Achieving the Sustainable Development through the World

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Abstract

Achieving the Sustainable Development is an important problem for us to solve. It's because the Sustainable Development is related to our future. As we know, so many people interested the Sustainable Development. But, the Sustainable Development is not easy to achieve. By the way, our global environment is worsened day by day. Sustainable Development is serious problem not only any country but also every country. Therefore, Sustainable Development must be achieved through the world.

We need a long-term vision of sustainable development with the global development community. Actually, growing the environmental catastrophes led us got a new trial   for the sustainable development.

In general, the proponents of sustainable development tend to explore the sustainable development, plan the environment-friendly policies, suggest the environmental protection, and research the principles of sustainability. Also, I'd like to explain the world sustainable development system consists of several local sustainable development systems.

My paper begins with a brief discussion on various forms of environmental crisis to resisting sustainable development. And, I will research how the model of sustainable development articulates the environment-development linkages in both global system and local system. The prospects for global sustainable development today are similar to a complex system. Also, it's related with each component. I will research how many problems to be solved for achieving sustainable development through the world.

The final part of the paper I want to make critical examines the major limitations of the model in dealing with the environmental question through out the world, and makes some suggestions in my way for the sustainable development.

Keywords: sustainable development, achieving sustainable development, global system, local system, complex systems

Introduction

This paper intends to achieve the Sustainable Development through the world. It's because the Sustainable Development is related to our future. As we know, so many people interested the Sustainable Development. But, the achieving the Sustainable Development is not easy.

In fact, it's too hard to accomplish for us. Also, it's well known for us, but it's not accomplished through the world. Knowing is one thing and acting is another.

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One of the most interesting themes at 21st century is the Sustainable Development. It means that the Sustainable Development problems are all of human's problems. Also, it becomes clear that Environmental problems are the most important approach for sustainable future.

In this paper, I intend to research Sustainable Development have to been accomplished through the world.

Eco-systemic Crisis to Resist the Sustainable Development

Population growth resists the Sustainable Development

According to the United Nations, of the nearly 6.5 billion people who now inhabit the earth, only one-fifth have adequate food, housing, and safety drinking water. Each day, malnutrition and related illnesses result in the deaths of 19,000 children worldwide. ("Ecosystems Approach for Sustainable Development" ISSS ANNUAL CONFERENCE, Hyuk Kihl Kwon, 2002) War, internal political strife, and natural disasters such as droughts or floods exacerbate the stress caused by growing populations and thus contribute to hunger. Everyone must gain the opportunity to earn enough money to meet his or her basic needs. Worldwide hunger project ready for relief the hunger. But, its result is not enough to get ride of worldwide millions hunger. Most of the severely stressed are in the developing countries, but even in some developed nations, many people do not have enough food to eat and cannot afford a warm, dry place in which to live.(Donald G. Kaufman, Cecilia M. Franz, 2000)

Abuse of Resources and Natural system resists the Sustainable Development.

Nonrenewable resource exists in finite supply or is replaced by the environment so slowly that, for all practical purposes, the supply might as well be finite. Coal, oil, and other fossil fuels are nonrenewable resources. With use, the supply of a nonrenewable resource is depleted. In addition to direct exploitation, ocean systems are also threatened by pollution. And population pressures on sensitive coastal areas. Land systems are also at risk. Some expert estimate that human activities have transformed 10% of the land surface from forests and rangelands into desert, and another 25% is at risk. Resource use is expected to rise sharply in the next several decades as the less-developed countries try to become more

prosperous. In fact, developed countries wasted the more resources. For example, United States is the largest gas waste nation in the world. Now, what is worst, less-developed countries resembles like developed countries.

Spreading the Pollution resists the Sustainable Development.

The pollution problems take place everywhere in the world. The pollution of air, water, and soil are the main subject. Serious pollution problems do not occur only in the more-developed, affluent countries. Poor, densely populated, less-developed countries often suffer from pollution. Generally, many pollution problems are global in nature and can be solved only through cooperation among nations. The problems of population growth, resource abuse, and pollution occur because human attitudes, values, and beliefs often lead to behaviors that are incompatible with natural systems. Environmental problems stems from the interaction of natural and cultural systems.

Solving environmental problems requires the use of the natural sciences and the social sciences, the humanities, and the arts. (Donald G. Kaufman, Cecilia M. Franz, 2000)

Of course, every country interested about to reduce the pollution. But, it's not enough to solve the environmental problems. Every country made a long-range schedule, but put into practice is another.

