

Summary of Terminal Evaluation

1. Outline of the Project	
Country: 10 ASEAN countries	Project title: ASEAN University Network/Southeast Asia Engineering Education Development Network (AUN/SEED-Net) Project Phase 2
Issue/Sector: Higher Education	Cooperation scheme: Technical Cooperation
Division in charge: Technical and Higher Education Division, Higher Education and Social Security Group, Human Development Department	Total cost (at the time of evaluation study): -- 2.915 billion yen
Period of Cooperation	(R/D): March 2008 – March 2013 (5 years)
	Partner Country's implementing organization: 19 Member Institutions and 10 ministries in charge of higher education in 10 ASEAN countries
	Supporting Organization in Japan: 11 Japanese Supporting Universities (Hokkaido University, Keio University, Kyoto University, Kyushu University, National Graduate Institute for Policy Science, Shibaura Institute of Technology, Tokai University, Tokyo Institute of Technology, Toyohashi University of Technology, University of Tokyo, Waseda University)
	Related Cooperation: ASEAN Foundation
<p>1-1. Background of the Project</p> <p>The concept of the AUN/SEED-Net, or ASEAN University Network/Southeast Asia Engineering Education Development Network, had evolved from the initiative of the Government of Japan in 1997, to enhance economic sustainability in ASEAN region through human resources development. This initiative was later firmly incorporated into the cooperation plan announced by the Government of Japan when the ASEAN Plus 3 Summit was held in Manila in November 1999. This plan entailed support for a network of human resources development in higher education in ASEAN countries in the area of engineering.</p> <p>To materialize this undertaking, the relevant authorities of ASEAN countries and Japan envisaged formation of an engineering institutions network ASEAN-wide, which would promote upgrading of higher engineering education through active collaboration among the member universities of ASEAN and Japanese universities. The AUN/SEED-Net is composed of 19 Member Institutions (MIs) and supported by Japanese Supporting University Consortium (JSUC) which consists of 11 Japanese universities. It aims at human resource development, research capacity development and strengthening of a network between ASEAN and Japan with the following objectives:</p> <ol style="list-style-type: none"> (1) to further enhance educational and research capacity of MIs (2) to strengthen and expand the network (3) to promote collaborative research activities which contribute to solving common issues of industries and communities in the ASEAN region (4) to strengthen the system and network to function as a partnership university of technology among ASEAN and Japan <p>The inauguration ceremony of the AUN/SEED-Net was held in Thailand in April 2001. Then the</p>	

preparatory period started for formulation of the implementation structure for technical cooperation project by JICA. In March 2003, the AUN/SEED-Net Project officially started with cooperation period of 5 years. At the end of the cooperation in 2008, the Project was extended for another five years until March 2013 as the Phase 2. The Terminal Evaluation Team for the Phase 2 was organized and dispatched by JICA around 8 months before the termination of the Project Phase 2 cooperation period. As the Phase 3 of the Project is scheduled to start after the termination of the Phase 2, the Detailed Design Survey for the Phase 3 was conducted together with the Terminal Evaluation of the Phase 2.

1-2. Project Overview

(1) Overall Goal

Human resources in engineering field, which is needed for social and economic development of the ASEAN region, is sustainably produced.

(2) Project Purpose

Foundation of a sustainable framework of human resource development in engineering field, which aims to contribute to social and economic development of the region, is established in ASEAN region.

(3) Outputs

<Output 1> Educational and research capacity of MIs is further enhanced.

<Output 2> Regional academic societies, which include not only MIs, but also industry, community, existing academic networks and non-MIs, are established.

<Output 3> Collaborative research activities, which contribute to solving common issues of industries and communities in ASEAN region, are promoted.

<Output 4> The system and network established in the Phase 1 are strengthened to function as a partnership university of technology among ASEAN and Japan

(4) Inputs

Japanese side: Total cost JPY 2.915 bil. (planned budgets for 2012 inclusive)

- No. of Experts: Chief Advisor (2), Deputy Chief Advisor (1), Academic Advisor (2), Program Coordinator (7)
- Japanese Professors dispatched: 339 (FY2008-FY2011)
- Project Activities (Degree Programs, Networking and Collaborative Research, Network Operation and Management)

10 ASEAN countries side: Total contributions USD3.23 mil approx. (FY2008-FY2011)

- Assignment of necessary administrative and academic staff at each member institution
- Partial financial support for Degree Programs (tuitions, travels etc.)
- Partial financial support for other project activities (travels, collaborative researches, etc.)
- Provision of the AUN/SEED-Net Secretariat Office, partial financial support for operating costs of the Secretariat including Assit. Executive Director (1), secretaries(2) by Chulalongkorn University

