guarantee the implementation of a sustainable national development.

The planning for the development of the living environment contained in the GBHN is following:<sup>39</sup>

- (a) The development of the living environment is directed so that the living environment would continue functioning as support and buffer of the ecosystem of life and the creation of a dynamic balance, harmony and concord among the ecologic system, social economic and social cultural systems, so that it could guarantee a sustainable national development. The development of the living environment is directed to preserve the function of natural resources and the living environment, enhance the quality of life, sustainable utilization of natural resources, rehabilitate the damage done to the environment through the exploitation, maintenance and utilization of natural resources, utilization of the

<sup>39</sup> GBHN Field of Development of the Economy of Living Environment, 108-110.

conservation of protected regions and other regions including the onshore, offshore, and air ecosystem; enhancement of the rehabilitation of the living environment, which function is damaged and disturbed; development, monitoring and evaluation of the implementation of the arrangement of layout; control of pollution, use of science and technology, enhancement of regional and international cooperation to enhance and improve the quality of the living environment; and to enhance the awareness, participation and social responsibility of the people, or community organizations and the national efforts to realize the largest possible prosperity of the people.

- (b) The onshore and offshore natural resources and those in the air must be exploited and utilized for the greatest prosperity of the people on a sustainable basis, through the development of sufficient supporting power and environmental accommodation ability, so that it could maintain the preservation of the function of the living environment. The values of culture and tradition of the regions that contain values of preserving the living environment must be continuously tied in, maintained, upgraded and developed to support the sustainable development. The awareness and responsibility of the whole community about the importance of the function of the living environment for the life of man must be continuously enhanced through monitoring, information, enforcement and abiding of the law, arrangement and spread of information and enhancement of the role of functional institutes of the government, role of the people and national efforts in each national and economic activities.
- (c) Conservation of the onshore, offshore and air ecosystem must be continuously enhanced to protect the function of the ecosystem as a support and buffer of the system of life. The preservation and maintenance of the types and ecosystem of a diversity of germ plasma, including flora and fauna and the uniqueness of its nature, would be continuously enhanced, accompanied with the increase of its utilization through application, development and mastering of science and technology for the greatest prosperity of the people, particularly the people within and around the region of the ecosystem, and supported by activities of research and development, inventory of the potential of natural resources and the value of the function of the living environment as a base for the sustainable exploitation and utilization of natural resources and living environment.
- (d) The natural resources and living environment, the function of which have been damaged or disturbed must continuously be rehabilitated

to recover their function as support and buffer of the system of life, in order to enhance their ability to provide benefits for the welfare of the people. The enhancement, guidance and coordination by institutes, enhancement of the quality of human resources in the field of exploitation of the living environment, enforcement and abiding of the law and the enhancement in mastering of technology, facilities and infrastructure to reduce the damage to and pollution of the environment, must be continuously endeavored. In the exploitation of natural resources and the living environment is developed the integrated application of economic norms, social and cultural norms as well as legal norms to enhance the role of the people, particularly the national effort for the application of a clean production technology to prevent damage to the ecosystem.

- (e) Sustainable development with environmental insight is based on the harmonious development of the population, the pattern of the use of space, the use of land and the use of water resources, sea and shores and the other natural resources, supported by a cultural resource and other social and cultural aspects as one unity in the harmonious and dynamic exploitation of natural resources and the living environment. The living space must be exploited based on an integrated pattern through the regional approach with special attention to the characteristics of the natural environment and social environment. The use of land is arranged by providing special attention to the prevention of the use of productive agricultural land, including technically irrigated land and land for watershed or other purposes, prevention of the use of land which could disturb the balance of the ecosystem and the prevention of water pollution, air and land pollution in urban areas. In the development of the use of water attention must be given to the provision of sufficient and sustainable clean water, prevention of flood and drought, prevention of the drop of the quality, water preservation and the safety of the river basin. In the development of the use of sea and shore resources attention must be given to the balance between and relatedness among the systems of uses, between ecosystems and between regions, and also the development of sea resources. The living environment with all its elements must be protected in changes in its situation and function and continuously enhanced in the interests of the achievement of a sustainable living environment.
- (f) Bilateral, regional and international cooperation for mutual interest concerning the maintenance and protection of the living environment,

exchange of experience, transfer of technology, prevention of the disposal of poisonous and dangerous waste from one to another country, and participation in international policies and progress of science and technology concerning the environment must be continuously enhanced in the interests of sustainable development.

The concepts in the GBHN concerning the development of the living environment as quoted above are very comprehensive and ideal. Seen from the aspect of ethics, the formulation in the GBHN is already contestable because, although it reflects the basic norms like justice and appreciation of all living systems, it is still giving priority to human interests. Problems arise, however, when one tries to implement these concepts. The realities in the field, such as the use of land, forest and energy are not in harmony with the ideal formulations in the GBHN. That is why awareness is essential, especially on the part of those who issue policies and the implementers of development. Plans are goods, but they must be implemented. In reality the living environment and poor people are often still the victims of the exploitation of natural resources and thus it is a challenge to increase ethical awareness, both through education and a pure and consistent implementation of regulations.

It turns out that laws are not sufficient to change basic human attitudes and behaviour as the expression of these attitudes. As long as human beings are not acting according to their ethical responsibility, laws will not be sufficient to change their actual behaviour.

The case of metal mining in Freeport in Papua (*Irian Jaya*) is a good example how macro-economic profits prevail above the interests of life both of animals and human beings. In practice, the economic interests and political benefit of a small number of people have often resulted in the sacrifice of common interests, especially the interests of the poor and the interests of the environment. One of the practices which are not ethical, also from the viewpoint of economic and political interests, is the practice of corruption. Many regulations are violated through such practices. Many interests of the environment and fellow human beings are sacrificed through the practice of corruption. For instance, the conversion of fertile agricultural land, which, according to stipulations in the GBHN must never happen, can in reality still happen through the practice of corruption. Economic and political interests, together with the practice of corruption, contribute to the destruction of the living environment. This is one of the reasons why ecological ethics is so important. People need to realize where their actions towards the living environment are immoral.

### **III. A Need for Ethics**

We need to focus our study more sharply. It will not deal with the role of human beings as such, nor with the regulations that are made to direct this, but with one specific aspect of human relations with the world, namely human *ethics*. Ethics is not dealing with human acts and moral behaviour as such. Nor is it dealing with law as such. Moral behaviour and law are expressions of humans' deepest convictions and views on world and life. Ethical consciousness refers the way of life of a group of people in which their judgements about good and evil are embodied. Now ethics is not about these convictions either. Ethics is the conscious and critical reflection on these attitudes and convictions and their relation to moral behaviour.

Precisely because ethics is related to humans' deepest convictions it is impossible to develop an overall human ethics. Ethics depend on religious beliefs, philosophical convictions and worldviews. People may claim these to be universal, but we have to take in account that others may disagree with such beliefs and convictions. We are always dealing with a specific worldview or a specific religion. So we have to put the question: what is the role of this specific religion or worldview towards the ecological crisis? It is not our aim to cover all the traditions, not even those that are dominant in Indonesia. We will limit ourselves to the concrete tradition within which I live and work, namely the *Christian* faith. Before discussing the issue with people from other religions we must consider as Christians our own position and determine our own responsibility.

What must be our ethical attitude from the perspective of the authoritative tradition we live in? What must it be in relation to the world in which we live, to the other creatures and human beings with which we share life and being? Of course this has to do with the way we think about human beings, about plants and animals, about the earth we live in. The Christian tradition has its own convictions about the world and everything that is in it. That does not mean that all Christians have the same convictions. They often disagree and even hold unto opposite convictions, resulting in different ethical views, different morals and different actions. Besides this, the same persons often differ on the beliefs which they confess and the acts and attitudes which they display. Nevertheless, we can try to find a relative unity by referring to common canonical writings. Of course, it is impossible to cover the whole field of ecological ethics, even if it is limited to the Indonesian context and the Christian tradition, especially because these cannot be isolated from the whole of the community of human and other beings on earth. Our aim is more restricted: to



contribute to some basic outlines of ethics against the backdrop of the Indonesian contexts from the perspective of Christian theology.

#### **IV. Putting the Question**

After these introductory considerations we now can come to our research question:

*Which Christian convictions may inform an appropriate ethos for Christians in Indonesia in order to address the challenges pertaining to the environmental crisis in Indonesia in a responsible way?*

So we will not develop an ethical system or even deal with all issues that are at stake in the debate. We will limit ourselves to the basic question of the role human beings with respect to their ethical consciousness have in the world now that the whole ecosystem is endangered. And we do so in the perspective of Christian faith.

We do not claim to give definitive answers to this question. Nobody is able to do so. Nobody can overview everything. Both in theology and in ecology everything is interrelated and we can deal only with a small part of the whole. The results of this study are therefore necessarily limited. This is especially the case because of the different opinions and interpretations within Christianity itself as we indicated above. Scholarly work is always just a contribution to an ongoing activity of research of many people who all of them add a stone to the pavement of the way of knowledge. In the case of ethics they are also stones on the way of responsibility for the future. Especially in the field of ecological ethics it might be clear that such an ethics can only be developed by many of these small contributions, like an ecosystem consists of many plants and animals. Precisely in this field it is also clear that leaving out one of the members can have a huge impact on the rest. That conviction should make scholars aware of the responsibility they have. We cannot cover the whole, but we have to make our own contribution to a whole which is dynamic. It is our aim that this study will contribute to the dynamics of beliefs and ethics as a contribution to the dynamics of life.

#### **V. Outlines**

In the next chapter we will clarify the main concepts that we use in this study. The terms that are used in the field of ecology are often confusing and not precisely defined. Therefore we will display at least how they are used in this

book. Chapter 3 displays the situation of the relation of human beings to their environment due to modern technical and economic developments. In chapter 4 we deal with the specific of ethics in the ecological crisis and we develop a theory about the basic human attitude in order to have a responsible place in the global ecosystem. Chapter 5 brings this into a Christian theological perspective in order to explain the rational basis of the theory developed in chapter 4. God created the world as a whole and He is the owner of his creation. In chapter 6 we will discuss the consequences for anthropology. The last chapters deal with the role the church can play in the development of the required attitude and some practical recommendations.

## Chapter 2

### Clearing Up the Concepts

Conradie rightly argues there is a need to obtain more clarity on the use of terms such as the “environment”, “nature”, “ecology”, “the earth” and “creation”.<sup>1</sup> The meaning of these terms is often very unclear. They are used in different ways depending on the context and even more depending on the ideological position of those who use them.

The role of human beings in the whole composition is reflected in language. On the one hand human beings are part of the whole ecosystem. On the other hand it is precisely human beings that discuss their relation towards other beings. By consequence the concepts that are used are generally ambiguous or reflect the specific perspective human beings think about this relationship.

#### **I. Environment**

‘Environment’ is one of the most common words in the ecological debate. We speak about the ‘environmental crisis’. Thus the very issue of debate is indicated by an adjective of the word ‘environment’. There are many crises in the world, but this crisis is ‘environmental’. It is a crisis that touches all that is around us.

Speaking about ‘environment’ means that it is about the surroundings of something else. In this case it is about the surroundings of human beings. They have a place where they are and live, and there is an environment that surrounds them. Precisely the word that brings the consciousness about the crisis of non-human life in the discussion is a word that puts human beings in the centre.

Let us first analyse more precisely, what environment means in ecological perspective. The environment is an environment around people where organisms and non-organisms are developed and interact. Thus the environment is nothing other than the planet earth and even this planet in the whole of the

<sup>1</sup> Ernst M. Conradie, *Ecological Theology: A guide for further research*, Bellville: University of the Western Cape, 2001, 5.

universe. Human beings are actually an integral part of this whole, although a smaller part. This must be stressed since human beings are often deemed not to be part of the ecosystem. It is as if human beings are not part of the earth, while actually they are of the same stuff. The word for 'human' in Hebrew is very illuminating. The word for "human" and the word for "earth" have the same root in this language, namely 'dm, the root word for Adam (man) and 'adamah, (soil).<sup>2</sup> Human beings form part of the environment, since they have the characteristics of all the components of nature, namely the physical and biological characteristics.

It is estimated that our planet earth is already 4.6 billion years old and part of a solar system and a whole universe, and life on earth started to exist three billion years ago when the basic elements to form living organisms appeared on the surface of planet earth.<sup>3</sup> There are on earth around five million species of plants or flora and ten million species of animals or fauna. In addition to that, there are around two to three million species of micro-organisms. Some people even mention a larger figure of between 30 - 100 million species, since most of the species on planet earth are probably not yet identified. All these species, together with 'non-organisms' form a balanced living system to maintain life on planet earth. Human beings actually form a very small part of all living beings on planet earth and should actually have a very small function compared to the whole universe in their participation in maintaining balance on the earth. There is only one species of human being (*Homo sapiens*).<sup>4</sup>

One of the core problems is that environment just like most of the concepts in the debate are shaped by a tradition of a distinction between humanity and the rest of the world. If we take in account that we are but one species among billions, this specific position seems to be ridiculous. If we, however, view the impact of human beings on the whole world such an equalization of all

<sup>2</sup> According to Theodore Hiebert, in the recent years interpreters have legitimately emphasized the fact that in Hebrew the very word for man/human being, *âdam*, is related to the word 'ground', *âdama*, from which the human was created and actually taken from afar: dust. Yet if the Yahwist's precise use of *âdama* for arable soil is taken seriously, a more accurate derivative of *âdam* from *âdama* would be "farmer" from "farmland". Theodore Hiebert, "The Human Vocation", in Hessel, Diether and Rosemary Radford Ruether, *Christianity and Ecology*, Cambridge, Massachusetts, Harvard University Press, 2000, 139.

<sup>3</sup> Freddy Buntaran, *Saudari Bumi, Saudara Manusia*, Yogyakarta: Kanisius, 1999, 11.

<sup>4</sup> Fuad Amsyari, *Prinsip-prinsip Masalah Pencemaran Lingkungan*, Jakarta: Ghalia Indonesia, 1986, 9. It is amazing that even Linnaeus counted the chimpanzee to the genus *Homo*, thus conceiving him as a *human*. This decision displays the interconnectedness of human beings and the other living beings.

beings is even more ridiculous. Demographic growth and the intensification of science and technology are two factors which have given a supremacy of human beings over the world to such an extent that they have caused a damage of nature that in modern times has become increasingly faster, more systematic and is of global character:

Never before has our own species such much power over the created order. Over five billion humans together with our advanced technology make the human race a formidable force threatening the ecosphere and its life-giving capabilities. Moreover, today's destruction of the environment is different from all the previous ones because it is systematic, of worldwide dimensions and faster than the natural regulating mechanism.<sup>5</sup>

Therefore denying the specific position of human beings is denying the problem. It is also minimizing the responsibility we have, precisely because of our capabilities.

Besides this we have also to take in account that at least *for us* humanity has got a specific position. We are human beings and look to the world from our own perspective. The use of terms like 'environment' mirrors our own position and we should not deny this. So if we speak about environment it is about the beings that surround human beings. Precisely the awareness of our being humans includes the consciousness of our specific place in the whole. We must distinguish humanity and the other beings, precisely in order to be able to speak about human relationship to other beings.

The ambiguity in language is precisely basic for eco-ethics: on the one hand humans are not separated from the other ones, but intertwined with them in a network of relations so that human beings always act indirectly towards themselves. On the other hand it is about *human* responsible actions and attitudes. Therefore humans must be distinguished from other beings. Further we must take in account that from a human perspective we never can see all beings at the same level. The survival of human beings is from the perspective of humanity more important than the survival of any other being.

Therefore we need a word that stresses the difference of human beings and the other beings. 'Environment' has naturally in it to display this distinction and therefore we will use it in this sense: as the whole of beings that surrounds human life and to which human beings have a complex relationship.

<sup>5</sup> Shantilala Bhagat, *Creation in Crisis: Responding to God's Covenant*, Illinois : Bredren Press, 1990, 9-10.

## II. Ecology

Because of the ambiguity of the word ‘environment’ and its human centred connotations we other words are also required. ‘Ecology’ is a concept that is also common in the debate.

The term ecology was for the first time used by Ernst Haeckel, a student of Darwin, in 1866. The term ecology originates from the Greek words: ἰβῆϊὸ (*oikos*) and ἔϊϊὸ (*logos*), which literally mean ‘house’ and ‘knowledge’. Ecology is the science of the living environment or planet earth as a whole. The earth is deemed a house where people and all creatures live and other physical objects exist together. Thus the living environment must always be understood within the connotation of *oikos*, or planet earth.

As *oikos*, the earth has two very important functions, namely as a place to live (*oikoumene*) and as source of living (*oikonomia*).<sup>6</sup> Up to this day – as far as we know – planet earth is the only place where life exists. Although man has continuously endeavored to find life in other planets, human beings have not yet found alternatives for living apart from planet earth. And if other planets might have life it must be questioned whether it would have the same characteristics that life on our planet has, so that it is not certain we would be able to communi-cate with it and whether we would be able to live in the conditions they live in. As far as we know, it is only on planet earth that human beings and all organisms can live and if human beings damage their only house, the moon and planet Mars cannot serve as a ‘hotel’ for human beings. That is the reason why it is essential that planet earth must be protected and maintained. There is no other choice as the earth is the only possible habitat for human beings. This is why damaging the earth involves a threat to the life of human beings. Of course, we can argue that human beings are not essential for the ecosystem, just like many species are extinct. From the perspective of humanity and as member of the human race we hold a different opinion. As we argued, both from the perspective of biological evolution and from the perspective of Christian faith, we as human beings cannot conceive human beings in the same perspective as any other species.

So far, ecology as ‘speaking about the house’ has the same problem as environment: human beings have a house and the world around them is the house they live in. It is *their* house. In this respect ‘ecology’ can even be more human centred than ‘environment’. ‘Environment’ means rather neutral surroundings, while speaking about the house has a connotation of ownership.

<sup>6</sup> Jürgen Moltmann, *God in Creation: a new theology of creation and the Spirit of God*, Minneapolis: Fortress, 1993.

That would imply that all beings are owned by human beings. So, if we take the metaphor of the house literally and enter to speak about the one who lives in the house and who owns the house, as some people do, the whole world can be instrumentalized.

There is, however, a different use of 'ecology'. The use of the word in the context of the environmental crisis is shaped by the language of biology. In that discipline the word is used to indicate the place where living beings are at home. This term points towards all living organisms or the relationship patterns between organisms and their environments.<sup>7</sup> An animal cannot live everywhere. A fish cannot live on the land and a lion will not survive in the sea. Plants too have their own place, some prefer marshes and other can only live in the desert. Thus every living being has his or her or its own house. Ecology is not about the house of human beings, but about the houses of all living creatures.

The importance of the term becomes even more clear if we take in account that living beings do not only depend on the non living conditions, such as water supply or the characteristics of soil or temperature. They also depend on each other. A bee cannot live without flowers and many flowering plants need insects for their off spring. There is a whole network of interrelations of living beings, that is often very fine tuned, so that there is a specific interdependency of one species of animal and one species of plants, or of two species of plants or animals.

These interrelations make that there are communities of living beings, related to each other and related to the non living circumstances. In this community they are at home. So actually they are each other's house. This gives a different meaning to 'house'. We can conceive 'house' as the building we live in. If we use that as the basis of the metaphor the other beings are instrumentalised and we can discuss the ownership of the house. But there is a different meaning of house: the family, such as 'the house of Jacob'. That is not about Jacob's dwelling place, but about his family. The individual persons are not the owners of the rest. They are together the house, where everybody is at home. If we take this meaning as basic for the word 'ecology' we avoid a human centred use. And as said this is the meaning that fits in the biological language that shaped the ecological discussion. Ecology is the discipline that deals with this balance and interdependence.

<sup>7</sup> See David Kingsley, *Ecology and Religion : Ecological Spirituality in Cross Cultural Perspective*, Englewood Cliffs, New Jersey: Prentice-Hall, 1995, xv ; cf. Leonardo Boff, *Ecology & Liberation: A New Paradigm*, New York: Orbis, 1995, 9. According to Haeckel's definition, 'ecology is the study of interdependence and interaction of living organisms (animal and plants) and their environment ( inanimate matter).'

The ecological discussion thus is about the family of living beings. They belong together and are interrelated. They make a community in which one needs the other one. If one is left out the whole community is endangered. And if too many participants have gone the community is lost. There is no house anymore. The sensitivity that none of the tribes of the house of Jacob can be missed is a good metaphor for the house of living communities, that we call ecosystems.

Just like with 'houses' we can have ecosystems on different levels. The house of David belongs to the house of Judah which itself belongs to house of Jacob. Houses are interrelated. So ecosystems, as 'house-systems' are interrelated. Finally they are all connected in one network of life in a global ecosystem, the house of living beings.

I will use the word 'ecology' in this second meaning: based not on the meaning of 'house' as the building *we live in*, but as the house a community of living beings *is*. The same is the case with other words derived from the root 'oikos', such as 'ecosystem'. This implies that human beings are fully part of the ecosystem they live in. They are intertwined with the lives of other beings and share the non living conditions that shape the living community.

By this interpretation of 'ecology' a clear distinction arises to 'environment'. The latter refers to the difference of humanity and the other beings, while 'ecosystem' etc. refers to the interconnectedness.

### **III. Nature**

'Nature' would seem to be a core concept in the ecological debate. Is not it about nature that we speak when we speak about woods, plants, animals? A closer view on the use of the word shows how difficult it is to grasp its meaning, and therefore how ambiguous any sentence is wherein we use it. We must always wonder what is meant by 'nature' in this specific case. It can refer to the essential being of something ('human nature'), it can refer to ecosystems outside the cities ('I will go and walk in nature'), it can refer to ecosystems that are not influenced by human activities ('natural forests'), and so on.

Because of the vast range of meanings of the word it is advisable to avoid its use in the ecological debate as much as possible, unless from the context its meaning is immediately clear.

### **IV. Creation**

The word 'creation' as reference to the earth or the cosmos comes from a language field that is different from the backdrop of ecology. It has a religious



connotation. The word “ecology” preferably used in the more limited sense of referring to the scientific disciplines that study the functioning of various ecosystems, although the adjective “ecological” may also be used to describe the health of ecosystems.<sup>8</sup> ‘Creation’ articulates the faith in God as Creator. He made the universe, the earth and everything that is in it.

‘Creation’ therefore belongs to a different discourse; that of faith and as the scholar reflection on it, that of theology. The discourses should not be confused, and therefore we must restrict creation to theological language. Of course, both have to do with each other and they can be used in one of the same discourse. But precisely in that case we must be very much aware of the different connotations. ‘Creation’ should be avoided in scientific discourse if it is not explicitly referring to religious or theological language. If ‘ecology’ is used in a theological discourse, it must be explicitly made clear that in what sense it must be understood.

The same is the case with ‘creatures’. More than ‘creation’ this word has entered common secular language. People can speak about a ‘creature’ without any religious connotations, though it usually has more emotional impact than the more neutral words like ‘animal’ or ‘being’. In a scholarly discourse, however, we should avoid confusion and keep the concepts as clear as possible and thus save ‘creatures’ for theological language.

## V. Ecosphere

As indicated above in the section on ecology all ecosystems are intertwined in a worldwide ecosystem. In analogy to concepts such as ‘biosphere’ and ‘atmosphere’ we can apply the word ‘ecosphere’ to this universal ecosystem. If we remind the connotation of ‘eco-’ as the family this word precisely indicates the holistic character of life. The relationship between all elements in the universe is important in order to fully understand the meaning of the term ecosphere. Even in definitions of ‘environment’ we can sometimes trace the interdependency of living beings. Allaby for instance, defined the living environment as follows: an ‘environment is the physical, chemical and biotic conditions surrounding an organism’<sup>9</sup>. In this definition the conditional aspect of environmental elements around the organism is emphasized. This means that all those elements are influencing each other. The term ecosphere refers

<sup>8</sup> Ernst M. Conradie, *Ecological Theology*, 5.

<sup>9</sup> Michael Allaby, *Mcmillan Dictionary of Environment*, London: McMillan Press, 1983, 183.

to the unity of all objects, energy, situation and living creatures, including human beings and their attitudes, which influence life and welfare of humans beings and fellow living beings.

Thus, the ecosphere as an ecological term has a very broad meaning, which can be identified by many aspects, such as condition, situation, objects, living beings, space, tools, the attitude of human beings, life, growth, continuity and discontinuity of all contents of planet earth.

All that we call natural elements, including human beings, together form an ecological system, that we call the ecosphere. By ecosphere is meant the comprehensive whole of all the systems where life participates in this universe as could be understood through the following definition: *Ecosphere is a system consisting of parts which are dynamically interrelated and interacted one with the other and which is able to execute certain intentions and is also able to work together in a program with an analogous attitude.*<sup>10</sup>

One of the important aspects in the ecosphere is its organization, which consists of numerous ecosystems. Each ecosystem consists of various types which are interacting with one another in a harmonious rhythmical movement to maintain balance and stability facing the changes of the ecological system. The ecosystem was formed due to the harmonious and balanced reciprocal relation between organism and its surroundings environment.<sup>11</sup>

The most important aspect in a specific ecosystem is the orderliness, balance and stability of the relation between parts or elements in the ecosphere. The aspect of unity and inter-depend-ency must be absolutely maintained because life is dynamic. This is evident from the meaning of the ecosystem as a system of the elements ecosphere as a total comprehensive unity in which the elements are influencing each other in forming a balanced, stable and productive. The aspect of unity, totality and mutual influence of all elements and thus the interdependency is emphasized in the following definition of Allaby:

“Ecosystem is a community of interdependent organisms together with the environment which they inhabit and with which they interact”.<sup>12</sup>

<sup>10</sup> M.T. Zen (ed.), *Menuju Kelestarian Lingkungan Hidup*, Jakarta: Gramedia, 1985, 17.

<sup>11</sup> Otto Sumarwoto, *Ekologi, Lingkungan Hidup dan Pembangunan*, Yogyakarta :Gajah Mada University Press, 1985, 16; Soedjiran, et al. *Pengantar Ekologi*, Bandung, Remaja Karya, 1984, 7.

<sup>12</sup> Michael Allaby, *Mcmillan Dictionary*, 174.

Thus, an ecosystem is a natural living system among living beings with their environments at a certain location and interrelated with the whole universe. An ecosystem is maintained if it is balanced and stable, following certain principles as a natural system or environmental law. If elements are out of balance or disappear, the ecosystem is at risk of becoming instable and even of collapsing. Actually it is dependent on some principles that we can consider as an ecological norm, such as the principle of diversity, the principle of cooperation, the principle of competition, the principle of interaction and the principle of continuity.<sup>13</sup>

In order to understand the relationship between and interdependency of all ecosystems in the ecosphere, the environment could be classified into several simultaneously and continuously interrelated and interacting aspects, namely the water environment (hydrosphere), the air environment (atmosphere), soil environment (lithosphere), biological environment (biosphere) and social environment (sociosphere).<sup>14</sup>

Two of these spheres are of specific importance in the ecological debate: the biosphere and the sociosphere. The biosphere covers all living creatures including human beings, all big animals such as elephants down to the smallest creatures such as bacteria as well as all plants, from big teak trees down to the smallest microorganisms or plankton in the sea. All living beings are different in their functioning, but each part has its own role in the ecosystem. Every living part of nature plays a role in supporting the ecosystem in which they function. That is why, as it is with planet earth, the extinction of a single species on planet earth touches all species on the planet. On itself this is not dramatic, because life is a process of change. Thus the whole ecosystem displays the death and birth of new beings and also of new species. Sometimes even a vast number can die, which can lead to the renewal of life on the face of the earth. However, what is at stake now is the survival of life as such. Life on earth itself is threatened, including human life, and it seems that humans are the main actors in this process. That makes human responsibility and thus human ethics of comprehensive interest for the whole ecosystem and of universal importance.

The sociosphere consists of the global network of all human beings. Just like ecosystems there are social systems. People live in a community of relations such as friends, neighbours and strangers. The social environment has an

<sup>13</sup> Nursi Sariatmadja, *Studi Lingkungan*, 28.

<sup>14</sup> Juli Soemirat Slamet, *Kesehatan Lingkungan*, Yogyakarta : Gajah Mada University Press, 1994, 36.

influence on the lives of human beings. In a study about ecological ethics, it is not possible to neglect the social environment. Human beings as individuals or groups have an influence on the physical and biological environments and the quality of social relations, particularly in this modern world, has a very large influence on the quality of relationships between human beings and nature. An instance of the very close relationship between the quality of social relationships and the living environment is the matter of political and economical imbalance among nations, which has an impact upon the global environmental crisis.

As mentioned above, damage to the environment covers all categories and classifications of the environment, because of the existence of the principle of interrelationship. Damage to the water environment or physical environment would have an influence on organisms in the water. Damage to the water environment (hydrosphere) would later also cause damage to the air environment (atmosphere), for instance through a lack of oxygen, and also the soil environment (lithosphere) through for instance a decline in the fertility of the soil. In fact, damage to the water, soil and air environments would also cause damage to the social environment (socio-sphere) since the relationship between human beings and nature is one of mutual influence. Damage to the air could cause a lack of oxygen for human beings. The lack of drinking water would also cause a health hazard for human beings and their surroundings. For instance, the people of Jakarta, with its high-level air pollution, tend to suffer from respiratory diseases.

## **VI. Technosphere**

The impact of human beings in various ecosystems has been greatly out of proportion in comparison with the impact of other species. Not only are their numbers relatively large, human beings also interfere in ecosystems far more powerfully than other beings do, mainly because of their technical skills. This 'overdose' role of human beings has become the problem of this time. Human beings seem to rule the world and control the living environment, but they actually devastate the living nature of which they form an integral part and thus they destroy themselves. In a way they are therefore now powerless in facing their living environment. The environment on planet earth referred to here is more extensive than the physical, biological and social environments which are known by the technical terms of hydrosphere, atmosphere, lithosphere, biosphere and sociosphere. To the spheres of the environment mentioned above must be added the new environment of human beings called the *technosphere*, which is an artificial product of human beings. This

technosphere seems to have made human beings powerful, but finally it turns out that it has made human beings powerless towards their environment. It is precisely the technosphere that poses the greatest danger for humanity in particular and the whole ecosystem in general.

The technosphere created by human beings is not of a lesser importance in damaging the physical environment. Together with the sociosphere, the technosphere has caused rapid and severe damage to the physical and biological environment. This has already caused human beings as a very limited part of the physical and biological environment to be powerless towards the environment that they have created themselves.

## VII. Ethosphere

In this context, the role of the human ethos is very important. The most important understanding of environment is the relation of all elements of nature, including the sociosphere, in the form of the ecological system that must be protected and maintained. The technosphere is not excluded from the importance to be kept in the ecosphere. Though it has developed as a threat to the ecosystem it can also be a means for recovering and healing ecosystems. The ambiguity which characterizes medical healthcare (which was pointed out above) applies here as well: technology can be beneficial despite its often damaging impact. It would be absurd to abolish medical knowledge because of its side effects. Similarly, it is absurd to abolish technology because of the way it is used. *A different use* is required, not the abolishment of technology.

Are human beings able, by the technosphere which they have created, to maintain and preserve the earth's biosphere? Human beings, with their technology, need other energies to be maintain their existence on planet earth, energies which would direct the way technology is used. We are in need of another sphere, namely the '*ethosphere*', which is the domain of the morality of human beings. Teilhard the Chardin, once have been reminded us that whatever we may seek to build will crumble and turn to dust if the workman are without conscience and professional integrity.<sup>15</sup> The role of morality and faith in human life is understood by Teilhard de Chardin in terms of the "Noosphere".<sup>16</sup> For Teilhard de Chardin, the terrestrial evolution of life, in

<sup>15</sup> Pierre Teilhard de Chardin, *The Future of Man*, New York: Harper & Row, 1964, 211.

<sup>16</sup> The term Noosphere is understood as the whole process of life and of vitalization, an envelope of thinking substance, the actual layer of vitalised substance enveloping the earth. From *noos*, mind: the terrestrial shere of thinking subsatance. Pierre Teilhard de Chardin, *The Future of Man*, 162-163.

order to continue in the form of hominisation at the level of the Noosphere, will not be possible without an appropriate form of morality. Such morality typically functions within the context of faith.<sup>17</sup> Based on this thesis of Teilhard de Chardin, I suggest that the term “ethosphere” may be used to refer to the inner part of human beings that has become a prerequisite to preserve the ecosphere, exactly now that human beings have created this new technosphere.

This perspective indicates the interconnectedness between the degradation of nature and the *lack* of ethics. This topic has been elaborated more extensively by Nancey Murphy and George F.R. Ellis in their famous study regarding the relation between science and ethics. They believe that the pure social sciences are incomplete apart from the applied sciences, which very explicitly require ethical judgments. Therefore, the hierarchy of the human sciences calls for a top layer, and the same is true of the physical sciences. There is a tendency to conceive physics as exactly this top layer, but from the perspective of human responsibility it is precisely the other way around. In order to complete the task of social and physical sciences, it is necessary to have an answer to the question of the ultimate meaning of human life, or to use a less ambiguous term, of the final purpose or *telos* of human life. This has traditionally been understood as the province of ethics.<sup>18</sup>

It is regrettable that in understanding human beings and their relation to the whole of nature, the ethosphere is often forgotten. The importance of being aware of the role of technosphere and ethosphere relates to the need to see the reality that all parts of nature have already been seriously influenced and ruined by this technosphere. The role of the ethosphere has been forgotten or neglected, not only in relation to the pollution and exploitation of nature, but also in relation to the exploitation of human beings themselves by this technosphere.

In the context of the role of human beings in the ecosystem, the ethosphere is therefore extremely important. The ethosphere functions to balance the technosphere, which is the impact of *homo faber* within the ecosystem, in order to prevent excessive change to the environment and to maintain the necessary balance in ecosystem. Especially during the last few centuries, the impact of the technosphere within the ecosphere has been so severe that it has caused a prolonged ecological crisis. This crisis is at the same time a crisis within the sociosphere because the role of the ethosphere was not sufficiently recognised.

<sup>17</sup> Pierre Teilhard de Chardin, *The Future of Man*, 217.

<sup>18</sup> Nancey Murphy and George F.R. Ellis, *On the Moral Nature of the Universe: Theology, Cosmology, and Ethics*, Minneapolis: Fortress Press, 1996, 86-87.

It would be helpful to underline that the differentiation of these spheres suggest that they are spheres or dimensions of human existence in facing the ecosphere. That is why we are in need of a new global ethos as indicated by the many contributions of earth summits, Hans Küng's project towards a global ethos, the Earth Charter movement and various attempts to retrieve the ecological wisdom in the world's religious traditions. In addition, one may mention the contributions of environmental organizations, environmental education in schools, environmental journalism and other agencies – most of which are inspired by moral concerns. All these contributions must be implemented in the daily life of human beings to maximize the role of ethosphere in preserving the ecosphere. Until now, at least in Indonesian context, the role of ethosphere or the contributions of ecological ethics have had little impact to prevent further environmental damage. It is important to be stressed that the role of moral formation and moral education has to be done as priority in this area.

### **VIII. Theosphere**

The term theosphere is not to be understood in the mystical way as taught by spiritual teachers like Sri Aurobindo. For Sri Aurobindo, the theosphere is the New Creation, Matter made devine, the Godheadised Earth.<sup>19</sup> It should also not be understood in the philosophical way followed by Ken Wilber. Wilber divides the cosmos into four grand domains: physiosphere, biosphere, noosphere and theosphere. For Wilber, the theosphere refers to dimensions of consciousness that include what is traditionally understood by God.<sup>20</sup> Wilber understands the theosphere in terms of the emergence of spirituality or a divine domain of the earth. This “theosphere” is the Living Entity, Goddess Earth.<sup>21</sup> In this term Wilber believes that the theosphere means Earth is God.

With theosphere I mean that the Lord God Almighty, Maker of Heaven and Earth, is the centre of the universe. He is not the Goddess Earth, he is God the Creator of Earth. It is the God who made the world and all things therein; He is the Lord of heaven and earth. With ‘theosphere’ I refer to the God of the Bible. The Biblical revelation of the Creator God makes it clear that God Himself, the Father, the Son and the Holy Spirit, is the origin, ongoing source, and ultimate destiny of creation. All creation is inserted into the very mysterious depths of the Triune God. Creation, cosmos, universe, is

<sup>19</sup> *The Theosphere*, <http://www.kheper.net.gaia/theosphere/theosphere.htm>.

<sup>20</sup> Ken Wilber, *Sex, Ecology, Spirituality: the Spirit of Evolution*, Boston: Sambhala Publ. 1995, <http://www.worldofkenwilber.com/>.

<sup>21</sup> W.B. Howard, *The New Age of Evolution*, <http://www.despachth.cth.com.au>.

not exterior to God. All creation is God's thought, that can be created and realized, thus giving origin to creation from nothing.<sup>22</sup> I borrow the idea of the theosphere from Teilhard de Chardin. For Teilhard, the world can not have two heads: God and Earth. Christ alone, the only Son of God, is the centre of the world, its moving force, its Alpha and Omega.<sup>23</sup> The whole creation has a single goal: God its Creator.

The theosphere is understood by Leonardo Boff in a similar way.<sup>24</sup> For Boff, God, the name of the supremely intelligent Agent and Organizer, is umbilically involved in the evolutionary and cosmogenic process. God is the initial mover, the power accompanying and continually energizing all, and the supreme attracting magnet of the entire universe. Thus the world is seen as a system inherently open to God and in all its stages and developments transparent to God.<sup>25</sup> The God of the Bible is not part of the creation; on the contrary, everything depends on Him. Boff states:

“All is not God. But God is in all and all is in God, by reason of the creation by which God leaves God's mark and assurance of God's permanent presence in the creature (providence). The creature always depends on God and carries God within it. God and world are different. One is not the other. But they are not separated or closed. They are open to one another. They are always intertwined with one another. If they are different, it is so they can communicate and be united by communion and mutual presence”.<sup>26</sup>

In short, theosphere means the Living One, the Father, the Son and the Holy Spirit – the Trinity, which is the Christian way of naming God. The Blessed Trinity constitutes the common sphere of all beings and entities: the theosphere.<sup>27</sup>

Finally, all members of creation glorify the Trinity who made all that was made. In Psalm 148 God is praised by all creation through the words of the psalmist:

<sup>22</sup> Leonardo Boff, *Jesus Christ Liberator: A Critical Christology of Our Time*, Maryknoll, Orbis, 1979, 259.

<sup>23</sup> As quoted by Boff in Leonardo Boff, *Jesus Christ Liberator*, 214.

<sup>24</sup> It is not the place here to discuss the nuances and differences in the thought of Teilhard and Boff nor to assess these. For now, it is enough to display the meaning of theosphere as I use it. It will be discussed more extensively below.

<sup>25</sup> Leonardo Boff, *Cry of the Earth, Cry of the Poor*, Maryknoll: Orbis, 1998, 147.

<sup>26</sup> Leonardo Boff, *Cry of the Earth*, 153.

<sup>27</sup> Leonardo Boff, *Cry of the Earth*, 157.



“Praise ye the Lord, Praise ye the Lord from the heavens;  
praise him in the heights....  
Praise the Lord from the earth, ye dragons and all deeps;  
Fire and hail; snow and vapor; stormy wind fulfilling his word;  
Mountains and all hills; fruitful trees and all cedars;  
Beasts and all cattle; creeping things and flying fowl;  
Kings of the earth, and all peoples; princes, and all judges of the earth;  
Both young men and maidens; old men and children.  
Let them praise the name of the Lord; for his name alone is excellent;  
his glory is above the earth and heaven.”

The discourse on the theosphere expresses the faith in God, the Creator, Sustainer, Redeemer and Destiny of the creation. This faith implies a specific attitude towards creation. The consciousness that the earth has an aim, and is not a coincidental event without a goal, implies that human beings should deal with it according to this goal. The glory of God the Creator is the ultimate core of Christians’ dealing with the earth as his creation. The theosphere may therefore be regarded as the basis of the ethosphere, and faith as the basis of ethics. Without the belief in a Creator there is no aim, and thus no direction for human behaviour. If everything is coincidental, our acting can also be arbitrary. If there is an almighty loving Creator, we have to take in account his loving relation to all beings. Thus the theosphere is the basis of ecological ethics.

## Chapter 3

### Ethosphere and Technosphere: Oikonomia in the Context of Technique

#### **I. Power and Balance**

The present ecological crisis has to do with science and technology. We cannot say that it is *caused* by science and technology. It is caused by irresponsible application of techniques and uncritical use of scientific knowledge. Even if we admit that both have a drive in themselves to move forward, we also must admit that human beings are not unconscious beings that are pushed by external motivations only. They have their own responsibility. The process of technique is not an almighty power, how powerful it may be. Further, science and technique are human activities. Even if they turn out to be a box of Pandora it is *we* that opened that box. And it is *we* that are responsible – not responsible to put things back in the box and close it. That will be impossible, but also undesirable. We may earn the fruits of science and technique as a gift to humankind. It is far more important and realistic to consider how we in a responsible way can deal with reality that includes science and technique and the sweet and bitter, healthy and poisonous fruits they produced.

Because we are confronted specifically with the consequences of technique in the present crisis we will first reflect on human's attitude in this perspective, thus about the relation of technosphere and ethosphere, before entering the broader field of human ethics and discussing the importance of the ethosphere. Modern technique defines the specific perspective by which we approach the field of ethics.

Human beings have a special role to play in the ecosystem and ecosphere. Humans are beings who are specifically involved in the technosphere and at the same time in the ethosphere. They are clever beings but also ethical persons. Their intelligence and attitudes can always be evaluated. With their technology and ingenuity human beings are able to very strongly influence the ecosystem and ecosphere. Although human beings are a small part in the total of organisms and an integral part of the ecosystem, they have, however, the capacity to change the natural system of the ecosystem to become an artificial system or

a synthetic system. Human beings have the ability to manipulate and change the ecosystem according to their needs and wishes. That is the aspect of technosphere. Creating a technosphere human beings can organize their relationship with their environment. Therefore the ecosystem can even be understood as a reciprocal relationship between human beings and their environment.<sup>1</sup>

That relation is however not just physical contact, but also involves values. This is where the role of ethosphere becomes very important. This understanding is based on the reality that human beings play an extensive role and are even dominant in the ecosystem, because human beings' interaction with the environment is not limited to the physical, but extends to their economical, social and cultural and religious activities. This extensive role must be effectively and constructively practiced through the contribution of the ethosphere to the ecosphere, so that all living beings on earth can be maintained and preserved even though one specimen has to eat another to survive.

The diversity of living beings in nature has been mentioned above. Every living being has its own function and role so that life in nature experiences a dynamic balance and stability. According to the theory of ecology, the balance and stability of the ecosystem at one certain location will be enlarged if that system is diversified. The ecosystem will be more stable in a living environment with many plants, animals and a diversity of natural resources, because an extensive interdependent network facilitates bigger and larger changes. On the other hand the ecosystem becomes labile in a living environment with only one plant or animal species (monoculture), since the interdependency network is narrow, so that it is less able to accommodate changes.<sup>2</sup> This is even more the case if one characteristic of the dominant species is emphasized, e.g. bigger and more abundant seeds of rice plants on the cost of their resistance against plagues.

This monoculture-effect is also present where human beings are exclusively dominant and especially if only one characteristic of them is emphasized. The balance of the ecosystem is disturbed and even destroyed through irresponsible management because of excessive and uncontrolled needs of human beings and limits to the supportive power of nature. If only the impact of the technosphere is dominant, the exploitation of nature is frequently destructive

<sup>1</sup> Imam Supardi, *Lingkungan Hidup dan Kelestaiannya*, Bandung: Penerbit Alumni, 1994, 8, 13.

<sup>2</sup> Emil Salim, *Lingkungan Hidup dan Pembangunan*, Jakarta: Mutiara Sumber Widya, 1979, 34.

and exploitative so that the ecosystem is disturbed. In other words, the minimum presence of the ethosphere - makes the technosphere one-sided, bringing the whole system into imbalance. For instance, because human beings have cut too many trees, the tree species that have been excessively logged, will diminish. With the decline of those tree species, there will be an element in the ecosystem that will not function and the ecosystem will be disturbed. We have seen that the ecosystem and ecosphere will be disturbed if human beings only consider a certain principle of the law of nature, like the principle of competition and the principle of utilization, but to pay less attention to the other principles like the principle of balance and the principle of harmony in the natural cycle or rotation.

The one-sided attention to the ecological system derives from human beings' only paying attention to their own interests, but forgetting the interests of all the other elements in nature. Human beings have deviated from the natural system and started to build new norms, namely new human-made artificial norms. The new norms are created through the ability of human beings to engineer their environment or what we have called a technosphere. The role of humans' engineering ability has already divided nature into two forms of ecosystems, namely the natural ecosystem and the human-made or artificial ecosystem.<sup>3</sup> In the natural ecosystem human activities are not excluded, but in balance with the whole. The human-made ecosystem is the result of dominance of technology, to such an extent that all other elements are arranged according to technical actions. That is why this artificial ecosystem can be referred to as an aspect of technosphere.

The natural ecosystem cannot be replaced by a human-made ecosystem without endangering the whole ecosphere, since the human-made ecosystem cannot guarantee the heterogeneity of organisms, so that it will have a labile characteristic. For instance, a recreational park or golf course, whatever its beauty, cannot replace the natural ecosystem. In fact, an industrial forest plantation cannot be categorized as a natural forest since such a forest plantation has the character of a monoculture. The ecosystem that should actually be preserved by human beings is the balanced ecosystem.

In this context, the technosphere cannot be relied on without the ethosphere. In structuring the technosphere, namely the human-made ecosystem, the role of technology is indeed very important, but this technology can also at the same time destroy not only the natural ecosystem but even the artificial systems, if it is not balanced with ethics and morality.

<sup>3</sup> Fuad Amsyari, *Prinsip-prinsip masalah*, 42.

The human-made ecosystem always needs the support of energy like fertilizer for the agricultural land to maintain the fertility of the soil, or pesticides to fight insects that are disturbing the food crops planted in the agricultural land. The use of additional energy or subsidy energy can actually damage the surrounding natural environment and cause an imbalance. For instance, a chemical fertilizer can become a poison to certain species which cannot survive the dosage of fertilizer used for food crops. The same is true with pesticides, which can destroy other non-pest species in the agricultural land and also in the natural surrounding land. Chemical fertilizers and pesticides can spread from cultivated land to the surrounding natural environment through the blowing of the wind or through water currents. Thus it can be said that the damage to the natural ecosystem cannot be separated from the activities of human beings in creating their human-made ecosystem to suit their needs. In order to look further into the role of human beings in destroying their living environment in nature or to display the inability of human beings to maintain and preserve their living environment, particularly the physical and biological environment, the following section will specially discuss the forms of relations between the natural environment and humans.

It has already been mentioned that, although human beings form a small part of life on earth, they have a significant potential to change and manipulate their living environment. The question then arises: "How significant has the role of human beings been in changing the face of planet earth?"

To answer this question three forms of relationship between the natural environment and human beings will be discussed, the distinctions between which often are compared with the growth level of the civilization of human beings. Toffler divided the ages into three waves, which he names the farming age, the industrial age and the information age.<sup>4</sup> By this division Toffler tends to understand history in technical terms. This approach tends to support the theory of civilization as the evolution of technical skills. Then the decision has already been made what is dominant in humanity. Therefore, I prefer a different pattern of the relation of human beings to nature. Miller and Rasmussen emphasize the development of the economy. According to Tyller Miller, the relation of human beings to nature has actually developed according to the economy and culture pattern of the people during a certain period.<sup>5</sup> Rasmussen perceives four revolutions of the world, namely the agricultural, the industrial,

<sup>4</sup> Alvin Toffler, *Third Waves*, New York: Morrow, 1980.

<sup>5</sup> Tyler Miller, *Living in the Environment*, California: Wardworth, Publication, 1987, 62-65.

the informational and the ecological revolution. The fourth revolution, namely the ecological revolution, is what we are just entering and it calls us as human beings to reorganize society to produce and to consume without destructiveness.<sup>6</sup>

The advantage of the approach of Miller is that he uses economy as the lens to view humans' relation to their environment so that, different from Toffler, technique is not the only determinant. If we use the concept of economy as only referring to profit, it would not help very much. But we can also use it in the original meaning as we pointed to in the previous chapter: the rules of the house. What are the rules human beings developed in the past and have to develop in the future so that the house we are as the family of living beings will not collapse but function as a home.

On the basis of Miller and Rasmussen, I would like to introduce the following three developments of the relation of the environment with human beings:

- (1) The harmony of human beings with nature.
- (2) Human beings control and exploit nature.
- (3) Nature controls and exploits humankind.

## **II. Harmony of Human Beings and Nature**

In a traditional-local community human beings and nature are in a relative balance. The relation of human beings and their living environment is a relation characterized by continuity. In fact, human beings have often considered themselves as being smaller, because they are an image of a bigger world. Human beings are a micro-cosmos of the macro-cosmos, which is nature. This view is followed by philosophers as well as by ancient religions, which have always seen the relation of nature and human beings to be in harmony. Human beings always try to adjust themselves and adapt their life rhythm to nature by adjusting themselves to the planting seasons and they do not dare to disturb the living environment, excepting through a ritual ceremony. Nature is deemed to be sacred and sometimes even cruel. That is why human beings often bow down to nature and some elements in nature are worshipped as gods who provide life. Worship of nature has characterized almost all the ancient religions. Mesopotamia, Egypt, Greece, India, China, Japan, and Java, have all known the worship of nature or elements of nature. Polytheism and pantheism have become the characteristics of ancient spirituality.

<sup>6</sup> Larry Rasmussen, *Earth Community earth Ethics*, Geneva: WCC Publications, 1996, 54.

However, according to Rasmussen, at least since the creation of agriculture and settled human communities, human have stressed their surroundings. “We cannot exist without modifying and exploiting ecosystems”, he stated. For Rasmussen, local environmental damage thus began somewhere just east of Eden and had spotted the globe ever since. Chinese felling of forest beginning three thousand years ago created an erosion that colored the water fifty miles out at sea. Hence the name “the Yellow Sea”. Greek isles pictured as paradisiacal in ancient literature heard complaints of deforestation and ruin already from Plato. What is now the northern Sahara of North Africa was the Roman Empire’s granary.<sup>7</sup> We can say that in Indonesian traditional society, the habits to clear land for their fields by setting forest on fire, is one of the example in ancient local tradition that damage environment. Even though, in the ancient world, worship to the elements of the earth can be regarded as inhibiting factor in exploiting ecosystems destructively in general.

In the field of economy, nature is worshipped as a source of life. That is why in various places in the world, planet earth is called a good-hearted mother. One example is the Song of Homer XXX of the Ancient Greek literature about the earth as mother of everything (The Earth, Mother of All):

“I will sing of well-founded earth, mother of all, eldest of all beings. She feeds all creatures that are in the world, all that gone ? upon the goodly land and that are in paths of the seas, and all that fly: all these are fed of her store. Through you, o queen, men are blessed in their children, and blessed in their harvest, and to you it belongs to give means of life of mortal men and to take it away. Happy is the man whom you delight to honor! He has all things abundantly: his fruitful land is laden with corn, his pastures are covered with cattle, and his house is filled with good things. Such men rule orderly in their cities of fair women: great riches and wealth follow them; their sons exult with ever-fresh delight and their daughters with flower laden hands play and skip over the soft flowers of the field. Thus it is with those whom you honor O holy goddess, bountiful spirit. Hail mother of the gods, wife of starry heavens; freely bestow upon me for this my song substance. And now I will remember you and another song also”.<sup>8</sup>

The above song shows how absolute life’s dependency is and the extent to which the welfare of human beings depends on the generosity of nature, which is the earth. The same expression could be sung in Indonesian for the earth,

<sup>7</sup> Larry Rasmussen, *Earth Community*, 38.

