

What Capacity Development is in Environmental Assistance

- Review of the Concept of Capacity Development in Environment (CDE) -

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1. Introduction

Japan, which had been the largest donor since 1991, gave up the position to the U.S. in 2001. Conditions for Japan's official development assistance (ODA) are drastically changing because its ODA budgets have been cut due to a slump in its domestic economy and an increase in its governmental fiscal deficits. As shown in Figure 1, ODA is declining worldwide, while foreign direct investment (FDI) has grown since 1992 to exceed ODA, and reached five times or so the scale of ODA in 2000. Japan's ODA is now required to shift from its conventional structure depending on quantitative expansion to more efficient and effective project approaches focusing on quality.

Japan's ODA, which sharply rose as the top donor in the 1990s, is characterized by the remarkable increase in so-called environmental ODA. The ratio of the amount paid for environmental projects rose to a quarter or a third of total ODA (Overseas Environmental Cooperation Center 2001). In addition to the growth of the environmental ODA, it is also important that the greening of the Japanese

ODA itself has been promoted by including the environmental consideration as a selecting criteria for development assistance projects (Matsuoka 2002).

Trends such as the increase in environmental projects in ODA and the greening of ODA as a whole are common to countries composing the Development Assistance Committee (DAC) of the Organization of Economic Cooperation and Development (OECD) and the World Bank. These trends are supported by enhancement of international activities related to the global environment and sustainable development triggered by the United Nations Conference on Environment and Development (UNCED) held in Rio de Janeiro, Brazil, in 1992.

The increase of environmental ODA among development aids to developing countries initially began increases in environment-related projects in individual aid plans based on the conventional approaches of each donor. The project-based conventional ODA approaches were, however, insufficient to assist developing countries to solve environmental problems

and encourage the countries to establish self-sustainable development systems.

While the world's donors were seeking more effective assistance methods able to go beyond the conventional ODA approaches, a new concept was presented, known as "capacity development in environment (CDE)" in the 1990s. The concept named capacity development in environment (CDE), also called "improvement of the capacity to deal with the environment," was first used by DAC of OECD at establishment of the Taskforce on Capacity Development in Environment in 1992.

The concept of CDE, advocated by DAC of OECD, was intended to materialize in the field of environmental issues the concept of capacity development, which had been used in the United Nations Development Programme (UNDP) and others. CDE positioned individual assistance projects under a program to assist developing countries to develop the social capacity of environment management in the field of the environment. In that context, this concept was aimed at materializing the program approach, which had been focused on since the 1980s, in the field of the environment.

Since around 1999, however, no new development has been seen in research and studies concerning CDE by DAC or any other related areas. Why has no new development been seen in the CDE approach? During this period, what

research and implementation have been made for CDE, and what lessons have been learned? At the very start, how is the concept of CDE different or not different from the related capacity development or institutional development? How does the CDE approach work, and how can it be used in assistance to developing countries in development of their capacity of environment management, or can it not be used at all?

This paper discusses the above points concerning CDE by reviewing major literature describing research and implementation concerning CDE and related capacity development. It is also intended to acquire theoretical guidelines for future environmental assistance. This paper is composed as follows:

First, the following Section 2 sorts out how the concept of capacity development has been developed as the assumption of CDE by analyzing literature written by UNDP, which has led the capacity development. Based on this analysis, Section 3 clarifies the goal and challenges for CDE's concepts and approaches by reviewing documents issued by DAC of OECD. Finally, Section 4 looks into the forward directions of the program approaches in the future environmental assistance by applying the recent new institutional economics or the results of the comparative institutional analysis to the possibility of development of the CDE concept.

2. Discussions at UNDP about the Capacity Development

Before dealing with capacity development in environment (CDE), we would like to look at the principal concepts: capacity and capacity development.

Table 1 shows the historical changes in concepts regarding capacity development. The term “capacity development” became a main subject of discussions in the 1990s. Aid-receiver countries’ organizations and structures have been discussed for assistance approaches since the 1950s, and the discussed points have developed from institutional building in the 1950s - 1960s to institutional strengthening in the 1960s – 1970s, development management in the 1970s, and institutional development in the 1980s.

Institutional building and institutional strengthening are one of the assistance approaches aimed at reinforcing the organizations that should directly receive technical assistance. The approach was designed at the project level (reinforcement of an organization), and the leadership in an assistance project was in the hands of the donor organization.

Development management or institutional development considered assistance from multifaceted, macro viewpoints, seeking to improve the efficiency of the assistance through tie-ups among organizations and coordination inside the government. In addition, institutional development was introduced in the beginning of the 1980s,

and the shift to the program assistance approaches began.

Since the 1990s, capacity has been the keyword for assistance.⁽¹⁾ At the stage of capacity development, more importance was placed on roles of inter-organizational relationships and political environments toward the comprehensive assistance based on indigenous development processes in the receiver countries. At the stage of capacity assessment and development, a process to assess the capacity of the existing organization or institution was explicitly added to conventional capacity development. This is along with the context of discussions about the importance of assistance in harmony with the current situations of the receiver countries contained in literature from UNDP cited below (UNDP 2000, Sagar 2000).

The term “building” has the connotation “to introduce and establish” a new organization, institution or capacity, “strengthening” “to strengthen and improve” an existing organization, institution or capacity, and “development” “to change (without sticking to the initial plan or simply transferring a technology)” an existing organization, institution or capacity (OECD 1995a).

Below are reviewed UNDP literature, the key thoughts in discussions about capacity development in the 1990s, as the main materials concerning changes of discussions about capacity development and relations with other concepts.

First, before reviewing UNDP's discussions about capacity development, we would like to deal with a report titled "*Rethinking Technical Cooperation*" (UNDP 1993) describing capacity building, a concept prior to capacity development. As the title indicates, this report criticizes the previous technical cooperation, and reconsiders how the technical cooperation should be.