Why Sustainable Development

Efforts for the Sustainable Development

Since the United Nations Conference on Environment and Development in 1992 and the subsequent World Summit on Sustainable Development in 2002, significant efforts have been made in pursuit of sustainable development. At the political level sustainable development has grown from being a movement mostly focusing on environmental concerns to a widely recognized framework utilized by individuals, governments, corporations and civil society that attempts to balance economic, social, environmental and generational concerns in decision-making and actions at all levels. At the September 2005 World Summit, the UN General Assembly reiterated that " Sustainable Development is a key element of the overarching framework for United Nations activities, in particular for

achieving the internationally agreed development goals", including those contained in the Millennium Declaration and the Johannesburg Plan of Implementation.(Canadian International Development Agency, "Sustainable Development Strategy" : 2004-2006, A/RES/59/227)

Of course, all of the country interested to achieve the Sustainable Development. But, it's not clear to have a program for the Sustainable Development. Actually, Korean Government constructs the Sustainable Development Association (SDA) to achieve the Sustainable Development. But, it's real activity is not enough to achieve the Sustainable Development. In a word, Sustainable Development through the world is not enough progressed. Every country has a different socio-economic environment. Their situation is different from each other. In general, a highly developed country, as Canada, tried to progress the sustainable development. But, under developed countries were not enough. Their situation is so urgent to survive that their most interest part is get rid of the starvation or a rapid industrial development. But, it's not easy as they want.

Sustainable Future & Sustainable Society

A 'sustainable future' is one in which protection of the natural environment, economic prosperity and social justice are pursued simultaneously to ensure the quality of life of present generations and to secure the well-being of generations to come education is crucial to attaining that future. I think 'sustainable future' is not come by itself. It needs to plan, do, and see for environmental protection, economic prosperity and social justice. Of course, it's the result of co-operations with the ecosystems.

Also, `Sustainability' is not an abstract concept. It is very real, it is urgent, and it affects us all citizens, governments, corporations and organizations of the civil society. It necessitates a paradigm shift in the way we manage our institutions and it represents the fundamental challenge for the 21st Century.

Environmental problems pose important questions not only about scientific knowledge and technological change but also about the social and political organization of our society and how these affect and are affected by global change. In the twenty-first century, sustainable and environmentally friendly pattern of socio-economic development and resource use are an essential priority for us, mankind. John B. Robinson, Caroline Van Bergs, and Deanna

McLeod asserted `Sustainable Society Project (SSP)' traced the path of Canadian culture, institutions, and industry from the present to a more sustainable fictional future. (Ann Dale & John B. Robinson. eds, 1996. Achieving Sustainable Development, *" Life in 2030: The Sustainable Society Project*" John B. Robinson, Caroline Van Bergs and Deanna McLeod. UBC Press/ Vancouver.p.3)

A sustainable society has socio-political as well as environmental and technological implications. The challenge in examining alternative future is to analyze these implications in a way that integrates all dimensions. The general approach of the project was to articulate sustainability values, to derive environmental-ecological and socio-economic design criteria based on these values, to develop a quantitative picture of Canada in 2030 consistent with these criteria, to construct a quantitative scenario in a modeling system intended to describe a path between 1990 and 2030, and to analyze the implications, feasibility, and implementation requirements of   that scenario.

They asserted the principles of socio-political sustainability derived from environmental-ecological constraints were as below:

- The physical scale of human activity must be kept below the total carrying capacity of the planetary biosphere.

- We must recognize the environmental costs of human activities and develop methods to minimize energy and material use per unit of economic activity, reduce noxious emissions, and permit the decontamination and rehabilitation of degraded ecosystem.

- Socio-political and economic equity must be ensured in the transition to a more sustainable society.

- Environmental concerns need to be incorporated more directly and extensively into the political decision-making process, through such mechanisms as improved environmental assessment and an environmental bill of rights.

- Increased public involvement is needed in the development, interpretation, and implementation of sustainability concepts.

- Political activity must be linked more directly to actual environmental experience through allocation of political power to more environmentally meaningful jurisdictions

and promotion of greater local and regional self-reliance. (Ann Dale & John B. Robinson. eds., 1996.)

I think it will be considerable for us, mankind.

Sustainable Development

In modern environmental and ecological economics, as well as in environmental policy analysis, `sustainable development' has become a key concept. One may note that sustainable development was originally proposed as a starting point in exploring solutions for the potential conflict that may arise between striving for several sub-goals, or between interest groups supporting them:

- increasing or maximizing human welfare for the present generation.

