

Analysis of Japan's Environmental Policy Integration in the Area of Climate Change

Zicheng Luo^{1,a,*}

¹Liaoning University of International Business and Economics, Dalian, 116052, China

^atiandaochouqin0304@163.com

*Corresponding author

Abstract: Environmental policy integration (EPI) is an effective strategy to ensure that environmental objectives are reflected in all policy areas. This paper analyses the whole process and implementation of EPI in the field of climate change in Japan. The results show that, although the principles of EPI are stipulated in Japanese laws and policies, the institutional and organizational structure of EPI still has limitations in terms of "coordination and coherence" "focused development" and "enhancement of policy effectiveness", and has not yet achieved better results. Therefore, it is necessary to strengthen the coordinating function of organizations, open up the closed policy systems, identify the wide-ranging risks of climate change, and undertake related institutional reforms to enhance public participation and information disclosure.

Keywords: Environmental Policy Integration; Climate Change; Policy Effectiveness; Organizational Structure

1. Introduction

Because the greenhouse gases that contribute to climate change are emitted from multiple sectors, the issue inevitably involves multiple policy areas. Addressing climate change therefore requires common objectives across sectors, the harmonization of conflicting policies and the adoption of effective policy measures. And environmental policy integration can help to achieve this goal. As early as the 1970s, western countries have been discussing how to integrate such policies with other policy areas in response to various environmental problems and have made efforts to integrate environmental policies^[1]. In the late 1980s, the concept of EPI was first introduced in the Brundtland Commission's report. After the adoption of the Paris Agreement in 2015, the goal of decarbonization has prompted many countries to undertake EPI reforms in the area of climate change. The issue of climate change is not a single environmental issue, it has a wide range of linkages with other issues such as biodiversity, forest conservation, waste management, and ozone layer protection, and various methods of EPI can be applied. However, compared with Europe, the United States and other countries, there are fewer studies on EPI in the process of environmental policy making and implementation in Japan^[2]. The decision-making process in Japan is vertically transmitted in a pyramidal manner, so in the field of climate change policy, relevant policies formulated by peer ministries such as the Ministry of the Environment and the Ministry of Economy, Trade and Industry have repeatedly conflicted. The study of EPI in Japan can help to fill the gap in this research area.

2. Whole Process Analysis of EPI in the Field of Climate Change in Japan

This section analyses Japan's EPI in the area of climate change, which mainly includes the study of the whole process, such as principles, policy system and organizational structure, decision-making process, policy evaluation, public participation and information disclosure.

2.1. EPI principles that exist in the field of climate change

"The Sixth Basic Environment Plan" issued by the Ministry of the Environment of Japan in 2024, refers to "the integration of environmental policies with policies in other fields from the perspective of institutional complementarity (including cooperation at the academic level)^[3]." It states that "environmental considerations must be integrated into the social and economic system to ensure

environmental sustainability while at the same time ensuring that economic and social aspects are sustainable," and includes EPI as a principle of environmental policy. The Japanese Government's law on measures to address the greenhouse effect also mentions that "with regard to the relevant measures, it shall be ensured that the control of greenhouse gas emissions is coordinated with the objectives of the relevant measures". In addition, "the Basic Law for Japan's Energy Policy" stipulates the purpose of "protecting the regional and global environment", and environmental considerations are taken into account^[4]. Thus, EPI related principles exist in Japan's environmental policy.

2.2. Policy system and organizational structure

The organization that determines the climate change policy framework in Japan is the high-level decision-making authority headed by the Prime Minister, and in 1998, the Global Warming Prevention Headquarter was established as the decision-making authority for climate change policy in Japan. Up to now, the department has formulated "the Action Plan for the Prevention of Global Warming", "the Framework for the Promotion of Greenhouse Effect Countermeasures", "the Kyoto Protocol Target Achievement Plan", "the Plan for Global Warming Countermeasures" and so on^[5]. As a policy framework for the government to respond to the issue of climate change, they have all clarified the basic direction of greenhouse gas emission reduction targets and measures, and set relevant measures by sector.