Based on the recognition that the poor performance of the existing institutions of developing countries is the bottleneck for economic development, this report focuses on organizational and institutional development, and capacity building. UNDP calls these concepts the enhancement of the sustainable indigenous capacity to deal with economic changes and growth (UNDP 1993, p.58). Proposed here is an approach, as a new method of technical assistance, aimed at capacity building that should enable receiving countries as well to take responsibility for the implementation of the assistance.

In this report, UNDP also discusses the difference between the institution and the organization. It defines an institution as "a certain act, a conduct code that guides or restricts behaviors of an individual or a group, or a game rule that should be measured as a value in a culture," and an organization as "the reasonable coordination of activities carried out by a group of individuals who have a common purpose" (UNDP 1993, pp.60-61). Based on the definitions above, the report points out that capacity building includes all of the

technical enhancements beyond the framework of a single organization, so it is a somewhat wider concept than organizational development, but less comprehensive than institutional development because of lack of any specific objective such as changing a social norm or generating social support for capacity development. In addition, the report states that capacity building is composed of three factors: skill upgrading, procedural improvements and organizational strengthening (UNDP 1993, p.62).

(1) *Capacity Development: Lessons of Experience and Guiding Principles, 1994*

These guidelines set forth how a local office of UNDP should support the government of the developing country concerned to improve the national capacity. This document first defines capacity as "the ability of individuals, organizations or organizational units to work effectively, efficiently and sustainably," and presents the following three points as important phases of capacity (UNDP 1994, I-A):

- Capacity is a part of a continuous process.
- Human resources and utilization of them are the core factors of capacity development.
- An environment where an organization works is also important for the capacity development strategy.

Here, capacity development is a wider concept than institutional development.⁽²⁾ This is because if a specific capacity is considered, capacity development requires one to look at the entire political environment, and make a specific action consistent with macro conditions.

The reason why the concept of capacity development has become important is that the sustainability of technical assistance projects has attracted more attention. While donor countries were suffering from “assistance fatigue” after the end of the cold war, however much assistance is provided to developing countries, no sustainable development mechanism has emerged in those countries. Under these circumstances, the concept of capacity development is supposed to have arisen from approaches to review assistance from the viewpoints of forms of organizations or institutions in developing countries and enhancement of their capacity.

These guidelines divide the capacity into the following five dimensions (UNDP 1994, I.B.):

- Training and education
- Organizations and management of them
- Networks and alliances among such organizations
- Political and institutional environment in the public sector
- Total environment such as economic, social and political situations

While they recognize the importance of the roles of the private sector in capacity development, the guidelines discuss mainly capacity development in the public sector because “a capable government” is essential for creating a framework for overall development. This shows that the main focus then was on the public sector despite discussions about nationwide capacity development.

(2) *Report of The UNDP Capacity Development Retreat, 1995*

This report was presented at a workshop held in New York in 1995, and describes the shift of UNDP’s assistance policies after the 1994 guidelines well.

The report first points out that the definition of capacity development in the 1994 guidelines placed a disproportionate emphasis on the ability to manage the public sector, and proposes the necessity of a shift from organizational-biased approaches to those targeted at the entire nation and society (UNDP 1995, C.1.). This is a proposal of approaches focused on not only the government but also the private sector, research institutes and civil society.

In addition, UNDP introduces a new concept named sustainable human development (SHD), and suggests that capacity development for SHD is UNDP’s key mission.⁽³⁾

This concept comes from the human development theory, UNDP’s basic principle

on development in the 1990s based on Amartya Sen's capability theory. UNDP's first annual report on human development titled "*Human Development Report 1990*" defines human development as "a process to increase choices for people" (UNDP 1990, p.10), and points out that human development has two phases: character-building and using potential capacities acquired.

(3) *Capacity Assessment and Development*, 1998

Capacity assessment and development is a concept advocated in the late 1990s. This report defines capacity and capacity development almost the same as the 1994 guidelines (UNDP 1994).

Capacity assessment is defined as a structural, analytic process to assess the capacity of various dimensions in a broader system, and assess the capacity of an entity or individual in a system (UNDP 1998, p.6). This report emphasizes the process to determine what is needed, or what type of assistance is effective to practice capacity development as an assistance program by carrying out capacity assessment as the preliminary step toward capacity development.

The distinguishing feature of this report is that capacity is identified at three levels (system, entity ⁽⁴⁾, and individual), and a sub-dimension is set for each level. The report says that system-level capacity includes political policies, laws and regulations, administration and accountability, resources (human, financial and information) and

processes, and entity-level capacity includes missions and strategies, culture, structures and competencies, processes, and human resources.

The report considers capacity or capacity development in the social system framework, and the roles that vary with the level. This standpoint is very similar to that of new institutional economics and comparative institutional analysis, both of which are dealt with in Section 4 below.

(4) *Capacity Development Initiatives*, 2000

This report was created by UNDP under a strategic partnership with Global Environmental Facilities (GEF) to organize frameworks and approaches for capacity development and capacity development in environment, and describes lessons learned from various practices.

The five factors composing capacity are listed pursuant to OECD DAC (1997) (Lafontaine 2000, p.9).

- Network, planning, regulatory and communication functions
- Public authorities, actors such as individuals, and informal institutions
- Value-related and political environments such as democratization and incentives
- Social environments of various levels such as the entire globe, regions, nations and communities
- Human, financial, information and other resources

Focusing on such social and institutional environments and functions, targets (resources) and beneficiary entities shows that this report sees the concept of capacity in the framework of the social system.

