

The Current Issues of Climate Change: From a Theological Perspective

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Abstract

Climate Change is possibly one of the most pressing global issues today. This article presents an overview of the basic science of anthropogenic Global Warming and its resultant effects of Climate Change. This leads our inquiry into a critical reflection of the political / economic regimes as well as recent discussions concerning the issues of energy that are at the root of the fundamental causes of Climate Change.

This paper aims to demonstrate that, at a deeper level, the problem of Climate Change is theological. A critical re-evaluation of the issues reveals that Christian communities have been somewhat negligent toward the issue, which may be partly attributed to the increasing tendency of dualism of the modern contemporary Christians in a secular world that often dissociates their faith from active public engagement. However, there is an increasing level of consensus amongst biblical theologians and Christian ethicists that such dualistic tendency betrays the fundamental ethos of the Scripture, which is revealed through the redemptive history of Israel. Rather, the Christian religion calls for "corporate world-view", which promotes an understanding of salvation that is not merely concerned with the spiritual regeneration of an individual but also a strong sense of community through which the fundamental issues surrounding Climate Change can be properly addressed.

Key Words: Christian Environmental Ethics, Dualism, Corporate World-view, Climate Change, Global Warming, Energy.

I. Introduction

The purpose of this paper is to promote an awareness of the issues concerning Climate Change and its fundamental causes from a basic scientific point of view but, as we shall see, the topic of Climate Change has gone beyond the boundaries of the empirical dimension of scientific discourse which has given rise to a serious re-evaluation of modern contemporary political/economic regimes as well as the management and the use of global energy resources. It is becoming increasingly more recognized by the scientists of Climate Change and environmental activists that technological fixes, while they certainly have their role of contribution, are unlikely to rescue us from the immanent threats of Climate Change. Rather, the fundamental solution to the problem lies in the transformation of our attitude toward the world, people and resources (Hodson & Hodson, 2015). Modern technological advancements, while they have greatly improved the living conditions around the world, have the tendency to focus on their expertise which has inadvertently led to the negligence of the need of holistic understanding of human nature and environment. This has been pointed out by M. Northcott who notes that modern political scientists, for instance, tend to de-contextualize politics from geography and culture from nature and science from ethics which fail to address the intricate nature of inter-connectedness of global issues (Northcott, 2013). The issues of Climate Change are such that they require holistic approach as the fundamental solution is theological which shapes, or at least influences, the way in which political / economic regimes are built.

After briefly surveying the basic science of Climate Change, we shall have a look at various forms of political stance toward the issue at the heart of which lies the competition for energy resources and its governance. At the heart of Samuel Huntington's "Clash of Civilizations" (1996) which has been widely accepted as an accurate prediction of the global phenomenon concerning security, lies Climate Change induced conflicts which is increasingly recognized as the biggest challenge that modern societies face (Northcott, 2013; cf. Anthony Giddens).

Despite the magnitude of Climate Change and all that it entails, this issue is still relatively unknown in the Republic of Korea, or at least by the general public which may be attributed partly to the fact that Korea has not been categorized as Annex I country but rather classified as a developing country which is not subjected to direct monitoring of reducing Greenhouse Gas (GHG) emissions. However, the fact that Korea is now one of the global economic powers within the OECD and the fact that Korean industries are ranked 7th in the GHG emissions give us no excuse in neglecting this issues as a secondary importance.

Thankfully, such environmental side-effects of industrial growth and expansion have been recognized and addressed by Christians in Korea as new ecological paradigm movement has been launched in 1989 sponsored by Korea Theological Association, which has given rise to Christian Environmental Movement in 1990. This movement promoted Justice, Peace and the order of Creation in partnership with World Council of Churches (WCC) on a global scale which had memberships from 124 countries and 1,000 participants (임성빈, 2012).

However, it is regrettable that such issues are seldom dealt with by the Evangelical Christians in Korea. This will be discussed in more detail in the latter part of this paper which identifies the current negligence partly due to the dualism of evangelicalism and pluralistic society that view Churches' public engagement as something that is best avoided but, rather, left to personal devotional commitments. The paper re-assesses such contemporary tendency of dualism and the alarmingly increasing individualism from a biblical theological perspective.

