

## Chapter IX: Summary, A List of Critical Findings and Recommendations.

### 9.1. Comprehensive Summary

The objective of this thesis is to provide Korean churches with a theological framework to solve the current environmental impact of energy and mineral development in Korea. But this is merely a microcosm of what is happening in securing energy and mineral resources throughout the world, because we cannot imagine one day of our lives without energy and mineral resources in current civilized societies, just as we cannot exist without pure blood.

In effect, the key question is whether there are Christian insights and theological perspectives which can help prevent complex and dynamic environmental impacts from mining activities and nuclear plants in the environmental crisis.

Chapter 1 provides the rationale for this study by demonstrating the serious environmental impacts from mining activities and nuclear plants as well as the contribution of energy and mineral resources for the economic growth of the world and in particular, South Korea. The environmental pollution from mining activities and nuclear plants is a major factor contributing to the current environmental crisis, which brings about serious harm not only for the present generation but also for future generations.

This is an ethical issue and an urgent mission which needs to be dealt with by the church of Jesus Christ. This thesis therefore argues that all churches throughout the world, as well as in Korea, have an ethical responsibility to be actively and aggressively involved in the saving of the planet not only for the sake of all creation but for the sake of our Lord God who trusted us with His planet.

We have participated in this sinful destruction of the environment by our greed and silence on the issues of the damage caused by the exploiting of energy and mineral resources and the establishment of nuclear plants for economic gain and easy comfortable lifestyles. We do not want to give anything up; we simply wish to increase our wealth and comfort at whatever cost.

Chapter 2 looks at the characteristics and demand-supply of energy and

mineral resources to understand what is going on in the course of mining activities. And then it discusses the demand-supply of energy and mineral resources to analyze the world's dependency on these resources.

There are tables of world trends regarding reserves, demand, production, exports and imports of energy and mineral resources to show the economic impacts of these resources particularly in the rich advanced countries such as the United States of America. It can be clearly seen that the demands of the rich developed nations are much higher than the developing countries.

Particularly, the reserves of fossil fuels such as petroleum are already low, but they provide nearly 90% of the energy which drives industrial society (UGI 2004:2-16). Fossil fuels are responsible for much of the earth's pollution and directly attribute to the global warming.

However, they are still considered to be fairly cheap sources of energy so that there has been very little done to replace these forms of energy. When we discuss these sources as forms of cheap energy, it is because the cost to the environmental degradation (external cost) is not considered into our economic market prices.

World trends in mining policy is finally discussed to manage scarce non-renewable resources in the world. The wealthier Northern countries face new pressures as they depend on the energy and mineral resources of the poorer South, while the South wants to have a say in the management of its own resources. While the divide increases, the crisis intensifies.

Chapter 3 discusses the environmental impact from mining activities and nuclear plants which is not a local issue but pertinent to the whole world and humankind. The discussion begins with the damage caused by the mining industry and goes into greater detail about what happens in the course of mining activities. Then the discussion moves to what happens when a mine closes down.

The complex and dynamic environmental impacts and damages are caused by mining activities in the every where in soil, water, air and human and animal body, which are acid mine drainage, oil leakage, acid rain, GHGs emissions, radioactive waste discharge and deforestation etc. In order to emphasize that we habitually consume energy and minerals without considering such a valuable cost for them, it is worth repeating the statistic that on average of 40 people are killed every day only in mines in the world at the moment.

This chapter takes a serious look at the issue of climate change from GHGs emissions which is just an indicator of the threats we face as a rigorous alarm from our Lord God. We should recognize that while the earth is killed in the environmental degradation, we are indulging ourselves in overdevelopment and overconsumption.

It is obviously our urgent duty to heal the climate change caused by human beings. If we do not act to recover it, the true cost of our failure will be borne by future generations. This is the moral challenge of our generation. We should therefore set up a road-map for a more secure climate future. We cannot rob our children of their future.

The post Kyoto Protocol is also discussed as a concerted effort of not only the richer nations but also all the countries to try and control the damage for the future. In order to make a real difference, the only way is to take action together based on loving each other. Instead of saying "you first," we should start by saying "me first."

