

Institution Building for Environment and Resource Governance

Abstract

This paper includes an introduction , four major parts and a concluding remarks. Part one clarifies the concept of institution which is composed of two major components, an organization with structure and a set of rules governing cooperative human behavior, and a framework of analysis is established to show essential human activities with interaction to essential elements of environment, several major aspects of environment management problems which are closely related to institution building are raised. This shows the complexity of the issue and governance of environment and resources..

Part II of this paper gives a review of institutions for environmental governance in early 1970's that few countries, mainly developed countries had government departments with environment management. Then a review of major international conferences sponsored by UN since 1972 up to World Summit 2002 is done to show the progress and effort of UN and global society on institution building for environmental and resource governance. The recent concern on climate change and Bali Conference is described through an abstraction of a very recent document of UN "Acting on Climate Change" prepared by CEB of UN.

Part III presents selected regional institutions for environmental

governance, experiences of EU and activities of ESCAP , UNDP and ASEAN are abstracted. Chinese experience is summarized.

Part IV gives analysis and suggestions from the author. Comparison of common problems for the failure of institutions for environmental governance by UN and EC are done to show some official views and selected opinions from academic field are quoted to provide supplementary views.

Three major suggestions on institution building for environment and resource governance are raised from the above analysis.

Introduction

Environmental issue and resource governance are two major issues faced by the mankind within the context in pursuit of peace. There are no shortage of wars in the history of the human being due to conflict in getting access to resources. There is also a new terminology of ‘Conflict Resource’ post the end of cold war because those natural resources have played an increasingly important role in providing money to maintain and to prolong conflicts, and the international community is providing armed groups and corrupt regimes who ‘owned’ those resources with unfettered access to world market. The issue of climate change becomes the central focus of environmental problems in recent years. In April 2007, the UN Security Council debated for the first time the effects climate change will have on peace and security and record 55 delegations participated. The

issue of environment and resource is closely related to each other, and environmental issues covered a very broad scope, there is change of priority of focus due to increase of knowledge of recognition of the environmental issue, the recent environment issue of global focus is climate change. Global warming is one aspect of climate change and natural disasters, often associated with climate change stresses have become severe recently. The number of deaths caused by natural disasters in Asia and the Pacific region reached 232500¹ in 2008. Therefore, building of institution for environment and resource governance becomes urgent in order to maintain peace and stability. In fact, there are already many institutions for environment and resource governance at international or country level, although there is need to strengthen these institutions further to be more effective. But institution for environmental governance at regional level performs differently. EU has a better institution for environment and resource governance compared to other regions. This paper will start from clarification of several basic concepts, then a review of several major international conferences for environment and several international institutions will be briefed, selected regional institutions for environment governance will be studied , the experience of EU will be discussed, and preliminary analysis of current institutions of environment and resource governance will be done and suggestions for

¹ Note: Economic and Social Survey of Asia and the Pacific 2009.

further strengthening of institution building in global society and Asia will be given, the role of APSN and international PSN on environmental governance will be described in concluding remarks.

Part I Basic Concepts and Framework of Environment and Institution Study

1.01 Concept of Institution

1. Institutions are structure and mechanism of social order and cooperation governing the behavior of a set of individuals or groups. It is an organization with certain structure and purpose, and it has the role in making and enforcing of rules governing cooperative human behavior.