II. The Current Issues of Climate Change

a. Global Warming and Climate Change: The Basic Science and its Impact

The causes of global warming are diverse but it has been reported that the anthropogenic GHG emissions that are produced as a result of industrial activities have been held heavily accountable for the effects of Climate Change. For instance, Carbon Dioxide (CO₂), Methane (CH₄), Chlorofluorocarbon (CFCs) as well as HFC₂, PFC_s, SF₆, NF₃ are the major components. It is CO₂ that constitutes approximately 60% of anthropogenic GHG emission and CH₄ that constitutes 15~20% and the rest around 20%. With the new manufacturing technology from the start of the Industrial Revolution (1760 ~ 1840), the burning of fossil fuels have greatly increased the production mass but the GHG emissions have had devastating consequences on the environment.

As demonstrated in <Table 1> the increase of CO₂ as a result of burning fossil fuels (which is a primary activity in industrial production) has increased almost 40 % since pre-industrial era to 2011 from 275ppm to 391ppm. This anthropogenic GHG increase forms a blanket around the earth's surface which prevents the heat being radiated from its surface to the outer-space, thereby creating an insulation effect on the planet.¹⁾ This increased temperature as a result of increased GHG emissions will have its most obvious impact on the glaciers which will continue to melt and directly result in sea level rise. This will cause substantial problems for human communities living in low-lying regions such as New York, Singapore, Tokyo, as well as the Nile Delta, Louisiana, Florida, parts of eastern England and the Netherlands as they are more likely to be affected by flooding and extreme weather conditions. According to scientists, sea defences in many places, for instance in the eastern counties of England, will need to be improved at substantial cost (Houghton, 2011). J. Houghton further notes that many areas such as Bangladesh (where about 10 million live within the one metre contour), Southern China, islands in the Indian and Pacific oceans will be impossible to protect.²⁾

1) M. Northcott (2013): 4. "The connection between temperature rise and rising anthropogenic emissions of CO₂ was first accurately modelled by New York glaciologist Wallace Broecker in 1975, and there are now four global circulation models run by supercomputers belonging to the US and UK government agencies that are increasingly accurate in tracking observed climate changes and matching predictions to observations. According to these models, present rates of rising greenhouse gas emissions will see global temperature rise by 4 to 7 °C by 2100 compared to pre-industrial temperature."

2) J. Houghton (2011). 4. It is reported that "the extremely unusual high temperatures in

<Table 1> The Characteristics of major GHG

Category	CO2	CH4	N2O	F Gas (HFCs, PFCs, SF6, NF3)
Atmospheric Duration	5-200 years	12 years	114 years	45-260 years
Emission Source	Burning fossil fuels De-forestation	Rice Cultivation Cattle Breeding Waste Landfill Use of Natural Gas	Agricultural Cultivation	Refrigerant Insulation
Pre-industrial Concentration	275 ppm	722 ppb	270 ppb	0
2011 Concentration (Increase Rate)	391 ppm (40%)	1,803 ppb (150%)	324 ppb (20%)	
Global Warming Potential (GWP, 100 years)	1	23	296	1100-22200

(IPCC, Climate Change 2013, WG1 Technical Summary)

Therefore, the geopolitical impact of the Global Warming in terms of economic systems and security will become key issues to consider.

The increased temperature will also have adverse effects on the human health as it will increase the growth rate of various forms of viruses and their activity which thrive under warmer temperature. Contagious diseases and viral infections such as Malaria, Dengue Fever, Yellow Fever, and Encephalitis are likely to increase the vulnerability of human population as it is reported that 40~50% of global population will be exposed to such threats of diseases.