- maintaining sufficient opportunities for, or not of hampering the welfare realization of future generation.

- conservation or improvement of environmental quality and (renewable) natural resource availability.

- preservation of biotic and genetic diversity, and specific instances of natural systems and species.

It is important to realize that sustainable development calls for potentially drastic changes in our current modes of production, consumption and decision-making. Also, sustainable development calls for a more general and more long-term oriented political support for attaining the pace towards sustainable development. (Bergh. Jeroen C.J, M. Van Den.1996)

Bergh. Jeroen C.J & M. Van Den insist in a discussion paper for a sustainable development act principles and guidelines are as below. (Canada, Manitoba State. Winnipeg city*: Manitoba Round Table for Environment & Economy*, 1994).

Principles

- Integration of Environmental and Economic Decision: requires that we ensure economic decisions adequately reflect environmental impacts including human health. Environmental initiatives shall adequately take into account economic consequences.

- Stewardship: requires that we manage the environment and economy for the benefits of present and future generations. Stewardship requires the recognition that we are caretakers of the environment and economy for the benefit of present and future generations of Manitobans. A balance must be struck between today's decisions and tomorrow's impacts.

- Shared Responsibility: requires that all Manitobans acknowledge responsibility for sustaining the environment and economy, with each being accountable for decisions and actions, in a spirit of partnership and open cooperation.

- Prevention: requires that we anticipate, prevent or mitigate significant adverse environmental (including human health) and economic impacts of policy, programs and decisions.

- Conservation: requires that we maintain essential ecological processes, biological diversity and life-support systems of our environment; harvest reusable resources on a sustained yield basis; and make wise and efficient use of our renewable and non-renewable resources.

- Waste Minimization: requires that we endeavor to reduce, reuse, recycle and recover the products of our society.

- Enhancement: requires that we enhance the long term productive capability, quality and capacity of our natural ecosystems.

- Rehabilitation and Reclamation: requires that we endeavor to restore damaged or degraded environments to beneficial uses.

  Rehabilitation and reclamation require ameliorating damage caused in the past. Future policies, programs and developments should take into consideration the need for rehabilitation and reclamation.

- Scientific and Technological Innovation: requires that we research, develop, test and implement technologies essential to further environmental quality including human health and economic growth.

- Global Responsibility: requires that we think globally when we act locally.

  Global responsibility requires that we recognize there are no boundaries to our environment, and that there is ecological interdependence among provinces and nations. There is a need to work cooperatively within Canada, and internationally to accelerate the merger of environment and economics in decision-making and to develop comprehensive and equitable solutions to problems.

Guidelines:

- Efficient Use of Resources: we shall encourage and support development and application of systems for proper resource pricing, demand management, and resource allocation together with incentives and disincentives to encourage efficient use of resources and full environmental costing of decisions and developments.

- Public Participation: we shall establish appropriate forums which encourage and provide opportunity for consultation and meaningful participation in decision making processes by all Manitobans. We shall endeavor to ensure due process, prior notification and appropriate and timely redress for those affected by policies, programs, decisions and developments.

- Understanding and Respect: we shall be aware that we share a common physical, social and economic environment in Manitoba. Understanding and respect for differing social and economic views, values and traditions and aspirations is necessary for equitable management of these common resources. Consideration must be given to the aspirations, needs and views of various regions and groups in Manitoba.

- Access to Adequate Information: we shall encourage and support the improvement and refinement of our environmental and economic information base and promotion of the opportunity for equal and timely access to information by all Manitobans.

- Integrated Decision-making and Planning: we shall encourage and support decision making and planning processes that are open, cross- sectoral, incorporate time horizons relevant to long-term implications and are efficient and timely.

- Substitution: we shall encourage and promote the development and use of substitutes for scarce resources where they are both environmentally sound and economically viable.

In a word, sustainable development means that improving quality of human life while living within the carrying capacity of supporting ecosystems. Sustainable development seeks to maximize human resource potential as well as the wealth provided by natural resources by managing all resources - natural, human, financial and physical - so that they can be used to serve the common good. Development is sustainable only when it meets the needs of present generations without compromising the ability of future generations to meet their own needs. (Donald G. Kaufman, Cecilia M. Franz, 2000)

Also, sustainable development presupposes sustainable resource use, that is, the use of renewable resources at rates that do not exceed their capacity for renewal. Sustainable use does not apply to non-renewable resources because the supply of non-renewable resource is finite, they cannot be used sustainable. At best, the life of non-renewable resources can only been extended through recycling, conservation, and substitution measures. Sustainable development and a steady-state economy could enable humans to make the transformation from a culture of consumption to a culture of maintenance.