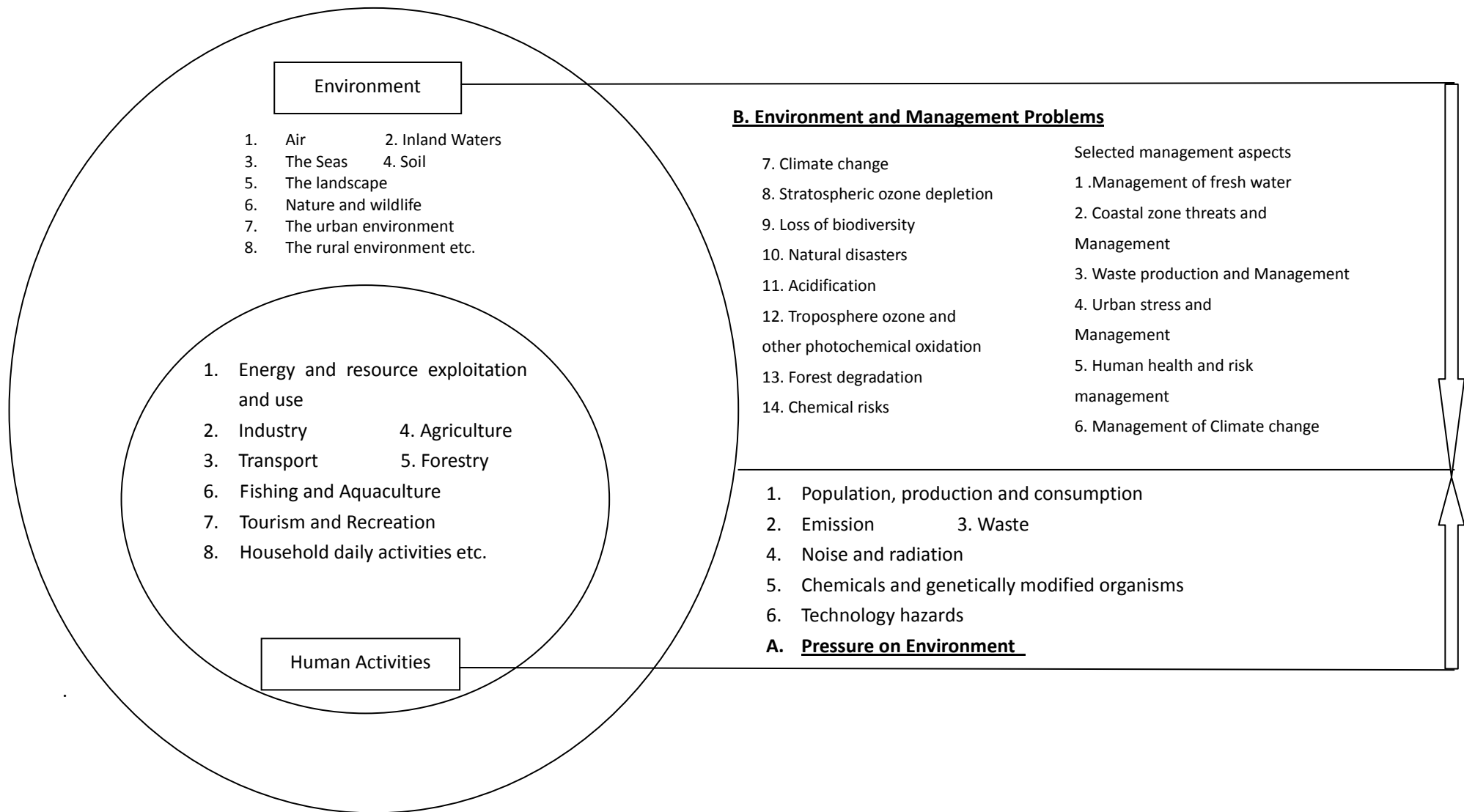
2. Example of Institution

UNEP is an institution of UN which was established after the 1972 UN conference on the Human Environment held in Stockholm, Sweden, its purpose is for addressing environmental issues at the global and regional level, it provides leadership and encourage partnership in caring for the environment by inspiring, informing, and enabling nations and people to improve their quality of life without compromising that of future generation.

1.02 A Framework of Study of environment and resource governance

1. It is well known that environment issues are caused by human activities. Fig.1 is prepared which shows the major human activities (behavior) that exert various pressures to the external environment and the major environmental problems faced by the human beings. Selected management aspects are listed which are objectives of institution building for environmental governance. This framework shows the complexity and multi-dimensional features of environment issues and it will assist us to understand better the role of institutions in environment and resource governance and the difficulties they faced.

2. A Framework of study of environment and resource governance



²Fig.1 Framework of Analysis of Environment and Resource governance

² Source: Derived from: Europe's Environment The Debris Assessment Edited by: David Stunners and Philippe Bourdeau European Environmental Agency Copenhagen 1995.

3. Clarification of Concept on 'Resources'

(1) The terminology 'Resources' in broad sense means wealth, supplies of goods, raw materials etc which a person, country, etc has or can use.

(2) 'Resource governance' discussed in this paper refers to natural resources which include 1-6 listed in 'Environment' of fig.1. This is also the concept used in documents of 'Agenda 21'.

(3) We shall not discuss specific resources of extractive industry in this paper in order to simplify the discussion

Part II Review of Major International Conferences and Events on Institution building for Environment and Resource Governance

2.01 General The global society has spent its full effort to build up institutions for environment and resource governance nearly for four decades. This accumulated recognition of environmental issues and effort to establish institutions to tackle them can be seen through a review of major international conferences and events.

2.02 Review of major historical conference and events on institution building of environmental governance

1. Institutions for environmental governance in early 1970's

In the early 1970's, few countries—mainly developed countries, had government departments that were concerned with environment

management, those countries were Sweden (1969), U.S.A. (1970), U.K.(1970), Canada (1970), Japan (1971) and France (1971).

2. Stockholm Conference or UN Conference on the Human Environment (June 5-16, 1972)

This was the UN's first major conference on international environmental issues and marked a turning point in the development of international environmental politics and emergence of international environmental law.

The conference was attended by the representatives of 113 countries, 19 inter governmental agencies and more than 400 intergovernmental organizations and NGOs.

The meeting agreed upon a Declaration containing 26 principles for various international environmental issues, including natural resource management, pollution prevention, human rights and the relationship between the environment and development. There are also an Action Plan with 109 recommendations and a Resolution

One of the key issues addressed was the use of CFCs, which seemed to be responsible for the depletion of the ozone layer. Global warming was mentioned, but in this matter nothing of substance was achieved.

Many governments subsequently created Ministries for the environment and/or the agencies for environmental monitoring and regulation. This conference laid framework for future environmental

cooperation, led to the creation of global and regional environmental monitoring networks and the creation of UNEP.

3. Establishment of Brundtland Commission (1983) and Brundtland Report (1987)

(1) This commission was established based upon Resolution 38/161 of General Assembly of U.N.: “ Process of preparation of the Environmental Perspective to the year 2000” . Its major role is to propose long-term environmental strategies for achieving sustainable development to the year 2000 and beyond……

(2) Brundtland Report “Our Common Future” (1987)

It has set up the definition of sustainable development which is officially used in Agenda 21, i.e.

“Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs.”