As lessons learned from capacity development and CDE assistance, the report lists the following 15 items (Lafontaine 2000, p.15):

- An important condition is long-term, high-level involvement and leadership in policy-making.
- It is essential that both of the donor organization and the receiver country have sufficient knowledge about macro-level institutional development.
- Success of capacity development assistance depends on involvement by local specialists.
- Ownership should be encouraged in planning and implementation processes.
- It is important to identify the motivations for major interests (necessity of capacity development on the receiver side)
- The capacity development initiative is more effective than the problem-solution-type approach.
- Recognizing conditions and limitations on the receiver side raises the effectiveness of capacity development assistance.
- It should be recognized that long-term assistance (including unexpected processes) is necessary.
- Capacity development assistance should be realistic based on the current situation of the receiver.

- The decision-making process should be kept transparent by clearly specifying the roles and responsibilities of relevant parties.
- The most important key is to let the receiver also provide funds and human resources (money and time).
- Participation by young specialists (from both the donor and the receiver) is important for sustainable development.
- Sufficient time should be given for the receiver to accept changes.
- CDE is dynamic development.
Repetition of monitoring and feedback leads to success.
- The assistance organizations should make efforts to acquire the abilities to incorporate the above items in the assistance.

In addition to issues that have so far been discussed on capacity development, the active participation of the receiver (including funds and human resources) and the involvement in political activities in the receiving countries are also pointed out. These issues and points are, however, not limited to capacity development, but common to assistance in general. No common framework has been presented for capacity development.

(5) Case study of capacity development program

Triggered by UNCED in 1992, UNDP established an assistance program named Capacity 21 by soliciting contributions from bilateral assistance organizations, and

started actual assistance activities in 1993. This program is targeted at the following three fields (Stewart 1998, p. 3).

- To incorporate the principle of sustainable development into the national plans and programs.
- To encourage all related people to participate in the national plans and programs, and in environment management.
- To accumulate experience and technical knowledge about capacity development for sustainable development

Here, we would like to present a program to introduce environmental economics into the environment management in India as an example of Capacity 21 (UNDP 2000).

This program, which started in 1995, was intended to use the approaches of environmental economics in environmental political policies and administration, and continued through 2000.

The Indira Gandhi Institute of Development Research (IGIDR), the assistance receiving entity, described the introduction of environmental economics as a paradigm shift, and reported that conflicts between the environment and development were solved with new practical methods.

This program enabled calculating the benefits of non-commercial wood, and led to actual results such as policy-making. The manuals of environmental economics,

the deliverables of the program, were distributed to governmental staff of the nation, state and local levels, and many workshops were held.

(6) Capacity development as philosophy

Reviewing UNDP's literature above has led us to the following three summaries of this Section:

First, what is meant by capacity needs to be reconsidered. Table 2 shows the definitions of capacity and capacity development given by donor organizations. Every organization explains capacity according to the level and functions of actors such as individuals, groups and organizations. Capacity is also expressed as the "comprehensive abilities of individuals or groups to actually perform their duties under given situations" (Franks 1999, p.52).

Capacity can be explained from the viewpoint of the relation between ability and capability. In the capability theory presented by Sen (1985) and others, capability refers to both capacity and potential ability, and means the freedom and the capacity to materialize various human doings and beings. Capacity is "the power to create some material (or status)," and capability is "capacity plus ability" (Nishikawa 2000, pp.291-292). UNDP's human development theory stated above emphasizes as the philosophy the improvement of the capability that leads to the freedom and expansion of choice for human activities, rather than performance-based capacity.⁽⁵⁾

Table 2 Definitions of Capacity and Capacity Development

Assistance Organization	Definition of Capacity	Definition of Capacity Development
UNDP	Ability of individuals, organizations and organizational units to work effectively, efficiently and sustainably.	Enhancement of comprehensive systems or environment in which individuals and society carry out activities.
OECD/ DAC	Ability to be involved in environmental issues as efforts for individuals, groups, organizations and institutions to achieve sustainable development.	Processes to enhance and improve the capacity in environment and appropriate institutional structures.
World Bank	Combination of people, institutions and activities necessary for a nation to achieve its development goals.	Investments in human resources, institutions and activities (Capacity Building)
CIDA	Capacities, techniques, understandings, attitudes, activities, incentives, resources and conditions for individuals, organizations, networks or sectors, and social systems in a broader sense to work to achieve development goals.	Approaches, strategies and methodologies used by developing countries and external related organizations to improve the performance at the level of individuals, organizations, networks or sectors, and social systems in a broader sense

Source: Created by author from UNDP (1998), OECD-DAC (1995), Lusthaus et al. (1999), CIDA (2000)

Interpreting these definitions in the context of capacity development, ability can be regarded as a general term expressing the skill or the generally accepted power (nominal ability), while capacity can be regarded as the ability and the result of actual performance under given conditions. Capability should be regarded as the potential power underlying these two abilities, which are not always in a relationship of addition.

Second, it is important for us to sort out the levels of the capacity and the actor. According to UNDP (1994, 1998) and others, actors with capacity can be divided into the levels of individuals, groups or people, organizations, organizational units, institutions and systems. UNDP (1998) positions the system at the highest level in discussions about capacity development,

and regards institutions as subsystems or sets of organizations. This point will be considered in detail in Section 4 with the theories of institutional economics.

Third, assuming the two points above, capacity development, institutional development and organizational development should be regarded as basically different concepts. Due to the relation between institutions and organizations, institutional development and organizational development can be treated as concepts based on a similar idea. Discussions made to date by donor organizations including UNDP have been aware of the differences between capacity development and institutional development (organizational development) in their levels, scopes, factors and items of the

concept, but actually, have been treated on the same ground.