<sup>8</sup> Hugh G. Evelyn White translation in Mircea Eliade, *From Primitives to Zen*, New York: Harper & Row, 1967, 55.

which is Pertiwi (mother earth). Pertiwi means goddess, goddess that powers over earth or mother earth.<sup>9</sup> On the base of dependency of human beings on the generosity of the earth, human beings have the attitude of high respect towards the system of nature or norms of the living environment, which are accord, balance and harmony.

The ethosphere is dominated by the rule of building the relationship between human beings and nature and to recover unavoidable violations. If the norms of environment are violated by human beings, they will then try to magically persuade nature by way of certain rites and religious ceremonies. This is the way eastern religions and philosophy generally understood the relation between human beings and nature. Before the appearance of rationalism, the western religion and philosophy also understood the relation of human beings and nature as one of balance and harmony, especially in the context of Christian traditions. According to Elisabeth Johnson, early Christian and medieval theologies brought God, humanity, and the world into an ordered harmony.<sup>10</sup> These systems of thought were pervaded by a hierarchical dualism that was indigenous to the Aristotelian and Neo-platonic categories they employed. Spirit was clearly distinguished from matter and assigned a higher value, as were the associated realities of male vis-à-vis' female and humanity vis-à-vis' the nonhuman world.

Human beings living on a traditional level obtain the elements needed for their living from the natural environment, either through collecting or through very simple methods of cultivation and breeding. There are still up to this time in various corners of the world groups or communities who practice a living norm which is in line with nature and keeping balance. The economic system of the traditional community is to accept the generosity of nature without forcing nature to comply to the community's wishes and desires.. Traditional human beings would always endeavor to protect and maintain a harmony with nature. The knowledge of modern human beings about ecology, namely the laws of nature, was evidently already applied by human beings of ancient times. Their economic system had subsistence characteristics, which means that they only took from nature what they needed for the day in sufficient limits, which is often less in terms of modern standards. But in that way, ancient human beings usually lived in balance with nature.

<sup>9</sup> As it explained in Anton M. Moeliono, et al, (ed.), *Kamus Besar Bahasa Indonesia*, Jakarta: Balai Pustaka, 1989, 676.

<sup>10</sup> Elisabeth A. Johnson, "Losing and Finding Creation in Christian Tradition", in D. Hessel and R. R. Ruether (eds.), *Christianity and Ecology*, 7.



Certainly human beings not always kept to the rules of this *oikonomia*. Also in ancient time there were violations. But these were considered as trespassing of the law of life. There was violence, but the consequence is a curse so that the earth will not give its fruit, as the old biblical story of Cain and Abel (Gen. 4) tells. The rule of the house is harmony and respect. This consciousness was the basic format of the ethosphere.

### **III. Human Beings Control and Exploit Nature**

This harmonious relation changed with the arrival of science and technology. Now, modern human beings only used physical nature. Since then, the role of the ethosphere has been pushed aside and reduced by the role of the technosphere. The first major technical discovery of human beings was that they did not have to remain nomadic, but that they could settle in one place. From the history of culture we learn that agriculture was the first knowledge of human beings, a discovery which took place around 15,000 years ago. Human beings started to cultivate plants, breed animals and build communities. According to Ponting, by about 2000 B.C.E. all the major crops and animals that belong to the present agricultural system around the world had been domesticated.<sup>11</sup> That was the beginning of an economic community. Human beings started to barter or trade. In line with the settlement of human beings, they increased their knowledge about the secrets of nature and then tried to control and subjugate nature. The relationship between human beings and nature was no longer harmonious. The relations between human beings and nature had tend to become a discontinued relation. It seems that human beings no longer acknowledged the importance of balance and harmony with nature. Economically, in this new relationship, human beings tried to utilize nature, especially the natural resources, to become commodities that could be used for the welfare and interest of their life. This new relationship was a 'subject-object' relationship and no more symbiosis. Human beings were the subject, while nature became the object. Human beings looked upon nature as a 'facility' and not as their equal anymore. Thus, human beings continuously endeavored to change and control nature through exploration and exploitation of natural resources to meet their needs and to fulfill their desires through the use of technology which they developed. Human beings began to live more according to technosphere principles and step by step reduced and abandoned ethosphere principles .

<sup>11</sup> Clive Ponting, *A Green History of the World: The Environment and the Collapse of Great Civilization*, New York: Penguin, 1991, 52.

The development of technology by human beings is actually as old as the history of the human race. In the west technology developed from ancient times up to the 5<sup>th</sup> century, was of a manual character and was very artistic, particularly the production of cloth and household articles. David Bolter describes ancient technology as 'elegant technology of the hand'. The following era is the 'Greco-Roman' era when the work of craftsman started to be known to have a 'factory' standard, including the manufacturing of military weapons. The middle ages were characterized by the invention of a mechanical clock and further development was directed towards the era of modern industry.

The discovery of the steam engine in the 18<sup>th</sup> century became the starting point of modern industry, as indicated by the mechanization of instruments and utensils, which was later on augmented by electrification, still enjoyed by mankind up to this time. Thus mankind entered the industrialization era. Westerners put every effort into the development of technology, as indicated by the escalation of the use of mechanical energy.<sup>12</sup>

Thus, the era of modern science was launched approximately 200 years ago. However, science developed very rapidly, as fast as the progress of modern technology machinery, coupled with the intensity of large-scale exploitation and control of natural resources by human beings. The utilization of science and technology which began in the middle ages in the west reached its peak with the appearance of an industrial society in the 19<sup>th</sup> century, where human beings exploited nature, which they evaluated only according to its 'economic' potential or 'commodity' value, exceeding the limits of need and fairness. With their tools human beings took natural resources almost without care for the norms of nature's system. Science and technology had suddenly made human beings aware that they would become very powerful if they used modern technology they are created to take more and more natural resources.

Technology has enabled human beings to transform the natural environment to become a human-made environment, for instance forests are altered to become agricultural land, places of settlement and so on. Human beings can modify nature according to their needs by utilizing their abilities. The higher the culture of human beings, the more diverse their needs. However, the needs of mankind can often not be separated from their unlimited desires. As a result, science and technology are used to exploit their natural environment and such exploitation has also become uncontrolled. For the welfare and comfort of

<sup>12</sup> James F. Childress & John Macquerre, *The Westminster Dictionary of Christian Ethics*, Philadelphia: Westminster, 1986, 615.

human life, nature is transformed into cities, fertile agricultural land and natural resources are taken and processed to meet the requirements of human desires and not only of human needs. In all these activities nature is sacrificed in the interests of and beyond the needs of human beings.

The expansion of agricultural land has caused deforestation. This in turn has caused erosion and floods and has further caused damage to the surrounding environments. The expansion of settlements and industrial centers has caused loss of agricultural land and this in turn has caused scarcity of food. Also the burden of pollution has become increasingly more destructive to the surrounding natural environment. These extensive and sudden changes are related to the meeting of humankind's desires, which almost inevitably exceed their actual needs. These trends will continue in increasing intensiveness and extensiveness if there is no effort to impose limits for the sake of the preservation of the living environment in the context of humankind's needs.

Moltmann's theory is that the destructive attitude of human beings towards nature has its roots in an 'internal disease' of human beings, namely a disease of culture. He writes:

"The destruction of the outside environment correspondence to our illness within, what we call the disease civilization. To put things simply, each of us also carries around the ecological in our own body".<sup>13</sup>

Thomas Berry suggests that human beings have become autistic in their interaction with the natural world. Human beings are unable to value the life and beauty of nature because they are locked in their own egocentric perspectives and shortsighted needs. In relation to the earth, human beings have been autistic for centuries.<sup>14</sup> For Moltmann and Berry and many others an important component of the current environmental crises is spiritual and ethical.

The supremacy of human beings over nature has increased as indicated by the rapid growth of the species of human beings (demographic growth) and the swift progress of science and technology. The demographic growth and cultural growth (science and technology) had caused the decline of natural resources which are exploited to meet the desires beyond the needs of human beings, which are unceasingly growing with the use of technology as the application of science. Thus, these three factors, namely the demographic

<sup>13</sup> Jürgen Moltmann, *The Future of Creation*, London: SCM Press, 1979, 75.

<sup>14</sup> Thomas Berry, *The Dream of the Earth*, San Francisco: Sierra Club, 1988, 215.

growth and escalation of science and technology and the diminishing of natural resources, are important factors in understanding the damage to the living environment. John Stott and Richard Jones mention these three factors as triggers for the appearance of global awareness of the problem of the living environment, although the impact of those three factors had already been felt a long time ago as problems of the living environment.<sup>15</sup>

However, demographic growth and the intensification of science and technology are two factors which have indicated the superiority and supremacy of human beings over the natural environment or ecosphere, so that what has caused the damage of nature in these modern times has become increasingly faster, more systematic and is of global character:

“Never before has our own species such much power over the created order. Over five billion humans together with our advanced technology make the human race a formidable force threatening the ecosphere and its life-giving capabilities. Moreover, today’s destruction of the environment is different from all the previous ones because it is systematic, of worldwide dimensions and faster than the natural regulating mechanism”.<sup>16</sup>

The problem of demography was a dominant issue after World War II, at which time it was estimated that the world population would double every thirty years. There was concern about possible famine and the shrinking of humankind’s living areas, not due to actual lack but due to politics. Several monumental works concerning the danger of population explosion were basically of the opinion that the growth of population and the production of natural resources were exponential in nature. Thus the population explosion has pushed the use of technology to exploit natural resources and this in turn has led to pollution.

However, the most important factor in the damaging process of nature is human greedy, particularly the aspect of materialism. This is the dominant cause of the damage of nature, because greed has encouraged the unlimited exploitation of natural resources and at the same time led to injustice among human beings. Paul Ehrlich has emphasized this aspect in his other book entitled *The End of Affluence*.<sup>17</sup> The factor of materialism cannot be neglected in a study of ecological ethics. It is the motor to use technique for humans’ own ends. Through the application of science and technology human beings can

<sup>15</sup> John Stott, *Issues Facing Christians Today*, London: Marshal Morgan & Scott, 1984, 109-110; Jones Richard, *Groundwork of Christian Ethics*, 16.

<sup>16</sup> Shantilala Bhagat, *Creation in Crisis*, 9-10.

<sup>17</sup> Paul Ehrlich, *The End of Affluence*, New York: Simon and Schuster, 1974.

enhance and accelerate their use of the natural resources and this causes an extraordinary deterioration in the condition of nature, particularly through the shrinking of natural resources, extinction of certain species which are sources of germ plasma sources, changes from a stable natural ecosystem into a labile artificial ecosystem, because of the continual need for a supply of energy, change of the profile of the earth's surface, which could disturb the stability of the soil and the entrance of energy and also waste from materials or other compounds into the environment causing water, air and soil pollution, which would further cause the decline of the quality of nature.<sup>18</sup>

The deterioration of the environment has indeed become increasingly serious as human beings, through the use of science and technology, have started to make very drastic changes to the living environment. Changes are made through what is called development, especially economic development with an ideology of exploitation of the natural environment which is only emphasizing the norm of more and more profit. The increase in the needs of human beings has caused the increase in the quarrying and use of natural resources which has, in turn, resulted in the structure and functional characteristics of the ecosystem being increasingly damaged, almost irreparably. Nature seems to be powerless and forced to submit to the superior strength of human beings in their attitude and activities towards nature as their source of living. The rest of nature has become without function in the ecosystem due to the power and control of human beings.

Thus one can draw the conclusion that the principles of diversity, cooperation, competition, interaction and continuity were disturbed when human beings made their interests the priority. Human beings are able to fully show their ability to control nature when they use technology, especially high technology to take and utilize natural resources, which not only accelerates the depletion of those natural resources, but also increases the damage done to the living environment and pollution from industrial waste. This reality has been exacerbated by the various inventions such as chemicals that are also used to double production and to protect crops from insects and other creatures that threatened them. One example is the discovery of DDT, by Paul Muller, a Swiss scientist in the 1940s, a discovery for he received the Nobel prize in 1948.<sup>19</sup> Finally it turned out to be a disaster in the ecosystems where it was used in.

<sup>18</sup> Supardi, *Lingkungan hidup*, 6.

<sup>19</sup> Dennis Meadows & Donella Meadows, *Toward Global Equilibrium*, Collected Papers, Cambridge : Wright-Allen Press, 1973, 52.

Thus we could conclude that modern science and high technology have enabled human beings to raise the flag of victory and supremacy over nature, just like science and technology have really given victory to human beings in their 'war' against nature. Is this really so? Is it really true that with technology human beings have control over nature? Some people may say: "Yes, because with technology human beings have indeed caused nature to seem powerless. Whatever is needed by human beings from nature can be realized through technology.' However, with technology human beings are facing nature as a rival and not as a friend.

If during the period of the traditional economy human beings depended on the 'generosity' of nature, in the economy of technology, human beings have evidently not been generous to nature. They have taken forcefully, seized and if necessary plundered while killing. That is industry and its pollution. Human beings live in their new world, namely the world of technology, for many conceived as the only true world. That is why human beings are often deemed as creatures living in two worlds, the natural world, which is the biosphere or planet earth, and the world of technosphere created by human beings themselves.<sup>20</sup> The damage of the ecosystem, which is continuing up until now, was caused by the two worlds of human beings, which are not balanced, and in fact often collide: the natural world collides with the world of technology created by human beings. Just as there are two worlds it could also be said that there are two interests: namely 'fulfilling needs and meeting desires'.

Human beings are ambiguous creatures. On the one hand they have bodily completeness just like other living creatures. On the other hand, however, they also have additional faculties which, as far as we know, are not possessed by other living beings – at least not to a level and of a nature human beings have got those. Human beings have intelligence or intellect which enables them to face natural challenges and at the same time utilize and manipulate them to their benefit. That is the reason why it is often said that man is a *homo duplex creatura*. On the one hand human beings can become guards and protectors of nature, but on the other hand they can also be destroyers of nature. In practicing their uniqueness it is evident that modern human beings have more often shown a 'cruel' face than a 'generous' face. With their increasing ability human beings should actually play a more positive role, namely a role with the objective of caring for nature and maintaining a balanced and preserved nature. However, their negative role is more dominant, because human beings have chosen new norms, namely the 'norm of profit' and the 'norm of comfort'. Hans Küng

<sup>20</sup> Barbara Ward & Rene Dubos, *Hanya Satu Bumi*, trs. Supomo, Jakarta: Gramedia, 1976, 3, 17.

once stressed that Western achievements in the modern European world may have brought the world many great things, but these are not necessarily good: science but no wisdom, technology but no spiritual energy, industry but no technology and democracy but no morality.<sup>21</sup>

The unlimited exploitation of nature is the root of the environmental crisis, because human beings have taken more than they actually need and thereby disturbed the natural cycle. The damage of the natural environment through the activities of human beings who are exceeding the limits of the living environmental system or ecosystem, could be classified as innovation, exploration, exploitation, production and consumption activities.<sup>22</sup> Human beings control and dominate nature. Their relation with nature has become a hierarchical relation, not reflecting unity, harmony, conformity and balance. Human beings have become independent and free from the influence of nature (no, this is not possible). They rely on science and technology, which has made them like gods, as was a teasing allusion of an intellectual quoted by Rivai: 'science has already caused human beings to become gods before they have become truly human'.<sup>23</sup>

Humankind's control of nature is also manifest in cases of pollution. Human consumption puts pressure on nature with various chemicals being thrown away into their environment. Pollution of environment could be categorized as a crime against the rules of the house, because it contains an element of despotism. The world is nowadays not only facing damage of the living environment with local distinctiveness or the damage of the ecosystem. The damage of the living environment has a global uniqueness, which is the damage of the ecosphere bringing the threat of global warming and the hole in the ozone layer. This reality has at the same time indicated the speed and complexity of the problem of living environmental damage due to the activities of human beings.

By science and technology human beings have created attitudes which place them in opposition to nature as the balanced ecosystems that are developed in a long term of time. While human beings accept the generosity of nature, they poison nature and their own selves with waste. 'Evil is returned for good' is the most accurate expression to illustrate the attitude of human beings who are insolent towards nature. Human beings not only tend to act as owners of nature, but they also tend to become criminal towards nature. In other words,

<sup>21</sup> Hans Küng, *Global Responsibility in Search of a New World Ethic*, New York: Crossroad, 1991, 12.

<sup>22</sup> Ward & Dubos, *Hanya satu Bumi*, 4.

<sup>23</sup> Bachtiar Rivai, *Perspektif dari Pembangunan Ilmu dan Teknologi*, Jakarta: Gramedia, 1986, 11.

their control over science and technology have already created a change of values in human beings, namely a change of attitude from respect, honour and solidarity with nature which is evident in the traditional life of marginal communities, to an attitude of consumption. Human beings now have a materialistic and criminal attitude towards nature as evidenced in exploitation and pollution. This reality give rise to many questions, as to why human beings are so despotic towards nature. Why do they respond to the generosity of nature with greed and wickedness?

The birth of modern technology was the beginning of a new relationship between nature and human beings, namely a relationship characterized by discontinuity based on the subject-object principle and also by a hierarchy or a structural principle where nature is controlled by human beings. As well as this, the economy of human beings had become an economy of greed and not an economy of need anymore. They behave just like the weasels who kill all the chicken in a barn, though they can only eat one. They used their capabilities to exploit the earth. This could happen because human beings show their relation with nature only physically but are reluctant to develop solidarity on the spiritual level. Their awareness must indeed lead them to the throne of power, although they will never be able to release themselves completely (excepting if they are yanked out) from their relationship with and their dependent link to nature.

These aspects are the 'contribution' of human beings in facing the threat of the destruction of the earth. In fact, human beings are technically developed but ethically and morally undeveloped. The moral growth is far behind the growth of science and technique. Humankind is like a young adult who has discovered all his or her capabilities but who personality is still a child's. Supposing that human beings attain to living in balance of technical capabilities and ethics, and decelerate the movement of their intervention in the process of nature's evolution, harmony with nature could be probably continuously enjoyed by hundreds of generations. It would probably be different if life were permitted to continue evolution without the too immense and dominant interference of human beings.

Humans' attentiveness, their creative abilities, and scientific development had finally led mankind to different experiences in the process of nature:

"For anyone who can read the chart of the facts recorded by modern science, it is now clear that mankind is not an accident phenomenon occurring by chance on one of the smallest starts in the sky. Mankind represents the culmination of the whole movement of matter and live, so far as it is within the range of our experience".<sup>24</sup>

<sup>24</sup> Teilhard de Chardin, *Building the Earth*, London: Geoffrey, 1965, 24.



Teilhard de Chardin argues that human beings' presence in this world is not accidental. They are present and they also represent their Creator to consciously take care of and to maintain the whole creation.

It is not needed, as Teilhard does, to say that human beings or the species of human beings were indeed 'preordained' to hold the power and be dominant on planet earth. It is enough to accept that it is reality. Although human beings are part of nature, they have shown their superiority and supremacy in skills. But they are gifted with consciousness as well. They know about responsibility and duty. This duty is performed by human beings not only through the use of their reason, but also and primarily by their good intent and their behavior, namely their moral and spiritual response to nature. In fact, science and technology tend to make human beings present as powerful foreigners in nature. Human beings seem to emerge unbalanced in their own attitude to nature. They tend to be powerful and dominant but not to care and maintain. Their capacities as nurturers and managers of nature are not performed ethically and morally. To develop these capacities is the challenge for a humanity which wants to come to true adulthood.

#### **IV. Nature Controls Human Beings**

The global extent of the damage of nature is an indication that not only do human beings have power over nature, but also nature controls human beings, as evidenced in the techno-sphere, where human beings are not able anymore to control their own technology, or not able to control their desires or greed in interacting with nature. Natural resources, richness in goods, have become a binding enchantment and now hold human beings in a prison of materialism through the norm 'profit' which has become more and more dominant.

The progress of science and technology has enabled human beings all over the world to implement modernization in all fields, but at a very high price, namely the large-scale pollution of nature. Industrial waste has paralyzed nature. Technological waste (industry, synthetic products and nuclear waste) has become one of the most fearful threats to life on planet earth. It can be said that the progress of science and technology has also become one of the triggers of the damage of the living environment through pollution and exploitation of resources for life. The application of science and technology and the exploitation of natural resources are not only damaging the environment through using up natural resources, but also bringing additional damage to nature through pollution and poisoning.

The process of human beings' exploitation and pollution of the living environment through the application of technology was explained earlier.

There is actually a value behind this attitude, namely the ‘feeling of human fear’ towards nature. According to Erich Fromm, the roots of the destructive attitude of human beings towards nature lie in their inability to bear the burden of their inability.

“Destructiveness is rooted in the unbearableness of the individual’s powerlessness and isolation. I can escape the feeling of my own powerlessness in comparison with the world outside myself by destroying it. To be sure, if I succeed in removing it, I remain alone and isolated, but mine is a splendid isolation in which I can not be crushed by the overwhelming power of the subjects outside myself”.<sup>25</sup>

Thus, it could psychologically be said that the ‘brutal’ acts of human beings towards nature, are partly motivated by the desire to escape from the awareness of their own powerlessness or compensation for this powerlessness. The internal problems of human beings have caused external damage, namely physical damage towards the living environment. ‘The internal damage results in external damage’. That is why human beings often have the heart to butcher animals, as, for instance in cases of whale hunts and turning hunting into an enjoyable sport, a pleasant or even a passionate hobby. The diseases of ‘fear’ and ‘worry’ have also encouraged human beings to become materialistic, because they are afraid and worried about their tomorrows, ignoring the reminders of Jesus in the Gospel of Matthew (6:25-34). The case of being afraid and worried is at the same time a proof that it is actually not human beings who control nature, but it is human beings who are actually controlled by nature.

Modern human beings are indeed often plagued by ‘phobia’ as well as ‘mania’ caused by feelings of fear or excessive feelings of happiness. In arousing such characteristics of human beings, nature has frequently then become the target, not just on a small scale, but on a giant scale, in mega-projects. Just to ‘get a name’ various giant projects are built, most often not respecting the preservation of the living environment surrounding the project. It could indeed not be denied that many of those human-made giant projects have already proved beneficial to human beings, but nature has frequently been sacrificed in the process. Instances are the construction of giant dams in Java, which after being analyzed, turn out to have sacrificed both the poor inhabitants of that area as well as the species living in the environment of the project through the destruction of a whole natural structure.

<sup>25</sup> Eric Fromm, *Fear of Freedom*, London/Melbourne: Henly, 1984, 154.

Actually it could be said that human beings do not control nature at all, but on the contrary nature is often controlling human beings. Not only have human beings up to this time not been able to truly tame nature, but also nature has power because she has already become an enchantment, which has caused human beings to be powerless to resist what is known as materialism. We have often read that most of the natural disasters happen due to the activities of human beings. For example, floods are not only caused by heavy rains (natural disaster), but are particularly caused by the denudation of forest land and by piling up of waste in water works in big cities (intentional disaster). Human beings' relation to nature by their own technique has turned out to be a box of Pandora. However many aspects of nature, such as floods, forest fires, El Nino symptoms and so on, cannot be tamed by man at all and thus often cause man to sense his powerlessness in facing nature. Humans' usual response however is to call for more and better technique.

Human beings' control of nature can mainly be seen in two instances, namely the dependency on technology and materialism. With science, especially with technology, human beings seem not to live in the real world anymore. They have moved to another nature, namely the nature of their works, organization or structure and techniques that they have created. With science and technology, human beings have unchained themselves from their dependency on the forces of nature, but they have at the same time placed themselves in a new dependency, namely a dependency on their works and the structure of their creation. The unity of human beings and nature has been replaced by their unity with machinery.<sup>26</sup> Thus, human beings do not actually control nature anymore, but they are controlled by nature, namely a new "nature" created by human beings, which is the "nature" of technology or technosphere.

Science and technology are tools which offer efficiency and effectiveness. They are manipulated to exploit nature for the sake of getting the largest profit possible. This creates a new dependency of human beings on natural resources, such as energy derived from the use of fossil fuel and electric energy. Nature has made human beings increasingly powerless. Thus science and technology have to be continuously applied in order to double production, drawing resources from nature for the benefit of human beings, often without any care about the conservation of nature, and often also controlling other human beings because of fear.

<sup>26</sup> Jürgen Moltmann, *Man, Christian Anthropology in the Conflict of the Present*, Philadelphia : Fortress Press, 1979, 22.

**V. Summary**

I have attempted above to highlight the meaning of the ecosphere as the whole system and relationship of the universe and the dominant role of human beings in it. Each aspect in this universe has to do with relations, interaction and interdependence in order to sustain and to maintain all that exists. Human beings have their special role in this pattern, not only through their minds but also through their kind. That is why there is a specific mysterious relationship between human beings and nature that we have called a moral and an ethical relationship.

I also have attempted to show how it is human beings' non-ethical approach to nature that has caused the imbalance in the ecosphere. Human beings have tended to increase only the technosphere part of their life and as a consequence the ethosphere has been put aside and disregarded in facing nature. In short, economic greed has led to a new form of selective morality. This approach tends to exploit nature, making nature merely an object for human beings' interests and desires. Human beings need to reaffirm the interdependence of beings in this ecosphere to make sure that everything which exists manifests and takes its part in sustaining and maintaining the ecosphere. To make this affirmation a reality, human beings have to raise the level of their ethical and moral attitude as well as accelerate progress in science and technology. In other words, human beings have to actualize their consciousness in their constructive relationship to nature.

Human beings have to develop an attitude of awareness and live according to their conscience and thus sustain the ecosphere through the ethosphere. The significance of the technosphere for human well-being has been emphasized in the modern industrialized world while the significance of the ethosphere (the need for moral reflection) has often been ignored. The current ecological crises are the result of a particular set of values (not the absence of any values) that have dominated Western societies over the last century or two. This set of values has led to environmental degradation.

## Chapter 4

### Environmental Ethics: The Ethosphere

From the previous chapters the importance of the ethosphere has become clear. In this chapter we will discuss more extensively what the role of the ethosphere must be and how it is related to the other spheres. After some introductory considerations we will discuss different approaches towards environmental issues that express themselves in different ethical theories and subsequently develop our own proposal for a theory on ethics that is based on the conviction of the unity of life, including humanity as a whole. The dichotomies between nature and humanity, the descriptive and the normative, body and soul, being and acting should be overcome in the development of a unity of being of which human beings, included their action, are fully part.

#### **I. Environment and Ethics**

Damage to the environment occurs when human beings live a life in balance with the ecosystem and with respect for it and move towards a life, which is engineered according to their desires. In other words, damage to the environment happens when human beings turn away from nature, becoming exclusive, confronting nature and making nature an object with value only as a tool or instrument to satisfy their interests. The environment is regarded as resources or goods which are only useful when able to serve the interests of human beings. Human beings look upon nature mostly with the eyes of material benefit. Nature has become an object with only economic value. The relationship of humans with nature lacks an ethical standard, and is ruled by the standards of profit making instead. In other words, the ethical values that should exist in the relationship between human beings and their living environment, like the values of justice, solidarity and balance, are replaced by economic and profit standards. Nature is not recognized as a fellow of human beings, but only as a tool and an object. Human beings tend to live according to the principles of the technosphere only, and to neglect the principles of the ethosphere in relation to their surroundings.

Ecological ethics should directly discuss the function of ethics to practical reality. As Franz Magnus-Suseno stated concerning environmental ethics: 'An

environmental ethics must not be developed dogmatically and apriorily. But ethics of the environment must be developed from the experience of human beings.<sup>1</sup> This is the way to understand ecological ethics, starting from an empirical reality, namely the damage to the environment. The environmental ethics that will be discussed here is not so much a description of theories, nor an abstract normative elaboration. This means, that the ethics to be discussed here is not so much an ethical theory, but an applied ethics which is developed in direct relation to humans' dealing with their environment, and therefore with immediate implications for the actions of human beings in nature, both as individuals and as communities. That is the reason why, as much as possible, both individual and social ethics will be covered, as both play a role in the ecological crisis.

The causes of the environmental crisis are complex and relate to many problems in the history of humankind, including population growth, over-exploitation of natural resources, the modern world view and many other factors.. Michael S. Northcott indicates three main factors as the origins of environmental crises, namely the agricultural revolution, the development of the market economy and the application of the technological fruits of modern science through industrialism.<sup>2</sup> I would like to combine these factors under the heading of economic attitudes of human beings as the main cause of the environmental crisis. Seen from an ethical perspective, the factors mentioned above are human beings' tools for gaining their economic goals on the cost of the living and non-living environment. The pressure on the ecosystem is strong in Indonesia. Due to the focus on economic development and profit taking in the short term, an ecological ethics must take the economic perspective into account first of all. As long as this is not dealt with responsibly, an ethics dealing with the issue of overpopulation will be futile compared to the damage by exploitation and pollution due to the longing for economic profit.

A basic change in human attitudes occurs when humans look upon nature with an attitude of 'economic wants' and not of 'economic needs'. Human beings have changed their attitude towards nature from an attitude of 'need' to an attitude of 'greed'. This attitude is not only seen in peoples' activities in the exploitation of nature but also in their activities in polluting nature. Both attitudes reveal the carelessness of human beings about the conservation of natural resources of life. Damage to nature and the threat of its destruction which is becoming increasingly serious, both quantity and quality wise, indicate

<sup>1</sup> Frans Magnus-Suseno, *Tanggungjawab terhadap Lingkungan Hidup dari Perspektif Gereja Katolik*, in: *Refleksi*, XV/1/1992, 19.

<sup>2</sup> Michael S. Northcott, *The Environment and Christian Ethics*, Cambridge: Cambridge University Press, 1996, 42-89.

that basic changes are really needed in the attitude of human beings toward nature which is just as influential as the change to an economy of greed and growth in the past. Such changes should reflect appropriate values. The relationship of human beings with nature should not be seen only from a human-oriented economic or profit context, but should be a relationship based on a respectful attitude towards nature as. That is why human beings must not damage nature to obtain one-sided benefits; they should maintain and guarantee a balance in the ecosystems in which they live. By doing so, human beings will assure the sustainability of ecosystems and of the species living within them. Only this changed attitude can guarantee a constructive use of science and technology to repair the damage nature has already suffered. Basically this change of attitude would be a change from a destructive attitude to a constructive attitude toward nature.

In recent years people all over the world have realized the pressures related to the necessity to recover the damaged natural environment. There have been three major world summits about the environment - the first in Stockholm in 1972, the second in Rio de Janeiro in 1992, and the third in Johannesburg in 2002, as well as several other international activities during the past three decades. All this has encouraged movements all over the world to exert pressure for the conservation of the environment. It was hoped that after entering a new century and at the same time a new millennium, the situation of the environment would increasingly recover from suffering. This hope can only be realized if human beings, especially those who have political and economic power, can control their greed for riches and power through adherence to values such as repentance, justice, solidarity, cooperation, love and restraint.

An important inspiration for modern environmental ethics was the first Earth Day in 1970 when environmentalists started challenging philosophers who were involved with environmental groups to do something about environmental ethics. Thus what is known as ecological ethics started to be developed in the 1970s, together with the emergence of “green” movements, particularly in Western countries.<sup>3</sup> The emergence of the “greens” and ecological ethics have been motivated by social issues, but environmental ethics has

<sup>3</sup> Hans Küng, *A Global Ethic for Global and Global Economy*, London: SCM Press, 1997, 205-206; Celia Deane-Drummond, *Ecology in Jürgen Moltmann's Theology*, Lewiston: The Edwin Mellen Press, 1997, 1-2. According to Küng, the greens are the expression of the paradigm shift from modernity to a postmodernity which is no longer prepared simply to allow nature as a ‘commodity’ to be marketed, exploited and destroyed anywhere. Daniel Cowdin, “The Moral Status Of Otherkind in Christian Ethics”, in: Dieter and Rosemary, *Christianity and Ecology*, 261, Cowdin pointed out that the question of the extent to which humans should give moral consideration to the health of the ecosystem and to other species

developed quite rapidly in line with humankind's awareness of the ecological crisis caused by development, especially economic development which results in the increased exploitation of natural resources and pollution. Since the 1970s the acceptance that living things, and possibly all natural things, have value in their own right has been the touchstone to distinguish those who are "deeper" green theorists from those with "shallower" concepts of environmental ethics.<sup>4</sup>

The field of environmental ethics has become more diverse than before. Not all ethicists dealing with ecological issues have the same opinions. We can distinguish three main streams in environmental ethics: econocentric ethics, shallow ecological ethics and deep ecological ethics. We will discuss these three approaches and critically evaluate them, as the base for our own dealing with the theme.

## **II. Econocentric Ethics**

Ethics discusses moral reflection on many categories such as principles, values, obligations, virtues, moral visions and moral codes. Thus ethics is an analysis of how human beings should be or should behave and treat others or behave toward others, so that they display truth and goodness in their own character and at the same time reflect norms of justice, truth and love towards their fellow humans. This represents the fields of individual ethics as well as social ethics. How human beings should live as individuals can not be separated from how human beings should treat their fellow humans, because the way in which individuals treat others derives from their personal convictions about the meaning of life or the values of the community in which they live. On the other hand, treatment of others is also based on the evaluation of the position of others in relation to the individual or to the group of people concerned or to human beings universally. But ethics must go beyond the relationship between human beings to the relation between human beings and their environment. This is the area of environmental ethics.

According to Otto Piper, the damage to the environment has its roots in a philosophy, which limits ethics to interpersonal relationships, so that the

and their members has received a good deal of attention in the last twenty years from moral philosophers and much of the conversation can be traced in the journal *Environmental Ethics* which began in 1979.

<sup>4</sup> As quoted from Sylvan, R and Bennett, D, *Greening Ethics*, Cambridge: White Horse Press 1999, in Edward Craig, (ed.), *Routledge Encyclopedia of Philosophy*, London & New York, 1988, 334.



relationship between human beings and nature has not been regarded as a moral issue.<sup>5</sup> As a result, human beings feel free to decide about their relationship with nature according to their own wishes. The result is that human beings tend to exploit nature and cause damage to the living environment. Exploitation and pollution of nature is one of the proofs of the bad conduct of human beings toward the living environment, conduct which has its roots in the belief that human beings are the masters who have the right to treat nature as a free source of what they need or even as their possession. The relationship between human beings and nature is viewed as a relationship of ownership. Nature, especially planet earth, is deemed as a possession, a supplier of humankind's needs. The relationship is not governed by ethical considerations and nature has no intrinsic value.

As the *Stanford Encyclopedia of Philosophy* rightly states, in the literature on environmental ethics the distinction between *instrumental value* and *intrinsic value* has considerable importance. The former is the value of things as *means* to further some other ends, whereas the latter is the value of things as *ends in themselves*, regardless of whether they are also useful as means to other ends. For instance, certain fruits have instrumental value for bats that feed on them, since feeding on the fruits is a means of survival for the bats. However, it is not widely agreed that fruits have value as ends in themselves.<sup>6</sup>

Modern people are inclined to regard nature as having only instrumental value. That is why human beings treat natural resources means to their ends. From the aspect of ethical norms, such treatment is non-ethical. Self-oriented attitudes only reflect humankind's greed and the injustice inflicted on nature and the environment. Humankind has become the black hole that swallows everything from nature without any sense of guilt. The ethos governing the relationship between human beings and their environment is an entrepreneurial ethos, namely an econocentric ethics, an ethos which is centered on economic interest and profit making, an ethics which prioritizes economic interests and material profit with little appreciation for the environment. Nature is appreciated and evaluated only in relation to its economic value.

The attitude of human beings whose view of nature is limited to its economic value became dominant with the influence of Western philosophy, particularly the modern philosophies of rationalism and empiricism, which began to develop in Europe in the 13<sup>th</sup> century, and became influential after the Middle Ages. Although Francis Bacon (1561-1626) could be considered the pioneer of both rationalism and empiricism, the rationalism of Descartes and the criticism of

<sup>5</sup> Otto Piper, *Christian Ethics*, London: Thomas Nelson & Sons, 1970, 326-329.

<sup>6</sup> <http://plato.Stanford.edu/entries/ethics-environmental/2>.

Immanuel Kant could be considered as influencing ethical concepts and giving birth to an alienated relationship between human beings and nature.

René Descartes (1596-1650), the father of Rationalism is very well known for his efforts to divide reality into what he describes as '*res cogitans*' (spiritual substance) and '*res extensa*' (material substance). According to Descartes, these substances influence each other, but what is reasonable is only the spiritual substance which influences the material substance.<sup>7</sup> Descartes' views gave rise to rationalism, which has made man's reason the only measure of truth. According to Abraham van de Beek, for Descartes, human reason is the exclusive starting point for achieving certainty in the interpretation of reality. Human reason is the centre of the universe. Not only the universe, but even God is grasped only by human reason.<sup>8</sup> From the position of Descartes this lead to the objectification and finally the manipulation of everything that human beings created around themselves; everything was merely an object of the only true subject: man himself.<sup>9</sup> Since only human beings are able to think, nature was considered as material and viewed only as material. Thus human beings may treat nature however they wish. The strange thing is that matter now fully rules our minds – since mind is not criticized. We are directed to discover matter only. All scientific efforts are directed to discover the material world, so human motivation is fully directed to the '*res extensa*'.

Immanuel Kant (1724-1804) believed that only human beings are moral, because only human beings have the ability to think and understand. Others are only '*noumena*' outside space and time, passive and not having any causal relations with anything else.<sup>10</sup> Thus the material world is considered as substance without morals (amoral). Immanuel Kant modified and further clarified the position of Descartes. When reasoning human beings construct reality, this is not reality but human beings' reality. About reality itself (*das Ding an sich*) we can not say anything. We only know reality as we conceive it according to the categories of our mind.<sup>11</sup> According to Paul Santmire, the difference between human beings and the rest of nature is our freedom, which allows us to transcend nature's deterministic quality.<sup>12</sup>

<sup>7</sup> Jongeneel, *Hukum Kemerdekaan I*, Jakarta: BPK Gunung Mulia, 1980, 29-30.

<sup>8</sup> Abraham van de Beek, *To Be Created Precedes Our Creativity*, Louvain Studies 19 (1994) 34.

<sup>9</sup> Abraham van de Beek, *To Be Created*, 35.

<sup>10</sup> John B. Cobb, *It is Too Late: A Theology of Ecology*, California: Bruce/Beverly Hills, 1972, 93.

<sup>11</sup> Abraham van de Beek, *To Be Created*, 34.

<sup>12</sup> H.P. Santmire, *The travail of Nature*, Philadelphia: Fortress, 1985, 135.

As pointed out by Piper, philosophy, especially modern philosophy in the West, which is very dualistic, has given birth to excessive optimism about human beings, who regard them-selves as masters over themselves and then over everything. From this basis was born a belief in human beings' autonomy, which has caused the development of humanistic philosophy and capitalistic and materialistic ideology, supported by mechanistic science creating the norm of 'econocentrism'.

The accumulation of these philosophies and capacities is the exploitation of natural resources as economic sources, which sparked the explosion of the Industrial Revolution as a symbol of modern development. The Industrial Revolution then gave birth to the ideology of growth in capitalism as well as in socialism. In the 19<sup>th</sup> century industry continued to develop rapidly and was supported by the appearance of the theory of evolution, which created a new view in the field of biology. Thus nature has been increasingly mastered and controlled by human beings. The fate of nature is increasingly dependent on the hand of human beings, as is emphasized by Holmes Rolston III, who says that in the era of Darwin, morals were not applied to humankind's relationship with nature:

"Nature simply is without objective value; the preferences of human subjects established value; and this human values, appropriately considered, generate ought to be Nature is a-moral; only human are ethical subjects and objects of duty".<sup>13</sup>

It is evident that the dichotomy between human beings and nature has become increasingly sharper and has developed the character of an antagonism. In the second half of the 19<sup>th</sup> century, the human-nature dichotomy tended to lead towards human beings imposing their will on nature. The human tendency to impose their will on nature is evident from the attitude of utilizing nature as a means to an end. Thus, as industry developed rapidly, nature lost its 'sacredness' or 'sanctity', and was replaced by an earth that is described by natural science and having purely material characteristics with an economic value. Not only was the sanctity of nature removed, but also God as the Creator and Preserver of nature was no longer acknowledged, and was replaced by human beings. There was little awareness of human beings' dependence and the study of humanities was only looked at as sources from the past. In short, it could be said that there is no ethosphere in this essentially secular outlook on life.

<sup>13</sup> Holmes Rolston III, in: David E. Cooper, *The Environment in Question: Ethics & Global Issues*, London: Routledge, 1992, 135.

In the foregoing chapter we mentioned the relationship between the ecological crisis and the usage of technology as a tool to achieve economic prosperity for human beings. According to Cobb, technology is in many ways the link between economics and ecology. Terminologically, they are much more directly related. The terms economy and ecology originate from the same root, namely *oikos*. One is the *nomos* of the *oikos*, and the other the *logos* of the *oikos*. In economy *oikos* is understood as *arranging* the household, but in ecology *oikos* is understood as the *understanding* of the household of nature. Economy and ecology are closely related. As Boutros Boutros-Ghali stated: ‘They amount to the same thing: ecology is by its very nature part of economy and the other way around’.<sup>14</sup> For Rasmussen, *oikos* is the root and common unity of economics, ecology and ecumenics. Economics is *eco* (habitat as the household) + *nomos* (the rule or law). The difference according to this terminology is that economics refers more to the practical ordering of the household while ecology refers to its structure. One might expect the former, as the practice, to follow from, or at least to be consistent with, the more fundamental *logos*. But as we know, the former has evolved into a study of how to increase market activity and the latter into a study of the way different species interact with one another. They have developed quite independently, and until recently, very little thought was given to their relationship. Their goals often appear to be in conflict.<sup>15</sup> As a result of this conflict, economy has its own standards or even laws which we know as norms and laws of economic growth. Technology and economy cooperate in transforming nature into something artificial while excluding ecology. The cooperation between technology and economy has made people more prosperous. Since overall economic growth seems to be the easiest way to attain the goods needed by human beings, they use technology as their tool and sacrifice nature. Growth has become the only *nomos*, norm and law for the economic activities of human beings without reference to the *logos* of the *oikos*.

We could conceive economics in a quite different way, which would be related to the *logos* of the *oikos*. Economics means knowing how things work and arranging these “home systems” (ecosystems) so that the material requirements of the household of life are met and sustained and the household is established as the hospitable habitat. The basic task of the economy, then, is

<sup>14</sup> Michael-Granberg Wesley, *Menebus Ciptaan*, Jakarta: BPK Gunung Mulia, 1997, 7.

<sup>15</sup> John B. Cobb, *Christianity, Economics, and Ecology*, in: Diether & Rosemary, *Christian*, 499.

*the continuation of life*, though no economist has put it that way for ages. In fact, the kind of economics generating earth's present distress made deceptive moves away from *oikos* economics.<sup>16</sup>

It is not right to view nature (ecology) only from the point of view of human interests or only in terms of economic value. Nature has more than just economic value and that is why the limiting of ecology to an economic context has already proved to have caused the exploitative and destructive treatment of nature. This attitude has caused ecology to be considered materialistically. In fact, there is a tendency to make economic success a criterion or standard for the well-being of human beings. In this context, ecosystems are sacrificed in the interests of human beings and made fully dependent on the economy as if economy would be more fundamental than ecology.

What is amoral in modern life is not the world we live in, but human beings themselves. They do not take in account the coherence of the whole ecosystem as the logic of the house. Precisely that is the task of ecology and it is the duty of environmental ethics to deal with humans' role in this, especially in the context of global economic growth policies.

According to Conradie, the economic roots of environmental degradation lie in the enormous production of goods that has indeed led to a previously unheard-of creation of wealth. The logic behind most industrial societies is one of sustained economic growth. Growth is seen as the key to the creation of sufficient wealth for a growing world population.<sup>17</sup> Conradie points out several errors in the economic growth approach. One of the main arguments mentioned by Conradie is that economic growth can not be sustained. There are three limitations to sustained economic growth, namely *economic* limits (the use of renewable and non-renewable resources), *social* limits (the degree of social change that is possible in a short period) and *biosphere* limits (the capacity of the biosphere to absorb the waste products of economic production).<sup>18</sup>

According to Daly, two basic errors are often made in thinking about economic growth. One is the error of *wishful thinking* (assuming that because something is desirable it must somehow also be possible). The other is the opposite error of *technical determinism* (assuming that just because something is possible, it must be desirable).<sup>19</sup> These basic errors arise when one views nature only in terms of the economic interests of human beings. Human beings tend not to limit their economic needs to what is sufficient for a good life but

<sup>16</sup> Larry Rasmussen, *Earth Community, Earth Ethics*, 91.

<sup>17</sup> Ernst M. Conradie, *Ecological Theology*, 22-24.

<sup>18</sup> Ernst M. Conradie, *Ecological Theology*, 25.

<sup>19</sup> Mary Daly, *Faith and Science*, 212.

rather tend towards a consumptive lifestyle, always trying to gain more to satisfy their greed. Nature is seen only instrumentally for its utility value. Nature has no intrinsic value. Only human beings have moral values. Thus nature is valued only for its economic contribution to humankind.

The modern world is characterized by intensive and systematic development with the aim of meeting the demand of human beings to become increasingly prosperous. The relationship between human beings and nature is therefore a relation of human-to-material. The implication and meaning of a material object is fully decided by and dependent on the evaluation of human beings. If human beings put a high value on a certain material object then that object has value. If human beings consider the said material object not to have value, then that material object has no value. This method of evaluation has caused material objects only to have value as tools or instruments for human beings. They have no intrinsic value.

Modern development has utilized science and technology to obtain natural resources to be used for the welfare of human beings, not only to meet their economic needs, but also to fulfill their desire for a certain life style. As a result, the economic system is in conflict with the ecologic system, particularly the economic system, which promotes and is based on the paradigm of growth or ideology of growth. Rasmussen differentiates two kinds of economy, namely the Big Economy and the Great Economy. According to him the violation of creation's integrity, is located in a huge mismatch between the Big Economy (the present globalizing human economy) and the Great Economy (the economy of nature). For Rasmussen, the place to begin is with one of the basics of the integrity of creation: every human economy of whatever sort in any time and place is necessarily a sub-system of the Great Economy, the economy of the earth. Human economies have considerable latitude, to be sure, and new resources can often substitute depleted and exhausted ones. But human economies dare not exceed tolerable environmental margins or violate requirements for renewing and replenishing nature. Economic production and consumption, as well as human reproduction, are unsustainable when they no longer fall within the borders of nature's regeneration. Differently said, an expanding human economy that issues in a diminishing earth economy commits suicide by increments.<sup>20</sup>

What are the principles of a Great or Earth Economy? According to Rasmussen, for all nature's wonder and awesome complexity, its economic principles are few and simple, and three are most determinative.

<sup>20</sup> Larry Rasmussen, *Earth Community, Earth Ethics*, 113-114.

First, “waste equals food”. Recycling is fundamental to nature’s generation and regeneration. Tossed-off material from some life-forms becomes nourishment for others or builds up essential habitat. Everything goes somewhere and contributes something, with minimum energy and input. What is taken in is changed in a way that can be used by another living body. If such a principle were applied to the human economy, all waste would have a place in, and value to, further production. Everything would be reclaimed, reused, or recycled and would from the outset of production, be made to do so.

Second, “nature runs off current solar income”. Sunlight is the one and only input into earth’s economy from the outside, the only resource not already contained within earth’s closed system. Everything else belongs to the one-time endowment. What this means for human economies are far-reaching, but cannot be taken up here except to note that this second principle reinforces the first. If sunlight is the only true addition to what is already “in-house” (*oikos*), reclaiming, reusing, and recycling need to qualify and characterize all production and consumption. If a given entity cannot be reclaimed, reused, and recycled, don’t make it. If it cannot be reproduced without deleterious, degrading effects, don’t grow it. If the probable consequences of its use cannot be reasonably known, tracked, and paid for, don’t venture it.

Third, “nature depends on diversity, thrives on differences, and perishes in the imbalance of uniformity. Healthy systems are highly varied and specific to time and place. Nature is not mass-produced.” Diversity, variation, complexity befitting local and changing conditions, and disparity to take advantage of them - earth’s economy lives by such. This is why biodiversity is utterly crucial. It is the means for adaptability, evolution, and survival in complex and only partially stable environments. Diversity breeds stability and sustainability. When things do go badly awry in the economy of nature, *as they can and do*, the problem is precisely that “mass production” and uniformity overwhelm diversity and the fine-tuned differences that make for life.<sup>21</sup>

For Rasmussen, our present economic scheme of globalized mass production runs in other directions entirely. It does not matter where resources come from, what role they play or what “niche” they fit into. The present globalizing economy also amplifies the negative impact of ignoring nature’s third economic principle of production and consumption sufficiently varied and specific so as to continue life in each place. Differently said, the Big Economy prefers globalize “development”, sustainable or otherwise, to complex local and regional sustainable societies and communities. The Big Economy thus runs against the grain of nature itself and creation’s integrity. Nor does

<sup>21</sup> Larry Rasmussen, *Earth Community, Earth Ethics*, 113-114.



the Big Economy live off solar income. It extracts from the one-time endowment that is earth's in ways that, on a crowded planet with high consumption rates in rich quarters together with exploding populations, threaten sustainability for present and future generations.<sup>22</sup>

The ideology of growth, as mentioned above, has become the *Prima Donna* in the paradigm of modern economic development in both capitalistic and socialistic life, particularly in the present era of globalization. It is the perspective of growth in material possessions of those who lead the economic process. It is about material growth. At the same time growth in the spiritual aspects of humanity is neglected. The growth of the ethosphere seems to be at odds with the growth of the technosphere and economy. It is time now that humanity invests the same efforts in spiritual and ethical growth as it invested in economic growth during the last centuries. By doing so the Big Economy will be changed into a Great Economy. That implies an economy that is based on ecology, a law that is rooted in meaning. We can also say: a turn from the law of greed to the logos of responsibility, from liberalism to true freedom as human beings live in balance with themselves and as part of the whole house which we belong to. The whole world is one eco-system. That implies an awareness of globalization. There is globalization, but it is the wrong one: it is not holistic – or in Christian language: not catholic. Catholic means not only for the whole globe, but also comprehensive for the whole of truth – the whole logos.

From the seven characteristics of globalization as brought forward by Hans Küng, one of them is the increasingly extended ecological problem<sup>23</sup>. The problem of the spreading ecological crisis has its roots in the application of economic liberation, which is the old liberalism of the 19<sup>th</sup>-century and the new liberalism in the new concept of capitalism, which depends on the pure free market economy with social responsibilities, as well as social liberalism. Both have reduced economic ethics into business ethics. On the one hand, the pure market economy reduces economic ethics to the freedom of the individual, and on the other hand, economy with social obligations reduces economic ethics into just a social obligation, assumed to run automatically. Social obligation is deemed to already be more ethical by itself, without taking into account human ethical responsibility<sup>24</sup>. The position of both concepts of the modern economy towards the environment is actually the same. Both have applied the paradigm of development, which has made nature just a commodity

<sup>22</sup> Larry Rasmussen, *Earth Community, Earth Ethics*, 114.

