

Ex-Ante Evaluation (for Japanese ODA Loan)

1. Name of the Project

Country : Socialist Republic of Viet Nam

Project : Energy Efficiency and Renewable Energy Promoting Project

Loan Agreement : November 10, 2009

Loan Amount : 4,682 million Yen

Borrower : The Government of the Socialist Republic of Viet Nam

2. Background and Necessity of the Project

(1) Current State and Issues of the Energy Sectors in Viet Nam

Vietnam is enjoying one of the highest economic growths in Asian countries, with GDP growth rate of around 8% over the past several years. Also, Vietnam officially became a member of the World Trade Organization (WTO) in January 2007, and it is expected to continue high economic growth, supported by foreign direct investment.

Having recorded a recent high economic growth, nationwide energy demand has been increased. According to the Study on National Energy Master Plan in Vietnam JICA Energy Master Plan in 2008, energy consumption has increased 5 times from 1990 to 2005. Going forward, this rapid increase of energy demand is expected to continue in Vietnam. As well, Vietnam's primary energy consumption per GDP (one million U.S. \$) was 618 tons in oil equivalent, which was less effective compared to India, that indicates much more energy saving potential than that of Japan (106 oil equivalent tons/GDP).

Regarding to the renewable energy, its power generation in 2005 was only 265.57GWh, which was approximately 0.5% of the total power generation (51769.68GWh) in Vietnam. There are challenges in renewable energy supply, since the renewable energy use is relatively lower against its potential.

(2) Development Policies for the Energy Conservation and Renewable Energy in Viet Nam and the Priority of the Project

The Vietnamese government has been making concrete efforts in promoting EE activities. On demand side, the National Target Program on Economical and Efficient Use of Energy (2006)¹ has been established, and has set the goal of reducing the total national energy consumption by 5~8% from 2011 to 2015. On the supply side, the National Energy Strategy (2007) has been established, and has set the goal of a generated amount of renewable energy of 5% of the total generated energy by 2020. Furthermore, the Vietnamese government established the "National Target Program to Respond to Climate Change," in 2008², led by the Ministry of Natural Resources

¹ Prime Minister Decision No. 79/2006/QD-TTg of April 14, 2006 approving the national target program on economical and efficient use of energy.

² Prime Minister Decision No.158/2008QD-TT dated 2 December 2008 approving national

and Environment, in order to strengthen its climate control strategy which includes the promotion of energy efficiency and renewable energy.

(3) Japan and JICA's policy and Operations in Energy Efficiency and Renewable Energy Field

In Japan's Country Assistance Program for Viet Nam (July 2009), cooperation in the field of stable supply of resources and energy has been raised within the focused field of the support, namely "Economic Growth Promotion and Strengthening of International Competition," and is in line with the plan to continue support in the promotion of energy efficiency in response to the growth in electricity demand. Moreover, in response to this plan, energy savings that are linked to "Promotion of Economic Growth / Strengthening International Competitiveness" are promoted. Support for the energy field has been positioned in the "Stable Supply of Energy Program," and this project is carried out as part of that program.

Moreover, Japan's Ministry of Economy, Trade and Industry has announced its "New National Energy Strategy," in 2006, and launched the "Support for Institutional Approach of Asian Nations" for energy efficiency and renewable energy, and Viet Nam has been raised as one country of focus. Based on this strategy, the cooperation between Japan and Viet Nam in the field of energy saving promotion was included in a joint announcement in 2006. Furthermore, in January 2008, Japan announced the funding mechanism, "Cool Earth Partnership," which allows for up to 10 billion dollars in funding supply for developing countries, and establishes a system to promote the support of climate control for partner countries. This project supports Viet Nam, a Cool Earth Partner country, for both the reduction of greenhouse gas emissions and economic growth, as well as contributes to climate stabilization.

In recent years, in the field of energy efficiency and renewable energy, the "National Energy Master Plan Survey" was carried out in 2008, and the "Energy Saving Master Plan" has been carried out since 2008 as JICA's technical cooperations. Furthermore, support for this project is the first in the field of energy efficiency and renewable energy through a yen loan in Viet Nam.

(4) Other Donors' Activity

- a) World Development Bank "Demand Side Management and Energy Efficiency Project"(2004-2007)
- b) Asian Development Bank (ADB) "Supporting Implementation of the National Energy Efficiency Program Project" (2009-)
- c) U.N. Development Programme (UNDP), "Promoting Energy Conservation in Small and Medium-Sized Enterprises" (2005-2010), etc.

(5) Necessity of the Project

This project is in accordance with the fields focused on by Japan and JICA's aid, and the necessity and relevance for support of this project is high.

target program to respond to climate change.

3. Project Description

(1) Project Objective(s)

The objective of this project is to promote Energy Efficiency (EE) activities and Renewable Energy (RE) investments in enterprises (End-borrowers) in Vietnam, by promoting awareness campaign, and providing financial assistance to End-borrowers through the Vietnam Development Bank (VDB), and to strengthen the appraisal capacity of VDB through the technical assistance (TA), utilizing the experience of environmental financing in Japan. In doing so, the Project will contribute to sustainable development of Vietnam and mitigation of global climate change through reducing Greenhouse Gas (GHG).