It contains within it two key concepts:

- The concept of “needs”, in particular the essential needs of the world’s poor, to which overriding priorities should be given and
- The idea of limitations imposed by the state of technology and social organization on the environment’s ability to meet

4. Saving Our Planet—The State of the Environment (1972-1992) by UNEP (1991.12)

1. This is a brief analytic report on changes in the state of the world environment since 1972 prepared by UNEP for presentation to the UN Conference on Environment and Development to be convened in 1992, this is the third comprehensive state-of-the world environment report of UNEP since its establishment.

2. Contents of the Report This report contains five parts:

Part I : The State of the Environment (Chapter 1-10), this includes:

Atmospheric Pollution; Ozone Depletion; Climate Change; Marine Pollution; Freshwater Resources and Water Quality; Land Degradation and Desertification; Deforestation and Degradation of Forests; Loss of Biological Diversity; Environmental Hazards; Toxic Chemicals and Hazardous Wastes.

Part II : Development Activities(Chapter 11-15), this includes:

Agriculture and Food Production; Industry; Energy Production and Use; Transport; Tourism.

Part III: Human Conditions and Well Being (Chapter 16-19), this includes:

Population Growth and Human Development; Human Settlements; Human Health; Peace, Security and Environment.

Part IV: Perceptions, Attitudes and Responses (Chapter 20-21), this includes:

Perceptions and Attitudes; Responses.

Part V : Challenges and Priorities for Action (Chapter 22).

Challenges due to increasing of wealth gap between developed and developing countries are analyzed and priorities for action for regulatory measures and environmental management are raised.

3. Selected contents of this report are briefed below:

(1) Global ³Warming Potential (GWP) Fig.2 shows the global warming potential of greenhouse gases that GWP is defined as the time integrated warming effect due to a release of 1 kg of a given greenhouse gas in today's atmosphere, relative to that of carbon dioxide-shows that carbon dioxide is the least effective greenhouse gas per kilogramme emitted. However, the amount emitted is the largest.

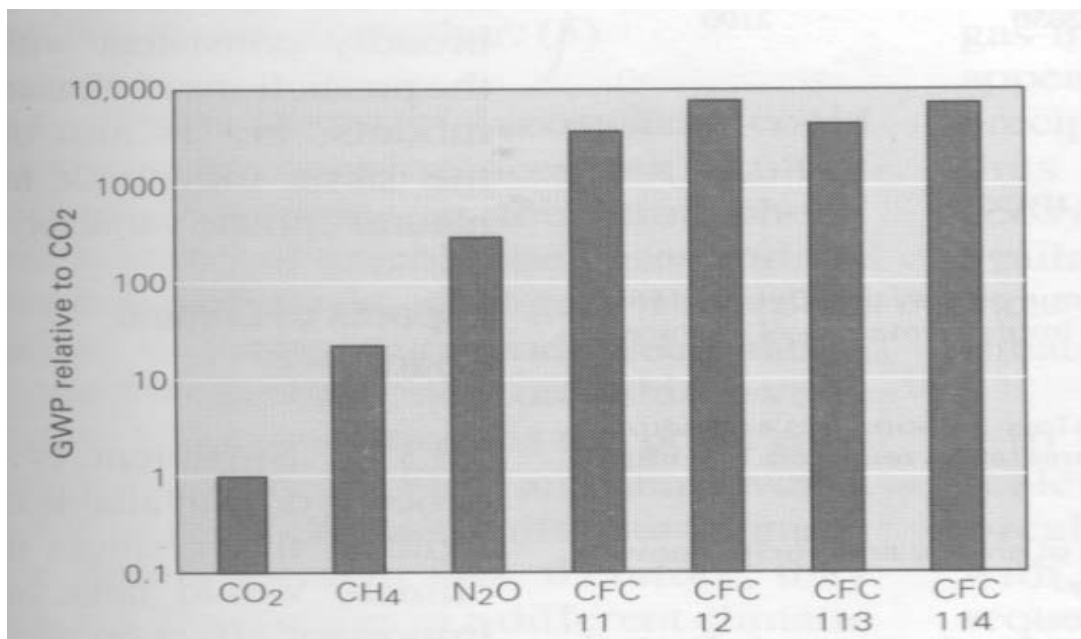


Fig.2⁴ Global Warming Potential of Greenhouse Gases

³ Note: P.19, chapter 3 climate change, Saving our Planet UNEP 1991.

⁴ Source: Saving Out Planet UNEP 1991.

(2) ⁵Evolving Concept of Security

“ In the last two decades, the World has spent about US \$17 trillion , at 1988 prices and exchange rates, on military activity……”

Fig.3 shows the world military expenditure from 1970-1990.