<sup>23</sup> Hans Küng, *A Global Ethic for a Global*, 164.

<sup>24</sup> Hans Küng, *A Global Ethic for a Global*, 184-200.



to be exploited and marketed. As a result, all human beings wherever they are, are influenced to continuously exploit nature and participate in the pollution with waste, both because of the ‘thrust’ of high production as well as the ‘drive’ of high consumption. In free market economic theory, the idea of public interest (*bonum commune*) has no place, because what is important is individual freedom, which makes competition possible. There is no difference between profit and morality any longer. Profit has become the moral standard. Economic morality is made a tool to maintain the long-term profit of individuals in the community. Humankind is indeed pushed to become ‘*homo economicus*’ in a process described by Küng as a ‘taming of ethics by economy’. On the other hand, the concept of the social economic market is not better either, because it provides the opportunity to the authorities to control or protect the economy from competition. Competition is the nature of the market economy, and according to classic economic theory the motivating force of competition is self-interest: to produce and consume as much as possible so as to be able to produce and to consume even more.<sup>25</sup> Nevertheless, it is still about economy and thus centered around material interests.

In view of the situation described above, we need to rethink economic theories on the basis of ecology.<sup>26</sup> We may call that economic theory on the basis of ecology as the ethical economy namely economy in the frame of equilibrium of ecosphere and of human faculties of matter and spirit. We need

<sup>25</sup> Küng, *A Global Ethic for a Global*, 207.

<sup>26</sup> Cobb, *Christianity, Economy*, 507 “According to Cobb there were seven steps towards rethinking economy on the basis of ecology. First, *Homo economicus* must be rethought as person-in community. Second, the community of which *homo economicus* is a part must be understood as not limited to human beings. The degradation of the natural environment must count against human economic well-being, not only because eventually it reduces the possibility to produce, but also because it immediately impoverishes us. The improved state of other creatures will, then, be counted as an economic gain. Third, the community extends to the future of our grandchildren and our great-grandchildren and to the future well-being of the other species with which we share the earth. Fourth, every member of the larger community, human and non human has intrinsic value as well as value for others. Fifth, the diversity of creatures, human and non-human, adds to the aesthetic richness so important for the human beings who can appreciate it. Sixth, technology would be just as important in this context as in the current one, but it would become ecologically fitting and it would be used to minimize the cost to other species and to the earth of meeting human needs. Seventh, as Christians we believe that God cares for all creatures. God suffers with them and rejoices with them. This heightens the importance, for us, of working for the relief of suffering and enrichment of enjoyment, especially among human beings, but among other creatures as well. It heightens also the importance of diversity of life, since God appreciates that diversity far beyond what any human observer can know or understand.”

an approach to the economy that responds to the interests of the whole universe. According to Küng, in this era of globalization, where the paradigm of the global economy has become a 'polycentric economy'<sup>27</sup>, a new paradigm of ethics is needed, which is a combination of a rational economy and an ethical orientation. An ethical orientation is a mutual commitment to reduce various cultural controversies and the conflicting interests of humankind and to work instead for what is in the interests of the whole creation.

### **III. Theories of Environmental Ethics**

The awareness of the ecological crisis has given birth to theories on ecological ethics, which are in general called ecocentric ethics. However, those theories are diverse and not uniform. Like the various kinds of economic theories, there are also various theories on ecological ethics depending on the centre of attention of the underlying philosophies. In discussing the theories on ecological ethics, we will first describe the main theories. These theories of ecological ethics tend to raise the question: "Is our behavior in relation to nature subject to moral evaluation? If so, on what basis do we evaluate and what parts, levels or dimensions of nature do we evaluate?"

Theories of environmental ethics are usually divided into two main categories, which are known by the technical terms of 'shallow ecology' and 'deep ecology'.<sup>28</sup> Shallow ecology is a view which emphasizes that the environment exists in the interests of humankind. It is anthropocentric. Deep ecology is an approach which considers the importance of understanding the environment as covering all aspects of life which are mutually supporting, so that all substances have a purpose in themselves and have the same meaning.<sup>29</sup> It is ecocentric. Shallow ecology is adhered to by proponents of the philosophy of rationalism and humanism, and also many ecological and environmental experts who support the view that nature exists to meet the needs of humankind. Deep ecology was introduced by a Norwegian philosopher, Arne Naess. One of its basic principles is that all forms of life have intrinsic value and therefore have the right to demand respect for their self-realization, the right to live and the right to develop. One of the basic premises of deep ecology is that the moral sphere must go beyond the human species to include a wider community

<sup>27</sup> Küng, *A Global Ethic*, 208.

<sup>28</sup> Freddy Buntaran, *Saudari Bumi Saudara Manusia*, Yogyakarta: Kanisius, 1996, 24.

<sup>29</sup> Read for instance: Louis P. Pojman, (ed.), *Environmental Ethics: Readings in Theory and Application*, Boston: Jones and Barlett, 1994, 13, and Tyler Miller, *Living in the Environment*, California: Wardsworth, 1987.

which normally means that non-human nature, especially animals, have rights. Naess said, for instance, that rights are not the mono-poly of humankind, but also extend to the earth's ecosystem, rivers and mountains. Thus the right for the integrity of all of nature, both animate and inanimate, is claimed.<sup>30</sup>

Another difference in environmental ethics is that between conservation ethics, which strives for the conservation of nature in the interests of humankind (anthropocentric) and preservation ethics, which supports efforts to preserve the environment in the interests of all creatures (ecocentric).<sup>31</sup>

### **III.A. *Shallow Ecological Ethics/Antropocentric Ethics***

Some philosophers argue that the attribution of moral status to non-humans is an absurdity, ultimately unnecessary. A philosopher who rejects the moral status of nature is Luc Ferry. Ferry attacks the philosophical attempt to forge an eco-ethics. According to Ferry, all normative ethics is in some sense humanistic and anthropocentric, because it is we as human beings who value nature, and not the reverse.<sup>32</sup>

There is a difference between an anthropocentric approach to ethics and econocentric ethics, but it seems that the anthropocentric approach to nature is related to econocentric ethics because its goals are ultimately the same, namely material interests of human beings. The materialistic approach described above is normally considered to derive from anthropocentric ethics. Anthropocentric ethics perceives human beings as the central or even exclusive focus of everything. The living environment has meaning only from a human perspective and thus everything is perceived from the viewpoint whether it serves the interests of humankind. The interests of nature or the environment are not considered. Followers of anthropocentrism adhere to shallow ecology, since they emphasize the following:<sup>33</sup>

- (1) Images of humans are separated from nature.
- (2) Prioritizing the rights of human beings over nature, but not emphasizing the responsibility of human beings.

<sup>30</sup> Arne Naess, in: Bill Devall & George Seesions (eds), *Deep Ecology: Living as it Mattered*, Salt Lake City: Gibbs Smith Publishers, 1985, 71-73.

<sup>31</sup> See for instance Childress & Macquire, *The Westminster Dictionary*, 197-199.

<sup>32</sup> Luc Ferry, *The New Ecological Order*, Chicago: University of Chicago Press, 1995, 128.

<sup>33</sup> Tyler Miller, *Living in the Environment*, 454; Buntaran, *Saudari Bumi*, 25-26.

- (3) Prioritizing the feelings of human beings as centre of their apprehensiveness.
- (4) Policy and management of natural resources in the interests of human beings.
- (5) Solution to the ecological crisis through population control, especially in the poor countries.
- (6) Adherence to the philosophy of economic growth.
- (7) The main norm is profit-loss.
- (8) Prioritizing short-term planning.
- (9) Adjusting oneself to the prevailing political and economic system.

Such an environmental ethics is developed through shallow ecology and adheres to the belief that man is the 'master of nature', because nature is understood as a resource for humankind, created in the interests of and with the objective of bringing prosperity to humankind. Humankind is the owner of nature.

Among the most prominent supporters of anthropocentric environmental ethics or conservationism are John Passmore, Byran G. Norton, Eugene C. Hargrove and Mark Sagoff.<sup>34</sup> According to Passmore, environmental ethics is not needed, since what is important is an unwavering commitment to what is good for humankind. The damage of the environment is actually not felt by the environment itself, but by human beings. Therefore no new ethics are needed.<sup>35</sup> Byran Norton considers anthropocentrism a noble attitude, because it is not coincidental that humankind has to be responsible to protect nature.<sup>36</sup> These thinkers evidently see nature within the framework of the interests of human beings, particularly material and economic interests.

Other anthropocentric ethics stress especially the objective of nature, not only its material and economic potential, but also its aesthetical interest. Such is the viewpoint of Eugene Hargrove and Mark Sagoff. In their opinion, the basis of environmental ethics must be found in the various interests of humankind, but particularly in the aesthetic interests. The aesthetical value of nature derives from human's nature and temperament, rather than being intrinsic

<sup>34</sup> Baird Callicot, 'Environmental Ethics', in: Lawrence Becker, (ed.), *Encyclopedia of Ethics*, Vol.I, New York: London: Garland Publishing, 1992, 311.

<sup>35</sup> John Passmore, "Man's Responsibility", in: Lawrence Becker, (ed.), *Encyclopedia of Ethics*, 116.

<sup>36</sup> As noted in Lawrence Becker, Ed.), *Encyclopedia of Ethics*, 332.

to nature and it is the aesthetical value of nature which has the greatest importance.<sup>37</sup> This perspective is based on the philosophy of Immanuel Kant who emphasized the importance of aesthetic experiences of nature to human well being. Kant does not, however, suggest that animal or other natural things have any moral worth in their own right. It is morally wrong to beat a dog or damage a beautiful landscape because of the damage these acts do to human sensibilities and character.<sup>38</sup>

Another form of anthropocentrism stresses the interests of future generations. Humankind has to protect nature to be bequeathed to the next generation for its use and enjoyment. There are several different views concerning obligations to future generations. One is that morality does not apply here, future generations not being in any reciprocal relationship with us. Secondly, though we are not obligated to do anything for future generations, it would be praiseworthy to do so. The third view is that justice demands that we respect the interests of future generations. Environmental ethics in the field of the relationship between present and future generations centres around some significant questions, such as:

“To what extent does contemporary people have the right to deplete resources, to leave “time bombs” such as radioactive waste for future persons and to change the environment while seeking to improve their own material welfare? The treatment of such problems as the depletion of non-renewable natural resources, the pollution of the soil, the contamination of water, the production of toxic and radioactive waste, the destruction of rare species, conservation represent the neglect of our duties not only to other contemporaries and perhaps to the environment itself, but also to the people of the future. Failure on our side to fulfill these duties incurs much economic cost and considerable difficulties in terms of the quality of life for future people.”<sup>39</sup>

In the view of anthropocentric environmental ethics (or shallow environmental ethics or conservational environmental ethics) nature exists for humankind. This view is actually the same as the view of entrepreneurs, who consider nature just as a resource for the benefit and welfare of humankind. This view is not completely erroneous, since nature and particularly those resources existing in nature are needed by humankind to meet their essential needs. But in practice, this view has become the basis for greedy exploitation and depletion of nature’s resources.

<sup>37</sup> Eugene Hargrove & Mark Sagoff, *Foundations of Environmental Ethics*, Englewood: Prentice Hall, 1989, 30-31.

<sup>38</sup> Edward Craig, *Routledge Encyclopedia*, 333.

<sup>39</sup> Edward Craig, *Routledge Encyclopedia*, 819.

**III.B. Deep Ecological Ethics/Ecocentric Ethics**

According to adherents of deep ecological ethics, nature itself has meaning in supporting life, and nature must therefore be appreciated and treated well. The main emphasis is on the preservation of the environment not only in the interests of human beings, but also for the sake of nature itself. Nature is a supporter of all living creatures and its existence is therefore not only for the benefit of humankind, but also for all creation. That is why humankind must safeguard and preserve nature, motivated by mutual interests and in fact, everybody's interests. Therefore deep ecological ethics is also called extensive environmental ethics or preservation environmental ethics.

Based on this understanding, 'deep ecology' has stress on the following:<sup>40</sup>

- (1) Humankind is part of nature.
- (2) Although humankind can suppress the rights of other creatures, man must not do so without compunction.
- (3) Being apprehensive about the feelings of all living creatures and distressed if nature is treated without compunction.
- (4) Environmental policy and management for all creatures.
- (5) Nature must be preserved and not dominated.
- (6) The importance of protecting the diversity of biological resources and culture.
- (7) Appreciation and preservation of the system of nature.
- (8) Prioritizing long-term objectives according to the ecosystem.
- (9) Criticism of the economic and political system and proposal of an alternative system, namely a system of taking and preserving.

Deep ecology ethics, like shallow ecology ethics, has many adherents with their different emphases. The main proponents of 'deep ecology ethics' (if understood as an ethics that emphasises the intrinsic value of nature) are Peter Singer, Leopold, Kenneth Goodpaster, Rolston III Jr.<sup>41</sup>, each of whom has his own specific approach, as illustrated below:

*a. Neo-utilitarianism*

One of the pioneers of environmental ethics in this modern era is Peter Singer<sup>42</sup>. He has expanded the theory of utilitarianism ethics of Jeremy Bentham (1748-

<sup>40</sup> Miller, *Living in the Environment*, 44; Buntaran, *Saudari Bumi*, 26-27.

<sup>41</sup> Childress and Macquarrie, *The Westminster Encyclopedia*, 199-200.

<sup>42</sup> Peter Singer has taught philosophy at University College, Oxford and New York University. He is also a member of the Department of Philosophy at La Trobe University,

1832), which emphasizes the benefits for all with his well-known saying 'the greatest happiness for the greatest number'. If Bentham applied this sentence in the context of man, Singer has expanded it to include the context of all nature or all creatures. For example, Singer emphasized the reality that all living creatures, especially animals, could suffer and thus animals must be given position and moral status. On this basis, according to Singer, moral standards must be applied to all vertebrates, because all animals are equal. Do not hurt animals since animals can suffer. Hurting animals is immoral. The ethics of Singer could be called neo-utilitarianism because he has expanded the theory of Bentham concerning the goodness and benefits of all to include animals.<sup>43</sup>

#### *b. Zoocentrism*

This group fights for the rights of animals, so that the views of this group are also called ethics for the liberation of animals. One of the well-known persons who has developed a theory on the ethics of animal liberation and the rights of animals is Charles Birch, an Australian scientist. He criticizes strongly the influence of the views of Aristotle, which have become the basis of the views of the modern world about the relationship between humankind and animals. According to Birch, Aristotle taught the difference between humankind and animals and the difference between what is called '*anima rationalis*' and '*anima sensitiva*'. Mankind possesses both '*anima sensitiva*' as well as '*anima rationalis*', animals only possess '*anima sensitiva*'. This view is followed in the philosophy of Stoicism, which teaches that 'man does not have any obligation towards animals.'<sup>44</sup>

The zoocentrism environmental ethics only stresses the interests of animals and is related to the rights of animals. According to this theory, animals have the right to also enjoy contentment, because animals can also feel pleasure and they must be protected from suffering. Therefore, the feeling of pleasure and suffering of animals must be made a moral standard. According to Arthur Broome, the founder of The Society for the Prevention of Cruelty to Animals, the feeling of contentment and suffering animals can experience obliges man

Victoria, Australia. He is one of the well known ethicist philosophers who has written many books concerning the moral status of animals, for instance *Animal Liberation* (1975), *Animal rights and Human obligations* (1976) etc.

<sup>43</sup> Peter Singer and Tom Regan, *Animal Rights and Human Obligation*, Englewood Cliffs: Prentice Hall, 1976, 148-169.

<sup>44</sup> Charles Birch & Lukas Vischer, *Living with the Animal: the Community of God's Creature* Geneva: WCC Publications, 1997, 36.

to treat animals with full love.<sup>45</sup> It is deemed moral of humans to let all animals enjoy their freedom. On the contrary, it is deemed immoral if human beings hurt animals.

Donald Griffin, is of the opinion that animals have the ability to think, especially the ability to communicate. Most animals are involved in specialized communicative behavior which serves primarily, if not exclusively, to convey information to other animals. For this reason animals must be treated with the norm of 'animalness'.<sup>46</sup>

Because the zoocentrism group only emphasizes the interests of animals, the other followers of 'deep ecology ethics' often object to this position. Zoocentrism has stressed the importance of releasing animals from suffering and providing contentment to them so that this group has forgotten the interests of the environment as a whole. In fact, they often sacrifice the interests of humankind. It is such aspects of zoocentrism which are criticized by Whelan and by the followers of the view of biocentrism in general.<sup>47</sup>

### *c. Biocentrism*

Another school of deep environmental ethics emphasizes that *life* is the moral standard. Biocentrism is based on the view of the eighteenth century French philosopher Jean Jacques Rousseau who called for an extending of our moral concern beyond animals to include care for plants and all living things.<sup>48</sup> According to Kenneth Goodpaster,<sup>49</sup> one of the observers of biocentrism, the feeling of contentment or feeling of suffering is not the objective in itself. Suffering is not identical with wickedness and pleasure is not identical with goodness either. The senses of pleasure and suffering among animals are means of self-protection. It is not the feeling of pleasure and suffering, but it is 'the ability to live' or rather 'the desire to live' which must become the moral standard. If this is the case, not only must animals be respected morally, but also plants.

According to Paul Taylor, plants and animals can be morally harmed or benefited. They fight to live through the process of growing and reproducing.

<sup>45</sup> Charles Birch & Lukas Vischer, *Living with the Animal*, 36-37.

<sup>46</sup> Donald R. Griffin, *Animal Thinking*, Cambridge, Massachusetts: Harvard University Press, 1984, 26, 155.

<sup>47</sup> Robert Whelan, *The Cross and the Rain Forest: A Critique of Radical Green Spirituality*, Grand Rapids: Eerdmans, 1996.

<sup>48</sup> Jean Jacques Rousseau, *Reveries of the Solitary Walker*, Harmondsworth: Penguin, 1979.

<sup>49</sup> Childress & Macquiritie, *The Westminster Dictionary*, 201.



They have an objective in themselves. The interest of plants and animals to live must become a moral consideration.<sup>50</sup> In practice, biocentrism faces many dilemmas, such as whether humans may or may not eat plants and animals. What about agriculture and animal husbandry? Is humankind not allowed to slaughter animals for the lives of plants and animals? Moreover, just as it is with zoocentrism, biocentrism has actually not yet touched all the problems of the environment, which have become the dilemma of the life of the ecosystem or the crisis of ecology at this time. As elaborated in the foregoing chapters, the ecological crisis covers not only the suffering and harm done to plants and animals (living creatures), but also the degradation of the ecosystem as a whole through factors such as global warming and the hole in the ozone, as well as the extinction of many species. Nor do these viewpoints cover the injustices done to our fellow humankind. All these aspects are involved in the ecological crisis. Besides, new dilemmas emerge if emphasis is given to certain aspects, because there would be a problem about priorities among plants and animals. For instance, is it acceptable to denude forests and convert them into grassland for the breeding of certain animal species? Moreover, biocentrism tends to follow an individualistic approach and it is even atomistic towards the problem of ecology; certain species are considered more important than others. In response, other environmental ethicists have introduced an ecocentric ethical theory characterized by a more holistic approach.

*d. Ecocentrism*

Ecocentrism emphasizes the relationship of all organisms and non-organisms in the ecosystem. It focuses on ways of balancing the claims of the present and the future, human and non-human, sentient and non-sentient, individuals and wholes. All individuals in the ecosystem are related one to the other. Planet earth is a kind of 'integral factory', a totality of organisms that need each other, support and want each other. That is why the process of life and death is inevitable in the life of the ecosystem. Biocentrism has sometimes been criticized in that it only stresses the 'right' to live as a moral criterion. According to ecocentrism, life and death must be accepted in balance. The law of nature allows the various species to prey on each other. That is the reason human beings are allowed to eat all elements in nature, just like animals or plants that need each other.

<sup>50</sup> Paul Taylor, *Respect to Nature: A Theory of Environmental Ethics*, Princeton: Princeton University Press, 1986, 37-38.

According to John B. Cobb, an ecocentric ethics endeavours to achieve a balance between the interests of individuals and the interests of the totality in the whole in the ecosystem.<sup>51</sup> If so, ecocentric ethics does not see a conflict between the responsibility of human beings towards their species, responsibility towards their families, communities and their nations and the prosperity of humankind in general, and the interests of the care for the individual on planet earth or the ecosystem (trees, flowers, domesticated or wild animals). What is needed is taking proportionally all that is needed from nature, rather than redundantly or in a damaging way.

#### **IV. The Importance of the Ethosphere**

Environmental ethics, like ethics in general, originates from a reflection on the attitude and behaviour of human beings. Environmental ethics derives from reflection on human beings' relation to their living environment. Environmental ethics is the discipline that studies the moral relationship of human beings to, and also the value and moral status of, the environment and its non-human contents.<sup>52</sup> In other words, environmental ethics is the critical study of concepts defining relations between human beings and their non-human environment.<sup>53</sup> Since it is critical, environmental ethics addresses the normative significance of these relations. Ecological ethics can be defined as ethics which tries to answer the question of how we *ought* to live on earth in relation to all other beings. Ecological ethics refers to our natural surroundings in giving the answer.

The relation of human beings to nature or their environment forms the starting point for a discussion of environmental ethics. This relation is shaped in the time that human beings did not have the technical equipment they can employ nowadays. For a long time human beings were threatened by nature, more than nature was threatened by them. They had to fight in order to survive. They had to take from the woods and the fields everything they could find for food and clothes. They had to defend themselves against an aggressive environment. In this situation an ethics that fights against the environment and takes from the environment is suitable. It does not damage the ecosystem. Human beings are just acting as all living beings do: trying to survive in the interaction of all beings, living and non-living. This implies that human ethics are part of the ecosystem. They are so precisely as ethics of opposition and

<sup>51</sup> Cobb, *Process Theology*, 40-42.

<sup>52</sup> <http://platoi.Stanford.edu/entries/ethics-environmental/1>.

<sup>53</sup> Robert Audi, (Gen. Ed.), *The Cambridge Dictionary of Philosophy*, Cambridge: Cambridge University Press, 1999, 268.

greed. In this situation it is also clear that ethics are developed as responsibility towards other people. Only in solidarity human beings can survive. Whether it is needed that human beings should survive is a different question that will have to be answered later. For the moment, it is sufficient to notice that human ethics in the context of survival amidst of a threatening environment, with few technical tools to cope with the challenges of life, form an integral part of the whole ecosystem. And in that context, it was and should be an ethics of opposition and greed.

The development of technical skills and tools has changed the position of humans in the ecosystem. We will not discuss here the full development because it is not relevant for the argument. We will focus on the place at the track where we are now, after the technical revolution, and the development of a technosphere that interferes in all other spheres.

The previous chapters have shown that damage to the environment occurs when human-kind exploits nature in a way exceeding the limits of their needs. There is thus a tendency towards a destructive exploitation in both processes of production and consumption, a reflection of the fact that human beings are materialistic. The material world is regarded only as a tool. If nature is only a tool to be used in the interests of human beings, what is wrong with taking natural resources and what is wrong with pollution? Nature or environment does not have any intrinsic value. Its only value is its material or economic value. Nature or environment, especially planet earth, only functions as a facility to be settled by human beings and as a tool to make people happy and prosperous. As facility and tool, nature is valued only for its material or economic function. Even ecological functions are treated purely as economic functions which are there for my own benefit, not for other people or for coming generations, let be for non-human beings.

In the time before the development of the technosphere this human attitude was an integral part of the balance of the ecosystem. But now it creates an unbalance that threatens the whole system. In previous times it was good for people to be materialistic since it was the only way to survive. Even the mind was directed to material interests and precisely because of the human intellect they were able to maintain their position in nature.

Now there is not only an unbalance between human power and nature but also in human beings themselves. When the material world is considered to be a resource for tools, the paradoxical situation occurs that materialistic people do not have much respect towards the material world. It is merely a tool to fulfill their longings for feelings of happiness. Actually materialistic people deny the intrinsic value of the material world and are merely interested in their own well being, to which everything else serves as an instrument.

The way people are inclined to live in modernity shows an unbalance of body and mind. On the one hand, everything is directed to the material world, but this has no intrinsic value. On the other hand, mental happiness is the aim, but there is almost no attention for a deeper understanding of our spiritual being. It is an unreflective and unconscious primacy of the mind that is hidden in greed to fulfill the empty hole of an unconscious spirit. This becomes manifest in the attitude and perspective of human beings, who have little respect toward the living environment and particularly those who are not able to control themselves in obtaining, owning and consuming material in abundance.

Humanity should pay more explicit attention to their spiritual being as conscious and responsible beings in relation to their own body and co-nature. Their attitude to the living environment indicates an imbalance between human skills in the technological field and human maturity in behavior. The result is a materialistic attitude which is not balanced by ethical and spiritual responsibility. In fact, we can say that while human beings developed extreme technical skills, their ethics are still on the level of the time before that development and that while the highly developed human mind was helpful in previous times to preserve the human place in the ecosystem, it now has become isolated from the material reality. So there is a lack of growth in the ethics and in the spiritual responsibility compared to the growth of technical skills. There is a huge backdrop in the development of the ethosphere compared to the growth of the technosphere. The human ethosphere no longer is fitting to the role humans play on earth. It has become isolated from reality. Paradoxically, it is a reality which is created by human beings themselves.

What is needed now is a shift by which the ethosphere will again become an integral aspect of the ecosystem. That means that the motives which direct human behavior will be in balance with the whole. That does not mean a romantic 'back to nature', but a development in which within the present reality, including human technology, people act intrinsically in a balanced way to the whole ecosystem. Actually, this implies that the gap between 'ought' and 'is' should fade out. There should be a new, natural attitude that is fitting to deal with reality after the technical revolution. That means a new eco-ethics, fitting to the house in which we live nowadays and not the one that was fitting for the house human beings lived in thousands of years ago. In that case, the ethosphere is no longer something additional to reality, in the sphere of 'ought' but an integral part of the ecosystem. Human responsibility, human thought, human decisions belong to the life of planet earth. They should be fitting into that whole and not something separated to it or imposed on it. As long as it is something separated we will still think in oppositions that belong to the time

that opposition to nature was needed. But then it was needed precisely as a part of the ecosystem, and thus on a different level.

Thus, what is now needed is the development of an ethosphere as an integral part of the ecosphere to which the technosphere and the econosphere also belong. There is a need to build a *new* relationship since the position of non-human nature is totally different now from its power before the industrial revolution. The relation of human beings towards nature has changed from being threatened by nature to a threat for nature. Therefore a completely new relationship is needed.

In the context of present day society where almost everything is governed by an instrumental and utilitarian vision, a society where people, animals, plants, minerals and in fact all creatures, have lost their autonomy and their intrinsic value, it is vital to stress the necessity for a new paradigm of ethical values – the ethosphere as ethics for all. The ethosphere means that all human beings and non-human beings in the universe are subject to moral standards and moral considerations and have moral significance. It also means that all human beings and non-human beings, individually or universally have moral standing.<sup>54</sup> The moral standing of the ecosphere is not in the level of normative ethics or obligation ethics, but more in the level of meta-ethics. That means that nature as a whole should be considered from a moral point of view and respected. The supreme good, according to Boff, is to be found in earthly and cosmic integrity.<sup>55</sup> Nature is inserted in a universally interwoven complex of relationships and the common good is also necessary to this complexity and to the unique interdependent community.

Even though non-human nature cannot claim to be considered like human beings (human beings have their own identity), it has rights and interests to be considered and to be respected by human beings according to its uniqueness. And even though non-human nature does not have obligations as do human beings, it qualifies for moral considerations according to its autonomy and its intrinsic value. Not only should the individual value of each organism and non-organism in nature be considered and respected by human beings, but also the value of nature as a system or nature as community or the ecosystem of the universe. Therefore, the exploitation and destruction of nature, only in human beings' interests, whether on the individual or on the community level, is immoral. This attitude is out of harmony with the essential reality of nature as ecosphere, namely the total system of life that is interdependent and interrelated and includes human beings and their ethical responsibilities.

<sup>54</sup> Robin Attfield, *The Ethics of Environmental Concern*, Oxford: Basil Blackwell, 1983, 140-141.

<sup>55</sup> Leonardo Boff, *Ecology: A New Paradigm*, 30.

The interdependency and interrelationship of all elements of nature should make us as human beings accept that the diversity of all elements of nature is valuable and that all species, living organism and non-living organism make a contribution to the whole ecosphere. The elimination of a species that is threatened with extinction, either through the direct result of human actions in the case of exploitation of natural species or through reluctance to forestall the effects of pollution, the loss of natural habitats or other harmful trends must be recognized as immoral because it represents a failure to recognize the value of all species according to the principle of diversity.

Basic norms governing human attitudes and behaviour, like the norm of justice and the norm of love, should also function as norms in the attitudes and behaviour of human beings toward nature. Nature and the living environment form part of the reality of human life. Moreover, the reality of the ecological crisis or environmental damage must become a context within which human beings can reflect on their attitudes and behaviour, whether their attitudes and behaviour toward nature are right or wrong, good or bad, whether the norms that are the guidelines and objectives of human life could be deemed ethically appropriate or not. An ethical life is a life governed by high moral standards with right and good relationships with our fellow human beings and the living environment wherein human beings live, with our fellow creation and our fellow living creatures. The relationship with our fellow human beings and the living environment must be distinguished, but not separated, because bad attitudes and behaviour have to do with the person or society we are.

All human beings are living in the same environment, the only earth which has become increasingly smaller thanks to sophisticated communications techniques, so that Indonesians can no longer claim Indonesia as their environment, because it is now integrated within other world boundaries. In other words, all nature has become a living reality for human beings wherever they are. There is very active worldwide boundary interaction.

Space in the context of environment has no boundaries. An ethical life is life in a right and good relationship with the environment, wherever human beings live, and at the same time a life in a right and good relationship with our fellow humans wherever they live. Human beings can not be right in a certain place and be wrong in another place. Every situation has indeed its context (and this has become the perspective of situational ethics), but in the context of the living environment, a certain situation can not be ultimately valid. We acknowledge that the struggles of each place and of each time are different. But we cannot say that, since the forest in my place is still dense, I may cut trees as it pleases me. The influence of economic politics in this global era had united the whole world in such a way that there are no boundaries

any more in interaction with the environment. No matter how small the influence of each individual on his fellow humans and nature may be, each person is fundamentally involved and must also be responsible towards his fellow human beings and the one planet earth. That is the implication of environmental globalization.

The awareness of the increasing deterioration of the global environment must also make us conscious of the position of human beings within it. We depend on our surroundings. That is even the case with our mind. Instead of constructing intellects we are shaped by what surrounds us and what precedes us. What we are and what we think is not created by ourselves but has come to us. Our reason is not constructing the world. We should realize that even human reason is not self-created by human but a gift. As Van de Beek has stated:

“Human beings come to activity through their faith. They set out to work with their gifts. But in the spirit of sensitivity they recognize their acts to be gift as well. It is a gift that I can act, just as it is a gift that I live. It is a gift that I can do goodness to other people. Good deeds of human beings are not their own merit but a gift. It is a gift to experience that somewhere the vicious circle of guilt and powerlessness is broken and we may do an act of love”.<sup>56</sup>

Because life is a gift, human beings should strive to organize their lives, to be receptive and loving towards all beings that surround them. They should strive to live according to new ethics, considering the priority of the other being. This is not only a commitment to strengthen cultural links and harmony of interests among humankind, but also a joint commitment to reduce the imbalance of interests and access to nature and the discontinuity of humankind with nature. In general, this could be materialized by creating justice among nations and economizing on natural resources. The essence of neo-eco-ethics to which all of humankind must make a commitment in facing the living environment is to take and use natural resources, while preserving and maintaining them, with the consciousness we use as a precious gift. Humankind must develop new relationships, not only among nations and groups of people in the community, in order to reduce imbalance and to be able to enjoy a better and more comfortable life together, but also with nature in the form of an attitude, which would bring humankind closer to nature and create a feeling of gratitude and satisfaction for the benefits humankind receives from nature. Then humankind could benefit more from nature and also make a better

<sup>56</sup> Abraham van de Beek, *To Be Created*, 42.

contribution, to nature. This is an ethical duty: correcting the mistakes made by human beings in relation to the totality of reality, to fellow human beings, to the environment and to God the creator. We need to realize our essential nature as limited human beings, having our own limited place in the structure of the universe.

Because we are limited we cannot grasp the whole reality. We cannot grasp it by our mind and we cannot grasp it by our activities. When we act we can not oversee the consequences. In expressing this Van de Beek speaks of a symbolic universe. He states:

“We do not dispose of the whole of reality, neither of the world, nor of God. We experience symbols that say something about them. Through those symbols a symbolic universe comes into being before us. With ‘a symbolic universe’ is meant the whole of experience and thought that shape our perception of reality and form the possibility to express ourselves. We experience and act within this symbolic universe. By new impressions the symbolic universe is enriched. To this symbolic universe belong experiences of nature, experiences with people, but also stories and writings which are spoken to us. To this belongs the songs we sing and art which has an appeal for us. To this belongs the moral call which the other makes on us and the smell through which he is attractive and repulsive to us. To this symbolic universe belong the intimate experience of God’s proximity and the perception that people can evoke religious hallucinations by means of drugs. The symbolic universe is not the whole reality. It is reality as it appears to us in symbols and is perceived. Nevertheless, it is shaped by expressions of true reality that we learn to know by them. The more receptive we are for experiences, the richer our universe and the more we discover about the reality of God and world”.<sup>57</sup>

For Van de Beek, the characteristic of the symbolic universe is its fragmentary nature. This not only means that we cannot know everything, it also means that we can not comprehend all coherence and interrelations. The symbols cannot be well-ordered.<sup>58</sup> Awareness of this fact should help humankind to change their dominative-destructive attitude for an attitude of receptivity, resulting in solidarity with and a constructive approach to the natural environment. Ethical behavior demands a living norm full of self-control over one’s wishes and pleasure obtained from the material world. Along this pathway humankind could find true freedom.

Economically, this would mean that there is a preparedness for humankind to suffer, namely a preparedness to accept and adjust to the slow but fair growth or even regression according to the rules of nature or what is called

<sup>57</sup> Abraham van de Beek, *To be Created*, 43.

<sup>58</sup> Abraham van de Beek, *To be Created*, 43.



interrelatedness in the ecosystem. We have to adjust our lives and activities according to the possibilities of the partners in the ecosystem that offer themselves as a gift to us and each other, not in order to be destructed but to be enjoyed in a shared community.

This is certainly utopia in economic theory. However, commitment to such goals could begin with individuals facing difficulties and exploring possibilities. Change would come if everybody started to discipline him- or herself by, for example, economizing and being attentive to cleanliness and neatness, dependent on the development of the whole ecosystem. Such a life attitude could result in an economy that values the living environment and follows the rhythm of natural recycling. However, if the economy continues to grow exponentially, the living environment will certainly become the victim, because of diminishing natural resources and the inability of the environment to handle pollution resulting from the acceleration of unbalanced damage which is out of proportion to the capacity for natural recycling.

The differences between the growth pattern of the present economy and logos of ecology is that the ecological system follows the law of natural recycling which we can call nature's wisdom, while the economic system relies on the paradigm of growth based on the law of exploitation that is actually greed. The application of the old economic system in capitalism and liberal socialism has caused natural resources to be either finished or wasted and damaged with pollution. Our earth is at this time still in the era of the old economic ethics whose norm is to make profit while sacrificing the basic norm of living. The new eco-ethics waits until the ethosphere is in balance, in other words, until we know ethically, not technically how to cope with the problems.

This reality is expressed very impressively by Tangshik Ryu as follows:

“In fact, the development of the modern economic system has already started destroying the earth's ecosystem. Air pollution, water contamination and the various chemicals used in agriculture are already threatening our daily life. Trees along our city streets as well as fish in our streams are dying. We can no longer safely eat rice and fish from the sea, which are our major sources of food. The toxin we have sown in the earth have seemingly already started to destroy us”.<sup>59</sup>

In the present economic system, across the earth's surface, the prevailing ethics is one of an autonomous economic ethics, which has no concern for the norms of ecology, but separates economic from ecological concerns. Actually both aspects are very much needed to organize a balanced and preserved life

<sup>59</sup> Tangshik Ryu, in : Emiritio Nacpil & Douglas Elwood, (eds), *The Human & the Holy: Asia Perspective in Christian Theology*, Maryknol: Orbis Books, 1980, 141.

on this planet earth. From this perspective, ecology and economy are close relatives, because both have the same roots and should actually not be in conflict with each other. In the future, there is no other way but to foster cooperation between ecology and economy in building the new earth ethics. This means that human beings who play the dominant roles in the economy and ecology must make balance their duty and give heed simultaneously to both the economy and to ecology.

This inclusion of ethics in the whole ecosphere implies a new paradigm. Human beings are no longer separated from nature but form an integral part of it. That is not only the case for their material and biological aspects, but for their ethical capacities as well. Only if we acknowledge this full participation of humankind, including their ethical consciousness, as basic, will we overcome the Kantian opposition of human and non-human, nature and meaning, descriptive and prescriptive, science and ethics by developing a new paradigm of human ethical consciousness. As an integral part of nature, people have the responsibility to ensure that the *whole* ecosystem will not have a bad consciousness, which is the case if the ecosystem is damaged and some parts live only at the cost of others without reciprocity. The future of life on this planet cannot be a burden that is borne by only some parts of the whole body of nature. If such an approach is adopted, the whole body will finally be destroyed.

In the future, old paradigms, namely the instrumental and materialistic values of nature paradigms should be replaced by new paradigms, namely the paradigm of community, cooperation and solidarity with nature, according to the interrelationship and interdependence of all elements in the universe. In practice these values should be translated into good and right behaviour of human beings towards nature through justice, love, solidarity and caring for all elements in the universe, not only in the interests of human beings but in the interests of all the elements of nature in realization of the interrelationship and interdependence of elements in the ecosphere. Human beings should seek the equilibrium of the universe or ecosphere as their new ethical code of conduct. In living out this code, human beings should reconstruct the broken alliance between human beings and nature so that henceforth they may be joined in brotherhood and sisterhood and solidarity to promote sustainability, peace, harmony and integrity.

In the next chapter we will discuss the spiritual basis of the ethosphere, not in the human intellect or wisdom nor in the sacred ecosphere, but in the radiant presence of the Divine as witnessed in the Bible. Due to the alienation of human beings from the universe, we need to recover our basic unity with nature in a religious tradition, and in this case, in the Christian tradition. The

Christian tradition emphasizes that God the Creator brought the universe into being and that God the Creator is the centre of the whole creation. The wonderful thing about the universe created by God the Creator is that it constitutes an absolute unity. This is what we call the Theosphere: everything is united by God. God as the centre of the universe is not a concept but a reality. That is why we must understand this universe as a sacred universe, as it emerged from the Sacred Creator and was sanctified by His grace and love. From this perspective we will discover the very basis of the ethosphere, namely God himself.

## Chapter 5

### Theological Perspective on Ecosphere: Theosphere

#### I. Introduction

As we have stressed in chapter IV that the universe is one system of life, now we will clarify the basis of the interrelation and interdependence of all the elements in the universe from the perspective of religious tradition. Since this study is a study on the ecosphere from the viewpoint of the Christian faith, the religious tradition which will be the focus is the Christian tradition, particularly the Biblical witness. The basic Christian understanding of the universe views the world as a whole, the created universe as a single community with a single goal or purpose, namely to glorify God its Creator, its source and its destination.

Starting from this basic premise, in this chapter we will especially discuss the Christian confession about God the Creator and his creation with regard to the role of Christian theology in the current ecological crisis.

The term used in Christian theology about nature is *creation*. The use of this term springs from the conviction that the living environment or nature is created by God and that it is not something that exists by itself. Creation is a term of faith, which indicates an attitude towards reality as being made alive by God. This understanding also implies an attitude of respect towards creation. The meaning of creation can be interpreted in various ways such as: from an act of God which took place once and for ever in the beginning of the history of creation of the universe, to an eschatological perspective, which is directed to the future to fulfil the aim God put in the universe. The term 'creation' covers everything and points towards the relationship of everything with God. The term creation also indicates that the world is a world that is loved and redeemed by God (John 1:1-3; 1:11; 3:16). Creation is the world, which is called in the Bible 'heaven and earth', in which life exists - human beings and all other creatures - life that is continuously preserved and directed to its perfection in the new heaven and earth (Revelation 21). Thus in this term is contained the meaning of nature in all aspects: space and time, the biological and metaphysical aspects, and the aspect of the past and of the present as well as the aspect of the future of nature.

This chapter does not discuss all the Biblical witness about creation for that would require a monograph for itself. This book will, in accord with its determined goal, limit its focus to the implications for the ecological debate, namely the responses human beings should make to God as Creator and Owner of this nature and toward nature which has been created by God and is owned by God. For example, if God is acknowledged as Creator and Owner of nature, human beings must not treat nature as their own property. Or if God is acknowledged to be continuously involved in the preservation of nature, human beings must not damage what God is preserving. In this sense, this writing endeavours to find a theological Biblical basis for the call to human beings to join in efforts to preserve the living environment or nature, from the threat of damage and destruction.

In discussing these topics certain other philosophies about nature will also be touched on to offer comparisons, especially the philosophies that have become the basis of the bad behavior of human beings towards nature. Such philosophical views will be mentioned purposely as a heuristic and apologetic effort towards views, which have tended to make Biblical theology the scapegoat for the destructive behavior of human beings towards nature or the living environment. This section will focus on the basic outlines of a theology of ecology as a theology of creation, covenant, redemption and eschatology. The following chapter will focus on theology about human beings and their role in the ecological crisis.

## **II. Theology of Creation**

The classic Christian confessions of faith, namely the Apostolic Confession of Faith and the confession of faith of Nicea-Constantinople, confess God as Creator of heaven and earth or the universe. The text of the Apostolic Confession of Faith reads: 'I believe in God, Almighty Father, Creator of Heaven and Earth'. According to John Calvin, by this we confess that we have all our trust fixed in God the Father, whom we acknowledge to be Creator of ourselves and of all things that have been created, which have been established by the Word, his eternal Wisdom (Who is the Son) and by his Power (who is the Holy Spirit) [Ps 33:6; 104:24; Acts 17:24; Heb.1:2-10]. And, as He once established, so now He sustains, nourishes, activates, preserves, by His goodness and power, apart from which all things would immediately collapse and fall into nothingness.<sup>1</sup> Here Calvin denotes two things. First, that the creation is the

<sup>1</sup> John Calvin, *Institutes of the Christian Religion*, 1536 edition, London: Collins Sans & Co., 1996, 49.

work of the Triune God. Second, that God is not only Creator but also Sustainer and Preserver of all of His creation.

The text of the Nicea-Constantinople Confession of Faith reads: 'We believe in one God, Almighty Father, Creator of Heaven and Earth, all that can be seen and cannot be seen'. The use of the term 'everything that can be seen and cannot be seen' in the Creed indicates that God creates everything without exception. God creates everything that is known and not (yet) known by human beings. This confession of faith is based on the witness of the Bible, the Old Testament and the New Testament, which says that God is the Creator and has therefore become the source of everything. All elements and inhabitants of this universe, and every creature from protozoa to human beings, are finite creatures - creations of God and finally dependent on God's providential preservation and parental care.<sup>2</sup> In other words, the ecosphere is God's creation and in God's preservation.

The scripture starts with a witness that tells about the creation of heaven and of earth and all its contents, including human beings (Genesis 1-2); and ends with a witness, which states that God will renew His creation in a new heaven and new earth (Revelation 21-22). Based on this witness, the Christian faith acknowledges that God is the only ruler Who is the source of everything and the One who fulfills everything that happens.

Because a confession is different from a proof, the confession about the creation of heaven and earth or the creation of the universe is not meant to describe the process of the creation of the universe, but to be a confession about the existence and acting of God. The story about the creation of heaven and earth is part of the confession about the living and ruling God. That is the reason why the story about creation in the Bible is a witness, song of adoration, message and sermon about God. The story about creation has the character of a '*credo*' or article of faith in God who has expressed Himself. Karl Barth says that the story of creation is a formulation of faith.<sup>3</sup> Because creation is told as a witness to God and His work, the most important aspect of this witness is God and His call to human beings to join in His work on this earth.

By understanding the story of creation as a confession of faith, it is not relevant to compare, or even to contrast the cosmological arguments and theories from scientific research about the appearance of this universe against the truth of the witness of the Bible about the universe as created by God. The view of the Bible as disclosed in the story of creation and its references to space and time, seems to be in contrast with the results of scientific research. This contrast

<sup>2</sup> James Nash, *Loving Nature*, 95.

<sup>3</sup> Barth, Karl, *Church Dogmatic I/1, Creation*, Edinburgh: T&T Clark, 1970, 300.

is perceived if the text of the witness to creation in the Bible is read as one reads a report on scientific research. For instance, the Bible tells that the space of the world is like a 'cup' that is turned upside down on the diameter of planet earth. Modern astronomers measure space in units of light years, namely a journey of time at a velocity of 186,000 miles per second. In relation to time, the writers of the Bible calculate the age of the earth up to today as being around 6,000 years. Modern science estimates that the age of the earth is billions of years and the age of humankind is around 200,000 – 500,000 years.<sup>4</sup> We acknowledge the results of scientific research and do not have to deem them as something in contrast with the witness of the Bible, because what is emphasized in the Bible is He Who is the source of everything and Who created heaven and earth. The exact process of creation and all the other details do not matter at all. The story of creation in the Bible is a theological argument which indicates that everything in the universe originates from God and did not come into existence by itself, as is propounded by the theory of evolutionism or other meta-scientific arguments.

Christian faith in Biblical theology acknowledges the existence of a beginning of time and the involvement of God in the creation of the universe, which includes space, all materials and time. That is why the Christian view of nature is theocentric and not geocentric or cosmocentric. God is absolute reality, and the only source of the universe. That is the confession of faith about the creation of heaven and earth. It is not the fact of creation, which has become the subject, but God as the Creator. Based on this theological argument, the attitude and behaviour of humankind towards nature must be in harmony with their attitude and behavior towards God, the Creator. There is nowadays a tendency to narrow environmental ethics to the context of geology, biology or ecology. Anthropocentrism which is deemed to be a derivative of Christian faith is not expanded to a perception in relation to God, but is instead reduced to a perception of physical-biology, while the problem of the environment is related to the triangular relationship between the Creator, human beings and nature.

Human beings should view nature not only as a physical-biological fact, but as an existence, which is the reflection of the Creator, who is God. This does not mean that nature is only a shadow of God, but rather that human beings must appreciate nature as the work of God and must therefore treat nature as a being owned by God, and thus to be appreciated and respected.

<sup>4</sup> Davis A. Young, *Christianity and the Age of the Earth*, Grand Rapids: Zondervan Publishing House, 1982, 61-70.

Here is an aspect of the idea of ‘stewardship’<sup>5</sup> that can be taken in account. In the concept of stewardship there is an element of ‘responsibility’, namely a responsibility towards the owner of the universe, Who is God the Creator. Ecocentrism and biocentrism often elevate nature so much that it seems as though nature came into existence by itself without being created. Anthropocentrism is too one-sided, leaning too much towards the interests of human beings and needing to be balanced by a sense of responsibility to other parts of creation. However, the responsibility to human beings and nature is a part of responsibility to God, amidst all other creatures *to whom they themselves belong*, more like the responsibility of a house-elder in a students house - a wise and responsible student among other students - and not the power of an imposed supervisor and controller. This topic will be further clarified in the next chapter.

The work that human beings do in the world is within the framework of God’s creative and sustaining activities. Human beings, as God’s partners, execute His mandate. Human are not working alone. There is a supervisor, who is also working, namely God himself and human beings are responsible to the giver of work (Matthew 25:14-30; Luke 19:11-27). Therefore, from the perspective of the Bible, environmental ethics should not have the characteristics of ecocentrism or biocentrism, but must have the characteristics of theocentrism since everything originates from God. God has made or created them, God has given and to Him should human beings be responsible. He also works in everything for the ultimate good of humankind. Therefore, in the context of preserving the environment, God is the centre and not human beings or nature either. God has created and is continuously working. God is the actor. Human beings and nature are participants in the great work of God. This theocentric theology I call inclusive theocentrism, since it emphasizes the openness of God to human beings and all His creation.

### **III. A Dualistic View**

By acknowledging that nature is created by God, nature is placed in a specific position and relation with its Creator. Firstly, this acknowledgement indicates that nature is not divine. God is absolutely different from His created nature.

<sup>5</sup> Gennadios Limouris, *Justice, Peace, and the Integrity of Creation: Insights from Orthodoxy*, Geneva, 1990, 4 “Limouris understood that mankind stands on the boundary (*methorion*) between the material and spiritual world as a connecting link. This means that humankind is called to exercise dominion over all creatures on earth (cf. Gen. 1:28), i.e. to be stewards (*oikonomi*) of God’s material world, caring for it, maintaining it in its integrity and perfecting it by opening it up to God through our own deification”.



God is not to be confused with His creation. Thus there is no reason to worship nature or think that nature is sacred like God. The confession of the creation of heaven and earth rejects pantheistic views which deem God and nature as being the same. Pantheism teaches that nature is divine. Pantheism believes that 'God is in everything and everything is God',<sup>6</sup> where nature is regarded as a manifestation of what is sacred or divine, and nature is therefore worshipped. One of the sharpest critiques of Christian theology is that Christian theology does not regard nature as something sacred.

Though we can acknowledge that nature has sacred values, according to Christian faith it should not occupy the position of God or the position of human beings. Nature must be preserved, because it is created and redeemed by God. Nature itself is not divine and not sacred, but sanctified by God as its Creator and thus sacred for us.

The emphasis on the care of nature among theologians, has recently led to a concept of the spirituality of nature. One of the adherents to this belief is Matthew Fox, director of the Institute of the Spirituality of Culture and Creation in California. According to Fox, human beings need a new religious paradigm: a spiritual-centric concept of creation. Fox expresses his belief that the concept of the Bible about nature is mystical and that nature is considered to possess divinity. Fox has even compared Christ, whom he calls the Cosmic Christ, with Mother Earth. For instance, Fox is of the opinion that the phenomenon of incarnation is a process of the divinity of nature and the crucifixion of Christ is to be understood as the damaging of planet earth.<sup>7</sup>

However, classic Christian faith in creation and making nature intrinsically sacral are absolutely incompatible. Creation means that nature is not in possession of power or strength of its own. Nature is not absolute. Nature has no centre of its own and is not everlasting. There is not an absolute spirit in the creation of nature. The world is not divine. It is precisely distinguished from the Creator as his making, and it is not his extension. Because the world has been created, nature should not be deified or worshipped. Indeed, nature is to radiate the glory of God (Psalm 1:2), but nature is not the same as God and does not contain divinity. Indeed, God had declared Himself through His work of creation, displaying His eternal authority and divinity, but that does not mean that nature possesses divinity or similarity to God. Nature is created and

<sup>6</sup> Norman L. Geisler, *Christian Ethics: Options and Issues*, Leicester: Baker Book/Apollos, 1990.

<sup>7</sup> Matthew Fox, *The Coming of the Cosmic Christ*, San Francisco: Harper & Row, 1988, 108-110.

absolutely different from God who creates it. Nature contains good values, but that does not mean that it has divine substance, but rather that because God created it, it is good and also has a good purpose.

