# Chapter 2
Perspectives for Perceiving Capacity

This chapter will consider perspectives for perceiving capacity and its basic characteristics.

Main Points for Chapter 2

Three comprehensive perspectives for perceiving capacity will be presented.

■ **Perceiving the elements that constitute capacity (capability to handle issues) (first perspective)**

Basic Model via the Characteristics of Capacity
- With the organization as the base point -
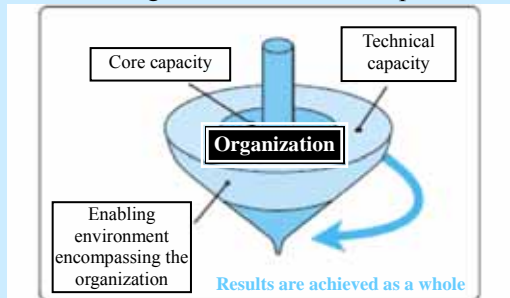
- **Technical capacity:** Techniques, particular knowledge, and tacit knowledge accumulated by the organization, etc.
- **Core capacity:** The management capabilities, will and attitude, leadership, and so on to independently resolve issues by using technical capacity
- **Enabling environment:** The conditions that allow the organization targeted for technical cooperation to utilize its capabilities and produce results

■ **Perceiving Capacity that Places the Focus on Organizations (Second Perspective)**

A perspective of providing overall assessments is conceivable by **focusing on the "organization,"** which are expected to enhance the outcomes of CD, and understanding its internal elements and external environments.

Organization's Basic Structure

- **Internal elements:** Management in a broad sense including human resources, operational processes, and organizational structure
- **External environments:** Policies and institutional environment, wider environment (economic and social environment), and inter-organizational environment

■ **Relationship between the characteristics of capacity and performance (third perspective)**

- **Basic characteristics of capacity:**
  (1) Overall system: Perceived as a correlation between individuals, organizations, and institutions and society
  (2) Visibility/invisibility: Visible capacity and the invisible capacity that underpins it
  (3) Nonlinear growth: Even if approaches for CD are taken, capacity will not necessarily change right away
  (4) Short-term change/long-term change: CD at multiple levels of a society takes long-term efforts
- **CPI model**

Overall View of Development and the CD Process

The CPI Model shows that by means of **improving Capacity (C), the CD entity produces results (=Performance (P)) on a daily basis, and that issues are gradually resolved (Impacts (I) are generated) through the accumulation of these results**.
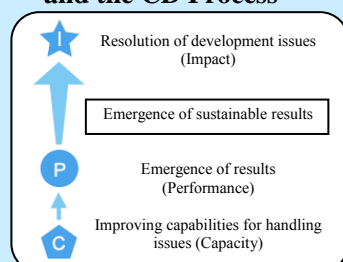
Furthermore, it is also believed that capacity is continuously strengthened by means of improving the **Enabling Environment (E)** of the country in question and strategically utilizing **Resources (R)** from outside the organizations in order to lead to visible Performance (P).

2-1 Three Perspectives for Perceiving Capacity
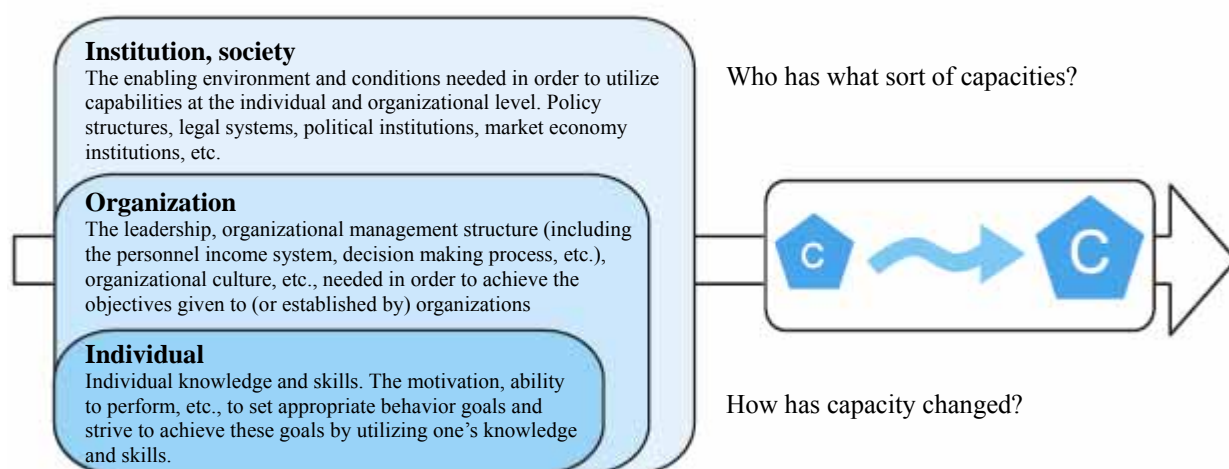
Source: Created by the authors by referring to JICA (2004)

Fig. 2-1 How is Capacity Perceived?

So far it has been illustrated that it is necessary to understand different aspects of capacities for the sake of formulating strategies for CD and CD support. What sorts of perspectives are needed in order to perceive capacity?

Three such perspectives will be presented here. To start with, if capacities are perceived as "developing countries' capabilities for handling issues (capacity) as an integrated whole at multiple levels—including the individual, organizational, and societal level," then it is important to understand the various elements that constitute these "capabilities for handling issues."

When actually performing this assessment, however, you run the risk of losing perspective of the "integrated whole" if you assess "multiple levels—including the individual, organizational, and societal level" respectively. It is essential to look at overall capacities, including the correlation between the capacities at each level, from a wider perspective.

Additionally, in actuality the capabilities for handling issues must produce specific improvements in activities and the results (performance) that serve as its outcomes, which in turn must lead to impacts like the resolution of development issues. Understanding what the relationship between capacity and results (performance) is like and the relationship between results (performance) and the resolution of development issues (impacts) is an important perspective in depicting the CD story.

These three perspectives will be described below.

◆Three Perspectives for Perceiving Capacity◆
1. Perceiving the elements that constitute capacities (capabilities for handling issues)
2. Perceiving capacities focusing on organizations
3. Perceiving the relationship between the characteristics of capacity and performance

2-2 Perceiving the Elements that Constitute Capacity (Capabilities for Handling Issues) (First Perspective)

Technical capacity	Core capacity	Enabling environment
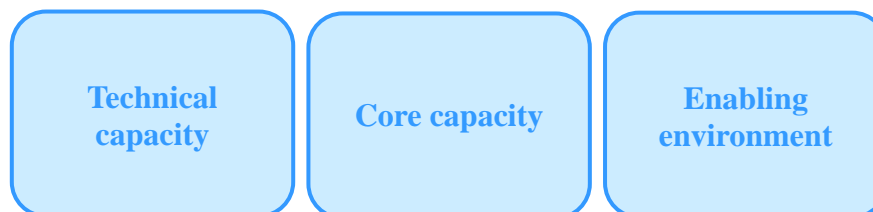
With conventional technical cooperation, the emphasis has been placed on technology transfers to the C/P organizations and individual officials. On the other hand, CD is designed to enhance various capabilities, including techniques, by emphasizing the independence to strive to solve one's own problems. In this manner, perceiving which capacities are strongly related to these "capabilities for handling issues" has become necessary for designing CD scenarios and individual projects.

As such, capacity is broadly divided into two categories. These are **technical capacity** in the form of techniques and particular knowledge, and **core capacity** which utilizes technical capacity to independently resolve issues. Moreover, there is a need for a wider perspective of looking at the **enabling environment** in which efforts of C/P organizations lead to positive outcomes and solutions of problems.

2-2-1 Technical Capacity

Source: Created by the authors

Fig. 2-2   Basic Model via the Characteristics of Capacity
- With the organization as the base point -

Technical capacity is particular technical capabilities such as **knowledge and skills (techniques)** required for an individual and organization to elaborate on their tasks. It also refers to **the tacit knowledge** (knowledge and know-how that are difficult to explicitly express in words) accumulated within the organization. There are elements that are shared across numerous sectors and fields, like basic scientific knowledge, as well as elements which constitute various types of knowledge and skills (techniques) over a limited range according

to the sector, specialized field, or occupation.

Regarding technical capacity, it is relatively easy to measure the extent to which the partner is furnished with knowledge and skills (techniques), and these can be improved over a relatively short time through training and the like. However, if the partner does not have enough core capacity to absorb further skills, which will be described next, it would be difficult to develop technical capacity.

> **[Specific Examples of Technical Capacity]**
>
> - Specialized knowledge of education such as training instructors at teacher-training schools
> - Technical knowledge, skills, and experience related to waste disposal by sanitation workers
> - Knowledge related to irrigated agriculture by farmers
> - Understanding of organizational management of irrigation associations by farmers
> - Knowledge and skills related to service by health center personnel
> - Technical knowledge and experiences accumulated within an organization by teacher training centers
> - Information collection capabilities necessary for drafting of plans by the target organization

2-2-2　Core Capacity

Core capacity is needed for producing results through the use of technical capacity, regardless of whether it is in a technical field or not. These are underlying capabilities which shape all behavior in individuals and organizations, and the central force in capabilities for handling issues. Specifically, these are the **management capabilities** for implementing projects and operations, as well as the **will and attitude** and **leadership** that influence the behavior of individuals and organizations. If you were to think about it as a cohesive whole, this could be called the practical capabilities for executing operations that are backed up by will and attitude.

