

Socialist Republic of Viet Nam

FY2019 Ex-Post Evaluation of Japanese ODA Loan Project

“Support Program to Respond to Climate Change (I) – (VII)”

External Evaluator: Toshihisa Iida, OPMAC Corporation

0. Summary

The objective of this program (hereinafter, “the Program”) was to (i) mitigate climate change by Greenhouse Gas (hereinafter, “GHG”) absorption and emission control, (ii) build adaptive capacity to deal with the harmful impacts of climate change, and (iii) enhance measures for cross-sectional issues concerning climate change by supporting the responses to climate change taken by the Government of Viet Nam through policy dialogues, thereby contributing to sustainable economic development by reducing risks such as disasters caused by climate change in Viet Nam and also contributing to the mitigation of climate change. The Program was consistent with the development policy of Viet Nam, its development needs, and with Japan’s ODA policy. In addition, the process of the policy matrix formulation and the institutional arrangements to monitor the implementation of policy actions were appropriate. Thus, its relevance is high. Most of the policy actions were completed, and the targets of all the operation and effect indicators were achieved. Also, it is identified that the project contributed to climate change related funding to some degree and that the policy dialogues and JICA’s technical cooperation made a certain contribution to the progress of the policy action implementation. Furthermore, quantitative effects in the field of energy efficiency and renewable energy have been identified. Thus, its effectiveness/impact is high. After the Program, the Support Program to Respond to Climate Change (hereinafter, “SP-RCC”) has continued to build a legal and regulatory framework for climate change responses with the same institutional arrangements for implementation as before.

1. Project Description



Project Location



Mangroves and Revetment in the Mekong Delta Area Which Are Vulnerable to Climate Change

1.1 Background

The Socialist Republic of Viet Nam (hereinafter, “Viet Nam”), with the rapid economic growth, witnessed its energy consumption increasing by around 2.7 times between 1994 and 2013, and its rate of increase of GHG emissions between 1995 and 2012 ranking the second highest among the major ASEAN countries. Meanwhile, due to its long coastline, stretching to roughly 3,400 km, and the vast Mekong Delta area, Viet Nam was considered to be one of the most vulnerable countries easily affected by climate change, according to research by the World Bank¹ and others. The scenario analysis on the impact of climate change, announced by the Government of Viet Nam in 2009, predicted the average temperature would rise by 2-3%, the sea level by 83cm, and annual precipitation by 5-15% by 2100 (compared to those between 1980 and 1999, respectively). In the coming period, if the rise in sea level reaches 1 m, 10% of GDP would be lost. Therefore, there were concerns that an increase in the frequency and severity of disasters associated with climate change would be an important risk factor for the country’s future sustainable growth.

Under such circumstances, the Government of Viet Nam formulated the *National Target Program to Respond to Climate Change* (hereinafter, “NTP-RCC”) in December 2008, which contained comprehensive measures to address climate change. The Program promoted the formulation and implementation of policy actions for the three priority issues, which are (i) mitigation, (ii) adaptation, and (iii) cross-sectoral issues, in order to support the climate change responses of Viet Nam including the NTP-RCC.

¹ World Bank, *The Impact of Sea Level Rise on Developing Countries: Comparative Analysis*, World Bank Policy Research Working Paper 4136, February 2007

1.2 Project Outline

The objective of the Program was to (i) mitigate climate change by GHG absorption and emissions control, (ii) build adaptive capacity to deal with the harmful impacts of climate change, and (iii) enhance measures for cross-sectoral issues concerning climate change by supporting the climate change response of the Government of Viet Nam through policy dialogues, thereby contributing to sustainable economic development by reducing risks such as disasters caused by climate change in Viet Nam and also contributing to climate change mitigation.

Term	(I)	(II)	(III)	(IV)	(V)	(VI)	(VII)
Loan Approved Amount/ Disbursed Amount	10,000 million yen / 10,000 million yen	10,000 million yen / 10,000 million yen	15,000 million yen / 15,000 million yen	10,000 million yen / 10,000 million yen	15,000 million yen / 15,000 million yen	10,000 million yen / 10,000 million yen	10,000 million yen / 10,000 million yen
Exchange of Notes Date/ Loan Agreement Signing Date	May 2010 / June 2010	October 2011 / November 2011	March 2013 / March 2013	March 2014 / March 2014	March 2015 / March 2015	January 2016 / March 2016	January 2017 / January 2017
Terms and Conditions	Interest Rate: (I) 0.25%, (II)-(VII) 0.3%						
	Repayment Period (Grace Period): 40 years (10 years)						
	Conditions for Procurement: General untied						
Borrower / Executing Agency	The Government of the Socialist Republic of Viet Nam/Ministry of Natural Resource and Environment (MONRE)						
Project Completion	March 2017						
Target Area	Viet Nam in its entirety						
Main Contractor(s) (Over 1 billion yen)	None						
Main Consultant(s) (Over 100 million yen)	None						
Related Studies (Feasibility Studies, etc.)	None						
Related Projects	<p>[Technical Cooperation]</p> <ul style="list-style-type: none"> • Study on Master Plan for Energy Conservation and Effective Use in the Socialist Republic of Viet Nam (2008-2009) • Project for Capacity Building for National Greenhouse Gas Inventory (2010-2014) • Advisor for Climate Change Program (2011-2015) • Project for Development of the National Biodiversity Database System (2011-2015) • Project for Establishment of Energy Management Training Center (1st Stage (2011-12), 2nd stage (2013-2015)) • Project on Strengthening the System and Operation on Standards and Conformance for Energy Efficiency and Labeling (2013-2016) • Project on Supporting the Implementation of Policy Actions for SP-RCC (2014-2015) • Project to Support the Planning and Implementation of NAMAs in a MRV Manner (2015-2020) <p>Others</p> <p>[Other donors: Co-financing for the Project]</p> <ul style="list-style-type: none"> • World Bank, First, Second, and Third Climate Change Development Policy Operation (2012, 2013, 2015) • World Bank, Climate Change and Green Development Policy Financing (2017) • AFD, Policy loan “Support Programme to Respond to Climate Change” (2009, 2010, 2011, 2012, 2014) <p>Others</p>						

2. Outline of the Evaluation Study

2.1 External Evaluator

Toshihisa Iida, OPMAC Corporation

2.2 Duration of Evaluation Study

This ex-post evaluation study was conducted with the following schedule.

Duration of the Study: September 2019 – August 2020

Duration of the Field Study: November 10, 2019 – November 22, 2019,

March 1, 2020 – March 10, 2020

2.3 Constraints during the Evaluation Study

(1) Constraints on evaluation items

Since the Program was a budget support type program, which made it difficult to conduct a quantitative comparison of inputs (financial support to the general budget of the Vietnamese government) and outputs (policy formulation and implementation of climate change response), the efficiency of the Program was not evaluated. Regarding sustainability, since the government's SP-RCC itself was still ongoing at the time of ex-post evaluation, the current program implementation system and implementation status were analyzed. However, the evaluator has not given because the technical and financial aspects of operation and maintenance were not analyzed and some of the rating criteria for the sustainability of the ex-post evaluation did not correspond to the Program. Since the sub-ratings for efficiency and sustainability were not applied, the evaluator has not given an overall rating.

(2) Analysis of effectiveness/impact

Regarding the analysis of effectiveness/impact, most of the policy actions in each term were the development of legislation and strategies/plans. In addition, there are many areas where it will take time to observe the effects of the development and implementation of laws and regulations, and areas where it is difficult to measure the effect (e.g., disaster prevention and coastal management), which are characteristic of responses to climate change. Thus, regarding the analysis of effectiveness, besides the analysis of the implementation status of policy actions and the achievement of the operation and effect indicators, the quantitative analysis included financial effects (effect on the fiscal balance and budget allocation for climate change related activities) and the qualitative analysis included the effects of policy dialogues as well as the effects of JICA experts and technical cooperation on the implementation of policy actions. The analysis of impact was conducted in areas where it was possible to identify the changes caused by policy implementation (e.g., energy conservation and renewable energy).

(3) Constraints on information collection

In the Program, 10 ministries (about 40 departments) were involved in the implementation of policy actions in 8 areas (14 areas in Phase 1) as shown in Table 1 below. At the time of the ex-post evaluation, questionnaires were sent to all the relevant ministries (hereinafter “line ministries”) regarding the status of the implementation of policy actions and subsequent measures to address climate change. Subsequently, responses were obtained from 16 departments of 6 ministries that were available for interviews at the time of the field survey. Thus, the analysis and evaluation judgments were made based on the responses, on interviews with other donors, etc., and on other public information. In addition, since some of the JICA documents related to the Program were not available, the information contained in these documents could not be used in this post-evaluation.

Table 1: Line Ministries for the Program

Field	Line Ministries
1. Disaster preparedness and climate monitoring	<u>Ministry of Natural Resource and Environment (hereinafter, “MONRE”), Ministry of Agriculture and Rural Development (hereinafter, “MARD”), Ministry of Transport (hereinafter “MOT”), Ministry of Construction (hereinafter “MOC”)</u>
2. Food and water security	<u>MONRE, MARD, MOC</u>
3. Proactive responses to sea level rise	<u>MONRE, MARD</u>
4. Sustainable forest management and development	<u>MONRE, MARD</u>
5. Reducing GHG emissions	<u>MONRE, MARD, MOT, MOC, Ministry of Finance (hereinafter “MOF”), Ministry of Planning and Investment (hereinafter “MPI”), Ministry of Industry and Trade (hereinafter “MOIT”), Ministry of Science and Technology (hereinafter “MOST”)</u>
6. Mainstreaming climate change	<u>MONRE, MOF, MPI, MARD, Ministry of Education and Training (hereinafter “MOET”)</u>
7. Community capacity development	<u>MOET, Ministry of Health (hereinafter “MOH”)</u>
8. Financial mechanism	<u>MONRE, MOF, MPI</u>

Note: Ministries underlined in the table above are those that were interviewed or who responded to the questionnaires.

3. Results of the Evaluation

3.1 Relevance (Rating: ③²)

3.1.1 Consistency with the Development Plan of Viet Nam

A description of the importance of addressing climate change in Viet Nam’s national development strategy/plan and climate change sector strategy at the time of the appraisal and ex-post evaluation is summarized in Table 2 below. Viet Nam’s national development strategy consists of the *Ten-Year Social and Economic Development Strategy (hereinafter, “SEDS”)* and the *Five-Year Social and Economic Development Plan (hereinafter, “SEDP”)*, which is the specific plan of the strategy. At the time of the appraisal, the *SEDP (2006-2010)* focused on minimizing the negative impact of climate change on the environment. In addition, during the

² ③: High, ②: Fair, ①: Low

implementation of the Program, the *SEDS (2011-2020)* and *SEDP (2011-2015)* clearly indicated that addressing climate change was one of the main goals. Furthermore, as for development policy to respond to climate change at the time of the appraisal, the *NTP-RCC (2009-2015)*, formulated in December 2008, set out measures to address climate change targeting the year 2020. Moreover, in December 2011, the *National Strategy on Climate Change (hereinafter, “NCCS”)* was approved as a guideline for more comprehensive and cross-sectoral measures against climate change, considering both climate change mitigation and adaptation perspectives followed by the formulation of the *National Green Growth Strategy (hereinafter, “NGGS”)* in 2012.