ASEAN Foundation: USD778,734 plus approx. USD400,000 (for Regional Conferences through Japan-ASEAN Solidarity Fund

Other External Resources: USD126,100 (as counter budget from industries for Collaborative Research with Industry Program started from JFY 2011)

2. Evaluation Team			
Task	Name	Title & Organization	Team
Leader	Ms. Mitsuko KUMAGAI	Deputy Director General for Higher Education and Social Security Group, Human Development Department, JICA HQs	A (Malaysia)
Engineering Education	Mr. Tsutomu TANAKA	Director, Higher and Technical Education Division Human Development Department, JICA HQs	B (Thailand, Vietnam, Singapore)
Cooperation Planning 1	Dr. Naoki UMEMIYA	Deputy Director, Higher and Technical Education Division, Human Development Department, JICA HQs	C (Philippines, Indonesia, Laos)
Cooperation Planning 2	Mr. Kazuma INOUE	Higher and Technical Education Division, Human Development Department, JICA HQs	A (Myanmar, Cambodia)
Evaluation Analysis 1	Ms. Yuko OGINO	KRI International Corp.	A (Myanmar, Cambodia, Malaysia)
Evaluation Analysis 2	Mr. Takafumi FUKAI	Japan International Cooperation Center	C (Philippines, Indonesia, Laos)
Evaluation Analysis 3	Ms. Chie TSUBONE	Global Link Management	B (Thailand, Vietnam, Singapore)
Period of Evaluation	15 ~ 26 July 2012		Type of Evaluation: Terminal Evaluation
3. Results of Evaluation			
3-1. Project Performance			
< Output 1 > Educational and research capacity of MIs is further enhanced.			
<p>Output 1 is mostly achieved with some remaining issues. The issues are that the number of scholarship recipients for Doctoral Degree Sandwich Program and Doctoral Degree Program in Singapore are still below the quota. The measures were taken to increase the numbers so far and expected to continue the efforts. Besides these issues, a lot of achievements have been confirmed including increased number of research publications, post graduate courses newly opened and other indicators related to increased recognition of MIs and their quality.</p>			
< Output 2 > Regional academic societies, which include not only MIs, but also industry, community, existing academic networks and non-MIs, are established.			
<p>Related activities leading to Output 2 are in steady progress, while Output 2 is not fully achieved in terms of establishing regional academic societies as organization. The relevant parties do not necessarily have the shared vision on the “regional academic societies” and it has to be discussed and agreed in the Steering Committee meetings and other occasions. However, related activities are in steady progress in terms of holding regional conferences regularly, publishing ASEAN Engineering Journals, establishing wider linkages between MIs and non-MIs including industries, communities and etc.</p>			
< Output 3 > Collaborative research activities, which contribute to solving common issues of industries and communities in ASEAN region, are promoted.			
<p>Output 3 will be mostly achieved. Many collaborative researches are conducted addressing common</p>			

issues in the ASEAN region and its societies, and involving industries and communities.

< Output 4 > The system and network established in the Phase 1 are strengthened to function as a partnership university of technology among ASEAN and Japan

Related activities leading to Output 4 are in steady progress, while Output 4 is not fully achieved in terms of establishing the partnership university as organization. The relevant parties do not necessarily have the shared vision on the “partnership university” and it has to be discussed extensively, for example, by forming a taskforce, and agreed in the Steering Committee meetings and other occasions, involving ministries in charge of higher education and other national and regional level entities. On the other hand, related activities have progressed step by step, as shown by cases of individual activities for resource sharing and network enhancement, conclusion of MOU by 19 MIs, and by cases that MIs conclude individual MOU.

< Project Purpose >

Project Purpose will mostly be achieved with some remaining issues for the following reasons. Educational and research capacity of MIs has been steadily enhanced; Collaborative research activities which contribute to solving common issues of industries and communities have been promoted; Cost sharing by MIs has been progressed. However, organization/institutionalization of “regional academic societies” and “partnership university” as planned in the PDM has not been achieved in spite of the fact that a good progress has been witnessed in the various related activities. These issues are to be re-examined including confirming the feasibility and reorientation of the plans. Regarding the cost sharing, the contribution ratio from the ASEAN side including the ministries in charge of higher education and external agencies have not reached the initial targets although it is showing increasing trends mainly due to the increased contributions from MIs. As a result, Project Purpose is likely to be achieved partially.

< Overall Goal >

Overall Goal is the goal to be achieved 3 to 5 years after the Project, but the current available data in terms of the following 4 aspects shows good trends- namely (1) Number of faculty staff who engage in engineering education and research at MIs, (2) Number and percentage of AUN/SEED-Net alumni who engage in teaching and research activities, (3) Number of graduates from faculty of engineering of MIs, (4) Employment status of graduates from faculty of engineering of MIs.