In addition, within core capacity the **will for independent development (change)** promotes personal transformations and underpins behavioral patterns that strive to achieve goals. This could be described as an indispensable capability for independent problem resolution, which is the goal of CD. When considering a CD approach, it is important to focus on this area.

However, measuring the extent to which core capacity is furnished is not as simple as it is with technical capacity, and neither is it easy to improve and develop. Core capacity is largely influenced by the individual's character and organizational resources, and it is more difficult to observ apparent changes that have resulted from a CD approach. As this demonstrates, since core capacity begins from fostering a problem awareness in the person in question, changes take time and are hard to catch sight of. However, if individuals and organizations as a whole are furnished with a mindset that is cognizant of core capacity over a course of repeated trial and error, then this holds the potential for enormous growth.

[Specific Examples of Core Capacity]

- Capabilities to define and analyze the institutional and policy environment or social system within which one is situated
- Capabilities and judgment for determining needs and key issues
- Capabilities and judgment for formulating strategies suited to needs
- Capabilities and faculty for effectively and sustainably using resources and implementing activities in line with strategies
- Capabilities and coordination abilities for handling and resolving conflicts of interest
- Capabilities for creating cooperative relationships with other concerned parties
- Capabilities for monitoring and providing feedback on progress, and flexibly changing activities to achieve goals
- Capabilities for continuously acquiring capabilities and skills for coping with new issues
- The will to strive to acquire capabilities for independently resolving problems

Source: Authors' additions to UNDP (1998)

2-2-3　Enabling Environment

The enabling environment discussed here refers to the **conditions that make it possible for the organization targeted for technical cooperation to utilize its capabilities to produce results**.

Specifically, this includes policy frameworks, legal systems, political institutions, and market economy institutions, with resources such as physical assets, capital, and social infrastructure also perceived as the enabling environment. Furthermore, elements like the unique informal systems within the culture and society of the country and involvements by stakeholders outside the organization also have a significant effect. It could also be said of the enabling environment that whether or not incentives exist at the social and organizational level significantly affects the utilization of capabilities by individuals and organizations. While it is presumed that an enabling environment has been more ore less given in most of the countries, its changes may occur at the time of major institutional development or political and social reforms. Therefore, for changing the enabling environment, it is presumably expected that the technical capacity and core capacity of the organizations building institutions and of stakeholders representing communities have been developed accordingly.

[Specific Examples of the Enabling Environment]

- Administrative systems for budgets to execute projects and ensuring these budgets
- Provision of infrastructure, including roads, ports, and power facilities
- Political decision-making functions that are based on democracy
- Regulations and laws accompanying effective sanctions
- The ethical notions and social obligations of the general public
- Behavioral modalities and values that are culturally supported and recognized

Table 2-1 Three Types of Capacity Characteristics

	Technical capacity	Core capacity	Enabling environment
Main content of capacity	<Individuals, organizations> Knowledge, skills (techniques), knowledge and techniques that can be built up and used by organizations	<Individuals, organizations> Will and attitude, awareness, an organizational configuration that makes optimal use of assets, management methods, and leadership. As well as the work capabilities to be able to recognize issues and draft, implement, and evaluate strategies by combining these.	<Organizational, institutional, social systems> Formal and informal institutions, social capital, social infrastructure, physical assets, human assets
Connection with results (Performance: P)	Specific capabilities required within specific fields	Driving force for producing results. Capabilities for sharing across all technical fields and underpinning capabilities for independently handling issues	Conditions upon which the production of results by individuals and organizations is predicated
Degree of difficulty for improvements	Relatively easy	Relatively difficult	Diverse circumstances are conceivable
Points to keep in mind about the characteristics	Updates suited to technical progress and environmental changes are needed. Obsolescence is rapid.	A higher dimension of capabilities is required in accordance with individual and organizational growth.	Of the resources supplied from outside, some are consumed and others are internalized.
Relationship between the three	If core capacity is insufficient then technical capacity will not be furnished at a requisite and sufficient level. Even if this is improved to some extent then sustainable results cannot be produced. In addition, even if technical capacity and core capacity have been furnished, the manifestation of results will be limited if the environments and resources are lacking. In this manner, the three capacities produce results of a sort as a whole.		

Source: Created by the authors by referring to UNDP (1998), Lavergne and Saxby (2001), JICA (2006)

2-3　Perceiving Capacity that Places the Focus on Organizations (Second Perspective)

Assessments that place the focus on organizations	**How are organizations perceived?**
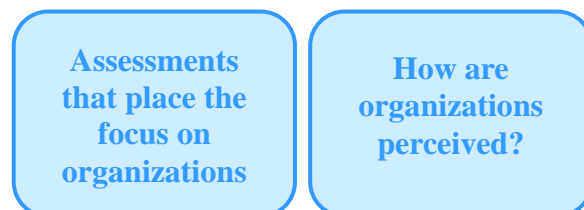
2-3-1　Assessments That Place the Focus on Organizations
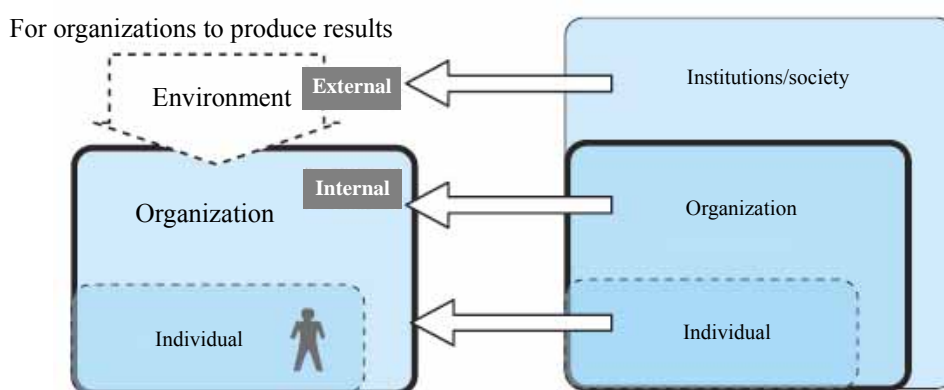
Source: Created by the authors

Fig. 2-3　Assessments That Place the Focus on Organizations

In actually carrying out CA, if individuals, organizations, and institutions and social systems are assessed individually, then it would not be sufficiently able to grasp the characteristics of this holistic capacity, or comprehensive perspective for CD.

Therefore, it is important to perform overall assessments by focusing on the organization which is the target of technical cooperation and is expected to achieve CD results.

In such cases, the relationship between the organization's capacity elements and institutions and social systems are thought in terms of internal elements and external environments. This makes it more clear the fact that organizations do not necessarily produce results as independent entities, but rather they do so while being influenced by the various environments surrounding them. Such understanding also makes it possible to assess both changes of capacity and possible changes of conditions influencing the progress of a give project.

2-3-2　How Are Organizations Perceived?

When carrying out assessments through a perspective that places the focus on organizations, it is extremely beneficial to understand the organization's basic mechanisms and the behavior of the individuals within an organization.

An outline of the following items will be given below: (1) The human resources who comprise the organization, (2) Broadly defined management that coordinates work processes and the organization's structure, (3) External environments and elements that affect the organization, and (4) What inputs (resources) are deemed necessary for the organization to produce results.

BOX 2-1　Basic Structure of the Organization

Organizations of all sorts come into existence via reciprocal relationships and mutual interdependence with the various environments surrounding them. Therefore, a line of reasoning has become common which says that **organizational capacity is to be perceived by focusing not only on the organization's internal elements, but also on the relevance with external environments such as the society, policies, and institutions within which the organization operates**.

This allows you to perceive the manner in which resources inputted from outside have an effect on the emergence of results.
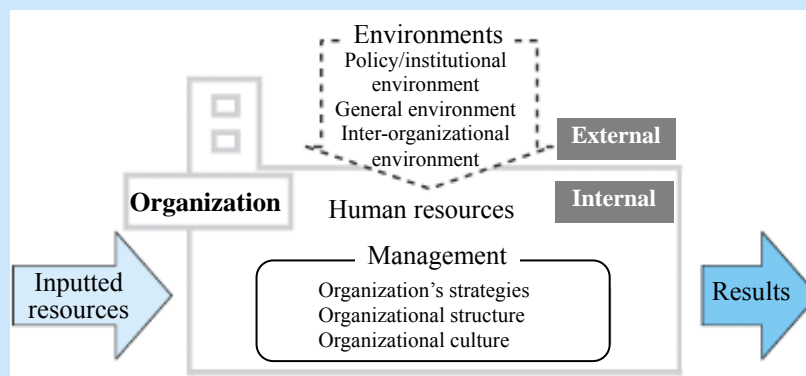
Source: Created by the authors by referring to Nonaka (1978), DFID (2003)

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(1)　Human Resources

Human resources widely refer to specialized individuals, relationship among them, and leaders and so on. The various capabilities of these human resources form the foundation for executing strategies, which is an essential basis of organizations to function.

Capacity of individuals at the organizational level largely influences system development at higher levels such as instutions or the society. In this sense, quality of human resources is profoundly related to capacity of individuals.