Finally, there is a detailed discussion on the environmental impact from nuclear power plants. Nuclear power and waste disposal have been on the world agenda for many years. In spite of such long research and development, the nuclear waste disposal is still left as a serious environmental problem for nuclear power plants. So, it is often remarked that establishing a nuclear plant is like building a luxury house without a toilet.

Chapter 4 focuses on the environmental impacts from mining activities and nuclear plants in Korea. It goes into the detail trends of economic growth which has been accompanied by rapid ecological dilapidation and environmental pollution. The environment was sacrificed by pursuing more economic growth through industrialization in Korea.

The chapter looks at the energy and mineral consumption and supply in the past 30 years: how it has grown with the economic growth of the country, the eventual closing of mines because of their low reserves and poor profits, how Korea has had to look elsewhere and develop an overseas energy mineral development policy to meet and cope with the high demands of the nation.

This chapter goes on to discuss the environmental impact from mining activities in Korea such as acid mine drainage, mine tailings, soil contamination, mine subsidence, oil leakage, and pollutions from asbestos

and coal mines, oil refining plants and copper and zinc smelting and refinery plants etc. Some case studies are introduced to show soil and ground-water contamination from residual mine tailings and acid mine drainage in some mine areas.

Particularly, there is a detailed discussion about how mining companies have dealt with closed mines and the resulting damage done to the land and people of the mine areas. There is also a more detailed discussion on the increasing CO<sub>2</sub> emission which is the most serious environmental problem Korea is now facing.

In the chapter there is also a detailed discussion on the environmental impact from nuclear plants in Korea. This includes a little bit of the history, the amount of plants at present which are in operation and the present as well as the potential damage to the environment. It also discusses the disposal place of nuclear waste building in Korea from 2008 and how inadequate it is going to be in terms of future generations. There are tables to clarify this situation for the reader.

The chapter particularly points out the environmental impact from nuclear waste disposal and plant-building plan which will definitely bring about serious burdens for future generations.

Chapter 5 looks at the environmental involvement of Korean churches in the light of the environmental impacts from mining activities and nuclear plants that are taking place throughout the world and in particular Korea. The discussion focuses on their environmental initiatives in Korea looking at the Protestant church and the Catholic church. There is an outline of each denomination's involvement with some statistics and their financial commitment towards environmental issues.

The discussion analyzes why Korean Protestant churches are not as proactive as they should be in the light of the environmental crisis which is seriously affecting their environment and health. Korean Churches in general have put more emphasis on church growth than anything else, hence the lack of urgency regarding the environmental crisis which looms heavily not only in Korea but throughout the whole world.

This chapter concludes by assessing the major activities of Korean churches pointing out that in Korea this is far too little. There should be so much more environmental initiatives required in this whole area and it should be Korean churches rather than secular organizations leading the

way. Because the earth is our Lord God's. He entrusted to all Christians the care for the earth and all creation.

In order to develop a new concept of sustainable development in accordance with the will of God as a practical matrix for theological framework, Chapter 6 firstly looks at the origin and controversies of sustainable development, two competitive views on the social and environmental future of cornucopia and outbreak crash, fundamental roots of environmental degradation, and biblically based propositions for sustainable development.

As the biblically based propositions for sustainable development, the chapter points out that the earth is the Lords, human role of imagined God, relationship between humans and nature, the creation as a mirror of human hearts, environmental crisis from sinful hearts, lifestyle with the image of Christ, and responsibility for ecological integrity.

This chapter then suggests a new concept of sustainable development in accordance with the will of God which shows a fundamental approach going beyond discussing only the socio-economic forces encouraging population growth, technical development and production activity on account of anthropocentric greedy values. It concludes with a proposal of biblical sustainable development in the mining context as a basic tool to develop a new mining scheme for ecological integrity.

Chapter 7 discusses a theological framework as a practical model from which biblical sustainable development of energy and mineral resources in accordance with the will of God can become a realistic project for the entire world led by Christians everywhere.