These two concepts, however, are substantially different. In institutional development (organizational development), entities that actually exist in the society as institutions and organizations are developed and established. On the other hand, the capacity in capacity development exists, not as a real substance, but as the performance of a social system and actors belonging to the system; it can be recognized only through “assessment.” In the field of the environment, institutional development (organizational development) is responsible for establishment of institutions and organizations such as enactment of environment-related laws, setup of environmental standards, organizational coordination among environment-related ministries and agencies, and improvement of organizational abilities to solve problems, while capacity development should result in fulfillment of environmental standards, or in a broader sense, establishment of the capacity development in environment.

In capacity development, therefore, regardless of the distinction between institutions and organizations, it should be understood that the concept of capacity as assessment of the system and the actor is employed and development is intended to improve the performance of a society as a whole. In this meaning, capacity development includes institutional development (organizational development),

handles development more comprehensively, and from the viewpoint of assessment, capacity development is an image across the boundaries between the targets of institutional development (organizational development).

When regarding capacity development as performance, however, it will be too abstract a philosophy. As a result, the usefulness of capacity development will become remarkably questionable.

The existing concept of capacity development is too broad and abstract, so it has been accepted by donor organizations as a philosophy, but its definition remains vague, and how to implement it has not been discussed satisfactorily. Furthermore, when considering capacity in the context of capacity development assistance, capacity may originally include elements of development. From this point of view, capacity development can be paraphrased as “development of capacity that develops indigenously.” In other words, capacity development originally means comprehensive development at which assistance should be aimed, but capacity development itself will never present any concrete measure.

3. Activities of OECD/DAC toward capacity development in environment (CDE)

Based on OECD’s literature, this Section reviews the backgrounds of the original concepts of capacity development in

environment (CDE), and the changes to date in discussions about the concept.

(1) Origin of the concept of CDE

The concept of capacity development appeared in environmental assistance triggered by the Rio Declaration on Environment and Development at the United Nations Conference on Environment and Development (UNCED) in 1992.

Item 9 in the 27 Principles of the Rio Declaration describes “States should cooperate to strengthen endogenous capacity-building for sustainable development by improving scientific understanding through exchanges of scientific and technological knowledge, and by enhancing the development, adaptation, diffusion and transfer of technologies, including new and innovative technologies.”

Chapter 37 “National Mechanisms and International Cooperation for Capacity-Building in Developing Countries” of Agenda 21 adopted at UNCED specifies “Many phases of sustainable development depend on the capacity of people and institutions” to emphasize the importance of capacity, and states that capacity-building should include nations’ capabilities such as human resources, sciences, technologies, organizations, institutions and resources (UN 1992, 37.1.).

In response to this trend, OECD/DAC published in 1996 *“Shaping the 21st Century:*

The Contribution of Development Co-operation” to launch new assistance strategies. In this document, DAC set a goal “to make all nations establish their national strategies by 2005 for sustainable development, and by 2015, turn the current declining trend in environmental resources to an upward trend at the global and national levels” (OECD/DAC 1996, p.12). This was to add the national-level goals to the global-level goals adopted at the United Nations Conference on Environment and Development (UNCED) in 1992 and other international conferences. According to DAC, to achieve these goals, all of the nations have until 2015 to face environmental problems, and acquire the capacity to deal with the environmental problems.

In 1989, when OECD/DAC established “the Working Party on Development Assistance and Environment (WPDAE),” full-scale discussions started about assistance and the environment (OECD 1995a). This was intended to reconsider the problems concerning environmental assistance that had so far been discussed, e.g., to encourage DAC member countries to take care of environmental issues when designing and implementing assistance programs, and to tighten partnerships among donors for environmental problems,⁽⁶⁾ and in 1992, when the Taskforce on Capacity Development in Environment was established with DAC as its secretariat, the term “CDE” began to be used.

Canada, Germany and the Netherlands joined this taskforce, and in 1993, the International Institute for Environment and Development (IIED), the World Conservation Union (IUCN), the World Bank, UNDP, and Japan followed the three precedent countries. The purpose of this taskforce was development of common approaches, and planning and analysis tools for CDE technical cooperation program (OECD 1995a).

(2) Costa Rica CDE workshop

November 1993, a CDE-related international workshop was held in Costa Rica (OECD 1994). This workshop was composed of OECD, UNDP, the World Bank, bilateral assistance organizations including JICA, IIED, and governmental representatives of 13 developing countries.⁽⁷⁾ The workshop discussed three subjects: (i) What capacity in environment is, (ii) How the Capacity in Environment will be improved, and (iii) How the assistance should be in the future.

According to its minutes, capacity in environment is defined rather roughly as “social ability to identify environmental problems and deal with them” (OECD 1994, p.8). Although the participating assistance organizations agreed to OECD’s definition, there were some opinions that generalization of capacity in environment was very difficult, and if the definition was too general and abstract, the practical significance of the concept would be lost. As the major factors composing the capacity

in environment, 10 out of 14 participant organizations pointed to social structures and cultural values, followed by economic systems, education, public opinions, and political structures, but no complete consensus conclusion was formed.

The assistance organizations that attended this workshop agreed to the systemic approach in the CDE assistance. This approach makes assistance considering various actors, functions carried out by the actors, and positions in the organizational hierarchy at the macro, meso, and micro levels because various parties act with different interests and organizations.

For CDE assistance in the future, participants specified an increase in the educational level, assistance, to indigenous development, financial assistance, partnerships and cooperative assessment among actors. In particular, CDE absolutely requires social awareness and pressures by public opinion on the government, and in this context, educational assistance was emphasized. In addition, the participants agreed to use the CDE framework on a trial basis in actual projects, and to continue discussions based on the results of the trials.

