

Ex-Ante Evaluation (for Japanese ODA Loan)

1. Name of the project

Country: The Socialist Republic of Viet Nam

Project: Can Tho University Improvement Project/ The Project for Building Capacity for Can Tho University to be an excellent institution of education, scientific research, and technology transfer

Loan Agreement: July 4, 2015

Loan Amount: 10,456 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 Higher Education Sector in Viet Nam

Aiming to become an industrialized country by 2020, Viet Nam achieved a high GDP growth rate, averaging 6.6 percent per year, between 2000 and 2013. Due to the rising need for industrial human resources driven by this economic growth, the number of universities, junior colleges, and faculty members has increased 1.8-fold, and the number of students has increased 1.7-fold between 2004 and 2012.

Meanwhile, the quality of education has not matched the rapid expansion in the number of universities, junior colleges, and students. For example, the proportion of faculty with doctorates in Viet Nam is only 10.6%, which is much lower than that of Japan (51.8%). Moreover, a comparison of the number of students per faculty member in Viet Nam (25.0 as of 2012) with the average of OECD countries (14.0 as of the same year) shows that Viet Nam has difficulties in providing high-quality education to students. Thus, it is essential to foster competent faculty with PhD degrees.

In addition to the above, various problems have surfaced, such as the lack of research equipment, the shortage of funds due to budget limitations, a poor education / research environment, the gap between the specialties demanded in the labor market and those acquired in universities and colleges (the shortage of students majoring in natural sciences and engineering). Thus, it is urgent to foster industrial human resources.

(2) Development Policies for the Higher Education Sector in Viet Nam and the Priority of the Project

The Government of Viet Nam has adopted the Socio-Economic Development Strategy for 2011-2020, which emphasizes the need of focusing investment in the improvement of labor efficiency, the enhancement of productivity, and the strengthening of competitiveness to achieve the goal of “developing education and training as well as science and technology to contribute to the modernization and industrialization of the nation.” Moreover, the Government of Viet Nam has developed the Human Resources Development Strategy (hereinafter referred to as the “HRDS”) 2011-2020 and the Human Resources Development Master Plan (hereinafter referred to as the “HRDMP”) 2011-2020 to foster industrial human

resources.

The HRDS 2011-2020 regards human resources as the most important asset that can facilitate the economic development, enhance international competitiveness, and promote social stability in the country. In particular, the HRDS aims to establish more than four leading universities of international standards and increase the number of faculty members and scientists.

The HRDMP 2011-2020 sets a target for the proportion of workers with vocational training in each sector. The focus of the human resource development is placed on how to raise the number of faculty members and the proportion of Master and PhD degree holders in order to improve the quality of education, especially at higher education institutions and vocational schools that can contribute to socio-economic development.

In this context, the Project aims to strengthen the research and education capacity of Can Tho University (hereinafter referred to as “CTU”), one of the model universities, to facilitate human resource development, advance the agricultural, fishery, and aquaculture industries in Viet Nam, and enhance resilience to climate change and other environmental hazards in the Mekong Delta region.

(3) Japan and JICA’s Policy and Operations in the Higher Education Sector

The higher education sector support falls into the category of support to “develop the industry and human resources towards sustainable development through strengthening the international competitiveness” under the priority area of “Promotion of Economic Growth and Strengthening International Competitiveness” as well as the category of support to “address emerging environmental issues caused by rapid urbanization and industrialization and address threats such as disasters and climate change” under the priority area of “Response to Fragility (Response to the Negative Impacts Brought by Economic Development)” in Japan’s Country Assistance Policy for the Socialist Republic of Viet Nam (December 2012).

Based on the HRDS and other relevant policies of the Government of Viet Nam, JICA’s Country Analysis Paper for the Socialist Republic of Viet Nam suggests that JICA should assist higher education institutions and vocational training schools in developing industrial human resources. Therefore, the Project is also consistent with the assistance policy of JICA.

Since the resumption of assistance to Viet Nam in 1992, JICA has supported the higher education sector through ODA Loan, Grant Aid, and Technical Cooperation projects to develop research facilities and human resources.