Table 2: The National Development Plan/Strategy and Climate Change Sector Strategy at the Time of the Appraisal and Ex-post Evaluation

National Development Plan/Strategy and Climate Change Sector Strategy at the Time of the Appraisal	
National Development Plan/Strategy	
SEDS (2011-2020)	One of the main objectives was to deal with climate change, in particular the rise of sea water level, in the environmental sector.
SEDP (2006-2010)	Restricting the negative impact of climate change on the environment as one of the priorities in the field of natural resources, environment and sustainable development
SEDP (2011-2015)	Clearly mentioned that response to climate change is a national priority
Climate Change Sector Strategy	
NTP-RCC (2009-2015)	Specified that response to climate change should be incorporated into development strategies, programs and plans in all areas, and set out climate change responses targeting the year 2020 in the areas of each ministry
NCCS	Positions a low-carbon economy and green growth as key to achieving sustainable development and aims to integrate GHG emission control and reduction into socio-economic development activities
NGGS	Aims at accelerating the process of economic restructuring to achieve more efficient use of natural resources, GHG emission reduction, infrastructure development to improve the efficiency of the whole economy, response to climate change, poverty reduction, and economic development in a sustainable manner
National Development Plan/Strategy and Climate Change Sector Strategy at the Time of the Ex-post Evaluation	
National Development Plan/Strategy	
SEDS (2011-2020)	Same as above
SEDP (2016-2020)	As key priority issues by 2020, actively responding to climate change, preventing natural disasters, and enhancing natural resource management and environment protection are listed.
Resolution of the Central Committee of the Party (No.24-NQ/TW/2013) ³	Promotes a green growth model aiming at sustainable economic development and further strengthening the mainstreaming of climate change
Climate Change Sector Strategy	
NCCS	Same as above
NGGS	Same as above
NDC	Commits: (i) GHG emission reduction by 8% by 2030 compared to the Business as Usual scenario (by 25% with international support) and (ii) continuous implementation of climate change adaptation programs/projects within the scope of the NCCS
PIPA	Specifies 68 policy actions that are categorized into five categories to be implemented by relevant ministries and local governments

³ Resolution of the Central Committee of the Party, *on Active Response to Climate Change, Strengthening Natural Responses Management and Environmental Protection* (No.24-NQ/TW (2013))

At the time of the ex-post evaluation, in addition to the aforementioned *SEDS (2011-2020)*, the *SEDP (2016-2020)* also identified a proactive response to climate change as one of the national priorities by 2020⁴. Furthermore, the Resolution of the Central Party Committee in 2013 also promoted the mainstreaming of climate change. In addition to the above-mentioned *NCCS* and *NGGS*, the *Intended Nationally Determined Contribution to UNFCCC (hereinafter, "NDC")*⁵, which was submitted to the United Nations Framework Convention on Climate Change (hereinafter, "UNFCCC") in 2015, and the *Plan for Implementation of the Paris Agreement (hereinafter, "PIPA")* of October 2016, which formed the basis for the government's commitment to materialize Viet Nam's adaptation priorities and reduce GHG emissions as policies for implementing *NDC*, was formulated.

In light of the above, at the time of the ex-post evaluation, responses to climate change were identified as a priority in the National Development Plan, and efforts to address climate change were still ongoing. Thus, it can be considered that the Program was still consistent with the current development policy.

3.1.2 Consistency with Development Needs of Viet Nam

At the time of the appraisal, Viet Nam's energy consumption had greatly increased with rapid economic growth, with the rate of increase in GHG emission between 1995 and 2012 ranking the second highest among the major ASEAN countries. Thus, it was an urgent issue to formulate and take specific actions to develop and use renewable energy, to promote energy saving, to strengthen waste management, and to promote sustainable forest management for the reduction of GHG emissions. Meanwhile, Viet Nam has a long coastline and, according to the aforementioned research of the World Bank and others, it is considered to be one of the countries most vulnerable to climate change, facing dangers such as floods, storms and rises in sea level. There were concerns that increases in the frequency and seriousness of disasters associated with climate change in the future, such as more frequent and serious floods and typhoons, prolonged droughts, and saltwater intrusion, could be a major risk factor for sustainable economic development. The adverse effects caused by climate change were expected to cause increased damage, especially for poor people with a relatively low adaptive capacity. Thus, further response to climate change, such as implementing climate change actions, was needed through the mainstreaming of climate change response in the formulation of plans and strategies for the social economy and rural development.

⁴ The inclusion of climate change responses in the *SEDS* and *SEDP* is part of policy actions of the Program. The *SEDS (2021-2030)* and *SEDP (2021-2025)* currently being prepared, with technical cooperation from AFD, are also being planned to ensure that responses to climate change are incorporated into these national plans.

⁵ In the decision of COP 21, countries that had already submitted a draft commitment (*INDC*) at the time of the conclusion of the Paris Agreement shall make the *INDC* a *Nationally Determined Contribution (NDC)* by the time of the conclusion of the Agreement.

At the time of the ex-post evaluation, the *third National Communication of Viet Nam to the UNFCCC*, which was submitted to UNFCCC in 2019, indicated that the total of GHG emissions in Viet Nam in 2014 was 284.0 MtCO_{2e}⁶ with the LULUCF (Land Use, Land-Use-Change, Forestry) sector and 321.5 MtCO_{2e} without LULUCF. The total emissions had increased by 2.7 times for the 20 years from 1994 to 2014 (Table 3). Also, according to *NDC*, in the BAU scenario, the total GHG emissions would increase to 787.4 MtCO_{2e} (about a 3.2 time increase from 2010). Thus, it is necessary to continue to take measures to reduce GHG emissions.

Table 3: GHG Emissions in Viet Nam

	1994	2000	2013	2014
Energy	25,367	52,774	151,403	171,621
Industrial processes and product use	3,807	10,000	31,767	38,620
Agriculture	52,445	65,091	89,408	89,752
LULUCF ^(Note)	19,378	15,105	-34,240	-37,540
Waste	2,565	7,925	20,686	21,513
Total (with LULUF)	103,832	150,901	259,204	283,968
Total (without LULUCF)	84,454	135,796	293,264	321,506

Unit: KtCO_{2e}

Source: MONRE, *the Initial Biennial Update Report of Viet Nam to the UNFCCC (BURI)* (2014), *the Second Biennial Update Report of Viet Nam to the UNFCCC (BUR2)* (2017), *the Third National Communication of Vietnam to the UNFCCC* (2019)

Note: Negative emissions in the column for LULUCF means that the amount of GHG absorption surpasses the amount of GHG emissions in Land use, land-use-change and forestry.

As shown in Table 4 below, in order to reduce GHG emissions, many policies and strategies/plans/regulations have been formulated and implemented throughout the country and in related sectors.

Table 4: Major Mitigation Policies

Cross-sectoral policies	Sector strategies/plans/regulations
<ul style="list-style-type: none"> • National Strategy on Climate Change (NCCS) (2011) • National Green Growth Strategy (NGGS) (2012) • Revised Law on Environment Protection (2014) • Plan on GHG emission management and the management of carbon credit businesses activities (2012) • New NTP-RCC (2012-2015) (2012) • National Action Plan on Green Growth in Viet Nam (2014-2020) (2014) • Nationally Determined Contribution (2015) • Plan for Implementation of Paris Agreement on climate change (2016-2020) (2016) 	<ul style="list-style-type: none"> • Law on Economical and Efficient Use of Energy (2011) and its implementation measures (2011) • Introduction of qualification and certification requirements for energy managers and auditors (2011) • Energy labeling for energy-consumer devices and equipment, and Minimum Energy Performance Standards (2011) • Energy Efficiency Building Code (2013) • Incentive measures to promote renewable energy (wind power, solar power, biomass, and others) (2014-) • Development Strategy of Renewable Energy of Viet Nam by 2030 with the vision to 2050 (2015) • Introduction and strengthening emission gas regulations for vehicle (2008, 2017) • Revised National Power Development Master Plan for 2011-2020 (2016) • Revised National Action Program on the Reduction of GHG emissions through the reduction of deforestation and forest degradation, sustainable management of forest resources, and REDD+ by 2030 (2017)

⁶ The Unit that converted the amount of GHG emissions to CO₂ equivalent

On the other hand, due to its geographical features, Viet Nam is vulnerable to meteorological conditions such as typhoons, landslides, floods and droughts.⁷ According to the report *Global Warming of 1.5C*, announced by IPCC (Intergovernmental Panel on Climate Change) in 2018, Viet Nam is one of nine countries where at least 50 million people are exposed to sea level rise and storms.

Thus, at the time of the ex-post evaluation, Viet Nam continued to be vulnerable to climate change due to its geographical features, and in addition, its GHG emissions were expected to increase. Therefore, the Vietnamese government has implemented policies such as *NCCS*, *NGGS* and other national climate change responses, *NDC* and *PIPA* to reduce GHG emissions, as well as policies such as the promotion of energy savings and renewable energy generation and the strengthening of forest management. In addition, the government has aimed at green economic growth with climate change responses, integrating climate change response into the government's economic and development plans, such as *SEDS* and *SEDP*. As mentioned above, the need to address climate change is still a high priority area in the government's development policy.

3.1.3 Consistency with Japan's ODA Policy

Japan's policy for supporting developing countries in the field of climate change response included *Cool Earth Initiative* (January 2008)⁸, the *Hatoyama Initiative*⁹ (September 2009), and *ACE: Action for Cool Earth* (2013)¹⁰, in which Japan proactively supports developing countries working on climate change responses. The *Country Assistance Program for Viet Nam* (June 2009) of the Ministry of Foreign Affairs stated that the assistance should encourage Viet Nam to mainstream adaptation measures for adverse effects caused by climate change in its development policies as well as to contribute to mitigation measures against climate change. Also, the *Country Assistance Policy for Viet Nam* (December 2012) of the Ministry of Foreign Affairs placed support for "Viet Nam to achieve sustainable development by strengthening international competitiveness, overcoming vulnerability and creating a fair society and country" in its priority area. In the area of "overcoming vulnerability," it stated that Japan supported the addressing of threats such as disasters and climate change. Thus, the Program was consistent

⁷ For example, a coastline of more than 2,500 km lies on the east side of Viet Nam, where many typhoons arrive every year. The northern mountainous areas are vulnerable to landslides and flash floods. Furthermore, the Mekong Delta region is considered to be one of the most vulnerable regions in the world to sea level rise.

⁸ At the Davos Conference in 2008, then Prime Minister Fukuda announced a plan for future efforts to address climate change and expressed his determination to work together with major emitting countries to set a national total GHG emission reduction targets.

⁹ At the UN Climate Change Summit, then Prime Minister Hatoyama advocated the necessity of transferring funds and technology to developing countries to reduce GHGs emissions, respond to natural disasters caused by climate change, and conserve biodiversity.

¹⁰ At the 19th Conference of the Parties (COP19) to the UNFCCC in November 2013, it was proposed that public and private funds be mobilized to support mitigation and adaptation measures in developing countries, totaling 1.6 trillion yen over the three-year period from 2013 to 2015.

with the Japan's policy to support climate change issues and with Japan's ODA policy for Viet Nam at the time of the appraisal.

3.1.4 Relevance to Appropriateness of Project Planning and Approach

3.1.4.1 Appropriateness of the Policy Matrix Formulation Process

In the Program, in order to support the Vietnamese government's climate change initiatives, policy actions for the promoting of climate change response were set up in each term, and funds from donors were disbursed based on an evaluation of the progress of these actions. The policy actions in each term were selected in three priority areas, that is, mitigation, adaptation and cross-sectoral issues, and were categorized into 12 fields¹¹ in the 1st phase ((I) - (IV)) to achieve the policy objectives of the NTP-RCC and eight 8 fields¹² in the 2nd phase ((V) - (VII)) based on the policies set forth in the NCCS. Thus, the policy actions in the Program were consistent with the issues set forth in the national climate change policies. The policy actions in each term were determined after full consultation on the actions presented by the line ministries took place with the development partners (donors and NGOs concerned) in policy dialogues. The consistency of the policy actions with the NTP-RCC and/or NCCS was confirmed through the discussion process with the SP-RCC focal points in the line ministries, the Climate Change Department of MONRE, and the development partners.