(3) *Donor Assistance to Capacity Development in Environment*, 1995

These OECD guidelines issued in 1995 define capacity in environment as the “ability of individuals, groups, organizations and institutions to deal with

environmental problems as part of efforts to achieve sustainable development under given conditions,” and CDE as “processes in which the capacity in environment and appropriate institutional structures are enhanced and improved” (OECD 1995b, p.6). These definitions are used in OECD’s subsequent documents, so they can be regarded as OECD’s official concept of capacity in environment and CDE. From these definitions, three important points can be derived concerning CDE:

First, capacity is defined “under given conditions,” i.e., the current existing social institutions and social systems. As stated in 2 (6), this definition suggests a difference between the capability of an individual or group and the capacity to actually perform under given conditions.

Second, enhancement and improvement of institutional structures are regarded as CDE’s important factor. This is related to the idea of capacity. That is, CDE not only develops the capacity in environment, but also includes development of institutional frameworks to increase the capacity (or performance).

Third, CDE is regarded as a “process.”⁽⁸⁾ This is emphasized not only by OECD but also in related documents written by assistance organizations. OECD (1995b) focuses on the process rather than performance as one of the CDE’s important points.⁽⁹⁾ The main report on the CDE Workshop in Rome states that the process is the fundamental element of the CDE

approach and only the process is the performance of CDE (Phillips 1996), and during the group discussion, there was an opinion that the process is the performance. On the other hand, some requested the assessment index to focus on the performance (OECD 1996).

The 1995 guidelines present the direction in which the program approach is regarded as important for CDE assistance to seek partnerships between the donor organizations and the receiver countries, or coordination among donor organizations. While recognizing that CDE’s responsibilities and the initiative are in the hands of developing countries, and donors’ roles are limited, the guidelines place importance on processes for receiving countries to enhance their capacity, and require assistance organizations to promote better environment management.

(4) Case study of the CDE program

The CDE framework that has been discussed mainly by OECD does not specify any conditions for related programs. According to responses to the questionnaire survey for assistance organizations included in the comprehensive report on CDE (OECD/DAC 1999) to be detailed in the following sub-section, it is found that condition setting is vague because 77% of assistance organizations (n = 13) do not have their own CDE guidelines, while they reply that CDE-related projects and

programs account for 10 – 25% of their environment-related assistance.

In the 1996 Rome Workshop and in “*Capacity Development in Environment: Principles and Practice*” published in 1997,⁽¹⁰⁾ many case studies are reported.⁽¹¹⁾ What type of CDE framework is assumed for these case studies needs to be considered individually.

UNDP (1997) introduces a case of a CDE program: the national-level capacity development in environment program implemented in Nicaragua by the Danish International Development Agency (DANIDA). Over about three years from 1993, DANIDA carried out a program to reinforce the regulatory capacity of Nicaragua’s Ministry of the Environment and Natural Resources (MARENA), and reportedly succeeded in setting criteria for emissions and enforcing the regulations.

As a reason for the success of the project, it is pointed out that DANIDA supported MARENA from such early stages as drafting of environmental action plans prior to the start of the program, and a cooperative relationship was established through long-term communications. It also contributed to the success that these preliminary preparation processes were part of the CDE processes, and programs provided by DANIDA were flexibly designed to changes and interactions with the receiver side.

(5) *Donor Support for Institutional Capacity Development in Environment: Lessons Learned*, 1999

In 1999, OECD issued “*Donor Support for Institutional Capacity Development in Environment: Lessons Learned*.” This report sorts out challenges for CDE assistance, and is characterized by pointing out problems of not only the receiver countries but also the donor side based on the questionnaire survey of DAC members’ assistance organizations.

Based on definitions presented by the CDE guidelines (OECD 1995b), the report divides the capacity enhancement in the CDE process into the following seven concrete objectives (OECD/DAC 1999, p.37).

- Capacity to set goals, assess other options, and make decisions to promote sustainable development
- Capacity to design, carry out and monitor natural resource and environment management projects and programs to effectively use human and material resources
- Capacity to provide environmental information and useful experiences to support national goals, political policies, plans and program construction processes
- Capacity to promote resident participation in decision-making processes and public access to environmental information
- Capacity to create interactions among institutions, and adjust plans and programs

- Capacity to respond to changes in national situations, and clients' requests, learn from failures, and reform internal organizations
- Capacity to stably raise funds

The most fundamental problem in the CDE theories is that definitions and concepts are vague for the environment, capacity development, and CDE. This report explains that such a mess was originally caused by the fusion of two terms, or concepts, not defined clearly (OECD/DAC 1999, p. 45).⁽¹²⁾ The report also notes that a vague framework can never be any guideline for practices, and since CDE covers too broad an area, it may sometimes be interpreted the same as development itself.

These problems prove that OECD and other assistance organizations finally failed to provide theoretical and practical answers to such questions as what CDE is, how different CDE is from capacity development, and what capacity development is. The confusion around CDE in particular was caused by the coupling of capacity in environment with development, a concept biased towards technical aspects, without satisfactorily considering the term "capacity in environment," the most important concept (e.g., from the viewpoint of the critical minimum).

Also, the following four points are specified as factors that disturbed formulation of the CDE approach (p.45):

- CDE projects and programs have not been regarded effectively as the process.
- In developing countries, economic development and environmental policies were not satisfactorily integrated at every level in both the public and private sectors.
- The rising concern over the global environment issues has expanded the scope of environmental problems, and the needs of developing countries have increased.
- International environmental indices and institutional performance indices were not prepared.

(6) *Lessons Learned* (OECD/DAC 1999):
Capacity of assistance organizations
and future challenges for CDE

Recently, not only the capacity of receiver countries but also the assistance capacity of the donor side or CDE have been actively discussed. A report on capacity development and CDE assistance prepared by UNDP and other assistance organizations (Lafontaine 2000) states that the donor country should have the effort to learn as the 15th lesson the capacity to incorporate the 14 lessons in assistance (see 2. (4)). The following six challenges for the capacity of the assistance organizations are presented by OECD/DAC (1999) (pp. 12-15):

- Integration of environmental issues
- Decentralization
- Identification of the environmental capacity to be assisted
- Organizational entry points

- Concern for social and economic features of developing countries
- CDE indices and monitoring

Among these six points, decentralization and CDE indices are especially important challenges.