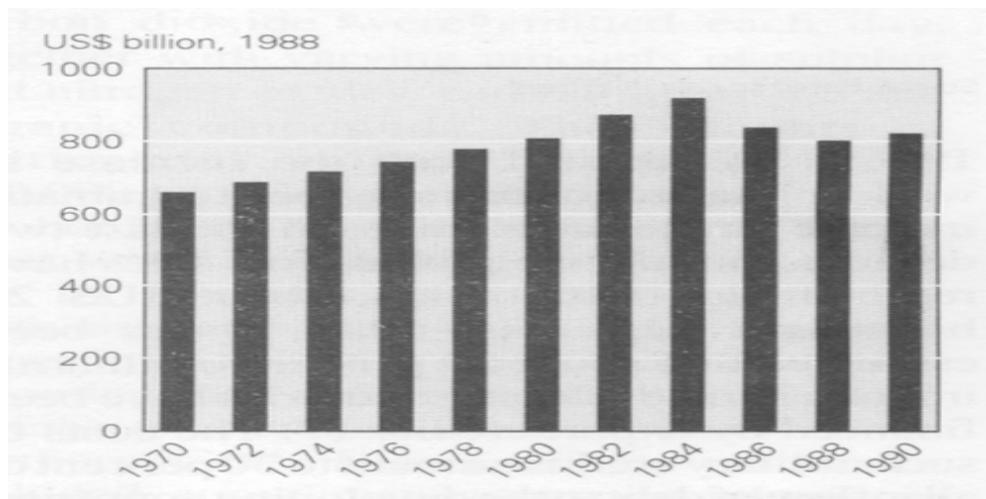


Fig. 3⁶ World Military Expenditure

“And in the last two decades it has become evident that military means are no longer adequate to provide tangible security benefits. The security of nations depends to at least the same extent on economic well being, social justice and ecological stability. Environmental degradation imperils the nations most fundamental aspects of security by undermining the natural support systems on which all human activity depends……”

(3) ⁷Institution Measures

It is described in 21.7 of chapter 21 that “The task of designing and implementing environmental protection programmes rests with national governments……it was not until after the Stockholm conference that

⁵ Note: P145, 146 chapter 19 Peace, Security and Environment Saving our Planet UNEP 1991.

⁶ Source: Saving Our Planet UNEP 1991.

⁷ Note: P.161-164 Chapter 21 Responses. Saving Our Planet UNEP 1991.

departments of environment and cross-sectoral coordinating machinery for environmental affairs were established in many countries. At present, nearly all countries have environmental machinery of some kind.....In many countries, especially developing countries, interdepartmental conflicts have often arisen, resulting in the weakening and limitation of the functions and coordinating role of the environmental machinery.....”

“.....followed the Stockholm conferences...led to a broadening of the mandates of different UN bodies and /or the creation of additional intergovernmental and secretariat organs within the UN system.....These developments also gave impetus to broadening and strengthening the mandates and activities of global institutions such as IUCN (International Union for Conservation of Nature), ICSU (International Council for Science), WWF (World Wildlife Fund) and others. Global NGOs, such as the International Institute for Environment and Development (IIED), the World Resource Institute, Greenpeace, Friends of the Earth and others have established and are now instrumental in providing independent advice on different environmental and resource issues.....”

“The emergence of an increasing body of environmental law and regulations has been paralleled by changes in the way in which legal instruments are interpreted and enforced.....”

“.....Before 1972, there were 58 international treaties and other agreements in the field of environment, between 1972 and 1991, 94 such

agreements were adopted regionally and globally.....”

5. UN Conference on Environment and Development (UNCED), also known as the Rio Summit or Earth Summit (1992 June 3-14, Rio de Janeiro)

(1) This Conference was attended by 172 governments with 108 of their heads of state or government. There were some 240 representative of non governmental organizations (NGOs) attended, with 17000 people at the parallel NGO “Global Forum”, who had so called Consultative Status.

(2) Important achievements

- Agreement on the Climate Change Convention was achieved which in turn led to the Kyoto Protocol
- The Convention on Biological Diversity was opened for signature at this Earth Summit
- Five documents were formed in this Conference: Rio Declaration on Environment and Development; Agenda 21; Convention on Biological Diversity; Forest Principle and Framework Convention on Climate Change.

(3) Rio Declaration on Environment and Development

It includes 27 principles to guide future sustainable development around the world.

A part of them are quoted below:

Principle 1. The role of humans Human beings are at the center of concern for sustainable development.

Principle 3. The right to development The right to development must be fulfilled so as to equitably meet developmental and environmental needs of present and future generations.

Principle 8 Reduction of Unsustainable Patterns of Production and Consumption

To achieve sustainable development and a higher quality of life for all people. States should reduce and eliminate unsustainable patterns of production and consumption and provide appropriate demographic policies.

Principle 24 Warfare Warfare is inherently destructive to sustainable development. States shall therefore respect international law providing protection for the environment in times of armed conflict and cooperates in its further development as necessary.

Principle 25 Peace, Development and Environmental Protection

Peace, development and environmental protection are interdependent and indivisible.

(4) Agenda 21

Agenda 21 is a programme run by the UN related to sustainable development. It is a comprehensive blueprint of action to be taken globally, nationally and locally by organizations of UN, governments and

major groups in every area: The structure of Agenda 21 is abbreviated in fig.4.

Agenda 21—Table of Contents	
Chapter	Paragraph
1. Preamble	1.1-1.6
Section I Social and Economic Dimension	
2. International cooperation to accelerate sustainable development ... in developing countries and related domestic policies	2.1-2.43
8. Integrating environment and development in decision making	8.1-8.54
Section II Conservation and management of resources	
9. Protection of the atmosphere	
10. (Note:9-22 includes various resources and major issues of management, such asair, land , water, fresh water and sea), waste, forest etc.)	
22. State and environment sound management of radioactive waste	22.1-22.9
Section III Strengthen the Role of Major Groups	
23. Preamble	
....	23.1-23.4
....
27. Strengthening the role of NGOs: partners for ... sustainable development	27.1-27.13
32. Strengthening the role of farmers	32.1-32.14
Section IV Means of Implementation	
33. Financial resources and mechanisms	33.1-33.4
....
37. National mechanisms and international ... Cooperation for capacity-building in developing ...countries	37.1-37.13
38. International institutional arrangements	38.1-38.45
...
40. Information for decision making	

Fig.4 Structure of Contents of Agenda 21

- Abstract of part of Section III-38 which can show that the institutions are well defined in Agenda 21

Basis for Action

38.1 “.....with the General Assembly being the supreme policy-making

forum that would provide overall guidance to governments, the UN system and relevant treaty bodies. At the same time, governments, as well as regional economic and technical cooperation organizations, have a responsibility to play an important role in the follow up of the conference.....”