In addition, the policy actions in each term, which were decided after discussions with development partners, were submitted for approval to the National Committee for Climate Change (hereinafter, "NCCC"), which is an advisory body to the Prime Minister on the implementation of climate change responses. Thus, it is considered that the policy actions were formulated by an appropriate mechanism that ensured commitment at a high level of government.¹³

In terms of the number of policy actions, a total of 254 policy actions were set for all seven terms, and more than 50 policy actions were set for the terms of (II) and (III) in particular. Most of the policy actions were for the development of institutional frameworks, such as laws, policies and plans that would form the foundation to address climate change. Since more detailed activities were included in the 1st phase, the focus was on the policy-based actions in the 2nd phase. Given the large number of policy actions and the amount of work required to monitor progress, it is considered that taking into account the importance of the policy actions and their position in the overall picture, it would be possible to monitor the overall progress of

¹¹ The policy actions in the 1st phase were categorized into 12 areas: Energy efficiency, Renewable energy, Forestry management, Waste management, Water resources, Integrated coastal management, Natural resources management, Infrastructure, Health, Agriculture/Food security, Climate change response, and Financial mechanism.

¹² The policy actions in the 2nd phase were categorized into 8 areas: Disaster management/Climate monitoring, Food and Water security, Response to sea level rise, Forestry and Biodiversity, GHG reduction, Mainstreaming, Strengthening communities, and Financial mechanism.

¹³ The NCCC supervises and coordinates the line ministries and monitors climate change response in formulating policies on climate change.

response to climate change without increasing the workload if the number of policy actions was narrowed down to a number that would allow the identification of the progress of major responses to climate change.

3.1.4.2 Appropriateness of Implementation Structure

The implementation structure of the SP-RCC is in line with the Program framework approved by the Prime Minister in April 2011.¹⁴ The Program Coordination Unit (hereinafter, “PCU”) in MONRE, the executing agency, has been responsible for overall program implementation including policy dialogue coordination, the compiling of policy action formulation and the implementation status of policy actions, coordination of improving inter-ministerial policies and institutions, donor coordination, and the operational planning of the SP-RCC and the reporting of results, with the cooperation of the line ministries and other stakeholders. The line ministries appointed focal points to act as points of contact for the implementation of the SP-RCC, which is responsible for internal coordination within the ministries, inter-ministry coordination, coordination and liaison with the PCU, and strengthening of the network with the line ministries.

The implementation status of the policy actions was confirmed through discussion with the development partners at the policy dialogues in each term. For policy actions that had not yet been achieved at that time, the development partners and the ministries in charge confirmed the schedule and issues to be achieved, and the advice necessary to solve the issues was provided by the development partners. In addition, a monitoring system for implementation status at a high-level in government was established by reporting on the status to the NCCC. Several line ministries commented that the reporting of the implementation status to the NCCC has led to the promotion of the implementation of policy actions through information sharing at a high level of government.

The decision to disburse donor funds for each term was made after considering the overall achievement of policy actions for each term as well as the prospects for the future achievement of unaccomplished actions.¹⁵ If the overall achievement rate of policy actions was insufficient, funds were disbursed, after JICA and other development partners had reconfirmed the implementation status of unaccomplished policy actions, which is considered to be an appropriate response. While the status of most of the unaccomplished policy actions was reviewed at the time of the follow-up meetings and/or subsequent policy dialogues, there were a few cases where the subsequent follow-ups for unaccomplished actions where progress had been delayed had not been carried out. It would have been desirable to have established a

¹⁴ Government Office Letter no. 2033/VPCP-QHQT dated 4 April 2011

¹⁵ Although there were no clear criteria for the fund disbursement for each term, funds were disbursed as long as the achievement rate of policy actions was approximately the same as the previous year.

system to continuously check the implementation status of all policy actions that had not been achieved at the time of the policy dialogues and/or at follow-up meetings.

3.1.4.3 Appropriateness of Promoting Responses to Climate Change through a General Budget Support Framework

In the Program, Japanese ODA Loans were provided for 7 terms in the form of general budget support in order to support the implementation of policy reform to respond to climate change in Viet Nam. At the start of the Program, policy reform for the response to climate change was a new challenge for Viet Nam, and implementation required financial support as well as knowledge and technical support from development partners, including donors, in order to promote the policy reform. While a large number of ministries were involved in climate change issues, there were multiple donors who supported the activities of these ministries. Thus, it was necessary to build a platform that would enable coordination between the ministries and between the donors concerned, and also to enable continuous dialogue between the ministries and the donors, and the promotion of technical cooperation and knowledge sharing. Furthermore, the implementation of a series of policy actions over multiple years was required for the policy reforms for the response to climate change, and a mid to long-term timeframe was needed to identify the results of policy implementation. Given these considerations, JICA's multi-year financial support in the form of general budget support was appropriate.

In light of the above, the Program has been highly relevant to Viet Nam's development plan and development needs, as well as to Japan's ODA policy. Therefore, its relevance is high.

3.2 Effectiveness and Impacts¹⁶ (Rating: ③)

3.2.1 Effectiveness

As stated in "2.3 Constraints during the Evaluation Study," in this evaluation, the evaluation judgment was carried out through the analysis of financial effects (effects on the fiscal budget and the budget for climate change response), the effects of policy dialogue, and the effects of JICA experts and technical cooperation projects on the implementation of policy actions, in addition to confirming the achievement of policy actions as well as the effect indicators. Impacts were analyzed in areas where changes due to the implementation of the policy actions were relatively easily identified (e.g., energy conservation and renewable energy).

3.2.1.1 Achievement Status of Policy Actions

As mentioned previously, the Program set policy actions for activities to be accomplished during the year in every term, and the status of accomplishment was confirmed at the time of

¹⁶ Sub-rating for Effectiveness is to be put with consideration of Impacts.

the policy dialogue. The Japanese ODA loans were disbursed based on the confirmation. A total of 254 policy actions were set up from the term (I) to (VII) of the Program, and 236 policy actions (93% of the total) were confirmed to have been achieved at the time of the ex- post evaluation, resulting in the establishment of important policies and institutional frameworks to promote climate change response. Of the policy actions that were not confirmed to have been accomplished, three actions were canceled, two actions have since been implemented, and one action was not confirmed to have been implemented by the line ministry. As for the remaining 12 actions, no responses were obtained from the line ministries concerned and no confirmation of achievement could be identified from existing documents¹⁷. The policy actions that were canceled were two actions related to irrigation management and one action related to the GHG emission baseline for the implementation of *NGGS*. The cancellations are considered to have been unavoidable due to changes in the management scheme of irrigation facilities¹⁸ and the fact that the ministry in charge did not have enough technical expertise, and similar actions were conducted in another policy action.¹⁹ In addition, two actions under implementation (the addition of renewable energy-related provisions to the Electricity Act and the development of green building development strategies) have been changed to enacting the *Renewable Energy Act* and developing green building development plans, both of which were still in progress at the time of the ex-post evaluation. The main policy actions achieved in the key areas were as follows (see Table 5 for the main policy actions achieved in each area).

(1) New Energy and Renewable Energy

The Renewable Energy Development Strategy was formulated in 2015 with the goal of developing renewable energy in line with the *National Power Development Master Plan* (increasing the ratio of the generation capacity for renewable energy to the total energy generation capacity to 5.6% by 2020 and 9.4% by 2030). In addition, a support mechanism for wind, biomass, and waste power generation, as well as regulations and a system for power purchase price for biomass and waste power generation were developed to promote renewable energy projects.

¹⁷ The actions that could not be confirmed were nine actions for MARD, two actions for MOET, and one action for MOH.

¹⁸ The transfer of the management of irrigation facilities in the secondary rivers and canals to water users' associations were listed as the policy actions. However, the management system of irrigation facilities was changed from the Tier 1 to Tier 3 level classification of rivers and canals for two classifications: large facilities and small facilities.

¹⁹ MPI in charge of *NGGS* was assigned to this action, but this action was canceled due to the weak technical expertise of the MPI and the fact that the 1st edition of the biennial report (*BURI*) submitted by MONRE to the UNFCCC in 2014 established a baseline for GHG emissions. In 2017, ADB's research report *Pathways to low-carbon development for VIET NAM* conducted a baseline analysis in the *NGGS*.

(2) Energy Saving and Energy Efficiency

In order to achieve the reduction targets for domestic energy consumption in the *Viet Nam Energy Efficiency Program* (hereinafter, *VNEEP*) (3% to 5% in the *1st VNEEP (2006-2010)* and 5% to 8% in the *2nd VNEEP (2012-2015)*), the *Law on Economical and Efficient Use of Energy* and its implementation rules were developed. In addition, qualification and certification requirements for energy managers and energy auditors, energy management plans and reporting and auditing procedures to promote energy efficiency, and benchmarks for energy efficiency standards for the efficient use of energy in the industrial sector were introduced.

(3) Forest Management and Development

For forest conservation and forest management, the *Forest Protection and Development Plan for 2011-2020* was enacted in 2012 with the goal of increasing the forest coverage ratio to 42-43% by 2015 and 44-45% by 2020. The implementation procedures for forest management were clarified, including the formulation of guidelines for sustainable forest management, the establishment of a legal framework for the punishment of infringements on forest management, and the development of a system for the special use of forest system management. In the field of biodiversity, the *Law on Biodiversity Conservation* and its detailed regulations were enacted, and the National Biodiversity Database and the *Master Plan for Biodiversity Conservation to 2000* were developed. As for REDD+, the *National REDD+ Action Program* and the guidelines for developing an action plan for the provincial REDD+ Action Program based on the *National REDD+ Action Program* were established, together with a national REDD+ fund. A financing mechanism and a benefit-sharing system to promote REDD+ were developed.²⁰

(4) Mainstreaming Climate Change

Responses to climate change were included in the *SEDS (2011-2020)*, *SEDP (2011-2015)* and *SDEP (2016-2020)*, which are national economic development policies, as priorities to be addressed to build a low-carbon society. The *NCCS* and the *National Climate Change Action Plan*, guidelines for climate change response, were formulated. Furthermore, in accordance with the provisions of the UNFCCC, the preparation and submission of the *Initial Biennial Report (hereinafter "BUR1")* (2014) and the updated version (*BUR2*) (2017) containing inventory information on GHG emissions and absorption performance and information on climate change response was carried out, together with the establishment of a national GHG inventory system (2015).

²⁰ REDD+: Reducing emissions from deforestation and forest degradation and the role of conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries.

(5) Financial Mechanism

A mechanism to mobilize SP-RCC donor funds for *NTP-RCC* implementation was established as the SP-RCC funding mechanism, and the budget allocation mechanism for climate change actions by MONRE, MPI and MOF was put into operation. In addition, the introduction of an environmental conservation tax, the development of a system to promote CDM, and the development of a system for the formation and implementation of JCM projects were implemented.