When focusing on human resources within CA, it is essential to assess a number of issues while bearing the distinction between technical capacity and core capacity in mind. Such issues include: Has an organizational structure been arranged so that individual capacity is utilized to the utmost extent within the organization? Is human resource management undertaken that takes the individual's motivations and values into

consideration? Has the organization been working to reinforce incentives of its workers?
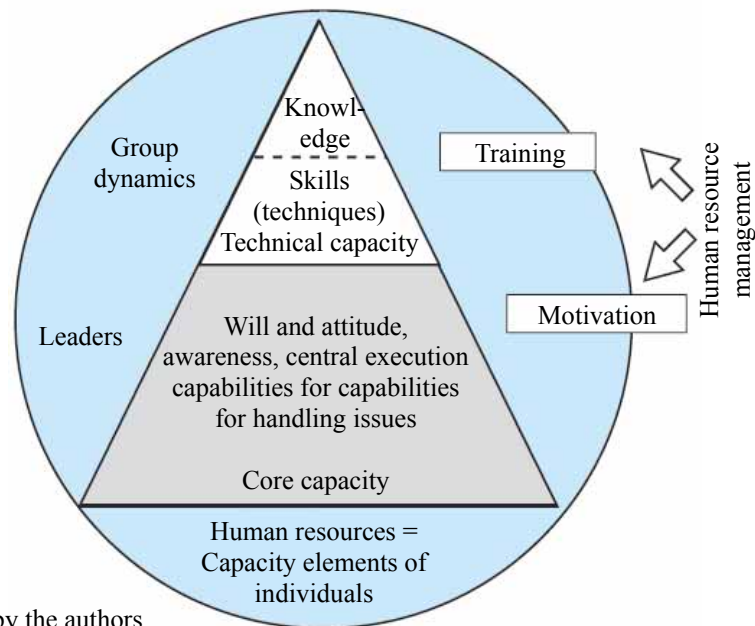
Source: Created by the authors

Fig. 2-4　Human Resources and Related Matters

(2)　Management

This section, taking up the concept of management broadly, will describe how to understand strategies, structures and culture of organizations.

The organization's strategies are formulated through a review process of confirming "Where we are now" and clarifying "Where we should head to" together with the scope of goals to find "What we should do to reach there." Through this, management at the strategic level can be measured through such a factor as how said organization's mission is related to development strategies and sector strategies, and whether it has communication tool that shares leadership and decision making modalities as well as principles and basic policies.

The organizational structure is designed according to strategies in an optimal manner for assignment of individual duties and implementation of plans. Organizational structure contains elements like the division of labor and collaboration, the chain of command, management scope, and decision-making authority. Carrying out activities to improve the capabilities of constituent members and the organization through human resource management and proper leadership is also included in this, as is conduct that dynamically ties individuals, groups, and organizations together. In addition, far-sighted management for examining cooperation with affiliated institutions, determining external environments, and performing risk analyses is also included in this level.

Conversely, when changes in strategies may bring about new issues, and the organizational structure must be altered accordinglyy to resolve them. At the same time, the aim is to accomplish these strategies by means of organizations being open systems,

based on which they alter their strategies and organizational structure and make them responsive according to changes in the environments surrounding them, or approaching these environments in a more active manner.

The Organizational culture refers to the values, behavioral patterns, and so on which are shared among and fostered by the individuals comprising the organization as well as the organization as a whole. It is characterized by the fact that is not substantiated in the same way that things like rules are (tacit culture).

If the organizational structure is the organization's hardware, then it may be said that the organizational culture is the organization's software. While the organization's strategies and organizational structure can potentially change all in one day, the organizational culture is difficult to reform simply because it is deeply ingrained in the individuals and within the organization as a whole. The problem is whether the organizational culture is advantageous for executing strategies, or whether the organizational culture will act as a shackle. Creating a good organizational culture is the most important aspect for an organization.

It is generally said that in terms of the temporal sequence, the organizational structure is created according to the strategies; then the organization's values, human resources, and skills are cultivated; and finally the organizational culture is fostered. The organizational culture cannot be changed all of a sudden, therefore it is necessary to manage gradual reform.

(3)   External Environmental Elements that Affect Organizations

Enabling environment elements ultimately dictate outcomes of performance along with capacity development of both the individuals who consititue the targeted organization and the organization itself. These include the institutional and policy environments which largely determine directions of development strategies; inter-organization environments encompassing relationships with other groups and organizations; and general environments which include politics, economy, culture, and society. From the perspective of CD, it is important to make assessments of these kinds of environment and of how development assistance elaborates on these to bring about better outcomes.

The policy and institutional environment includes policy frameworks, legal systems, and political institutions. These determine roles of the organization while simultaneously serving as major prompts for and constraints on the manifestation of results. It goes without saying that it is necessary to take a broad overview of this environment in advance prior to the drafting of CD strategies in the CA process.

The general environment[6] includes market economy institutions, the informal institutions within said society, the national cultural background, and so on. In actuality, developing countries tend to house a variety of negative elements, such as fragile governance and corruption, which oftentimes cannot be easily eradicated.

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[6] Nonaka (1978) was referred to in part.

As will be described in detail in Chapter 3, for CA it is necessary to clearly determine from its initial stage how the project will engagen in CD in what sort of environments, by using tools such as sector environment scanning.

Table 2-2 gives examples of constituent elements for general environments by employing the perspective of a PEST Analysis.[7]

Table 2-2   Examples of Institutions, Policies, and the General Environment

■ Politics	■ Economics	■ Society	■ Technology
Environmental regulations and protection Tax policies Regulations and restriction on international trade Laws on contract enforcement Consumer protections Employment laws Government's structure/attitudes Competition regulations Political stability Safety regulations	Economic growth Interest rates and financial policy Fiscal expenditures Unemployment policies Taxation Exchange rate Inflation rate Business cycle stages Consumer confidence	Income distribution Population statistics, rate of population increase, age distribution Labor/social mobility Lifestyles Attitudes toward work or careers and leisure time Entrepreneurial spirit Education Methods, excessive popularity Health awareness and extent of welfare Informal institutions, culture and customs	Government's research outlays Companies' focus on efforts for technology New inventions and development Technology transfer rate Cycle and acceleration of technology regression Energy use and cost Information technology Internet Mobile technology

Source: Created by the authors by referring to the website "12manage – E-learning community on management," etc.
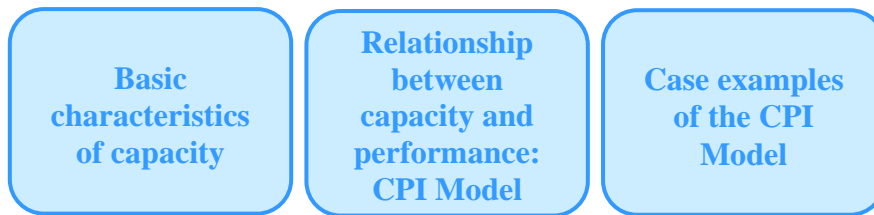
The inter-organizational environment has a bearing with how the relationships between the higher ranked organization and affiliated organizations, as well as with other stakeholders, affect the drafting and execution of CD strategies. It includes people's participation in decision-making or projects, local network and social capital of stakeholders, and their ownership of the CD process. To understand these, CA requires to grasp all the stakeholders and the relationships among them.

(4)   Inputted Resources

These are mainly resources that are inputted from outside in order to conduct projects, which are intellectual resources, physical resources, financial resources, human resources, and so on. Some of them are internalized to become the organization's asset, such as its human resources, and some of them are consumed, such as its financial resources. For CA, assessments are required from the perspectives of: To what extent are resources being stably supplied? How is the balance between human resources and operating costs? Are the budgetary systems effective? Do results fully payback expenditures?

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[7]PEST Analysis: Framework for conducting a macro external environment analysis. PEST takes the first letters from Politics, Economics, Society, and Technology.

2-4 Perceiving the Relationship between the Characteristics of Capacity and Performance (Third Perspective)

<table>
<tr>
<td>Basic characteristics of capacity</td>
<td>Relationship between capacity and performance: CPI Model</td>
<td>Case examples of the CPI Model</td>
</tr>
</table>

2-4-1 Basic Characteristics of Capacity

How is capacity used by the organization to produce results (performance) in light of the above? This section will explain what sort of characteristics capacity has in the form of the following model of its four basic characteristics.