Institutional Structure

Under article 38.11 Commission on Sustainable Development (CSD) is established, it has eight functions defined in detail in article 38.13

- China had prepared “China’s Agenda 21” to be follow up action of this UN conference.
- One activity of NGO: the Club of Rome held “The Club of Rome Conference in Fukuoka, Japan on May 12-14 1992, i.e. on the Eve of the Earth Summit in Rio de Janerio. It can illustrate the role of NGO to promote sustainable development

(5) UN Framework Convention on Climate Change

The UN Framework Convention on Climate Change (UNFCCC of FCCC) is an international environmental treaty produced at UNCED which is aimed at stabilizing greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system. This treaty as originally framed is non-binding, but it included provisions for updates (called “protocols) that would set mandatory emission limits, the principal update is the

Kyoto Protocol. In June 12, 1992, 154 nations signed the UNFCCC since the UNFCCC entered into force on March 21, 1994, the parties have been meeting annually in Conferences of the Parties(COP) to assess progress in dealing with climate change. There were twelve COPs from Spring 1995 to November 2006. The recent COP-13 (2007 UN Climate Change Conference) took place in Bali, Indonesia, (Dec.3-15, 2007). COP-14 was held in Poznan, Poland on December 2008, COP-15 will be held in Copenhagen, Denmark from Dec.7-8, 2009. The overall goal for the COP-15 UN Climate Change Conference is to establish a global climate agreement for the period from 2012 when the first commitment period under the Kyoto Protocol expires.

6. World Summit 2002 (World Summit on Sustainable Development WSSD) took place in Johannesburg, South Africa (26 Aug-4 Sept.2002)

(1) Purpose The purpose of this WSSD is to review the progress of implementation of Agenda 21 post ten years of UNCED, or ten years post Rio. It is raised by the Secretary-General in his report that: “.....ten years later, despite initiatives by governments, international organizations, business, civil society groups and individuals to achieve sustainable development, progress towards the goals established at Rio has been slower than anticipated and in some respects conditions are worse than they were ten years ago.....”

(2) Gap in Implementation of Agenda 21

Four areas were summarized in the report of Secretary General

- A fragmented approach towards sustainable development
- No major changes have occurred since UNCED in the sustainable patterns of consumption and production which are putting the natural life supporting system at peril.
- There is a lack of mutually coherent policies or approaches in the areas of finance, trade, investment, technology and sustainable development.
- The financial resources required for implementing Agenda 21 have not been forthcoming (and mechanisms for the transfer of technology have not improved.)

(3) Johannesburg Declaration on Sustainable Development was adopted at this Summit (WSSD), the Plan of Implementation of the World Summit on Sustainable Development was also agreed upon.

This Summit became partially impotent due to George W. Bush boycotted the Summit.

7. Climate Change becomes the center of concern of International Environmental Governance since 2007

(1) The Fourth Assessment Report (AR4) from the Intergovernmental Panel on Climate Change has removed all reasonable doubts about the scope and danger of the changing climate.

(2) Atmospheric GHG concentrations are increasing from 1990 to 1999,

the growth rate of CO₂ emissions averaged around 1.1% per year. From 2000-2005, the growth rate climbed to more than 3.3% per year. Table 2 shows the trends in GHG abundance.

Table 1⁸ Trends in GHG abundance

Global abundance of key greenhouse gases as averaged over the twelve months of 2006 and in context of historical trends			
	CO ₂ (ppm)	CH ₄ (ppb)	N ₂ O(ppm)
2006 Global	381.2	1785	320.1
2006 relative to 1750	136%	255%	119%
Mean annual increase since 1997	1.93	2.4	0.76
*assuming a pre-industrial mixing ratio of 280 ppm for CO ₂ , 700 ppb for CH ₄ and 270ppb for N ₂ O			

(3) Bali Conference At the 13th Conference of Parties (COP) to the UN Framework Convention on Climate Change and its Kyoto Protocols third Meeting of Parties, government representatives from 187 countries agreed to launch negotiations and a course of international action leading to final negotiations in 2009 to ensure that a new deal can enter into force by 2013 when the first phase of the Kyoto Protocol ends.

(4) Acting on Climate Change: The UN System Delivering as One.
(Prepared by CEB of UN, Nov.2008)

⁸ source: WMO GHG Bulletin 2007.

- The UN system Chief Executive Board for Coordination is an institution which further Coordination and Cooperation on a whole range of substantive and management issues face UN system organizations. It is the successor body to the Administrative Committee on Coordination (ACC). CEB is supported by three high level committees, HLCP, HCCM, and UNDG. CEB brings together on a regular basis the executive heads of the organizations of the UN system, under the chairmanship of the secretary general of the UN.
- The purpose of this document is to give an overview of ongoing UN system actions in key climate change related areas, in support of national endeavors and in furtherance on the objectives and scope of international action to contribute to COP 15 in Copenhagen.
- Major contents of the report “Acting on Climate Change the UN System Delivering as One” is shown in Fig.5

- The CEB Climate action framework
 - Climate knowledge, science, assessment, monitoring and early warning
 - Adaptation
 - Capacity building
 - Financing mitigation and adaptation action
 - Reduction of emissions from deforestation and degradation (REDD)
 - Technology transfer
 - Supporting global, regional and national action
 - Public awareness raising
 - Climate neutral UN

Fig.5 Major Contents of Acting on Climate Change

Part III Regional Institution Building for Environmental Governance

3.01 General There are various institutions established at regional and country level post Stockholm Conference in 1972. But performances of them differ greatly. Selected aspects of selected regions will be described. Materials presented in part II and this part will provide

a basis of analysis in part IV of this paper.