The head of the Global Warming Prevention Headquarter is the Prime Minister, with the Minister of the Environment and the Minister of Economy, Trade and Industry serving as deputy heads. The planned measures are implemented by the respective authorities in accordance with their respective laws and systems. Many of these measures involve the Ministry of Economy, Trade and Industry and Agency for Natural Resources and Energy, which have jurisdiction over the industrial and energy sectors, which account for a large proportion of greenhouse gas emissions, and are therefore effectively centralized in terms of competence. Other ministries, such as the Ministry of Land, Infrastructure, Transport and Tourism and the Ministry of Agriculture, Forestry and Fisheries, also formulate and implement measures within their jurisdictions. Each of these ministries has its own environmental policy department, which is responsible for the implementation of climate change-related measures.

2.3. Decision-making process

Government-wide policy framework resolutions, such as "the Kyoto Protocol Target Achievement Plan", begin by defining the jurisdictions in which each department works. After determining the internal direction, the policy guidelines are discussed and approved by the council or its subordinate departments.

On the one hand, the Ministry of the Environment is responsible for the overall coordination of environmental protection, and the Central Environment Committee is responsible for reviewing and deliberating on all climate change-related measures under the jurisdiction of other ministries. On the other hand, the Industrial Technology and Environment Subcommittee of the Industrial Structure Committee of the Ministry of Economy, Trade and Industry is responsible for deliberations on overall policies such as reducing carbon dioxide emissions from the energy supply side^[6]. The two committees' scopes of work overlap in many ways, so they have held frequent joint meetings since 2007. However, the consideration of energy supply and demand, energy conservation and new energy policies is the responsibility of the Committee on Integrated Resources and Energy.

As a result, the deliberations of each ministry are summarized into a draft government policy, but the Ministry of the Environment and the Ministry of Economy, Trade and Industry are often in conflict when setting objectives^[7]. Therefore, conflicts between the ministries are coordinated and the final government proposal is prepared. In the decision-making process for Japan's climate change policy described above, each ministry formulates policy guidelines within their respective jurisdictions, then defines a whole-of-government framework around these guidelines, and finally coordinates them.

2.4. Policy evaluation

Policy evaluation is positioned as a means of EPI, a procedure to verify the appropriateness of policies and improve their effectiveness. As a mechanism for evaluating climate change policies, the periodic review of government plan has become a statutory requirement in Japan since 2005. Each ministry conducts the review based on the aforementioned decision-making process, and the "Global Warming Countermeasures Promotion Headquarters" approves and decides on revisions to the plans after inter-ministerial coordination.

In addition, the Global Warming Prevention Headquarter reviews the progress of each measure in accordance with the plan every year, and the departments in charge of each measure prepare self-assessment reports on their progress and submit them to the Global Warming Prevention Headquarter for official approval. However, the existing review mechanism is limited to evaluating the implementation of the measures in the plan, and does not include evaluating policies that are outside the framework of climate change policies, policies that are contradictory to climate change policies, or policies that counteract the effects of policies.

2.5. Public participation and information disclosure

The public can participate in the decision-making process of climate change policies by attending the councils of various ministries, hearings on draft policies of the Global Warming Prevention Headquarter, etc.^[8]. In terms of information disclosure, information from the councils is published on the Internet in a timely manner. However, the public availability of energy-related data for policy assessment is still very limited compared to other countries.

3. Japan's EPI implementation in the area of climate change

This section analyzes Japan's EPI implementation in the area of climate change from an institutional perspective, in terms of policy documents, organizational structure, and assessment mechanisms.

3.1. Aspects of policy documents

As a basic principle, as shown in table 1, the concept of EPI does not appear in the Constitution of Japan, but is only stipulated in institutional documents such as the "The Sixth Basic Environment Plan" and "Basic Act on Energy Policy". However, despite these provisions, there are no examples of the government consciously promoting the EPI principle, giving special consideration to EPI, putting the EPI principle into practice in policy decisions related to climate change, etc. Therefore, the effectiveness of EPI has not been fully utilized in the existing system.