This discussion begins with a re-examination of scripture in the light of biblical sustainable development in accordance with the will of God unfolded in previous chapter. This chapter firstly discusses theological perspectives for biblical sustainable development to develop the rudiments of an environmental ethic grounded in the bible. Secondly, it suggests practical guidelines for individuals and churches to lead this world into the biblical sustainable society based on the theological perspectives.

This chapter concludes by discussing the status of the church at present in this environmental crisis and how the Church can lead the way to the biblical sustainable society. All the churches in the world must act

together in defence of creation, and encourage the participation of people against the powers of oppression and destruction through world Christian networks.

Chapter 8 begins with a critical evaluation of the environmental activities of Korean Churches based on the theological framework for biblical sustainable development of energy and mineral resources unfolded in the previous chapter to clearly identify the challenging tasks which they are now facing. This chapter discusses the theological and ecclesiastical weakness of Korean Churches and how much their mission has strayed from the purpose of our Lord God regarding energy and mineral issues in the environmental crisis

The chapter moves on to evaluate the Korean energy regime and mining policy to suggest directions of the Korean government as practical targets for their environmental initiatives in accordance with the will of God.

The discussion points out Korea's high dependency on fossil fuels which results in the severe damage to the environment, especially regarding CO<sub>2</sub> emission causing climate changes. According to the recent statistics, Korea has one of the highest emissions of CO<sub>2</sub> in the world and is in a vulnerable position compounded by her heavy dependence on fossil fuels.

This chapter moves on to a discussion about Korea's nuclear power policy. Korea's nuclear policy is an emotive subject and causes much discussion, protest, intense debate and even violence. This is because there are many unresolved issues surrounding nuclear power plants.

This chapter suggests directions for individuals to build a biblical sustainable society. In order to build the society, Christians must first of all change themselves. A list of checkpoints is offered to assist in doing this. From this point we are in a strong position to tackle a change in society and to live a Christ-like way of life.

The chapter goes on to discuss practical guidelines for Korean churches to practice to be proactive in the environmental initiatives, and then concludes by suggesting directions for the government to offer practical targets for their environmental initiatives.

The Church is arguably the most powerful institution in the world and can literally move mountains because it has its power from God. This power has to be utilized not only in Korea but in the whole world in order that humanity can save this planet before it is too late.

## 9.2. A List of Critical Findings (Conclusion).

1. The environmental impacts from mining activities and nuclear plants have been taking place throughout the world as well as South Korea, while the contribution of energy and mineral resources for the economic growth has been increasing throughout the world as well as South Korea in the current civilized society.

It is clearly confirmed that the environmental pollution from mining activities and nuclear plants is a major factor of the current environmental crisis, which brings about serious damage not only for the present generation but also for future generations. Particularly, the environmental risks transcend borders. It could even come to jeopardize international peace and security. Furthermore, mining cannot be sustainable because the deposit is finite and is eventually exhausted.

Therefore, there is a pressing need in the new century to adopt sustainable energy and mineral options, especially in the face of mounting evidence of global warming linked to fossil fuel use, the environmental impact from mining activities and the persisting threat of nuclear accidents, unresolved problems of radioactive waste disposal, and the specter of nuclear weapons proliferation associated with continued use of nuclear power.

2. We have participated in this sinful destruction of environment by our greed and silence on the issues of the damage caused by the exploiting of energy and mineral resources and the establishment of nuclear plants for economic gain and easy comfortable lifestyles.

We are indulging ourselves in overdevelopment and overconsumption, while the earth is being killed in the environmental degradation. In particular, the climate change is just an indicator of the threats we face as a rigorous alarm from our Lord God of grace. If we do not act to recover the global warming, the true cost of our failure will be borne by future generations.

Therefore, the environmental problems are not only scientific, technical, political or strategic questions, but also fundamentally moral issues. They are human-created problems that adversely affect the good of humans and other creatures in our relationships.