3.02 Institution building in Europe and European Union

1. Europe is more active in dealing with environmental issue, it had created the Environmental and Consumer Protection Directorate and Composed the first Environment Action Program in 1973.

2. EU has a different attitude compared to U.S. to WSSD, during the World Summit in 2002, EU had prepared an official document 'A European Union Strategy for Sustainable Development' to be part of EU contribution to that Summit. This document was prepared from the directive of the Helsinki European Council in Dec.1999 who invited EC to 'prepare a proposal for a long term strategy dovetailing policies for economically , socially and ecologically sustainable development.'

3. Process of preparation of Strategy

(1) EC had designed consultation papers of six topics (climate change and energy; public health; management of natural resources; poverty and social exclusion; ageing; mobility, land use and territorial development to provide the analytical underpin for this strategy.

(2) A public hearing process was held which provided an opportunity for stakeholders (businesses, trade unions, NGOs, academic, etc.) and public authorities to express their views on the consultation paper.

4. Abstracts from the document

(1) The working document has described common problems which

will be a useful reference for the failure of institutions for environmental governance. These common problems are:

- Wrong incentive
- Sectoral policy inconsistency
- Short-termism in policy making
- Policy inertia
- Limited understanding
- Inadequate communication and dialogue

(2) Topic 1 Climate Change and Clean energy

“Global greenhouse gas emissions have increased seven-fold during the 20th century. This has largely been the result of increased use of fossil fuels for energy as economies have grown……”

“Some greenhouse gases have bigger effects on global warming than others. (Refer to Fig.2). The emission figures for non-CO₂ gases are usually converted to tones of CO₂ equivalent. Table 2 gives 1990 total EU-15 greenhouse gas emissions by sector on this basis as well as projected growth to 2010.

Table 2⁹ Projected growth of greenhouse gas emissions between 1990 and 2010

	1990 Mt CO2 eq.	Baseline 2010 Mt CO2 eq.	Growth 2010/1990%
Energy supply	1421.7	1276.6	-10.2
Industry	757.1	686.1	-9.4
Transport	753.1	1098.2	45.8
Households	447.5	440.0	-1.7
Private and public services	175.6	188.9	7.6
Agriculture	417.0	397.6	-4.7
Waste	166.4	137.3	-17.5
Total	4138.3	4224.8	2.1

5. EU will provide a leading role on Climate Change

It is expressed in EC report completed in Sept 2007 titled 《Europe on the Move》 that “ The EU has already formulated a clear response in the shape of an integrated energy and climate change policy, a commitment to cut emissions of ‘greenhouse’ gases by at least 20% by 2020, and a promise to take the lead in international negotiations to adopt even more ambitious target……”

3.03 Regional and Country Institution of U.N. on Environment Governance

1. ESCAP U.N. has no specific regional institution in Asia or East Asia. But it has an Economic and Social Commission for Asia and Pacific Region. It is responsible to implement related activities of U.N.

(1) Activities of ESCAP on Environmental Governance ESCAP had prepared report of “State of the Environment in Asia and Pacific” every five years. Its 1990 report was presented to the Ministerial level conference on Environment and Development in Asia and Pacific held in

⁹ Source: A EU Strategy for Sustainable Development EC 2002.

Bangkok in Oct.1990. Its 2000 report is prepared jointly with Asian Development Bank (ADB) and with financial support from the Japanese government.

2. UNDP UNDP is set up by UN at country level. It also implements related activities of UN and UNEP on environmental and resource governance

3.04 Other selected regional institutions

1. Asia Pacific Partnership on Clean Development and Climate

This is an agreement among seven Asia-Pacific nations: Australia, Canada, China, India, Japan, South Korea and the United States. It is officially launched in January 2006 in Sydney, Australia. The alliance states that member nations have initiated nearly 100 projects aimed at clean energy capacity building and market formation since then. Long-term projects are scheduled to deploy clean energy and environmental technologies and services. This partnership allows those countries to set arbitrary goals for reducing greenhouse gas emissions individually, without any enforcement for those goals.

2.ASEAN Cooperation on Environment

The ASEAN leaders view the protection of the environment and the sustainable use and management of natural resources as essential to the long-term economic growth and social development of their countries and the region. It had addressed common environmental problems on a

regional basis and has since 1977 developed a series of ASEAN Sub-regional Environmental Programmes

(ASEP I , II ,III) followed by the Strategic Plan of Action on the Environment 1999-2004 (SPAEE), Asian Vision 2020 which calls for “a clean and green ASEAN with fully established mechanism for sustainable development to ensure the protection of the region’s environment, the sustainability of its natural resource and the high quality of life of the people.”

Currently, ASEAN has developed Vientiane Action Programme 2004-2010(VAP), the successor to the HaNoi Plan of Action 1999-2004(HPA), has further elaborated 12 strategies and 55 programme areas and measures to achieve the twin objective of promoting environmental sustainability and sustainable natural resource management .