With the rise of global temperature, the rate of condensation will increase which means larger volumes of water will be evaporated into the atmosphere. The implication is that water scarcity will become an issue for dry regions such as North Africa and Middle East. Moreover, approximately two billion people depend for food and water on the three rivers of the Indus, the Ganges, and Brahmaputra, all of which are linked by the Himalayan ice mass (Northcott, 2013: 10). The scarcity of the water resource may well lead to major international conflicts and threats to national security³⁾

Perhaps a far more significant impact is that increased condensation of water vapour in cloud formation leads to increased latent heat of condensation being released and thereby increased precipitation which means a more extreme weather conditions. The poor countries which lack the defence infra-structure and mechanism against natural disasters will be the most severely affected by such intense weather conditions.⁴⁾

Central Europe during the summer of 2003 led to the deaths of over 20,000 people."

3) M. Northcott (2013). 10. For instance conflicts between China and India are already endemic as these two nuclear-armed countries may quarrel over water storage and supplies which may lead to political conflicts.

4) J. Weaver. A case study on the situation in Nepal shows that "water supply is crucial to livelihoods, power generation, and the economy... 63% of agricultural land depends on rainfall; 93% of Nepal's workforce is in agriculture; and 91% of Nepal's electricity comes

In the Republic of Korea, the CO₂ concentration has consistently increased since 1908. However, since 1980, the average temperature has drastically increased which had major impact on the intensification of rainfall. From 1908 to 1940, the average temperature was approximately 10 - 11°C but from 1970 until recently, the average temperature has increased to 12 -13°C.

Not only that, the excess CO₂ in the atmosphere will dissolve into the sea water which will lower its PH level from 8.2 to 7.8 thereby contributing to the acidification of sea. This will have adverse effect on the livelihood of coral reefs which is a foundational food source for living organisms in the sea thereby disrupting the balance of the food chain.⁵⁾

On the other hand, however, there are some positive impacts, too. For instance, in Siberia and other areas at high northern latitudes, winters will be less cold and growing seasons longer. Also, increased concentrations of CO₂ is can be beneficial for plants and crops as it has fertilizing effect provided that there is enough water resource and nutrients. However, most scientists are now unanimous in their observation that the adverse impacts will far outweigh positive effects as temperature rise of 1 ~ 2°C above the pre-industrial level will mean an estimate of 15 ~ 40% extinction of many kinds of species (Houghton, 2011: 6).

b. Politics of Climate Change

From the brief survey above, it is quite clear that the fundamental problem behind the Global Warming and the resultant Climate Change cannot merely be solved by enhancing renewable technology. The fundamental problem lies deeper in the modern contemporary political / economic regimes. Recently, the COP21 Climate Change meeting in Paris 2015 has taken place in which the major emphasis has been on reducing carbon emissions with all its political and economic implications. Prior to the meeting each member state had to submit the intended Nationally Determined Contributions (INDCs) and 186 nations submitted their plans. Employing different methodologies, scientists came up with different results, but the overall prediction was something between a rise of 2.7 and 3.7°C above the pre-industrial temperature by 2100. This is better than what it would be if the GHG emissions were allowed to proceed under "business as usual" basis which might lead to a 4.5°C rise. However, the emission cuts promised before the Paris meeting were not enough to reach the 2°C target (Hodson, 2015: 2).

Political leaders around the world have come together in order to address the issues of Climate Change. President Obama of the United States delivered a speech:

from hydropower plants... Decreasing water supply results in a reduction in levels of agricultural production leading to increases in poverty, famine and starvation."

5) D. Yergin (2011): 476. "Acid rain was the evocative term applied to the effects of the sulphur dioxide SO₂ , which, when emitted by coal-burning power plants, reacts in the atmosphere to become sulfuric acid. It was a major issue in parts of Europe, where, among other things, it was said to have damaged half the trees in the Black Forest in Germany."

"For I believe, in the words of Dr. Martin Luther King, Jr., that there is such thing as being too late. And when it comes to climate change, that hour is almost upon us. But if we act here, if we act now, if we place our own short-term interests behind the air that our young people will breathe, and the food that they will eat, and the water that they will drink, and the hopes and dreams that sustain their lives, then we won't be too late for them (Hodson, 2013: 3).⁶⁾" Clearly, the issues of Climate Change are not merely viewed as a problem that can be fixed by science and technology. Rather, the fundamental system of economy and political regime need to be changed in their values if we are to find a sustainable relationship between the human activities and the environment.