3.2. Aspects of the organizational structure

The establishment of the Global Warming Prevention Headquarter, an inter-ministerial organization, as a response to climate change can be regarded as a form of EPI. However, the functions of this department are limited to the adjustment of inter-departmental decision-making conflicts, and it does not guide the specific measures of each department from the viewpoint of achieving the goals, nor does it perform the function of vertical integration from the higher level of government to each department. In addition, as shown in Table 1, the Japanese government has not realigned its organizational structure to integrate energy and climate change issues. In addition, although there are some cases of cooperation among Japanese ministries, in terms of climate change, there is no formal organization in charge of EPI among the responsible ministries under each agency, except for some meetings jointly organized by the Council.

3.3. Aspects of the assessment mechanism

Japan's climate change policy evaluation mechanism consists of an annual review of plans under the Act on Promotion of Global Warming Countermeasures and an annual review of policy progress by the Global Warming Prevention Headquarter. Both are voluntary self-assessment and approval processes within the government, including the selection of information and indicators related to policy progress. Although this is not necessarily a problem specific to climate change policies, they are not subject to external independent review and lack objectivity.

In general, in other policy areas, specific instruments to achieve the commonality of environmental objectives include strategic environmental assessment, budget and tax reform, and environmental impact assessment of new policies. However, as shown in Table 1, in Japan, there is a system of strategic environmental assessment for individual projects, but environmental impact assessment of new policies and consideration of environmental factors in budgets are not available for the time being.

Table 1: Analysis of the current status of EPI implementation in Japan in the area of climate change

Primary category	Secondary category	Analysis of the current status
(i) Policy documents	Constitutional requirement	×
	EPI principles in relevant laws and policies	√
(ii) Organizational structure	Organizational consolidation and realignment	×
	Cross-sectoral Institutions	★
	Joint intersectoral cooperation	★
(iii) Assessment mechanisms	Strategic environmental assessment	★
	Budget and tax reform	×
	Environmental impact assessment of new policies	×
	Independent external review	×

Note) √ indicates currently implemented, ★ indicates currently partially implemented, and × indicates currently not implemented.

4. Analysis of the achievement of Japan's EPI medium-term targets

This section analyses the achievement of Japan's mid-term EPI targets from three perspectives, namely, "coordination and coherence", "focused development", and "enhancement of policy effectiveness", based on the implementation of Japan's EPI in the area of climate change as described above.

First of all, "coordination and coherence" refers to coordinated development through the formulation of policy frameworks, the establishment of new organizations or the restructuring of existing organizations. In this regard, the establishment of organizations such as the Global Warming Prevention Headquarter in Japan and the formulation of overall policy frameworks such as "the Plan for Global Warming Countermeasures" can be regarded as mechanisms for "coordination and coherence". However, the actual "coordination and coherence" is mainly an informal and open process between ministries and agencies, and there is no institutional response beyond that. In the area of climate change, there has been no fundamental institutional reform to promote coherence, except for short-term changes. In the current situation, the competence for such "coordination and coherence" tends to be concentrated in the ministries directly responsible for policy, while the competence of the Ministry of the Environment and subordinate ministries as intersectoral coordinators is not adequately guaranteed.

Second, "focused development" means not only regulating conflicts between different policies, but also prioritizing environmental elements and ensuring that environmental objectives are reflected in different policy areas. In this regard, although Japan has stipulated the EPI principle in its laws and policies, EPI has not been widely recognized and implemented in the area of climate change. On the other hand, the Japanese government tends to focus on the development of other political issues compared to the climate change issue. EPI related initiatives are only temporary and do not result in a common goal or a sustained improvement in the attention given to the issue.

Lastly, "enhancement of policy effectiveness" refers to the continuous optimization of existing policies through an independent and objective evaluation mechanism, so that the policies can better achieve actual results. In this regard, the government has an internal mechanism for reviewing the progress of plans and measures, but it lacks objectivity and independence. In the absence of external evaluation, it is difficult to improve the problems of existing policies.

In summary, although Japan has stipulated the EPI principle in its laws and policies, there is no system or mechanism to actually promote EPI in terms of "coordination and coherence" "focused development" and "enhancement of policy effectiveness", and it has not yet achieved better results.