Table 5: Key Policy Actions Achieved

Field	Key Policy Actions Achieved
1. Disaster preparedness and climate monitoring	<p>[Enhancing disaster risk reduction]</p> <ul style="list-style-type: none"> • Reviewed the functions and mandate authority of the Central Committee for Flood and Storm Control (CCFSC), an inter-ministerial institution (2010) • Formulated the Law on Natural Disaster Prevention and Control (2013)
	<p>[Early Warning]</p> <ul style="list-style-type: none"> • Developed an action plan for the implementation of the Development Strategy of the Hydro-Meteorological sector (2012) • Developed the Law on Hydro-Meteorology (2015)
2. Food and water security	<p>[Food security]</p> <ul style="list-style-type: none"> • Formulated a National Strategy on irrigation development to increase efficiency and safety (2009) • Conducted impact assessment of climate change on crop production (2010), formulated regulations on large scale crop production to increase investment return and reduce GHG emissions (2013) • Formulation of the Law on Irrigation and Drainage (2017)
	<p>[Enhancing the capacity of water resource management]</p> <ul style="list-style-type: none"> • Developed the Law on Water Resources which encompasses the concept of integrated water resource management (2012), Developed a National Action Plan to promote the Law on Water Resources (2014), Developed circulars guiding the implementation of the Law on Water Resources (2014-15) • Developed a decree on the identification and management of corridors for water resource protection (2015) • Developed a decree on incentives for the effective use of water resources (2015)
3. Proactive responses to sea level rise	<p>[Appropriate response to sea level rise]</p> <ul style="list-style-type: none"> • Conducted impact assessment and proposed adaptation solutions to climate change and sea level rise in the transportation sector (2011) • Conducted assessment of climate change in the construction sector (2011) • Integrated climate change responses into transport development strategy (2013) • Integrated climate responses to the railway transport development plan (2015) • Revised technical regulations with the consideration of climate change in the construction sector (2015-16), Developed the Green Growth Action Plan for the construction sector (2017)
	<p>[Integrated coastal management]</p> <ul style="list-style-type: none"> • Adopted a framework of integrated coastal management (ICM) (2009), Developed provincial ICM plans (2011) • Developed the National Strategy on ICM integrating climate change factors (2014) and the National Action Plan for the implementation of the Strategy on the ICM integrating Climate Change factor (2016) • Developed the Law on Natural Resources and Environment of Sea and Islands (2015)

Field	Key Policy Actions Achieved
4. Sustainable forest management and development	<p>[Sustainable forest management and conservation, increase in GHG absorption, and biodiversity conservation]</p> <ul style="list-style-type: none"> • Formulated coastal mangrove rehabilitation and development programs (2009) • Formulated forest protection and development plans (2012) • Developed a legal framework for the punishment of infringements on forest management (2009-11) • Enacted the Law on Biodiversity (2009), developed a decree to implement the Law on Biodiversity (2010) • Developed a decree on the special use of forest system management (2010) • Formulated the Forest Protection and Development Program (2012) • Developed guidelines for the management of the national budget in implementing the Forest Protection and Development plan 2011-2020 (2013) • Developed the National REDD+ action program (2012), Developed circulars guiding the implementation of the National REDD+ action program (2015), Established the REDD+ Fund (2015), Developed the Benefit Distribution System to implement REDD+ (2015) • Developed the National Master Plan for Biodiversity Conservation to 2020 (2014), developed provincial master plans for Biodiversity Conservation, Developed the National Biodiversity database (2015) • Developed a decree on the management, protection and development of coastal forests (2016) • Formulated a guideline for the formation of sustainable forest management (2014, 2018)
5. Reducing GHG emissions	<p>[New Energy, Renewable Energy]</p> <ul style="list-style-type: none"> • Developed the process and procedures of submission for approval of wind power planning (2013) • Developed decisions on a supporting mechanism for development of wind power, biomass, waste-to-energy (2014) • Developed the Renewable Energy Development Strategy (2015) • Developed regulations on implementing biomass energy projects and waste-to-energy projects, and the standard PPA (2015) <p>[Energy saving and energy efficiency]</p> <ul style="list-style-type: none"> • Formulated the Law on Economical and Efficiency Use of Energy (2010), and a decree to implement the Law (2011) • Developed regulations on the application of energy management, reporting plans, and energy auditing, and qualification and certification requirements for energy auditors and energy managers (2012) • Adopted a labeling system for energy products (2012,2015) • Adopted the National Energy Efficiency Building Code (2013) • Issued regulations on the technical guidelines to improve understanding of energy saving in the construction sector (2016) • Developed regulation on measures to use energy economically and efficiency in industrial sectors (2014) • Developed benchmark for setting energy efficiency measures (beverage (2015), steel (2015)) • Improvement of energy efficiency standards for household air-conditioners (2015) • Introduction of pilot voluntary agreements on energy efficiency management in energy-intensive enterprises (2016) • Development of regulations on energy efficiency measures for implementation in key energy-intensive industrial sectors and the establishment of an energy efficiency database of selected energy intensive enterprises (2015, 2016) <p>[Waste management]</p> <ul style="list-style-type: none"> • Issued regulations for exhaust gas emission controls and measures for energy saving and efficiency in transport operation (2010, 2011) • Formulated a program on solid waste recycling (2013) • Issued vehicle emission regulations (Euro 3 for new motorbikes (2014), and new Euro 4 for automobiles (2015)) • Development of an Action Plan to respond to climate change for the transportation sector (2016-2020) (2016) • Development of an Action Plan to reduce CO₂ emissions for civil aviation (2017) • Development of a Decree on waste and scrap management (2015 & 2018)
6. Mainstreaming climate change	<p>[Promoting mainstreaming of climate change in government practices]</p> <ul style="list-style-type: none"> • Mainstreaming climate change in the formulation of SEDS/SEDP (2010-11) • Formulation of the Action Plan for Climate Change (2012) • Preparation and submission of BUR to the UNFCCC (BUR1 (2014) and BUR2 (2017) • Establishment of the National GHG Inventory System (2015)

Field	Key Policy Actions Achieved
7. Community capacity development	<p>[Improvement of community healthcare systems]</p> <ul style="list-style-type: none"> • Produced hazard maps with consideration of potential medical risks by climate change (2010) • Developed materials and conducted training to improve the capacity of health workers (2009-12) • Developed a model for preventing accidents caused by natural disasters in coastal areas (2013) • Development of guidelines on integrating the Climate Change Action Plan into provincial health plans (2013) • Implemented capacity building for the implementation of action plans at provincial levels, and formulated the M&E framework (2014-15) <p>[Awareness raising, education and training]</p> <ul style="list-style-type: none"> • Developed materials and conducted training aimed at raising awareness of climate change and disaster prevention (2009-15) • Implementation of the plan for “Integrating responses to climate change content into education and training programs” and the scheme “Integrating knowledge of disaster prevention and mitigation into schools in the education sector” (2013) • Development of a methodology for assessment of the impacts of education for a response to climate change and disaster risk prevention in schools (2016)
8. Financial mechanism	<p>[Diversification of financial resources, efficient and effective investment]</p> <ul style="list-style-type: none"> • Developed a financial mechanism for NTP-RCC (2010) • Introduction of an environment tax (2012) • Strengthened the framework for promotion of investments in CDM projects (2010) • Developed the guidelines for the SP-RCC financial mechanism (2013), report on implementation of SP-RCC financial mechanism (2015), and implementation of the mechanism (29 projects have been implemented under the mechanism) • Formulation of the action plan for the National Green Growth Strategy (2014) • Integration of Green Growth and Climate Change issues into SEDP (2016-2020) (2016) • Developed the report Climate Change Public Expenditure and Investment Review (2015) • Formulated a system prescribing the formulation and implementation of JCM projects (2015)

Source: documents provided by JICA, the line ministries, others

3.2.1.2 Quantitative Effects

(1) Operation and Effect Indicators

Regarding the operation and effect indicators for the Program, the following indicators were established at the time of the appraisal for the 1st phase and 2nd phase.

- 1st phase (from the term (I) to (IV)): domestic energy consumption, forest coverage ratio, and the number of provinces that have formulated a disaster control plan
- 2nd phase (from the term (V) to (VII)): the number of new projects for wind power generation, the number of JCM pilot projects and the number of policies, strategies and plans newly formulated

As shown in Table 6 and Table 8, all indicators were satisfied.

Table 6: Effect Indicators ((I) – (IV))

	Baseline	Target	Actual		
	2008	2013	2013	2015	2019
		1 Year After Completion		1 Year After Completion	At the time of the ex-post evaluation
Domestic energy consumption (million TOE) ^(Note1)	42.3 ^(Note2)	40.2 ^(Note3)	37.0	41.5	NA
Forest coverage (%)	39.1 (2009)	40.7	41.0	41.2	41.7
The number of provinces that have formulated a disaster control plan	0	63 (all provinces)	63	63	63

Source: documents provided by JICA, the line ministries, *NDC*, MOIT, *National Energy Efficiency Program (2019-2030) Draft*, Dec 2018

Note1: Tons of oil equivalent

Note2: Estimated amount of domestic energy consumption in 2013 on the basis of BAU as of 2008

Note3: Estimated amount of domestic energy consumption when energy saving measures are taken: 5% reduction compared to the BAU case

As for the amount of domestic energy consumption, the actual domestic energy consumption in the target year, 2013, was 37.0 million TOE, which was a 12.5% reduction from the estimated consumption on a BAU basis (42.3 million TOE) in 2013 at the time of the appraisal. This far exceeded the 5% reduction target. The actual rate of reduction in domestic energy consumption based on 2010 (Table 7), which is the base year for GHG emissions reduction in the *NDC* in Viet Nam, was a 6.5% reduction compared to the BAU case in 2013 and a 6.9% reduction in 2015. In addition, there was a 6.0% reduction in total energy consumption from 2011 to 2015.

Table 7: Domestic Energy Consumption

	2010	2011	2012	2013	2014	2015
Estimated amount of domestic energy consumption (million TOE)	33.6	35.7	37.5	39.6	41.9	44.5
Actual amount of domestic energy consumption (million TOE)	33.6	34.5	35.2	37.0	39.1	41.5
Ratio of reduction (%)	0	3.3	6.2	6.5	6.6	6.9

Source: MOIT, *National Energy Efficiency Program (2019-2030) Draft*, Dec 2018

The forest coverage ratio has continued to increase due to the review and improvement of afforestation plans, and the target of *SEDP (2016-2020)* is to increase the ratio up to about 42% by 2020. Regarding the disaster control plan of each province, all provinces had developed disaster control plans by 2014 and were transiting to implementation. Also, guidelines on *Risk Management in River Basins*, which was developed with the support of JICA technical cooperation²¹, were completed in 2018. Based on the guidelines, disaster risk management plans for rivers were incorporated into the disaster control plans of provinces which have a large scale of rivers.

²¹ Project for Strengthening Capacity of Water Environmental Management in River Basin (2015-2019)

Table 8: Effect Indicators ((V) – (VII))

	Baseline	Target	Actual	
	2012	2018	2018	2019
				At the time of the ex-post evaluation
The number of new projects for wind power generation	0	3 or more (cumulative total value)	4	7
The number of JCM pilot projects (Note)	0	4 or more (cumulative total value)	9	14
The number of policies, strategies, plans, etc. newly formulated	-	50 or more (cumulative total value)	350 or more	350 or more

Source: documents provided by JICA and Line Ministries

Note: JCM (Joint Crediting Mechanism): a mechanism under which GHG reduction efforts by the diffusion of leading low carbon technologies, etc., are made in cooperation with developing countries and the achievement of these reductions are shared between the two countries.

In terms of the number of new wind power projects, seven new wind power projects were licensed as of June 2019, against a target of three or more, bringing the total wind generation capacity to 350 MW. The JCM program was launched in 2015, and 14 projects had been registered at the time of the ex-post evaluation. The registered projects are all energy-saving projects except for one solar project.

(2) Financial Effects

In the Program, a total of 1,268 million USD (including 775.6 million USD from JICA (about 60% of the total amount)) was provided from all donors to the Government of Viet Nam for 7 years from the term (I) to (VII), as shown in Table 9.²² The financial effect of the Program is considered in (a) effect on the government's fiscal balance, and (b) effect on the fund allocation for climate change responses.

²² In converting the financial contribution by JICA, AFD, DFAD and DFAT to USD, the foreign exchange rate at the end of year from the IMF's *International Financial Statistics* was used.

Table 9: Donors' Contribution to the Program

	(I) (2010)	(II) (2011)	(III) (2013)	(IV) (2014)	(V) (2015)	(VI) (2016)	(VII) (2017)
JICA (Loan) [% of JICA]	10,000 million yen (122.8 million USD) [82.1%]	10,000 million yen (128.7 million USD) [56.8%]	15,000 million yen (142.5 million USD) [51.0%]	10,000 million yen (82.9 million USD) [41.0%]	15,000 million yen (124.5 million USD) [85.1%]	10,000 million yen (85.6 million USD) [100%]	10,000 million yen (88.6 million USD) [49.6%]
AFD (Loan) (Note1)	20 million euro (26.7 million USD)	20 million euro (25.8 million USD)	20 million euro (27.6 million USD)	20 million euro (24.3 million USD)	20 million euro (21.8 million USD)	—	—
World Bank (Loan)		70 million USD	70 million USD	70 million USD			90 million USD
Korean EXIM (Loan)			30 million USD	20 million USD			
DFATD (Note 2) (grant)		4.45 million CAD (Note 4) (4.3 million USD (Note 5))					
DFAT (Note 3) (grant)			8 million AUD (7.1 million USD)	6 million AUD (4.9 million USD)			
Total	149.5 million USD	226.7 million USD	279.2 million USD	202.1 million USD	146.3 million USD	85.6 million USD	178.6 million USD

Source: documents provided by JICA

Note 1: Agence Française de Développement

Note 2: Canada, Department of Foreign Affairs, Trade and Development

Note 3: Australia, Department of Foreign Affairs and Trade

Note 4: DFATD provided one-time funding for two years.