This involves an urgent mission which needs to be dealt with by the

church of Jesus Christ. This thesis therefore argues that all churches throughout the world as well as Korea have an ethical responsibility to be actively and aggressively involved in the saving of the planet not only for all creation but for our God who entrusted us with His planet.

3. In particular, the giant transnational companies (TNCs) of advanced countries have maximized short term profits, undermine the capacity of poor countries and contribute to the serious degradation of the environment through their control over energy and mineral resources, access to markets, and development of new technologies.

Furthermore, TNCs are using developing countries to dump some of their toxic wastes and exploit their energy and mineral resources. The governments of developing countries are so eager for foreign exchange that they do not have stringent legal conditions in place for the safety of the environment and their people. Therefore, it is urgently necessary to set up conduct codes for TNCs in accordance with the biblical sustainable development to prevent their ruthless business for their profits.

4. The Korean government has justified its heavy reliance on fossil fuels and nuclear plants to promote its growth-oriented economy for several decades, in spite of mounting environmental problems, financial burdens from increasing huge costs, and complaints against the technocratic system of energy governance.

The Korean energy and nuclear regime is a major pillar in support of its rapid economic growth, but resulted in producing serious social and environmental problems. Additionally, Korea has pursued her supply-oriented energy policy with mostly overseas energy and mineral resources for the past half century because of her poor endowment of energy and mineral resources.

In the light of environmental impacts from mining activities and nuclear plants in Korea, it is necessary to check the Korean energy regime and mining policy and change them to operate more in line with the biblical sustainable development system in accordance with the will of God. Particularly, the increasing CO<sub>2</sub> emission in Korea, already exceeding the OECD average, is the most serious environmental problem contributing to global warming. Therefore, it is urgently necessary to alleviate the high dependence on fossil fuels in the Korean economic system.



5. Most of Korean Protestant churches have not taken note of the ecological mission particularly regarding environmental degradation from nuclear plants and mining activities. They have generally enjoyed their quantitative growth, keeping pace with the rapid economic growth.

In spite of the fact that they have abundant human and physical resources and wide networks to effectively perform environmental initiatives, when it comes to coping with environmental pollutions from mining activities and nuclear plants, there is almost nothing to mention regarding their environmental involvement except for voluntarily participating in the oil-removing activities in the west seacoast polluted by the oil spill disaster in December 2007.

The church is God's vehicle through which He reaches out to the world to establish His Kingdom. We are stewards on behalf of God who has entrusted creation and its resources for our wise management. However, the churches have not spelt out in clear terms the will of the Creator God to be in harmony with all human and non-human beings.

6. The church-centered leadership of Korean churches as the result of a dichotomous theology that the church is good and the world is evil is nowadays confirmed as a primary factor preventing them from participating in environmental initiatives (social development).

As a result, they failed to promote their social responsibility and lost much of their credibility in the Korean society. Their total membership has decreased more than 10% during last 15 years. However, most of their endeavors have ironically concentrated on developing leadership skills, programs and methodology to experience numerical growth again.

7. The structural factors which Korean churches have performed poor environmental initiatives, particularly regarding environmental impacts from mining activities and nuclear plants, are pointed out as the following:

- 1) Sporadic reactive motivation for environmental initiatives.
- 2) Environmental initiatives without practical guidelines.
- 3) Poor infrastructure for environmental initiatives.
- 4) No comment on environmental issues.
- 5) Indifference of pastors about environmental problems.
- 6) Deficiency of environmental education system.

In particular, Korean Protestant churches have been divided into more than 100 denominations. When they are nowadays concerned with the environment initiatives, they can mainly be classified into two groups of progressive churches and conservative churches. The former has been relatively active, while the latter has almost become silent regarding the environment.

8. This thesis developed a new concept of sustainable development in accordance with the will of God as a practical matrix for theological framework to help prevent the environmental impacts from mining activities and nuclear plants. That shows a fundamental approach going beyond discussing only the socio-economic forces encouraging population growth, technical development and production activity on account of anthropocentric greedy values as the following:

"Biblical sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs in harmony with all creation within the carrying capacity of the earth through changing the lavish lifestyle in affluent societies and amending a neoclassical fossil-fuel economic system in accordance with the will of the Creator."