Decentralization of assistance is aimed at institutional pluralism, regarded by OECD as a principle of assistance, i.e., diversification of institutional counterparts. This is also a self-criticism of the centralization of environment-related agencies and bureaus and the resulting lack of effective measures for CDE in provincial areas. The report describes, however, that as of 1999, only one country among CDE members has clear guidelines for environmental political measures in provincial structures, and invites attention to how trends toward decentralization of assistance are affected by the shift from project assistance to program assistance.

It is also noted that since they were discussed at the 1995 CDE Taskforce, no criteria common to assistance organizations have been established for the environment of CDE assistance and institutional changes. For conducting effective CDE assistance, quantitative baselines and goals based on preliminary research should be established and indices for assessment of CDE should be developed concerning environmental levels, social and economic conditions, and institutions and systems.⁽¹³⁾

The report concludes that to achieve the goals set forth in “*Shaping the 21st*

Century,” OECD’s new assistance policy announced in 1996, enhancement based on the combination of environment and development is needed for the low-end capacity to plan and implement, the capacity to use the existing current environmental preservation tools, and the capacity to manage more and sustainable financial resources. Finally, as factors for improving the CDE approach (capacity to manage the environment), the following seven items are listed:

- Prior organizational analysis, and assessment of the institutional environment and management abilities
- Consistency between the more realistic, longer timeframes and political goals
- Consideration of institutional capacity development that may change “the rules of the game” (such as renovation of political measures)
- Fusion of the environment, society and economy at every level
- Revision of environmental guidelines and other rules based on consideration of the current existing capacity and limits
- Flexible program approaches able to learn from failures
- More flexible approaches to financial (accounting) reporting

Our review of documents on CDE and related capacity development theories has resulted in the introduction of the following three issues:

First, neither a clear definition of CDE nor theoretical review of its contents has been made. OECD/DAC (1999) defined capacity in environment as the “ability of individuals, groups, organizations and institutions to deal with environmental problems as part of efforts to achieve sustainable development under given conditions,” and CDE as “processes in which the capacity in environment and appropriate institutional structures are enhanced and improved.” These definitions, however, do not look very different from the definition of capacity development, and the originality of the environmental management is not reflected. Moreover, the capacity development itself underlying CDE is such a very abstract concept that there is a fundamental problem that no practical discussions can be made.

Second, no new development has been seen in CDE theory since 2000. OECD has issued no report since “*Donor Support for Institutional Capacity Development in Environment: Lessons Learned*” (1999), and UNDP’s study of CDE has been suspended with Lafontaine (2000). These facts may prove that the formal-type CDE approach has reached a deadlock.

Third, CDE may possibly be redefined from the viewpoint of system theory or the approach of institutional economics. This point is detailed in the following Section.

4. Institutional economics and capacity development theory

UNDP’s discussions about capacity development theory and OECD’s discussions about capacity development in environment (CDE) reconfirmed the importance of increasing the capacity of developing countries to develop by themselves, and presented ideas and lessons for various practical approaches. On the other hand, however, these discussions have failed to give any satisfactory answers to such essential questions as what is social capacity for sustainable development, and how can such capacity be improved.

As we revealed through literature analyses, institutional development and organizational development themselves seem to be contents of capacity development. To materialize capacity development theory or CDE theory, we have to answer such questions as what institutions or organizations are, in which processes they will develop, and what are the minimum requirements and sufficient conditions for development.

In this Section, we will consider how changes and development of institutions or organizations can be confirmed, and what types of materialization will be feasible based on the fruits of contemporary economics such as the new institutional economics (or new institution school) represented by North and the comparative

institutional analysis by Aoki and others,⁽¹⁴⁾ and conclude this general review.

(1) Institutions and organizations in institutional economics

According to Aoki (2001), who has led the field of comparative institutional analysis (CIA), contemporary economics has become increasingly aware that “institutions matter has significant meaning,” but answers to the question “what are institutions” are divided into three types from the viewpoint of game theory.

The first type is the view that institutions are nothing other than organized entities such as industrial associations, specialist groups, universities, courts, governmental agencies, and law-making bodies. This is an understanding that game players themselves are institutions.

The second type is the view that institutions are the rules of the game in the society, i.e., restrictive conditions created artificially. North (1990), representing institutional economics, divided these rules as restrictive conditions into informal rules such as social norms, customs, and morals, and formal rules specified by legislation. Anyway, the rules of the game are distinguished from the players, and the institutions are the rules.

The third type is the view that the repeated methods of players’ playing in a self-disciplined manner are institutions. Aoki calls these “institutions as self-sustaining

systems of shared beliefs concerning the salient features of the repeated methods of playing games” (Aoki 2001, p.14), regarding the institutions as the equilibrium of the game.

As Aoki repeatedly emphasizes, which definition of the institution should be adopted is not a matter of right or wrong, but depends on the objective of analysis. Since the objective of this discussion is to consider what is the capacity development that will enable developing countries to sustainably manage their own developments and environment from the viewpoints of the institutional building and the organizational building, it will be adequate for us to separate organizations from institutions for convenience in terms of operability. Therefore, we extend the discussion by distinguishing organizations from institutions as divided into the second type by Aoki, and follow North’s definition that regards the institutions as the rules.