◆ Basic Characteristics of Capacity ◆
Basic characteristic (1) The overall system
Basic characteristic (2) Visibility/invisibility
Basic characteristic (3) Nonlinear growth
Basic characteristic (4) Short-term change/long-term change

Basic Characteristic (1) The Overall System

What is important with understanding CD is a comprehensive perspective that considers the mutual interrelations among the various levels of individuals, organizations, and institutions and social systems. This indicates that partial improvements at a single level will not necessarily lead to raising overall capabilities for handling issues. In general, development of capacity may be unfolded from individuals to their organizations in stages. On the other hand, changes in oranizations or insitutions may also stimulate behavioral changes of individuals. (refer to Figure 2-5).
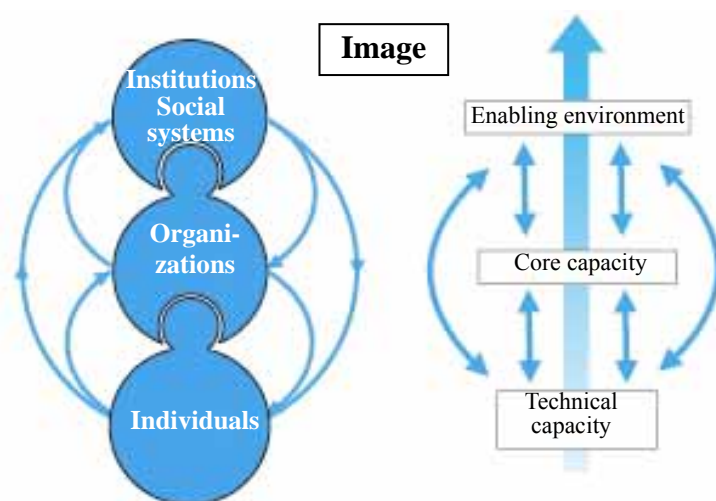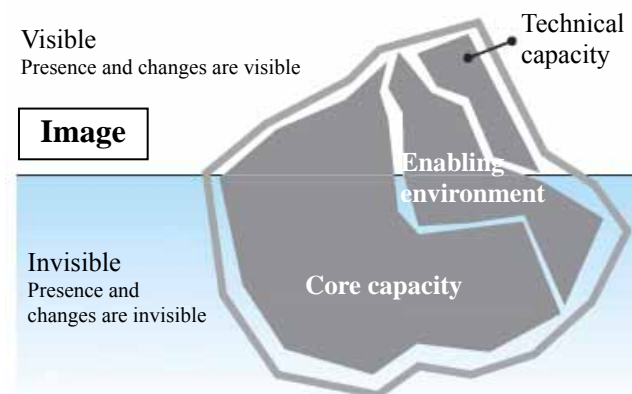

Source: Created by the authors

Fig. 2-5   Capacity Of the Overall System

For example, for researchers to make use of their knowledge and skills to the utmost extent in handling issues, then their working environment as the research institute, the country's research system in their specific field, and conventional research practices cannot be ignored. Furthermore, for waste management system to properly function, it is essential for related individuals, groups and organizations to understand the rules and regulations and to promote their parcitipation in proper disposal. For those organizations particuraly, obtaining technical background and basic infrastructure is also critical.

In this manner, capacity comes about through a reciprocal relationship among the various levels as a whole. Individual assessment of capacity at different levels or uncoordinated efforts for organizational capacity improvement will not bring about good results. It is necessary to constantly recognize capacity as an integrated whole.

Basic Characteristic (2) Visibility/Invisibility

Technical capacity in terms of the extent to which individuals and organizations are endowed with knowledge and skills produces clear differences in carrying out operations. Because of this it is relatively easy to perceive it in a snapshot-like manner over a short time period. Conversely, core capacity pertaining to the qualities of individuals and organizations, such as management skills, will and attitude, and awareness, is not equally endowed, and it can be difficult to find problems and their changes over time. Accordingly, observations must be carried out over questions for some time such as: Inherently what is making the current situation? And how has it changed or been improved? However, it is important to recognize that visible capacity does not exist solely on its own, but that it is underpinned by invisible capacity such as will and attitude as shown in Figure 2-6.
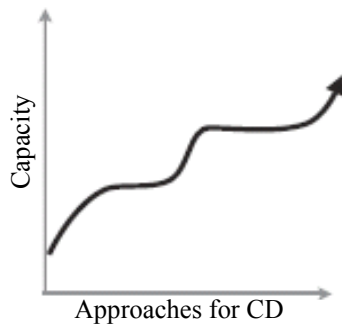

Source: Created by the authors

Fig. 2-6   Visibility and Invisibility of Capacity

Accordingly, when survey missions attempt to accurately perceive capacity as a whole through ex-ante evaluations and mid-term evaluations of technical cooperation projects, they must work to look over not only visible results, but also invisible capacity. This is to be done by the participant observers through sufficient hearings with those involved in the project, individual interviews of the C/P, focus group interviews, and examining records of activities.

Basic Characteristic (3) Nonlinear Growth

When approaches for CD (project and resource inputs) are carried out, some capacities may start having effects in a relatively short-term, and others may not. In particular, growth in core capacities such as management skills, will and attitude, and awareness has such a nonlinear tendency to develop (refer to Figure 2-7).

In reality, improvements in capacity oftentimes do not appear linearly
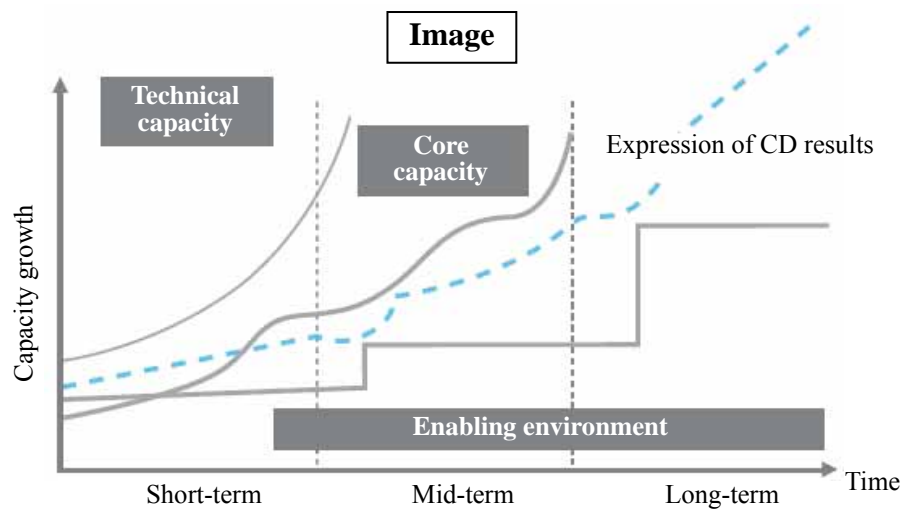

Source: Created by the authors

Fig. 2-7　Image of Capacity

For example, technical capacities like the level of technicians' skills and knowledge improve to a certain extent over a short time period through CD approaches by training. But oftentimes the mentality of these technicians, which largely affects the implementation of operations, and the management capabilities of the research institute do not change right away. This is because core capacities are complex, and have a nature whereby they can only be improved by following a complicated course that contains such steps as learning through try and error, inner reflection, and self-development; not just through the straightforward input of CD approaches. This is also because, as with capacity at the organizational level, they contain a mechanism whereby capacity on the part of the organization will not come to take shape until the level of the constituent members as a whole has risen to a certain extent.

This characteristic, coupled with its characteristic of invisibility, produces situations where it is difficult to judge improvements in capacity brought by CD approaches.

Basic Characteristic (4) Short-Term Change/Long-Term Change

Thus far we have taken a look at a part of characteristics of capacity, and now we will consider how growth (CD) and results for capacity as a whole are manifested while referring to the previous chapters.

Figure 2-8 illustrates the growth in capacity over time. Technical capacity can be thought of as developing over a relatively short time period and in an exponential, rising manner. However, in the early stages when those involved in the project have little problem awareness, or little sense of responsibilities about their problems, their low core capacities may be major obstacles to develop organizational and institutional capacities as a whole. Later on, as practice is accumulated core capacity changes moderately. As opposed to this, the enabling environment is likely to improve triggered by a new legislation or an application of a new system. And yet, this improvement is generally brought by development of technical and core capacities of individuals and groups.

Source: Created by the authors

Fig. 2-8   Capacity Growth as a Whole and the Manifestation of CD Results

Let's take a vocational training project as an example. With the implementation of vocational training, its effects on human resources in that specific industy can be anticipated as much as practices are made. However, this will not enhance managerial skills by itself for the training school and an organization in which the trainees are employed. Furthermore, the accumulation of a considerable amount of technical performance and commitments from the stakeholders will likely be necessary to make significant changes in training systems to foster human resources as well as changes in the employment of the industrial sector and society as a whole.

This characteristic whereby capacity as a whole is not easily changed is one of the major reasons for why long-term commitments are necessary for CD. But this does not mean that donors will simply implement CD support over a long-term period. If CD shows improvements in the partner country's independent capabilities for handling issues, then CD support from donors will have to be premised that it has an end in the future. It is then necessary to understand characteristics of capacity such as these, and to consider creating mechanisms for developing countries to continue their efforts in CD at the termination of projects.

2-4-2   Relationship between Capacity and Performance: CPI Model

**(1)   Basic Model for Capacity, Performance, and Impacts (CPI)**

What is ultimately sought as a result of CD is to resolve development issues of developing countries (reducing maternal and child mortality, increasing literacy, etc.). Its process generally starts from setting a number of specific, visible outcomes to achieve (improving health administration services, improving class content at elementary schools, etc.), then a concrete project goal to encompass those outcomes will be established accordingly in the form of technical cooperation.

But this is not to imply that development issues will be resolved if only visible results are achieved. Temporal positive outcomes brought by donors' resources are unlikely to last, thus for their sustainabilities the country in question must focus on the capacity for autonomously resolving issues (refer to Figure 2-9).

Here the course of CD up to the resolution of development issues will be considered, with this process being described as the **CPI Model** (refer to Figure 2-10). For this, the resolution of development issues will be regarded as the **Impact (I)**, the visible results of improvement in activities and their outcomes as **Performance (P)**, and the developing countries' capabilities for resolving issues to elicit this performance as the **Capacity (C)**.

Again, CD has its goal in resolving development challenges. The CPI Model shows that by means of improving Capacity (C), those who are in the CD process bring results (=performance) on a daily basis, and that issues are gradually resolved (impacts are generated) through the accumulation of these results.