Note 5: For convenience of calculation, the total amount of 4.45 million CAD provided by DFATD was divided into (II) and (III) equally.

(a) Effect on the government's fiscal balance

Looking at the fiscal situation of Viet Nam, the annual budget deficits during the Program period hovered between 29 trillion VND and 270 trillion VND, or between 1.4 billion USD and 12.3 billion USD. The ratio of the total donor funding (1.27 billion USD) to the total budget deficit (67.8 billion USD) over the same period was 1.9% (1.1 % with the Japanese ODA Loan only), and, on a single-year basis, it was less than 3% (1.5% with the Japanese ODA loan only) for all respective years except for 2010 and 2011. Thus, while the funds provided by donors under the Program contributed to the budget deficit to some extent, their effect was limited. Similarly, the ratio of the amount of funds provided by the donors under the Program to the amount of external borrowing by the Vietnamese government each year ranged from 3.2% to 8.4%, confirming a certain effect of the Program.

Table 10: Viet Nam's Fiscal Balance and the Program Effect

	(2009)	(I) (2010)	(II) (2011)	(2012)	(III) (2013)	(IV) (2014)	(V) (2015)	(VI) (2016)	(VII) (2017)
Fiscal Balance (trillion VND)	-109	-59	-29	-223	-207	-248	-270	-174	-236
External borrowing (trillion VND)	93	89	56	47	78	97	67	52	50
Fiscal Balance (million USD)	-6,075	-3,116	-1,392	-10,707	-9,840	-11,673	-12,334	-7,852	-10,524
External borrowing (million USD)	5,184	4,701	2,689	2,257	3,708	4,566	3,061	2,347	2,230
Total amounts provided by all donors under the Program/Fiscal Balance (%)	-	4.8	16.3	-	2.8	1.7	1.2	1.1	1.7
Total amounts provided by all donors under the Program/Foreign borrowing (%)	-	3.2	8.4	-	7.5	4.4	4.8	3.7	8.0
Total Japanese ODA Loans/Fiscal Balance (%)	-	3.9	9.2	-	1.4	0.7	1.0	1.1	0.8
Total Japanese ODA Loans/External Borrowing (%)	-	2.6	4.8	-	3.8	1.8	4.1	3.7	4.0

Source: IMF, *Staff Report for the Article IV Consultation*, 2014, 2015, 2016, 2017, 2018, documents provided by JICA

(b) Effect on the fund allocation for climate change responses

The funds provided by donors under the Program were incorporated into the general treasury account of the Government of Viet Nam in the form of general budget support without linking to the projects related to climate change. Therefore, a financial mechanism was formed to allocate the funds provided by the donors to SP-RCC for climate change related budgets as one of the policy actions of the Program.²³ While data on annual funds allocation for climate change related activities could not be obtained from MOF and MPI, documents provided by JICA showed that (i) the fund allocation for the NTP-RCC in 2010 increased from the original 67.5 billion VND to 141.8 billion VND and (ii) the fund allocation for the NTP-RCC and SP-RCC in 2012 was 349 billion VND. The data indicates that the fund allocation for climate change related budgets largely increased.

In addition, the “Climate Public Expenditure and Investment Review” produced by MPI, the World Bank and UNDP in 2015 found that the share of the budget for climate change action among the total budgets of the major ministries involved in climate change response (MONRE, MARD, MOIT, MOT and MOC) was around 18% between 2010 and 2013, with the budget for climate change actions occupying a significant position. While the budget for the climate change related activities of the five ministries above decreased from 4.3 trillion VND in 2010 to 3.8 trillion VND in 2013 due to measures to tighten public investment budgets²⁴, the rate of increase in the budget for climate change related activities in each ministry from 2010 to 2013

²³ Government Office Letter No. 8981/VPCP-QHQT dated 10 December 2010 on the Approval of the Financial Mechanism of SP-RCC.

²⁴ Decree 1792/CT-TTg, 5/10/2011

was maintained at almost the same level as the rate of increase in the total budget of each ministry. This could indicate that in the context of the policy of tightening public budgets, there was an emphasis on securing a budget for climate change response. Furthermore, according to the *Climate and Green Growth Public Expenditure and Investment Review in the Mekong Delta* released by MPI in 2019, the amount of public investment for climate change and green growth in 13 provinces in the Mekong Delta region increased from 8.2 trillion VND in 2015 to 9.8 trillion VND in 2017.

Furthermore, in connection with the Program, as an independent initiative, the Vietnamese government initiated a financial mechanism to enable the financing of infrastructure projects that contribute to climate change adaptation measures for provinces and cities that are vulnerable to climate change (the selection criteria for the projects²⁵ and the joint circular of MONRE, MOF, and MPI on operation, monitoring, and reporting²⁶ for the financial mechanism were policy actions of the Program). Under this financial mechanism, 62 projects were approved between 2009 and 2015, of which 29 projects were allocated a total of 1.96 trillion VND²⁷, 50% of which were funded by donors. In addition, the total budget for the financial mechanism from 2016 to 2020 increased significantly to about 15.9 trillion VND, with more than 90 percent of the funding to come from donors.

Interviews with MONRE and MPI indicated that the promotion of mainstreaming climate change, including the government's commitment to tackle climate change issues and the integration of climate change response into the *Five-year Economic Plan*, has led to an increase in the budget allocation for climate change response, and that the SP-RCC has been contributing as part of this increase. Although the amount of the annual fund allocation for climate change response in each year was not available, existing documents show that the budget for climate change response has been increasing and that a large part of the increase has been funded by donors as mentioned above. Thus, the Program is judged to have made some contribution to the increase in the budget allocation for climate change response. On the other hand, since the Program was a general budget support loan, in which the funds provided by the donors under the Program were not necessarily allocated to the formulation and implementation of policy actions under the Program, practitioner-level staff at the line ministries expressed a desire for additional financial support in the form of direct funding for the implementation of policy actions under the Program and/or sector loans.

²⁵ Decision No.1719/2011/QĐ-TTg dated on 4 October 2011.

²⁶ Inter-ministerial Circular Ref. 03/2013/TTLT-BTNMT-BTC-BKHDT dated on 5 March 2013

²⁷ Under the financial mechanism, 62 high-priority projects were approved. However, since the projects needed to be approved by the Diet, which required a long approval process, some urgent projects were financed by other financial resources such as provincial's own resources. Thus, the budget was finally distributed to 29 projects.

3.2.1.3 Qualitative Effects (Other Effects)

(1) Effect of policy dialogues

The Program formed a platform for policy dialogues that brings together the ministries concerned in climate change response with development partners which are interested in supporting Viet Nam's initiative to address climate change in order that they can hold regular consultations on policy action formulation and the implementation status of the policy actions, besides providing funds. Interviews with the executing agency and several line ministries revealed the following effects of policy dialogue: (a) the effect on promoting the implementation of policy actions, (b) useful policy and technical inputs from the development partners, and (c) strengthening communication and networks among the line ministries.

(a) Effect on promoting the implementation of policy actions

A number of the line ministries commented that monitoring the implementation status of policy actions at the time of the policy dialogues put pressure on the line ministries to promote the implementation of policy actions, which in turn contributed to the progress of implementation. In addition, some line ministries confirmed that participation of deputy ministerial level of the line ministries in the policy dialogues raised awareness of the importance of the implementation of SP-RCC policy actions within the line ministries. The report of the implementation status of policy actions discussed in the policy dialogues with the NCCC has been recognized as an international commitment at the national level. These have led promotion of the progress of policy action implementation.

(b) Useful policy and technical inputs from development partners

The executing agency confirmed that at the start of the Program, policy formulation for climate change was a new challenge for the line ministries and that the experience of other countries, knowledge and technical inputs from the development partners through policy dialogues contributed to the formulation and implementation of the necessary policies. In addition, interviews with line ministries revealed that during the policy dialogues, technical and policy solutions and advice from the development partners were available when the progress of policy actions began to lag, which contributed to the promotion of policy action implementation and changes in the appropriate direction for the next steps. Furthermore, some line ministries commented that in areas where donors provided technical cooperation as a priority, they contributed to the selection and implementation of policy actions and the improvement of their quality by sharing their knowledge and skills with line ministries, including activities necessary for policy reforms, the sequence of such activities, experience from other countries and the survey results in Viet Nam. Thus, policy dialogue is considered

to have contributed to the implementation of policy actions as a platform for knowledge and skill sharing by the donors.

- (c) Strengthening a system to address cross-sectoral issues by promoting communication and information sharing among the line ministries and the donors

Interviews with the executing agencies and the line ministries revealed that consultation with other line ministries became easier due to the coordination between the line ministries and the donors which was formulated through the policy dialogues. In particular, the executing agency confirmed that the ability of MONRE to coordinate with the line ministries and the donors was enhanced and that networking among the line ministries was strengthened by the fact that MONRE, as an executing agency, coordinated the formulation of policy actions, monitored the implementation status of the policy actions, and coordinated with the donors. The line ministries also responded that inter-agency coordination was necessary for the implementation of policy actions across multiple line ministries, and that policy dialogues facilitated such coordination. This is judged to have contributed to the strengthening of the system to address cross-sectoral issues.

As mentioned above, it is considered that the policy dialogues have made a certain contribution to the promotion of response to climate change in Viet Nam. On the other hand, as the project progressed and the capacity of the line ministries for policy formulation and implementation was strengthened, a few line ministries which had no issues with the progress of policy actions and had not received technical support from donors, commented that the policy dialogue only confirmed the progress of policy actions and did not necessarily provide concrete and useful input from donors, thus diminishing the benefits of participation in the policy dialogue as mentioned above and subsequently reducing motivation to participate in the SP-RCC. One of the reasons for this is that two-way discussions between the line ministries and the development partners concerned have been constrained by a lack of elaborate preparations for the policy dialogues, as described in “3.3 Sustainability” below. A decline in the motivation of the line ministries to participate in the SP-RCC leads to a negative spiral effect that reduces the effectiveness of the policy dialogue which is an important component of the Program. Therefore, it is necessary to create a mechanism to maintain the usefulness of the policy dialogues and to maintain the motivation of the line ministries to participate. The MPI and MOF budget departments also participated in the policy dialogues. Several line ministries suggested that considering the need to implement new policies on climate change, budget-related ministries should participate in the policy dialogues and donor consultations as they are in charge of development budgets, etc., and because their participation has a positive impact on the budget allocation for climate change response, such as making it easier for the line

ministries to provide explanations when requesting related budgets. Their participation enables them to understand the overall trends in addressing climate change, including the implementation status of the overall climate change response as well as the line ministries' activities and priorities.