The ASEAN Ministers responsible for Environment in November 2002 agreed to further synergies the regional environmental cooperation by identifying the following ten priority areas based on the World Summit on Sustainable Development Plan of Implementation as follows:

- Global environmental issues
- Land and forest fires and transboundary haze pollution
- Coastal and marine environment
- Sustainable forest management

- Sustainable management of natural parks and protected areas
- Freshwater resources
- Public awareness and environmental education
- Promotion of environmentally sound technologies and cleaner production
- Urban environmental management and governance, and,
- Sustainable development, monitoring and reporting database harmonization

ASEAN recognized that environmental issues are interdisciplinary and cross-sectoral in nature and have impacts at the regional and global levels, concerted efforts have been made to coordinate activities with the relevant sectoral bodies of ASEAN, and other regional and international institutions. Environmental considerations have been incorporated into the development plans of other sectors to ensure that the goals of environmentally sound sustainable development are achieved. The ASEAN Secretariat plans an important coordinating and enabling role in integrating environmental factors into other development activities of ASEAN.

3.05 Institution building for Environment and Resource Governance at country level—Chinese experience

1. China is a late comer on environment and resource governance. Essential selected events of institution building for environment and

resource governance are listed below:

(1)1972 China had participated the Stockholm Conference

(2)1973 First National Conference on Protection and Improvement of Environment was held. Various organizations of environment management and administration were set up from central government down to provincial and local level.

(3)1978 A target to control environmental pollution within five years and to solve environmental issues within ten years were set up

(4)1979 《The Environment Protection Act》 was promulgated

(5)1979-1982 Around fourteen regulations related to pollution control and resource management were promulgated, for example 《Forest Act》(1979), 《Standard of Atmospheric Environment Quality》(1982)etc.

(6)1982

It is defined in item 26 of PRC Constitution approved by the Fifth Plenary Session of Fifth People's Congress on Dec. 1982 that:

“The state protects and improves the living environment and ecological environment, prevent and control pollution and other public harms.

The state organizes and encourages plantation of trees and forest, protects the forest.”

Around 650 environmental monitoring stations were established

before the end of 1982.

(7)End of 1983 Second National Conference on Protection and Improvement of Environment was held.

Environmental protection was considered to be one of the national basic policy.

(8)Environmental Protection became one of the content of National Economic and Social Development Five Year Plan since the Sixth Five Year Plan (1981-1985)

(9)A broad concept of Sustainable Development on environment and resource governance was established since China's participation of UNCED in 1992.

(10)China had prepared 《China's Agenda 21》 to be followed up action of UNCED. This official document was jointly prepared by State Science and Technology Commission, the former State Planning Commission and the Administrative Center for 《China's Agenda 21》 . This document was adopted at the 16th Executive meeting of the State Council of the PRC on 25 March 1994.

(11)Sustainable Development became part of contents since China's Ninth Five year (1996-2000) National Economic and Social Development Plan.

(12) Environmental legal institution up to 2008¹⁰

¹⁰ Source: "History, Status Quo and Future of Chinese Nomocracy" by: Change Jioven Institute of Law, Chinese Academy of Social Science.

(i) China has promulgated nine acts related to environmental protection, for example, “The Environmental Protection Act”, “Marine Environmental Protection Act” and “Clean Production Promotional, Act” etc., and also fifteen acts related to natural resources, for example, “Forest Act”, “Water Act”, “Land Management Act” etc.

(ii) Environmental Administrative Regulations

China had prepared more than fifty items of environmental administrative regulations, for example “Environmental Protection Management Regulations on Construction Projects”, “Regulations on Natural Conservation Zone” etc., and more than eight hundreds items of national environmental standards, for example “Air Quality Environmental Standard (GB 3095-1996)”, “ Underground Water Quality Standard (GB/T (4848-93)” etc.

Part IV Analysis and Suggestions

4.01 General It can be seen from part II and part III of this paper that there is no shortage of effort of institutional building on environment and resource governance either at international , regional or country level since 1970’s. Although a great effort has been spent by U.N. or some regional institutions or some countries to promote the institutional building (establishment of new organizations and creation of norms, agreements, regulations and many documents) but the progress in

not up to expectations for their implementation . Lessons had been summed up at international and regional level, the conclusions are generally the same, comparative studies of them and selected analysis from academic field will be described in 4.02. And some analysis and suggestions done by the author on improvement of institution building will be given in 4.03 and 4.04.

4.02 Lessons of failure of environmental governance

1. Comparison of common problems for the failure of institutions for environment governance. This is shown in table 3.

Table 3 Comparison of Result of Study on Common Problems of Failure on Environmental Governance

	Lessons Summed up by UN	Lessons Summed up by EC
1	A fragment approach towards sustainable development	Sectoral policy inconsistency
2	Lack of mutually policies in finance, trade, investment, technology on sustainable development	Policy Inertia Inadequate communication and dialogue
3	No major changes in the sustainable patterns of consumptions and productions	Limited understanding Wrong Incentive
4	Shortage of financial resources for implementing Agenda 21	Short-termism in policy making

Source: 2.02-6-(2) and 3.02-4-(1) of this paper

It can be seen from table 3 that fragment approach, or inconsistent sectoral policy and no change in consumption and production are two major problems faced by strategy of sustainable development or environment and resource governance. Due to complexity of the problem,

selected views from academic field will be quoted for supplementary references.