When it comes to actual technical cooperation projects, there are cases that focus on Performance (P) as their ultimate goal, as well as cases that set improving Capacity (C) as a goal in anticipating enhancement of Performance (P) and Impacts (I) in the future. For both of these cases, it is important to clarify which Capacities (C) should be worked on. It is also essential to analyze the current status on the basis of growth mechanisms that are in line with the general concept of CD, and consider the flow for this, which could be called the CD story.
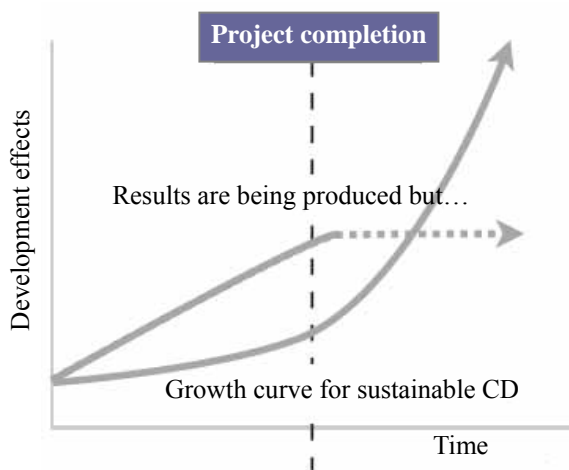
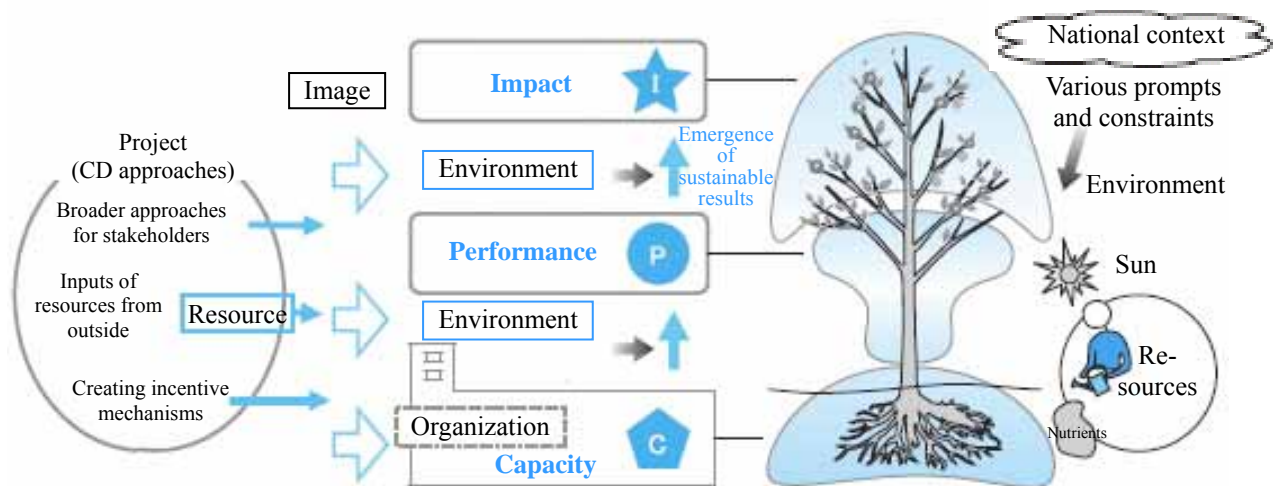Source: Created by the authors

Fig. 2-9   Growth Curve for CD
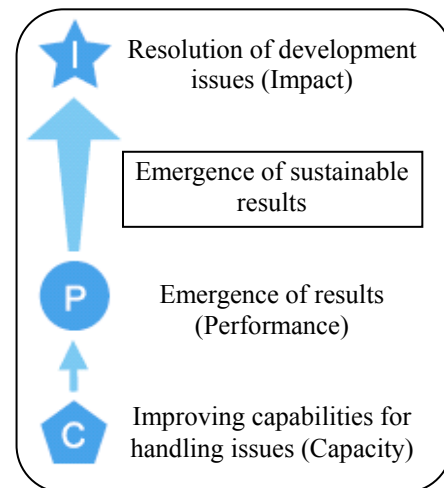
Source: Created by the authors

Fig.2-10   Overall Image of Development and the CD Process (CPI Model)

Figure 2-11 describes the relation between CPI and CD in greater detail. In the figure the CPI Model is explained by a tree formation to consider modalities for CD within a specified organization. It is expressed through a flow wherein the image of the tree gradually taking root is likened to improving Capacity (C), the trunk extending and branches unfolding equals Performance (P), and bearing fruit equals the Impact (I).

Two other elements in addition to CPI are also described here. One of these is elements which correspond to the enabling environment mentioned in 2-2-3. This is expressed in the figure as environmental factors that either constrain or promote the manifestation of results in the capacity of the targeted organization. Naturally, performance is one of environmental factors when it eventually contributes to the resolution of development issues (impacts).
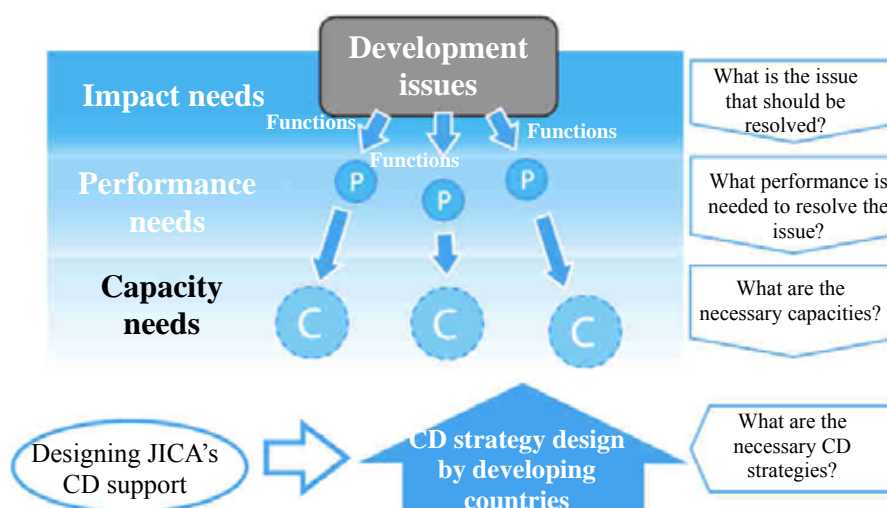

Source: Created by the authors

Fig. 2-11   CPI Model

In addition to strengthening technical and core capacities, it is also important to work on arranging better enabling environment to facilitate Performance (P) in visible ways. Specifically, examinations are undertaken of what sort of approaches should be taken for the concerned parties and the institutional and social systems (internalization), as well as what sorts of considerations are needed for the historical and sociocultural background of the country and region.

The other element is the resources for CD, which can be said the fuel to facilitate its process. From the perspective of the specified organization (targeted organization), this is expressed here as the inputted resources, human resources, technology, and knowledge. It is desirable to ultimately ensure a stable supply of these inputs for the country's systems and gradually turn them into capacity of the country by making strategic use of them.

(2)   The CPI Model and CD Story

To plan effective strategies for resolving development issues, careful attentions must be paid to (I). After this, it is necessary to examine what sorts of results (P) are required to resolve the issues and what sorts of capacities (C) should be improved and in whom for this sake (please refer to Chapter 3 for details). Thinking along the lines of the CPI flow in this manner allows you to focus on the capacities that should essentially be targeted in the approaches, while also enabling you to establish a tentative hypothesis for the course up through the resolution of issues (CD process).

Source: Created by the authors

Fig. 2-12　Designing CD Strategies through CPI Models

But the actual CD story does not necessarily simply flow from C ⇨ P ⇨ I as shown in the CPI basic diagram. In many of the cases, it is necessary to specify the capacities to be worked on by taking a more comprehensive view of CPI as intertwining various types of C and P leads to the impact of resolving development issues.

Moreover, capacity in the form of capabilities for handling issues must not end just with the resolution of the specific issue currently being faced; it must also serve as capabilities enabling responses to development issues in the future.

For example, as socioeconomic development progresses the development issues in the health and medical care sector change from conventional health issues to newly emerging problems resulted from lifestyle changes and the aging of the population. Put another way, the result of improving health systems must also contain capabilities that enable responses to future issues as types of disease become more diverse. When specifying capacities, it is necessary to look toward the various issues that the country is likely to encounter in the future, and not just those issues that are currently gone through. Forseeing potential challenges a country may face, CA should examine who would be responsible for coping them and what sort of capacity is necessary to do so.