Although the Paris meeting is the most recent major gathering that received global attention, the issues of Climate Change have previously been noted by world political leaders. In the Pre-G20 in March 2009 in St. Paul's Cathedral, London, the then British Prime Minister Gordon Brown criticized the free market of capitalism as the setting for self-interest, where financial operators have become "free-loading free-marketeers." The then Prime Minister of Australia, Kevin Rudd added that the god of the financial system has been found to be false and self-serving, and that "market values" have been revealed as the "Golden Calf" of our age.⁷⁾ The ideology of capitalism which promotes politics of greed and an endless economic competition are then held accountable for the damage of the environment.⁸⁾

Even though such criticisms against the capitalist regime and the free market values may seem perfectly justified; developed countries that have already benefitted from the regime especially since the Industrial Revolution are confronted by the newly emerging nations that are now experiencing the benefits of fossil fuels in their economic activities. In other words, the contemporary regulations of the Climate Change and its restraints on energy sources are not perceived to be fair for the nations that are now making

6) Cited in M. J. Hodson (2015). 3. President Hollande of the host nation, France, also gave a speech "never have the stakes been so high because this is about the future of the planet, the future of life." Prime Minister Modi of India called for a "comprehensive, equitable and durable agreement that leads us to restore balance between humanity and nature."

7) See "The Pope's Environmental Manifesto and its Challenges to Business." *Faith in Business - The Journal of Faith in Business and the Industrial Christian Fellowship*. vol. 17.3. 21.

8) D. Yergin (2011). 474. In an attempt to combat such environmental problem, President Richard Nixon established the US Environmental Protection Agency. This is characterized as a form of administrative control by setting detailed standards and mandates for specific technologies. Furthermore, Emissions Trading System (ETS) has been implemented by mainly North Americas and EU which is a government-mandated approach to controlling pollution by providing economic incentives for achieving reductions in the GHG. By creating Carbon Market, a central governmental authority allocates a certain limited number of permits to industries which can then trade its "pollution rights" amongst each other. In other words, industrial entities that want to produce GHG emissions must buy these credits from those that are willing to sell them. While this system has had certain degree of success and is viewed as one of the most promising ways to reduce GHG emission, it is criticized by the environmental activists who question the morality of the very concept of "the right to pollute."

progress in their economy which depend on energy resources which naturally lead to GHG emissions. This is why the question of whether the developing nations should be involved in a binding-agreement of reducing emissions was debated in Kyoto Protocol 1997. The answer from the developing nations was a firm no. However, without the binding targets for the developing nations and their commitment to reduce the emissions together with the developed nations, it would be very difficult to turn an agreement at Kyoto into a treaty. For instance, if China should refuse to commit to the agreement, which is the fastest growing economic power in the world, the US would hesitate to commit to the agreement as it would mean that their economic productivity has to be compromised somewhat in order to meet the targets. This is why the US has put forward the "Byrd-Hagel Resolution", which states that "any climate agreement should maintain U.S. competitiveness and that all the major emitters should be included - including the developing world (Yergin, 2011: 484, 487).

Further political divisions are visible regarding the issues of Climate Change. Some have noted that the more conservative political parties that are committed to free-market values might find it harder to accept the issues of Climate Change as it implies that their economic activities and industrial production have to be controlled or limited. This would certainly seem counter-productive as well as an infringement upon their freedom to trade. Indeed, Climate Change is not without its skeptics as free-market supporters such as Koch brothers and Lord Lawson are involved in funding climate sceptic foundations. Of course, not all political right wings are Climate Change sceptics as Lord Deben (John Gummer, UK Secretary of State for the Environment, 1993-1997) has criticized Australia's Prime Minister, Tony Abbott, for abolishing a Carbon Tax (Hodson & Hodson, 2015: 14).⁹⁾