A new concept of cleaner production (CP), pollution prevention and burden of proof is also suggested as a basic tool to develop a new mining scheme for biblical sustainable development in the mining context. If we as Christians were to truly practice biblical sustainable development in accordance with will of God, the environmental issues from mining activities and nuclear plants would be an easy task in the current environmental crisis.

In the course of developing biblical sustainable development in accordance with the will of God, it is confirmed that the fundamental roots of environmental degradation are not Christianity as criticized by some environmentalists including Lynn White, Jr., but the fall of man, human greed, anthropocentrism, the limited carrying capacity of the earth, the second law of thermodynamics, the economic growth mania, consumerism, maldistribution, population, risks of nuclear plants, and the marketing price

system.

9. In order to set up a theological framework for individuals regarding biblical sustainable development of energy and mineral resources in accordance with the will of God, it is necessary to look at the whole Biblical doctrine of creation, awakening all Christians to what it teaches and reminding us of our responsibility. Lastly we should demonstrate what the doctrine of creation teaches how we live, our concerns for others and by developing unselfish attitudes proving that God is truly at the center of our lives.

We should keep in mind that God did not create the earth for only humans but for all of creation. Especially, ignoring God's wishes for protecting the environment is ignoring not only our own health and well-being but also opportunities for future generations and all the creatures on the earth.

With God's help we should try to change our lavish lifestyle into a more simplistic lifestyle and replace quantity into quality, material richness into spiritual richness and ruthless development into ecological integrity. We should be doing what is right and just according to the life of our Lord Jesus Christ.

We should recognize that God created the earth with its own properties and limits. Learning how to work with and within the limited carrying capacity of the earth is a major task for Christians in following the will of God, who not only asks us to love each other as humans but also non-humans through practicing ecological virtues such as frugality, solidarity, sustainability etc.

Therefore, we as Christians cannot sit back and watch the environment being abused and say and do nothing about it. We must try to have an attitude of humility, frugality, relationality, solidarity and sustainability in our daily lives and follow the life of our Lord Jesus Christ in the light of the limited carrying capacity of the earth. We should throw away our current anthropocentric lifestyles, giving up selfish intentions to satisfy the insatiable greed through overdevelopment and overconsumption.

10. The church is not an inward-looking body committed only to worshipping its Lord. The church's ministries are not some set of arbitrary services, but they are a response to God as our Minister. Our churches

must again take a fresh look at the Lord of the church, Jesus Christ and the community that He has formed for Himself (Eph. 1:22).

The environmental responsibility is not an option, but a mandate that must be incorporated into the whole. It is one of the signs of a valid Christian ministry. Since God's ultimate goal is the perfection of just and harmonious relationships (shalom) among all creatures, the church's historical mandate includes the pursuit of justice, peace, and ecological integrity.

In the context of the environmental crisis, the church should be a leader to transform a society through practicing social ministry. The Christian community therefore needs to develop practical policy approaches to the environment and environmental issues in the process of social ministry such as analysis–reflection–practice–feedback based on the Biblical perspectives.

The church must be willing to identify and condemn social and institutionalized evil, especially when it becomes embedded in systems. It should propose solutions which both seek to reform and replace creation–harming institutions and practices. It should be a center to exemplify eco–justice through the practical discipline of all its members.

11. The environmental problems Korea is now facing do not mean that it is impossible to change into a sustainable and democratic energy and mineral future. There are bright alternatives available for Korean society. The biblical sustainable development option in accordance with the will of God is the way to lead Korea into a new sustainable society.

In order to work toward this option, institutional mediation is surely needed to promote social changes. But its success ultimately depends on the energy and determination of the Korean people, particularly Korean church members in their different contexts to work for the new biblical sustainable development order. Therefore, the full support and prayers for solidarity and readiness of Korean churches are truly necessary. It is also necessary for Korean churches to enter into alliances of cooperation with others.