(4) Other Donors’ Activities

The World Bank has provided support to enact the Higher Education Law, establish the framework for quality control in higher education, and promote research activities. The Asian Development Bank is assisting Hanoi Science and Technology University, one of the model universities, in constructing facilities and building the capacity of faculty.

Moreover, the Governments of Australia and Belgium are implementing scholarship programs for students who desire to go to universities in their countries.

(5) Necessity of the Project

The Project is designed to support the development of industrial human resources to promote economic growth, as aimed by the Government of Viet Nam. The Project is in line not only with the development policies of the Government of Viet Nam but also with the assistance policies of the Government of Japan and JICA. Therefore, it is highly necessary and relevant for JICA to implement the Project.

3. Project Description

(1) Project Objective

The project will strengthen the research and education capacity in the agriculture, fisheries and environmental fields at Can Tho University. This will increase the quality and number of students to address the environmental problems of the Mekong Delta area, including growing the agricultural and fisheries industries in Viet Nam and combating climate change, thereby contributing to economic growth in the country.

(2) Project Site/Target Area

Can Tho City

(3) Project Components

1) ODA Loan Project

Human resource development: dispatch of students to study at doctoral (63 students) and master's (9 students) and short-term (91 students) programs in Japan.

Among the 63 students studying at doctoral programs, 52 students will be sent through the existing scholarship program of the Government of Viet Nam (Program 911).

Research support: financial assistance for 36 research projects

Construction: erection of research, laboratory, and other buildings (international competitive bidding)

Procurement of equipment: procurement of research and education equipment (international competitive bidding)

Consulting services: project management, assistance for students studying abroad, research support, procurement support, construction supervision, and accounting audit

2) Technical Assistance Project related to ODA Loan

(i) Input from the Japanese side

Long-term experts (141 man-months): Chief Advisor, Academic Advisor, and Coordinator / University-Industry Networking

Short-term experts: Joint Research, Education, Technical Support (common usage and management of equipment), and Administration

Training in Japan: joint research, technical support (common usage and management of equipment), and administration

Provision of equipment: minimum research and laboratory equipment required for model joint research

Project operational cost: expenses for model joint research, seminars, etc.

(ii) Input from the Vietnamese side

Counterparts: Project Director (Vice Rector for Facility Management of CTU), Project Manager (Vice Rector for Facility Management of CTU), and the Vice Rectors of relevant colleges and schools

Project office: office space in the administration building of CTU

Project operational cost: personnel and travel expenses of counterparts

(iii) Project Purpose / indicators

The research and education capacity of CTU in the three fields (agriculture, aquaculture / fisheries, and environment fields) is enhanced.

Indicators:

- Number of papers published in international journals/conferences
- Number of patents applied for
- Students' satisfaction rates with education programs
- Grades given to students at the time of graduation
- Satisfaction rates of researchers/teaching staff/students with technical support and administration systems

(vi) Outputs

1. Research capacity in the three fields is enhanced..
2. Education capacity in the three fields is enhanced.
3. Technical maintenance and administration system necessary for enhancement of research and education capacity is strengthened.

(v) Beneficiary groups (target groups)

Direct beneficiary groups:

- Researchers/Teaching staff (400 people) and Students (7,500 people) of the three fields of CTU
- Administrative staff of CTU (100 people)

Final beneficiary groups:

- University, industry, local government, and community located in the Mekong Delta Region (MDR) collaborating with CTU
- Industry employing CTU graduates

(4) Project cost

ODA Loan Project: 12,306 million yen (Loan Amount: 10,456 million yen)

Technical Assistance Project related to ODA Loan: 400 million yen (borne by Japan)

(5) Project Implementation Schedule

ODA Loan Project: March 2015 to March 2022 (85 months in total). The project completion is defined as when support for human resource development and research is completed (July 2022)

Technical Assistance Project related to ODA Loan: December 2015 to November 2020 (60months in total).