Strategy for the Sustainable Development through the World

Goals and Targets for the Sustainable Development

In September 2000, 147 world leaders gathered in New York and issued the Millennium Declaration, outlining their collective commitment to sustainable development and poverty reduction. The Millennium Development Goals were prepared by the UN Secretary General in response to serve as a guide in the implementation of the Millennium Declaration. (Canadian International Development Agency, "*Sustainable Development Strategy*" 2004- 2006, p. 7)

The goals and targets are to:

- Eradicate poverty and hunger: halve, between 1990 and 2015, the proportion of people whose income is less than one dollar a day; halve, between 1990 and 2015, the proportion of people who suffer from hunger;

- Achieve universal primary education: ensure that, by 2015, children everywhere, boys and girls alike, will be able to complete a full course of primary schooling;

- Promote gender equality and empower women: eliminate gender disparity in primary and secondary education, preferably by 2005, and in all levels of education no later than 2015;

- Reduce child mortality: reduce by two thirds, between 1990 and 2015, the under-5 mortality rate;

- Improve maternal health: reduce by three quarters, between 1990 and 2015, the maternal mortality rate;

- Combat HIV/AIDS, malaria, and other diseases: halt by 2015, and begin to reverse, the spread of HIV/AIDS. Halt by 2015, and begin to reverse, the incidence of malaria and other major diseases;

- Ensure environmental sustainability: integrate the principles of sustainable development into country policies and programs and reverse the loss of environmental resources. Halve, by 2015, the proportion of people without sustainable access to safe drinking water. By 2020, achieve a significant improvement in the lives of at least one hundred million slum dwellers; and

- Develop a global partnership for development: develop further an open, rules-based, predictable, nondiscriminatory trading and financial system. Address the special needs of the least developed countries. Address the special needs of landlocked countries and small-island developing states. Deal comprehensively with the debt problems of developing countries through national and international measures in order to make debt sustainable in the long term.

Achieving the Millennium Development Goals will be difficult, but not impossible. The World Bank has estimated that the cost of reaching the Millennium Development Goals is an additional C$100 billion per year to 2015 in development assistance. In all its partner

countries, for example, Canada cooperates with UN agencies and programs such as UNICEF, UNDP etc. Sustainable development is equitable and environmentally sustainable and that strengthens the economic, social, environmental, and governance capacity of women and men. Sustainable development does not define a particular path for development, but focuses on what would enhance the quality of life. It requires the capacity to adapt to constantly changing conditions, as well as the flexibility to work with uncertainty, and with differences in local conditions and in public expectations shaped by culture, values and experience.

Living Systems Approach for Sustainable Development

Living systems theory (LST) is concerned with eight levels of living systems, each of which is composed of 20 critical subsystems that carry out essential life process. As a result of a continuous of evolution involving progressive fray-out of components, the more recently developed levels in this hierarchy have become very complex. (James Grier Miller, Living System, 1978, Preface. P.13) LST is an integrated conceptual approach to the study of biological and social living systems, the technologies associated with them, and the ecological systems of which they are all parts. In this paper, I'd like to explain the Sustainable Development with Living Systems Approach.

I think the supranational system is useful to explain the function of the Sustainable Development through the world. Basic Living systems theory and research do not, at first glance, seem to have much relevance to such important human problems as war, economic cycles, racial differences, civil rights legislation, cancer, improve education, the population explosion, or the energy crisis. (James Grier Miller**,** *Living System,* 1978. p 1049) As a result, many people try to solve these problems directly, without reference to a basic conceptual system.

Miller insists just as doctors use a conceptual framework based on anatomy, physiology, and bio-chemistry in understanding patient's recovery from cancer, so general living systems theory provides conceptual framework which can enhance decision making and improve cost-effectiveness in a wide range of application. Its means that basic research on general living systems theory is possible at all levels. In this paper I tried to explain the living systems approach is possible to enhance the effects for Sustainable Development through the world level. I think the model of supranational system is possible to explain the sustainable development through the every country's co-operation. Miller insists the work

on supranational systems can improve international relations, international education, international law, world government, integration of worldwide functions, international monetary systems, and international communication by cable, radio, satellite, television, and other method, as well as making contributions to space travel and life in space.(Miller, p.1050)

I agree with Miller. The supranational systems model is enough to explain the world system as a sustainable development organization through the world.