It is evident that not only are there equity issues between developed and developing countries concerning the GHG emission reduction as well as conflict between the political ideologies of unlimited economic growth and the long-term future of the planet as a sustainable environment for human communities and our bio-diversity.

c. The Issues of Climate Change and Energy Policies

As noted above, economic growth is closely related with the consumption of energy resources such as fossil fuels which has been demonstrated by the fact that annual economic growth increased to 1% between 1820 and 1950 but it reached almost 3% between 1950 and 1973 due to larger consumption of energy resources (Carbonnier & Brugger, 2013: 64). Energy demand, therefore, is an indispensable part of economic growth. In other words, the issues of Climate Change can be properly addressed only

9) 16. They also point out that "Western democracy is good in delivering fair government in the short term but the need to be re-elected tends to favor a concentration on short and medium-term issues."

when there is a significant paradigm shift in terms of energy extraction and consumption. Even though forecasts vary on what the energy demand will be by the end of the century, I. Arbor notes that energy demand is likely to double over the first 30 years of the 21st century from around 10 Gtoe (giga-tons of oil equivalent) to 20 Gtoe. He notes that if we go on with the "business-as-usual", by the end of the century, energy demand will have increased to about 50 Gtoe (Arbor & Weaver, 2014: 27). With the newly emerging economic powers in the global economic arena, it is further expected that approximately 90% of increase in global energy demand will occur in non-OECD countries with approximately \$25 trillion of investment in energy (F. Zelli et al., 2013: 341).¹⁾

This brings to the fore two major issues of energy; namely, CDM (Clean Development Mechanism) in order to mitigate environmental problems and energy security. Especially for the developing nations that were not included in the Annex I of the Kyoto Protocol, CDM will have to play a substantial role in the mitigation measures as they do not have binding regulations regarding GHG as the developed nations have. However, scholars fear that the technological advancement of CO₂ reduction has not matched the growing rate of economic status.¹⁰⁾ The promotion of CDM was the key issue in the 2009 Copenhagen Accord and the Cancun Agreements 2010 (Zelli et al., 342). However, there seem to be clear limitations regarding the measures of CDM as a project still has to go beyond "business-as-usual" meaning that there is "additionality" requirement. In other words, there must be general commitment to the use of CDM and co-operation amongst participants with common objective of mitigating pollution. An utilitarian co-operation from the developing nations are crucial if the CDM implementations are to achieve success.¹¹⁾ Also, a firm commitment from OPEC is necessary. However, their attitude towards climate policies has not been met with enthusiasm as they insisted on "compensation" and "assistance" if the global economy is to diversify away from the natural energy resources (Zelli et al., 2013: 352).¹²⁾ Secondly, there is a financial constraint as the promotion of renewable energy require more investment than other projects that depend on fossil fuels (Zelli et al., 343).

In order to improve the energy efficiency and thereby the mitigation of GHG, CDM

10) F. Zelli et al. (2013). 340. "While world GDP per person on average increased by 1-2% per year, technological advances have resulted in an average 1% decline in CO₂ emissions per dollar GDP. The net result has been an average increase of CO₂ emissions of 1% annually over the 20th century."

11) Zelli et al. (2013). 346. "World Bank is clearly trying to integrate climate mitigation objectives more systematically in its projects, but - in the context of the increasing weight of emerging economies in the Bank's voting arrangements- there has been limited success in assimilating these concerns into mainstream energy finance lending..."

12) Zelli et al. (2013). 348. "The Renewable Energy & Energy Efficiency Partnership (REEEP) is a co-operative platform for more than 3500 members and 250 registered partners, among them 45 governmental actors, including all G8 members except Russia, 180 private entities and 6 international organizations. With an annual budget of just over \$ 7,800,000 and \$ 16,450,000 of available funds, it is one of the largest public-private partnerships for sustainable development."

must go hand-in-hand with a transparent energy governance, which is why energy security is a major issue in discussions regarding Climate Change and its implications for the global human communities. Dependence on fossil fuels not only result in GHG but heavy dependence on these energy resources has major impact on those that are involved in agricultural activities. The food price is dependent on energy price and competitions arise as the prices fluctuate as these natural resources are not renewable. The likelihood of increased competition for energy resources is bound to push the food prices upward, which is going to adversely increase the vulnerability of the poor in developing countries as they spend larger amount of their income on food than the rich in industrialized countries (Carbonnier & Brugger, 2013: 69).