5. Current problems of EPI in Japan

Based on the analysis of the achievement of Japan's mid-term EPI targets, there are currently problems in three main areas: perception and implementation issues of EPI, institutional and

organizational structure, and public awareness.

5.1. Perception and Implementation Issues of EPI in Japan

Although Japan's policy about climate change embody EPI principles, the commonality of environmental objectives across different policy areas has not been fully realized in the actual implementation of the various ministries in accordance with the government's plans. In the area of climate change, many EPI instruments are not being implemented from an institutional perspective, and there are few proposals to promote and strengthen these instruments within Japan. This shows that EPI is not fully recognized in Japan as a strategic instrument that contributes to the achievement of environmental objectives (mainly referring to the response to climate change issues), even though EPI is mentioned as a concept. As a result, EPI itself has not become a significant policy issue in Japan.

5.2. EPI's urgent need for institutional and organizational change

While the importance of EPI is commonly articulated in policy objectives and frameworks in many countries, the concept of EPI is not implemented in the actual daily policy implementation, which regulates the relationship between the implementing departments or decisively influences the policy formulation process. In these countries, there are very few examples of EPI instruments being implemented and having a significant impact on policy formulation. In Japan, the effectiveness of EPI in achieving medium-term objectives is limited in terms of "focused development". There has also been a complete lack of institutional or organizational change in terms of "coordination and coherence" and "enhancement of policy effectiveness". The failure to further promote institutional and organizational changes in EPI is one of the reasons for the poor achievement of EPI's medium-term targets.

5.3. EPI's urgent need to improve public awareness

General public awareness is an important basis for the successful implementation of EPI. In Japan, although the public currently has the opportunity to participate in the decision-making process of climate change policy, the degree of public participation is still low. Due to the limitations of the Japanese government's information disclosure, the public does not have access to comprehensive and effective information and has a low level of awareness of the EPI concept. The failure to create different decision-making processes and opportunities through public political participation is also one of the reasons for the poor achievement of EPI's medium-term goals. How to improve the relevant system to enhance public awareness and participation in EPI principles is an important issue to promote the implementation of EPI. In addition to the government, environmental NGOs and private think tanks can also play an active role in raising public awareness.

6. Policy Proposals for the Future Development of EPI in Japan

Based on the above mentioned current problems of EPI in Japan, the following recommendations are made for the future development of EPI in Japan.

First, there is a need to strengthen the coordinating function of organizations. The establishment of organizations such as the Global Warming Prevention Headquarter and the development of intersectoral policy frameworks have played a coordinating role, but ministries and agencies still maintain a high degree of independence in policy implementation. There is a need to strengthen the authority of the Ministry of the Environment and its subordinate ministries as intersectoral coordinators.

Second, closed systems need to be opened up. Currently, the policy cycle of planning, operation and review is mainly done by the government itself. Although the content of self-review has been quantified compared to the past, the closed system still lacks openness and objectivity. In order to improve the rationality and effectiveness of policies, it is necessary to increase the transparency and objectivity of the policy process through the establishment of a congressional review institution with greater authority and an external independent evaluation agency.

Third, in order to stabilize the issue of climate change as a political subject, there is a need to identify the wide-ranging risks that climate change poses to Japan's society and economy in order to provide a clear direction for policy implementation. For example, "Plan for Global Warming Countermeasures" in 2015 and "Climate Change Adaptation Act" in 2018 were both formulated based on an understanding of climate change risks. In addition, related institutional reforms such as the enhancements of public

participation and information disclosure are important to promote objective policy evaluation and improve policy effectiveness and public awareness.

7. Conclusions

The results show that, there are current problems of EPI in Japan in three main areas: perception and implementation issues of EPI, institutional and organizational structure, and public awareness. Although the principles of EPI are stipulated in Japanese laws and policies, the institutional and organizational structure of EPI still has limitations in terms of "coordination and coherence" "focused development" and "enhancement of policy effectiveness", and has not yet achieved better results. Therefore, it is necessary to strengthen the coordinating function of organizations, open up the closed policy systems, identify the wide-ranging risks of climate change, and undertake related institutional reforms to enhance public participation and information disclosure.

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