(3)　Mid and Long-Term Scenarios for CD and the Program Approach

For CD that follows a long process of changes from C ⇨ P ⇨ I, CD goals that are premised on scenarios for mid to long-term CD initiatives by the developing countries and projects that serve as the means for this have the same relationship as a forest with its trees. Large-scale project implementation is not desirable in consideration of the stringent financial situation of the recipient countries and JICA's limited budgetary scope. Even so, it is necessary to examine strategic cooperation that would ensure sustaining and expanding effects of technical cooperation.
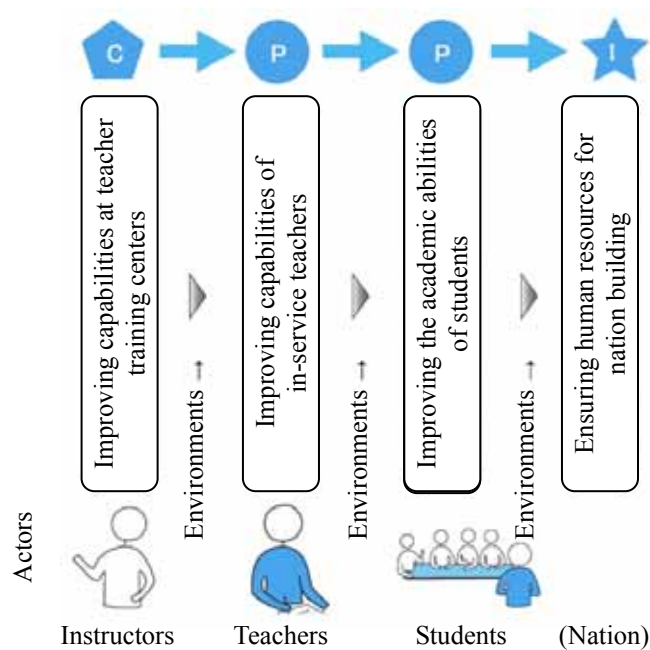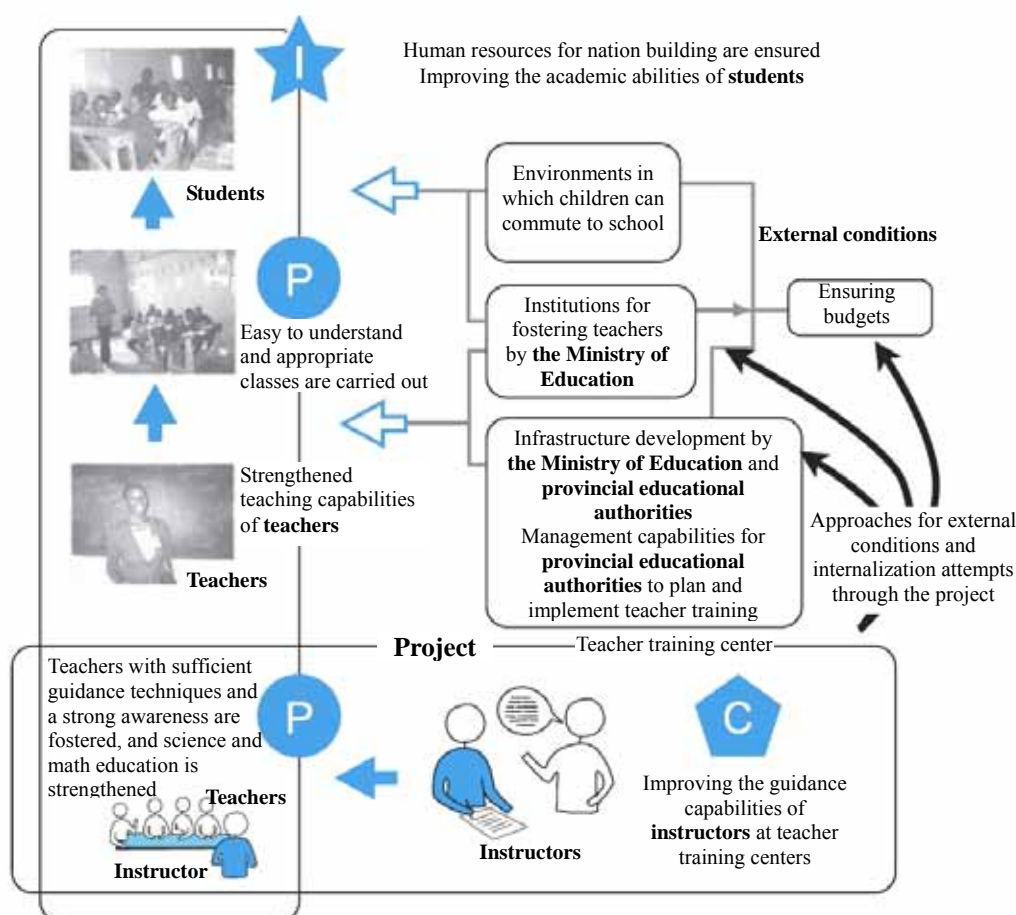
Source: Created by the authors

Fig. 2-13　CD Story

In most cases, such comprehensive and strategic support for CD is beyond what a single donor can offer. A Program Based Approach whereby multiple donors provide systematic support for the policy initiatives of the government itself of the country in question is considered to be important. In implementing projects and programs, JICA is sought to clearly define for which part of the program it should be responsible, and how its cooperation contributes to making positive outcomes, as it extends CD at the national, sector, and regional levels.

How such projects will lead to the resolution of development issues must constantly be kept in mind at the stage of designing individual projects through a CD philosophy.

Accordingly, it is necessary to perceive an overall image for creating a single system to achieve mid to long-term goals (program level results, economic and social impacts) within the society of the developing country (all-encompassing society comprised of the interaction between the public sector, civil society, private sector, etc.).

2-4-3　Case Examples of the CPI Model

Source: Created by the authors

Fig. 2-14　CPI Example (1) Education Support


<Example of Education Support>

We will take up teacher training projects for improving the quality of math and science education. For this example, improving the teaching capabilities of teachers is the project goal. Two stages of capacity improvements are incorporated into the project scope to train in-service teachers. First, the fostering of instructors for teacher training centers is carried out, and then the instructors give guidance to the in-service teachers.

This develops a scenario in which improving the capacity of teachers, having easily comprehensible classes, will contribute to higher academic abilities of the students. But in order for this to produce the impact of resolving development issues, it is necessary to improve the capacity of multiple working actors, which is one of environmental factors surrounding the project. For example, without infrastructure development by the Ministry of Education and provincial educational authorities, improvements in management capabilities for provincial educational authorities to implement teacher training, and institutional improvements for fostering teachers by the Ministry of Education, then the continuous implementation of training after project completion is barely possible. Because of this, how to handle such external conditions should be taken into consideration for the project. Drawing

attention to the project results and making direct and indirect appeals to those in charge of policy should be adopted as important management items.

To reach a resolution of the issue, it is necessary to improve the capacities of multiple actors while at the same time setting in place a variety of environmental factors. Figure 2-14 broadly shows what sorts of results should be ultimately produced by improving the targeted capacities through the project, as well as what type of environmental factors should be taken into consideration.
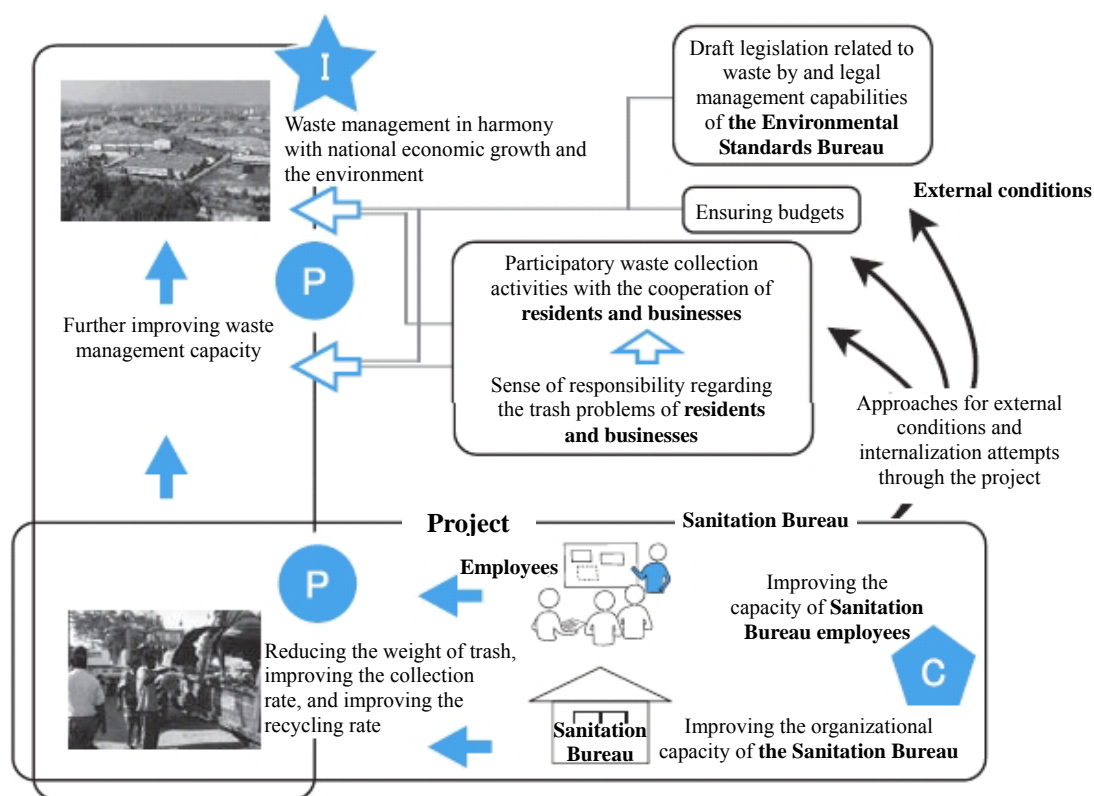
Source: Created by the authors

Fig. 2-15　CPI Example (2) Waste Management

<Example of Waste Management>

Along with economic growth in developing countries, appropriate and efficient waste management has been a major issue. Here a project and CD course which have waste management that is in harmony with national economic growth and the environment as their ultimate goal are expressed as a simple model.