Also, high dependence on fossil fuels is creating an imbalance between the rich and the poor as the term "resource curse" so vividly demonstrates. The resource-rich countries are often plunged into the dilemma of poverty despite their natural resources. This is due to high corruption levels with authoritarian regime which is often established by civil war which always leads to severe human rights abuses. It is of vital importance, therefore, that an awareness of the issues of Climate Change lead to humanitarian concerns. Without an appropriate system of "checks and balance" in ensuring the transparency of energy trading system, high dependence on fossil fuels is likely to worsen the resource curse in developing countries.

In response to such concerns surrounding energy, Extractive Industries Transparency Initiative (EITI) and the Voluntary Principles on Human Rights and Security were introduced. However, producer states often lack relevant infra-structure in effectively monitoring the process of energy trade. Even if regimes such as section 1504 (also called the Cardin - Lugar provision) of Dodd-Frank Act of 2010 are put in place to require all extractive firms registered with the US Security and Exchange Commission (SEC) to disclose their payments to producer states, it cannot help to improve the transparency of the allocation of revenues by producer states which is a decisive element in the formulation of such regimes (Carbonnier & Brugger, 2013. 74).

III. Theological Reflection

The problems of Climate Change cannot merely solved through scientific measures. It also seems that the problem reaches beyond political dimension. It requires much more fundamental approach and a more profound awareness of nature as God's creation and our duty of stewardship. Recently, in June 2015 Pope Francis presented an encyclical to all Churches of the Roman Catholic Communion, "Laudato si', mi' Signore" (Praise to be you, my Lord), which affirms that all species of creation give glory to God, who cares for each one (Luke 12:6, Matthew 6:26). The encyclical was an affirmative acknowledgement of the view that we need to address the deeper problem of morality which is rooted in theological understanding of the Christian Scripture and its mandates for the creation. The Pope firmly stated that the destruction and negligence of the

environment is both a sin against humanity and against God. He called for developed world to see the impacts of Climate Change on the poor in the form of water scarcity, drought, flood and de-forestation which, as we have seen above, are the effects of anthropogenic global warming and the politics of greed promoted by capitalist regime.¹³⁾ The short-sightedness of business enterprises that are only eager to maximize their profits at the expense of environmental damage must develop "ecological citizenship" whereby they are called to share the common objectives of establishing a sustainable relationship between humanity and the environment.¹⁴⁾

More and more Christian theologians are beginning to see the need for a new paradigm shift towards the environment and the need for ethics that comprehensively take into account ecological, judicial, technological and social dimensions (이상훈, 2013: 69).¹⁵⁾ In other words, the issues of Climate Change are theological in nature. This also calls for public engagement of Christians with sound understanding of the Scripture to raise their voices where there are elements of injustice towards nature and humanity. Even though our survey of the politics of Climate Change are only preliminary in nature, it is not too difficult to see that the international politics which are quite nationalistic in nature fail to grasp the real problem that lies beneath the surface of the issues of Climate Change.¹⁶⁾ A truly global perspective is required, which I believe, is only possible when we are transformed by the Word of God. Theologians and Christians, therefore, need to develop an awareness of such global issues and be able to voice their opinions in the process of policy-making, international relations as well as in cultural issues through careful analysis and discussion. This is the only way that Christians in the 21st century are able to carry out their prophetic vocation.