(2) Project Site/Target Area

Nationwide in the Socialist Republic of Viet Nam

(3) Project Component(s)

a) Two-Step Loans: Provision of medium- and long-term loans through the Viet Nam Development Bank

b) Consulting Service: Promotion of business operations, technical support, etc.

(4) Estimated Project Cost (Loan Amount)

5,520 million yen (Loan amount: 4,682 million Yen)

(5) Schedule

November 2009 - December 2012 (38 months). Project completion is determined to be at the time of completion of the loan period (December 2012).

(6) Project Implementation Structure

1) Borrower : The Government of the Socialist Republic of Viet Nam

2) Executing Agency : VDB: The Viet Nam Development Bank

3) Operation and Maintenance System: To invest in the equipments and activities which contribute to promote energy-saving and renewable energy, based on the results of the financial screening and technical review by Viet Nam Development Bank.

(7) Environmental and Social Consideration/Poverty Reduction/Social Development

1) Environmental and Social Consideration

① Category: FI

② Reason for Categorization: This project provides financing for the financial mediator, and the subproject has not been designated before this mechanism has been approved. Furthermore, such subproject is assumed to have environmental effect. Accordingly, this project corresponds to classification category FI in the "JBIC Guidelines for Confirmation of Environmental and Social Considerations" (April 2002).

③ Other / Monitoring: In this project, the executing agency is determined to carry out economical and social considerations according to the "Japan Bank for

International Cooperation Guidelines for Confirmation of Environmental and Social Considerations” (established April 2002), and takes the needed response for the corresponding category in each project. Furthermore, it is assumed that no subprojects that correspond to Category A will be implemented.

2) Promotion of Poverty Reduction: None

3) Promotion of Social Development (e.g. Gender Perspective, Measure for Infectious Diseases Including HIV/AIDS, Participatory Development, Consideration for the Handicapped etc.) : None

(8) Collaboration with Other Donors: None

(9) Other Important Issues: The possibility of CDM application for several subprojects which are expected to qualify for emissions credit will be considered.

4. Targeted Outcomes

(1) Performance Indicators (Operation and Effect Indicator)

Indicator	Baseline (Actual Value in 2009)	Target (2014) (Expected value 2 years after project completion)
Reduction of GHG Emissions performed by Sub-projects(tones of CO2 equivalent/year)	—	To be determined before the project begins ³
Numbers of people attended to seminars (cumulative)	—	To be determined before the project begins
Reduction of Energy consumption (tones of oil equivalent/year or cutting amount of electricity or fuel /year)	—	20% reduction of the amount of energy used before the subproject begins
Amount of renewable energy generated by the loan targeted project (oil equivalent ton / year)	—	To be determined before the project begins

(2) Internal Rate of Return: the rate of return has not been calculated

5. External Factors and Risk Control

None.

³ The SAPI survey for this project was carried out from October 2009. The executing agency will be decided before 2010, with the support of the SAPI survey group.

6. Lessons Learned from Past Projects

(1) Setting of the Interest Rate

A lesson learned from similar projects undertaken in the past is that since a low interest rate will negate any merit of the project due to a decrease in the market interest rate, the system and scheme should be improved in order to flexibly adjust the yen loan interest rate according to changes which occur in the economical conditions after the project has begun. In consideration of this, the project must be set at an advantageous interest rate according to the Vietnamese market, by interconnecting the sub-loan interest with the fluctuating national investment interest according to changes in the market.

(2) Ensuring compliance with environmental policy

A lesson learned from similar projects in the past is that when support is carried out in a two-step loan type environmental conservation project, the competing relationship of subsidies prepared by other government-related agencies and the related plans must be analyzed, and needs to be adjusted. As such, this project will regularly hold an advisory commission with the participation of related agencies and government agencies to discuss trends in energy efficiency and renewable energy policies, etc., and whether the management of the operations of this project is in compliance with government policy.

(3) Ensuring Transparency of the Provision of Funds

A lesson learned from similar projects in the past is that in the development finance loans, there is the need to raise the transparency of the provision of funds and accountability in order to prevent the provision of funds to inappropriate subprojects, while on the other hand, screening must be simplified, which means that it is essential to establish general rules for subproject selection. As such, this project will not only prepare a screening manual, but also select subprojects based on the targeted energy-saving equipment and activity list prepared for this project.

7. Plan for Future Evaluation

(1) Indicators to be Used

- 1) Reduction of greenhouse gases in the loan target project (CO₂ equivalent tons / year)
- 2) Number of participants to the energy saving promotion seminar in the loan targeted project (persons)
- 3) Reduction in energy consumption amount by investments in energy-saving equipment by the loan targeted project (oil equivalent tons / year)
- 4) Amount of generated renewable energy by the loan targeted project (oil

equivalent tons / year)

(2) Timing

Two years after project completion.

以 上