Results in a visible configuration (performance) that include reducing the weight of trash, improving the collection rate, and improving the recycling rate have been fixed as the project goals. These are to be carried out by improving the technical capacity for waste management of the sanitation bureau employees, improving capacity in the form of management capabilities for the Sanitation Bureau as an organization, and improving capacity at a social level in the form of resident participation and cooperation.

At the same time, the cooperation of residents and businesses in waste management is indispensable for further improving these results and tying them in with the overall goal of waste management in harmony with national economic growth and the environment. The development of laws related to waste management and the ensuring of budgets are also insufficient under the current state of affairs. Because of this, efforts such as seeking out collaborations with the affiliated institutions starting from the project implementation period, and working on movements by the Environmental Standards Bureau to develop laws, are required.

It is a relatively short process in which improving capacity turns into better performance. To have an impact, however, it requires a wide range of levels is considered necessary for leading to impacts, and approaches for the capacities of a variety of actors are required as well.
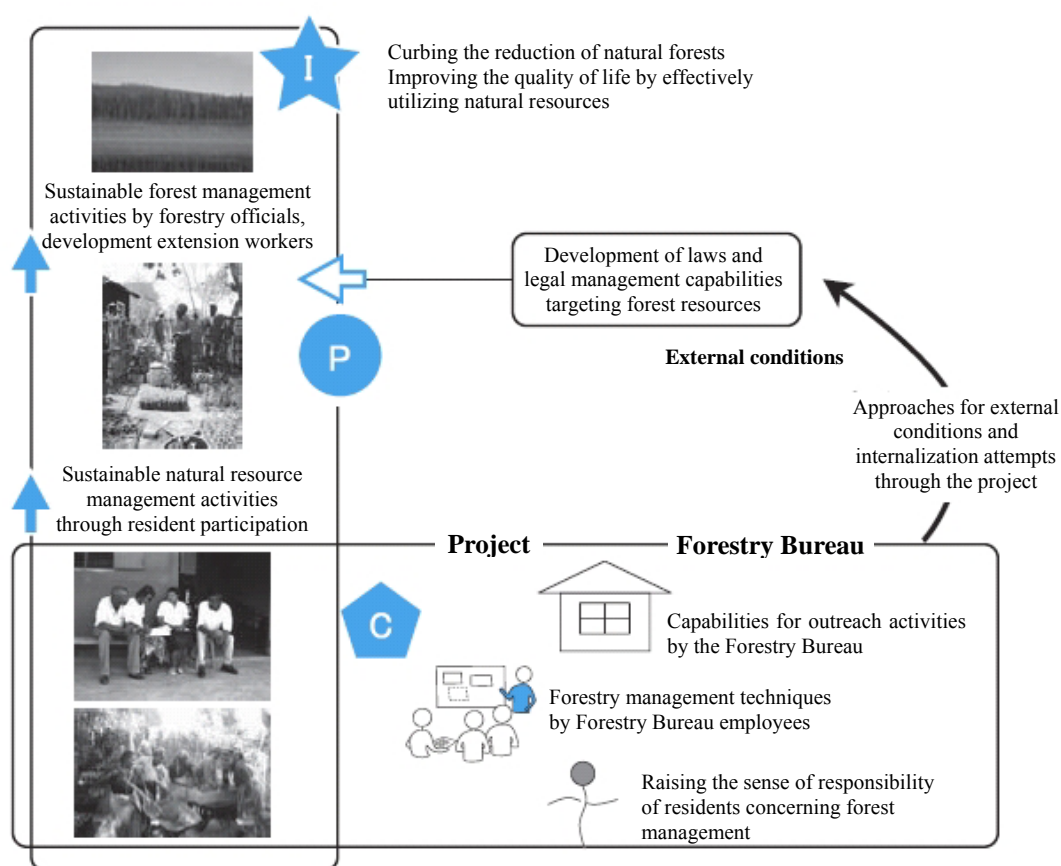
Source: Created by the authors

Fig. 2-16   CPI Example (3) Forest Resources Management

**<Example of Forest Resource Management>**

The Forest Management Program by Local Residents aims to preserve forests and improve the lives of residents living on publicly owned forest. The project includes activities to provide guidance on forest management techniques to the two major actors of Forest Bureau personnel and residents. Specifically, it targets capacities such as knowledge and project implementation cooperation for forest management by Forest Bureau personnel, and awareness of forest management by local residents.

A certain degree of results were produced in the project period. However, support for related institutions is needed, with institutional reforms like applying the results of the project to other regions also needed in order for the regional Forestry Bureaus and residents whose capabilities were strengthened to continue with the Forest Management Program by Local Residents. This is designed to lead to curbing the reduction of natural forests and improving the quality of life by further promoting the conservation, restoration, and sustainable use of forest and land resources. The relationship between the capacities of concerned parties other than those in the project and its performance is perceived based upon a perspective stemming from such comprehensiveness.

Transfers of afforestation technology and tree planting had been implemented in this country in the past, but issues remained with the methods for forest management led by the state. Therefore, from lessons incorporating perspective of ownership, the plan emphasized a variety of production activities and the strengthening of resident organizations. This is designed to enhance a sense of responsibility and incentives in the community's management of afforested areas for forest reclamation. It is also designed so that local residents make full use of incentives such as forest and land usage rights through the Forest Management Program by Local Residents, thereby leading to improvements in their lives.

In this manner, it is important to specify a variety of capacities from the perspectives of comprehensiveness and ownership and to attempt to understand the relationships for CPI.
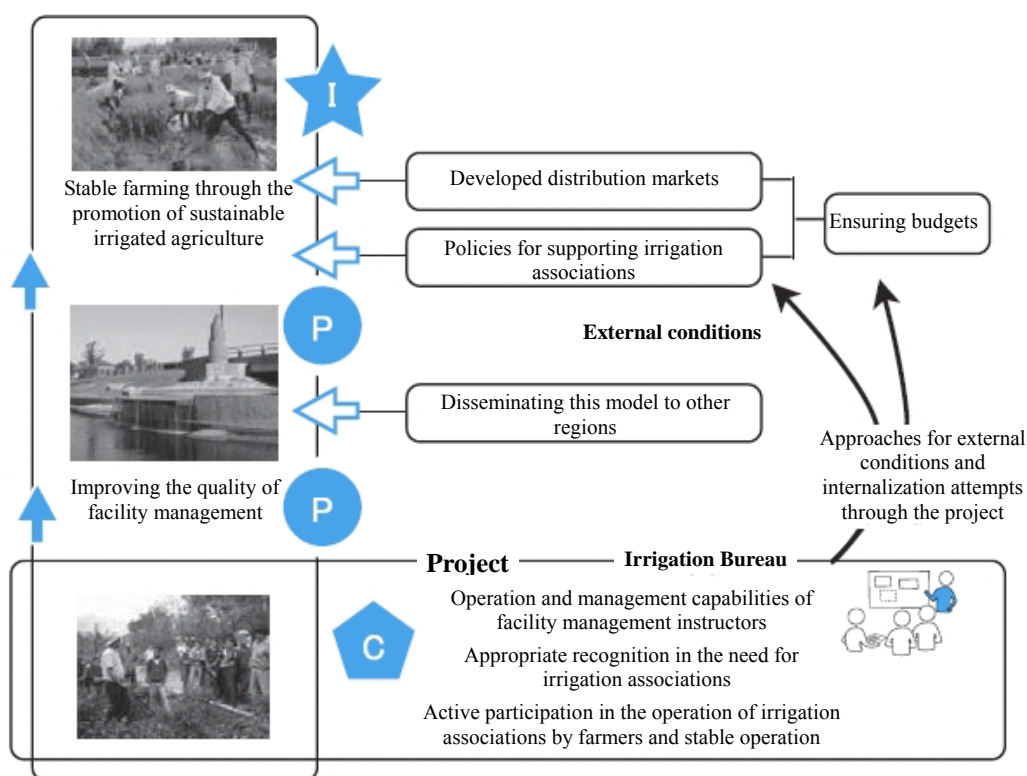
Source: Created by the authors

Fig. 2-17   CPI Example (3) Irrigated Agriculture

<Example of Irrigated Agriculture>

In this case example, policies for irrigation system operation and the transfer of operation and maintenance to irrigation associations were under implementation in order to lessen the financial burden borne by the government for the operation and maintenance of irrigation facilities.

But for the majority of these irrigation associations, the inclinations of farmers were not adequately understood in the formation of these associations, and the benefits from bearing the costs for water usage were not promised to the farmers. Because of this, they have not effectively functioned, and the quality of facility management has declined as well. Moreover, the local governments, which are responsible for providing support for the activities of the irrigation associations, are short on human resources with technical ability and experience

At present, capacity in the form of the technical abilities of the facility management instruction staff at the local government, the water management and irrigation facility management capabilities of the irrigation association members, and awareness related to both of their cooperative structures is acting as a major bottleneck. For this reason, the aim is to strengthen the irrigation associations and improve the quality of facility management through technical guidance. Such guidance includes water management and irrigation facility management techniques for local government personnel and farmers.

But this alone will not lead to the development goal of stable farming through the promotion of sustainable irrigated agriculture. To ensure that irrigation association support is continued after project completion, it will be necessary to seek policy improvements while simultaneously upgrading distribution for agricultural produce, with ensuring budgets being vital for this.