However, such public engagement of theology has been greatly impeded by the tendencies of postmodernism to isolate faith from the public arena. Such dualistic tendency is perhaps especially more prevalent within evangelicalism where application of Christian values are left to personal devotions and worships within the Church. This is partly because the Church, in its attempt to be differentiated from worldly values and to preserve its values, have detached themselves from public arena. This view of the Church as an "alternative society" is perhaps most strongly promoted amongst Anabaptists such as J. H. Yonder and S. Hauwerwas (정광덕, 83). Their concerns are

13) "The Pope's Environmental Manifesto and its Challenges to Business." *Faith in Business - The Journal of Faith in Business and the Industrial Christian Fellowship*. vol. 17.3. 19, 20.

14) Hodson, (2015). 5. It is reported that Bishop Efraim, the Secretary General of the World Evangelical Alliance, also posted a reflection on his time at COP21 on the Tearfund Just Policy blog.

15) 이상훈, (2013). 69. Lee cites Hans Küng as a theologian that deserves attention who proposed "Earth Ethics" (Author's translation). He argued that the sense of human superiority to nature and their dominion are bound to cause environmental damage.

16) Willem Fourie, "Can public theology be practiced beyond the state?" *International Journal of Public Theology* 6 (2012) 292-305 cited in 최경환, *복음과 윤리 제 12권*. 36. Willem Fourie criticized that many of the journals failed to be global in its aim but, rather, were narrowly confined within national interests.

derived from the dangers of Church being secularized, thereby, compromising the fundamental principles of Christian faith. This may, at least in part, be attributed to Augustine who was influenced by Plato. He believed in a dualism between soul and body which may have encouraged extreme asceticism and tendency to confine Christ's redemption to saving human souls from an "evil material world" (M. R. Hodson).¹⁷⁾

However, there are increasing challenges from Christian ethicists and biblical theologians alike as to whether such dualism is indeed what the Scripture teaches. R. Bauckham maintains that "the new heaven and the new earth are not a replacement for this creation, but its renewal, when God will take it beyond the reach of evil, death and transience (Bauckham, 2013: 45.)." He argues that Romans 8:19-21 is a clear example which supports the view that the destiny of men is closely intertwined with that of the creation. There are many references that can be drawn from the Old Testament that the adherence to or breaking of the stipulations of the covenant resulted in either blessings or curses in human relationship with the land (see Deuteronomy 28). Moreover, as Hodson notes, the major festive seasons in Jewish tradition such as the Passover in spring and the Feast of Tabernacles in the autumn commemorate the redemption of God in the history of Israel which are integrated into the seasons of harvest. In other words, the Israelites' belief of God's salvation also had physical element to it as they enjoyed the blessings from the nature.¹⁸⁾

It seems that there is a general consensus amongst theologians that such dualistic tendency which separates man from the world as if spiritual regeneration only pursues immaterial values is not in accordance with the Judeo-Christian understanding of salvation. This may challenge the contemporary Church as the Scripture teaches not only the salvation of human souls through the messianic redemption of Jesus Christ but that Christians are to understand that their destiny and the revelation of God's salvation are intricately intertwined with the creation.

This calls for a "corporate approach" to the environment as well as human communities. Such an individualistic view of Christian faith, namely, that faith is only to be kept in private domain is likely to have contributed to various forms of self-centeredness of Christians in their lack of environmental awareness and all its political and economic implications which, as we have seen in our survey of the issues of Climate Change, is the cause of environmental damage as well as the degradation of human communities in certain parts of the world. This should not be misunderstood into thinking that Christians should be ready to compromise their beliefs in a pluralistic society as they seek to engage in public domain. Instead, Christians are to understand that salvation is by nature communal. I have argued elsewhere that "(Israelites in the Bible) have never

17) M. R. Hodson, "Environmental Christianity: Insights from our Jewish heritage." *The JRI Briefing Papers - No. 13*.