(2) Effect of JICA's efforts to promote policy actions through collaboration with experts and technical cooperation

A number of technical cooperation projects were provided by JICA in connection with the policy actions under the Program. JICA's technical cooperation projects and long-term experts directly related to the implementation of the policy actions are listed in Table 11 below. Among these, with regard to the technical cooperation project named "Project for Development of the National Biodiversity Database System," the ministry concerned commented that the development of the National Biodiversity Database System was included in the policy action on biodiversity conservation of the SP-RCC, and that this technical cooperation contributed to ensuring the implementation of the policy action. With regard to the energy efficiency and saving field, which was focused on by JICA, the ministry concerned revealed that a series of JICA technical cooperation projects to promote energy efficiency and saving, such as the development study named "Study on Master Plan for Energy Conservation and Effective Use in the Socialist Republic of Viet Nam (2008-2009)," technical cooperation named "Project on Strengthening the System and Operation on Standards and Conformance for Energy Efficiency and Labeling (2013-2016)," technical cooperation named "Project for Establishment of Energy Management Training Center (1st Stage (2011-12) & 2nd stage (2013-2015))," and an ODA loan named "Energy Efficiency and Renewable Energy Promoting Project," together with other support, contributed to spreading awareness of energy efficiency and saving in Viet Nam, and it is judged that JICA's assistance has contributed to ensuring the implementation of policy actions and further policy development. Furthermore, through a JICA technical cooperation project named "Project to Support the Planning and Implementation of National Appropriate Mitigation Action (NAMA) in a MRV manner," the establishment of GHG inventories, the measurement, reporting and verification of GHG emissions at national level, and the strengthening of the national capacity to respond to climate change was carried out.

In addition, with regard to the JICA advisor for climate change programs, who was dispatched to strengthen the implementation capacity of the PCU of the executing agency, the executing agency commented that the PCU was initially unfamiliar with policy reforms and lacked sufficient coordination capacity, so the advisor worked with PCU staff to coordinate within MONRE and among the line ministries, as well as among the donors, and that OJT-based training led to the strengthening of the PCU staff capacity. Interviews with some line ministries and donors also revealed that coordination among the line ministries and donors had proceeded

smoothly thanks to the contribution of the JICA experts to the PCU. In addition, interviews with the executing agency confirmed that the participation of JICA experts dispatched to the line ministries in the policy dialogues enabled them to reflect their opinions on the ground in each line ministry in the policy dialogues, and also to reflect the discussions in the policy dialogues into the policy formulation of the line ministries. Thus, it is judged that both types of JICA experts played an important role in the policy dialogues and contributed to promoting the implementation of policy actions.

Table 11: JICA’s Technical Cooperation Projects Directly Related to the Implementation of Policy Actions

Area	JICA Technical Cooperation Projects	Related Policy Actions
Overall	Long-term advisor “Advisor for Climate Change Program (2011-2015)”	<ul style="list-style-type: none"> Support the PCU of the executing agency
	Technical Cooperation “Project on Supporting the Implementation of Policy Actions for SP-RCC (2014-2015)”	<ul style="list-style-type: none"> After the completion of the 1st phase, technical assistance was provided to promote the implementation of policy actions in 2014, which were not adequately addressed due to the technical and budgetary constraints of the line ministries.
Sustainable forest management and development	Technical Cooperation “Project for Development of the National Biodiversity Database System (2011-2015)”	<ul style="list-style-type: none"> Develop the national master plan for biodiversity conservation to 2020 ((III)-(VI)) and implement the master plan (VII) Development of the National Biodiversity Database (III)
	Technical Cooperation “Dien Bien REDD+ Pilot Project (2012-2013)”	<ul style="list-style-type: none"> Develop a policy to provide for piloting the Benefit distribution system to implement REDD+ pilot projects (VI)
Energy Saving and conservation	Development Study “Study on Master Plan for Energy Conservation and Effective Use in the Socialist Republic of Viet Nam (2008-2009)”	<ul style="list-style-type: none"> Prepare the regulatory framework for improving energy efficiency and conservation (I), and prepare the regulations to enforce the Law on energy efficiency and conservation (II)
	Technical Cooperation “Project for Establishment of Energy Management Training Center (1 st Stage (2011-12) & 2 nd stage (2013-2015))”	<ul style="list-style-type: none"> Adopt a certification system for energy managers (IV) and develop an examination and qualification system for energy managers and energy auditors (VII)
	Technical Cooperation “Project on Strengthening the System and Operation on Standards and Conformance for Energy Efficiency and Labeling (2013-2016)”	<ul style="list-style-type: none"> Adopt a labeling system for energy products (IV) Energy efficiency testing for household air-conditioners and refrigerators (VII)
Strengthening Climate Change	Technical Cooperation “Project for Capacity Building for National Greenhouse Gas Inventory (2010-2014)”	<ul style="list-style-type: none"> Establish the National GHG Inventory system (V) & (VII) Develop BUR1 (V) and BUR2 (VII)
	Technical Cooperation “Project to Support the Planning and Implementation of NAMAs in a MRV Manner (2015-2020)”	<ul style="list-style-type: none"> Conduct a study to make recommendations on the development of M&E tools to monitor and evaluate the implementation of the NCCS (VI) Prepare a framework for the MRV system for GHG mitigation activities in Viet Nam (VII)

Source: documents provided by JICA, JICA, *Study on the outcomes and challenges of the program loans to response to climate change*, December 2015

(3) Other effect indicators

In addition to the aforementioned indicators, the following Result Framework, which was agreed upon by the Government of Viet Nam and the World Bank at the implementation of the World Bank's projects²⁸, was set as other indicators in the term (III) (Table 12). As of 2016, all indicators had been achieved according to the World Bank's project completion report. With regard to the data collection for these indicators, the ex-post evaluator could not confirm the agreements between MARD, MOIT, etc. who supposed to provide these indicators and JICA regarding the collection of the data after the completion of the World Bank project completion report and the provision of the data for JICA's ex-post evaluation.

Table 12: Result Framework for the World Bank Projects

Area	Target	Actual (2016)
Water Resources Management	Coordinated program with a new legal framework for integrated water management in place and operation	3 new legal integrated water resource management instruments taken ((i) New Law on Water Resources, (ii) National Action Plan for Water Resources Management, and (iii) Implementation of Decree of the Law on Water Resources)
	3 irrigation management schemes being transferred at secondary level	(This indicator was canceled due to a change in the method of irrigation management.)
Energy Saving and Conservation	100 energy auditors completed training courses in the industrial sector (of which 50 fully certified auditors)	250 energy auditors fully certified by the MOIT
	1,000 energy managers certified in the industrial sector	2,500 energy managers certified by the MOIT
	1,000 energy efficiency plans and implementation reports of large energy end-users of the industrial sector are received by MOIT or provincial DOITs (of which 600 have been prepared by certified energy managers.)	1,725 energy efficiency plans and implementation reports received from large energy end-users of the industrial sector
Strengthening Climate Change	Adaptation methodology to guide prioritization is available.	Adaptation prioritization framework is in operation and is being used in planning including the annual SEDP.
	Low carbon development assessment initiated	(This indicator was canceled later.)
	All provinces have disaster risk management plans and 2 provinces are identified for the piloting of monitoring and evaluation.	All 63 of provinces have disaster risk management and reduction plans.
	Comprehensive legal framework for multi-hazards in place establishing a unifying legal framework for disaster risk action	The new Law on Disaster Prevention and Control, which provides a comprehensive unified legal framework to address climate hazard, was established in 2013 (this indicator was modified from the original one).
	National platform in place for all stakeholders to coordinate disaster risk management and reduction and climate change adaptation actions	
Financial Mechanism	Financial mechanism for using ODA for climate financing	Circular 03/2013/ TLT-BTNMT-BTC-BJHD provided clear guidance on management of the climate change financial mechanism including priority planning and sectoral allocation (this indicator was modified from the original one).
	Task force facilitates information sharing, coordination of and access to climate finance including market-based instruments.	

Source: The World Bank, *Implementation Completion and Result Report for Climate Change Development Policy Operation*, September 2016

²⁸ The World Bank, *First Climate Change Development Policy Operation*, December 2011

3.2.2 Impacts

3.2.2.1 Intended Impacts

The expected impact of the Program at the time of the appraisal was sustainable economic development by reducing disaster risks related to climate change in Viet Nam and climate change mitigation. While activities for disaster risk reduction were included in the policy actions of the Program, it was difficult to measure the impact of the risk reduction on economic development. Similarly, with respect to climate change mitigation, the government was in the process of calculating GHG emissions at the time of the ex-post evaluation, so it was difficult to measure the quantitative effects. In addition, since the policy actions implemented in the Program were mainly the establishment of a legal and regulatory framework for the response to climate change, and as identifying the effects and impacts of climate change mitigation actions requires a mid to long term period, it was difficult to measure the qualitative effects of the mitigation actions in this ex-post evaluation. Thus, all of these factors made it difficult to measure the overall program impact at the time of ex-post evaluation. Therefore, as described in “2.3 Approaches and Constraints of Evaluation”, the quantitative analysis of the impact only covers areas where quantitative effects could be identified (e.g., energy saving and conservation and renewable energy), while the qualitative analysis was carried out to the extent that it could be grasped in changes caused by the implementation of policy actions and the effects of JICA’s technical assistance.

(1) Quantitative Effect

The quantitative effects of climate change actions have been observed in terms of energy savings and conservation and renewable energy. Regarding energy savings and conservation, according to the 3rd *VNEEP (2019-2030)* issued in 2019, a 3.4 % reduction in commercial energy consumption reduction was achieved in the 1st *VNEEP (2006-2010)* period, compared to the target of 3-5% reduction in commercial energy consumption in the same period of time. Similarly, compared to a 5-8% reduction in the total energy consumption target of the 2nd *VNEEP (2012-2015)*, a 5.7% reduction in total energy consumption was achieved over the same period. It can be considered that these have resulted from the enactment and implementation of the *Law on Energy Efficiency and Conservation*, the introduction of the system of energy managers and energy auditors, and the implementation of policies to promote energy saving and conservation, including the introduction of energy saving standards for building construction and energy saving labeling for home appliances. Regarding the renewable energy sector, the *National Power Development Master Plan (2011-2020)* formulated in 2011 set targets for the share of renewable energy (mini-hydro power, solar power, wind power, biomass power, and waste to power) in the total power generation capacity at 5.6% (about 4,000 MW) in 2020 and 9.4% (about 13,800 MW) in 2030. On the other hand,

the revised plan in 2016 significantly raised the target share of the renewable energy capacity to 9.9% (about 6,000 MW) in 2020 and 21% (about 27.3%) in 2030. According to interviews with MOIT, as of May 2019, the renewable energy generation capacity was over 5,000 MW, which was a significant increase on a basis that this was well above the original plan.

(2) Qualitative Effect

- (a) Status of the implementation of climate change actions after the completion of the project and actual changes due to the implementation of policy actions

(Energy Savings and conservation)

In the field of energy savings and conservation, efforts have continued to be made in industries, buildings, and urban development, including the establishment of minimum energy performance standards in industries (so far, implemented in six industries: steel, seafood processing, beverages, plastic, food processing and cement), the introduction of regulations for energy conservation labeling for home appliances and industrial machinery, training for energy managers and energy auditors, the establishment of NAMA in the cement industry, the establishment of energy-saving building construction standards, and the introduction of energy saving street lighting systems. In addition, the 3rd VNEEP (2019-2030), enacted in 2019, targeted a 5-7% reduction in commercial energy consumption between 2019 and 2025, and an 8-10% reduction in total energy consumption between 2019 and 2030. In the transportation sector, before 2017, newly assembled and imported vehicles were subject to the Euro 2²⁹ emission technical regulation, but since 2017, the Euro 4 emission technical regulation has been applied to newly assembled gasoline motor vehicles, and from 2018, it has been applied to in-use motor vehicles as well as new gasoline and diesel vehicles.³⁰ In addition, regulations on energy labeling for cars began in 2017, with the requirement for newly produced, assembled and imported cars of 9 seats or less being applied from 2017, and for motorbikes from 2018. Under the regulations for in-use vehicles, the regulations for exhaust gas emission control were introduced in 2019, and emission testing has been required from 2020.³¹

²⁹ Step-by-step automotive emission regulations in the EU, starting with Euro 1 in 1992 and scheduled to be followed by Euro 7 in 2020. Emission standards have been set for carbon monoxide, hydrocarbons, nitrogen oxides, particulate matter, etc., and the emission standards get stricter from Euro 1 to Euro 7.