Supranational System for the Sustainable Development

The supranational system is useful to explain the function of the Sustainable Development through the world. Miller thinks that basic research on general living systems theory is possible at all levels. Also, I think the model of supranational systems is possible to explain the sustainable development through the every country's co-operation.

The World Summit on Sustainable Development (WSSD) in South Africa in September 2002 reaffirmed the global community's commitment to sustainable development and established a number of targets in support of the Millennium Development Goals and other priority aspects of sustainable development. I think it means that supranational systems model for the Sustainable Development is useful for us, human. The Sustainable Development is not only one country's assignment, but also all of   countries assignment. Therefore, the management of Sustainable Development has to be progressed internationally. For example, the World Bank and Canada cooperates with UN agencies and programs such as the Global Fund to Fight AIDS, Tuberculosis and Malaria (GFATM), UNICEF, UNDP etc,. Also, developed countries have a duty to serve highly progressed technological ideas and, financial aids for the worldwide Sustainable Development. I know Canada has a program for the worldwide Sustainable Development. Also, they have a Canadian International Development Agency (CIDA).

I think CIDA's efforts are excellent. They have a long-term program for Sustainable Development. Their plan and efforts are wonderful.

In fact, Canada is a model case country for worldwide Sustainable Development. The Sustainable Development system is one of complex system. In fact, so many factors interconnected with the Sustainable Development system. The North and the South

countries, as is developed countries and the developing countries interconnected each other. It means that the global sustainable development systems and the local sustainable development systems are interconnected. Issues that all countries must deal with—health, the environment, and peace and security—are increasingly global. And the ongoing tragedies of persistent poverty, disease, and conflict have become humanitarian concerns. In today's increasingly interdependent world, industrialized and developing countries are linked as never before. Of course, I think it's not easy to achieve the worldwide Sustainable Development. But, it's the destiny for us human. We need more enforced program through the world. Supranational worldwide organization has to have more effective ideas, and progressing power to achieve the Sustainable Development. And, all of countries have to participate to achieve the Sustainable Development.

Conclusion

I intend to explain the Sustainable Development has to be progressed with supranational systems approach. It's like a human's destiny. As we discussed, the Sustainable Development has to be accomplished. It's our one of assignment. I introduced the world Sustainable Development system interconnected every countries sustainable development systems. The prospects for global sustainable development today are similar to a complex system. Also, it's related with each component. We need a long-term vision of sustainable development with the global development community. With the Millennium Declaration and the Millennium Development Goals issued by the United Nations in 2000, the world community has committed to a set of clear and measurable targets for sustainable development. At the United Nations Conference on Financing for Development in Monterrey in 2002, world leaders established a new compact for sustainable development. The World Summit on Sustainable Development (WSSD) in Johannesburg in September 2002 renewed the global community's efforts in many areas of sustainable development, including water and sanitation, agriculture and food supply, and sustainable production and consumption. All these international agreements establish a common foundation of values and reflect an unprecedented consensus on the goals, conditions, and resources needed to achieve sustainable development.

In this paper, I intend to introduce the Supranational System for the Sustainable Development. The supranational system is useful to explain the function of the Sustainable

Development through the world. Miller thinks that basic research on general living systems theory is possible at all levels. Also, I think the model of supranational systems is possible to explain the sustainable development through the every country's co-operation. Of course, I think it's not easy to achieve the worldwide Sustainable Development. But, it's like the destiny for us human. We need more enforced program through the world. Supranational worldwide organization has to have more effective ideas, and progressing power to achieve the Sustainable Development. And, all of countries have to participate to achieve the Sustainable Development. The dimensions of sustainable development encompass the full range of economic, social, environmental, and governance activities, and they are interdependent and mutually reinforcing. They reflect the Millennium Development Goals commitments. In a word, the Sustainable Development is a complex and long-term process.

I'd like to suggest some ideas to achieve the Sustainable Development.

- We need to recognize about Sustainable Development. Without the recognition about the Sustainable Development, Achieving Sustainable Development is not clear, and our future is so on.

- Supra-national systems approach is more effective for the Sustainable Development.

- Developed countries have to aid for developing countries with a long-term process.

- Actually, Worldwide Agencies, WSSD, CIDA, GFATM, UNICEF, UNDP etc, needs more cooperation. Their cooperation will make effect.

- Worldwide participation is absolutely needed.

- Efficient Use of Resources: we shall encourage and support development and application of systems for proper resource allocation.

- Environmental ethics education is more reinforced.

- We endeavor to reduce, reuse, recycle and recover the products of our society.

I think our efforts for Sustainable Development is maintained with a long-term program.

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