However, when it comes to coping with environmental pollution from mining activities and nuclear plants, Korean churches really have no honorable position. Most of them are unconcerned about the serious environmental deterioration from mining activities and nuclear plants. They have generally executed their pastoral duties with an indifferent position

towards political and economic programs and structures. They think that environmental issues are only for government and specialized non-governmental organizations, not for the Christian churches.

They are still in the initial stages of formulating Christian guidelines for biblical sustainable development in accordance with the will of God. Their environmental programmes are still far from reflecting a systematic approach to cope with the environmental pollution from mining activities and nuclear plants.

12. In order to build a biblical sustainable society, Korean churches should take the environmental initiatives into their main mission so that the church leaders constantly preach the message of loving all creation and caring for the environment as well as for our neighbours. This should be reflected in their worship through their liturgies, in their prayers, in their bible studies and as a key factor in their social responsibility as the children of God.

In order to change their attitudes, it is necessary for them to reorient their faith and ethics, focusing on relations and community, not only on individuals and objects, in accordance with the new story of the earth and cosmos embodying forth the power, wisdom and love of God. They should read and interpret the Bible with more alertness to nature, reflecting on real praxis for biblical sustainable development in accordance with the will of the Creator through reinterpreting the Bible.

Their dualistic ministry separating individual piety and social behavior, faith and deed, contemplation and commitment, prayer and action, spirit and body, heaven and earth, horizontal relation and vertical relation, etc. should be replaced with a social ministry which also deals with environmental issues. The reason is that environmental degradation is a problem of social justice related to both human and non-human creation.

They must dare to proclaim the full truth about the environmental crisis in the face of powerful persons, pressures and institutions which profit from concealing the truth. Such recognition of the hard truth is an important step towards the freedom for which creation waits.

In particular, they should have a firm belief that social ministry is the best way to set off their revival movement again. The recent member growth trends of both the Catholic and Protestant church are a good witness for the movement.

13. Korean churches should firstly develop their own practical guidelines in order to be proactive in protecting the environment from the serious pollution confronting them in their daily life as Christians belonging to the Creator Jesus Christ. Secondly, they must establish an infrastructure for environmental initiatives such as manpower, budget, structure etc. Thirdly, they must initiate and support the process of education for the growth of earth-keepers, both in the habits of everyday life and in the provision of leadership for the care of creation.

Korean pastors should firstly confirm that their environmental actions are not only for their own sake, but also for that of God's Kingdom. Secondly it is necessary for them to act as a pioneer in environmental initiatives. Finally they should lead God's people not to commit environmental sins through practicing environmental guidelines for the biblical sustainable development in accordance with the will of God.

14. There are several practical targets for Korean churches to push their government to counter environmental impacts from energy and mineral resources as the following:

1) They should strongly point out the high dependency on fossil fuels which results in severe damage to the environment, especially regarding CO<sub>2</sub> emission causing climate changes. According to the recent statistics, Korea has one of the highest emissions of CO<sub>2</sub> in the world and is in a vulnerable position compounded by her heavy dependence on fossil fuels.

2) Nuclear power is the modern day answer to fossil fuels in that it is clean and does not emit CO<sub>2</sub> into the environment. However, the proponents of nuclear energy omit to tell us of the dangers of accidents causing radioactive contamination, unresolved problems of nuclear waste disposal and nuclear weapons proliferation associated with the nuclear power plants. Additionally, it encourages people to use energy consumption more to make up for the huge costs not only for the construction but also the hidden costs.

Therefore, Korean churches should push the government to proclaim a nuclear power moratorium for additional nuclear plants until developing a perfect technology to cope with the nuclear wastes. Instead of establishing new nuclear plants, she should make concerted efforts to carry out effective energy efficiency improvements and develop other alternative energy

resources such as solar, hydrogen and wind energy and so forth.