The Christian faith has rejected the worship of nature, because to worship nature is the same as the worship of idols, which is uselessness and stupidity (Isaiah 40:12-28; 44:9-20; 46:1-11; Acts 14:15). Only God who is the Creator should be worshipped and all the creation of God is called to worship Him. Nature and all that is in it, both organic as well as inorganic matter, are part of the creation of God, which may not be considered divine or worshipped. On the contrary, all creation of God has the objective and function of radiating the grandeur and glory of God (Psalm 29:2-7; 104:1-30; 135:6-7; 148:1-14). In material nature, namely nature that is created by God, is the secret of all organisms, namely the mystery of nature that illustrates liberty, love and grandeur as well as the glory of the Creator. Nature must be respected, not because it is holy or divine, but because God created it. Just because nature was created by God through His love, nature must be appreciated and preserved by human beings. God created because that was His will. There was nobody who pushed or asked that God created the universe. The only reason that could be put forward is the will of God. The will of God is the expression of the love and the almightiness of God that is expressed and real in the creation of the universe. The confession of creation expresses that the love and the almightiness of God are identical. He created because of His love and His love was realized in the creation of the universe. God created the universe because He wanted to communicate His own self. He wanted to have something that could face Him. Precisely therefore it is clear that God and his creation are not the same.

Secondly, although nature is not divine and does not possess any similarity with its Creator, nature is not something that is bad or evil. According to the witness of the Bible, nature is not an object that can be treated by humankind however they wish. On the contrary, nature is often referred to as something that has a soul, something that is alive. Moses invokes 'heaven and earth' (Deuteronomy 4:26; 30:19; 31:28; 32:1). Heaven and earth are called upon to be witnesses of the life and the acts of humankind (compare Job 20:27, Micah 6:1-2). In fact, in upholding justice on earth God has involved elements in nature, as though nature is God's partner in upholding justice (Isaiah 45:8; Hosea 2:20 etc). In the case of worship, nature is also important. Mountains that soar up to the skies are the most liked places for worship (Deuteronomy 12:2; Isaiah 1:2; 65:7; Jeremiah 2:12; Psalm 15:1; 24:1-3; 48:1-12; 50:4). Ancient Israel believed that cosmic elements, like mountains, heaven and earth, could be called to witness when a covenant was made or when an

oath was taken. If the partner in the covenant deviated or did not fulfill a promise, then the cosmic elements became witness (compare Matthew 5:34 etc.; 23:22; James 2:15 and from the Apocrypha: Judith 7:28; 1 Maccabees 2:37). In the latter quoted verses, humankind is indeed prohibited from taking an oath by heaven or earth, but not because those cosmic elements do not have any meaning, but because humankind must speak the truth without the necessity of taking an oath. It is evident that the elements of nature also find a place in the work of the Lord Jesus Christ. For instance, He commanded the wind to be still (Mark 4:39; Matthew 8:23; Luke 8:24).

Although there is a witness in the Bible to the positive value of nature, the church, from its inception, was faced with a view that deemed nature as something material in contrast to the real spiritual being. The core aspect of the doctrine of creation that God and creation may not be confused was combined with the idea that the spiritual world is higher than the material world, and finally good versus evil, as is the belief of Gnosticism, Marcionitism and Neo-Platonism.

Gnosticism had conflicting statements about the cosmos. On the one hand, the separation between God and world was absolute. The world was a creation of demonic powers from the chaos of the darkness; it had lost all elements of divinity. It was purely material and fleshly, a full expression of evil. It was therefore a prison from which the preexistent human soul longed for liberation. The heavenly figure of light, the Son of God, helped man's soul to escape from the bonds of the physical world. On the other hand, the world was also considered a mythological figure and designated Son of God.<sup>8</sup> Gnosticism distinguishes between the God of the Old Testament (Creator, namely *Demiurge*) and the God of the New Testament (Redeemer). Because the *Demiurge* creates nature, this nature has a materialistic character and is lower than spirit. Thus there are two parallel worlds: the original divine world of spirit-stuff, which is called the Fullness (ὄντοσύνη), and the inferior, material world, which is sometimes called 'the Void' (ἐκείνη).<sup>9</sup>

Marcion adopted a strict dualism. The visible world as the creation of the God of Israel, and a creation out of matter at that, was an evil work destined for destruction. In fact, according to the view of Marcion, the world is evil, because a lesser God created it.

Although the philosophy of dualism that is rooted in the philosophy of Plato, was rejected by the church because of its contradiction with the witness

<sup>8</sup> Verly Verbrugge, *The NIV Theological Dictionary*, 706.

<sup>9</sup> Williston Walter et al, *A History of The Christian Church*, 4<sup>th</sup> edition, Edinburgh: T&T Clark, 1986, 64.

of the Bible, it has nevertheless continued to influence Christian thought. The spirit-material dualism remained, in the Manichaeism, Albigensian and Cathari beliefs and even up till our modern times. There have always been many who cannot reconcile the God of love about whom they learn from the gospel and the God of blind force they perceive in creation.<sup>10</sup> They still believe that the world has two powers, namely a good power and an evil power. The tangible world is a creation of evil powers which are responsible for the material world.

Traces of dualism are also found in theologians who belong to mainstream Christianity. One of the early and influential church theologians was Origen (185-254). His thoughts were very much influenced by Neo-Platonism<sup>11</sup> so that he also tended to follow the view of dualism. According to Origen, God created the world because of a spiritual rebellion in heaven. The creation of the world was related to the fall into sin. The fallen spirits were put into the material world that had been created for them. Thus, the material world was created to become a place of purification where fallen humankind could be educated through suffering to again become a pure spirit as he had originally been. It is thus clear that Origen held a viewpoint, which belittled the material world, especially the body. The world was deemed to be the environment of the devil. It is therefore clear that Origen did not value the material world very highly.<sup>12</sup>

According to Kinsley, the influence of the view of dualism in the church also seems present in the view of the Reformers, although weaker and refined, for instance in the form of the concept of dualism of salvation that recognizes salvation as Christ's work of redemption that is only marked out for human beings, while nature and other material objects do not take part in the salvation and redemption of Christ. According to Luther, nature is not something with which humankind is closely allied. Nature is not a witness to the glory of God. The centre of Calvin's attention is the relationship of humankind with God. Nature is only a supplementary item which is the background to the salvation drama of human beings.<sup>13</sup> For Kinsley, the view of these reformers is very anthropocentric because, although they do not view material as bad or evil matter, they still tend to belittle the world or material nature. According to Kinsley this anthropocentric view caused human beings to only think of their own species in relation to God. Human beings tended to view something as being meaningful only in the context of social relationships.

<sup>10</sup> Hendrikus Berkhof, *Christian faith*, 156.

<sup>11</sup> Verly Verbrugge, *The NIV Theological Dictionary*, 706.

<sup>12</sup> Cf. David Kinsley, *Ecology and Religion*, 107-108.

<sup>13</sup> Cf. David Kinsley, *Ecology and Religion*, 110.

Indeed, according to Kinsley, the dominant view of the church that originates from the Bible has always held firmly the conviction that God the Creator is the God of Redemption, but redemption is only related to human beings. This is an anthropocentric theology of salvation. We would say that this thesis of Kinsley misses the main focus of the

reformers' point of view. The Reformers did not focus on the topic of who are redeemed but on who the Redeemer is. According to Santmire, for Calvin, the natural creation is the theatre for God's glory, and shows us the awesome beauty of the Creator.<sup>14</sup> Thus there is no indication that Calvin talks about redemption as only involving the salvation of human beings. The tension in Calvin is more about this life in relation to eternal life, in both of which the whole creation participates.

The liberal theology of the 19<sup>th</sup> century also very much emphasized the discontinuity of human beings and nature. In fact, Albrecht Ritschl, who was one of the foremost liberal theologians, was of the opinion that humankind is called upon to control nature and that the function of religion is to aid human beings in the execution of their task. Ritschl writes:

*"In every religion, what is sought with the help of the superhuman spiritual power reference by man is solution of the contradiction in which man finds himself, as both a part of the world and a spiritual personality claiming to dominate nature. At this juncture religion springs up as faith in a superhuman spiritual power by whose help the power which man possesses of himself is in some way supplemented, and elevated into unity of its own kind which is a match for the pressure of the natural world".<sup>15</sup>*

The view put forward by Ritschl is called by Frederick Elders an 'exclusionist' view, namely a view that expresses the understanding that humankind is outside and is face-to-face to nature.<sup>16</sup>

In the 20<sup>th</sup> century there were efforts of the neo-orthodox theologians like Barth, Brunner, Von Rad and others to expand the meaning of salvation in Jesus Christ. They emphasized the relation of redemption theology to the theology of creation, but this relation was still very vague compared to the present theological awareness. Barth for instance, never saw nature or the living environment within the framework of the covenant and reconciliation of God, which is achieved through Jesus Christ. In fact, his explanation about

<sup>14</sup> H.P. Santmire, *The Travail of Nature*, Philadelphia: Fortress 1985, 128.

<sup>15</sup> Albrecht Ritschl, *The Christian Doctrine of Justification & Reconciliation*, Edinburgh: T & T Clark, 1902, 109.

<sup>16</sup> Frederick Elders, *Crises in Eden*, New York: Abingdon Press, 1997, 13.

creation only mentioned creatures, and if one observes attentively what he says, he is only referring to humankind.<sup>17</sup> Barth and these other theologians developed thought in which they started to emphasize the relation of creation and redemption. For Barth, the doctrine of creation emerges from self-witness of the scripture understood Christologically. Jesus Christ in an ontological sense is the Word through Whom God made, upholds and rules creation.<sup>18</sup> However, the influence of the view of dualism is still strong, because it is also supported by modern philosophy. The influence of dualism, which basically belittles the material world, re-emerged in twentieth century Existentialism, a philosophy which evidently also very much influenced those theologians, so that the view of dualism, which is indeed rooted in the philosophy of dualism of Plato, has still flourished in the church.

Indeed, the influence of the philosophy of dualism is particularly obvious in the modern materialism-humanism, which has developed in line with rationalism and in the field of economy, with capitalism.<sup>19</sup> The development of science and technology is very strongly influenced and set in motion by dualism and rationalism, which are rooted in the philosophy of Plato, New-Platonism, Descartes and Immanuel Kant. Humanism, which has made rationalism the mainstay of its expansion in the modern world, can be deemed a source of large-scale exploitation of material nature for the welfare of human beings. The philosophy of rationalism is the root of secularism, which has caused the absolute desacralization of nature, a process which began with the appearance of a new view about cosmology introduced by scientists like Copernicus, Galileo, Kepler and later Newton. New scientific discoveries led to the world's being looked at according to mechanistic, deterministic and materialistic philosophies.

We can conceive the dualistic view in Christian theology as a wrong conclusion from a right proposition. It is right to keep a clear distinction between God and creation. They may not be confused. But that does not mean they have nothing in common or should even be opposed. Further the line of dualism is not drawn between God and the world, but between the spiritual and the material world. The human spirit is on God's side. Thus the basic biblical doctrine of human beings as *created* beings as one of all God's creatures is lost. Therefore, dualism is in two basic ideas opposed to Christian doctrine.

<sup>17</sup> Read Barth, *Church Dogmatics*, 1/1; *Creation*, 300 – 339; 3/1 *Covenant*, 230-245; 3/3, *Redemption*, 239-256; 4/1, *Reconciliation*, 3-19.

<sup>18</sup> Barth, *Church Dogmatics*, 3/1, Edinburgh: T&T Clark, 1958, 25-30.

<sup>19</sup> Norman Geisler, *Christian Ethics*, 26.

#### **IV. God is Acting in the World**

It must be acknowledged that the Bible, as mentioned above, emphasizes the care of God for creation. That is why the relationship of God with His creation, both human beings as well as the other parts of creation, is a *relationship of integrity*. A relationship means we do not consider God and nature to be the same. Integrity means it is not a relationship that creates dualism in creation, whether between human beings and nature or between body and soul. All creation is in a balanced relationship with God as source. That is why the evaluation of nature is a positive evaluation. Nature is a good creation of God, is sanctified through redemption by Christ, and is in the control and preservation of God by his Spirit. Since all creation is centred in God, this view is called theocentric. The consequence of this view is that human beings must evaluate themselves as well as nature positively within the context of the righteousness of God. Orthodox theologians throughout history, have defended this theocentric view, although there has always been, as has been mentioned above, a tendency to be anthropocentric and dualistic. Theologians who have emphasized a positive evaluation of nature include Irenaeus, Augustine, Francis of Assisi, Albert Schweitzer and many contemporary theologians like Cobb, Moltmann and Granberg-Michaelson.

Irenaeus (130-200), a theologian who was almost contemporary with Origen, had a positive view towards the material world and the body. He understood the world as having been specially created as a house for human beings, protected and redeemed by God, together with humankind. In his teachings about sin, Irenaeus expressed the opinion that the sin of Adam did not damage nature. Nature is still good and whole, while the human body is regarded as a sign of the grand work of God, which indicates the prudence of God alone.<sup>20</sup>

Augustine (354-430), although initially very much influenced by dualistic neo-Platonism, in his later life also emphasized the beauty and goodness of the body and the material world. He also emphasized that the objective of creation in its entire lustre is to glorify God. Creation has the objective of revealing the miraculous power, goodness and glory of God through its beauty. Augustine underlines also the intrinsic significance of creation. Every part of creation has a meaning in itself apart from its meaning to human beings, because in its beauty nature radiates the glory of God.<sup>21</sup>

<sup>20</sup> As quoted in Paul Santmire, *The Travail of Nature: The Ambiguous Ecological Promise of Christian Theology*, Philadelphia: Fortress Press, 1985, 38-40.

<sup>21</sup> Paul Santmire, *The Travail of Nature*, 61-63.



Francis of Asisi (1182-1220) was a devotee of nature, particularly animals and plants. His love of living creatures was reportedly so great that he was able to communicate with animals and preach to birds and flowers. He greeted and invited living creatures to glorify God and serve Him voluntarily. He referred to all creation as his family and comprehended the secrets of nature with the sensitiveness of his heart.<sup>22</sup>

Albert Schweitzer (1875-1965), an evangelist, doctor and a famous artist, appreciated nature highly. He was a theologian who because of his deep comprehension of the significance and meaning of life, spent almost all his life in Africa and established a clinic for the poor. His appreciation of life was so high that even a worm suffering from the heat would be picked up and moved to a shaded place, an insect trapped in mud would be freed to dry soil. His views about ethics are frequently quoted and we see that to him, true ethics are ethics which love all creation and that is also the ethics of Jesus Christ.<sup>23</sup> For Albert Schweitzer, “ethics is the infinitely extended responsibility towards life”.<sup>24</sup> Although Schweitzer lived in the 20<sup>th</sup> century, his views were different from the views of theologians of his time and he chose to walk his own path.

Those are several examples of theologians who cared greatly about nature and could be considered as theologians following the classical theocentric view. They are considered theocentric because they appreciate nature in its relation with God.

Explicit integrity theology only appeared after the ecological crisis increased in intensity. This is remarkable because Scripture follows the view of integrity, since the entire Bible emphasizes the unity and integrity of God, and of human beings and all other parts of creation as His work. But the theology that developed for centuries tended to be a theology of dualism rather than a theology of integrity. Although in the 20<sup>th</sup> century Christian theology had already started to emphasize the importance of the relationship of the theology of creation with the theology of redemption, this does not mean that Christian theology had truly left the view of dualism. According to Cobb, until the ecological crisis had increased in intensity, Protestant theology in the West strongly followed the view that separates human beings from the rest of creation and has a very negative attitude towards nature.<sup>25</sup> However, although Christian theology follows the dualistic concept it does not mean that Christian

<sup>22</sup> Roger Sorrel, *St. Francis of Asisi and Nature*, Oxford: Oxford University Press, 1988, 68.

<sup>23</sup> Cobb, *It is too late*, 48.

<sup>24</sup> Albert Schweitzer, *Civilization and Ethics*, London: Adam & Black, 1949, 241.

<sup>25</sup> Cobb, *It is too late*, 83.



theology automatically encourages damage done towards nature. It is more the influence of Western and especially modern Western theology than authentic Christian heritage, as we argued above.

The biblical view, which does not see nature as divine, does not automatically encourage dreadful treatment of nature. Christian theology would still fully comprehend the message of the Bible which confirms that God considers all His creation is good, even very good (Gen. 1:10, 12, 17, 21, 25, 31). In the Hebrew language, the word used for 'good' is *tov* and for 'very good' the words used are *tov me'od*, which mean according to its purpose, namely the existence of a good relationship between the Creator and His creation. This kind of view is very strongly emphasized in Christian doctrine throughout history. The conviction is maintained that although nature is not divine, it is a good work of God, because it is created on a certain basis and for a certain objective. The confirmation of the Bible that the creation of God is good automatically opposes the dualistic view, particularly the view that deems the material world as being inherently evil. Nature which is created by God does not have a deterministic materialistic meaning as understood in humanistic materialism, nor is it inherently evil either as is the belief of the Platonistic and Gnostic dualism, or equal to God as followed by pantheism.

The theology of the Bible does not disparage nature, although nature has received little or no attention in Christian doctrine. The Christian doctrine of creation for instance, has always emphasized that God, because of His love, has a relation with all the creation He has made. What has been emphasized by Christian theology is not solely anthropocentrism, but just theocentrism, which is an inclusive theocentrism, because God is the centre. God is open towards all His creation and all His creation participates in the great work of God. Theology must indeed be theocentric in its understanding of anthropology as well as ecology.

The classical doctrine about '*Creatio ex nihilo*' is a formulation, which is also opposed to efforts to profane nature or see nature as a source of evil as understood by the metaphysical dualistic concept. The main idea in the teaching of '*creatio ex nihilo*' is that God created nature out of nothing. This concept is opposed to the teaching of Gnosticism, which deems that there was in the beginning a 'nothingness', with which God created the world. It is not the same as the theory of Platonism about *mè on* either, namely a lack of form or a chaos with which God created the world. The concept of '*creatio ex nihilo*' confirms God as the only One who is independent of time and all beings and whose will is the source of everything. '*Ex*' in the concept of '*creatio ex nihilo*' does not give the impression of the existence of something else, but emphasizes

the fact that God Himself brought the world into being. There is never any ‘something’ next to God, but only God alone.

The concept of ‘*creatio ex nihilo*’ is actually not found in the text of the Old Testament. The first association to it is found in the Apocryphal Book II Maccabees 7:28:

“Child, I beseech thee, lift your eyes to heaven and earth, look at all that is therein, and know that God did not make them out of things that existed. So is the race of men created”.<sup>26</sup>

This idea is clearer in the New Testament, namely in Romans 4:17; 2 Corinthians 4:6 and Hebrews 11:3. Although this terminology is barely referred to in the Bible, it is a phrase which has become an exclusive theological term, a ‘terminus technicus’ to illustrate the work of God, an expression of the conviction that the cosmos was created through His command. This term is not used scientifically or secularly. The starting point of this idea is actually the Hebrew term specifically used for God’s activities in the creation of heaven and earth, namely the word *bárá*. Theological experts have debated this term for a long time, because its use in the story of creation is not completely clear. The term *bárá* contains a creative meaning (work on something new) and is in theological dictionaries often interpreted as ‘*creatio ex nihilo*’.

The exact term ‘*creatio ex nihilo*’ was used for the first time by a Christian thinker in the second century, Clement of Alexandria and elaborated by his contemporary, Tertullian. Since then it has been generally accepted by the church and understood in the context of God’s calling or creating everything from a prior non existence through His command, because in the beginning there was only God and His will to create.<sup>27</sup> This understanding confirms that creation is different from its Creator as is implicit in the terms Creator and created. At the same time it confirms that there is a relationship between God and His creation. In the relation between God and creation lies the ‘sacred’ value of nature. Thus the idea of the sacredness or holiness of nature does not lie in the material meaning, but in its relation with God as its source, because He had made it.<sup>28</sup> In other words, the holiness or sacredness of nature is real because of its relation to the Creator as the source of nature and also because He has declared that what He has created is good.

<sup>26</sup> *The Apocrypha and pseudepigraphia of the Old Testament in English, Vol. 1, Apocrypha*, Oxford: At the Clarendon, 1963, 141.

<sup>27</sup> Paul K. Jewet, *God, Creation & Revelation: A Neo-Evangelical Theology*, Grand Rapids: Eerdmans, 1991, 456-457; Ted Peters, *God the World’s Future*, Minneapolis: Fortress Press, 1992, 130.

<sup>28</sup> Thomas Derr, *Ecology & Human Liberation*, Geneva: WCC Publication, 1973, 11.

## V. Human beings as part of creation

The story of creation states that human beings are given the authority to utilize natural resources to meet their need for food (Gen. 1:29), but God has also met the needs of the animals of His creation (Gen. 1:30). Nature, soil and all resources in it, have been made by God and entrusted to humanity to be managed and utilized to meet all his needs, as stated in Genesis 2:8-17. However, that is not the sole objective of God in His creation of nature. Nature and all elements in it are created with other objectives, including that of being tools in the hands of God to continue His work of creation. This means that nature has a position and value in itself, an intrinsic value before God. Nature is created not only in the interests of man, because nature has in itself value, meaning and its own objective in the plan of God. Nature and the whole universe were declared good by the Creator before human beings were created. All the creatures created by God were blessed to increase in number (Gen. 1:22; 8:17). Psalm 104 confirms that each component of creation is praised and celebrated, and God is pleased about the perfection of nature he created. He makes grass grow for the cattle and plants for man to use, so that he can grow his crops (verse 14). The wild goats live in the high mountains, and the rock-badgers hide in the cliffs (verse 18). There is the ocean, large and wide, where countless creatures live, large and small alike. The ships sail on it, and in it plays Leviathan, the sea monster that you made (verses 25-26). The human being is just one of these creatures among the others with their own limited place, task and time. Only one verse (23) is about the human amidst all creatures of God. These all please God their Creator. May the glory of the Lord last forever! May the Lord be happy with what he has made! (verse 31). The creation and its creatures are declared to be good before the emergence of *Homo sapiens*. Thus in Psalm 104 the components of creation are celebrated and God is praised for His comprehensive benevolence apart from any human values.<sup>29</sup> Thus the creation and its creatures, human beings included, have their value imparted by God independent of human interests.

Nature is in essence good apart from the goodness of human beings (Gen. 1:4, 10, 12, 18, 21, 25; cf. Job 38-41). That is why, it could be said that the evaluation of God towards His creation is not anthropocentric. God does not only care about human beings, but He also pays attention to all creation and its components. The acknowledgement that God has created nature or the world means that God has created nature with a certain objective or intention. The world did not originate from a blind process of occurrences, which

<sup>29</sup> Nash, *Loving Nature*, 99.

happened by chance. God created the world not even in the interests of God Himself only, although the creation of nature started from and is directed towards the realization of the will of God<sup>30</sup>. Brunner said that the will of God is as a '*ratio sufficiens*' of creation. Creation is a work of the almightiness and holiness of God. Creation is therefore firstly a pronouncement of the absolute freedom of God. However, God creates the world because He wishes to communicate about Himself, and He gives His own self to others, namely to His creation. That is the expression of God's love. God's love has become the '*causa finalis*' of creation, but nature also has its own objectives, namely to exist and develop<sup>31</sup>.

If God is said to be the beginning and the end or Alpha and Omega (Rev. 1:8), nature as the creation of God is part of the history of God's activities. That is why nature develops in line with the care of the Creator. In this development process of nature the participating role of each creature is clear, as it develops according to the plan of God. Nature is full of mysteries and miracles and various kinds of lives, which are continuously developing and mutually supporting. The ecosystem is an order of creation and at the same time an intricate system of the universe maintained by God. What are called laws of nature (*lex naturalis*) are the rules of God about creation. This is the way followed by God to arrange His creation.<sup>32</sup> John Calvin understands the *lex naturalis* as conscience and Christian freedom. Calvin denotes:

*"To keep men from being ignorant the Lord engraved and stamped the law upon the hearts of all (Romans 2:1-6). But this is nothing but conscience, for us the witness within of what we owe God; it sets before us good and evil, thus accusing and condemning us, conscience as we are within ourselves that we have not discharged our duty as was fitting."*<sup>33</sup>

Henceforth, this *lex naturalis* is described by Calvin in the context of Christian freedom. According to Calvin, Christian freedom means three things: the conscience of believers, the conscience of observe the law and freedom in things indifferent. These moral laws enable us as human beings to undertake our responsibility not only to God and to our human beings but also to the living environment.<sup>34</sup> But this natural law not only dwells in human beings but

<sup>30</sup> Emil Brunner, *The Christian Doctrine of Creation and Redemption*, Philadelphia: Westminster, 1952, 13.

<sup>31</sup> Hendrikus Berkhof, *Christian Faith*, Grand Rapids: Eerdmans, 1979, 164.

<sup>32</sup> Brunner, *The Christian Doctrine*, 25.

<sup>33</sup> John Calvin, *Institutes of the Christian Religion*, 16.

<sup>34</sup> John Calvin, *Institutes of the Christian Religion*, 176-178.

also in the creation. Psalm 148:1-13 discloses that all creation praises the Lord in its development and growth processes according to the everlasting rules decided by God in the order of creation.

With respect to this we can speak of '*creatio continua*' (continuing creation). God created nature with all its components so that they could relate to each other, depend on each other in mutual support, in harmony in the process of growth and development towards perfection. In His work of continuing creation God is pleased to make humans and all other participants in the work of God's continuing creation. The Bible, in particular the story of creation, mentions that God commanded the earth to grow plants according to their types (Gen. 1:11-12) and commanded the earth to bring forth all types of living creatures, livestock and crawling animals and all types of wild animals (Gen. 1:24-25). A witness like this points not only to forms of new lives, but also to a continuity with the existence of earth before the appearance of the human and even before the origins of all lives.<sup>35</sup> In the explanation of the creation of human beings, man and woman, the idea of the use of existent material is more explicit. Man is created from the dust of the soil (Gen.2:7) and woman is created from the rib of man (Gen. 2:22). In the creation of human beings an element of nature and an element of man are used by God as material for creation. In the continuing creation, this idea also continues. Psalm 104:29-30 states that all living creatures die if God takes away His Spirit and they are created if God sends His Spirit to renew the face of the earth. Thus the work of creation is the work of God, which has continued up to this day and will continue until the end of time. In the process of continuous creation, humans are involved.

The concept of '*creatio continua*' is related to the doctrine concerning the care of God towards His creation, although the two doctrines are not the same. The doctrine about '*creatio continua*' talks about continuous creation, meaning that God is continuously creating and renewing His creation. This concept is different from the doctrine of the care and maintenance of God, because the relationship between God and what has already been created is different from His relationship with what has not yet been created, which stands clearly face to face with God, while what is not yet created would be created continuously anew. God actively and creatively maintains what already exists, but the same God also continuously creates anew. God is more abundant than just creating in the beginning and maintaining what was made. God continuously creates.

<sup>35</sup> Paul K. Jewett, *God, Creation and Revelation*, 458; Jones, Richard, *Ground Works of Christian Ethics*, London: Epworth Press, 1994, 459.

That is why God is acknowledged both as Creator as well as Custodian and Guardian of His creation.

God creates – and God cares. Although God has created nature and all living creatures with completeness in the order of creation, God does not stay clear of His creation, as is understood by Deism which has the concept that God has not been involved with the world since He completed His work of creation. Deism is the name given to a movement which started late in the 17<sup>th</sup> century and persisted long into the next, with its goal of replacing traditional by rational religion. It is popularly regarded as belief in a remote Creator, uninvolved in the world whose mechanism he devised.<sup>36</sup> Thus God is separated from the world as if God were no longer needed by this world.<sup>37</sup> The ancient religions of the East were in general followers of Deism. They deemed God to be far from human beings and not involved with matters in the world. That is why God was called ‘*Deus Otiosus*’, or the “idle God”. In the modern world, the school of Deism was followed by philosophers such as: Francois Voltaire (1694-778), a philosopher from France and Lessing (1729-1781), a philosopher from Germany. They were of the opinion that God is the Creator, but thereafter God leaves His creation to its own fate.<sup>38</sup>

Deism understands God as the perfect Creator or the first cause, who after having completed the work of creation let His creation run by itself like a machine or it could be said that God handed over full responsibility to human beings.<sup>39</sup> According to Luco van den Brom, deism does not only deem God as the First Mover, but also at the same time deems human beings as agents of events in history. Deism does not acknowledge God’s role in continuous creation and the care and maintenance of creation.

The role of God and human beings is not in the same category. Human beings belong to the creation and thus, their acting can never exclude God’s acting. Abraham van de Beek, argues that, in modern theology, God and human beings are made competing by putting them in the same category:

“God and human beings have become actors of the same category. That does not necessarily imply that they have the same power, for even created actors can have different degrees in influence. The key is that in modernity God and created beings

<sup>36</sup> Sinclair B. Ferguson, et al (ed.), *New Dictionary of Theology*, Leicester: Intervarsity Press 1988, 190.

<sup>37</sup> Ted Peters, *God the World’s Future*, 123.

<sup>38</sup> See Pardoyo, *Sekularisasi dalam Polemik*, Jakarta: Grafitti, 1993, 33.

<sup>39</sup> Luco van den Brom, in Vincent Brummer (ed.), *Interpreting the Universe as Creation* Kampen : Kok Pharos, 1991, 31.

play on the same field. Consequently they can be opposed and conjoined. Conjoining of actors means cooperation.”<sup>40</sup>

Van de Beek refers to Hendrikus Berkhof and Jürgen Moltmann as examples of modern theologians who have propounded the understanding of the cooperation in the same category and therefore the potential competition between God and human beings. Berkhof states, according to Van de Beek, that God, in giving freedom to humans took the risk that they would abuse this gift. Mankind creation was a risk. Bestowing upon human beings the opportunity to act and to cause effects restricts God’s competence. Later, Van de Beek states, Moltmann extended this idea to the key concept of the doctrine of creation. The essential idea behind the concept is that in the same field of actors both God and creatures work in a similar kind of causation. Therefore, Van de Beek, asserts, they have to divide up the field. Berkhof and Moltmann have to draw a line in order to limit God’s action that endangers human freedom.<sup>41</sup>

For Van de Beek, the above view cannot but have far-reaching consequences for theology. The first consequence is that theology gains a deistic-bent. Van de Beek explained this consequence as follows:

“Seventeenth century deists excluded God from the whole of history. He was only there at the beginning. The reason for this position is clear: they conceived the first cause as a cause in time and not as the ground of causality. As far as Berkhof needs a self-limitation of God in order to save human freedom, he makes the same mistake. The difference with traditional deism is that Berkhof leaves moments in history open for new creative acts of God, to change the trend of history that humans made but which did not coincide with the aim God had for humankind. Thus a strange mixture of human freedom and divine correction, of self-limitation and intervention of God arises.”<sup>42</sup>

Moltmann, states Van de Beek, ends with problems similar to those of Berkhof. Though he creates an open space in God’s omnipresent and omnipotent action by the idea of God’s self-limitation, this space is not left free to human wishes. On the contrary, the space in which creation is called into being is filled with the presence of the Holy Spirit. The Spirit dwells in creation and fills it with God’s love. In this, creation will find its destiny. Based on this view, Van de Beek comments:

<sup>40</sup> Abraham van de Beek, “God’s omnipotence and Human Freedom”, in *Essentialia et Hodierna, Acta Theologica Supplementum 3*, 2002, 176.

<sup>41</sup> Abraham van de Beek, “God’s omnipotence, 177-178.

<sup>42</sup> Abraham van de Beek, “God’s omnipotence, 178.

“In this way a strange model is presented. First God has to contract Himself in order to grant freedom to creation. The models fits the modern concept of allocating human and divine acting and presence. But subsequently it is filled with the traditional models, in which the Spirit acts as God’s creative power, having very much the same effect as Thomas’ *causa prima*. What is really happening here is a confusion of concepts.”<sup>43</sup>

For Van de Beek, if we are careful to observe the distinction, human beings are fully free as created beings on the level of created freedom, but their ground of being and their final destination is ensured on the level of creative divine power.<sup>44</sup> Thus providence is not jeopardizing human freedom, but precisely its source and guarantee.

The competing model between God and creation is very strong in process theology, though it might seem the other way around. Process Theology is of the opinion that God and the world are mutually influencing and that is why God is not controlling the world. The care of God does not mean that God is determining everything. The activities of creation are based on what is called *responsiveness* towards the world. God does not even control the future, because God does not control the world. Every creative influence of God must have a persuasive character and not coercive (compelling). That is why, the creation activities of God contain a risk, namely providing the opportunity for evil to develop outside the control of God.<sup>45</sup> Process theology absolutely rejects the doctrine of *creatio ex nihilo*, if this terminology is understood as creation from absolute nothingness. According to process theology, the doctrine of *creatio ex nihilo* is an essential part of the doctrine of God as absolute controller. God’s creating means ordering and arranging or providing direction to the chaotic space. That is why creation is not absolutely *creatio ex nihilo*, but creation out of chaos.<sup>46</sup> Whitehead, the founder of process philosophy, is of the view that God is the first primary realization and has the non-temporary character of the basic principle of Creativity. According to Whitehead, God is the realization of the primordial actualization of creativity and at the same time the basic principle of concretion or the process of the appearance of an actual unit from many other actual units which have become data of past inheritance. Through God as the primary realization of creativity and at the same time as provider of direction a principle of harmony and orderliness is

<sup>43</sup> Abraham van de Beek, “God’s omnipotence, 180.

<sup>44</sup> Abraham van de Beek, “God’s omnipotence, 181.

<sup>45</sup> John B. Cobb & David Ray Griffin, *Process Theology: An Introduction Exposition* Philadelphia: Westminster, 1976, 52-53; See also Thomas Derr, *Ecology and Human*, 26.

<sup>46</sup> John B. Cobb & David Ray Griffin, *Process Theology*, 65.



created in the universe. This understanding is based on a conviction that both the philosophy of Plato and the Old Testament provide evidence which supports the fact that the process of creation is a process of arranging orderliness and harmony in relation to all the elements in the universe. The most important principle in the universe is the principle of mutual relationship and dependency, particularly between all organisms and their environments. God works in this change in a variety of ways, namely creating potential, offering various possibilities and reacting if a choice has already been made. So God works through the cosmic process.<sup>47</sup>

In the classic doctrine on providence divine providence and human freedom are not competing. Providence is the source of freedom. In the Christian theological dictionary the word *providential* originates from the Latin *providere*, which literally means to provide (Gen. 22:8-14). This term is also often understood in the meaning of ‘*gubernatio*’, which means to rule over all His creation. According to Berkhof, when discussing ‘*gubernatio*’, God’s relations to his world are not to be compared with that of a king to his country but with that of a king to a riotous province.<sup>48</sup> In this relation, Berkhof underlines the concepts of *permissio*, *impeditio*, *directio* and *determinatio*, to stress the cooperation between God and human beings in preserving nature. When we, in line with Van de Beek as described above, not agree with the concept of God’s self-limitation, the importance of the active participation of human beings in the preservation of nature is not limited but even more stressed. Thus the importance increases of what Berkhof states:

“The Bible calls the relationship of God and humans a ‘covenant’. The term does not suggest a subject-object scheme but intimates much rather the concept of ‘inter-subjectivity’. Yet even that term is not adequate because we do not deal with two subjects that are on same level, but with a Subject who in sovereign love makes room for other subjects and allows his actions to be determined and limited by them, yet without thereby losing anything of the sovereignty and his own subjectivity.”<sup>49</sup>

In other words, to preserve nature, God has given the responsibility to human beings as His actors. Thus human beings have to take part actively, in the context of their salvation, to preserve nature.

<sup>47</sup> John B. Cobb & David Ray Griffin, *Process Theology*, 75.

<sup>48</sup> Hendrikus Berkhof, *Christian Faith*, 212-213.

<sup>49</sup> Henrikus Berkhof, *Christian Faith*, 222.

## **VI. God Created Time**

Thus the maintaining of creation means that God guarantees the needs of His creation and guards or protects it (compare Psalm 23). The Lord God who is the good Shepherd of Israel and His people provides economic guarantees and security guarantees to them. In this context is understood the meaning of the care of God ethically God is not only a guarantor of the living need of His creation, but also a guarantor of the order and security of His creation. Genesis 1-11 describes the continuous relation between God and His creation. God guards over the creatures that He has created, although in His anger He punishes wickedness (Gen. 6-9 and 11). The basis for the care of God is His love and faithfulness, which is the basis of creation. In the story of the Flood, God does not let the flood destroy the earth totally, but He renews and rescues it through Noah and his family together with all the creatures which are with them.<sup>50</sup>

The continuity of creation thanks to God's caring and preserving acting implies that creation has *time*. There is a *history* of creation. The testimony of the whole Bible displays the role of God in history. Since, history is also His creation. God does not only create space and creatures but also time. God created heaven (space) and earth (the material world, creatures) with a beginning (time). Creation is the beginning of history and as continuous creation its process in time as well. As acts of the one God all his creating activities are one and thus his creation is one. Therefore nature is in one chain of unity not only of space, but also of time, which came into being simultaneously.<sup>51</sup> In the course of history, the care and rule of God upon His creation is evident. Because time is a creation of God, the creation of God has a limited character. This limitation is the essence of what has been created and all creation is therefore limited. However, the limited character of creation are not a deficiency. They imply precisely the mystery of creation namely the law of harmony created by God, so that the world runs its course in harmony in which all creatures need each other. The story of creation in the book of Genesis emphasizes particularly this fact when it says that all living creatures will bear fruit and multiply, each according to its kind as part of the divine order of creation.<sup>52</sup> Thus, although all the creation of God is limited in character, God guarantees the continuity and preservation of His creation, through processes such as the process of reproduction according to the natural system, which is also a creation of God

<sup>50</sup> Ulrich Duchrow & Gerhard Liedke, *Shalom: Biblical Perspective on Creation, Justice & Peace*, Geneva: WCC Publication, 1989, 52.

<sup>51</sup> Henry Morris, *The Biblical Basis for Modern Science*, Grand Rapids: Eerdmans, 1984, 135.

<sup>52</sup> Brunner, *The Christian Doctrine*, 16-17.

and at the same time a gift of God. Precisely the limited character of created beings in space and time is the source of their interrelatedness. They are dependent on each other. Limited beings can have continuity in an ecosystem only. The ecosystem as an order of creation has become a means, which God uses to continue His work of continuous creation. That is the reason the ecosystem is important to an understanding of the role of God in the continuous creation. A natural process occurs in the ecosystem, which runs according to the order of nature. This process is also subject to limitation in space, and in importance as well. Nothing is absolute and nothing can be an archimedean point.

God is present and maintains His creation through the Holy Spirit. In fact, according to Moltmann, God is present in creation as the Holy Spirit: 'God exists in the creation as the Holy Spirit'.<sup>53</sup> As we mentioned before, the term ecology originates from the term *oikos* (house) and *logos* (understanding/teaching). Thus ecology means an understanding or teaching concerning a house. Theologically ecology means, according to Moltmann, a place or house in which the Triune God is present and is continuously preserving His creation. In and by His Spirit, God is present in *oikos* or in His own house, namely his creation. According to Moltmann, the deepest secret of creation lies in the *schechina* (the dwelling of God in creation).

Understanding the ecosystem as the order of creation, does not mean that God is dependent on His creation as is the view of process theology.<sup>54</sup> Nonetheless, although process theology has limited God's power, this theology's contribution a theology which emphasizes the unity and wholeness and mutual dependency of creation, particularly between man and the other parts of creation, could be useful in reminding humankind, especially Christians, of the importance of the responsibility of humanity towards the other parts of

<sup>53</sup> Jürgen Moltmann, *God in Creation: An Ecological Doctrine of Creation*, San Francisco: Harper & Row, 1985, II, XII-XIII, 14-15, 63-64, 98-99.

<sup>54</sup> Robert P. Gwinn, et al (eds.) *The New Encyclopaedia Britannica*, Vol. 9, fifteenth edition, Chicago: University of Chicago Press, 1991, 118-119: "Pantheism, the doctrine that the universe conceived of as a whole is God and, conversely, that there is no God but the combined substance, forces and laws that are manifested in the existing universe. Pantheism is to obliterate the distinction between the Creator and creation, to make God impersonal, to imply a purely immanent rather than transcendent deity, and to exclude human and divine freedom. Panentheism asserts that God includes the universe as a part though not the whole of his being. Panentheism constitutes a middle way between the denial of individual freedom and creativity, characterizing many of the varieties of pantheism and the remoteness of the divines characterizing classical theism. Although elements of quasi-panentheism reach as far back as Plato's laws, it is in the nineteenth-century German Idealism (Johann Gottlieb Fichte, Friedrich Wilhelm Joseph von Schelling, Georg Wilhelm Friedrich Hegel) and the twentieth-century process philosophy (Alfred North Whitehead)

creation. It is also important for humankind to develop a new attitude towards the environment, namely a new attitude, which is more appreciative of both animate and inanimate elements in nature. God is involved in his creation by His care. Therefore we must also develop the same attitude, namely an attitude of caring as the appropriate ethical attitude towards all the creation of God. According to the witness of the Bible, God is a God who is transcendent, who lives in heaven, but He is also an immanent God, namely God who is present in this creation. He is the Most Holy God, Exalted in heaven; but He is also God who is omnipresent in all places and at all times. He is a God who is most eternal and cannot be limited by space and time. But, He is also God who has become incarnate in the person of the Lord Jesus Christ and who is present in this world as the Holy Spirit, bestowed upon the world to maintain God's created nature.

## **VII. Theology of the Covenant**

The core of the witness of the Bible concerning creation and care is that nature is *owned* by God. Does God really "own nature"? "The earth is mine" God may say, but probably in the way that one may say: "These children are mine." If we do not own our children, God probably does not own nature either. Because it was God who created nature and cares for it, God also maintains nature because it is His own which He loves. As a loved possession, nature is certainly guarded and maintained and is even redeemed and saved by God from damage caused by the fall of human beings into sin. The witness that nature is possessed by God is both a protest against the view that equalizes God with nature and against the view which deems nature to only have a materialistic-deterministic objective. As the possession of God, nature or creation must be appreciated, guarded and maintained by human beings.

The love of God for all His creation is expressed not only in the sense of maintaining His possession, but also in involving all His creation in the covenant and in redemption, which God extends towards all His creation. The covenant of God with human beings to save or recover the condition of human beings, who have fallen into sin, also includes the covenant with the whole of nature as is evident from the Flood event. The punishment for the sin of humankind did not only befall humankind, but affected nature as a whole. Although it is clearly stated that the punishment of God was the result of the wickedness of

that the doctrine receives systematic elaboration. Charles Hartshorne, a follower of Whitehead, provided the definitive theological analyses of pantheism, based upon the analogy of an organism (God) comprising individual, semi autonomous cells (all known and unknown constituents of reality".

human beings, the punishment of human beings affected the whole universe, destroying all living creatures together with humankind (Gen. 6-7). On the other hand, in the covenant of God and Noah, all creatures are blessed and are to multiply (Gen. 8:17) and God also promised not to destroy nature anymore because of the acts of human beings (Gen. 8:21-22). Thus, the covenant God made with Noah was a covenant of blessing and a covenant of salvation covering the whole universe (Gen. 9:8-11).

Thus it can be concluded that the covenant of God with human beings is a covenant of ecosphere, which is a covenant indicating the mutual dependency of all creation in the ecosystem. This covenant is a symbolic tie between the Creator and all creation, which can not be broken.<sup>55</sup> The 'covenant' between God and Adam (Gen. 3 and 4),<sup>56</sup> the covenant with Abraham (Gen. 15, 17), and with Moses (Ex. 1:5), with David (Ps. 89) and with all humankind (Gen. 8 and 9), are covenants, which cover the whole universe. The covenants which are binding between God and humankind, particularly the covenants with Adam and with Noah, are covenants made after the punishment of creation. These covenants are covenants of restoration, always understood within the framework of God's gift of covenant love. God has in His covenant always given forgiveness. That is why the covenants of God as witnessed by the Bible are always firstly and particularly seen as acts of God's generosity to all His creation. The Hebrew word for covenant is *berít*, taken from the root word *bárá'* which means 'to create' and is related to *báráh*, meaning 'to choose' or 'to select'. Thus covenant means an act of choosing by God, namely an act of giving and of generosity.<sup>57</sup> God makes a covenant with whom He wishes and when He wishes. The act of promising is an act of love, a love which is free because God is not bound to anyone else or with anything else. Thus God made a covenant to renew what was damaged by the sin of humankind. This covenant covers all creation, because not only had the relationship of human beings with God been damaged as a result of sin, but the relationship of all creation with God. Thus the covenant of grace is a covenant covering all creation, since creation belongs together.

The covenant of God is repeated five times in Genesis 8 and 9, as a covenant between God and all creation, with everything living on earth. The rainbow as one of the elements within nature became the sign of the covenant. This was also an indication that all creation is in the centre of the drama between God and humanity and that the covenant of God is directed to all creation, not only

<sup>55</sup> James A. Nash, *Loving Nature*, 101.

<sup>56</sup> Here is not explicitly the word 'covenant', but the matter, that is why the word is put in quotation marks.

<sup>57</sup> Shantilal Bhagat, *Creation in Crises*, 22.

to humanity. The theology of the Reformation, particularly of Calvin emphasizes that the objective of creation is the Kingdom of God. Creation and redemption are therefore a unity, as both point to His Kingdom. A covenant is a bridge between God's work of creation and of redemption in order to realize His Kingdom in the world. The basis for the promise of God in His covenant is His faithfulness to His creation. The covenant with nature is made to protect all creation from the wild character of certain creatures, particularly human beings. Noah's being prohibited from eating blood is one of the instances of the order of protection of God towards all of His creation (Gen. 9:13). According to Wesley Granberg-Michaelson, all the work of God as Creator, caretaker and redeemer is understood in the context of a covenant, which was fulfilled with the incarnation of Christ.<sup>58</sup>

Thus the covenant of God and His creation cannot be separated from the care of God for His creation. The covenant of God includes a guarantee of the care of God for His creation. This indicates that all the creation of God, including human beings, are fully dependent on the faithful love and mercy of God the Creator. Indeed, the Bible also witnesses that God is willing to use or involve nature in the process of the care of God through the order of creation, where all creatures depend on each other and support each other in the process of life together. For instance, the story of creation states that the yields of the earth were given by God for the benefit of human beings and other living creatures (Gen. 1:29-30). They are dependent on each other, in the covenant God made (cf. Hos. 2:17-22). The care of God for nature is partly delegated to human beings who are given the duty of taking care of and subjecting the earth (Gen. 1:26-28; 2:15). This taking care of, which has an economic character, is always understood in relation to social, political and spiritual care. This is clearly implied and written in the law given to Israel (Ex. 20:1-17). In particular the law to sanctify the Sabbath refers back to creation as a basis (v.11). It is clear that there is a close relationship between the rules which show God care and the order of creation. In that order of creation life and death come in turn to create the balance, as stated in Ecclesiastes 3:1-15, for everything that happens in this world happens at the time God chooses.

It has been asserted above that the pattern of the covenant of God with Noah, namely the covenant of the ecosphere seems also to be the covenant with Adam, Abraham, Moses and also the covenant with David and then in the New Testament, the covenant about the creation of the new heaven and earth. In all these covenants, the place of creation as a whole is always prominent. In

<sup>58</sup> Wesley Granberg-Michaelson, in: 'Charles Birch and Lukas Vischer (eds.)', *Living with Animals*, 30.

the covenant with Abraham, for instance, the land as the representative of nature, is included as part of the covenant of God with Abraham (Gen. 12:1, 5, 7; 15:18). The same is the case with the covenant of Sinai or the covenant of God and Moses, covering all God's creation. In Exodus 19:5, before Moses receives the Ten Commandments, God reminds the people that the whole world is His possession. A similar instance can also be found in Deuteronomy 10:12-14, where the people of Israel are reminded to fear God, because God owns heaven, and God even controls all heavens and earth with all their contents. Starting from the covenant of Sinai could be clearly seen the triangular relationship between Israel, creation and God.

In the history of Israel which centres on the covenant of Sinai, the religious law, which has the objective of preserving spiritual, social and political life is always related to the rules about taking care of nature, particularly the soil which is the source of life of all creatures on earth. The relationship of Israel with creation is focussed on the relationship with the soil. The whole Bible teaches that God is the absolute possessor of the soil. This relationship is a reflection of the conviction of the existence of a union between man '*adam*' with his source, which is the soil '*adamah*' as is described in the narration of creation. Actually human beings are even made of dust or arable land, '*afar*' (Gen. 2:7; Ps.90:3; 103:14) – the animals made of fertile soil. That is why humankind could not own soil, because humankind is dependent on soil and both are the possession of God. Psalm 24:1-2 says: 'The earth is the Lord's, and everything in it, the world, and all who live in it; for he founded it upon the seas and established it upon the waters'. God is the absolute owner of the land because God is the Creator and He has power over it.<sup>59</sup> Because the land is the possession of God, humankind must not treat it as their own, but as the possession of God. Human beings only have the right to manage the land or earth (Gen. 2:15). That is the reason why in the rules about the Sabbath year and the year of Jubilee, the release of land is based on God's absolute ownership of land, because God is the only owner of land (Lev. 25:23).

The gift of land to the people of Israel meant that they were permitted to enter into a fruitful relation with God and with the land itself. That is why the land had the right to take a rest (not be used continually). According to Shantilal Bhagat, the right of land to take a rest has the same status and right as has humankind to manage or use the land. The poor had the same rights with regard to land and thus the justice of God, as the owner of everything, was implemented on their behalf. The pattern of taking care of nature that is delegated to humanity has its roots and source in God himself who takes care

<sup>59</sup> John Hart, *The Spirit of the Earth, A Theology of the Land*, New York: Paulist Press, 1984, 52.



of His creation with His blessings (Lev. 26:3-5). The people of Israel were taught and reminded that land is not an individual possession, but is a gift of God and must therefore not be treated as if it were personal property. A monopoly upon land is a failure of a serious service.<sup>60</sup>

The land of Canaan was allocated to Israel as a whole (Deut. 1:8). This rule, like the rules about the Sabbath and the Year of Jubilee, is an instance of the way God takes care of and protects His creation from destructive treatment. This signaled that only God was the true source of life of all creation and that humankind has no right to take away, seize and/or take control of the possession of God by claiming it as their possession. God, Who is the Creator and Possessor of everything protects the right of creation and His possessions through a covenant entered into with Israel as the chosen nation. This is reflected in all laws and rules given by God, where humankind and other creatures receive the same protection.

The covenant of God through King David is also based on the sovereignty of God over the universe. Bruce Birch, an Old Testament ethicist, is of the opinion that truth and justice, which are the basis of the Kingdom of David lie in the objective of God to bring shalom and the right relationship among all creation (Ps. 89:9-15). The king is a servant and representative of God to uphold and protect nature possessed by God.<sup>61</sup> Thus the covenant of God with David and his kingdom is also a cosmic covenant, ecosphere covenant and shalom covenant, which covers the relationship of God with human beings and nature. According to Granberg-Michaelson, in this covenant of David is contained a vision about harmony, fulfillment and alliance between God, humankind and nature, which exalts justice, peace and wholeness of all creation.<sup>62</sup> Through the cosmic covenant is expressed the covenant of the faithfulness of God, His objective and His mercy to provide shalom to all the works of His hands (cf. Ps. 72).

The covenant of God to establish shalom again on earth among all creation has become the vision of the whole Bible, both the Old Testament and the New Testament. In the Book of Isaiah for instance, is clearly seen the vision of God's work to renew and save all creation. This vision is rooted in the faithfulness of God to His covenants. The faithful love of God has brought

<sup>60</sup> Shantilal Baghat, *Creation in Crisis*, 24-25.