North describes “the institutions are the rules of the game in the society. Or, formally speaking, they are restrictions invented by people, and forms for people’s interactions. Therefore, the institutions give incentive structures to people’s exchanges whether the incentives are political, social, or economic ones, or any others. Institutional changes constitute the format of temporal changes of the society, so they can be the key to understanding historical changes” (North 1990, p. 3), which clearly indicates that the institutions are the rules of the game, the restrictive

conditions, and that they are what define the incentive structure for playing.

Furthermore, North argues that these institutions should decisively be distinguished from organizations, and notes that “both the birth of various organizations and the ways of their development are basically affected by institutional frameworks. By contrast, the organizations affect how the institutional frameworks develop” (North 1990, p.5), regarding the organizations as the agents of institutional changes, which establish the direction of the institutional changes.

Thus, such a view of the history of institutional development is advocated as “the complex of institutions is a mixture of formal institutions and informal institutions,” “only when the revision of any formal rule is an advantage for an organization with strong bargaining power will a major change occur in the formal institutions. In many cases, small changes in both formal rules and informal restrictions develop the institutions slowly and gradually over many years” (North 1990, p.68).

The institutional changes analyzed by the new institution school represented by North⁽¹⁵⁾ as their major subject are mainly historical changes that affect economic performance and the roles of organizations in the changes, but we suppose that only by analyzing these institutions or organizations themselves will we become able to consider the contents of capacity development or CDE.

(2) Institutional economics and CDE theory

The following three are important viewpoints when analyzing actual institutions and organizations related to environment management based on the performance of institutional economics:

The first is the viewpoint that regards the system as the bundle of institutions.

We have already defined such a bundle of institutions related to the capacity to manage the social environment as the social environmental management system (SEMS) (Matsuoka et al. 2000a). The social environmental management system is conditioned by the social and economic situations, and its capacity is assessed with the quality of the environment as the performance of the system (see Figure 2).

Figure 3 shows an air environment management system supported mainly by the public sector, and Table 3 the breakdown of environmental indices. This system is composed of a bundle of various institutions such as a monitoring institution to measure the quality of the air, a data analysis and usage institution for evaluation and verification of data, an emission source investigation institution and environmental regulations including environmental standards and emission standards.

The second is the viewpoint of the institutional complementarity where the institutions are hierarchical, and mutual

complementarity among hierarchies leads to the strength of a system as a whole.

The air environment management system contains the above four systems as the upper hierarchy, and various institutions belong to them. For example, the monitoring institution is composed of the institution for the measurement of environmental standards and various institutions for analyzing and controlling the quality of the environment. The four institutions, i.e., the monitoring institution, the data analysis and usage institution, the emission source investigation institution and the environmental regulation institution, are mutually complementary, and if one institution is absent or does not work, the entire system will not function. Restated in the terminology of capacity development theory, if the functions of all institutions underlying the system and the capacities of the organizations therein are not above the critical minimum, the system as a whole will not work.

The third is the viewpoint of institutions' strategic strategies to exist as stable structures, which assumes that the more popular an action pattern becomes in a society, the more strategically advantageous selecting the action pattern is, and the action pattern establishes itself as a self-discipline restriction (Aoki and Okuno, 1996). This is also associated with the incentive compatibility where costs for monitoring whether institutions (rules) are observed, and imposing penalties are balanced with revenues from the

institutions, or incentives are compatible between the institutions and players (organizations).

The social environment management system is established as a bundle of institutions together with a certain extent of economic growth, and various institution building is important in not only the public sector but also the private sector. In addition to institution building, organization building related to environment management is also significant.

The World Bank has recently used a model composed of the three institutions of the government, the markets and the community based on institutional economics when discussing market activities and economic growth (World Bank 2002a, 2002b). In addition, the Bank also presented the three-institution model as a new model for pollution countermeasures following an increase in formal and informal channels in environment management (World Bank 2000). In this model, the three institutions are expected to take roles, rights and responsibilities in negotiations, pollution emission and reduction, information, and strategies, and to conduct environment management.

Figure 4 shows a bundle of institutions related to social environment management system by categorizing from the viewpoint of three sectors, i.e., the administrative sector, the private sector (profit-making) and the private sector (non-profit-making); and three major players (organizations),

i.e., the government, enterprises and citizens (Matsuoka and Honda 2002).

Assistance in capacity building for environment management in developing countries with an international framework is actually thought as assistance in building such a bundle of institutions.⁽¹⁶⁾ In this case, the important point is to clarify what assistance should be donated to assist the receiver country establish all of the basic institutions and make their performance exceed the critical minimum based on the institutional and strategic complementation.

If it is possible to materialize capacity development theory in the environmental field, UNDP's capacity development theory or OECD's CDE theory will be regarded as fully significant as a leading discussion about program-type environment assistance.

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Notes

⁽¹⁾ Capacity or capability was previously studied by Abramovitz (1986) and Lall (1992). The former advocated that the factors of social capability should be the catch-up hypothesis based on the benefits of under-development of developing countries. However, concrete contents and assessment of capacity were not detailed. Lall (1992) examined the technical capabilities at the enterprise and national level to learn and use techniques.

He concluded that the national-level capabilities are determined not only by the total of capabilities at the enterprise level but also by interactions. This discussion is common with the view of capacity as the system dealt with in Section 4 of this paper.

⁽²⁾ When considering together with UNDP (1993) stated above, and supposing a simple relationship exists among capacity building (CB), institutional development (ID), and capacity development (CD), the broadness of the concepts will be $CD > ID > CB$. However, UNDP (1994) did not present any clear idea about the difference between capacity building and capacity development. The World Bank mainly uses capacity building concerning capacity, and "The African Capacity Building Initiative" (World Bank 1991) describes that the objectives of capacity building are more investments in human capital and institutions and the participation of related parties in program implementation. The Workshop for Development of and Training on Approaches and Methods for National Capacity Building, held in Maastricht on May 26 – 29, 1998, held that human and institutional capacity building is crucial for Africa to develop in the future. Judging from this, institutional development seems to be included in the concept of capacity building. This concept of capacity building is substantially close to UNDP's capacity development.