3) They should have kept in mind that as the world becomes more exploitable and more profligate, the environment of this planet degenerates unto the brink of total destruction, contrary to the will of God. Therefore, they should push the government and mining companies to develop a more careful approach to the limited energy and mineral resources and prevent various pollutions from mining activities in developing countries as well as in Korea. In order to use energy and mineral resources from generation to generation in accordance with the will of God, mining policy must be developed attuned to the carrying capacity of the earth, comprehensively managing human numbers and lifestyles together with technologies and management practices.

4) The fundamental cause of poverty is almost the same as that of environmental degradation. The gap between the rich and the poor in Korea has increased much in the course of her rapid economic growth. In particular, a lot of the poor were produced as a result of the Korean financial crisis in 1997. Korean churches should keep in mind Paul's appeal to accept God's preferential option for the poor. They should recognize that the worth of a society is measured not by its power, wealth or size, but by how it cares for the poorest and weakest members.

### **9.3. Recommendations: Further Research.**

There are two further research fields, touched upon in this thesis, which I should like to recommend students and theologians to urgently explore to help heal the serious environmental crisis.

#### **9.3.1. Control of GHGs Emission for Climate Change.**

Rapid environmental change is all around us. The most obvious example is climate change today. Weather-related disasters are already having dramatic impacts on all the animals and nature as well as human beings. While the earth is being killed in the environmental degradation, we are indulging ourselves in overdevelopment and overconsumption.

Ironically, climate change is more unfavourable to the socio-economically weak, who are usually less responsible for the advent of climate change and have less ability to cope with the impact of climate change. It has turned

out that Africa is the continent suffering most from the impact of climate change. Most of Africa will be hit the hardest if climate change continues on its current course.

The climate change is just an indicator of the threats we face as a rigorous alarm from God of grace. It is obviously our urgent duty to heal the climate change caused by human beings. If we do not act to recover it, the true cost of our failure will be borne by future generations, starting with ours. So, the climate change is not only a political and geological problem, but also an ethical and peace problem for all creatures.

However, no sign of a deal emerged amid the wide gap between advanced and developing countries at the Copenhagen climate talks held in December 2009. They only agreed to set a target of limiting global warming to 2 degrees Celsius above pre-industrial times.

Therefore, it is urgently necessary to do further research on the control of GHGs emission for climate change based on biblical sustainable development in accordance with the will of God. It is difficult to heal the climate change without a fundamental approach going beyond anthropocentric greedy values. Nobody wants to give up anything; we simply wish to increase our wealth and comfort at whatever cost.

### 9.3.2. Conduct Codes for TNCs based on Biblical Sustainable Development.

There has been a lot of criticisms about the negligence and wrongdoing of giant transnational corporational companies (TNCs) of advanced countries, which sacrifice the lives or health of people as well as the integrity of the environment for the sake of their profits. Particularly, through their control over energy and mineral resources, access to markets, and the development of new technologies, few studies doubt that TNCs have maximized their profits, undermined the capacity of poor countries and contributed to the serious degradation of the environment.

The business differences are exploited by TNCs for their commercial advantages, investing in the regions in which production costs are lowest because of low regulatory standards and expectations. In return, competition for internal investment is said to put further downward pressure on regulatory standards in those countries, especially the poorer countries of the world, struggling to achieve economic growth.

The international "corporate social responsibility (CSR)" movement has



developed in response to these perceived gaps in the regulatory systems. The CSR movement has been described as one of the most important social movements of our time in the environmental crisis. As a result of the movement, there has been during the past few years an extraordinary proliferation of "codes of conduct for TNCs." But they all struggle to define what corporate social responsibility (CSR) means in practice.

Therefore, it is urgently necessary to do further research on conduct codes for TNCs based on biblical sustainable development in accordance with the will of God. Its purpose is to encourage all the churches in the world to participate in the CSR movement. The CSR can no longer be dismissed as a passing trend in order to heal the serious environmental crisis. New international institutions should promote the CSR standard of TNCs according to the biblical sustainable development in accordance with the will of God. TNCs must have responsibilities to enable them to be good corporate citizens in the context of the environmental crisis.