<sup>61</sup> Birch, Bruce, *Let Justice Roll Down: The Old Testament Ethics and Christian Life*, Louisville: Westminster/John Knox, 1991, 78.

<sup>62</sup> Wesley-Granberg Michaelson, in: Charles Birch & Lukas Vischer,(eds.), *Living with Animals*, 31.



and established new life for all creation. Thus, the Bible places hope in the fulfilment of the covenant, namely the renewal of creation through the activities of redemption. The covenant of God with nature is a covenant of renewal and redemption. This is why, God is not only known as Creator, but also Renewer and Redeemer of His creation.

The vision of renewal and redemption that is prophesied by the prophet Isaiah in Isaiah 11:6-9, illustrates the atmosphere of shalom that will be experienced by all creatures in the messianic kingdom, namely an atmosphere full of love and peace among all creatures. This is also imagined in the prophecy of the creation of the new heaven and earth, in which not only man but all creatures will enjoy peace and prosperity (shalom) as a result of God's mercy (Isa.65:17-25). The covenant of the revival of Israel, prophesied by the prophet Hosea, also includes the restoration of the universe. This covenant is not only a covenant between God and Israel but a covenant with all creatures (Hos.2:17-22).

It is clear from the above references that the messianic covenant is a covenant containing a vision of the recovery of the wholeness of the creation of God in interdependency and true harmony. According to James Nash, nature and human beings receive the same vision, because they have received the same promise to be renewed, redeemed and reconciled by God Himself as Creator and Owner of the universe.<sup>63</sup> These covenants of renewal, redemption and reconciliation have been fulfilled in the coming (incarnation), suffering (cross) and resurrection (victory) of Jesus Christ. Moltmann further stresses that God's revelation comes through His promises. The identity of God is not in His transcendence but in the constancy of His mercy and faithfulness, and in His historic action within the horizon of His promise which is a cosmic promise, covering all of creation.<sup>64</sup>

### **VIII. Theology of Redemption**

The term redemption will be discussed in the following chapter from the anthropological point of view. In this chapter we focus on its aspect of describing God's acts of renewal, redemption, and reconciliation in and through Jesus Christ. God came to fulfill all His promises in the person of the Lord Jesus Christ, God incarnate. He came bringing shalom of God to all creation by rescuing it from the influence and power of sin. God expressed His love in creation, covenant and fulfillment of promises, when He Himself came into all

<sup>63</sup> James Nash, *Loving Nature*, 102.

<sup>64</sup> Jürgen Moltmann, *Theology of Hope*, London: SCM Press, 1967, 116, 136.

creation. The coming of the Lord Jesus brings a new paradigm in the relationship of human beings with nature, between human beings and the material world, a relationship centred in God as the source of human beings and nature. He starts His news by emphasizing the importance of human beings' freeing themselves from apprehension and anxiety, so that they can be free from materialism. He asserts that human beings should not believe in Mammon (Mat. 6:19-21). He invites humankind to believe in the generosity and care of God (Matt. 6:25-34). Human beings and nature are creations of God, so both are the possession of God, taken care of and guarded with adequacy.

The relationship between God's care and His ownership of the universe is clearer in what the Lord Jesus says about the apprehensiveness of human beings in the Sermon on the Mount. The worry of human beings about food and clothing for the future is used as the starting point by the Lord Jesus to talk about the care of God. In order to show in detail the care of God, the Lord Jesus explains to His disciples that not a single sparrow will fall to the ground apart from the will of their Father in heaven (Mat.10:29), and that their heavenly Father feeds those birds of the air; they do not sow or reap or store away in barns (Mat.6:25-34). The worry of human beings starts from the doubt that God owns everything and that as owner of everything, He is also a magnanimous God. That is why the worry of human beings drives them to try to control and to seize the blessings of the care of God through nature, which is given to human beings.

It can not be denied that the stimulus to control and seize the contents of the earth possessed by God is also associated with the greed of human beings. That is why the Lord Jesus reminded about the danger of Mammon (Mat. 6:19-24). The Lord Jesus would remind us that God as the possessor of nature that He created has already entrusted nature to human beings to be managed and used, but not to be controlled and possessed because the owner of nature and all its contents is God, the Creator. That is why, what must be given priority is not the material world, but God and His will.

The narration of creation describes the drama of man's rebellion against God the Creator, which caused the fall of human beings into sin (Gen. 3, cf. Rom. 1:19-32). In this rebellion human beings were arrogant and greedy and the whole nature has been damaged. All humankind's relationships have been damaged - the relationship of humankind towards God, the relationship of human beings with his fellow man and also the relationship of humanity with nature have been damaged. If human beings trespass their borders and want to be like God, the earth is cursed (Gen. 3). When man murders, the earth will not give its fruit (Gen .4). Many prophets state that disobedience will result in drought (cf. I Kings 17).

Another result of the fall of humankind into sin is the suffering of humankind in working for his living. Human beings will ultimately be united again with nature in his death (Gen. 3:16-19). The relationship of man with nature in the context of the fall of human beings is clearly illustrated in the early chapters of Genesis. On the one hand, humankind has to work hard to extract what they need from nature. This means that humankind is struggling with nature and in this context humankind is separated from nature. On the other hand, humankind will be united again with nature in death (cf. Ps. 90:3). Redemption and forgiveness include the whole creation on which humans are dependent.

The above convictions explain the position of nature in relation to human beings. Human beings are never described as being the owners like Egyptian Pharaohs (cf. Deut. 11:10-15). The position of nature is parallel with human beings in that both are possessed by God, but with different functions, so that human beings are responsible to guard and take care of nature towards the perfect fulfilment of the covenant of God in a new heaven and earth.

God's peak of redemption and renewal of His creation is the Lord Jesus Christ. He is God who comes to His own possessions, which is the world (John 1:1-18). He brings His life to the world, so that the world may have life to the full (John 10:10). According to Donald Guthrie, the Lord Jesus' addressing God as Father, gives an explanation of the way God takes care of and protect His creation, namely introducing the concept of God's personal attention. The expression Father is an intimate form of address, God is the Father, who takes care of and protects His children.<sup>65</sup> The Old Testament uses the symbol of God as Shepherd (Ps. 23 and Ezek. 34). The Lord Jesus also referred to Himself as the Good Shepherd (John 10:1-18) and His coming into the world is the most convincing evidence of God's possession of and care for His creation. The Lord Jesus risked and gave His life for the world as sacrifice for the redemption of creation from the power of sin. This sacrifice was motivated by God's profound love towards His creation (John 3:16).

Based on the witness of the Bible mentioned above, it could be said that the covenant concerning the renewal of creation has already been fulfilled in the person of the Lord Jesus Christ the Messiah. The love of God was the basis of creation and has also become the basis of the act of redemption and salvation of God. If the Lord Jesus who is the Logos, was the basis of creation (John 1:1-3; Col. 1:16-17), then the Lord Jesus is also the basis of the redemption and salvation of God. In the Lord Jesus Christ, God has reconciled His creation to Himself (Col. 1:19-20; 2 Corinthians 5:18-19). The above

<sup>65</sup> Donald Guthrie, *Teologi Perjanjian Baru I*, Jakarta: BPK Gunung Mulia, 1991, 53.

verses point us to the fact that the work of salvation by God through the sacrifice of the Lord Jesus Christ has made it possible for all creation to receive the fulfilment of the covenant and glory. The covenant of the recovery of creation prophesied in the Old Testament as quoted from the Book of Isaiah 11:6-9; 65:17; 66:22 and Hosea 2:18-23, has been fulfilled in the person of Jesus Christ, Messiah, King of Peace. This is also clear from the mission and the proclamation by Jesus Himself. He starts His mission and proclamation about the Kingdom of God. The Kingdom of God is understood as the government of God in the world, namely the government that revives the relationship with God and the relationship with all creation. In the Kingdom of God, which is announced and proclaimed by the Lord Jesus Christ, shalom is realized, where God reconciles the whole world with Himself. According to Duchrow and Liedke, the work of redemption by God and salvation by God as mentioned in the proclamation concerning the Kingdom of God could be called a soteriology, which is 'cosmic oriented' and not just 'anthropocentric oriented'.<sup>66</sup> The Kingdom of God covers peace with the whole of nature and not only the welfare of humankind.

Various pronouncements in the New Testament, particularly in the Johannean literature, are evidence that the redemption and salvation of creation has already been fulfilled in the person of the Lord Jesus Christ. Christ is coming to his own (John 1:11) as the One by whom everything is created (1:1-3) and the Lamb is the King of all creatures (cf. Rev. 4 and 5). According to Thomas Derr, the incarnation was a dramatic expression of the Lord God's solidarity with the world that He had created, namely by taking the condition of material existence.<sup>67</sup> John 1:14 confirms that the Word became Flesh (material) and lived among us. Therefore, the incarnation not only states the unity of God and human beings, but also has ecological implications. The purpose of the incarnation of Christ was to unite everything and to effect reconciliation with God (Eph. 1:10). The incarnation event teaches that Christ is not only representing God, but also representing the universe in the reconciliation with God and creation. Through the incarnation, God not only provided spiritual unity, but also material unity, where the interdependence between humankind and nature is expressed. According to James Nash, incarnation reminds us of the roots of our relation with everything.<sup>68</sup> One of the implications of incarnation theology is the sacrament, which discloses the

<sup>66</sup> Duchrow & Liedke, *Shalom: Biblical Perspective*, 50.

<sup>67</sup> Thomas Derr, *Ecology and Human Liberation*, 12.

<sup>68</sup> James Nash, *Loving Nature*, 110.

positive evaluation of God towards nature. Natural elements provide meaning, symbolizing divine gifts.

The Lord Jesus commands sacraments as a symbol and seal of the redemption He has achieved, and at the same time a symbol and seal of the Christian hope. Because the redemption of all creation has not yet been fully realized, sacraments lead us to a new relationship with God and creation while we look forward to the fulfilment of the redemption of the whole creation.

## **IX. Eschatological Theology**

The importance and significance of sacraments as symbols of the new unity of human beings with nature is that they are representations of the eschaton. Thus they must be conceived in the paradigm of an eschatological theology.

‘Eschatology’ means the future of the creation in the most profound sense. The term eschatology is derived from the Greek word *eschatos*, denoting the last times,<sup>69</sup> or ‘the last days’ (see for instance Acts 2:17). In Christian doctrine eschatology is usually understood as the end of the world and in the context of salvation of human beings, eschatology is understood as the release of souls from the body and entry into heaven. More generally, it is understood as doomsday. According to Van Niftrik and Boland, eschatology is actually not talking about ‘what is expected’, but about ‘who is expected’, namely Jesus Christ.<sup>70</sup> Eschatology is understood as hope about the second coming of Jesus Christ to perfect the work of salvation or His work of redemption. In this context, the relationship between Jesus Christ who has already come and Jesus Christ who is to come is severed. Therefore eschatology must be understood as a process of the fulfilment of what has already happened, and what is still happening and what will continue to happen. It is the Kingdom of the One ‘who is, and who was, and who is to come’ (Rev.1:8). In this context, the eschatological theology does not talk about what is to come, but about what has already happened and is still happening. Moltmann, who writes about theology of hope, understands theology of hope in the context of the future of creation. Thus natural theology, as originally given, has its place in an eschatological perspective.<sup>71</sup> According to Moltmann, this eschatological perspective is not in the sense of doomsday for this world. Moltmann states :

<sup>69</sup> Erwin Fahlbusch, “Eschatology”, in: Erwin Fahlbusch et al (ed.s), *The Encyclopedia of Christianity*, Grand Rapids: Eerdmans, 2001, 122.

<sup>70</sup> Niftrik & Boland, *Dogmatika Masa Kini*, Jakarta: BPK Gunung Mulia, 1990, 520.

<sup>71</sup> Jürgen Moltmann, *Theology of Hope*, 90.

“There is no ‘end of the world’ in which the world will go down into nothingness. What is to come is a ‘day’ without any evening, the eternal light, the day of the new creation. The time that was created in the alternation between the evening and the morning will come to an end in the eternal spring of the new creation.”<sup>72</sup>

In the context of the challenges of modern life and the specific challenges of environmental crises it is important for Christian theology to recover and to renew its eschatological perspective. Life in hope for the coming of the end days is not a matter of mere waiting, guarding oneself, and holding fast to the faith. It goes far beyond that, reaching out to the active shaping of life. Life in anticipation of the coming of Jesus Christ becomes a life which is committed to working for the kingdom of God, commitment to justice and peace in this world, including the natural world. According to Lochman, Biblical eschatology gives an important place to ethical demonstration. The New Testament indicative is surprisingly closely linked to the eschatological imperative. If it conjoins an existential de-secularizing, having as though we had not (see 1 Cor. 7:29), it also gives power for discipleship (Romans 12-13). Ethics show us what eschatology means for faith. A faith that leaves the future empty or speaks of it only negatively is in danger of leaving ethics empty as well. But the faith that reckons realistically with the fact that the life of Jesus Christ will glorify itself in our mortal bodies can see this earthly, bodily life only in the light of the Coming One and consider how our concrete acts can bear witness to this Coming One.<sup>73</sup> This attitude is the basis, not only of the personal responsibility of Christians but also of their social, and their cosmic responsibility.

The New Testament expresses the eschatological hope in concepts as kingdom, new heaven and new earth, and new creation. The apostle Paul, for example, talks about eschatology in the context of waiting and hoping of ‘all creatures’ (Romans 8) and in this context, eschatology as a hope for a new era, which is already and still on the way. Clearly, the eschatological promise does not relate merely to the salvation of our souls. We must demonstrate and practise it in solidarity with other people and with all our fellow creatures (Romans 8:19-25). Moltmann relates this passage to the reality of evil that we suffer in this world. The most fundamental evil, Moltmann stated, is that of oppressed, exploited, alienated and divided world. This cry for freedom is also “the cry of creation which man is destroying”.<sup>74</sup> Moltmann insists that the cry of creation

<sup>72</sup> Jürgen Moltmann, *The Way of Jesus Christ*, London: SCM Press, 1990, 327.

<sup>73</sup> Jan M. Lochman, “Eschatology and Ethics”, in: Erwin Fahlbush et al, (eds.), *The Encyclopedia of Christianity*, 132.

<sup>74</sup> Jürgen Moltmann, *The Future of Creation*, 98.

for liberation is God's own cry as well. He suffers in nature's silent death pangs because He loves creation. His suffering comes out of His purpose for humankind, which is for liberty, and for nature, which is "joy – as the play of His good pleasure".<sup>75</sup> Therefore the cry for liberty unites humanity and nature in a single hope. All things are living in the hope of redemption and liberation achieved by the cross of the risen Christ.

We have already received reconciliation through the risen Christ (Eph.5:11) and are still experiencing it. The Lord Jesus commands us to live in a new era and in a new relation with God as well as our fellow human beings and fellow creation. In this context I understand the significance of the sacraments given by Jesus Christ. We celebrate the sacrament as an eschatological feast, namely a feast of the new relationship, which has already been, will still be and is continuously experienced. We have clearly seen the purpose and objective of the sacraments, which are not only a sign and seal of our new unity or new relationship with God, but also becoming a sign and seal of our new relationship with our fellow human beings and all creation and finally of a new reality. This is clear from the material used in sacraments like water in the baptism as well as wine and bread in the Lord's Supper or Holy Communion. Those sacraments are always symbols and seals of the unity of human beings and nature.

Firstly, in baptism we experience how God uses baptism water as an element of nature to become a symbol and seal of the presence of God's covenant. God uses water in baptism to become a sign and seal of salvation and renewal of humankind in Christ. In baptism we die to our old sinful life and are buried with Christ (Romans 6), to His new life.<sup>76</sup> That is why baptism is a sacrament, which indicates the solidarity of human beings and all creation. Baptism is a sign of the coming of the Kingdom of God and the covenant about the renewal of everything. The water of baptism as the water of the flood (1 Peter 3:20-21) gives us a good conscience.

Secondly, in the sacrament of the Lord's Supper, God also uses natural elements, namely bread and wine as symbols, which become a sign and seal that human beings and nature share life and have the same fate. In the Lord's Supper, bread and wine are a sign and seal of the guarantee of a new life in Christ for human beings, and at the same time a sign and seal of the relation and interdependency between human beings and nature. Migliore writes:

<sup>75</sup> Jürgen Moltmann, *The Future of Creation*, 98.

<sup>76</sup> John Calvin, *Institutes of the Christian Religion*, 94-95.



“The Lord’s supper is a beautiful portrayal of the interconnection and interdependence of personal, communal and cosmic salvation.”<sup>77</sup>

We partake in the Lord’s Supper as a celebration, which indicates our yearning as the body of Christ for a relationship with the new covenant, which would open all our life to the new covenant of creation. It is evident in the experience of the sacrament that not only are human beings saved through the death and resurrection of Lord Jesus, but also the whole cosmos. Through sacraments, Christ revives the relationship between human beings and nature, which is damaged by sin. Therefore the unity of human beings with nature is not only a unity in death (Gen 3:19; Ps. 90:3), but also a unity in life and in shalom (Isa. 11:8-10). That is the reason why the reconciliation effected by the Lord Jesus is called reconciliation of creation. The sign or anticipation of cosmic reconciliation can be seen through the natural elements the Lord Jesus uses in the Lord’s Supper (bread and wine) and in baptism (water). These elements are a representation of nature, which the Lord Jesus chooses for sacraments. The choice of these natural elements emphasizes the salvation of nature through the sacrifice of the Lord Jesus Christ on the cross and the renewal of the relationship between human beings and nature. This view is supported by the opinion of several experts as quoted below.

According to Bhagat, the Christian faith acknowledges that through the cross the world has already been reconciled to God. On the cross, God acted to reconcile the whole creation with Himself (cf. Colossians 2:9-12). The cross of Christ determines the work of salvation and reconciliation with God.<sup>78</sup> The accusations against humankind are nailed to the cross of Christ.. According to Nash, on the cross God has united everything and reconciled all His possessions. On the cross God started to realize His work displaying signs of the Kingdom of God in the world. That is why the cross has become a sign of the faithfulness of God and proof of the fulfilment of God’s promise, which is reconciliation. On the cross, God crushed the power of sin and opened a new perspective to all creation. Human beings and nature are released from the power of sin and enter a new era of life, which is harmonious as a sign of shalom. The guarantee of a new life is the power of the resurrection of Christ. The resurrection of Christ is a promise and guarantee of universal salvation.<sup>79</sup> All creation is being prepared to be renewed in the glory of the children of God (Rom.8:19-22). It

<sup>77</sup> Daniel Migliore, *Faith Seeking Understanding: An Introduction to Theology*, Grand Rapids: Eerdmans, 1991, 226.

<sup>78</sup> Shantilal Baghat, *Creation in Crises*, 27.

<sup>79</sup> James Nash, *Loving Nature*, 125.



is therefore clear that the work of redemption and salvation through the incarnation, death and resurrection of the Lord Jesus Christ, brings the universe into a new era, namely to become a new creation.

Moltmann underlined that Jesus Christ is the ground of salvation for the whole creation in his idea about the “cosmic Christ”, based on Sittler’s speech at the General Assembly of the World Council of Churches in New Delhi in 1961.<sup>80</sup> Sittler talked about the unity of the world, basing what he said on the cosmic Christ hymn in Colossian 1:15-20. Christ is the foundation of all things (ὁ ὕψιστός), so all things have access to his cosmic redemption. A doctrine of redemption, according to Sittler only has any point if it moves within the wider sphere of a doctrine of creation.<sup>81</sup> According to Moltmann, the theme of the cosmic Christ in Ephesians and Colossians points to Christ as mediator between God and the world. Thus heaven and earth are clasped and gathered into a whole and in the all-embracing peace of Christ arrive at their open communication with one another. The idea of the cosmic Christ also helps us to relate the Kingdom of God coming in history with the new creation.<sup>82</sup> Moltmann also insists that it is only a cosmic Christology which completes and perfects the existential and historical Christology.<sup>83</sup> Understanding reconciliation in the context of Christology, Moltmann stated that:

“Unless the whole cosmos is reconciled, Christ can not be the Christ of God and can not be the foundation of all things. But if he is this foundation, then Christians can not encounter other creatures in any way other than the way they encounter human beings: every creature is a being for whom Christ died on the cross in order to gather it into the reconciliation of the world. But the reconciliation of the cosmos is the restoration of the righteousness and justice of the cosmos. None of these other creature has been destined to be ‘technologically manipulated’ material for human beings. In the reconciled community of creation, human beings experience nature no longer as an object and a vis-á-vis, but as a continuum: they themselves are nature, and nature is in them.”<sup>84</sup>

In the meantime, human beings have to understand the meaning of the reconciliation in Jesus Christ in the above perspective.

According to the witness of the New Testament, the process of cosmic salvation which includes nature has not yet been fully perfected but there is hope that nature will be perfected in the form of full freedom for all creatures

<sup>80</sup> The concept of the Cosmic Christ initiated by a Lutheran theologian Joseph Sittler at the general assembly of the World Council of Churches in New Delhi in 1961.

<sup>81</sup> Cf. Moltmann, *The Way of Jesus Christ*, 276-277.

<sup>82</sup> Moltmann, *God in Creation*, 171.

<sup>83</sup> Moltmann, *The Way of Jesus Christ*, 98.

<sup>84</sup> Moltmann, *The Way of Jesus Christ*, 306-307.

to become God's children (Rom. 8:21). The release of all creation from total destruction to the freedom of God's children is the final objective of all creation, namely in the new heaven and earth or in the perfect Kingdom of God (Rev. 21-22), where there will be no suffering as an impact of the power of sin and the blessing of God will be freely available as in the garden of Eden. The perfection of the whole creation will be implemented with the second coming of the Lord Jesus Christ. Thus now nature is still in a period of transition, namely a time of awaiting the fulfilment of the perfection of the new creation.

The messianic vision in the Old Testament and the vision of apocalyptic-eschatology in the New Testament play a role in the period of transition. On the one hand, there is the conviction that the incarnation, cross and resurrection of the Lord Jesus Christ have given a new perspective on all creation; on the other hand, there is the conviction that God is through the Holy Spirit still working in the preparation of everything towards the fulfilment in the new heaven and earth. This period of transition is clearly disclosed in Romans 8:19-22:

“The creation waits in eager expectation for the sons of God to be revealed. For the creation was subjected to frustration, not by its own choice, but by the will of the one who subjected it, in hope that the creation itself will be liberated from the bondage to decay and brought into the glorious freedom of the children of God. We know that the whole creation has been groaning as in the pains of childbirth right up to the present time.”

Creation that has already been redeemed from the destructive power of sin is now moving towards the fulfilment of perfection at the time of the promised shalom when the new heaven and earth become a reality. The Holy Spirit himself is working to direct creation towards this fulfilment. It is therefore clear that the work of redemption of God is not only directed to human beings, but to the whole creation. The evidence of a new heaven and earth in the Revelation of John 21:1-5, confirms the final objective of the work of God, which is to redeem and renew all His creation. That is why there is no theological justification for the viewpoint that salvation is exclusively for humankind because God's work of redemption is directed to all creation inclusively. In the period of transition when all creation is awaiting the fulfilment of the new creation, humankind is called upon to take part in the process of releasing all creation as a token of appreciation, mercy and love to God. The church, in particular, as a fellowship of faithful people has the duty or mission to manifest universal love based on the universal love of God.

From the above explanation it is evident that the damage to the natural environment has not only been the inevitable result of interaction with human

beings, but also due to sinful man's using nature, which was created by God and is good, with an eye to his own benefit and in the interests of human beings alone. That is the reason why, there are in theology also efforts to justify the acts of human beings, which deviate from the intention of the creation of God and are not committed to God's objective of reconciliation and salvation for His creation, which has been damaged by human beings'. According to Conradie, the effects of sin have an obvious ecological dimension now manifested in the ecological crisis. More specifically, sin is manifested in environmental injustice: the devastating effects of material greed on both the environment and on other human beings.<sup>85</sup> Hope for the fulfilment of God's promises of salvation from sin, and victory over evil, is characterized by a critique of the present ( a negation of the negative) and the anticipation of a promised novum. It thus leads to inspiration, expectation and resistance, but also to patience and perseverance.<sup>86</sup> Thus eschatology is the transformation of the destructive role of human beings in relation to nature. In order to understand the destructive role of human beings towards God's created nature, the following chapter will focus on the role of human beings towards God's created nature.

## **X. Summary**

From the discussion above, one can conclude that the Biblical theology of creation can be described as a theocentric-holistic theology. Christian theologians have indeed tended to be anthropocentric-dualistic due to the influence of dualism from the days of the early church. That does not mean that the Bible only pays attention to human beings. On the contrary, the theology of the Bible emphasizes the role of nature within the context of an understanding of the profound love of God. However, in the development of Christian theology this aspect has received less emphasis. According to the ideas propounded in this chapter, the Biblical theology of the environment or nature can be summarized as follows:

Nature is a creation and work of God and God is therefore the owner and has the authority over all His creation, including human beings. Since God created nature, nature itself is not divine and should therefore not to be worshipped. However nature has intrinsic value, because nature was created good by God. The intrinsic value is the value of the harmonious relationship

<sup>85</sup> Ernst M. Conradie, "In Search of a Vision of Hope for a New Century 1", in: 'Journal of Religion and Society', <http://moses.Creighton.edu/JRS/1999/1999-1a.html>, 5.

<sup>86</sup> Conradie, In Search of a Vision, <http://moses.creighton.edu/JRS/1999/1999-1a.html>, 18.

between creation and the Creator and between all the elements within creation so that all creation is in a balanced harmony according to the purpose of the Creator. This means that nature is not bad and that is the reason why nature and its contents must be treated as a good creation of God. On this basis, human beings must appreciate and take care of God's created nature.

God the Creator loves all His creation, so that He takes care of nature that He created continuously and constantly through the process of reproduction and the process of harmony of life of all creatures, which are created by God. God takes care of His creation through the presence of the Holy Spirit and God also provides an order of creation as part of His care for His creation, so that through a process of time His creation develops and continuously radiates the majesty of the Creator. God continues His process of creation without interruption through the work of the Holy Spirit and through the process of nature. In this process human beings as part of creation and at the same time as the image of God join as God's partner to take care of the order of creation or the ecosystem.

The fall of human beings into sin damaged the relationship of human beings with God. The fall of human beings also caused the relationship of human beings with nature to be damaged. Sin has caused all creation to suffer. All creation suffers, particularly because nature is treated badly by human beings whose rebellion against God has led them to be governed by ambition, arrogance and greed. Nature suffers because of being exploited and damaged by human beings. Thus, according to the theology of the Bible, the damage of nature is one result of the rebellion of human beings against God, or the sin of human beings. Human beings' rebellion against God led them to view the creation of God solely as a tool to fulfil the ambition and greed, which already possessed their hearts and governed all their tendencies.

Because God loves his creation, nature is included in the covenant of redemption and salvation of God. With the coming of the Lord Jesus Christ, all creation has been renewed and reconciled with God. This means that the relationship of human beings with nature is also renewed and reconciled. Human beings have received renewal and salvation and redemption in Christ through the incarnation, as is experienced in the sacraments. Human beings must therefore build a life, which is characterized by solidarity with all creation. Solidarity with all creation is evidenced through the utilization of natural resources, while taking care of these natural resources, which are created by God.

Just as human beings are still in the process of awaiting shalom, namely the perfection of salvation in eternal life, nature is also awaiting the fulfilment of God's shalom in the new heaven and earth. From this perspective, Christian

theology invites human beings to view God's created nature as nature which should actually be treated as a subject to be appreciated. In this context human beings are called to display a proper appreciation of nature, shown, for example, in efforts to preserve nature, in order to guarantee the harmonious uninterrupted life of the entire creation of God.

## Chapter 6

# The Role of Human Beings in Ecosphere

### I. Introduction

Theology often developed an anthropology that is not at all un line with the confession that God owns the whole creation and human beings belong to that creation. The human being is often conceived as more related to God than to the whole of creation. In this chapter we will discuss the theological arguments that are used and develop an anthropology that is rooted in the relation of God and creation as developed in the previous chapter.

One of the core concepts in theological anthropology is *imago Dei*: the image of God. Human beings' understanding and awareness of themselves as *imago Dei* often leads to a misuse of their superiority toward creation. This misuse of the superiority of human beings has become the key to understanding the destructive-exploitative attitude of human beings towards nature. Theologically, the misuse of mankind superiority to nature is often related to the duty or mandate received by human beings from God as mentioned in the story of mankind creation in the Biblical witness.

The Genesis creation narratives mention several "unique" aspects of humankind, which have frequently caused controversies. Those controversies have arisen because this "uniqueness" is only understood with respect to the position of human beings in the order of creation: compared with other created beings. Human beings were created through a different method of creation. Human beings were created not only by the word of God like other creatures, but were by a distinctive act of God formed from the dust of the ground after which the breath of life was breathed into their nostrils (Gen. 2:7). Besides this, it is mentioned that human beings are created in the likeness and image of God Himself and to him is given glory and honour (Gen. 1:26-27; 5:1; 9:6; Ps. 8:6). Humankind is then given the power to rule, to subdue and control the world and all other creatures (Gen. 1:28; Ps. 8:7-9; 115:16). All "uniqueness" in the story of man's creation is actually a very explicit witness to the position of human beings *as* created beings, with whom God has a special relationship. This "uniqueness" does not indicate that human beings

have a special dominating position.<sup>1</sup> “Uniqueness” here is not in the sense of power but in the sense of *function* within creation. However, there is an impression that this uniqueness legitimizes to control the other creatures. This perception has led to the justification of humankind’s destructive-exploitative treatment of natural resources. Nature is treated as if it was the possession of human beings and is therefore destroyed and exploited in the interests of human beings alone.

In order to get a more satisfactory understanding of the duty and the call of human beings in relation to nature, this chapter will discuss more specifically the meaning of the “uniqueness” of human beings based on the above quotations. The composition of this chapter is as follows: (1) Human beings as the Image of God, (2) Call to Control and Subdue the Earth, (3) The Role of Sin in the Ecological Crisis, (4) The Role of Redemption in the Solution of the Ecological Crisis, and (5) Summary.

## **II. Human beings as Image of God**

One of the theological references, which is frequently used to legitimate the exploitative treatment of human beings toward nature is the doctrine about human beings as the crown of creation. This doctrine is based on the witness of the Bible, which states that human beings are created in the image and likeness of God Himself. The theological terminology is *imago Dei*. The meaning of this expression is not clear and it is touched very briefly in the Bible, particularly in the Old Testament. Exegetically this expression could be given various meanings. In the Old Testament this term appears only three times, namely in Genesis 1:26-28, 5:1 and 9:6. In addition, the qualification of this expression is not explained. However, the influence of this expression on human beings’ understanding of themselves, at least in the Judeo-Christian tradition and also in Judeo-Christian influenced philosophy, has been enormous. Interpretations of the expression *imago Dei* can be grouped into two main categories, namely a dualistic and a holistic view. The dualistic view understands the expression *imago Dei* as bodily and spiritually separated, while the holistic view understands this doctrine as an integrated concept.

The most explicit dualistic view emphasizes *imago Dei* as an expression of spiritual similarity. According to this view, *imago Dei* lies in the *non-material* aspect of human beings. Laird-Harris and Eichrodt are of this opinion. According to Harris, human beings are the only spiritual, moral and rational entities in the world. To human beings, God has given a soul and this soul is

<sup>1</sup> Birch, Bruce, *Let Justice Roll Down*, 87.

created in the image of God.<sup>2</sup> Eichrodt is of the opinion that the image of God in human beings is their spiritual superiority, so that human beings have the spiritual capacity for fellowship with God.<sup>3</sup> The opinion, which emphasizes the spiritual superiority of human beings, seems also to be the view of Augustine and Thomas Aquinas, although their emphasis lies in the intellectual and moral aspects. Augustine is of the opinion that the image of God is manifest in the thoughts of human beings, namely in the rational and intellectual spirit.<sup>4</sup> Thomas Aquinas is of the opinion that the image of God is manifest in the ability to think, particularly the intellectual ability of human beings in imitating God and also his ability to recognize and worship God. The focus is on the analogy between God and human beings and not on their relation. Aquinas follows the interpretation of Irenaeus and distinguishes the expression *imago Dei*, which is in Hebrew *tselem* from *demuth*, *similitudo*. He said that *tselem* is the rationality of human beings, while *demuth* is sanctity, namely the gift of an honest heart.<sup>5</sup>

The dualistic view sees *imago Dei* as only reflected in one of the aspects of human beings and in an analogy without relation. The first aspect of this view is to emphasize *imago Dei* as an expression of similarity of the spiritual being. It can however also the other way around: focusing on the similarity of the *corporeal* form between human beings and God. Ryder Smith and Gunkel argue for this. Smith said that *imago Dei* is a physical similarity between God and human beings. The basis is the belief of the Israelites that God has apparent physical form, although not a material body.<sup>6</sup> Gunkel supports this view by saying that the ancient Israelites often described God anthropomorphically, and that is why they understood likeness in the meaning of likeness of form.<sup>7</sup> The views which emphasize the corporeal similarity of God and man are influenced by exegesis which tries to understand the writing of the Holy Bible in the context of the concrete way of thinking of ancient Israel. However, it is placed in the framework of the distinction of body and spirit

<sup>2</sup> Laird-Harris, *Man, God Eternal Creation: A Study of the Old Testament Culture*, Chicago: Moody Press, 1971, 24.

<sup>3</sup> Eichrodt, *The Theology of the Old Testament, Vol. II*, London SCM Press, 1967, 10.

<sup>4</sup> St Augustine, *The City of god, Vol I*, London: J.M. Dent & Sons, 1947, 367; Cf. Reinhold Niebuhr, *The Nature and the Destiny of Man*, New York: Charles Scribner's Sons, 1951, 154.

<sup>5</sup> H. D. McDonald, *The Christian View of Man*, London: Marshal Morgan & Scott, 1981, 37.

<sup>6</sup> Ryder Smith, *The Bible Doctrine of Man*, London: Epworth Press, 1951, 29-30.

<sup>7</sup> H.Gunkel, *The Legend of Genesis*, Chicago: University of Chicago Press, 1901, 89.



A softer dualism is particularly seen in the opinion of classic theologians such as Justin Martyr, Irenaeus and Origen who lived in the early centuries of the church. They distinguish the expression 'imago Dei', which is in the Hebrew language called '*tselem*' meaning 'picture' and '*demuth*' meaning 'appearance'. The term '*tselem*' is interpreted as the physical form, while '*demuth*' is interpreted as the spiritual aspect of humankind.<sup>8</sup> That is the classical dualistic view, a mode of interpretation most possibly influenced by the dualistic philosophy of Platonism. Nevertheless the church fathers argue that *both* aspects belong to the image of God, though they do not proceed from analogical to relational thought.

In these views the image of God is seen as a reality, a capacity or characteristic that adheres to human beings themselves. Although the Reformers rejected the idea of dualism expressed by analogy and developed a more integral view, they still understand *imago Dei* also in the sense of characteristics of human beings. Nevertheless they proceed to a more integrative view. By an integrative view is not meant a view, which combines the bodily aspects and the spiritual interpretation of *imago Dei*, but it is a view that does not question one of the aspects of human beings in their integrity. For example this view does not question the separation of *tselem* and *demuth* or body and soul, although it distinguishes or emphasizes certain aspects.

John Calvin emphasized the spiritual aspect, but did not separate it from the bodily aspect. According to Calvin, the image of God is the soul, which provides human beings with the ability to distinguish good and evil or, in other words, it is an *ethical* capacity. Thus Calvin stresses the aspect of sanctity as was already present in Irenaeus. The image of God was the characteristic of Adam and Eve, when they were still strong thanks to right understanding, when their intuition was guided by reason, their desires balanced and their capacities really radiating the greatness of their Creator. Just like Aquinas, Calvin acknowledges that the image of God is seen in two main elements, namely the intelligence of reasoning and the honesty of the heart. But there is no part of human beings, even their body, which is not adorned with the radiating light of exaltation, namely the glory of the image of God.<sup>9</sup> Martin Luther put forward the same view. According to Luther, the image of God indicates that human beings are illuminated with the right knowledge about God and the potential to love their fellow human beings and God. Luther

<sup>8</sup> H.D. McDonald, *The Christian View of Man*, .33; Emil Brunner, *The Christian doctrine of Creation*, 77.

<sup>9</sup> John Calvin, *Institutes of Christian Religion I*, London/Grand Rapids: Eerdmans/James Clark, 1947, 126-128, 214.

distinguishes a particular likeness and a general likeness. The particular likeness is interpreted as the original truth that adheres to human beings, which is seen, for example, in their appreciation of truth and goodness. The general likeness is the relation of human beings to the world, which can be seen in their position which commands all the other creation.<sup>10</sup>

Modern theologians, particularly the inheritors of Reformation theology, have developed an analysis concerning *imago Dei* according to an integrated way of thinking. They put less emphasis on the meaning of *imago Dei* as relating to the *characteristics* of human beings and more emphasis on the *relation* between human beings and God. *Imago Dei* does not indicate that human beings have certain innate characteristics, but it indicates the existence of a *relationship*. That is why *imago Dei* is not understood in its formal meaning, but in a structural and functional meaning. The expression *imago Dei* covers all human beings' aspects or what Berkouwer calls the whole human being.<sup>11</sup> The expression *imago Dei* has no relation with the characteristics of human beings, but it only expresses the relation of human beings with God, their fellow beings and other creatures.<sup>12</sup> Human beings have since the beginning been created beings, who have a special relationship with God as a creation which answers to the love of God.

Emil Brunner is of the opinion that *imago Dei* only discloses the relation of human beings with God, not the substance of human beings. In the *imago Dei* human beings are given the freedom to actively and spontaneously give their response to God. This freedom is a limited freedom, so that human beings can reply to God truthfully. The freedom associated with *imago Dei* is therefore a responsible freedom. That is why *imago Dei* is not a substance but a relation.<sup>13</sup> According to Karl Barth, the expression *imago Dei* does not indicate any aspect of human beings, except their humanity. That humankind is created in the image of God means they have become into being by an act of the triune God. That is why *imago Dei* only refers to relationships. This is a dual relationship – with God and with fellow human beings. The secret of *imago Dei* is displayed in a harmonious relation between man and woman who have become an analogy of the Trinity and have therefore illustrated humanity, namely the relation of human beings with God.<sup>14</sup>

<sup>10</sup> Helmut Thielicke, *Theological Ethics I*, (trans. John W. Doberstein), Grand Rapids: Eerdmans, 1984, 154.

<sup>11</sup> G.C. Berkouwer, *Man: the image of God*, Grand Rapids: Eerdmans, 1975, 77.

<sup>12</sup> Van Nitrik & Boland, *Dogmatika Masa Kini*, 144-145.

<sup>13</sup> Brunner, *Man in Revolt*, London: Lutterworth, 1939, 184.

<sup>14</sup> Karl Barth, *Church Dogmatics III/1*, Edinburgh: T&T Clark, 1970, 184.

Hendrikus Berkhof developed Barth's thought further. He emphasizes the freedom and responsibility of human beings as the contents of *imago Dei*. Human beings are created to respond to the love of God as its essence. Human beings are created as 'responsible beings', living in relationships and in these relationships human beings basically express their humanity. The reality of human beings is that they are created as relational beings. They are created to receive and confer love. Because human beings are called into relationship with God, they must therefore be aware that nature also has life and is a friend of humankind. That is why, human beings must be related to and share with nature. Human beings can take something from nature for their own use, but with love, which is their response to the love of God; they are also called to control nature, structuring and reigning, maintaining and transforming nature through their technology and their culture.<sup>15</sup>

Many theologians nowadays understand *imago Dei* as containing a structural meaning in the order of creation - not a hierarchical structure, but a relational-functional structure. In the understanding of the relational-functional structure, *imago Dei* is often understood in the context of the call of human beings to control and subdue the earth. According to these theologians, the expression *imago Dei* cannot be understood apart from this responsibility. *Imago Dei* indicates that human beings are created with a special distinctness, namely their relationship with God and their relation to the other creatures. As *imago Dei*, human beings are created with the ability to relate, which involves both freedom and responsibility. Helmut Thielicke follows this view. He understands the likeness of human beings to God according to this functional meaning. In Thielicke's opinion the likeness of human beings to God has two directions, namely to the Creator and to the creation. As part of the creation, human beings have an upward orientation, namely in their relationship with God. This fact also indicates the position of human beings above other created beings. The meaning of this position is evident from the power given to human beings over all creation (Gen. 1:27-28). But their power, which derives from their being made in the image of God, is not same power ontologically, but a relational similarity. Human beings have an intermediate position to execute power and supremacy over God's created nature. This dominance and power is not an attribute of skill or ability, but an operational and functional attribute of the relation. Human beings do not have the same quality as God, so that the duty given to them to control and reign over the other creation is a limited power of duty.<sup>16</sup>

<sup>15</sup> Hendrikus Berkhof, *Christian faith*, 181-182.

<sup>16</sup> Thielecke, *Theological Ethics*, 154 -155.

Similar views are entertained by Gerhard von Rad, Bruce Birch and Cas Labuschagne. Von Rad says that *imago Dei* indicates the objective of human beings and not their essence. *Imago Dei* must be understood in the teleological meaning and not the ontological sense. *Imago Dei* indicates the function of human beings as representatives of God upon His creation.<sup>17</sup> Bruce Birch says that the image of God contains the meaning that human beings are given the power to represent God in reigning over nature. However, this power is not humankind's prerogative to control nature according to his wishes. Human beings are not absolute kings in the world, but they are just executing their guardianship and stewardship duty on behalf of God as the Almighty Creator.<sup>18</sup> According to Labuchagne, the creation of human beings in the image of God had the objective that human beings would control the rest of creation. However, the similarity of image does not imply the same competence between human beings and God. Human beings are not the highest authority, since they are also a creation. Their power is therefore a limited power. This is evident in the command to consume natural resources in a limited way (Gen. 1:29-30) and from the dichotomy of human's creation (Gen. 1:26-28; 2:7). On the one hand, human beings are created from the dust of the land and that is why they are part of nature and have a unity with nature. In their unity with nature, their relation with nature is not only a relation of power over nature, but also a solidarity relation. On the other hand, human beings are the only *imago Dei*, which distinguishes them from other living creatures. This difference is not an indication of the divinity of human beings, but it should be understood in context of power given by God to human beings in the sense of a limited power:

“Being created in God's image does not render humans into absolute rulers that master over everything else. On the contrary, the human being is destined by God to rule, but he is not the supreme ruler; he is not a god, but one of God's creatures”.<sup>19</sup>

Chung Choon Kim sketched the relation of human beings to nature with a few prepositions: *of*, *to* and *for*. “*Of-Nature*” relationship means that human beings are of nature. They are obliged to know their nature as coming from the dust of the earth, and when they die, they go back to nature (Gen. 2:7; Ps. 90:3). Humanity originally belongs to nature, and returns to the bosom of nature when his life ends. Human beings are the children of nature. The “To-

<sup>17</sup> Gerhard von Rad, *Genesis, A Commentary*, Philadelphia: Westminster, 1973, 60.

<sup>18</sup> Birch, Bruce, *Let Justice Roll*, 93.

<sup>19</sup> Cas Labuchagne, in Luco van den Brom, *Interpreting the Universe*, 125.

Nature” relationship means that human beings have to know something about the nature given to them for their necessities. The *Yahwist* introduces the ancient traditions regarding human knowledge and techniques in the ancient civilization (Gen. 4:20-22). The “For-Nature” relationship means humanity should keep and preserve nature. (Gen. 2:15).<sup>20</sup> This human being-nature relationship describes an ethics that recognizes the inter-relatedness and interdependence of human beings and nature.

From the above analysis one can draw the conclusion that the doctrine of *imago Dei* does not provide a simple explanation of the special position of human beings among the other parts of creation. That is why *imago Dei* should be understood in several ways, which are interrelated, as summarized by Daniel L. Migliore as follows:

“(1) Human beings created in God’s image, are beings freely addressed by God and free to respond to God. (2) Being created in the image of God means that human beings find their true identity in coexistence with each other and with all the other creatures. (3) Being created in the image of God is not a state or condition, but a movement with a goal: human beings are restless for a fulfillment of life not yet realized”.<sup>21</sup>

Many important aspects could be seen here about *imago Dei*, namely: freedom, capacity to think or intellectuality and the relation of human beings with God and their equal creation. *Imago Dei* does not mean that human beings are created with a special position and power, excepting a position to execute certain function. This function must be executed by human beings according to the purpose and the objective of the Creator: not to exploit but to take care. *Imago Dei* should not be understood apart from this function of human beings, which is at the same time their call.

These aspects must be kept in balance. There is a tendency to stress the calling to control the earth on the cost of the other aspects, especially the second aspect Migliore brings in. Therefore he brings the balance by not at all referring to the controlling and subduing aspects of human’s responsibility at all.

<sup>20</sup> Chung Choon Kim, “Toward A Christian Theology of man in nature”, in: Emiritio Nacpil and Douglass Elwood, (eds.), *The Human and the Holy: Asian Perspectives in Christian Theology*, Quezon City: New Day, 1978, 99-106.

<sup>21</sup> Migliore, *Faith Seeking Understanding*, 123-124.

### **III. Call To Control and Subdue the Nature**

It has been argued above that the doctrine of *imago Dei* is often connected to the task given to human beings to control and subdue nature. In the creation story, the reference to the image of God is related to the duty given to human beings to fill, control and subdue the earth: God blessed them and said to them, 'Be fruitful and increase in number; fill the earth and subdue it, rule over the fish of the sea and the birds of the air and over every living creature that moves on the ground' (Gen. 1:28). This text is often understood as if it were a mandate of God, which has given the authority and power to human beings to exploit nature and all creatures living in it - or at the very least a source that gives inspiration and encourages the exploitative-destructive attitudes and treatment of human beings towards nature.

The command to fill the earth and subdue the earth is a unity, which is closely related to the crisis of the environment these days. The problem of demography and exploitation of nature is interrelated in accelerating and worsening the damage of nature. However, this section will discuss in particular the command to subdue and control the earth in the context of the call of human beings towards their living environment. As mentioned above, this text is often interpreted and used to justify human's arbitrary treatment of nature. That is why a lot of debates have taken place concerning this mandate, which is deemed to be one of the strongest texts that legitimates human's exploitative-destructive attitude towards and treatment of nature.

Lynn White's criticism can be made a starting point for discussion and reinterpretation of the text of Genesis 1:28. According to White, Christianity in the West has interpreted this text with a tendency to view nature as existing solely to meet the objectives of human beings, to solely become a source to be used by human beings. Christianity does not just build a dualism of human beings-nature, but is also of the opinion that it is the will of God that human beings exploit nature for their welfare.<sup>22</sup> White himself makes clear his position that the Bible designates man the role of steward or manager of creation, not as sovereign owner or manipulator. He understands the conception of man's dominion over nature as one of responsible stewardship and sees no place in the Bible for the justification of the exploitation of nature. He also rejects an anthropocentric view of nature for, in his opinion, the meaning of image of

<sup>22</sup> Lynn White, Jr, "The historical roots of our Ecologic Crises", in: *Science*, Vol. 155, March 10, 1967, 1205 Cf. John Scott, *Issues Facing Christian*, 117; Charles Birch, et al (eds), *Liberating Life*, 7.

God implies that God has given humanity responsibility for nature's care and preservation, and respect for all forms of life, appreciation of natural wonders, and aesthetic delight in its beauties.<sup>23</sup>

If White is right, it should be said that the exploitative-destructive tendency of human beings is not because human beings or Christians have truly obeyed the mandate to subdue and control nature. It would be a misunderstanding of the above text or a manipulation of the exegesis or interpretation of that mandate. This has been mentioned by the World Council of Churches in its various ecumenical meetings, which have specifically discussed the relationship between Christian theology and the environmental crisis. An instance that must be mentioned here is one of the points in the statement of the Theological Consultancy on Ecology organized by the World Council of Churches in Annecy, France in the year 1988, which reads as follows:

"To many generations in the West, this story was read primarily in human-centered terms; human beings were created in the image of God, commanded to be fruitful and multiply, given dominion over the rest of creation, only to disobey God and fall. This one-sided interpretation led to reading the remainder of the Bible as the story of human salvation alone. It also supported exploitation attitudes and practices in relation to the remainder of creation and the destruction of the habitat of many species".<sup>24</sup>

Further, in the Seventh Session of the World Council of Churches in Canberra, Australia in 1991, one of the points in the report of Section I included the following acknowledgement:

"We agree that some past interpretation have led to dominion, to forms of control which have been destructive of life and views of nature which regard it as subject to human 'ownership' and unqualified manipulation. Many streams of the church traditions have misunderstood human 'dominion' (Genesis 1:28) as exploitation, and God's transcendence as absence. The more theology stressed God's absolute transcendence and distance from the material sphere, the more the earth was viewed as 'unspiritual' reality, as merely the object of exploitation. While we repudiate these consequences of some theologies of creation, we also know that they are closely related to ways of life which have received theological sanction and support".<sup>25</sup>

From the above two quotations it could be concluded that White's critique is supported by the broad community of the churches nowadays. It is clear

<sup>23</sup> Lynn White, Jr., *The historical roots*, 1203.

<sup>24</sup> Charles Birch & Lucas Vischer, *Liberating Life*, 276.

<sup>25</sup> See *The Ecumenical Review*, Vol. 43, April 1991, Geneva: WCC, 1991, 266.

that the mandate to rule and subdue the earth is not in the sense of exploitation, but in the sense of managing and preserving. The command to subdue and rule the earth does not have the aim of giving absolute authority or power over nature to human beings.

It must also be noticed that this view is not at all new. On the contrary, it is in line with the whole tradition of exegesis until modernity. It is obvious that the understanding of the mandate to control and subdue nature has never been interpreted as a mandate to treat co-nature arbitrarily in the history of the church until modern time.

From an extensive study of the Judeo-Christian interpretation of Genesis 1:28 from the ancient times up to the Reformation, Jeremy Cohen concludes:

“Rarely, if ever, did pre-modern Jews and Christians construe this verse as license for the selfish exploitation of the environment. Although most readers of Genesis casually assumed that God has fashioned the physical world for the benefit of human beings, Genesis 1:28 evoked relatively little understanding concern with the issue of dominion over nature”.<sup>26</sup>

According to Nash, many Christian theologians like Francis of Assisi, acknowledged the control of human beings over nature, but for purposes of benevolent deeds and not for exploitation. John Wesley and many other theologians before him interpreted the control over nature as an intermediary of the blessing of God to non-human creation. Various Christian groups such as Methodists and Puritans interpret the control of human beings upon nature as a mandate against tyranny, cruelty and brutality. The mandate to control nature is deemed as a mandate of guardianship and good deeds.

It is clear that the development of the philosophy of rationalism during the Enlightenment influenced the interpretation of the Bible, particularly the mandate to control nature which, whether purposely or not purposely, realized or not realized, was used to legitimate human’s arbitrary treatment of co-nature in the interests of imperialism and the application of technology. The accusation that Christianity bears the burden of a very big blunder, which caused ecological damage, is refuted by the evidence mentioned above. Before and after the Enlightenment era, particularly in the 20<sup>th</sup> century, the understanding of the mandate to control and subdue creation or nature as related to the creation of human beings in the image of God, has always been interpreted positively as a mandate to manage and preserve nature, because human beings were created to be the representatives of God in the world.