2 . Selected Views from academic field

(1). A part of academic field has serious concern on the environmental issues and current institutions. Some of the foremost environment thinkers of our time share a common theme, the world is running out of time to deal with a set of seeming overwhelming environmental threats.

(2) The World's economy and its institutions needed fundamental changes

(3)It is a real challenge to begin to involve the new centers of economic decision making in Brazil, Russia, India and China in subscribing to principles and codes of conduct they have taken no part in developing.

(4) The commitment to sustainable development have been taken far more seriously in Europe than in the rest of the world, but even there the record has been spotty.

(5) Sustainable development is an integrative concept

(6) Much of the blame for the ineffectiveness of multilateral environmental agreements lies of the inability of UNEP to do its job.

(7) There is need to call for leadership,

4.03 Analysis and comments

1. General The reason of failure of implementation of sound environmental and resource governance are quite complex. All analysis given in 4.02 are generally correct, analysis from the academic field even point out one of the core issue is the role of leadership. It is good news that the current president of U.S. has an active attitude to climate change and environmental governance. It can be seen from one of the official document of U.S. that “Begin a Comprehensive Approach to Transform Our Energy Supply and Slow Global Warming……to reduce greenhouse gas emissions approximately 14 percent below 2005 levels by 2020, and approximately 83 percent below 2005 levels by 2050……”. Although the leadership role of U.S.A. is important, but it is necessary to emphasize that both leaderships at global and national levels are important. ” Because environmental issue and climate change are global issue, the implementation of sustainable development strategy depends very much on vision, institution and capacity at country level.

2. The gap of implementation of sustainable development approach by UN and E.C. has two major problems in common: One is a fragment approach towards sustainable development, it is rooted in existed sectoral institutions and sectoral policy inconsistency; the other is the rigidity of mode of production of consumption and production , this is very much related to cultural aspects and stage of development of different countries. Although the definition of sustainable development is well defined to be

“Sustainable development is development that meets the needs of the present without compromising the ability of future generation to meet their own needs.” But the needs of people of different countries differs greatly due to their stages of development. In Maslow’s modern theory on management in which he classified the needs of the mankind into hierarchy of five levels. In this hierarchical level, the mankind cannot strive for the intangible, higher levels of personal safety, security, love-belongingness, esteem and self actualization without first attaining basic physiological needs such as food, shelter, clothing etc.

“……the ability of future generation to meet their own needs.” is even a higher level of needs defined by Maslow. This is the major challenge of vision of sustainable development for the people in general.

3. Consumption pattern is formed through culture and production pattern is formed by natural endowments and stage of development of history of a nation. All these cannot be changed within a short historical period.

4.04 Three Major Suggestions

1. To support fully the role of U.N. and UNEP

Although “the inability of UNEP to do its job” was raised by the academic field (Reference 15), but this inability is due to the complexity of the real world affected by politics, economic and social system and varieties of human behavior. It can be seen from 2.02 of part II of this

paper that UN had done tremendous works on institution building of environmental and resource governance since 1972, this is also true for UNEP. UN and UNEP had also contributed very much on institution building of environmental governance at regional level and provided guidance of this at country level.

Therefore, there is no need to spend efforts in duplication with U.N. and UNEP, it is better to support, to improve the current institutions of UN on environmental and resource governance at international or regional level. Supplementary works on institution building which are beneficial to improve the UN system should be welcome.

2. Every Country , either developed or developing should does its utmost effort on institution building of environmental and resource governance to contribute to solution of global environmental issue.

The mankind recognized the environment issue gradually in the twentieth century through a series of disasters and hazards caused by environmental pollution in 1930, 1943 and 1952 etc., some early hazards with impact only at local or country level, later on , some hazards or harms became transboundary, while recognition of ‘Unbalancing of Nature’, the interrelationship between organism and environment is more or less a recent event around three or four decades, while the serious global issue of climate change had got consensus only in recent decade. In spite of the effort of UN to give early warnings on environmental and

resource governance since 1972, but the gap of implementation of all U.N. documents depends very much upon the effort, capacity and capability of each country. It can be seen from 3.02 that EU has a better institution building on environmental and resource governance compared to other regions. It is also true at country level. Global issue of environment requires the contribution of every country to improve its institution building and capability.

3. There is need to promote the awareness of environment governance at grass root level. Currently the efforts of institution building for environmental and resource governance are a process of ‘Top-down’ approach. It is necessary to be supported by a ‘bottom-up’ approach in order to be effective.

Concluding Remarks

1. There are already many existed institution building for environment and resource governance at international, regional or country level. It is necessary to strengthen and improve the effort of UN and UNEP for environment and resource governance.
2. Every country should learn the best practice of existed institution building for environment and resource governance of other regions or countries to adapt to their national context. Innovative and system approach should be developed.

3. It is necessary to strengthen more the 'bottom-up' approach for implementation of institution building on environmental governance. NGOs can contribute further on that, although they have contributed very much to the progress of that process in the past four decade.
4. Issue of Environmental and resource governance have emerged to be an issue of threat to peace. This can be seen from principle 25 of "Rio Declaration on Environment and Development". This becomes an essential element to be focused by Asian Peace Science Network and Peace Science Society.
5. It is expected that APSN and Peace Science Society can contribute to improve institution building for environmental and resource governance in Asian region and global level. Reduce one of the factors of menace to peace.

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