³⁰ According to the World Bank's Implementation Completion and Results Report, *Climate Change and Green Growth Development Policy Financing*, June 2019, NOx emissions from small cars fell by 7.49% in the two years from 2017-2018 after the introduction of Euro 4 regulations.

³¹ While emission testing for vehicles has been implemented since 1999, it becomes mandatory from 2020.

(Renewable energy)

In the field of renewable energy, in order to promote renewable energy projects, a financial support mechanism was established including measures to make purchase prices for wind power, solar power, biomass, and waste to power generation more flexible (Feed-in-Tariff), and the creation of a database (online map) on renewable energy (biomass, solar, and wind) (2018) were implemented. The master plans related to renewable energy, such as solar, wind, biomass, and mini-hydro, were integrated under the *Law on Planning*, which came into effect in January 2019.



Wind power plant
(Nin Thuan province)

(Forest management and conservation)

The new *Law on Forestry* enacted in 2018 integrates forest protection and development plans and special uses of forests, etc., which were in the policy actions, while also allowing for the participation of private companies and communities in forest protection and development regulations, which is expected to lead to more efficient forest management.

(Disaster risk management)

In terms of disaster risk management, the measures to reduce disaster risk including rehabilitation to improve the strength of river basins, the proper management of reservoirs, river basin erosion protection, mangrove forest development, and coastal and coastal dike protection have been implemented, although it is difficult to measure the specific effects of these actions. However, the strength of dikes has been increased by 40%, and disaster response has been strengthened from a response to a disaster occurring at the level of one in 100 years to a disaster occurring at the level of one in 300 years.

(b) Impact of collaboration with JICA technical cooperation

As described in “3.2.1.3 Qualitative Effects (Other Effects)” above, a number of technical cooperation projects were provided in several fields to promote the implementation of policy actions under the Program and contributions were made. Among them, for the JICA’s technical cooperation project, “Project for Development of the National Biodiversity Database System,” the data in the database developed with the support of this technical cooperation has been utilized as basic data for the *Master Plan for Biodiversity Conservation*, baseline reports for the Convention of Biological Diversity, the development of guidelines for biodiversity inventories, amendments to the *Law on Biodiversity Conservation* and amendments to the

National *Biodiversity Strategy*, etc., and it can be said that the JICA support has contributed to the implementation of subsequent policies on biodiversity conservation. With regard to JICA’s technical cooperation project, the “Project on Strengthening the System and Operation on Standards and Conformance for Energy Efficiency and Labeling,” this project facilitated the establishment of the first energy efficiency labeling and energy efficiency standards for products in Viet Nam. The energy efficiency measurement format for air conditioners and refrigerators developed in this project has been also applied to measuring the energy efficiency of other electrical appliances. At the time of the ex-post evaluation, 18 products (home appliances such as refrigerators, air conditioners, and LED TVs, industrial equipment, emission standard stickers for motorcycles and cars) were subject to energy efficiency labeling, and it can be said that a certain ripple effect has been recognized.

As mentioned above, the quantitative impact has been confirmed in the field of energy savings and conservation and renewable energy, and it can be judged that the actions to establish an institutional framework for energy savings and conservation and the actions to promote renewable energy projects, which were implemented through the policy actions in the Program, have contributed to these impacts.

Examples of Energy Efficiency Labeling (emission standard labeling)



Drier



Rice cooker



Car

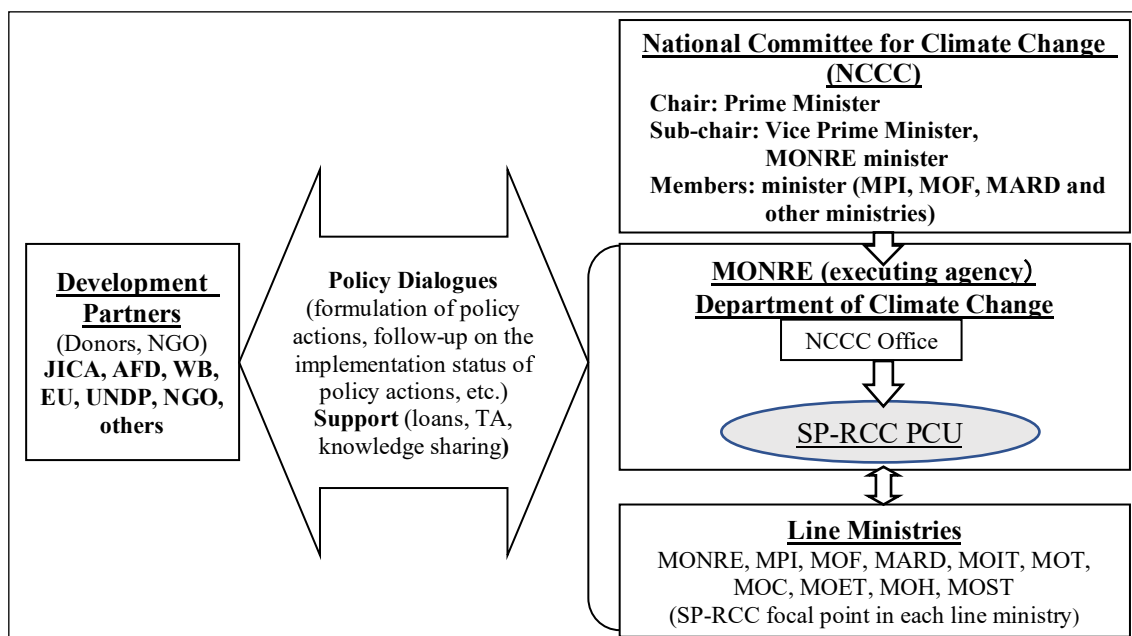
From the above, it can be seen that most of the policy actions (93% of the total) in the Program were achieved, and that all operational and effect indicators met their targets. In addition, the budget allocation for climate change response has been increased, and it is judged that the Program made a certain contribution to this increase. It was confirmed that the policy dialogues promoted the implementation of policy actions and strengthened inter-agency and inter-donor coordination, and that JICA’s technical cooperation contributed to ensuring the implementation of the relevant policy actions. In particular, the activities of the JICA long-term experts dispatched to the PCU of the executing agency and the line ministries were judged to have played an important role in the progress of the policy dialogues. In terms of project impact, quantitative effects have been identified in the field of energy savings and conservation and renewable energy, and the development of a legal and institutional framework in each field has continued. In light

of the above, the Program has largely achieved its objectives. Therefore, the effectiveness and impacts of the program are high.

3.3 Sustainability

3.3.1 Institutional/Organizational Aspect of Operation and Maintenance

Although the Japanese ODA loan to the SP-RCC ended in 2017, the SP-RCC has continued. The current organizational arrangement is being implemented in line with the Program framework approved by the Prime Minister in April 2011, as described in “3.1.4.2 Appropriateness of Implementation Structure” (Figure 1). On the other hand, the current PCU of the executing agency has three members, including the Deputy Director General of the Department of Climate Change, which has been reduced from the previous nine members (seven of whom were employed through the JICA support). Interviews with the executing agency, the line ministries, and the donors revealed the following points: (i) the current PCU of the executing agency has not been able to sufficiently check and revise the implementation status of policy actions submitted by the line ministries, which has resulted in the PCU simply compiling the information collected, and (ii) since materials related to implementation of policy actions are sent to the donors just before the policy dialogues, it is difficult for the donors to make sufficient preparation for the policy dialogues, leaving staff in the Viet Nam offices of the donors to deal with the situation, instead of inviting the relevant staff from the headquarters. This limits the usefulness of the policy dialogues for both the line ministries and the donors concerned, and, for example, results in the inability to make useful proposals in a timely manner. In addition, since practitioner-level staff are assigned as the focal points of the line ministries for the SP-RCC, the coordination tasks for the SP-RCC are an additional workload for these staff, and it is often difficult for them to carry out substantive coordination within the ministries. This makes it for them to perform more than their role as coordinators within the ministries. It is considered that these are some of the factors that inhibit the motivation of the line ministries to actively participate in the SP-RCC. Thus, it is necessary to better motivate the line ministries to participate in the SP-RCC by increasing the usefulness of the policy dialogues through the establishment of a system that allows the line ministries and the donors to prepare adequately for the policy dialogues and allows for the exchange of useful opinions and knowledge in a two-way manner at the policy dialogues.



Source: documents from JICA

Figure 1: SP-RCC Implementation Structure

3.3.2 Status of Operation and Maintenance

The 3rd phase of SP-RCC (2016-2020), which is currently being implemented, has policy actions built on the policy measures presented in the *NCCS* and *NGGS*. To date, the AFD and the World Bank have provided loans of 1 million euros and 90 million USD in 2019 and 2017, respectively, for the 3rd phase, and it is planned that a further loan of approximately 79 million USD will be provided by the World Bank in 2020. The main policy actions achieved in the 3rd phase are shown in Table 13 below, where policies and regulations pertaining to mitigation and adaptation continue to be enacted in each area.

Table 13: Main Policy Actions Achieved in the SP-RCC 3rd Phase

Area	Major policy actions achieved
1. Proactive disaster preparedness and climate monitoring	<p>[Enhancing disaster risk reduction, early warning and climate monitoring]</p> <ul style="list-style-type: none"> Developed a guideline for assessment of climate change impact and national climate (2016) Developed a guideline for the implementation of the Hydro-Meteorology Law and a regulation for the monitoring activities of the network of national hydro-meteorological stations (2016) Developed a regulation on the type and duration of news on hydro-meteorology forecasts and warnings, and regulation on administrative sanctions in the field of hydro-meteorology (2017) Formulated the Hydrometeorology Development Strategy (2021-30) (2019)
2. Food and water security	<p>[Food Security]</p> <ul style="list-style-type: none"> Developed a Decree on the incentive mechanism and guidelines for encouraging the development of small irrigation systems, infield irrigation systems, more advanced and efficient irrigation systems (2018) <p>[Water resource management]</p> <ul style="list-style-type: none"> Developed regulations on the identification of sanitary protection zones for water supply (2016), and developed a list of priority water source protection corridors identified and adopted at provincial level (2017) Developed a guideline for the filling of unused drilling wells, underground water protection, and safe sewerage management (2017,2018)

Area	Major policy actions achieved
3. Proactive responses to sea level rise	<p>[Strengthening the climate-resilience of infrastructure]</p> <ul style="list-style-type: none"> • Developed a regulation on the procedures on green building assessment (2018) <p>[Integrated coastal management]</p> <ul style="list-style-type: none"> • Proposed a multi-sectional coordination mechanism on climate change response on the Mekong River Delta (2016) • Developed a guideline on directing coastal provinces in the development of provincial integrated coastal management (2017) • Developed a guideline for the development of a national master plan for sustainable exploitation and use of coastal resources and a Decision on national coastal functional zoning (2017)
4. Sustainable forest management and development	<p>[Strengthen the sustainability of forest management and biodiversity conservation]</p> <ul style="list-style-type: none"> • Submitted the National Forest Reference Emission Level and/or Forest Reference Level to UNFCCC (2016) • Developed a guideline for the technical guidelines for the development of coastal forests (2016) • Developed a guideline for the review of coastal protection forest planning (2017) • Formulated the new Law on Forestry (2017) • Formulated the revised Law on Biodiversity (2018) • Formulated the revised National REDD+ Action Program to 2030 (2017)
5. Reducing GHG emissions	<p>[Renewable energy]</p> <ul style="list-style-type: none"> • Developed a support mechanism for the development of solar energy (2017) and a support mechanism for solar energy development post-2018 (2019), Developed a regulation on procedures for the development of the projects and the PPA for solar power projects (2017) • Developed a revised incentives mechanism to develop wind power projects (2018), and developed a regulation on the revised PPA for wind energy (2019) • Developed the revised 7th National Power Sector Development Plan (2011-2020) • Developed the database (online map) of renewable energy (biomass, solar and wind) (2018) • Formulated the Roadmap for the implementation of the Renewable Energy Development Strategy for the period to 2030 (2019) <p>[Energy saving and efficiency and GHG emissions reduction]</p> <ul style="list-style-type: none"> • Developed the technical standards for EE testing for household refrigerators (2016) • Developed a regulation on automatic continuous monitoring for industrial sources (2016) • Developed the energy saving and efficiency benchmark (steel, beverages, plastic, pulp and paper, food processing, seafood processing) (2016-18) • Promoted training of energy managers and auditors (2016) • Developed a NAMA for the cement sector (2017) • Developed the plan for urban green growth development (2018) • Developed the National Program on Energy Savings and Efficiency to 2030 (VNEEP3) (2019) • Developed regulations on energy labeling (newly produced, assembled and imported motorbikes, cars of 9 seats or less) (2017, 2018) • Developed the roadmap for applying new emission standards for in-use cars, and used imported cars) (2019)
6. Strengthen government capacity for climate change response	<p>[Promoting mainstreaming of CC in national appropriate actions to reduce GHG emissions]</p> <ul style="list-style-type: none"> • Developed M&E tools for NCCS (2016) • Developed the plan to implement the Paris Agreement on Climate Change (2016)
7. Community capacity development	<p>[Enhancing capacity of health sector]</p> <ul style="list-style-type: none"> • Developed the action plan to respond to climate change for the health sector for the period 2018-2023 (2018) <p>[Awareness raising education and training]</p> <ul style="list-style-type: none"> • Developed guideline documents on safe schools for primary and secondary school level and high schools (2016-2018)