3-2. Summary of Evaluation Results

(1) Relevance

Relevance of the Project is **high** because the Project is in line with higher education policies and needs of ASEAN countries as well as Japanese aid and diplomatic policies. Also, the Project is consistent with the education and research needs of Member Institutions.

(2) Effectiveness

As mentioned above, Project Purpose will mostly be achieved with some remaining issues, and therefore, effectiveness is regarded as **medium**.

(3) Efficiency

Efficiency is evaluated as **relatively high**. The relevant parties regard that inputs from the Japanese

side have been mostly appropriate and efficiently utilized. Comparing to bi-lateral projects, AUN/SEED-Net Project has been implemented in a cost-efficient manner by contriving efficient procedures and systems to carry out a region-wide project. In terms of inputs from the ASEAN member countries, they have been mostly appropriate and there has been a good progress in cost sharing by MIs to support partially the degree programs as well as progress in external resources from the ASEAN Foundation and others. However, the ratio of ASEAN contribution has not reached the initial targets. In addition, there are some issues to be improved in the degree program.

(4) Impact

Impact is potentially **high**. Utilizing networks developed in the AUN/SEED-Net project, there are good examples of inter-university/laboratories linkages beyond the project scope contributing to the enhanced solidarity of ASEAN countries. Other examples of impacts include many on MIs, Japanese Supporting Universities, non-MIs and communities in ASEAN region and there is a dissemination mechanism as well. For wider impact, sustainability is a condition.

(5) Sustainability

Sustainability is considered to be **medium**. It is being achieved in terms of policy, institutional and technical aspects. Many of the activities introduced by AUN/SEED-Net will presumably continue through human resources and MIs as well as various networks developed by the Project in consideration of active promotion of internationalization of universities. However, an issue is financial aspect if the same size of the activities is to be continued, and financial sustainability depends on each MI.

3-3. Factors contributing to project progress

(1) Factors related to planning

- 1) The project approach/design is effective in terms of introducing South-South cooperation scheme. The scheme of learning mutually within the region has enabled more effective and efficient ways of developing human resources, such as studying immediate applicable knowledge, collaborative researches addressing the regional common issues and lower costs incurred compared to the degree programs in advanced countries. It has contributed towards establishing sustainable framework of human resource development in the engineering fields in the ASEAN region.
- 2) The project approach/design is effective in terms of providing multiple supports to the scholars during and post degree periods. Not only scholarship but also financial support for collaborative research activities, regional conferences and so forth are incentives for faculty staff to study under the project. It also enables continuing capacity enhancement of the faculty staff.

(2) Factors related to implementation process

- 1) Because of long-term assistance, the network developed in the Phase 1 has further expanded in the Phase 2. As a result, the management of the project activities such as Degree and Collaborative Research Programs have been implemented smoothly in the Phase 2, and the quality of the activities has also been improved/strengthened.
- 2) All MIs have participated very actively in the project except for MIs in Brunei. Cost sharing by MIs has also progressed.

3-4. Issues/possible factors affecting project progress

(1) Issues/factors related to planning

- 1) Basically, Phase 2 was planned to focus on further reinforcement, institutionalization and sustainability of the network. Organization/institutionalization of “regional academic societies” and “partnership university” was a part of its basic concept. However, it is assumed that the goal setting itself is too ambitious to achieve in 5 years of Phase 2, because there are various external factors. At the time of Mid Term Review, there were not agreed understandings about the concepts on the 2 issues among relevant parties, and therefore, PDM could have been revised accordingly.
- 2) In the present PDM, there are some activities which are not specifically planned (e.g. students exchange programs). Some activities and Outputs are not appropriate in terms of including advanced effects which are to be regarded as the Impact/ripple effects (e.g. opening of new post graduate courses). PDM could have been revised appropriately as well.
- 3) On the functions of the Secretariat to operate and manage the network, it was planned to localize/decentralize to MIs during the Phase 2 for further efficiency and sustainability, but this was not initiated. On the other hand, there are opinions that localization/decentralization is not efficient for program implementation. Such contradictions may pose a question on the initial plan’s practicability, which needs to be re-examined from both efficiency and sustainability aspects for the Phase 3. It should be noted that contributions from the Japanese side may also be necessary in view of the fact that Japanese universities benefit from the network as well.
- 4) The number of staff deployed in the Secretariat may not be sufficient to carry out more strategic activities and as a result, may have affected in the attainment of some Outputs (i.e. “regional academic societies” and “partnership university”).