Here we would like to reaffirm the necessity of constantly considering what the ultimate impacts will be, identifying the various different capacities, and examining approaches and internalization to the extent possible despite the limits in the project scope.
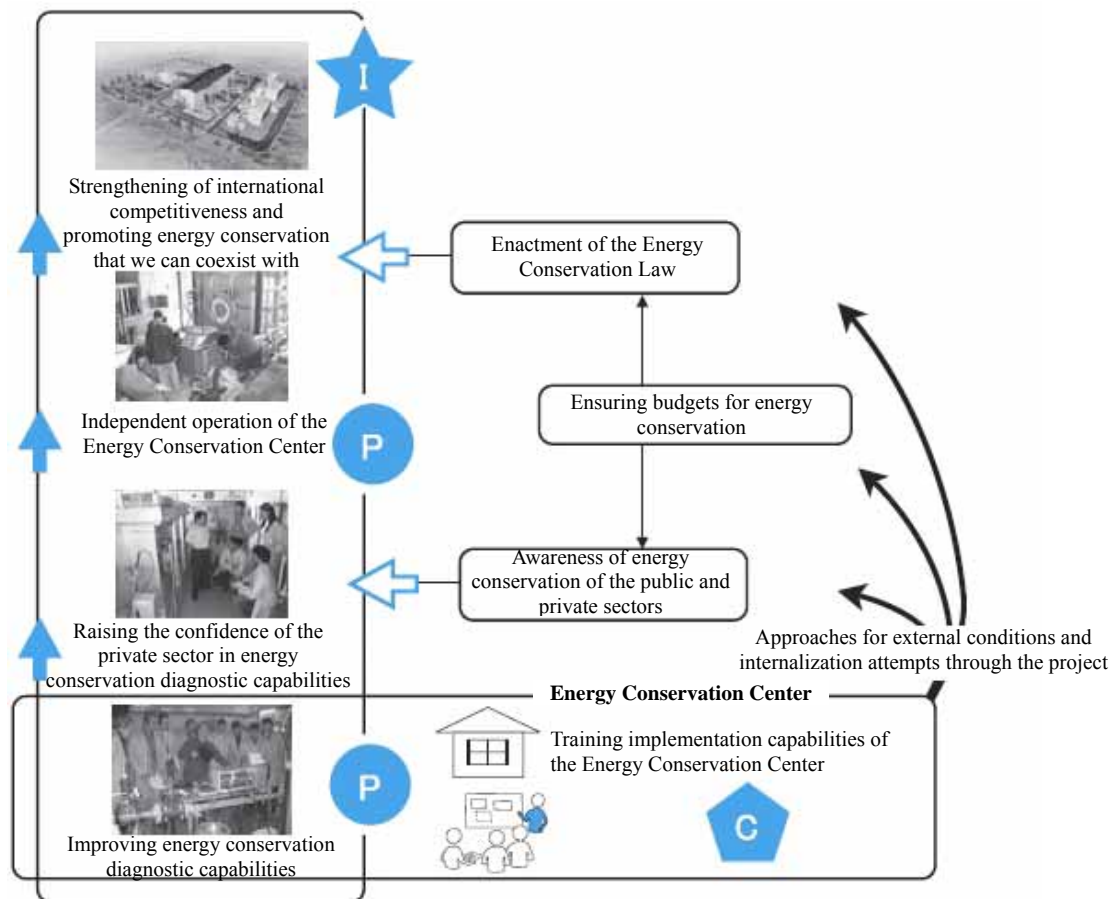
Source: Created by the authors

Fig. 2-18　CPI Example (5) Energy Conservation

<Example of Energy Conservation>

The government of one country developed laws related to energy and set energy policy goals at the national level in the aim of strengthening competitiveness in industry and protecting the environment. This was attempted to respond to energy problems that were growing increasingly severe in the wake of the growing consumption of oil and gas.

Therefore, technical cooperation was carried out with the objective of disseminating energy conservation techniques through the establishment of the Energy Conservation Center, and fostering the human resources who would bear responsibility for energy conservation activities. The project's goal was mainly to improve the diagnostic capabilities of energy conservation in private sector companies by enhancing the training functions of the center.

In order for the center to further contribute to resolving this development issue, training requests must be made from a broad range of companies, and it will also be necessary to improve the capacity for the operation execution capabilities of the C/P for conducting training in response to these.

At the same time, never-ending technical innovations are sought when it comes to energy conservation. Because of this, knowledge and techniques (skills) must be acquired and training implementation capabilities have to be improved along with the growing sophistication of the training content. Simultaneously, changes in the awareness of the public

and private sectors which underpin this and specific proposals from the field for the Energy Conservation Law that is already being examined are needed.

For the resolution to the development issue, the type of results that are sought and the type of capacities that are required and of whom they are required will be fleshed out to weave a CD story.
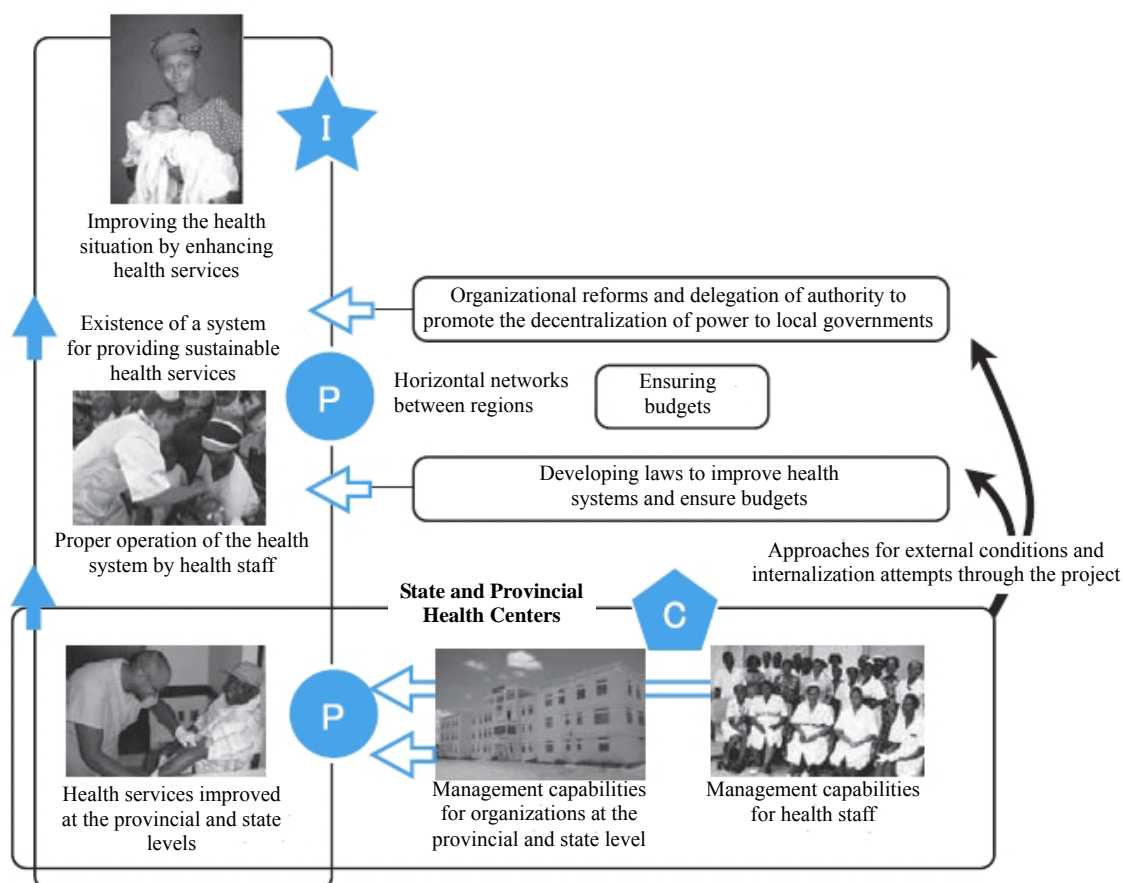
Source: Created by the authors

Fig. 2-19   CPI Example (6) Health and Medical Care

<Example of Health and Medical Care>

In a certain country where efforts have been made for strengthening local health administration, while its policy framework and financial foundations were begun to develop, health services for local residents were not yet being provided. Therefore, management-style technical cooperation for more efficient management was implemented that gave consideration to the creation of local health care systems. Top priority for this was given to promoting the strengthening of management capabilities for state and provincial health administration organizations.

Specifically, one of its goals is to improve the function of local health administration systems as a whole. This is to be done by improving the management capabilities of health

administration officials and strengthening the organizational functions of regional health administration. Its other goal is to improve the quality and quantity of health services by constructing horizontal collaborative networks.

The visible results of the project have been acknowledged by the higher ranked organization, other local administration officials, and the general public. This in turn has expanded the commitment at the level of provincial and state governors. They have begun to consider allocating project cost within the annual budget of local health administration.

Responses have already been taken for the policy foundations and financial foundations, such as utilizing shared financial resources (basket funds) through SWAp and beginning to apply these as independent financial resources for local health activities. However, there is a need to once again clarify the necessary actors and capacities leading to the development goal of "Improving the health situation by enhancing health services." Questions like whether decentralization is being promoted so that flexible and prompt management can be carried out in areas closer to local communities, and whether the establishment of financial foundations is actually proceeding, must also be confirmed. As CD is a process, rather than a single 'event,' it should be noted whether the project is supporting step-by-step solutions to problems.