18) Hodson further notes that the phrase 'creating groaning' in Romans 8:22 assumes a Hebraic world-view, where humans are not separate from creation and that both have suffered as a result of sin. Drawing from the imageries in Isaiah, Paul foresees a time when creation will be liberated from this bondage as the era of redemption draws near.

regarded their faith to be exclusively confined within the personal commitment to faith as it had much wider social / political dimension, which also entailed responsibilities of promoting the justice of God for the communities of which they were part (Choi, 2015; see also T. Holland, 2004; 2012).¹⁹⁾ This corporate understanding, which lies at the heart of Christian religion, is a holistic approach to the surrounding world which promotes a strong sense of community as the revelation of God's salvation has much broader scope than we commonly think. However, the corporate world-view, since the expression has the connotation of solidarity, is often misunderstood with collectivism, which promotes uniformity rather than unity. There are clear differences between the two terminologies. In a collectivist society, an individual is merely a component of the larger entity which often requires individual sacrifice for the sake of the majority. The problem with this world-view is that while an individual is readily subjected to criticism or even reprimand, it is much more difficult to reverse the measures of criticism to the larger group. The irony of collectivist society is that it is prone to more intense divisions within a group as factionalism may occur by those who have been left out or victimized by the majority (이상훈, 2013: 92, 94). Indeed, the Bible condemns such notion which is easily deteriorated into human obsession with imperialism (see. Revelations 13, 17-18).²⁰⁾

All in all, none of the measures that have been proposed in an attempt to combat the consequences of Climate Change can be sustained unless people assume "corporate awareness" of the issues as Christians are not to limit their faith in their private domain but to actively engage in the public and promote the biblical values of solidarity with fellow citizens and the rest of the creation.

IV. Final Remarks

I have presented an overview of the causes of Climate Change and its impact on the communities around the world. The solution lies much deeper than mere fixes in technology or political systems. The problem of Climate Change is fundamentally theological one. However, the Church as a community of Christians is not in a position

19) S. Choi, (2015). A reference had been made to T. Holland who also emphasized the corporate nature of Israel's understanding of salvation based on the Exodus event. In this redemptive event, salvation depended on the "membership to the community of God" rather than individual righteousness. The blood of the Lamb that was smeared on the door lintel symbolized the death of the firstborn, which was the tenth plague that finally liberated Israel from the bondage of slavery. This blood symbolized the "membership of the community of salvation." The wrath of God was therefore on the system of sin which Egypt represented (slavery, oppression and so forth), rather than an act of genocide.

20) S. Woodman, "Apocalypse Now? The Book of Revelation and the Environmental Crisis" *The JRI Briefing Papers - No. 21* In these chapters in Revelation, the imperial machine is seen as a corrupting whore and a violent beast that destroys all those who come into contact with it. It is also noted that "John's apocalyptic is a powerful critique of all such systems which seeks to centralize wealth and privileges at the expense of exploitation of the margins (see Rev. 2:5, 16, 21-22; 3:3, 19)."

to interfere with political affairs or directly get involved in the process of legislation or policy-making. The Church as an entity cannot and, in my opinion, should not be directly involved in political actions as this would certainly expose the Church to the immanent dangers of secularism for what good is the salt if it loses its saltiness as Matthew 5:13 tells us. However, the Church is in a position, a very influential position, to raise an awareness of important global issues such as Climate Change through sound biblical teaching and an understanding of its basic characteristics. It is then up to the individual choice and decision to act according to what they have been taught so that they may fulfill their vocations as the salt and light of the world (Matthew 5:13-16). This is especially more relevant for the issues concerning Climate Change as the "top-down" approach of the UNFCCC and the like, as the Climate scientists and policy makers commonly say, is not going to be effective unless there is corporate mind-set as a general public consensus. It really ought to be, as M. Northcott affirms, "bottom-up" approach that has a small beginning in the home, the Church and village, and city, that holds the key to solving the worsening impacts of Climate Change (Northcott, 2013. 304). As I have argued above, such "bottom-up" approach is rooted in corporate world-view which lies at the heart of Christian religion. This is drastically different from extreme individualism and unending competition which the free-market of capitalism promote. Instead, the issues surrounding Climate Change require people to act corporately together for "only a multitude can produce the common" (Northcott, 2013. 310).

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