⁽³⁾ The relationship between capacity development and SHD is detailed in UNDP (1997) "Capacity Development for Sustainable Human Development: Conceptual and Operational Signposts." SHD means the creation of a political environment that should grant people the authorities and abilities to take initiatives in every phase of life (UNDP 1997, I.1.).

⁽⁴⁾ UNDP (1998) uses the word entity in the same meaning as organization to include those of various scales. The concept of the organization in UNDP (1994) includes organizations, organizational units and groups.

⁽⁵⁾ Compared with the capacity mentioned above, Franks (1999) defines capability as "individuals' and groups' knowledge, techniques, attitude and competence to take given responsibilities" (p.52). UNDP regards human development as processes to not only increase income but also expand people's choices through development. Since UNDP also refers to capability and its use, capability may largely overlap with capacity in human development.

⁽⁶⁾ "Recommendation by the OECD Council Concerning Environmental Assessment in Connection with Development Assistance Projects and Programs" adopted June 20, 1985, required that "The development assistance projects and programs that may potentially remarkably affect the environment shall be assessed from the viewpoint of the environment to an appropriate extent as early as possible" (I.a.). The recommendation also presents their recognition that, although developing countries are responsible for management of their own environment, assistance organizations should conduct assessment as occasion demands, and in such case, the assistance organizations should demand positive participation of the receiver countries (OECD 1995, pp. 63-64).

⁽⁷⁾ The number of participating developing countries was 13: Zimbabwe, Ghana, Yemen, Kenya, Vietnam, Bangladesh, India, Thailand, Bolivia, Jamaica, Brazil, Costa Rica, and Cote d'Ivoire.

⁽⁸⁾ As stated in the main body of this paper, CDE is characterized by "emphasis on the process" (OECD 1995, OECD 1999). There is also a view that the process equals to the product (OECD 1996). Here, however, we have to consider what the "product" is in programs or sector approaches, and what the "process" is. When assessing CDE programs, not only measuring achievements of goals of each individual project, it is important to evaluate how the impacts of the project contributed to achievement of upper-level goals (goals of the program), and what impacts the project had on other factors inside the program (Matsuoka and Honda 2001). Assessment of what effects the lessons from failures of assistance (expansion of insight and experience) brought to other programs can be interpreted as "assessment of the process," and this is also meaningful from the viewpoint of human development. Focusing on the process during assessment, establishing an assessment scheme equipped with the flow of preliminary, intermediate and post-fact assessment steps, and systematically reassessing the assistance implementation may derive more lessons. The excessive bias of this assessment method may result in depreciation of the project performance, so well-balanced assessment is important.

⁽⁹⁾ Better balance is required among the process, the product, the interactive (or learning) cycle, participation and consultation by related parties, responses to changes in situations, and flexibility.

⁽¹⁰⁾ The Japanese translation was issued by JICA (year unknown) under the Japanese title "CDE: Basic Policy to Reinforce Abilities to Protect and Manage the Environment, and Actual Examples."

⁽¹¹⁾ In the 2nd Working Group "National Capacity at the Implementation Level" at the Rome Workshop, Masahiro Ohta, a JICA specialist, reported Japan's CDE project using the case of Indonesia's Environmental Management Center (EMC). It was reported that the project approach had been employed centering on the monitoring capacity, EMC had contributed to improvement of the capacity of the Indonesian Environment Planning Agency (BAPEDAL, present Ministry of the Environment) to manage the environment, and the partnership of the World Bank, the Asian Development Bank, the Australian Development Assistance Agency (AusAID), GTZ, CIDA, and the Overseas Economic Cooperation Fund (OECF, now reformed as the Japan Bank for International Cooperation) raised the effectiveness of this project.

⁽¹²⁾ Moreover, the report concluded that the terms "Systemic," "Holistic," "Synergistic," "Multi-faceted," and "Process-oriented," that had been used to characterize CDE, carried only vague meanings, and political measures lacked consistency.

⁽¹³⁾ At the International Workshop on Danish Assistance

to Capacity Development in Environment held in Snekersten, May 12 – 14, 1998, Boesen and Lafontaine reported about CDE's indices and assessment monitoring. In this reporting, the existing project assessment monitoring was compared with the CDE project assessment monitoring, and then CDE's assessment monitoring system development was considered by dividing it into nine stages according to participating entities and their functions. The indices were divided into performance indices and management process indices, and 80 sample indices were presented. The samples included the cost of business trade between departments and divisions inside an organization (item "implementation" in the performance indices), and the number of participating entities and institutional deployment in which the entities participated (item "participation and cooperation" in the management process indices) (Boesen and Lafontaine 1998).

⁽¹⁴⁾ The institutional-type approaches in the field of international development include the commons theory and the infrastructure theory by Ostrom and others (Ostrom 1990, Bromley et al. 1992, Ostrom et al. 1993, Keohane and Ostrom 1995, and Ostrom et al. 1994). Matsuoka (1998, 2001) is also included from our studies in this area.

⁽¹⁵⁾ In addition to Aoki (2001) and North (1990) introduced above, studies in the new institutional economics include Drobak (1997), Furubotn and Richter (1991), and Rutherford (1994).

⁽¹⁶⁾ Our studies concerning development and the environment in developing countries include Matsuoka et al. (1998) examining the Environmental Kuznets Curve, and Matsuoka (2000) discussing the efficiency of environmental policy measures in developing countries. In addition, Matsuoka et al. (2000b) reports building of the social capacity development in environment and trends of environment-oriented political policies in East-Asian countries including the examination of the Environmental Kuznets Curve.

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