<sup>26</sup> Cf. Nash, *Loving Nature*, 120-121.



Certainly not all theologians in the modern era share the modern worldview of dominance in the interpretation of Gen. 1:28. Many leading scholars share the classic reception of the verse. According to Emil Brunner, the text of Genesis 1:28 concerning the duty and function given to human beings to subdue and to control nature, is the implication of their created as the image of God. Because human beings are created in the image of God, human beings are allowed to and should actually control the rest of creation. This control covers knowing the creation of God (Gen. 2:19-20), using and benefiting from natural resources (Gen. 1:29) and managing and preserving nature (Gen. 2:15). This is called the cultural mandate. However, this call must be fulfilled in the context of the relationship of human beings with God. Human beings may not look for their life's objective in the cultivation of His creation. The life objective of human beings lies in their relationship with God. Only on that basis can human beings execute their duty to rule and control nature well and be prevented from an attitude of egoism and arrogance in the exploitation of nature. Human beings are not created to control nature absolutely and arbitrarily, but to rule it under the authority of the Creator, namely appreciate and love God's created co-nature as a response towards the love of God.<sup>27</sup>

Moltmann says that the duty to control and rule over the earth is a call to create and not to exploit or destroy. Human beings may rule over God's creation in the sense of managing with full responsibility. This responsibility is not only towards God, but also towards the world and towards the future of human beings. Herein lies the meaning of creativeness. The restricted control is in the meaning of preserving through a directed management because said control is a control on behalf of God. That is the idea contained in *imago Dei*. A human being is not God but only the image of God.<sup>28</sup> The mandate of God to human beings to control and subdue the earth must indeed be understood in the context of the creation of human beings in the image of God.

The powerful impact of this text is apparent both in the history of the church and in human history as well. It is rooted in the Biblical tradition itself as can be understood from the background of the text. But in the conclusions we have precisely to take in account that backdrop and avoid generalizations. Because of the impact on theology in modernity we will listen to modern interpretations by Old Testament scholars.

The text of Genesis 1:26-28 is inseparable. Understanding the mandate to control nature is related to an understanding of the essence of the creation

<sup>27</sup> Brunner, *Man in Revolt*, 67.

<sup>28</sup> Jürgen Moltmann, *The Church in the Power of the Spirit*, San Francisco: Harper & Row, 197, 110.

of human beings in the image of God. This is clear from Von Rad's and Westermann's exegesis of the text. According to Von Rad, the use of the term "image of God" has its roots in the ideology about kings in the ancient world of the Near East. A king in power would have statues of himself made or appoint one representative to function as a symbolic illustration or representative of his power in a distant region. This was the way the Israelites would imagine human beings as representatives of God in the world. God has placed human beings in the world as emblems of His almightiness.<sup>29</sup> This is how the mandate to control and subdue nature is understood. Human beings' creation in the image of God is understood in a special meaning as a call, function and role of human beings in nature. As representatives of God, human beings are called to perform the function of guardianship.

The powerful impact of this text is apparent both in the history of the church and in human history as well. It is rooted in the Biblical tradition itself as can be understood from the background of the text. Scholars have attributed the account of creation in Genesis 1 to a priest or priestly community in ancient Israel. The priestly families of ancient Israel, as chief administrators of its religious shrines and institutions, held positions of authority and power in Israel society. They were closely allied with the monarchy and played a primary role in the establishment and maintenance of the state (2 Samuel 8:15-17).<sup>30</sup> According to Von Rad, during the Persian period, when some believe the priestly traditions in Genesis reached their final form, the priesthood assumed both religious and political authority in Judah (Zech. 6:9-14).<sup>31</sup> Thus the priests, throughout Israeli history, were part of its ruling elite, legitimating its political leadership and performing the role of mediator between God and the people in Israelite worship.

According to Hiebert, the distinctive role played by the priests in the social world of ancient Israel is reflected in their conception of the role of the archetypal human in the world of creation as a whole. This is evident in the verbs by which the human role is defined and in the divine image given to human beings alone. The verbs *rādâ*, "have dominion" (Gen. 1:26, 28), and *kāba*, "subdue" (v.28), mean to rule, to exercise power and authority. Regarding the verb *rādâ*, Hiebert stated:

<sup>29</sup> Von Rad, *Old Testament Theology*, 146; cf. Claus Westermann, *Old Testament Theology*, Vol. I, New York: Harper & Row, 1987, 11.

<sup>30</sup> Robert B. Coote and David Robert Ord, *In the beginning: Creation and the Priestly History*, Minneapolis: Fortress Press, 1991, 29-56.

<sup>31</sup> Gerhard von Rad, *Genesis: A Commentary*, 27-28.

“*Rādâ*, “have dominion”, is used for the authority of the head of the house over household servants (Lev. 25:43, 46, 53), but more often it is employed for the rule of kings (1 Kings 5:4[Eng: 1 Kings 4:24]; Ps. 72:8) and of their officials (1 Kings 5:30 [Eng: 1 Kings 5:16]), including the priests themselves (Jer. 5:31). When used of kings, *rādâ* is used primarily for rule over Israel’s enemies (Ps. 110:2), and it occurs in descriptions of military conquest, where it is paired with such verbs as “destroy” (Num. 24:19) and “strike down” (Isa. 14:6). The verb clearly designates a potent authority. When used by the priestly writer in Genesis 1 for human rule over animals, *rādâ* may reflect more directly the priests’ own authority in the ritual of animal sacrifice (Gen. 9:1-7; Lev. 8-9) and in the administration of laws regarding clean and unclean animals (Lev. 10-11). It must also refer to the harnessing and herding of domestic animals (Gen. 1:24-26) within Israel’s subsistence agricultural economy”.<sup>32</sup>

The particular harshness of the term of human-earth relationship in Genesis 1 may best be understood in the context of the particular harshness of subsistence agriculture in the Mediterranean highlands that provided the livelihood of the priests’ constituency. Economic survival could thus be viewed, as it is by the priestly writer in Genesis 1, in adversarial terms as overpowering the intractable ground and subjugating the earth. This is clear from the meaning of *kāba*] as explained by Hiebert as follows:

“The verb *kāba*], “subdue” (Gen. 1:28) is even more forceful than *rādâ*, describing the actual act of subjugation, of forcing another into a subordinate position. It is used of military conquest, about which the same phrase used in Gen. 1:28 (“subdue the earth/land”) can be employed to depict the destruction and occupation of conquered territory (Num. 32:22, 29). The verb “subdue” is also used of the king forcing his people into slavery against God’s wishes (Jer. 34:11,16) and of rape (Esther 7:8; Neh. 5:5)”.<sup>33</sup>

Viewed from this priestly perspective, the human calling in Genesis 1 is one of impressive authority and control. But we have to strive to interpret this text in its historical context. We can see the background of the usage of these words in the context of care for the world’s opposing wild animals. At that time, breeders usually faced wild animals like lions threatening their cattle. Thus they had to control and subdue the wild animals to care for their cattle. Through the experience of the damage, destruction, and brutality of wild animals, human beings began to learn how to fight against wild animals and master them. The Israelites’ way of thinking was similar in relation to their fear of the dark powers of the world. Berkhof interprets in this context Genesis 1:1-2:4a (P) as follows:

<sup>32</sup> Theodore Hiebert, “The Human Vocation” in: Dieter T. Hessel, et al, *Christianity and Ecology*, 153.

<sup>33</sup> Theodore Hiebert, in: Dieter T. Hessel, et al, *Christianity and Ecology*, 154.

“In my judgment we look here deep into the heart of Israel, which cannot break herself free from the fear of the dark powers which cross Yahweh’s plans, and which nevertheless, rising above her own fear, confesses there are no other gods before the face of Yahweh, who created the world good out of his own goodness”.<sup>34</sup>

The Hebrew words used in the mandate to control and subdue nature do indeed have the connotation of exploitation if translated literally. The word *rādâ* and *kāba]* literally meant to trample upon or to squeeze. The use of these words is designed to give emphasis to the function of humankind to uphold and carry out the rights of God upon the world.<sup>35</sup> According to Nebelsick, the word *kāba]* is possibly used for rough activities such as the treatment of slaves or workers doing forced labor. However in the context of the Book of Genesis, the command to control and subdue the earth is an expression of the similarity of the image of humankind to God:

“Humankind is to represent God’s dominance over creation and express his loving, caring rule over it. Rather than giving the right of exploitation, ‘dominion’ is to be understood as ‘service’. The dominion over the creatures is thus to be compared to that of a shepherd who protects his flock from the wild beasts or a farmer who keeps the cattle out of fields. Humans are God’s gardeners, shepherds and gardeners”.<sup>36</sup>

In addition to this, according to James Nash, the use of these words is within the context of convincing human beings that they can face challenges in nature in defending their life. The life of human beings in their relation with nature has, from the beginning been forceful, rough and not satisfying. That is why human beings must struggle to get their food and other necessities. The shrewdness of human beings has been an absolute necessity from the beginning of time up to now in order to maintain their life and to build culture.<sup>37</sup>

Based on those two reasons, the words *rādâ* and *kāba]* could be understood as a mandate to combat nature in the sense of carrying on and managing, guarding and preserving nature. This is clear from the context of the word ‘to bless’ used as preface to the mandate. It is also clear from Genesis 1:29 and 2:15, where it is stated that God has entrusted the earth and all its contents to

<sup>34</sup> Hendrikus Berkhof, *Christian Faith*, 164.

<sup>35</sup> Von Rad, *Genesis, A Commentary*, 63.

<sup>36</sup> Harold P. Nebelsick, in: John Magnum (ed.), *The New Faith-Science Debate Probing Cosmology, Technology & Theology*, Minneapolis: Augsburg Fortress, 1989, 50.

<sup>37</sup> Nash, *Loving Nature*, 106. This view is also put forward by Abraham van de Beek, in his interview with the writer in Leiden, 24<sup>th</sup> of June 1998.

be managed and preserved by human beings. As the image of God, human beings are given a functional authority in the form of the responsibility to represent God, namely carry out the power of God on earth. Therefore, the powers of human beings are a given or delegated power. Human beings do not have any absolute prerogative to treat nature as they wish. Human beings may know and benefit from nature, but they have no right to control and treat it as their possession. God possesses nature. That is why human beings do not have the same competence as God. Human beings are a creation and an integral part of creation. Their relation with nature is a relation of solidarity.<sup>38</sup> Power over nature is not an arbitrary power, but a cooperative power, since human beings are only 'care-takers'.<sup>39</sup> It is therefore clear that human beings are according to the text of the Bible, particularly Genesis 1:26-28, not created to become absolute rulers over the rest of creation, but as those who are entrusted by God with a mandate to carry out the rule of God upon His creation while benefiting from nature and preserving it. This duty is popularly referred to as an economic and ecologic duty. These duties are one and not separable.

The objective of the rule of human beings is to create harmonious relations in creation, so that together with the whole universe, human beings can emanate the grandeur and glory of God the Creator. The rule over nature must be a cooperative and creative rule. God has entrusted and delegated the control and rule over creation to humanity, not for nature to be possessed, controlled and damaged, but to be carried on and preserved (Gen. 2:15). According to Wolff, it is precisely in the preservation of nature that the function of human beings who are created in the image of God lies.<sup>40</sup> God has created this world with all its completeness and human beings are entrusted and assigned to manage, exploit and preserve it. Human beings may manage nature, so that everything that has been prepared by God can be utilized by human beings to meet their living needs. Human beings are created as '*homo faber*' to carry on and utilize natural resources created by God. They may create technology to carry out their duty. However, they are also called – with their thinking and the technology that they have created – to preserve all that has been created and entrusted by God to them and not waste it. Human beings are only entrepreneurs and workers who depend on the generosity of God. That is why they have no right to waste and damage nature. Human beings are blessed

<sup>38</sup> Moltmann, *Theology Today*, 130.

<sup>39</sup> Stott, *Issues Facing Christian*, 113-114.

<sup>40</sup> H.W. Wolff, *Anthropology of the Old Testament*, Philadelphia: Fortress, 1981, 160-161.

with power, which can be utilized to support their life and nature as well. That is why, as created beings, whose have been entrusted with the responsibility of being the servants of God in all His work on earth, human beings are not allowed to misuse their power. They must accept the trust of God with modesty and with full responsibility. Human beings are not the highest authorities, although God has entrusted them with power. They are not God, but just created beings. They are not the possessors of nature, but just workers who work on behalf of the owner, who is God. That is why the control entrusted to human beings by God is a control of service and stewardship.

The objective of God in giving human beings a mandate to rule and subdue nature in the sense of carrying on and preserving nature was to make the life of human beings prosperous, maintain their harmony with nature and to deeply honor God. Referring to Psalm 8:5-9, Preman Niles says that through human beings the grandeur of God is proclaimed all over the world, in the context of prayers and adoration to God. The theme of the control of human beings over the world must be seen in the sense of human's role of leadership, so that we understand the leadership of human beings not as control but as a particular responsibility for the world.<sup>41</sup> This objective is executed and can be achieved if human beings carry out their mandate with full responsibility, managing while preserving what has been entrusted to them. Nature must be treated with justice and should not be wasted or damaged for the satisfaction of human beings, nor for economic benefits alone. Nature, like the sheep of the good shepherd (Ezek. 34; John 10), may not be plundered or robbed, but must be managed and worked on with full respect and responsibility.

The implication and implementation of the mandate is expressed in various endeavors to prevent the destruction and pollution of the living environment, to protect and preserve all creatures. Al Gore believes that the environmental crisis is essentially a spiritual crisis based on the assumption that the single concept of the human vocation at the Christian's disposal is the concept of dominion. He believes that it is the responsibility of the Christian to understand and act upon the proper sense of the God-given mandate. According to Gore the Biblical concept of dominion is quite different from the concept of domination, and the difference is crucial. Specifically, followers of this tradition are charged with the duty of stewardship, because the same Biblical book

<sup>41</sup> Preman Niles, "Old Testament: Man and Nature", in: Nacpil, *The Human and the Holy*, 76.

that grants them “dominion” also requires them to “care for” the earth even as they work it.<sup>42</sup> These words are used in Genesis 2:15. Adam may live in the garden in order to work and care for it. The terms “work” and “care for”, derived from Hebrew “*abad*” and “*samar*”, come from an agrarian context. These terms emphasize the connectedness of human beings with other life, a perspective more evident in the agrarian culture of human beings together with all life from topsoil than in an urban culture of humans alone in God’s image. And they see human beings as members of an ecosystem rather than as its managers, a perspective more evident in the agrarian image of the farmer tilling or serving the soil than in the priestly image of humans ruling creation.<sup>43</sup> In this context, human beings exercise dominion or stewardship as the representatives of God.

#### **IV. The Role of Sin towards Nature**

The witness of the Bible about the creation of human beings in the image of God is soon followed by the story of the fall of human beings into sin (Gen. 3) and the spread of sin to the whole of humanity (Gen. 4-11). The beauty, which had illuminated the harmonious relationship of human beings with God and with the rest of creation, was destroyed by the fall of human beings. The fall damaged the harmony experienced by all creatures in Paradise. This damage is clearly seen in the situation of human beings who mysteriously and radically opposed the objective for which they were created by God Who had entrusted this world to them as His stewards. Human beings did not carry out the mandate given them by God but rather sinned by grabbing and plundering natural resources on earth.<sup>44</sup> As has been explained before, the objective of the creation of human beings was to honour God deeply through the duty of stewardship: ruling and preserving nature freely but responsibly. However, human beings have misused their freedom and responsibility for their own honour and greed.

The biblical creation story tells that ‘human beings wish to be the same as God’ (Gen. 3:5). That is the reason why, according to Brunner, sin is illustrated as treachery and rebellion of human beings against God.<sup>45</sup> Sin is an act of apostasy and deviation from the objective, which had been determined by God from the beginning. Just as there have been various interpretations of

<sup>42</sup> Al Gore, *Earth in the Balance: Ecology and Human Spirit*, Boston: Houghton Mifflin, 1992, 243.

<sup>43</sup> Theodore Hiebert, *Human Vocation*, 146.

<sup>44</sup> Berkhof, *Christian faith*, 215.

<sup>45</sup> Brunner, *Man in Revolt*, 90.

‘*imago Dei*’ throughout the history of the church, so also the understanding of sin varies. The classical theologians like Irenaeus, Origen and Justin Martyr, followed the view that sin is the disappearance of the good characteristics of human beings or the disappearance of the spiritual aspect or the similarity of the image of God in the meaning of *demuth*. But the similarity of image with God in the meaning of *tselem* is still part of human beings. That is why human beings can still think with their intellect.<sup>46</sup> This approach was followed also by Augustine, but with a different nuance. According to Augustine, sin damaged the supernatural ability of human beings, while their natural talents are only weakened.<sup>47</sup> Thomas Aquinas was of the opinion that the similarity with God, namely *demuth*, which means sacredness and gift of honesty disappeared together with the fall of human beings into sin. However, the similarity of image with God, namely *tselem*, which means rationality of human beings, was not seriously damaged.<sup>48</sup>

The way of thinking of the classical theologians was also followed by the Reformers. Luther said that it is the similarity with God that has disappeared because of sin. However, the image, namely the rule of human beings over the rest of creation does not disappear with the fall of human beings into sin.<sup>49</sup> According to Berkhof, Calvin followed a more complicated route. Calvin regarded the knowledge of sin and the knowledge of grace as opposites, as the double reaction to the one (judging and liberating) gospel - whereby the *fides* and its knowledge of grace was logically prior to the *poenitentia*. He believed that a person cannot apply himself seriously to repentance without knowing that himself to belong to God. But no one is truly persuaded that he belongs to God unless he has first recognized God’s grace.<sup>50</sup> Calvin talks about ‘*semen religionis*’, which is the gift of God, which is valid for all human beings in their effort to find truth. In the nature of human beings, however blemished and stained they are, there is still a splatter of fire, which indicates that human beings are wise creatures. Their character and intelligence are not completely damaged. However, the heart of human beings is penetrated with the poison of sin, causing their mind to always be wrapped with hypocrisy and deceit.<sup>51</sup>

Modern theologians observe sin as the severance of the relationship between human beings and God, which is evident in the attitude of human

<sup>46</sup> Brunner, *Man in Revolt*, 77, 113.

<sup>47</sup> Calvin, *Institute of Christian*, 208.

<sup>48</sup> Cf. McDonald, *The Christian View*, 37.

<sup>49</sup> Cf. McDonald, *The Christian View*, 37-38.

<sup>50</sup> Cf. Berkhof, *Christian faith*, 200.

<sup>51</sup> Calvin, *Institute of Christian*, 129, 292-293.



beings that is against the will of God. Barth is of the opinion that sin is a result of the arrogance of human beings which has caused disobedience and disbelief. Disobedience and disbelief are so serious that they have damaged every part of human life, what is hidden in human beings as well as what is seen in their external relationships.<sup>52</sup> The external relationships meant here are the relationships with God and with the rest of creation. Sin that is rooted in the arrogance of human beings has damaged the relationship of human beings with God. Reinhold Niebuhr describes sin as arrogance and the wish of human beings to rule.<sup>53</sup> Humankind has in essence a feeling of being unsafe and is dependent upon nature. In their efforts to control their feeling of being unsafe, human beings have problems in resisting the temptation to go beyond their limits as created beings. Human beings are creatures who are limited but they are always pretending not to be limited. That is sin according to the witness of the Bible.

The fall of human beings into sin has indeed not caused an absolute severance of the relationship between human beings and God. This means that *imago Dei* or the image of God in human beings still exists, but is no longer functioning, as it should. That is the reason why human beings are still called *imago Dei* after falling into sin. But the function of *imago Dei* has become weak. Human beings are no longer able to carry out rightly their function of managing nature. On the contrary, their relationship with co-nature has also been damaged. Nature is faced with an attitude which endeavors to rule, both because of being afraid or worried as well as because of the drive to possess. Because human beings are worried and afraid of nature, human beings endeavor to subdue and rule over it. Because of being afraid and worried about their future, human beings endeavor to own nature and to greedily grab all her resources.

The influence of sin in modern life is seen in human beings' assumption that they will gradually be able to overcome their limitations. All intellectual and cultural pursuits are contaminated with man's arrogance. It is this arrogance along with human's desire to rule that has damaged the harmony of creation. Niebuhr distinguishes religious sin and moral sin. The dimension of religious sin is the rebellion of human beings against God and their effort to snatch away the position of God, while the dimension of moral and social sin is injustice. The egoism that has wrongly made human beings want to make themselves the centre of existence in their arrogance and wish to rule has

<sup>52</sup> Karl Barth, *Church Dogmatics* IV/1, Edinburg: T&T Clark, 1970, 413, 496.

<sup>53</sup> Reinhold Niebuhr, *The Nature and the Destiny of Man*, New York: Charles Scribner's Sons, 1951, 190-191.

inevitably caused human beings to impose their wishes on nature, thus doing injustice to other living creatures.

If we acknowledge that sin has damaged the *imago Dei* and thus also damaged the function and objective of human beings in the world, human beings are no longer able to live according to their objective. According to Bruce Birch, sin has made human beings incapable of implementing the task God entrusted to them of controlling and ruling the world according to God's plan. Therefore, the relationships among human beings or the harmony of human beings with their fellow humans and fellow creation have been damaged and broken too. Sin has caused the harmony of the whole creation of God to be disturbed and damaged.<sup>54</sup> The damage to the harmony of creation has disturbed the harmonious relationship between God and human beings, between human beings and their fellow people and between human beings and their fellow nature. According to Nebelsick, the results of the disturbance of harmony include alienation, sickness and suffering of human beings and nature.<sup>55</sup> The sin of human beings has caused all creation to bear the burden of suffering, not only at the time that human beings fell into sin, but throughout the history of the life of all creation. Human beings have continuously treated nature like an enemy, which has to be continuously destroyed and nature has thus suffered as a result of the bad treatment of human beings in their arrogance and greed.

Paul Tillich underscores three exclusive characteristics of sin, namely unbelief (like Barth), desire and arrogance (like Niebuhr). The implication of those three basic characteristics of sin is evident in the attitude of modern human beings who are always trying to keep away from God and make themselves rather than God the centre of everything. Disbelief means human beings in their totality turning away from God so that they lose their existential unity with God. By desire and greed (*concupiscentia*) of human beings are meant the unlimited passion to devour all reality and all the contents of the world for themselves. By arrogance (*superbia*) of human beings is meant their efforts to achieve divinity.<sup>56</sup> Tillich has described the reality of sin and its impact upon the relationship of human beings with God and with the created nature. The power and ability entrusted by God to human beings, enabling them to subdue nature has been misused and executed solely with the objective of honouring themselves. This is obvious in the application of science and technology, which is used by human beings to meet their ambition to become

<sup>54</sup> Birch, Bruce, *Lets Justice Roll*, 93.

<sup>55</sup> Nebelsick, in John Magnum, *The Faith-Science*, 51.

<sup>56</sup> Paul Tillich, *Systematic Theology I*, London: Nisbet, 1953, 210-211.

rulers and also to satisfy their greedy desires. With science and technology human beings endeavour to realize their sinful desires to become rulers and owners of everything through the exploitation of nature. Thus the damage to the living environment must firstly be seen in the context of the misuse of the power over nature entrusted to human beings. The application of science and technology to destroy co-nature is, according to Thomas Derr, a proof of the misuse of the power over creation entrusted to human beings.<sup>57</sup>

In the introduction and the first chapter we have already shown that science and technology have aided human beings in realizing their ambition to rule and possess God's created nature. Human beings initially endeavoured to realize their ambition to rule through science and technology. This is the characteristic of modern humankind. Moltmann says:

“The modern science provides the knowledge that enables us to subject the nature. The basic value of modern society which has produced this science and technology is the will to power, progress in accumulating power and the safe guarding of power”.<sup>58</sup>

The trust given by God to human beings to carry on and preserve His created nature is used tyrannically to satisfy the greed of human beings. According to Baker, the greed of human beings originates from sin.<sup>59</sup> The roots of the damage to the environment lie in this greed and arrogance of human beings, which is obvious from their misuse of power. As a result, human beings are no longer able to control nature in the sense of using and utilizing nature the right way, but exert a power which exploits nature for their own greedy interests as expressed in the writing of Limouris:

“The human fall, however, which was essentially a sinful exercising of human freedom, introduced forces of disintegration into the body of creation. Domination and exploitation of the creation for selfish ends by greedy human beings become the order of history”.<sup>60</sup>

From this explanation it is obvious that sin has caused human beings to practice domination over nature. From the Christian perspective, the damage of nature or the living environment does not lie in the command to control and subdue the earth, but in the corrupt activities of human beings resulting from sin. What Thomas Derr says is therefore true:

<sup>57</sup> Derr, *Ecology and Human*, 47.

<sup>58</sup> Moltmann, *Theology Today*, 91.

<sup>59</sup> Cf. Charles Birch & Lukas Visser (eds), *Liberating Life*, 19.

<sup>60</sup> Gennadios Limouris, *Justice, Peace and Integrity of Creation*, Geneva: WCC Publications, 1990, 5.

“If there is environmental significance in the account, it must lie in the corruption of man’s dominion over the earth”.<sup>61</sup>

These corrupt activities are clearer if related to the greedy and arrogant attitudes of human beings. The impact of the arrogance and greed of human beings has been tyranny towards nature. The tyrannical use of human power over nature is a failure deriving from human sin, not from God’s intention in creation.

Although both aspects of sin, namely ambition and greed or throne and wealth run parallel in the lives of human beings, the exploitation of nature is more related to the greedy aspect of human beings, as confirmed by Stott:

“at the roots of the ecological crisis is human greed, what has been called ‘economic gain by environmental loss’”.<sup>62</sup>

From the Christian perspective, human beings’ destructive-exploitative treatment of the environment originates from their failure to fulfill their calling. Because human beings have fallen into sin, as rebellion against God, motivated by ambition and greed for power and ownership, they refuse to see themselves as an integral part of creation, but consider themselves to be like God. They conceive themselves as dominating and not as receptive, depending on the gifts wherewith God’s bestows them. They do not see all creatures as precious gifts. Therefore they are not willing to serve but use everything to be served. It is the opposite of an attitude in which we conceive everything as a precious gift that we have to care for and to defend against damage. It is precisely this what is expressed in samar and even in *kabas* and *rada*. We should violently defend the garden God gave us. Reality is different, however. We violently damage God’s gifts.

The loss of the theosphere in human consciousness implies damage of the whole ecosphere. Sin has caused pollution, moral and spiritual pollution which has damaged the heart of human beings or human’s *imago Dei*. The result is that human beings tend to act destructively. This destructiveness includes the destruction of nature, which is used to meet human ambition and greed.

<sup>61</sup> Derr, *Ecology and Human*, 47.

<sup>62</sup> Stott, *Issues facing Christian*, 120.

Efforts to change the attitude and treatment of human beings toward nature must start from the renewal of the heart of human beings which has destructive tendencies. This new attitude would be an attitude that is restored and freed from the desire to rule and from greedy desires. According to the Christian faith, the Lord Jesus Christ has made change possible through His work of redemption and salvation towards all creation, specifically the renewal of the life of sinful human beings. The Lord Jesus Christ Himself came to restore the relationship between human beings and nature and transform human beings, so that they do not have an arrogant and greedy attitude anymore towards nature, but on the contrary have an attitude full of appreciation and justice toward nature. The objective of the redemption of Christ was to restore harmony in the relations between human beings with God, with their fellow people and with co-nature. The restoration of relations is called shalom in the Kingdom of God.

## **V. The Meaning of Reconciliation for Creation**

The Lord Jesus Christ is the Head of the new creation, since He is the image of God: 'Christ, who is the image of God' (*Kristos eikon tou Theou*) (2 Cor. 4:4). According to Ted Peters, the word *eikon* is used for Christ and for people who believe in Christ, because according to the Apostle Paul, believers will be changed to become like the image of God (2 Cor. 3:18; Rom. 8:29).<sup>63</sup> Berkouwer argues *imago Dei*, can only be found in a continuous relationship with Jesus Christ, the true image of God.<sup>64</sup> From the perspective of Christian theology, the change of the attitude of human beings must be based on faith in the Lord Jesus Christ, since the Lord Jesus Christ is the image of God Who is not only evident in the restoration of creation, but Who was the basis of the creation of everything that is (Col. 1:15). The true meaning of the universe can actually not be understood outside Jesus Christ. That is the reason why, as quoted above, Berkhof says that theologians after World War II started from a conviction concerning the relation of creation and salvation, where the confession of the creation has indeed been born from the conviction of redemption and salvation.

In the context of understanding human beings, according to Barth, human beings only know themselves by reflecting on Jesus Christ, the true God and the true human being.<sup>65</sup> Brunner understands the new human being as starting

<sup>63</sup> Peters, *God the World,s*, 148.

<sup>64</sup> Berkouwer, *Man, the Image*, 107.

<sup>65</sup> Karl Barth, *Church Dogmatics 3/2*, Edinburg: T & T Clark, 1957, 58.

from the idea of incarnation, where there is a materialization of God as a human being which is said to be an encounter of God and human beings.<sup>66</sup> Moltmann begins from the Cross of Christ and says that Christian anthropology is anthropology of the crucified God. By quoting the view of Calvin about the cross as a reflection in which human beings know God in Himself, Moltmann says that in the cross, the love of God is clearly seen, namely the love which accepts human beings in their suffering.<sup>67</sup> Wherever we start, the essence is that the starting point to understand the secret of the new human beings is Jesus Christ.

Thus, according to present Christian theology, an understanding of humanity lies in Christology, namely the understanding of Jesus Christ. The Christian faith underscores the fact that the humanity of human beings has its source only in the love of God, who comes in the person of Jesus Christ. In other words, in Jesus Christ is found the criterion of humanity. Reconciliation of human beings with God can only be experienced in fellowship with Jesus Christ. As Moltmann says, Jesus Christ reconciles human beings with God and with nature and releases human beings from their arrogance and greed, from their sin that has become the source of their self-adoration. In this perspective, human beings can again find the value of their humanity. The right and true human beings are the human beings who reflect Jesus Christ, the human beings who become the image of Jesus Christ, since Jesus Christ is the only human who was the perfect image of God (*imago Dei*).<sup>68</sup> *Imago Dei* can therefore only be understood rightly in the context of *imago Christi* and *imago Trinity*. The designation of human likeness to God in the context of Trinitarian thought means that its future designation is *imago Trinitatis*.<sup>69</sup>

The response of human beings to God is primarily in our position as *imago Dei*. However, this response is only possible through the incarnation, since it is in the fellowship with the Son that human beings enter into their character as *eikon*, or image of God. According to Moltmann, the theme of *imago Christi* emerges from the messianic threads anticipated in *imago Dei*, but more specifically from the “transfigured humanity of the risen Christ”.<sup>70</sup> *Imago Dei* is restored through *imago Christi* since only in the Lord Jesus Christ can the restoration and renewal of all creation be achieved. This is the most essential meaning of a theology of God’s reconciliation.

<sup>66</sup> Emil Brunner, *Man in Revolt*, 105.

<sup>67</sup> Moltmann, *Man, Christian*, 18.

<sup>68</sup> Cf. H. Küng, *Christ Sein*, München/Zürich: Piper & Co Verlag, 1974, 594: ‘Why should we be a Christian? ... In order to be truly human.’

<sup>69</sup> Cf. Celia E. Deane-Drummond, *Ecology in Jürgen Moltmann’s Theology*, Lampeter: The Edwin Mellen Press, 1997, 156.

<sup>70</sup> Jürgen Moltmann, *The Trinity and the Kingdom of God*, 121-124.

The significance of Christ for the idea of human beings as *imago Christi* is linked with our vocation. Moltmann draws on the Pauline concepts developed in 2 Corinthians 4:4, where he notes that the focus is not so much on the incarnate Christ, as *imago Dei*, but on the glory of the risen Christ. Yet Christ in glory reflects back on our interpretation of *imago Dei*, since it is through Christ that the new, true creation begins, Christ must be the mystery of creation in the beginning.<sup>71</sup> Believers become *imago Christi* through Christ, the true *imago Dei*, and by so doing anticipate their role as *gloria Dei* on earth. Human beings' designation as stewards of earth, as part of *imago Dei*, is embraced by Christ's sovereignty as the only true "*dominium terrae*".<sup>72</sup>

However, as the only true *dominium terrae*, Christ displays not exploitative dominion but an attitude of servanthood towards nature. Human beings, as *imago Christi*, must imitate Christ: "Let your bearing towards one another arise out of your life in Jesus Christ. For the divine nature was his from the first; yet he did not think to snatch at equality with God, but made himself nothing, assuming the nature of slave. Bearing the human likeness, revealed in human shape, he humbled himself, and in obedience accepted even death - death on a cross. Therefore God raised him to the heights and bestowed on him the name above all names, that at the name of Jesus every knee should bow - in heaven, on earth, and in depths - and every tongue confess, 'Jesus Christ is Lord', to the glory of God the Father" (Philippians 2:5-11, NEB). According to Abraham van de Beek, the Christology of the New Testament is concisely laid down in Philippians 2:5-11. This text is probably a hymn of the early church incorporated by Paul in his letter. It is striking how close it comes to later Christology. It matters little whether *morfe* (form) or *phusis* (nature) is used. Christ in his form and nature of God was faithful unto death. That is why Jesus received the Name above all Names: the Holy NAME of God. Every tongue shall ultimately confess that Jesus is LORD: the human being who was faithful unto death.<sup>73</sup> "Made Himself nothing, assuming the nature of slave" means that Jesus Christ became the servant not only to human beings but to the whole of nature or to all creation. "Bearing the human likeness, revealed in human shape, He humbled Himself, and in obedience accepted even death - death on a cross" refers to the sacrificial death of Jesus Christ in order to redeem and to reconcile the whole of nature or all creation. In fact He reconciled the whole of nature to God by His blood on the cross

<sup>71</sup> Jürgen Moltmann, *God in Creation*, 225-226.

<sup>72</sup> Jürgen Moltmann, *God in Creation*, 227.

<sup>73</sup> Abraham van de Beek, *Jesus Kyrios: Christology as Heart of Theology*, Zoetermeer: Uitgeverij Meinema, 2003, 131-132.

(Col 1:19-20). The character of the true image of God is to give up yourself, not to focus on your own interests and rights but to give priority to others, to your fellow men and to your fellow nature. That is the way God deals with his creation.

Human beings are invited as believers to restore their relationships with each other and with co-nature through executing their function as *imago Dei* that has been renewed and become *imago Christi*. In other words, the call of human beings to participate and to play a role in the process of reconciliation that has been started by the Lord Jesus Christ is at the same time proof of the restoration of human beings as *imago Christi*. Christ offered himself as a reconciling sacrifice once and for all because this is not an offering of an animal by a priest who is himself limited, finite and guilty, but the offering of His very self by the Eternal High Priest (Hebrew 7:11-10:18).<sup>74</sup> According to Moltmann, human beings, as *imago Dei* as well as *imago mundi* and as *imago Christi*, represent God's glory and speak on God's behalf before the community of creation and as such are God's representative on earth.<sup>75</sup> Moltmann concludes that human beings are the priests of creation. Properly understood, human beings stand before God on behalf of creation, and before creation on behalf of God.<sup>76</sup> For this purpose human beings have to take up a new orientation, namely move from the desire to rule towards the course of solidarity, abstain from conflict and foster brotherhood.

The solidarity of God towards all creation which is obvious in the incarnation, cross and resurrection of Christ, and has been accepted by human beings through the sacraments, invites human beings to take part in the reconciliation that has already been achieved by the Lord Jesus Christ. This new orientation has implications for the development of human civilization with justice. Human beings will never reach social justice without a fair and just treatment of nature and human beings will never be able to reach a just treatment of nature without social justice.<sup>77</sup> As priests of creation, human beings foster the manifestation of justice to their fellow humans and to their fellow creation.

The Christian hope about human beings is directed towards and lies in the eschatological hope about justice, humanizing human beings or promoting peace among human beings and throughout all creation.<sup>78</sup> The eschatological hope is becoming a reality through the Holy Spirit. According to the witness

<sup>74</sup> Abraham van de Beek, *Jesus Kyrios*, 166.

<sup>75</sup> Jürgen Moltmann, *God in Creation*, 190, 227.

<sup>76</sup> Jürgen Moltmann, *God in Creation*, 227-228.

<sup>77</sup> Moltmann, *Man, Christian*, 115, 130.

<sup>78</sup> Moltmann, *Theology of Hop*, 329.



of the Bible, to the new human beings have been given the Holy Spirit to aid them in realizing the reconciliation of God (Rom. 8:23-27) although the perfection of reconciliation is still a hope. In the context of the environment, according to Duchrow and Liedke, the gift of the Holy Spirit pushes human beings to release God's created nature from the violence of human beings, namely violence done upon and against creation.<sup>79</sup> In the same context, according to Conradie, the eschatological vision of God's new creation calls for a transformation of the present world in the light of this vision. The vision of God's tomorrow thus becomes not a sedative but a stimulus to earthly action.<sup>80</sup> The work of redemption of Christ and the work of the Holy Spirit must push human beings to endeavour to increase the indications of the presence of the shalom of God, namely justice, reconciliation and wholeness of creation. These qualities are the realization and projection of the restoration of human beings as the image of God and the restoration of the relationship of human beings with nature. Indications of the presence of God's shalom also include a harmonious life with nature, attitudes and actions which express love to the rest of creation and the practice of various living patterns, which are environmental-friendly like a simple, thrifty and clean living pattern.

Taking part in the reconciliation, which has already been achieved by God, is a mission aimed at realizing human beings' mandate in nature, namely to manage nature rightly and with full responsibility. The duty to manage rightly is part of believers' efforts to realize their faith. Care about the preservation of the environment is one of the proofs of the faith of believers in the renewal and redemption and reconciliation, which has been effected by the Lord Jesus Christ. This means that for Christians, the care of the environment is a call of faith and act of devotion about which there can be no bargaining. Evidences of this faith include efforts to utilize nature and its resources according to the needs of human beings, to restore nature that has been damaged by the utilization of technology, to strive for harmony according to the order of creation or natural law itself and to prevent the process of further destruction by practicing a life that is in accordance and in harmony with nature.

<sup>79</sup> Duchrow & Liedke, *Shalom*, 64.

<sup>80</sup> Ernst M. Conradie, *Hope for the Earth: Vistas on a new century*, Bellville: University of the Western Cape, 2000, 381-382.

## **VI. Summary**

Human beings are created by God in His image and likeness. This indicates that human beings have a special position in the order of creation, which enables them to rule over the rest of creation. Being created in the image and likeness of God means that human beings live in a good relationship with God and with the rest of God's creation. The meaning of being the same in image and likeness with God is understood in the context of duty and authority given by God to human beings to rule and subdue and work and preserve nature on behalf of God (Gen. 1:26-28; 2:15). This means that to human beings are given the authority by God to also join in the work of God, namely as a servant of God in the work of sustaining all creation. Human beings should execute their calling to reign over the rest of creation and to accept the honour as representatives of God to manage, utilize and preserve co-nature with the objective of the welfare and harmony of all creation. Thus humanity will honour and praise God with the rest of creation. This duty is the duty of stewardship and not domination. This duty is the duty of managing and preserving and not an authority to control and exploit. Being in the image of God means that human beings are called to manage nature with full responsibility.

The revolt of human beings against God caused the fall of human beings into sin. The rebellion of human beings damaged their relationship with God and with co-creation. As an impact of this rebellion of human beings, the rest of creation has been subject to suffering. This revolt has also had a negative impact, especially on human beings, in carrying out their function, namely that human beings tend to misuse the duty entrusted by God to them. In facing nature, human beings tend to exploit, exceeding their duty to work on and preserve co-nature. Human beings tend to control and utilize nature excessively and beyond their needs in order to satisfy their ambitious desires and greed. As a result, nature is exploited and damaged. Thus the damage to nature, especially exploitation and pollution of nature has its roots in the life of human beings. Nature is exploited and polluted because of evil tendencies within human beings as a result of their revolt against God. Human beings have become increasingly thirsty for material resources which they can get from nature. Human beings have become materialistic. Thus the destruction of the living environment like the exploitation and pollution of nature is rooted in the moral-spiritual pollution of human beings.

The restoration of the relationship of God with human beings through the incarnation, death and resurrection of Christ is also a restoration of the relationship of God with all His creation. The whole nature is covered by the

covenant of redemption and salvation of God. Nature has been reconciled with God through the sacrifice of Jesus Christ and is awaiting its fulfillment and perfection in the new heaven and earth. The morality and spirituality of human beings who have already received the redemption of Christ must be expressed in an attitude of full responsibility to manage, utilize and preserve God's created nature as part of their ethos of life. As a new creation, believers are called to use the opportunity to take part in the process of restoration of the harmonious relation with all the creation of God. This divine calling is the basis for believers' commitment to restore nature, which has been damaged by human beings and to prevent new and more serious destruction.

## Chapter 7

# The Church' Ethics and the Response to the Ecological Crisis

### I. A New Ethos

In the previous chapter we sketched the place of human beings in the whole of creation. This will have consequences for the way people behave towards the other creatures. Christian ethics must evaluate this behavior critically from the perspective of Christian anthropology. But a Christian ethics will not be successful if it is not rooted in a Christian ethos, an basic attitude that is rooted in faith and expresses itself in relations and actions.

Quoting Pergamon, Conradie rightly says that what the world needs is a new ethos, not so much new ethics. Not ethics but an ethos. Not a program, but an attitude and a mentality. Not legislation but a culture. Ethos is primary. Ethics is secondary.<sup>1</sup> I understand the ethos as values of Christianity emerging from the witness of the Bible as described in the previous chapters.

Seen from the aspect of ethics, the attitude of human beings that is rooted in materialism and profit-ism through the misuse of science and technology to exploit and damage nature, must be changed. The church as the communion of new life in Jesus Christ who has renewed the relationship of human beings with God and also the relationship of human beings with creation, must initiate a new approach to nature. If human beings as unbelievers had prioritized material benefits and profit, so that they became wasteful without care and responsibility to guard and maintain the ecosystem, believers have to prioritize love and justice as manifestations of the new life, not only to their fellow humans but to all fellow creation. The church is called to direct its services and design its communal life to be effective expressions of the ultimate goal of God's ministry, namely what Nash describes as "the Reign or Commonwealth of God".<sup>2</sup> The church's ministries are acts of confidence in and commitment to the ethos and ethic of God's Reign, which Jesus embodied and proclaimed.

<sup>1</sup> Ernst M. Conradie, *Ecological theology*, 107.

<sup>2</sup> James A. Nash, *Loving Nature*, 135.

The church must work hard to replace materialistic attitudes with an attitude that balances economic interests with the interests of the whole creation and individual interests with common interests as well as the interests of following generations. Human beings who have misused their superiority through the application of technology only with the objective of achieving their own interests must be changed and must move towards a technology application with environmental and continuity insights. Human beings must leave their destructive attitude towards nature and replace it with a new constructive attitude, namely service to creation, in managing their living environment. From this perspective the church is called to be a sign, reflecting Christ's New Creation in personal, social and ecclesiastical transformations. According to Nash, God's goal is not simply our final destiny; it is also our ethical and ecclesiastical responsibility. It is a summons to action, to shape the historical present, as the Lord's Prayer suggests, on the model of God's New Heaven and New Earth.<sup>3</sup> This is the centre of the church's mission to the world.

The church must encourage human beings to turn from the materialistic attitude that prioritizes profit so that they can enjoy a more comfortable, fresh and sustained life in their living environment. Human beings must live in a new system with ethical insight, so that they are able to resist the pressures of materialism. It is becoming increasingly difficult for mankind to face the living environment, both the natural environment and the self-made environment or the techno-sphere, with ethics as a guideline to developing their life on planet earth. Human beings must learn to again enjoy a free and just life in a fresh nature and at the same time bequeath the riches of planet earth and not only material possessions to the following generation of human beings on a perpetual basis.

Applying Christian love as ethics of peace and prosperity in the context of the co-environment starts from the biological unity between human beings and nature. The application of love in the context of the ethics of the co-environment is certainly different from the application of love in social ethics. Nonetheless, the duty of an ethics of the environment, which endeavors to achieve peace and prosperity must be motivated by a feeling full of love, participation and sharing of life. Human beings' urge to utilize other parts of creation must be controlled and balanced by the commitment to maintain and protect all life. Birch says:

"Some fundamental principles on which to build a biocentric ethics include an appreciation of the continuity between humanity and the rest of nature, while at the

<sup>3</sup> James A. Nash, *Loving Nature*, 135.

same time emphasizing the distinctiveness of the human. The development of such an ethic means that values we place high on the human agenda, such as justice, must be extended to include the rest of nature. It involves the recognition of the intrinsic value of creatures besides our selves and their value not simply to us but to themselves and to God. Taking our biocentric ethic seriously in practice will mean a dramatic change in our behavior toward nature. The ethical task before us is to liberate life from the constraints of oppression, human insensitivity and dominion in what ever form they take".<sup>4</sup>

## **II. Christian Theological Ethics on Ecology**

Ethos is primary. Ethics is secondary . Nevertheless, says Conradie, Christian ethics can make an important contribution to the fostering of an ecological ethos.<sup>5</sup> The holistic approach is in line with Christian thinking that all life has been created by God and that all elements need each other and support each other. That is why a good life is a life which takes and gives proportionally. The thinkers concerning ecological ethics mentioned in the previous chapter are for the greater part Christian ethicists. The presence of their concepts is a breakthrough, which has tinted the view of modern ethics, and at the same time served as a critique of former Christian ethics, because those tended to be exclusive ethics, being concerned only with the salvation of human beings. It must be acknowledged that Christian ethics should always endeavour to adjust to the times. Christian ethicists stress the importance of spelling out ethics in concrete terms and in real life. Dietrich Bonhoeffer, for instance, emphasized the meaning of the context as the real situation instead of the preconceived ideas of Christians. Attitude should be adjusted to facing real life problems in the world. Every issue is a pragmatic question about the essence of human obedience, and Bonhoeffer emphasized that what could and must be done is not what is good in general, but rather how Christ would be involved in the real situations of human beings here and now. That is why ethics must be grounded in existential realities.<sup>6</sup> Thus, if the reality which human beings are now facing is an ecological crisis, Christian ethics must face this problem. Christian ethics must be reformulated in concrete situations.

<sup>4</sup> Charles Birch in Charles Birch (eds), *Liberating Life*, 70-71.

<sup>5</sup> Ernst M. Conradie, *Ecological Theology*, 107.

<sup>6</sup> Dietrich Bonhoeffer, *No Rusty Sword*, New York: Abingdon, 1965, 46.

The history of the Christian church and its theology are characterized by the development of ethics that are rooted in the varied conditions of various communities and their philosophies. The more clearly Christian ethics has seen its place in history, the more it has been guided by insights and problems related to this history. One of the crucial problems of this modern age is the problem of ecological degradation. Christian theology and Christian ethics can and ought to make an essential contribution to this ethics.

## **II.A. *Different Approaches of Christian Ethics***

Northcott has classified three approaches to theological environmental ethics: the humanocentric approach, the ecocentric approach and the theocentric approach.<sup>7</sup> I will follow Northcott's classification since the relation between ecology and theology has three possible foci namely human beings, creation, and God. As argued above I opt for a theocentric approach. Human beings belong to creation, thus belong to nature. They belong to God who created them as part of the community of creation. I follow Northcott's classification in order to clarify the situation in the past when human beings always separated themselves from creation. That does not mean, I will follow Northcott's arguments regarding the content of each group. For example, I do not agree with classifying the stewardship model as humanocentric or anthropocentric, because I argue that stewardship is one of human's duties as God's representative to preserve all creation in the interests of the creation and not only in human beings. We only have to understand stewardship in a different way.

### **II. A. 1. *An anthropocentric approach***

The *humanocentric or anthropocentric approach* may be represented by the Catholic theologian Teilhard de Chardin, who attempted a synthesis between evolutionary science and theological reflection. He calls the overall process *orthogenesis*. The biological term orthogenesis means direction in the process of evolution. The evolutionary process continues within society at large, so that, following an expansive phase we have now entered a period of intensification. We have reached a critical point of being aware of ourselves as evolved beings who are part of the involution of evolution.<sup>8</sup> The final goal

<sup>7</sup> Michael S. Northcott, *The Environment*, 124-163.

<sup>8</sup> Teilhard de Chardin, *The Phenomenon of Man*, 332-334.

of orthogenesis is *Omega*. Humanity is the highest form of the evolution of life in the universe and thus the unfolding of life is crowned by emergence of this supremely conscious being.<sup>9</sup> For Teilhard, it is humanity's destiny to turn the universe and nature into a more conscious and humanly beneficent place, and to reorder the natural world in order to think out again the instinctive impulses of co-nature so as to perfect them.<sup>10</sup> Teilhard has no doubt that human beings are changing the face of the earth. Thus man celebrates the physical and biological forms of the cosmos / earth. And this consummation of human consciousness is also a Christological event for it is the precondition for the final eschatological establishment of the Kingdom of God on earth. For a Christian who believes in this Christological shaping of the *techne* of modern humanity 'the eventual biological success of Man on Earth is not merely a probability but a certainty'.<sup>11</sup>

A very different humanocentric Christian ethic is developed by Francis Schaeffer who stresses the personal nature of human beings. Schaeffer proposes that it is a central affirmation of the Christian doctrine of theistic creation out of nothing that all things are equal in their origins. Everything – humans, trees, mountains – originates from nothing, except God who made the world from nothing. However, humans are distinguished from plants and animals because they are personal, because they are made in the image of God who is also personal.<sup>12</sup> According to Schaeffer, the distinctiveness of personality relates to both intellect and consciousness, which marks off humans from trees or animals, and is the reason for the human dominion over the natural order.<sup>13</sup> Schaeffer believes that the incarnation and resurrection of Christ show that God loves material and embodied reality as well as intellect and consciousness, and he emphasizes that we are called to treat nature personally, including those orders of the creation such as alpine flowers and mountains which are not personal. He also believes that nature has value because God made it good and beautiful. However, his conclusion about human actions in relation to nature and his strong advocacy of human dominion, tend to a more humanocentric orientation in his work.<sup>14</sup>

<sup>9</sup> Cf. Northcott, *The Environment*, 125.

<sup>10</sup> Teilhard de Chardin, *The Phenomenon of Man*, 283.

<sup>11</sup> Teilhard the Chardin, *The Future of Man*, London: Collins, 1964, 231.

<sup>12</sup> Cf. Northcott, *The Environment*, 127.

<sup>13</sup> Francis Schaeffer et al, *Pollution and the Death of Man*, Wheaton: Crossway, 1992, 49.

<sup>14</sup> Northcott, *The Environment*, 127-128.