(6) Project Implementation Structure

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

- 2) Guarantor: None
- 3) Executing agency: CTU
- 4) Operation and Maintenance System: CTU
- (7) Environmental and Social Considerations/Poverty Reduction/Social Development
 - 1) Environmental and Social Considerations
 - ① Category: C

Reason for Categorization: The Project is classified as Category C because it is likely to have minimal adverse impact on the environment as specified in the “JICA Guidelines for Environmental and Social Considerations” (published in April 2010).
 - ② Other/Cross-sectoral Matters: The Project can contribute to the climate change adaptation since it is designed to enhance resilience of the Mekong Delta region to global warming by strengthening research and education capacity and developing human resources.
 - 2) Promotion of Poverty Reduction: None in particular.
 - 3) Promotion of Social Development (e.g. Gender Perspective, Measures to Prevent Infectious Diseases Including AIDS, Participatory Development, Consideration for Handicapped, etc.): None in particular.
- (8) Collaboration with Other Schemes / Donors: None
- (9) Other Important Issues: None

4. Target Outcomes

(1) Quantitative Effects, Operation and Effect Indicators

1) Operation and Effect Indicators

Indicators		Baseline (Actual value in 2014)	Target (2024) [two years after project completion]
Number of theses	College of Agriculture and Applied Biology	1,225	1,371
	College of Aquaculture and Fisheries	525	680
	College of Environment and Natural Resources	350	620
Number of attendances at conferences (including attendances at seminars)*	College of Agriculture and Applied Biology	800	1,500
	College of Aquaculture and Fisheries	1,774	2,720
	College of Environment	200	500

	and Natural Resources		
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* Referring to the number of presentations made at academic conferences, including seminars, to report the results of studies conducted through this Project.

* The Technical Assistance Project related to ODA Loan aims to increase the number of dissertations published and the number of patents filed, raise the satisfaction of students with educational programs, improve the grades given to students at the time of graduation, and heighten the satisfaction of faculty members and students with technical support and administrative systems.

2) Internal Rate of Return

Not calculated as the return of education project is difficult to be calculated

- (2) Qualitative Effects: Promoting economic growth, strengthening the international competitiveness, and responding to the environmental issues by supporting to strengthen CTU.

5. External Factors and Risk Control

None in particular.

6. Lessons Learned from Past Projects

(1) According to the ex-post evaluation of the Bogor Agricultural University (IPB) Development Project (II) in Indonesia, IPB was highly appreciated as it predicted that human resources would be in demand more in the private sector than in the public sector and succeeded in producing talented human resources for the agricultural sector by developing special technical courses and curriculums to satisfy the demand of the private-sector labor market. The Project is also designed to assist CTU in developing graduate curriculums and selecting research subjects based on the needs of the private sector for human resources specializing in natural sciences and engineering through consulting services and the Technical Assistance Project related to ODA Loan.

(2) The ex-post evaluation of the Project for the Improvement of the Facilities and Equipment of the Faculty of Agriculture, Can Tho University (Grant Aid) revealed the effectiveness of the collaborative studies with Japanese institutions and the technical cooperation (mini project) implemented together with the Grant Aid for the provision of facilities and equipment, and suggested that such collaboration should be further promoted. The Project is also designed to enable Japanese universities to provide support in collaborate with research support and technical cooperation projects.

(3) The Technical Cooperation Project for the Development of the Engineering Faculty of the Hasanudin University (UNHAS) (Technical Assistance Project related to ODA Loan: 2009-2012) in Indonesia heightened the motivation of faculty members, especially young and middle-aged ones, to engage in research activities by introducing new systems such as Laboratory-based Education (LBE). On the other hand, it was pointed out that communication between experts and their counterparts and collaboration with the relevant ODA Loan project were insufficient. Based on the lesson learned, the Project is designed to establish a

mechanism for CTU to involve the Project Director (Vice Rector) and many other people in both the ODA Loan project and the related Technical Assistance Project in order to facilitate smooth information sharing and collaboration among the parties concerned.

7. Plans for Future Evaluation

(1) Indicators for Future Evaluation

- 1) Number of theses
- 2) Number of attendances at conferences (included attendances at seminars)

(2) Timing

Six months after the commencement of Technical Assistance Project related to ODA Loan:
Implement a baseline survey for the Technical Assistance Project related to ODA Loan

Two years after the project completion: Conduct ex-post evaluation (ODA Loan Project and Technical Assistance Project related to ODA Loan are integrally evaluated.)