Area	Major policy actions achieved
8. Financial Mechanism	<p data-bbox="432 264 1161 293">[Diversifying financial resources and efficient and effective investment]</p> <ul style="list-style-type: none"> <li data-bbox="432 293 1177 322">• Developed a regulation on climate change expenditure classification (2018) <li data-bbox="432 322 1356 383">• Introduced a new market mechanism (low carbon hotels, high efficiency transformers in the power distribution system, others) (2016) <li data-bbox="432 383 1356 443">• Developed guidelines for the procedure to design and implement investment projects eligible for GCF funds (2017) <li data-bbox="432 443 1356 504">• Completed reports on the review of the design of a selected number of major climate change and green growth projects (2017) <li data-bbox="432 504 1356 564">• Developed provincial green growth action plans taking into account GHG emissions reduction (2018) <li data-bbox="432 564 1318 593">• Developed the report on climate change public expenditure and investment review (2019)

Source: executing agency, the line ministries, etc.

The mechanism for providing loans for projects that contribute to climate change adaptation, which was launched as an independent initiative of the Vietnamese government in connection with the Program, is still being implemented for provinces and cities that are vulnerable to climate change. As mentioned earlier in “3.2.1.2 Quantitative Effects,” budgets were distributed to 29 projects for the 2010-2015 program. For the 2016-2020 program, 61 projects have been approved by the Prime Minister to allow for smooth funding, and this funding mechanism is planned to be implemented beyond 2020.

3.4 Added Value by JICA

JICA played a leading role as the lead donor in the Program, not only in terms of funding but also in terms of support for the implementation system of the Program. In particular, due to the Program’s nature as general budget support, funds provided were not directly allocated to the line ministries, and instead, a platform was formed for policy dialogues between the development partners and the line ministries, where discussion on policies and activities needed to address climate change took place. The most important aspect of the effective use of this platform is the coordination ability of the PCU as the executing agency among the line ministries and the donors. Due to the fact that climate change is a relatively new topic in Viet Nam, and due to the nature of Viet Nam’s vertically-divided administrative system, the task of coordinating the line ministries is not easy. Therefore, in the Program, aiming at building the capacity of the PCU of the executing agency, JICA dispatched long-term experts to the PCU to strengthen the capacity to conduct its tasks, including inter-ministerial coordination and inter-donor coordination, on an OJT basis. It was confirmed by the PCU of the executing agency as well as the line ministries and other donors that this enabled the platform for policy dialogues to work effectively. The dispatch of Japanese experts was very meaningful, taking into account the practical capabilities of the PCU of executing agency, in projects that required coordination with many line ministries and donors. Since few donors have the mechanism to dispatch long-term experts, JICA’s dispatch of long-term experts was very effective in the Program.

4. Conclusion, Lessons Learned and Recommendations

4.1 Conclusion

The objective of the Program was to (i) mitigate climate change by GHG absorption and emission control, (ii) build adaptive capacity to deal with the harmful impacts of climate change, and (iii) enhance measures for cross-sectional issues concerning climate change by supporting the responses to climate change taken by the Government of Viet Nam through policy dialogues, thereby contributing to sustainable economic development by reducing risks such as disasters caused by climate change in Viet Nam and also contributing to the mitigation of climate change. The Program was consistent with the development policy of Viet Nam, its development needs, and with Japan's ODA policy. In addition, the process of policy matrix formulation and the institutional arrangements to monitor the implementation of policy actions were appropriate. Thus, its relevance is high. Most of the policy actions were completed, and the targets of all operation and effect indicators were achieved. Also, it is identified that the project has contributed to climate change related funding to some degree and that the policy dialogues and JICA's technical cooperation has had a certain contribution to the progress of the policy action implementation. Furthermore, quantitative effects in the field of energy efficiency and renewable energy have been identified. Thus, the effectiveness/impact of the Program is high. SP-RCC has continued to build a legal and regulatory framework for climate change responses after the Program with same institutional arrangement for implementation as before.

4.2 Recommendations

4.2.1 Recommendations to the Executing Agency

None

4.2.2 Recommendations to JICA

None

4.3 Lessons Learned

(1) Inclusion of a mechanism to increase the motivation of relevant ministries to participate in budget support loans that support climate change responses

Interviews with the line ministries confirmed that, due to the nature of the general budget support program where loan funds were not necessarily allocated for the implementation of policy actions under the Program, some were less motivated to participate in the Program. In the case of budget support loan programs for climate change responses, in addition to providing loan funds, policy dialogues with the relevant ministries and relevant donors are conducted to monitor the implementation of policy actions and discuss other issues. However, since the loan funds provided are credited to the national general account without linking to the Program, depending on the

circumstances, the participating ministries may be less motivated to participate in the policy dialogues. Therefore, it is necessary to adopt measures to continuously increase motivation to participate in the policy dialogues. For this, the following measures can be considered:

- (i) Policy dialogue should not be merely an opportunity to monitor policy actions, but should be a place where two-way discussions between participating ministries and relevant donors are conducted. They should include the provision of international experience and information from donors to participating ministries on policy formulation and implementation related to climate change response, the proposal of solutions in case of delays in the progress of policy actions, and the proposal of requests from participating ministries for knowledge and experience on promoting climate change policy, including the implementation of policy actions;
- (ii) Participants from relevant ministries and development partners in the policy dialogues should be higher ranking in order to raise the importance of climate change response within relevant ministries and motivate the staff involved; and
- (iii) Development partners should encourage a government to create a financial mechanism, as the government's own initiative, which enables the allocation of funds provided by donors for climate change actions, such as the financial mechanism for climate change adaptation actions created by the Vietnamese government on its own initiative in relation to the Program.

In order to implement (i), it is necessary to conduct thoughtful preparation for policy dialogues, provide necessary information in advance so that donors can accurately contribute to the needs of relevant ministries, set policy actions in each term with the clarification by relevant ministries of mid-term targets for the next three to five years in each field, and discuss the knowledge and support necessary from donors at policy dialogues. In addition, as a prerequisite of the implementation of the above, it is desirable that after a thorough review of whether the PCU of the executing agency has the institutional capacity to sufficiently manage inter-ministerial and donor coordination, and whether relevant ministries have the sufficient capacity to formulate policies on climate change response at the time of the appraisal, measures to improve the institutional capacity of the PCU and strengthen the policy-making capacity of the relevant ministries, such as the dispatching of JICA experts to the PCU and the relevant ministries as necessary, should be implemented in conjunction with the project.

(2) Utilizing JICA long-term experts in policy support loans

In the Program, a JICA long-term expert was dispatched to the PCU of the executing agency with the aim of strengthening the implementation capacity of the PCU, supporting their coordination works with the line ministries and the donors on an OJT basis, and thereby facilitating policy dialogues. In addition, the participation of JICA long-term experts dispatched

to the line ministries in the policy dialogues was very beneficial not only for the technical responses in the policy dialogues but also for bringing the discussion of the policy dialogues into the policy formulation of the line ministries. When policy support loans involving multiple ministries are provided, taking into account the extreme importance of the coordination capacity of the executing agency in such projects, providing support to strengthen the coordination capacity of the executing agency is considered to be essential for the smooth implementation of such projects. Furthermore, the relevant ministries often need knowledge transfer and technical cooperation for their policy formulation activities. Support from JICA experts to the relevant ministries in their policy formulation activities can help understanding of the policy direction and challenges of the recipient countries in policy formulation, which can make it easier for JICA to take the appropriate responses to the ministries. For this reason, it is advisable that JICA utilize long-term experts by dispatching them to positions close to policy makers in the relevant ministries as an effective tool in ODA loans which support policy reform. While utilizing long-term experts who are already dispatched to the relevant ministries can be considered, in such cases, it is necessary to take measures to encourage the participation of such experts, including modifying their TOR.

(3) Enhancing the monitoring of the implementation of policy actions in policy support loans

In the Program, the implementation status of policy actions in each term was confirmed at the policy dialogues of each term, and ODA loans were disbursed after taking into account actions achieved as well as the likelihood of achievement of the actions that were not yet achieved at the time of the policy dialogues. Although the implementation status of the actions that had not yet been achieved at the time of the policy dialogues were rechecked at the time of follow-up or the of the policy dialogues from the following year, there were a few cases where their progress was not rechecked subsequently. In policy support loans over multiple years, monitoring of the implementation of policy actions tends to be concentrated in the year in question. However, it is desirable that the implementation status of unachieved actions is checked in subsequent policy dialogues and/or at other opportunities in order to confirm the appropriateness of loan disbursements.

(4) Agreement on the establishment of key monitoring topics and information collection in policy support loans, taking into account the capacity of the agencies concerned

The ex-post evaluation of a policy support loan is supposed to confirm the achievement status of policy actions and the progress made after the achievement of the policy actions using the evaluation items of effectiveness/impact at the time of ex-post evaluation. Effect indicators which were established to measure the project effectiveness are also confirmed at the time of the ex-post evaluation. The Program was implemented over seven terms beginning in 2009, with 254 policy

actions in which 10 ministries (about 40 departments) were involved for the implementation. Under these circumstances, the line ministries and other entities experienced a heavy workload in confirming the implementation status of all policy actions at the time of ex-post evaluation. Thus, it is desirable that a method is set up for obtaining the achievement status of policy actions at the time of ex-ante evaluation in such a way that the workload of line ministries and the ex-post evaluators will not be excessive. In this case, considering the number of policy actions to be confirmed and the status of their achievement obtained by an executing agency, the scope of the policy actions to be confirmed at the time of ex-post evaluation could be: (i) limited to policy actions in the priority areas for JICA, (ii) limited to only major trigger actions, with the expansion of the number of major trigger actions to the extent that the overall progress of the Program can be captured, (iii) limited to policy actions set as operation and effect indicators, with the expansion of the number of these indicators to the extent that the overall project effect can be captured, or (iv) all policy actions in the program.

While the indicators set in the World Bank projects were used as other indicators in the Program, at the time of ex-post evaluation it was not possible to confirm whether an agreement had been reached with line ministries to provide the relevant data for JICA's ex-post evaluation purpose. It is desirable that JICA is in agreement with an executing agency as well as with the ministries that provide relevant data for indicators on data collection methods and that the data is provided at the time of JICA's ex-post evaluation in the project appraisal stage, and the agreement is recorded in writing.

End