According to Northcott, stewardship is a central theme of much humanocentric Christian writing on environmental themes and environmental ethics.<sup>15</sup> He names some authors about this stewardship metaphor and recognizes Robin Attfield as one of the main persons who defended it. According to Attfield, neither the Hebrew nor the Christian doctrine of creation, with its separation of creation from the creator, nor the concept of human dominion over nature, involves a purely instrumentalist vision of nature which legitimates ecological plunder, because the role of stewardship is what is emphasized in the Genesis creation account's description of the human-nature relationship.<sup>16</sup> Thus the tradition of stewardship legitimates the reordering of the non-human world in the interests of human welfare provided that this is balanced with a sufficient regard for obligations to care for the natural world, to protect the moral interests of wild and domesticated animals and to regard the interests of future generations as well as the current generation. However according to Northcott stewardship is a highly problematic notion in ecological terms. Northcott states:

“The fundamental problem with this metaphor is the implication that humans are effectively in control of nature, its managers or, as Heidegger prefers, its guardians. And yet so much of recent environmental history teaches us that we are not in fact in control of the biosphere. Climate, oceans, ecosystems are all affected dramatically by human actions but these actions frequently produce consequences which were entirely unforeseen by their human progenitors. Human experience teaches us that this kind of master-servant relationship is not so likely to produce care and responsibility as a more participative sense of shared responsibility”.<sup>17</sup>

In this interpretation stewardship is humanocentric indeed. As argued above, we can also compare it to the task of a house elder/keeper. Then it does not have those strong anthropocentric connotations.

The last humanocentric approach to environmental theological ethics is linked with the priesthood metaphor in Orthodox traditions. Northcott names two main theologians in this approach, namely Philip Sherrard and Paulos Gregoris.<sup>18</sup> According to Sherrard, human beings are the mediators between

<sup>15</sup> Northcott, *The Environment*, 128.

<sup>16</sup> Robin Attfield, *The Ethics of Environmental Concern*, London: University of Georgia Press, 1991, 25.

<sup>17</sup> Northcott, *The Environment*, 129.

<sup>18</sup> Northcott, *The Environment*, 131-134.

heaven and earth, God and His creation, and it is only through human beings' fulfilling their role as mediators between God and the world that the world itself can fulfill its destiny to be transfigured in the light of the presence of God.<sup>19</sup> Paulos Gregoris argues that the ethical problems of the environmental crisis and the technological domination of the co-natural world can only be resolved when modern humans learn to balance 'mystery and mastery'. For Gregoris, humanity has a special vocation as the 'priest of creation, as the mediator through whom God manifests himself to creation and redeems it'. Thus humanity is set apart from the rest of creation by this vocation and participation in the 'eternal priesthood of Christ', with respect to nature.<sup>20</sup>

According to Northcott, the concept of humanity's priestly role in relation to creation is deeply humanocentric and seems to encourage the remarking and *hominisation* of the whole biosphere in the human image and for the needs of the human body. Nature or creation by this metaphor is denied any independent or intrinsic value. Its value is instrumental and can in no sense be said to reside in and for itself.<sup>21</sup> Theologically, it could be said a humanocentric ethics is the opposite to Christian theology, particularly to Biblical theology, since humans belong to the whole of creation and are taken from the earth.

## II A.2. *An Ecocentric Approach*

Since the 1970s several strands of thought of a Christian ecological ethics have developed, which have followed a more *ecocentric* approach. In fact, many currents of Christian ethics have been working so diligently on environmental problems that they have tended to neglect interpersonal relationships and have even prioritized the environment rather than human beings. Robert Whelan for instance, criticizes the attitude of the environmental activists in England who campaign for the 'rights of animals, who punish people who killed a small bat or damaged the nest of a condor, but at the same time allow the practice of abortion.'<sup>22</sup> A similar example is the case of the murder of politician Pim Fortuyn, who was killed by Volkert van der Graaf, an activist who loves animals more than his fellow human beings. Van der Graaf, worked for *Environment Defensive*, a group aimed at stopping the

<sup>19</sup> Philip Sherrard, *The Rape of Man and Nature: An Enquiry into the Origins and Consequences of Modern Science*, Ipswich: Golgonooza, 1987, 40.

<sup>20</sup> Paulos Gregoris, *The Human Presence*, 82-85.

<sup>21</sup> Northcott, *The Environment*, 133-134.

<sup>22</sup> Robert Whelan, *The Cross and the Rain Forest: A Critique of Radical Green Spirituality*, Grand Rapids: Eerdmans, 1996, 71-72.

expansion of factory farming. Van der Graaf had been angered by Pim Fortuyn's statement concerning his intention to lift restrictions on fur farming if elected. He shot Fortuyn in the central town of Hilversum, the Netherlands on May 6, 2002.<sup>23</sup> These two examples are indications of awareness among people around the world concerning the responsibility of human beings to nature. Unfortunately, some people have become unbalanced in their response.

Apart from the very extreme tendencies mentioned above, the criticism of Christian ethics as being anthropocentric (at least before the 1970s) has some truth because undoubtedly more attention was given to social relations than to ecological problems. Nevertheless this is a generalization. We cannot neglect Francis of Assisi and Albert Schweitzer (1875-1965) took on a similar position, before the break through of an environmental awareness in the 1970<sup>th</sup>. He was a Christian ethicist who cared very much about the environment. His books on ethics, giving the impression of being very mystical, are focused on the relation of human beings and their environment. So it is not amazing that the World Council started to discuss the unity of all creatures as early as 1961<sup>24</sup> and that after the environmental awakening in the 1970s many Christian ethicists, whether theologians or non-theologians, have developed their thoughts on Christian ethics with an ecological slant. Modern ethicists of the new generation who are worth mentioning, because of their distinct concepts are John B. Cobb, Jr. (theologian), well-known for his idea about 'new asceticism' and Charles Birch (biologist) who is well known for his concept about 'life centric' environmental ethics. Birch sometimes uses the expression "*theocentric*".

As mentioned before, Cobb is one of the 'process theologians' who fiercely criticizes modern dualism that represents nature as an essentially material realm from which nothing may be learnt of any moral or spiritual or metaphysical significance. Cobb argues that this modern dualism between God and nature and between humanity and nature by recon human history and the history of human as an essential unity. Human beings are part of evolutionary history and we should therefore imbue the matter, organism and life forms from which we have evolved with intrinsic value, for these sub-human elements, living and non-living, exist '*in themselves as something for themselves*'.<sup>25</sup> The measure of all things is not human experience but the evolutionary process. The events in this process are guided by God, at every

<sup>23</sup> <http://www.bbc.co.uk/90/fr/-/2/hi/europe/1974572.stm>

<sup>24</sup> See p. 258.

<sup>25</sup> John B. Cobb, *Is it Too Late*, 107.

point. God is in every event, is affected by, suffers or is enriched in all that happens, and does not compel but lures the process of life in certain directions.<sup>26</sup> Thus, according to Cobb, life may be called God and that God and the world are coterminous because ‘God includes the world’ and there is no God apart from some world.<sup>27</sup> The ethical viewpoint propounded by Cobb is more practical as he asserts that environmental ethics must be a practice of a new asceticism, namely ecological asceticism. Asceticism does actually mean prioritizing the spiritual aspect above the material. But what was meant by Cobb is the ability of human beings to reduce the damage done towards the environment by practicing a lifestyle that guarantees the conservation of natural resources by rejecting materialism.<sup>28</sup>

I agree with Cobb in his holistic approach, but reject his panentheistic view by which the distinction between God and creation is blurred. That has to do with his starting point in human experience. Therefore he is finally ecocentric and not theocentric.

### II. A..3. *A Theocentric Approach*

If Cobb stresses asceticism starting from human beings, Birch, on the contrary, starts from God. He stresses the importance of biocentric ethics or the term ‘lifecentric’ not as such, but as a life related to God. So, environmental ethics must be understood as *theocentric* ethics:

“I believe we might also call this a theocentric ethic because I believe that God is concerned about all life and not only human life. A theocentric ethic affirms that each life – human and non-human – has value not only to the one who experience that life but also to God. Intrinsic value means value in itself for the creature who experiences value and to God who experiences all value”.<sup>29</sup>

We can also mention James Nash as a theocentric ethicist. Nash argues that the intrinsic value of the creation is established by its original relationship to the Creator God who loves all the objects of the creation, from stars to starfish, who gives to the world and to all living creatures and not just to humans and whose redemptive purposes include not only human life but the earth itself.<sup>30</sup>

<sup>26</sup> John B. Cobb and David R. Griffin, *Process Theology: An Introduction Exposition*, Philadelphia: Westminster, 1976, 40.

<sup>27</sup> Charles Birch and John B. Cobb, *Liberating Life*, 197.

<sup>28</sup> John B. Cobb and David R. Griffin, *Process Theology*, 57.

<sup>29</sup> Birch, Charles et al (eds.), *Liberating Life*, 59-60.

<sup>30</sup> James A. Nash, *Loving Nature*, 99.

Other authors seem to combine aspects of an ecocentric and a theocentric perspective. Northcott develops a biocentric (life-centred) approach to Christian ecological ethics in the frame of an ecocentric metaphor. According to Northcott, respect for life is a fundamental ethical principle in the Hebrew Bible.<sup>31</sup> The primary ethical value which arises from this respect is respect for human life because human life most closely reflects the divine image (Gen. 1:27). However Hebrew ethics are not personhood but life-oriented. The primary moral value of life relates to the belief that all life, human and non-human, is in some way related to the life-giving Spirit of God and is therefore worthy of respect.<sup>32</sup>

Rasmussen develops this further to what he calls community ethics in the context of sustainable community:

“Sustainable community requires – and offers – a moral system with more sensitive skin. It does not do so by according the sweep of nature inherent moral value. All creature great and small, and inorganic matter as well have worth that rests proximately in their membership in the Community of Life”.<sup>33</sup>

Rasmussen asserts that we are all part of a larger organism, our cultures, and our cultures are all part of an even larger organism, the biosphere. This is called communitarian ethics. This comprehensive communitarian ethic, itself a *decisive earth action* on behalf of sustainability, is not nature romanticism or a simple imitation of nature.<sup>34</sup> A moral framework inclusive of nature as a subject of high moral standing is not then, simply a transfer of the rest of nature's behaviour to human conduct. No simple disclosure tells us precisely how we relate to all things in a manner appropriate to their relation to God.<sup>35</sup>

I tend to interpret the latter concepts as ‘theocentric’ and ‘christocentric’, because the appreciation of co-nature does not derive from the fact of the existence of co-nature, but is always related to the Creator and Redeemer, who is Jesus Christ who came into the world to serve and in order to save all creation. If we develop an ethics that takes this in account we should do so as clear as possible. I would therefore like to follow Albert Schweitzer who develops ministerial ethics with theocentric and christocentric characteristics.

<sup>31</sup> Northcott, *The Environment and Christian Ethics*, 182.

<sup>32</sup> Northcott, *The Environment and Christian Ethics*, 183.

<sup>33</sup> Larry L. Rasmussen, *Earth Community, Earth Ethics*, 345.

<sup>34</sup> Larry L. Rasmussen, *Earth Community, Earth Ethics*, 346.

<sup>35</sup> Larry L. Rasmussen, *Earth Community, Earth Ethics*, 347.

Schweitzer says that ethics is a service towards nature and is in fact a service towards God:

“Ethics alone can put me in true relationship with the universe by my serving it, cooperating with it; not by trying to understand it. Only by serving every kind of life do I enter the service of that Creative will whence all life emanates; but I don’t know (and it is sufficient to live by) that by serving life, I serve the Creative will. This is the mystical significance of ethics”.<sup>36</sup>

From these instances of Christian ethicists speaking about the environment the core of environmental ethics can be concluded, that Christian environmental ethics is theocentric. First is the acknowledgement that everything, including human beings are created by God and that God has entrusted human beings to lead, manage and preserve God’s creation (Gen. 1 and 2). Secondly, the misuse of man’s leadership of the creation of God has caused men to become sinful being, practising a life full of fear and at the same time greed, so that nature has become their target. However, because of Christ’ work of redemption and reconciliation, human beings and nature are placed in a new relationship, new life, new ethics, namely life with a peaceful and prosperous norm. Jesus Christ who has come to reconcile the whole of nature to God, by whom all things were created, is the centre of all creation (John 1). Jesus who has come to reconcile is the Jesus who will renew the whole creation. He will renew all creation through his suffering as the Suffering Servant. Thus Jesus suffering as the Suffering Servant is the centre of Christian ecological ethics.

### **III. Church Praxis**

In this section we will highlight what churches as communities of Christians have tried to do as the implementation of their faith in practical ways to preserve nature as God’s creation. This part will be limited to the praxis already carried out or currently being implemented by churches in the ecumenical movement both through the World Council of Churches and the Communion of Churches in Indonesia.

#### **III..A. *The Church and Ethics***

In encouraging the effective use of ethics in the preservation of nature the role of religion is very important. This role must be played together and not only

<sup>36</sup> Cf. Henry Clark, *The Ethical Mysticism of Albert Schweitzer: A Study Source Significance of Schweitzer Philosophy of Civilization*, Boston: Bacon Press, 1962, 180-181.

separately. Every religious group can make its contribution to the preservation of the global ecosystem as the only place where human beings can live. Human beings live on this planet earth together with all their fellow living beings. There are no groups of mankind who can separate themselves or leave this one big house. This is the reason why ecological ethics must become a global movement and contain values, which can be globally accepted too. This does not mean that the contribution of each religion is not important anymore, since the role of each element is important according to the principles of ecosystem and ecosphere. Each element in the community of human beings (sociosphere) must play its part in developing life safely, peacefully, and harmoniously.

A movement to strive for the preservation of the environment through the church has been developed in the circles of the World Council of Churches (WCC). Various ecumenical meetings have been organized to specifically study the Christian doctrine concerning environment and to give it a strong basis as a contribution to the global efforts to preserve planet earth, together with groups from other religions. This global and systematic active participation of the church in efforts to conserve the environment has worked through programs like JPIC ('Justice, Peace and Integrity of Creation'). This program was decided upon in the meeting of WCC in Vancouver, Canada in 1983 as a program of the member churches of WCC all over the world. The follow-up to this decision included a world conference on JPIC in Seoul, South Korea, in 1990, which became the main topic at the WCC meeting in Canberra, Australia in 1991 and is hopefully being implemented with sincere commitment among the churches all over the world.

Without belittling the significance of progress made in the preservation of the environment all over the world, it should also be acknowledged that so far, the cases of damage done to the environment have continued, because the awareness of human beings is still a political and a legal awareness and has not yet become an ethical awareness as expression of a new ethos. The participation of religious communities, including the church in efforts to preserve the environment must become a source of moral and ethical strength in changing people's attitude to their living environment. This should encourage interaction with nature characterized by due and fair respect and management of the environment according to the principles of the natural system, namely with tolerable limits of the natural cycle to guard and maintain stability and continuity of the ecosystems and ecosphere.

The theological considerations of the JPIC program have become the basis for discussion of ecological ethos in the context of church life. A general outline has been formulated covering action to be taken by the Christian individual as an expression of his faith in God, who has manifested Himself in all creation



and in the incarnation of Christ. The position of Christian theology concerning the environment has been analyzed elaborately and also the duty and responsibility of human beings towards the ecological crisis. This section will discuss specifically the role of the church as the fellowship of believers. Christians should indeed as individuals live according to Christian norms, but as a fellowship, the church has a collective duty, which it can carry out in the context of collective responsibility towards the environment. These two matters can certainly not be separated. The collective duty and responsibility as the fellowship of believer is very important as part of the realization of faith through collective existence or *koinonia*. Paul Lehmann once wrote that Christian ethics is a '*koinonia ethics*' meaning an ethics of fellowship.<sup>37</sup> As the fellowship of believers, Christians must have a collective commitment in their attitude according to their faith to Jesus Christ. The individual attitude must be reflected in the collective existence and the collective existence must be reflected in the individual attitude of each member.

The main objective of this part is to briefly examine the role of the church in the context of the ecological crisis. This discussion will be focused on the ecumenical role and the holistic mission of the church, both from the perspective of the World Council of Churches as well as from the perspective of the Council of Churches in Indonesia. The discussion in this part is descriptive and at the same time prospective. This means that it contains a description about what has already been achieved, what is still being done by the church and plans for the future concerning church involvement in the preservation of the environment, globally, nationally as well as locally.

### **III.B. *Ecology and Ecumenism***

The church as a fellowship of believers is not only responsible to realize fellowship with other churches and fellow human beings, but also with the whole creation. The concept of unity or oneness of the church that is called ecumenical (*oikoumene*), indicating the interdenominational relation of churches, originates from the Greek root word *oikos*, which actually means the inhabited world. In the context of globalization at this time, especially in the context of globalization of ecological damage, the church must understand again the meaning of its unity with creation. That is why the ecumenical objective cannot be limited to the efforts of uniting all church denominations or creating a harmonious relation among Christians. It must reach a wider

<sup>37</sup> Paul Lehmann, *Ethics in A Christian Context*, New York: Harper & Row, 1967, specifically chapter III.



perception according to the sense and meaning contained in the word *oikoumene*, namely this world or cosmos as a whole, particularly the relation with the whole creation. Ted Peters distinguishes between the word 'ecumenical' and the word 'ecumenic'. Both words originate from the same root word, namely *oikos*, but their meanings are different. 'Ecumenical' talks about unity of faith, 'ecumenic' talks about the unity of human beings with everything, namely with all the reality of God's creation. However, both words have a relation since the unity of faith must have an implication of unity with all creation. Peters writes:

"The ecumenical unity (church) also has an impact on the ecumenic unity (all the world). It is true that the church is called to come out from the community and is distinguished from the community. But, this difference has a further meaning and objective, namely to build the Kingdom of God. The Kingdom of God is inclusive, covering the whole world. The oneness of the church represents the oneness of the world".<sup>38</sup>

Thus it is absolutely necessary for the church to participate actively in efforts to preserve the environment, as an expression of her understanding of her essence as well as part of the execution of her mission.

Conradie writes that the "oikos" metaphor has often been used to develop an integrated understanding of the social agenda of the church. This metaphor refers to the "whole household of God". It is primarily concerned with the health of all forms of life in this one household of God.<sup>39</sup> Quoting many Christian experts, Conradie explains:

"In many such ecumenical contributions the etymological link between economy and ecology, both deriving from the Greek *oikos* (household) is mentioned. The discipline of economic (the economy) reflects on appropriate laws or rules (*nomoi*) for the household, the art of administering the global household. The science of ecology gathers knowledge on the "logic" (*logos*) of the same household, that is, the incredibly intricate ways in which ecosystems interact to ensure the functioning of the biosphere. The term "eco-justice" captures the need for a comprehensive sense of justice that can respond to both economic injustice and ecological degradation. The word *oikos* is also the etymological root of *oikoumene*, the whole inhabited world. "Ecumenics" therefore means treating the inhabitants of the household as a single family, human and nonhuman together, and fostering the unity of family. Moreover, as Larry Rasmussen observes, if English had adopted the Greek word of steward (*oikonomos*), we would immediately

<sup>38</sup> Ted Peters, *God the World's Future*, viii, 294, 336.

<sup>39</sup> Conradie, *Ecological Theology*, 7.

recognize the steward as trustee, the caretaker of creation imaged as oikos. Finally, Geiko Müller-Fahrenholz has developed these insights through the notion of “ecodomy”, derived from the Greek word *oikodomē*. Ecodomy is the art of inhabiting instead of dominating the earth, our house. Müller-Fahrenholz subsequently calls on Christian congregations to become ecodominical centres and to form ecodominical networks and covenants that can respond to the demands of the contemporary world. The calling of the church is to become partners in God’s ecodomy”<sup>40</sup>

If salvation in the Lord Jesus Christ is understood as salvation of all creation, the church is called not only to convey *koinonia* with its fellow humans, but also with the whole creation. The center of attention of the church is the Kingdom of God and the way to indicate the attention of the church is through the execution of the apostolic duty of the church, namely reconciliation.<sup>41</sup> According to Ted Peters, the presence of the church can be identified around the history of Jesus Christ and where its meaning is proclaimed. That is why reconciliation must become the center of attention and announcement of the church.<sup>42</sup> We can say that reconciliation is the main calling of the church as partners of God’s economy in the context of current ecological degradation.

The World Council of Churches understands reconciliation and the renewal of creation as the objective of the church’s mission. One of the statements of the general session of the World Council of Churches in Canberra, Australia, was that reconciliation and renewal of all creation is the goal of the church’s mission.<sup>43</sup> This statement signifies that the ecological reconciliation is the mission of the church. The statement that reconciliation and renewal of all creation is the objective of the mission of the church starts from the understanding that the church is a fellowship of people who are already redeemed and have become a ‘sign’ or ‘proof’ of the new creation in Christ.

The mission of the church is to continue the mission of Christ and the mission of God, namely to present signs of shalom. If the church is understood as a sign or proof of the new creation in Christ, then the attitude and actions of the church towards co-nature must also indicate reconciliation with the environment, namely living in harmony with the environment. The church meant here is not only a church in the meaning of institution but more than that, it is a church of believers who are united by the love of Christ. The church is a fellowship, which is united by the love of Christ and which is performing a mission that is directed to the future, namely the mission of

<sup>40</sup> Conradie, *Ecological Theology*, 7-8.

<sup>41</sup> Ted Peters, *God the World’s Future*, 305.

<sup>42</sup> Ted Peters, *God the World’s Future*, 306.

<sup>43</sup> See *Ecumenical Review*, Vol. 443 No.2 April 1991, 278.

reconciliation or, as expressed by Ted Peters, a church mission which contains the efforts to present only one truth, namely the Gospel of reconciliation.<sup>44</sup> The mission of reconciliation actually means service to this world.

Reconciliation is meant as the sole mission of the church and not only reconciliation among human beings, but covering all creation, since the mission of God or the mission of Christ covers all creation. The sacrifice of Christ on the cross is to reconcile everything to God. The future of reconciliation by Christ is the fulfillment of the Kingdom of God illustrated as the realization of a new heaven and earth (new creation), which has been started in Christ himself (2 Cor. 5: 17 says: 'Therefore, if anyone is in Christ, he is a new creation'). This means that the church, as people who have received renewal in Christ (*imitatio Christi*) is called to carry on reconciliation among all creation. The church is called by God to witness this reality more extensively and to witness with full hope of the promises contained in the resurrection event of Christ for the future of creation. Pannenberg says that the church is an '*eschatological community*', since its mission is to announce the hope of the fulfillment of the Kingdom of God.<sup>45</sup> In line with this view of Pannenberg, it can be said that in the Kingdom of God, churches are called to break down the walls that divide not only Jews and Gentiles, but also humans and other creatures, to be one creation (Eph. 2:11-22 and Coll. 1:15-23). A similar argument is put forward by Carl E. Braaten who wrote a book concerning eschatology and ethics in which the main emphasis is the opinion that Christian ethics that start from eschatology and environmental ethics must become one of the dominant ethics of the future.<sup>46</sup>

In line with that, Moltmann says that the church as '*Christianity*' exists not for its own honour, but for the honour of the Kingdom of God.<sup>47</sup> Thus the church has meaning only through works, which are linked to the meaning of its existence as church. The etymology of church in the New Testament as a translation of the Greek word *ekklesia*, meaning 'people who are called', contains a meaning that the church exists because it performs a task. God calls it for something and that something is the continuation of the reconciliation mission of God, namely realizing the signs of the Kingdom of God, as shalom on earth. That is why the mission of the church is often understood as being at

<sup>44</sup> Peters, *God the World's Future*, 261.

<sup>45</sup> Wolfhart Pannenberg, *Theology and the Kingdom of God*, Philadelphia: Westminster, 1969), 74.

<sup>46</sup> Carl Braaten, *Eschatology & Ethics: Essays on Theology and Ethics of the Kingdom of God*, Minneapolis: Augsburg Publishing House, 1974, 4-5.

<sup>47</sup> Moltmann, *Theology of Hope*, 164.

the essence of the church. It should therefore not be questioned anymore whether the church must take an attitude towards the preservation of nature or the environment. The church cannot deny or reject its call to participate actively in the preservation of the environment as the realization of its faith in God, the Creator and Redeemer, Who has renewed her life and called her to witness to the world about the love of God, which saves. That is why the question is how the church should realize the signs of the Kingdom of God as part of the implementation of her call in the context of her responsibility towards the environment or creation. Or in other words, how the shalom of the Kingdom of God in the context of ecological ethics can be realized in and through the church.

We will now turn to the efforts made by the World Council of Churches and by the Indonesian Council of Churches, as a basis for further reflections, change of attitude and behavior.

### **III. C. *The World Council of Churches***

Churches, which are members of the World Council of Churches (WCC), have for a long time struggled about the duty of the church towards the environment in line with the rapid progress of science and technology. The environment surfaced on the ecumenical agenda following a 1961 speech to the WCC assembly in New Delhi by Joseph Sittler, calling for an earthy Christology and a greater emphasis on cosmic redemption<sup>48</sup>. In his paper, entitled "Called to Unity", he challenged and prodded the church to expand the scope of its Christological vision to include nothing less than all of reality.<sup>49</sup> Sittler was supposed to talk about 'the unity of the church', but instead he talked about the unity of the world, basing what he said on the cosmic Christ hymn in Col. 1:15-20. Christ is the foundation of all things (ὁ ὄντων ἰσθμὸς), so all things have access to his cosmic redemption.<sup>50</sup> In the following WCC assembly in 1968 in Sweden, the churches' attention and responsibility towards the environment was reconsidered seriously. The problem of environmental damage or the ecological crisis cannot be separated from the problems caused by the impact of the progress of science and technology. This progress has indeed brought a lot of blessing to human beings, but it has also eroded the authority of human beings due to the practices of injustice, poverty, racialism, arms

<sup>48</sup> Conradie, *Ecological Theology*, 99.

<sup>49</sup> Steven Bouma-Prediger, *The Greening of Theology, The Ecological Models of Rosemary Radford Ruether, Joseph Sittler and Jürgen Moltmann*, Atlanta: Scholar Press, 1995, 61.

<sup>50</sup> Cf. Jürgen Moltmann, *The Way of Jesus Christ*, 276.

race, particularly nuclear arms, and disregard for basic human rights. This session had discussed in particular the problem of *managing the earth resources* in relation to the problem of poverty and hunger, and the *unity of creation* in relation to the revolution of technology and social justice.<sup>51</sup> Thus the problem of the ecological crisis in the struggle of the church could not be separated from the problem of developments in the field of science and technology, which have in their application evidently caused a degradation of the environment. The harmful side effects of the application of science and technology include the physical and social damage of the environment and the rapidly diminishing sources of natural energy.

In relation to the increasing awareness of the world about the deterioration of the environment and in preparation for the world conference on the environment in Stockholm in 1972, the WCC was involved in study about the environment in the year 1971, which produced a document called: '*The global environment, responsible choice and social justice*'.<sup>52</sup> This document became the theme of the social agenda in the Nairobi WCC assembly in 1975 which expressed concern about the notion of uncontrolled growth. The assembly also commissioned the continued exploration of "*the contribution of faith, science and technology in the struggle for a just and sustainable society*".<sup>53</sup> This led to a conference on "*Faith, Science and Future*" in Boston 1979.

Then in the sixth general assembly of the WCC in Vancouver, Canada, in the year 1983, churches discussed the theme: '*Struggling for Justice and Human Dignity*'. Discussion regarding this topic obviously developed so that the general session of the WCC chose the theme: '*Justice, Peace and Integrity of Creation - JPIC*' as the centre of the struggle and fight of the churches. This determination was born out of an intense struggle, centring around the problems of injustice, war and the destruction of the environment as a result of the greed of human beings.<sup>54</sup> The session proposed that churches must take part in the "*conciliar process*" of justice, peace and the integrity of creation (JPIC). In response, churches all over the world committed themselves to this agenda.<sup>55</sup> According to Conradie, one problem of the use of the term "integrity" is its association and possible confusion with the notion of the "*status integritas*". This term is also perhaps too often linked to a lyrical notion of the overflowing fullness (*pleroma*) or goodness of God's creation.<sup>56</sup>

<sup>51</sup> Cf. *Upsala Report*, 1969, 43.

<sup>52</sup> Derr, *Ecology and Human Liberation*, 1.

<sup>53</sup> Cf. Conradie, *Ecological Theology*, 99.

<sup>54</sup> Cf. *Vancouver to Canberra*, 1983-1991, Geneva : WCC Publication, 1990, 147-148.

<sup>55</sup> Cf. Conradie, *Ecological Theology*, 100.

<sup>56</sup> Conradie, *Ecological Theology*, 100.

According to Rasmussen, the integrity of creation has six dimensions: (1) the integral functioning of endless natural transactions throughout the biosphere and even the geosphere, (2) the restless self-organizing dynamism and endemic creativity, (3) earth's treasures as a one-time endowment, (4) the integral relation of social and environmental justice, (5) the divine source and integral dignity of creation, and (6) the specific ethical freight of the goodness of God's creation.<sup>57</sup>

These points all indicate that the integrity of creation demands dedicated commitment to a life-centred earth ethic. A life-centred earth ethic would also ensure sustainability. The communion of believers who form the church, must implement this ethic in their daily lives, for instance in the economic sphere. It is hoped that churches all over the world will put these goals into their programs.

The concept of the integrity of creation has been discussed in various forums on the national as well as on the international level and has produced various documents about the views of theology and practical suggestions for churches to implement the call or program of JPIC. The climax was the international conference organized by the World Council of Churches about JPIC in Seoul, South Korea, in 1990. This conference brought forward various new ideas, especially concerning the integrity of creation according to the experience of individual churches in their specific cultural settings. The conference also emphasized the aspect of the 'protection of nature'.<sup>58</sup> At least two affirmations on environmental issues were eventually accepted, namely that the whole creation is beloved by God and that Christians are called to resist human exploitation of creation, the extinction of species, consumerism, pollution leading to climate change and policies that lead to the destruction of life. The earth is the Lord's and thus human use of land should allow the earth to replenish its life-giving resources and to provide the necessary space for all its creatures.<sup>59</sup>

The JPIC programme became the main agenda of the seventh general WCC assembly in the year 1991 in Canberra, Australia, which took up the theme: '*Come, Holy Spirit - Renew the Whole Creation*'. Based on this theme, the general session conducted several studies concerning the responsibility of churches towards the environment and emphasized several important aspects for the attention and responsibility of the church.<sup>60</sup>

<sup>57</sup> Larry L. Rasmussen, *Earth Community, Earth Ethics*, 99-106.

<sup>58</sup> Cf. *The Ecumenical Review*, Vol. 43, Number 2, April 1991, 270.

<sup>59</sup> Cf. Conradie, *Ecological Theology*, 102.

<sup>60</sup> Cf. *The Ecumenical Review*, Vol. 43, Number 2, April 1991, 262-265.

1. Theology of creation: God is Creator of everything in Christ and in the Holy Spirit who were also present in creation. All human beings and all creation are thus bound into one entity. The church is responsible to God and to the living fellowship, so that it understands itself as slave, servant and steward of creation. The church is called to observe creation with modesty and appreciation, and love, and to work to improve and heal creation as an introduction *and indication of direction to the fellowship of everything in Christ* (Eph. 1:10).
2. Ethics of economy and ecology: With the rule on the Sabbath, the Sabbath year and the year of the Jubilee, the Biblical texts suggest one way of reconciling economy and ecology in order to create a new order of human beings and community (Ex. 23; Lev. 25). Effectively, *economy and stewardship* of natural resources must be combined; law and generosity, discipline and social justice must supplement each other. It is clear that the vision of the Bible about the relationship of economy and ecology is an unbreakable relationship.
3. The duty of the church towards the life of all creation: The church as a fellowship of human beings who have been redeemed and a sign of new creation in Christ, is called by God to play a role in the renewal of all creation. Through strengthening by the Holy Spirit, Christians are called to repent from the *misuse and cruel treatment of nature and to reflect critically on the understanding of the Bible and the theological system which was used to justify the misuse and bad treatment of nature*. A new appreciation of theology about creation and the fresh awareness of responsibility of Christians towards creation would deepen the faith and enrich the life and work of the church.
4. Justice, Peace and Integrity of Creation: The Holy Spirit opens the eyes of the church to see the injustice of the world and strengthens the church to oppose and to struggle against oppression and destruction of creation. The Holy Spirit calls the church to cooperate towards a just social system and towards a sustainable environment. Working towards justice, peace and integrity of creation would help the church to understand its duty in the world.
5. Renewal through the right relation with all creation: The divine presence and the Holy Spirit in creation bind the church and all human beings with all created life. The existence of a deviation in the interpretation of faith demands the development of a new theology concerning creation. This would enable the church to play a meaningful role in the renewal of all creation as part of its mission and as an ecumenical understanding of the relation of ecology and economy.



The ideas put forward in the general session of the WCC should be implemented by the regional, national, synodical and local churches. The new attitude of the church in viewing its mission towards the environment should indeed be executed according to the context of life of each country and region, taking into consideration the social-cultural and political problems of each, without forgetting the global and world-wide meaning of the implementation of the mission of the church. In order to gain a general impression of the way the church could implement its mission towards all creation, examples of various styles of the churches' actualization of the shalom of the Kingdom of God, particularly in the context of justice, peace and integrity of creation., will be discussed below.

The actualization of shalom covers all fields of the church's mission. Ulrich Duchrow and Gerhard Liedke state that the church's efforts to actualize the shalom of the Kingdom of God on earth towards all creation would involve all dimensions of the existence of the church. These include *diakonia* (social welfare programmes of the church), *martyria*, *kerygma* (witnessing), *leiturgia* (liturgy and prayer) and *koinonia* (fellowship).<sup>61</sup> Further, Ulrich Duchrow and Gerhard Liedke describe several ways in which the church in history has striven to actualize shalom of the Kingdom of God.

The first way is described as '*the Jesus-style peace church*'. Duchrow and Liedke quoted Yoder's, *The politics of Jesus: Visit Agnus Noster*, which emphasizes Jesus' non-violent resistance as when He faced Pilate. The alternative chosen by this style is an exclusive community, which hopes to influence an extensive community. This style is based on Jesus' style of peaceful resistance. The Lord Jesus rejects participation in violent power. The Mennonite Church, Quakers and Brethren in Europe and America follow this style. They try to live a life, which is ecologically responsible as a way of appreciating creation. For example, they divide their possessions and try to structure a new economy, working intensively against oppression through peaceful methods. They also follow a life style which appreciates the environment, by, for example, reducing the cost of food through planting their own gardens, questioning their own life style and questioning the life style of their neighbours, minimizing consumption of energy, not listening to radio advertisements or watching TV advertisement, purchasing and renovating old houses in city centres,, reducing the consumption of natural resources, which are non-renewable, by the community, having a small family, reducing clothing and giving more love

<sup>61</sup> Duchrow & Liedke, *Shalom*, 256-567.



instead of material gifts to family and friends. These simple instances endeavour to release creation peacefully.

The second way is called '*the Liturgical-Eucharistic-Contemplative Way of being Church*', which is a symbolic life fellowship in the love of God. This style is the style followed by the Orthodox Church, where the life of the church is centred on the sacrament of the Last Supper, devotion to God and meditation. The theology and spirituality of the Orthodox churches always maintain a conviction that salvation is for the whole cosmos and that is why love of nature must be expressed through the liturgical approach.

The third way is '*the Institutional church*': '*taming or be tamed by power*'. In this style the church endeavours to interpret the love of Christ by way of a socio-political institutional approach, not through cooperating with socio-political institutions, but as a method to enable proclamation of the word of God in all fields of life, even through offering resistance full of suffering where ever needed. This approach is much followed by the Reformers. There is indeed a danger that participating in the socio-political life could blur the identity and authority of the church and could even cause the church to become a subdivision of the social-political institute. However, this style could become an opportunity for the church to play an optimum role in the renewal of the community and nature, reducing the destructive treatment of human beings towards their fellow humans and nature. For this purpose, the church must be involved in cooperation, which does not compromise the proclamation of the truth of God amidst social-political life.

The fourth way is called '*the liberation Church*': '*rejects or transforms the power system in solidarity with human beings and creation which are oppressed by violence*'. This style is a reaction against the institutional socio-political approach, which is deemed to have a bourgeois tendency. This approach pushes the church to endeavour to increase its influence through political activities with a very strong orientation to poor people. Its starting point is the event of the exodus, where God released His people and gave them the land of the covenant and a law to protect their freedom. This style fully rejects violence in its struggle against oppressing power. In the churches in Latin America this style is strongly represented.

All these church styles illustrate the richness of tradition and the views, which are needed to enrich each other in the implementation of the mission of the church at its optimum. The churches with their various traditions and approaches to carrying out their duty in the world, particularly towards the co-creation, must support each other, so that in facing various challenges and constraints, they will be increasingly strengthened by the unity of the Spirit and prosperous peace. In a situation of supporting each other, the church

could apply its faith through its active role in the endeavours to preserve nature. There is no one model, which is relevant to all situations. Each situation in history and each location has its own special characteristics. In each specific situation the church implements devotion, witnessing, stewardship and fellowship in a peaceful relationship with fellow human beings and fellow creation.

In the efforts to respond to the environmental concerns of the World Council of Churches, the WCC general session in the year 1991 in Canberra, Australia, formed a special unit, namely Unit 3, which was to focus on the problems of justice, peace and (integrity) of creation (JPC). As indicated by its name, this unit treats various problems concerning justice, peace and ecology. Problems of ecology which have received attention include the problem of the damage of the global environment and the role of traditional communities in various parts of the world, related to justice for them and also for the nature which is their habitat. The World Council of Churches is aware that the problem of the environment is very much related to the problem of justice and peace and that is why its approach must have an overall characteristic. The World Council of Churches is giving a lot of attention to this programme because of its conviction that concrete action to help realize justice, peace and the integrity of creation, as a sign of the presence and promise of God in the world, is of great importance.

In 1994, after a process of restructuring, the central committee of the WCC approved a “*Theology of Life*” programme on Justice, Peace and Creation. This programme seeks to integrate the concerns of JPIC Vancouver assembly (1983) verbally, thematically and programmatically. According to Conradie, the main concern of the theology of life program was not to fathom the rich philosophical and theological heritage of reflection on the concept of “life”. Instead, the program focused on grass roots experiences of the struggle for life.<sup>62</sup> Thus “Theology of life program” focuses on four features, namely: (1) the threats to life, that is, the powers of *death*: violent conflict, injustice and environment degradation, these are all the context of grass root experiences. These call for a Christian praxis of resistance against the powers of death that destroy communities of life for the sake of political and economic power, (2) affirms faith in the God of life and denounces the idols of death. Theology of life seeks to thank and praise God for His gracious gift of life in fellowship with all other living creatures, a life-centred ethos and spirituality, (3) the church as the household (*oikos*) of God should emerge as a sign of new life. The local church may share in a mutual upbuilding (*oikodome*) of inhabited

<sup>62</sup> Conradie, *Ecological Theology*, 103.

earth (*oikoumene*), (4), in this task women play a crucial role to give birth, to nurture life and to create the necessary conditions for life in community to flourish.<sup>63</sup> In short, it could be said that the life-centered ethos of the WCC needs to reflect on the concrete situations within the churches and society, especially in the context of injustice and degradation of environment.

At the national and local levels, the programme seeks to make the struggle for the realization of justice, peace and integrity of creation part of the mission of each church, with the aim of realizing shalom of God on earth. Certainly, each church must have its own traditions and those traditions are appreciated and respected, since what is more important is the commitment of the church and Christians to realize justice, peace and integrity of creation. Each believer is called to understand his call to realize justice, peace and integrity of creation by action such as striving for the preservation of the living environment as part of the mission and the life of the church. What must be promoted in the church is the doctrine that preserving the environment is part of worship, while damaging the environment is sin. This doctrine has almost been forgotten, but it is important to understand, because churches have all this time narrowed the meaning of devotion to activities designed to develop one's relationship with the Lord, while devotion (*abudah = servanthship*) could also mean responsible managing of the environment.

The Christian theology discussed in the foregoing chapters indicates the importance of seeing the relationship between the damage to the environment, the rebellion of human beings and peace as a fruit of the right devotion (Gen. 6-9). That is why, according to the World Council of Churches, it is indeed time for the churches to start making a more thorough study of the theology of life, a theology that has the objective of renewing social thinking and actions of the church in facing various issues about life.<sup>64</sup> There should indeed be an effort to restudy Christian theology, so that the meaning and significance of Christian devotion is related to a full life on earth. The spiritual riches of each culture must be given attention. This is what the churches in Indonesia are trying to do, endeavouring to give thought to the relation of the mission of the church and the preservation of the environment.

### **III. D. *The Communion of Churches in Indonesia***

The views and the attitudes of the churches in Indonesia towards the church's mission vary greatly according to the background of the denomination and the

<sup>63</sup> Conradie, *Ecological Theology*, 104-105.

<sup>64</sup> WCC *Resource Sharing Book*, 1997, Geneva: WCC Publication, 1997, 92-97.

style of leadership of each church. But it can certainly be assumed that the churches in Indonesia have participated in considering and even in taking the initiative towards the mission of preserving the environment, living out the Christian faith in the context of the togetherness of churches world-wide, as well as participating in the national development of Indonesia. This is evident from the documents produced by the churches, which are members of the Communion of Churches in Indonesia (CCI). It should be acknowledged that the churches in Indonesia have, at least through the CCI, participated in the various international and regional activities concerning JPIC. This participation has certainly influenced the struggle of churches in Indonesia, particularly in understanding their mission. Actually, before the concept of JPIC had been formulated, CCI understood its mission as a mission which covers the whole world.

In the seventh general session of the CCI in the year 1971 the meaning of the Gospel was defined in the document about the church's calling:

“The Gospel is glad tidings or good news about the repentance and renewal available to man (Mk 1:5) and freedom, justice, truth and welfare required by the Lord for the world (Lk. 4:18-21)”.<sup>65</sup>

In the documents of the tenth General Assembly of CCI in the year 1984, the acknowledgement concerning the Creator and Preserver became the second article in the Document of the Understanding of the Christian Faith, which was one of the decrees of the 10<sup>th</sup> General Assembly of CCI. Unfortunately, the formulation about the meaning of the Gospel and understanding of the creation in those two documents is not immediately followed by an explanation concerning its implementation. Not until the 11<sup>th</sup> General Assembly of the CCI in the year 1989 was the meaning of the preaching of the Gospel confirmed in such a way that it covers the efforts to preserve the living environment.

Based on the understanding of the Gospel as formulated in 1971, in the eleventh General Assembly in the year 1989, the duty of preaching the Gospel was formulated again as follows:

“Preaching the Gospel to all creatures contains the meaning of responsibility towards the integrity of the creation of God. God has given the mandate to carry on and preserve all creation of God (Gen. 2:15). Due to the sin of man, the earth is also accursed (Gen. 3:17-18) and subdued to be meaningless and in bondage to decay. All creatures are

<sup>65</sup> *Lima Dokumen Keesaan Gereja*, decree of the 12<sup>th</sup> General Session of PGI, 1994, Jayapura. The same document could be read in the same document of the 10<sup>th</sup> General Assembly of PGI in 1984 in Ambon and the 11<sup>th</sup> General Assembly of PGI in 1989 in Surabaya.

also groaning as in the pains of childbirth awaiting the independent nobleness of the children of God (Ro. 8:20-22). God wishes the restoration of the full and overall relation among all creatures (Isaiah. 11:1-10). Christ comes to renew everything (Rev. 21:5) and in Christ we are new creation (2 Cor.5:17)".<sup>66</sup>

Besides the duty of preaching the Gospel, the duty of managing, preserving and conserving the environment is one of the basic responsibilities of churches in Indonesia as part of their participation in national development. The mission of the churches to participate in and to support national development can be seen from several mutually supportive and enriching aspects. These include the aspect of responsibility to manage, preserve and conserve the creation of God (Gen. 1:26-28, Ps. 8).<sup>67</sup>

A further challenge to the church relates to the application of *Pancasila*). *Pancasila* as the solution to the multi-cultural and multi-religious challenges of Indonesia is also one of the solutions to the problem of environmental degradation in Indonesia. All principles and particularly the principle of one God and social justice for all the people of Indonesia could be extended as a solution to the problem of environmental degradation. One God is not only for people but also one God for all creation. Social justice is not only for the peoples of Indonesia, but also for the land, for the water and for the air of Indonesian. The abuse of the concept by political leaders should not erase the positive challenges *Pancasila* calls for.

Churches in Indonesia, with the Gospel as directive, proclaim that God's will is for justice, welfare, brotherhood, humanity, preservation of nature in accord with the promised coming of His kingdom, participation in serving positively, creatively, critically and realistically, the application of the principle of social justice for all people of Indonesia through endeavouring to narrow the gap between the rich and the poor, and resisting all tendencies which damage the environment".<sup>68</sup> The mission of the churches in Indonesia is like two sides of the same coin, namely the implementation of the mandate of the Gospel and the realization of the church's role as an integral part of the nation of Indonesia to participate in national development. That is why the preservation and conservation of nature is also seen as part of the implementation of the two calls of the church. 'For the churches in Indonesia, warding off the problem of ecological crisis is a combination of the duty to implement Christian faith in all its dimensions and the duty to participate in national development'. In order to cope with the ecological crisis in Indonesia, there should be an encounter

<sup>66</sup> *Lima Dokumen Keesaan Gereja*, 9, (25).

<sup>67</sup> *Lima Dokumen Keesaan Gereja*, 35 (30).

<sup>68</sup> *Lima Keesaan Gereja di Indonesia*, 39-40 (33).

between the Gospel and culture. This is very important and strategic for the churches in Indonesia in the context of looking for and finding traditional values, related to the environment. These values could then be used to assist the understanding of the Gospel of Jesus Christ to bring shalom to the world. Warding off or coping with the ecological crisis is understood as an effort to implement the Gospel in releasing human beings from a lack of appreciation of and respect for nature in the context and through the culture of Indonesia.

The efforts of the Communion of Churches of Indonesia to respond seriously to the ecological crisis have moved closer towards realization with the establishment of a special institute to treat problems of the environment. In the tenth General Assembly of the CCI in the year 1994, it was decided that one of the forms of participation and service of the church in national development should be increased sensitivity on the part of the church towards the preservation of natural resources and conservation of the environment. This goal was institutionalized through *Yayasan Tanggul Bencana* (Foundation for Tackling Disaster: FTD) of the CCI. This foundation was initially established with the task of providing services to the victims of disaster through efforts or activities designed to make the community attentive, responsive and preventive towards disaster. There was awareness that the problem of disaster is very much related to the problem of preserving natural resources and preserving the environment through respect for its integrity. The task of preserving the environment was then given to this Foundation for Tackling Disaster of CCI to be coordinated nationally. The Full Board meeting of the CCI in the year 1996 gave a mandate to CCI's Foundation for Tackling Disaster to work for the preservation of natural resources and conservation of the environment.

It is sincerely hoped that the FTD CCI will not only carry out practical activities in the field, but that it will also stimulate study concerning environmental problems, especially through delving into the wealth of the cultures of Indonesia, which could support the efforts directed to the preservation and conservation of the environment. This is indeed not the main task of the FTD CCI, but this foundation could become the coordinator and stimulator to push the churches to conduct in-depth studies so that its contribution to the efforts of preserving and conserving the environment by way of an approach of awareness or an approach of moral, ethical and spiritual development, could actually be realized. The environment could be preserved well if the moral responsibility to preserve the environment of human beings

could be nurtured. In my opinion this must be main task of the church, namely instruction and guidance to build morality and spirituality, which could increase the awareness of unity and love of the environment. This does not mean that other tasks are not important, but the church as a 'moral force' must prioritize education and guidance in this respect. Education and guidance concerning ecological ethics should be mainly focused on the study of the relationship between the message of the Bible and the wealth of cultures, which appreciate and highly respect the values of God's created nature.

The various studies on cultures in Indonesia show them to be cultures that prioritize harmony - between human beings and God, between human beings and their fellow humans, as well as between human beings and the environment. The philosophy of life which prioritizes harmony, especially between human beings and co-nature, is rooted in the view of indigenous Indonesians that their life depends on nature, and that if they are living in accordance with nature, their life will be blessed. This way of thinking is called '*homology anthropocosmic*' (English construction not clear), meaning the conformity of human beings and the world.<sup>69</sup> The view of life of indigenous Indonesians is still relevant to the understanding of the meaning of modern development in Indonesia. Development is always understood to be the development of Indonesians as complete human beings, as expressed by Emil Salim:

"The essence of our development is actually directed to man, building a whole Indonesian man. This means to build an Indonesian man with the following characteristics: firstly, a harmonious relation of man and the Almighty God; secondly, a harmonious relation between the individual and the community; thirdly a harmonious relation between man and his natural environment. Therefore, in the concept of Indonesian development, there is no separation between material development on the one hand and the development of the living environment on the other hand. Material goods are created, which are needed to meet the living of man, but this would not immediately mean that a second place is given to the development of the living environment. The creation of material goods and non-material goods must be placed within the context of the development of the integral Indonesian man and the harmony of the relation of man and the natural environment may not be destroyed".<sup>70</sup>

In this context, the churches in Indonesia understand the call of faith, which is at the same time the call of the nation to participate actively and creatively in the preservation of the environment. Among churches in Indonesia, at least among those who are members of the CCI, the awareness of the

<sup>69</sup> Rachmat Subagya, *Agama Asli Indonesia*, Yogyakarta: Kanisius, 1981, 91, 94.

<sup>70</sup> E. Salim, *Pembangunan dan Pelestarian Lingkungan Hidup*, Jakarta: Medyatama, 1987, 27.



importance of preserving and conserving co-nature has started to spread. It would certainly not be possible yet to reap a harvest from the seeds of efforts to increase church members' awareness which began to be sown after the eleventh General Assembly of the CCI in 1989. However, in various discussions, in Bible studies, in fact in the texts of the courses in Christian religion at school and church, this task has received a significant portion. In various church documents and consultancies study materials can be found concerning the church and the task of preserving the environment. Such study materials also include practical suggestions which could be immediately programmed by the church or congregation and also by partner groups in the service of the church.

The CCI, and particularly the FTD-CCI, is functioning as a source of inspiration for the vision of their member churches and congregations. The congregations and indeed every Christian must certainly work for the realization of these visions. The function of CCI is the same as the function of WCC towards its member churches. CCI is functioning more as a 'think-tank', which thinks about the steps that could be taken by the member churches according to their faith. In this case the motto of: '*think globally, act locally*' is valid.

Thus at the WCC or CCI levels, the care about nature is limited to ideas and appeals. For instance, for the implementation of the JPIC (justice, peace and integrity of creation) program, CCI is only formulating ideas and then appealing to the member churches to become involved in implementation, as is expressed in the following quotation:

"To stimulate the sensitiveness and care of the church towards the living environment, provide more wholehearted attention to the problem of justice, peace and the integrity of creation, develop and spread the theology of creation".<sup>71</sup>

The implementation of the mission of the church in preserving and conserving the environment is more relevant at congregational level or local level, although the general policy is formulated at national level. Practically the role played by the church in preserving the environment depends greatly on the ecological problems faced by each church or congregation. For instance, the ecological problem faced by the churches and congregations in Jakarta are urban ecological problems, like the problems of waste, the pollution of rivers and refuse. In my opinion, institutes like CCI have been responsible in warning their members about the importance of preserving a good, clean, healthy and comfortable environment.

<sup>71</sup> *Lima Dokumen Keesaan Gereja*, 43-44.



Preventing and overcoming waste is primarily the task of the congregation. For instance, Sunday School lessons for children and youth and Christian religion classes at schools should include practical examples of the correct disposal of rubbish. Instructional facilities should be used to make everybody aware of the importance of creating a clean and healthy living environment for human beings themselves as well as in the interests of the harmony and preservation of the environment. The focus for congregations in villages could be different. For example, planting trees in the churchyard or doing paintings of flowers could be encouraged. Such activities would stimulate children, youth as well as adults to build an appreciation of the environment. Thus the members of the congregation would have an awareness of the need to preserve the environment without having to be instructed or commanded. On the basis of the variety of ecological problems, the church and every congregation must formulate and decide its own relevant programs for the preservation of its environment with due consideration of the essence of the church's mission and practical suggestions, which could be developed by the congregation or partner societies of the church in preserving the environment or creation.

In several national church meetings, which specifically discussed the JPIC or at more general consultations, has already been put forward (for instance, the National Workshop on JPIC organized by CCI in 1989, Conferences of the Church and Community in 1989 and 1994, CCI' National Conference on Participation of the Church in Development held in 1990 and 1994 and various other meeting) several practical suggestions have been brought forward such as:

- (1) The church must strive to comprehend deeply the theology of the co-environment through its devotions and liturgy, through Bible study, sermons, Sunday School lessons, catechisms, Christian Education at school and various other forms of teachings.
- (2) Identification and inventory of the damage of co-nature or ecological crises in the environment of each church and action needed to solve those problems.
- (3) Utilization of the mass media to campaign for the prevention of or solutions to the damage or destruction of the environment as part of the process of making the community aware of the importance of preserving and conserving the co-environment as a gift of God.
- (4) Conducting studies and publishing material concerning the problems of the environment both, theologically as well as sociologically, anthropologically and culturally. Those studies would also be part of the implementation of the mission of the church to preserve the environment.

- (5) Cooperation with the government and community at large in preventing as well as overcoming ecological problems, assistance to community groups, which have become the victims of the damage of nature.
- (6) Taking the initiative in creating a clean, healthy and serene environment on the local level as well as in a wider environment through, for example, removing rubbish or reforestation of denuded forests.

These are several examples of what could be done by the church and Christians in general, either individually or collectively as fellowships of believers, at the congregational level as well as through partner churches or Christian educational institutes. These examples must be developed according to the level of ability and awareness of the church and the conviction of each church about what it considers to be the right way to realize its mission in the world and actualize its faith.

### **III. E. *The Mission of the Local Church***

The churches all over the world are at this time struggling with various problems, which are particularly related to their missions. In the context of the ecological crisis at this time, many Christians or local churches have already made efforts to overcome ecological crises through various studies or through concrete action. Ron Elsdon, in his book *Greenhouse Theology*, is of the opinion that working in a project about environment is the same as preaching the Gospel. He quoted an example of a husband and wife who were prospective evangelists and who then cancelled plans to go to Africa to preach the Gospel because they decided that preserving the environment was the same as preaching the Gospel concerning Jesus Christ to the people in Africa. This couple finally decided to work for the Rocha Project, a centre for research about birds, insects and plants in Portugal. Elsdon wrote:

“One of the visions of the Rocha Project is that this project would help other people to get a vision about a new way to preach the Good News (Gospel) in its broadest meaning”.<sup>72</sup>

Preserving the environment could indeed be deemed as part of the church’s mission. However, canceling the task of preaching the Gospel to our fellow human beings because of comparing it with the task of taking care of birds must be said to be a bit unbalanced. Nonetheless, the task of taking care of

<sup>72</sup> Ron Elsdon, *Greenhouse Theology*, Tunbridge Wells: Monarch Publications, 1992, 194-195.

and preserving the environment must be part of our worship and church mission, part of the worship and mission of true Christians. Its relation to the task of preaching the Gospel is not an alternative, but a task of equal importance.

The task of the local church is to preserve the surrounding environment according to norms and values prevailing in each location. In villages where there may be little pollution of the environment, there could possibly be forest damage through fires. Thus the task of the church would be to prevent forest fires. In cities affected by pollution because of industrial waste, the task of the church is to prevent industries from polluting the environment with their waste. These are simple instances on how to contextualize theology with the struggle of specific and particular problems faced by the local congregation. The church could also contextualize its ministries by delving into local values, which could be developed along with Christian values to become strengths to protect and preserve the environment. Those values could be in the form of traditions, art or other cultural forms, which support a healthy attitude towards the environment. Those traditional values should not be deemed paganism or against the Gospel of Christ. Culture is part of the life of human beings, which can be renewed by Jesus Christ. Culture and local tradition could always be researched and developed well according to the theological vision of the Bible and in order to honour God, serve our fellow humans and protect and preserve our fellow environment.

I would like to specifically mention the importance for the churches in Indonesia of developing a contextual theology of the environment. We are all very much aware that Christianity plays a role in changing the way congregations view nature. There are many evangelists who have made a great contribution in bringing the Gospel of salvation to the Indonesian nation. However many communities have become estranged from their cultural roots. As pointed out earlier, the culture of Indonesia puts a lot of emphasis on the harmonious relationship of human beings with co-nature. By estranging communities from their cultural roots, the community, particularly the congregation, is automatically severed from its continuity relation with culture as well as from its environment. Nature is considered to be of less meaning, since it is only material.

I will mention an instance from the community of Toraja, from where I originate. I am grateful that most of the cultural values which the people of Toraja inherited were not just deemed as being heathen by the foreign evangelists who came to Toraja, whether those who came to Rantepao or Mamasa and particularly to Kalumpang, the place where I was born. Many cultural values are still intact, including the tradition of the ritual for expressing gratitude to the gods through '*rambu tuka*' (literally meaning smoke that goes upward to

heaven). One of the thanksgiving ceremonies which is widely known in the region of Toraja, namely, the regions of Rantepao-Makale, Palopo, Mamasa, Rongkong-Seko and Kalumpang, is known by the name of *bua* (literally meaning big feast). The essence of this feast is the ceremony asking the gods' blessing on people, animals and plants. The '*bua*' feast is aimed at ensuring the well being of people, animals and plants of the community".<sup>73</sup> Thus these ceremonies are not just an ordinary thanksgiving, but they indicate the unity of human beings and nature. In these ceremonies is contained the value of the unity of human beings and nature, because they originate from the same creator. The ceremony of thanksgiving is not only to express happiness for the gifts of God, but also to indicate friendship and a harmonious relation with nature. Nature is to the people of Toraja part of the life of human beings. Various studies on culture have proven that the people of Toraja are convinced that the ancestors of all creatures (humans, animals, plants and other environmental elements), are of one family, because they originate from the same creator, called *Puang Matua* (God). In fact heaven and earth are understood as a source of everything, including the source of deities. That is why, the relation of human beings and nature is a continuous relation. Human beings are part of co-nature and should interact very carefully with nature.

Instances of views like the above must be researched as part of the spiritual wealth of the peoples of Indonesia, which would then be able to enrich the cultural treasure of the Indonesian nation. This would in turn support efforts to preserve the environment. The preservation of the environment must include the preservation of the cultural values of the local community. Traditions that are environmental friendly could provide a contribution to the efforts of preserving the environment in this modern era. The cultural norm of Toraja, particularly the tradition of thanksgiving, which has become the symbol of the unity of human beings with their environment, contains noble values, which could become the norm in the new relation of modern human beings with nature. These are the norms of balance, harmony and conformity which must be developed by the churches in the effort to build morality, ethics and spirituality in the field of the development of the living environment.

Modern development has had a big influence on the living patterns of our communities wherever they are in Indonesia, including the traditional communities in Toraja. The attitude towards nature has also changed. For

<sup>73</sup> Jowa Imre Kis-Jovak, et.al. *Banua Toraja*, Amsterdam: Royal Tropical Institute, 1988, 49; Hetty Nooy-Palm, *The Sa'dan Toraja II, Ritual of the East and West*, Dordrecht/Cinnaninon: Foris Publication, 1986), p.10 etc.

example, before modernization began to make its presence felt, opening a forest always had to take into account the interests of the environment, so that people could not cut forests as they wished. In fact, certain trees, like the banyan tree, were deemed to be heavenly trees and were therefore considered very sacred. A banyan tree could not be cut down under any condition and certain other trees could only be cut after making a farewell ceremony. Now, the moral norm of '*untung*' (*profit*) has pushed the community to clear away forests and extends their gardens, to burn trees or poison them with various chemicals like pesticides, without any ceremony, without any feeling of reluctance and without any feeling of guilt.

According to the observation made by the writer in Kalumpang, Mamuju, the changes in the pattern of agriculture of the community are also interesting and disturbing. Formerly, the people planted in rotation. The dry agriculture fields of the people were always divided into six corners or parts and only one part was worked on in one harvest year. Thus after a period of six years the first garden would get its turn to be prepared for planting by being cleared again because by that time it had become forest again. That is the planting system, which is still much in use in traditional communities. They always precede the cutting of forests with a ceremony, which indicates their appreciation and respect for nature. Traditionally rattan could only be cut after it was deemed to be considerably old, namely all the sheaths had fallen off. Cutting young rattan was taboo. Nowadays young rattan is cut and peeled so that it looks good and is already white without being dried although the quality is very low, because it is still too young to be harvested. With the ideology of growth, people now open forests everywhere without any prior agreement or ceremonial prayer. The more forests opened, the more profit to be hoped for, although the reality is that such has often just been an empty hope.

Another instance is the use of pesticides. The people actually do not need these dangerous poisonous chemicals, since the safety level of the plants from the plague of pests is very low. Weeds in the coffee or cocoa gardens of the people can be coped with by planting the *dadap* tree or by just clearing away the weeds. For centuries, this simple environmental-friendly way of planting has continued safely and comfortably. However, the middlemen often trick and persuade the people to use chemicals for 'preventing' pests as well as using herbicides to kill weeds. These chemicals have become poison to nature and to human beings themselves. Although the use of some chemicals has been prohibited, people are using these chemicals in the hope of increased profits, without understanding the rules of the game, without sufficient know-how and without knowledge of their effectiveness. Only because these commodities are sold with promises that they will increase efficiency and

profitability, people are using them. As a result, friendliness towards nature has been forgotten. However, what are more serious are the losses suffered. For example, the people cannot catch fish anymore, because a lot of fish in the swamps have mysteriously become extinct. The delicious *gabus* fish of the marshes remains a memory for the people in many regions in South Sulawesi, particularly in Mamuju and Toraja. Ironically, the incomes from their gardens are all used to buy canned food, which is hygienical but not good for our health.

The diseases of urban people have spread to village communities and caused an ever-widening gap in their relationship with their living environment. The church must restore the old values before those values disappear and are replaced with new values, which prioritize material profit but which are damaging the environment. One of the tasks of the local church is to rediscover cultural values and norms together with the values and norms of the Gospel and wrap them together to become a source of moral norms which are friendly to and respect the environment. The spiritual richness of culture and religion would become a strong basis for the community to take care of and preserve its environment and to maintain it from the temptation of modern materialism. This is a challenge the churches could take up through the contextualization of theology, in particular, ecological theology.

#### **IV. Obstacles**

Facing the problems of ecological degradation, it is not easy to make people aware of the danger of materialism. We can see vividly the increase of consumerism in our society as one of the “super powers” that creates pessimism in society. We can say that the origins of this pessimism are profound disquiet about prospects for future generations and all elements on this planet. Few observers of the contemporary situation doubt that we face today ecological crises of unimaginable proportions. Through slow and steady environmental degradation the specter of ecocide haunts all human and non-human life that shares the resources of our planetary home. Many people have become numb to the various dimensions of the crises described in chapter 2: acid rain, ozone depletion, global warming, food-chain pesticides, soil erosion, over-consumption of non-renewable fossil fuels, agricultural runoff, deforestation, and loss of habitat. Can we believe that the Christian ethos could effectively make a contribution to change such pessimism?

John B. Cobb stated that his experiences in some experiments, particularly in terms of resource use, were discouraging. He noted that high motivation changed so little, and had such small effect, and observed that appeals to

people to change their life styles had little significance in comparison to the magnitude of the problem of ecological crises.<sup>74</sup> For Cobb, the call to individuals to change their lifestyles voluntarily is not very effective:

“By doing so as individuals and families they not only make some direct contribution to solving the problems, but they keep both themselves and others aware. This is important. But what people are most willing to do is to support changes in legislation that are beneficial to the environment even if some cost to them is involved. People support clean air legislation and clean water bills that restrict them in various ways and may add somewhat to the cost of living. They support requirements for greater efficiency in cars and appliances and more insulation in new home. They support mandatory recycling of bottles. As time goes by and the threat of environmental damage becomes more tangible, they may support more drastic changes”.<sup>75</sup>

Cobb has not given up on the call to individuals to change their lifestyle voluntarily because by doing so as individuals and families they make some direct contribution to solving the problem.

For a Christian ethos it is important to underline that individual awareness is important. All people must make their contribution to solving the problems of ecological crises, based on their own context. Even though we are facing political and economic powers, we believe that the ethosphere as the ethos of God the Creator, namely Theosphere, will empower believers to make a positive and constructive contribution in facing these destructive world tendencies. Even though we are facing the power of what Nash called “growth-mania”<sup>76</sup> we must make our theological expectations reasonable.

To end this section, I like to borrow Nash's statement:

“The multi pronged ecological crisis is a persistent and perilous problem, and the essential solutions seem fearfully massive and even presently unrealistic. A revolution in values and policies will not come easy and cheap. The necessary remedial and preventive measures will meet stiff resistance. The environmental clean-up and other costs will be hefty penalties for our sins against the biosphere and each other – though the emerging benefits will be worth the price. In this situation, optimism is not even an option, and pessimism is demoralizing and indefensible. The best we can do is hustle and hope. We can strive to realize whatever semblances of ecological integrity are maximally possible now. We can also struggle in the confidence that with each step forward, God the Politician and Lover of life is ever creating new possibilities to realize the integrity of God's-and our-beloved habitat”.<sup>77</sup>

<sup>74</sup> John B. Cobb, *Sustainability: Economics, Ecology and Justice*, Maryknoll: Orbis, 1992, 34.

<sup>75</sup> John B. Cobb, *Sustainability*, 35.

<sup>76</sup> James A. Nash, *Loving Nature*, 199.

<sup>77</sup> James A. Nash, *Loving Nature*, 221.



Let us praise God as the psalmist declared: “All your creatures Lord will praise you, and all your people will give you thanks. They will speak of the glory of your royal power, and tell of your might, so that every one will know your mighty deeds and the glorious majesty of your kingdom. Your rule is eternal, and you are king forever. All living things look hopefully to you and you give them food when they need it. You give them enough and satisfy the needs of all. I will always praise the LORD, let all his creatures praise his holy name forever” (Psalm 144: 10-13, 15-16,21).

## **V. Summary**

Christian ethics developed ecological ethics quite a long time ago, starting from the norms of the Bible. The emphasis of a Christian ecological ethics is that human beings are part of the total creation, but to them has been given the responsibility to utilize wisely and preserve God’s created nature. On this basis, this chapter described three norms of Christian ethics in the relationship between human beings and nature, namely the ethics of stewardship, the ethics of solidarity and the ethics of peace and prosperity starting from the love of God as Creator, Redeemer and Preserver of all life which is created. Therefore, ecological Christian ethics must always be understood in terms of ‘theocentric ethics’ or ‘christocentric ethics’, which is an ethics centred on God or in Christ.

Theocentric ethics expands, deepens and corrects an anthropocentric ethics, which has been the source of the destructive behaviour of human beings toward nature. Environmental ethics, from the perspective of Christian theology, is understood as theocentric ethics, because all life has its source in God and is centred in God. God is the Creator, who is the source of everything. Because God has created and redeemed all life and not only the life of human beings, Christian ethics should not be purely oriented to the interests of co-nature, but rather be theocentric ethics, or more specifically Christocentric ethics. The Christian faith is centred on the work of God in Jesus Christ who has come to redeem the whole creation.

All ethical behavior is finally motivated by the love of God, who has come in Jesus Christ and who is now directing His creation to the *shalom* of the Kingdom of God. Manifesting the signs of *shalom* is the duty of the church as doer of the norms of Christian ethics. From the Christian perspective it could be concluded that ethics of the new earth and new heaven could also be called ethics of the Kingdom of God. The arrangement of new life between human beings and all creation would be in effect a new order, namely an order where the power of God would finally be acknowledged as the only power, which is the source of everything and has therefore become the source of the new life



brought by the coming and redemption of Jesus Christ. Thus the new order in the relationship between human beings and nature is an order of peace in Jesus Christ, where life and justice become the reference for humans behavior as required and taught by Jesus Christ.

The church is called as a fellowship with the new creation to foster shalom of the Kingdom of God on earth by endeavouring to achieve harmony among all creation. Thus, the task of preserving is part of the new essence and mission of the church as a new fellowship through the redemption by the Lord Jesus Christ, working for shalom on earth. Aware of the perfection of all of God's creation, the church is called to actively participate in the efforts to preserve God's created nature. In the execution of this task, the church must develop various approaches according to the context of the problems of ecological crises of each church. That is the reason why the church must collectively formulate a theological vision about its call in relation to creation, but the implementation is the responsibility of each church according to the concrete condition and situation it faces. . In the implementation of this task to preserve creation, the church must follow the motto: 'think globally, act locally'.

The churches in Indonesia carry out their task of preserving creation with two motives. The first motive is the theological motive, namely an effort to carry out the universal mission of the church reaching all creation. The task to preserve creation is the call to the church to work for God's shalom on earth and the implementation of its faith and call. The second motive is a motive of development, which is one of the ways for the church to actualize its role of participating actively, positively, critically and creatively in national development as the realization of Pancacsila ( The Five Basic Principles of Indonesia's national philosophy). This is the reason why the churches in Indonesia are actively implementing programmes related to JPIC through various activities at all levels in individual congregations and with partners of the church.

It should be acknowledged that the active role of the churches in Indonesia in preventing a destructive treatment of creation and repairing ecological damage is still very small. That is why churches must give more serious attention to their response to the particular environmental problems of their respective neighbourhoods. The second chapter of this book about the problem of waste and rubbish mentioned that the church should become the pioneer in creating a clean environment through responsible handling of all sorts of waste, rubbish and refuse so that it could become an example for the community. Environmental-friendly programmes must continuously be spurred through guidance and instruction to families and the church to love the environment, and to take action, even though beginning with small steps. The Lord Jesus

says, 'Whoever can be trusted with very little can also be trusted with much, and whoever is dishonest with very little will also be dishonest with much,' (Lk. 16:10). As we better understand the tasks of the church, we are all called to carry out these tasks faithfully in order to responsibly preserve the environment which has been entrusted to us by God.

## Chapter 8

### Conclusions and Sugestions

#### I. Conclusions

We come to the following conclusions:

1. The ecological crisis faced by human beings at this time has its roots in the attitude of human beings who pay little attention to the ethos in their relationship with their fellow creatures, even in their relationship with fellow humans, and ultimately their Creator. Human beings live in an ecosphere wherein they give priority to the aspect of technosphere and econosphere, but give less attention to the aspect of ethosphere and theosphere. Human beings view nature as an object, which is useful as a tool to meet their material needs only. Nature is not seen as a whole system of life. The environment is only seen in the context of the economy, particularly material profit. This attitude to nature is pushed very strongly by the ideology of materialism and supported by the philosophy of humanism. Materialism focuses on the material world, while humanism sees humankind as being superior, without taking in account God who created human beings as one of all his creatures amidst of all the other beings on earth. The independent superior human beings are subject, while the environment is only an object to be used as a tool by human beings.

2. This basic attitude is evident in the characteristics of development that tend to be exploitative and destructive of the natural resources of planet earth. It is exploitative, because the main emphasis is on growth, so that humankind have ruthlessly depleted natural resources, while giving no attention to the balance of the earth's ecosystem. It is destructive, because in the process of exploitation and consumption, humankind tends to pollute the environment with various kinds of chemical waste in the form of gas, liquid and solid waste. As a result, the environment is threatened with serious damage, including change of climate due to global warming, ozone depletion, acid rain, damage of the forest habitat, sea, river and lake, which threaten the extinction of some species and finally disturb all the ecosystem of planet earth, moving the planet along the road towards total destruction.

3. These exploitative and destructive attitudes are made worse by injustices in the use of natural resources. On the one hand, the rich nations and rich people exploit nature to satisfy their luxurious and affluent life styles. On the other hand, the poor countries and poor people are often forced to destroy their environment because of urgent survival needs and often also because pressure from rich countries and rich people persuades them to take the road to easy profit by sacrificing nature. In other words, the ecological crisis is not only related to economic problems, but also to economic-political problems among nations and among human beings. The economic-political interests sacrifice the interests of nature, particularly what we call environmental justice or eco-justice.

4. Modern human beings practise anthropocentric ethics, behaviour centred on human interests, although, as mentioned above, even in the relationship with fellow humans, both on the global, national and local levels, the dominant pattern is injustice in the utilization of natural resources. Human beings practice anthropocentric behavior in controlling nature almost without any respect and compassion. This attitude reflects injustice without compunction towards the co-environment. This is the old way of living, which threatens the destruction of the ecosystem on planet earth. This old way of living is only guided by norms of economic profit and sacrifices the interests of ecology.

5. Human beings must build a new relationship with their fellow humans in the use of natural resources and they must also build a new attitude towards the whole of nature through a recognition of what I call the 'ethosphere' and through appropriate norms. The new ethos covers behavior which reflects that human beings belong to the ecosphere. In that sense, human beings must include the ecosystem and ecosphere in their ethos, namely their decisions, attitudes and actions. The ethosphere contains the norms of justice and love as realized in an attitude full of appreciation of and solidarity with all creation and all elements in the universe. Actually, the ethosphere is the consciousness of the whole creation and not just a human faculty which excludes non-human creation. Human beings are responsible to build a new ethos for the welfare of human beings in the sustainable future, as well for the welfare of all co-nature as the one supporter of life. Ethosphere is ethics reflection which pays attention to the balance of human interest between the interests of economy and the interests of ecology and thus results in a community of love for the ecosphere. In this perspective economy is not the expression of human prosperity and growth, but the household for the preservation of life, of which human life forms a part. Ethics must pay attention to the welfare of human beings and of other creatures in the future as well as at this time so that the community of the present and the future generations are both being taken into consideration.

Ethics must pay attention both to the interests of people in rich countries and the interests of people in poor countries, to the interests of human beings and also of the creation or planet earth as a whole. Ecological ethics must therefore be an interweaving of the interests of human beings and the interests of nature. Only emphasizing anthropocentric ethics leads to consumerism and materialism. To only emphasize biocentric ethics and ecocentric ethics would lead to a shallow romanticism, utopianism or asceticism.

6. Environmental ethics starts from the reality of the low morality of human beings in utilizing natural resources. At the present time human beings tend to be very materialistic and view nature merely in terms of its economic value. As a result, the ecological value which covers future generations, the aesthetic value, the biological value, the spiritual value and other values are not given due attention. Facing nature, human beings have only developed economic/profit norms, but have barely developed ecological norms and/or norms of harmony of the ecosystem. Human beings have thus behaved unjustly and not shown love towards nature. The roots of such behavior are materialism and humanism, which encourage human beings to see the living environment as being subject to them. That is why the ethics that have developed are the ethics of anthropocentrism, ethics that are centred in the interests of human beings or which are technically known as ethics of *shallow ecology*. In line with the fairly recent awareness of the need to preserve the living environment, various theories have appeared concerning the ethics of the environment or ecological ethics which can be classified as ethics of deep ecology. These deep environmental ethics put more stress on the need for norms in the relationship of human beings with nature or the living environment. Instances of deep environmental ethics are biocentrism, ecocentrism, and holism. Those various names are related to the various theories about the living environment, which essentially have the opinion that behavior must be developed which appreciates and respects the living environment, both its individual elements and the totality of the ecosystem in the universe or ecosphere. Human beings live ethically when they decide to stop placing themselves above all elements of the universe and instead act in solidarity with the universe. To be truly ethical, human beings should be able to understand the urgent need for the ecological balance of all elements of the universe for the sake of equilibrium, integrity and sustainability. Therefore they must become conscious that they, including their ethical consciousness, are an integral part of nature.

7. Christian theology that is based on Biblical theology is a theology, which reflects the balance between human beings and their creation. The basis for the balanced relation is the love of God, Creator, Preserver and Redeemer of all creation. That is why Christian theology is not an anthropocentric or a

biocentric or an ecocentric theology, but a theocentric theology - what I call in this book an inclusive theocentric theology. This implies a view of theology which views everything as being centred in God, namely a God who is, according to the witness of the Bible, playing an active role in caring for and preserving all His creation. All beings are creatures and human beings are also created beings. They are not divine or absolute. Only God is the Creator and all creatures, human beings and creation belong to created nature. God has come in the person of the Lord Jesus Christ to redeem all creation through His death and resurrection. Human beings together with all creatures created by God in the Holy Spirit, intertwined and supporting each other, are in the process of moving towards the perfection of life in the new heaven and new earth. In this process human beings participate as the image of God and as servants of God. Humankind is called to manage, utilize, take care of and preserve all life according to the order of the new creation in Christ. Here, there must be developed the critical-hermeneutical consciousness to get the true and right interpretation of the Biblical message of God's will concerning His creation. From the theology of creation and the theology of redemption, we understand that Christian emphasizes the integrity of all creation and that human beings receive a position and special task to serve God, their fellow humans and their fellow nature. The Bible teaches that human beings are created in the image of God (*imago Dei*). Although they have sinned, they have been redeemed by the sacrifice of Christ to be changed into the image of Christ (*imago Christi*), so that they are enabled to carry out their call as God's servants to participate in building a new life on earth. They are so as creatures and thus as *imago mundi*. Christians as the '*koinonia*' or fellowship of believers in the redemption of God are called to carry out a mission which includes efforts to preserve and conserve the creation. Christians are also called to worship, to show practical concern for others, to unite in the context of a comprehensive stewardship, to their fellow human beings as well as to the rest of creation. In carrying out this task to serve God's creation, human beings should not only use natural resources but should also protect and preserve creation, to ensure its sustainability as a source of life and for its own intrinsic worth. Besides an ethics of stewardship must also be built an ethics of '*koinonia*' and an ethics of '*oikumene*', which emphasizes solidarity with creation. The ethics of solidarity starts from the awareness of the unity of human beings with creation because they are all created beings. That is why human beings must not treat the creation arbitrarily but with full love. The objective of ethosphere as reflection on ethics which covers ethics of stewardship, ethics of solidarity and ethics of prosperous peace is to bring signs of the shalom of the Kingdom God on earth, namely a better quality life for all creation, including

human beings. These three objectives must be expressed through everyday life by practicing an economical life style, simple and full of appreciation.

8. All ethical behavior is finally motivated by the love of God, who has already come in Jesus Christ and who is now directing His creation to the *shalom* of the Kingdom of God. Manifesting the signs of *shalom* is the duty of the church as doer of the norms of Christian ethics. From the Christian perspective it could be concluded that ethics of the new earth and new heaven could also be called ethics of the Kingdom of God. The arrangement of new life between human beings and all creation would be in effect a new order, namely an order where the power of God would finally be acknowledged as the only power, which is the source of everything and has therefore become the source of the new life brought by the coming and redemption of Jesus Christ. Thus the new order in the relationship between human beings and nature is an order of peace in Jesus Christ, where life and justice become the reference for humans behavior as required and taught by Jesus Christ. The church is called as a fellowship with the new creation to foster *shalom* of the Kingdom of God on earth by endeavouring to achieve harmony among all creation. Thus, the task of preserving is part of the new essence and mission of the church as a new fellowship through the redemption by the Lord Jesus Christ, working for *shalom* on earth. Aware of the perfection of all of God's creation, the church is called to actively participate in the efforts to preserve God's created nature. In the execution of this task, the church must develop various approaches according to the context of the problems of ecological crises of each church. That is the reason why the church must collectively formulate a theological vision about its call in relation to creation, but the implementation is the responsibility of each church according to the concrete condition and situation it faces. . In the implementation of this task to preserve creation, the church must follow the motto: 'think globally, act locally'.

9. The churches in Indonesia carry out their task of preserving creation with two motives. The first motive is the theological motive, namely an effort to carry out the universal mission of the church reaching all creation. The task to preserve creation is the call to the church to work for God's *shalom* on earth and the implementation of its faith and call. The second motive is a motive of development, which is one of the ways for the church to actualize its role of participating actively, positively, critically and creatively in national development as the realization of Pancacasila ( The Five Basic Principles of Indonesia's national philosophy). This is the reason why the churches in Indonesia are actively implementing programmes related to JPIC through various activities at all levels in individual congregations and with partners of the church. It should be acknowledged that the active role of the churches in

Indonesia in preventing a destructive treatment of creation and repairing ecological damage is still very small. That is why churches must give more serious attention to their response to the particular environmental problems of their respective neighbourhoods. The second chapter of this book about the problem of waste and rubbish mentioned that the church should become the pioneer in creating a clean environment through responsible handling of all sorts of waste, rubbish and refuse so that it could become an example for the community. Environmental-friendly programmes must continuously be spurred through guidance and instruction to families and the church to love the environment, and to take action, even though beginning with small steps. The Lord Jesus says, 'Whoever can be trusted with very little can also be trusted with much, and whoever is dishonest with very little will also be dishonest with much,' (Lk. 16:10). As we better understand the tasks of the church, we are all called to carry out these tasks faithfully in order to responsibly preserve the environment which has been entrusted to us by God.

10. In the context of Indonesia the above objective should be combined with the content of *Pancasila*, that is, the five principles of (1) belief in the One and Only God, according to the principles of (2) a just and civilized humanity, (3) the unity of Indonesia and (4) the principles of peoplehood guarded by the spirit of wisdom in (the forms of) deliberation (and) representation, and (5) the realization of social justice for all the people of Indonesia. The values in *Pancasila* can be used to help overcome the problem of the degradation of nature in Indonesia. All principles are relevant to the solution of the problems of the ecological crisis. Since the cultures in Indonesia from which *Pancasila* is derived, prioritize harmony between human beings and God, between human beings and their fellow humans, as well as between human beings and fellow nature, these values could make a significant contribution in the process of preserving the environment in Indonesia

## **II. Suggestions**

The conclusions outlined above lead to several suggestions. Most of these suggestions are general, but some are more specific and are submitted to churches and Christians. However, according to the objective of this book, these particular suggestions could also be used by all who know their responsibility for the whole of nature of which humanity forms a part. Problems of a part of creation are actually everybody's problems. That is why all ideas and efforts to preserve the creation or nature are useful for all people.



**II. A. *The relationship of human beings with the Rest of Creation***

1. The ecological crisis as a result of humankind's destructive treatment of nature has made us aware that human beings must restructure their relationship with the rest of creation, namely with their fellow human beings and their fellow environment. The restructuring of the relationship with nature is indeed a one-sided activity, because nature cannot actively and consciously respond or react towards the treatment by human beings. Therefore, the restructuring or reordering mandate is directed to human beings, arousing their awareness of their responsibility in the interests of all human beings and in the interests of creation. The aim of this restructuring would be to care for and protect nature from destruction. In order to be able to create such a new relationship, the development paradigm must balance preservation of human life with preservation of creatures. It would go too far to give a specification of these suggestions now, but it could for instance be said that in each development plan, the elements of benefit to human beings and preservation of the environment must be balanced.

2. The damage of nature or the disturbance of the ecosystem has threatened not only the destruction of the environment, but it has also increasingly reflected injustice. That is why, in the efforts to preserve nature, one of the factors, which is very important is the realization of justice towards our fellow human beings as well as our fellow creation in accessing and using natural resources. Due attention must be given to this aspect in global, national and local politics and economic policies. People living in a forest environment, for example, must become the first group to accept responsibility for the potential of nature around them. They should not give in to powerful people who try to exploit both them and their creation, but call upon them to act responsibly. Everyone should accept moral responsibility to protect the interests of fellow human beings and creation from arbitrary treatment by those who are politically or economically strong. Everyone has to turn from a consumerist lifestyle to a more generous and just pattern of life.

Behaviour which would protect nature or creation includes the discipline to replace a luxurious life style with a moderate life style. In other words, awareness is needed to practice an economical life style in the use of natural resources, so that these resources will be evenly distributed among people who are now living and the coming generations. This life style discipline could also be supported by a ban on the use of materials that have the potential in the long term to destroy the living environment and cannot be recycled. Human beings could live according to the rhythm of recycling, which is the pattern of nature, in this way aiding the conservation of nature. Human beings must

adopt life styles which protect the harmony and conservation of nature, not only in the interests of nature, but also for the comfort, prosperity and health of human beings themselves in this generation and in the generations to come. Humankind and nature have common interests because they belong to the same life system. Thus human beings' behaviour must be based on their awareness of and responsibility towards the quality and integrity of life and not only on the pursuit of wealth. This ethos could be developed individually or through community groups, such as the church.

## **II.B. *Education and Research***

1. As mentioned previously, the problem of environmental damage is closely related to humankind's lack of awareness of the impact of their interaction with nature. Efforts to overcome the ecological crisis will not focus primarily on technical aspects, but on education and guidance of people, as it is people who are responsible for creating the ecological problems, which affect not only nature, but also themselves. Education aimed at creating an appreciation for God's creation must be given a priority in efforts to repair the damage to nature and to prevent further damage. The main content of environmental education is moral education. The Bible, as the source of Christian norms, could be further interpreted and developed as a source of inspiration about ecological problems and suggestions for practical measures. Activities in which the church or individual Christians could be involved for the protection and preservation of nature include voluntary labour to clear and dispose of waste, planting of trees or the organization of tourism. Moral education accompanied by concrete examples and models within the community, would have a greater impact than any number of regulations, which are only theories, but could not necessarily create true love of creation.

2. In the field of education, churches should make it a priority to arrange instruction and education about nature for their members through activities in the church as well as in the family and general education in schools. The contents of such education would cover theory as well as practice. Thus church members would be given the opportunity to develop greater appreciation of their fellow humans and their nature. Examples of concrete action from the churches are needed as part of community moral education. In the field of religious education, the church doctrines about creation, preservation and salvation must be given a new meaning, extending the meaning of salvation to cover all creation and not only the salvation of human beings. Then this teaching must be implemented in the lives of church members. From the inspiration of sources of Christian tradition practical solutions can be developed.

3. In order to support the efforts of education or training, churches need to conduct continuous in-depth studies on ecological theology as well as on traditional and cultural views cherished by the community. Indonesian cultural values which support the harmony of the relationship between human beings and creation should also be studied. These studies are needed to help churches to determine attitudes and actions, which are Biblically right and true towards God's created nature. Studies could take the form of group Bible studies in local regional churches or on the national level. The church may produce a kind of theological handbook like that published by the churches in South Africa - *A Rainbow Over the Land*.<sup>1</sup>

4. Theological educational institutes and ecumenical organizations must form special institutions or units as 'think tanks' to play a role in supplying churches and the community in general with various information concerning environmental problems and the ways to overcome them. Especially for churches in Indonesia, those special institutes or units must function to study relevant socio-cultural approaches in harmony with local traditions so that efforts to preserve the environment would be supported by the whole society. Results of these studies could be published through weekly church reports or bulletins and also in more professional publications as part of a campaign to encourage love of the environment.

### **II. C. *Movement to Encourage Love of Creation***

1. The church must not only arrange studies on the natural ecosystem and studies on environmental problems to make members conscious of the meaning of the ecosphere, but it must also become involved in concrete action as a realization of the movement to love the environment. Churches could choose and decide for themselves the form of activities which are suitable and realistic, like cleaning up rivers from polluting rubbish or planting of trees on barren land. These church movements could also be in the form of advocacy or defense towards creatures, which are sacrificed arbitrarily in the interests of greedy human beings. One such example is the destruction of the aquatic ecosystem through the pollution of rivers with industrial waste. However, most important of all is the development of the right attitude to creation as a basis for an environmental-friendly life style.

<sup>1</sup> Ernst Conradie & David Field, *A Rainbow over the Land, A South African guide on the church and environmental justice*, Sybrand Park: Western Cape Provincial Council of Churches, 2000.

2. Congregations must become involved in activities, which are appropriate to the condition of each environment, so that congregations who live in Jakarta which is very much polluted by various kinds of waste, could initiate a disciplined life style in the disposal of waste, economize in the use of polluting materials and so on. For this purpose, congregations must also form a network, which could become the pioneer of activities expressing love to the environment. Congregations should also be encouraged to participate in activities to prevent pollution and restore nature, which has already been damaged by pollution. There should be movements for a clean environment, movements for promoting a simpler life style, movements for recycling of waste and so on. The objectives of those movements would be to create awareness of the importance of the harmony of human beings with their fellow beings.

3. Congregations in villages are more easily aware of ecological problems, for example the fact that more and more land has been denuded, or certain animals or insect species have diminished or become extinct due to the effect of pesticides. They could become the initiators of preservation of nature, by encouraging greening activities and the use of natural fertilizers and organic pest preparations. They could also form a working network between congregations with various kinds of environments and exchange experience or work together.

4. Refuse to cooperate with companies involved in the exploitation and pollution of nature by, for example, boycotting their products.

## **II. D. *Network of Cooperation***

1. Churches must form a network of interest groups who are aware of their responsibility and who can become pioneers to think, plan and organize programmes encouraging love of creation, not just in a romantic way but in a responsible way. For instance *Yayasan Tanggul Bencana* as national board should help initiate networking among the churches, NGO's and other institutions. A network must be set up so that churches in various locations can work together and support each other to enhance their various activities according to their individual experiences.

2. Churches must also organize cooperation with the government, private community organizations and other religious groups in studying, planning and executing activities of ecological appreciation collectively at national, regional or local levels according to the need of each region. This cooperation should be based on the awareness that ecological problems are not the problems of just certain groups of people, but that they are collective problems. As a nation having diverse traditions and cultures, we must cooperate to realize a

harmonious and balanced life with nature as one of our life goals and also as one form of participation in the development of the nation. All people are called to make a contribution according to their individual beliefs.

3. Churches in Indonesia must also play an active part in international activities, through ecumenical church organizations, so that, on the one hand, the churches in Indonesia can make their contribution to the international church community according to the cultural richness of Indonesia and, on the other hand, the churches in Indonesia can learn from the experiences of other churches world wide about ways to overcome or prevent the natural environment from damage and destruction. Cooperation among churches could also be part of the realization of their call to preach the Gospel to all the world so that the shalom of the Kingdom of God could be displayed in the togetherness of churches, togetherness and solidarity of human beings and the solidarity and harmony of human beings and all fellow creation.

4. In carrying out the mission to proclaim the Kingdom of God which includes creation pain and suffering, we are aware of human beings' reluctance to give up their power and privileges. However, as the body of Christ who came as the suffering Servant, we must take on this task. We do not possess the power to walk the hard way we have to go, but we trust and have faith that God is present in the creation's suffering. We believe the cross opposes most suffering. The struggle of Jesus aimed to end the crucifixions. In this spirit we will move ahead, in the power of the Holy Spirit, to proclaim redemption, renewal, restoration and salvation in Jesus Christ to the whole creation.

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## **Samenvatting**

### *Milieuethiek en ecologische theologie: ethiek als een integraal aspect van de ecosfeer vanuit een Indonesisch perspectief*

#### *De rol van de mens in de ecologische crisis*

Wat in de regel ‘schade aan het milieu’ wordt genoemd, hetzij door afnemende natuurlijke hulpbronnen of (vaker) door vervuiling, heeft alles te maken met de rol die mensen daarin spelen. Mensen zijn zowel direct als indirect, zowel opzettelijk als onopzettelijk, de oorzaak geweest van de schade aan de natuurlijke omgeving. Die schade heeft lijden veroorzaakt, zowel voor de gehele natuur als voor mensen zelf. Deze studie is geschreven tegen de achtergrond van de rol van de mens in de ecologische verwoesting. Het ecosysteem en de ecosfeer zijn verstoord zodat planten- en diersoorten zijn uitgestorven, de wereld globaal is opgewarmd, de ozonlaag gaten vertoont en de zee is vervuild. Al deze verschijnselen brengen dood en lijden toe aan levende wezens. Zelfs het bestaan van het leven op de aarde als zodanig wordt bedreigd.

In de moderne wereldsamenleving is schade aan het milieu verbonden met snelle demografische en culturele groei, vooral door de ontwikkeling van geavanceerde wetenschap en techniek. De bevolkingsgroei gaat gepaard met het streven naar de voorziening van menselijke behoeften. Wetenschap en techniek hebben zich gewapend om de natuur te ontdekken en te exploiteren, om deze om te zetten tot een product voor menselijke consumptie. In alle fasen van dit proces is er een conflict tussen korte termijn belangen van mensen en de belangen van het milieu, waarbij de eerste in de regel voorrang verkrijgen. De industriële revolutie die nog steeds doorgaat, heeft aan de ene kant de mensheid geholpen om efficiënter en met meer resultaat te werken tot heil voor de mensen. Tegelijkertijd heeft deze snelle ontwikkeling het de mensen mogelijk gemaakt de natuurlijke bronnen versneld te verbruiken en de natuur te vergiftigen door bijproducten en afvalstoffen, van huishoudens, industrie en landbouw. Bijgevolg is het ecosysteem beschadigd en is zijn bestaan als zodanig bedreigd op lokaal, regionaal en globaal niveau.

Christenen kunnen niet onverschillig blijven ten opzichte van deze ontwikkelingen. Volgens de christelijke traditie is de wereld goed geschapen door God. Alle elementen

mogen daarin hun plaats hebben, als door God gewild. De mens heeft daarin een bijzondere rol als Gods partner in de zorg voor de schepping, die aan de mensheid is toevertrouwd om die te bewaren en erover te heersen. Dit beheer moet een verantwoordelijk beheer zijn. Mensen mogen niet alleen de zegeningen van de natuur gebruiken, maar moet er ook zorg voor dragen. Mensen zijn echter datgene wat God aan hen had toevertrouwd, gaan misbruiken. Hoogmoed en hebzucht hebben de mens ertoe gebracht om tegen God te rebelleren. Mensen wilden als God zijn en heersen over de wereld als heer en meester, zonder verantwoordelijkheid tegenover en liefde tot de Schepper en zijn werk.

Vanuit een christelijk perspectief moeten we de schade aan en mogelijke vernietiging van het milieu zien als expressie van de houding en het handelen van de mens die is beheerst door de zonde, dat wil zeggen als verzet tegen God als Schepper. Zonde als hoogmoed en hebzucht heeft de mens gebracht tot een materialistische levenshouding en tot destructief uitbuitend gedrag ten opzichte van de natuur. De zondige mensheid heeft haar positie en roeping in de wereld misverstaan en gehandeld alsof zij zelf de kroon van de schepping is, de eigenaar van de natuur met het recht die uit te buiten. Deze materialistische houding en het daaruit voortvloeiende gedrag treedt in het bijzonder naar voren in de moderne rationalistische humanistische filosofie met haar kapitalistische implicaties, waarin de menselijke heerschappij over de wereld verheerlijkt wordt en de wereld utilitaristisch wordt geïnterpreteerd, met als enig doel het nut voor menselijk welzijn, geluk en plezier. De natuur en al haar elementen worden alleen als waardevol gezien in de mate waarin deze bijdragen tot menselijke interesses. Bijgevolg kan de natuur naar willekeur behandeld worden, zelfs niet alleen om aan menselijke behoeften en welzijn te voldoen, maar ook om de menselijke hebzucht te bevredigen.

Een direct gevolg van het menselijke gebrek voor zorg voor de natuur is de vervuiling van de omgeving, vooral in grote steden. De onverschilligheid ten aanzien van de vervuiling van de aarde, die het meest zichtbaar wordt in steden zoals Jakarta, is geworteld in een andere vervuiling: de morele en spirituele vervuiling van mensen. Deze morele en spirituele vervuiling wordt duidelijk in de arrogantie en hebzucht die de mensheid motiveren tot exploitatie van natuurlijke hulpbronnen en vergiftiging van de ecosfeer met afval en vuil, waarbij geen respect voor de schepping wordt getoond, laat staan waardering voor haar wezen.

Overall in de wereld zijn milieubewegingen ontstaan. Niettemin blijven veel mensen dun omgeving alleen bezien vanuit het menselijk belang. Dat geldt ook voor aspecten van de milieubeweging. Het concept van duurzame ontwikkeling legt bijvoorbeeld meer nadruk op het overleven van de mens dan op de schepping als geheel. Men

bekommert zich wel om de natuur, maar men doet dat uit bekommernis voor de menselijke soort. Men geeft voorrang aan bewaring van niet-vernieuwbare minerale hulpbronnen zoals olie, terwijl de natuurlijke hulpbronnen die duurzaam zijn door vernieuwing, zoals hout, worden verknoeid. Zelf de niet-duurzame hulpbronnen worden verknoeid door onnodig verbruik. Economisch voordeel bepaalt de industriële ontwikkeling van een regio, waarbij negatieve effecten zoals vervuiling makkelijk genegeerd worden. Voordeel is van groter belang voor mensen dan harmonie in de gehele schepping. Ecologisch bewustzijn is slechts een van de aspecten van de voortgang van de menselijke vooruitgang. Dit betekent dat in feite de zorg voor de ecosfeer nog een economisch en geen ethisch bewustzijn is. Dit is een belangrijke reden waarom in de politiek economische belangen nog steeds meer dominant zijn dan bezorgdheid om de natuur zelf.

Vanuit een christelijke theologie van de schepping, met de implicatie daarvan voor een christelijke milieuethiek, mag de mensheid de natuur gebruiken voor haar welzijn juist door daarvoor zorg te dragen. De mens als *Imago Dei* heeft als rentmeester zich om de natuur te bekommeren, omdat God als Schepper en Verlosser zijn schepping liefheeft. Juist als verantwoordelijk schepsel behoort de mens solidariteit te tonen met de gehele schepping. Solidariteit impliceert waardering voor de natuur als een goede schepping, waarin de verbondenheid van de mens met de gehele schepping, en de continuïteit tussen de mens en de andere schepselen tot uitdrukking komt. Deze verbondenheid in relatie aanvaardt de andere schepselen in hun eigen betekenis, die een wederkerige relatie mogelijk maakt.

De niet-menselijke schepping heeft ook intrinsieke waarden, die niet te herleiden zijn tot menselijke belangen. Daarom moet een ethiek van het milieu respect hebben voor alle schepselen. Dat impliceert zelfbeheersing van de mens. Mensen moeten zich beperken tot datgene wat nodig is voor hun basale levensbehoeften. Dat is de consequentie van een levenshouding van respect en waardering, omdat God de schepselen gewild heeft. De basale relatie van de mens ten opzichte van de medeschepselen zou daarom een *waarderende* houding moeten zijn. Zij zijn net als de mens door God geschapen en deel van de ene schepping. Waardering impliceert een attitude van verantwoordelijkheid. Deze verantwoordelijkheid van de mens is onderdeel van het gehele ecosysteem. De menselijke ethiek staat daarom niet tegenover de natuur. Zij is integendeel een aspect van de gehele schepping. Anders gezegd: de ethosfeer is een integraal onderdeel van de ecosfeer. Het menselijke ethos van waaruit hun handelen en denken gevoed wordt, is vanuit het geloof in de schepping gekenmerkt door deze waarderende levenshouding. Een attitude die gedomineerd wordt door economisch belang, is daarbij uitgesloten.

De kerk ziet zichzelf als een gemeenschap die een nieuwe schepping is door het verlossende werk van Christus. Christus heeft verzoening tussen God en mensen teweeg gebracht, en daarom tussen de mens en de gehele schepping van God. Daarom moet de kerk haar roeping in de wereld verstaan tot het verkondigen van de vrede van God die door Jezus Christus de Heer gekomen is. In de context van de beschadiging van de schepping moet de kerk verstaan dat ze geroepen is de relatie tot de andere schepselen te herstellen, door het scheppen van solidariteit en een constructieve houding ten opzichte van de anderen. De mensheid wordt door het geloof in Christus in staat gesteld het lijden van de schepping te onderkennen, die het slachtoffer is geworden van de willekeur door de zonde van de mens. Als een nieuwe schepping is de kerk geroepen te streven naar tekenen van de nieuwe schepping in de natuur op een creatieve manier, niet door een kunstmatige omgeving te maken, maar door te werken aan de bewaring en het herstel van harmonie met hun omgeving, zodat mensen opnieuw leven in de eenheid van de schepping van de ene Schepper. Anders gezegd: de kerk is geroepen om vrede, gerechtigheid en heilheid van de schepping te creëren.

Vanuit oecumenisch perspectief moeten inspanningen om eenheid van de kerk te bereiken verbreed worden tot inspanningen die in lijn zijn met de betekenis van de uitdrukking 'oecumenisch'. *Oikoumenè* is letterlijk 'plaats van woning'. Dat betreft dus de gehele aarde met allen die daar wonen, niet alleen de mensen. Op die manier beantwoordt de kerk aan haar roeping dat het evangelie van het Koninkrijk van God een boodschap van vrede inhoudt voor de gehele schepping. Op eenzelfde manier moet de betekenis van *koinonia* en *diakonia* geïmplementeerd worden door de inspanning alles te verenigen in Christus en door het verwerkelijken van liefde in respect en waardering ten opzichte van alle schepselen. Het is fundamenteel voor de christelijke theologie om onder ogen te zien dat het verzoenende werk van Christus de vernieuwing van de ganse schepping is.

De kerk volvoert haar ene en wereldwijde roeping in de context van het lokale bestaan, de lokale samenleving en cultuur. Dus is de taak van heling van de ecosfeer, die is beschadigd door de zonde, een oecumenische roeping, maar deze wordt lokaal geïmplementeerd in overeenstemming met de culturele context en de specifieke problemen die op die plaats onder ogen moeten worden gezien. Dat betekent dat de taak tot bewaring moet worden uitgevoerd overeenkomstig de culturele perceptie van de verschillende kerken. Voor kerken in Azië, en met name in Indonesië, kan het feit dat de mensen daar evenwicht en harmonie hoog in het vaandel hebben staan als de basis voor individueel en gemeenschapsleven, fungeren als een motivatie die christenen aanspoort om op het hoogst mogelijke niveau te participeren in

inspanningen om schade aan het ecosysteem te voorkomen en om te helen wat reeds gebroken is. Ecologisch bewustzijn kan op die manier iets worden dat gedragen wordt door een inherent bewustzijn van alle kerkleden en van de gehele gemeenschap. Anders gezegd: de kerk kan gebruik maken van het potentiaal van de lokale cultuur voor het doel van de harmonie met de natuur ofwel de heilheid van de schepping. Deze lokale bijdrage dient de integriteit van de gehele schepping op wereldwijd niveau in overeenstemming met het doel en ontwerp van God de Schepper en Verlosser.

Hierboven is betoogd dat het probleem van de schade aan het milieu is gerelateerd aan een ethos van beheersing door de mensen van hun omgeving. Daarom zal een bestrijding van de ecologische crisis niet in de eerste plaats gericht moeten zijn op een technische behandeling van het probleem, maar veeleer op begeleiding en opvoeding van mensen als verantwoordelijke wezens. Opvoeding die is gericht op bewustwording dat mensen respect moeten hebben voor de natuur als Gods schepping moet daarom prioriteit krijgen in de inspanningen om verdere schade te voorkomen en het gedane kwaad te herstellen. Opvoeding tot een waarderende levenshouding van de door God gewilde schepping is essentieel voor de ontwikkeling van een nieuw menselijk ethos.

Kerken moeten daarom voorzien in intensieve begeleiding en onderricht van hun leden met het oog op de ecologische werkelijkheid, zowel door activiteiten binnen de kerk als door opvoeding in de gezinnen en het formele onderwijs. De fundamentele thema's van dit onderricht zullen een theologie van de schepping in het perspectief van de verzoening in Christus en informatie over concrete ecologische problemen moeten zijn, alsmede praktische stappen die door de kerk en haar leden kunnen worden genomen, gemeenschappelijk of individueel, om de schepping te beschermen en bewaren.