(2) Issues/factors related to implementation process

- 1) In order to achieve Project Purpose of establishing the foundation of sustainable framework of human resource development in the engineering field, it is required to involve concerned ministries and other nation-level entities. However, the status of participation is not sufficient in some countries. The 1st JRC was not held until the time of terminal evaluation could be one of the reasons.
- 2) Regarding Degree Programs, there are cases of insufficient communication between advisors and scholars. Other issues include need for improving selection procedures, some cases of graduates not returning to their institution of origin as faculty staff and working in other universities or companies, which impedes continuous collaborative researches.
- 3) Although compiling and updating of overall monitoring data of project performances has been well maintained by the Secretariat, there are limitations on the evaluation based on the indicators because some data were not available.

3-5 Conclusions

Based on the results of the 5 evaluation criteria, it is confirmed that implementing the Project is very significant as Relevance and Impact of the Project are high and Efficiency is relatively high. Effectiveness and Sustainability are medium because pursuing sustainability by way of organization/institutionalization of the networks remains as a challenge. In conclusion, the Project Purpose of “establishing the foundations of a sustainable framework of human resource development in engineering field, which aims to contribute to social and economic development of the region” has been progressed during the Phase 2. Based on such progress, it needs to be made further sustainable by

examining various future options and concrete plans to respond to financial issues and is expected to be solved in the next phase of the Project.

3-6 Recommendations

Recommendations for the remaining period of the Phase 2 are as follows.

(1) Degree Programs

1) Study on rate of returners/tracer study and needs for Degree Programs

A tracer study including the rate of those who returned to their institution of origin as faculty staff after the degree programs is recommended to be conducted. Since all the e-mail addresses of all graduates are recorded by the Secretariat, it would be possible to conduct the study promptly through e-mail. In addition, it is also suggested to collect data from MIs on the number of teachers who are graduates of the Project to confirm the needs for degree programs. In the study, it is important to capture the present situation precisely by enquiring the process and background information as well.

2) Selection procedures

Selection procedures need to be re-examined. At present, selection was made based on CVs and letter of recommendations and there is no particular requirement for English competencies. In order for effective and efficient study and researches after the enrollment, it is suggested that measures have to be taken in the selection procedures such as submission of evidence of English competencies (e.g. TOEFL, GRE scores, papers in English etc.), special preparatory action (e.g. taking English classes or required subjects prior to enrollment etc.) and TV conferences for preliminary interviews.

3) Matching and communications

Measures were taken to improve the matching between candidates/scholars and advisors in HIs and co-advisors in Japanese Supporting Universities in Sandwich Doctoral Program. The situation has been improved but still there are some cases, and therefore, measures need to be taken continuously for further improvement.

4) Increasing applicants

Regarding the unmet number of recipients of scholarship for PhD Sandwich and in Singapore, measures to increase the applicants were taken and the situation has been improved gradually. In order to attract more applicants with good academic quality, it is recommended to continue to take the measures.

(2) Regional Academic Societies

Needs and feasibility of establishing “regional academic societies” as well as definition, concept and directions have to be agreed by the relevant parties. The idea of establishment of regional academic societies was originally brought in order to institutionalize the networks developed under the Project for sustainability. Therefore, it is recommended, in view of sustainability of the AUN/SEED-Net networks, to discuss and agree on how to proceed, including its feasibility and alternatives, and to prepare concrete plan and roadmap during the process of preparations for the Phase 3.

(3) Partnership University

The definition and future of the “partnership university” needs to be agreed by relevant parties at national level including ministries in charge of higher education. If “partnership university” is to be an organizational entity, there are various external factors affecting its feasibility such as political initiatives, harmonization of educational systems and levels among countries and so forth. Since “partnership university” is an idea which was brought originally in view of the sustainability of the

AUN/SEED-Net networks together with “regional academic societies”, it is also recommended, in view of sustainability, to discuss and agree on how to proceed, including its feasibility and alternatives, and to prepare concrete plan and roadmap during the process of preparations for the Phase 3.

(4) Project Management

1) Sharing Project Design/ PDM

It is recommended to share the Project Design/PDM among all the relevant parties. For example, understanding of MIs and Japanese Supporting Universities on some concepts including “regional academic societies”, “partnership university” are not identical. The whole outline of the Project needs to be shared and understood by major partners and for this to happen, PDM needs to be well articulated about the project concept.

2) Involvement of relevant parties at national level including ministries

In order to establish the foundation of a sustainable framework of human resource development in engineering field, involvement of the ministries in charge of higher education as well as other relevant national bodies is essential. More collaboration with respective JICA Overseas Offices as well as regular Joint Review Committee meetings are expected in this regard.

3) Involvement of Japanese Supporting Universities

From the sustainable point of view, it is recommended to discuss whether to require more organizational involvement at university level, since there are some cases without university-wise participation.

4) Data collection

For the basic data of MIs (e.g. number of teaching staff, students, graduates, research publications, collaborative researches with non-MIs, and amounts of external funding etc.) , it is recommended to collect on a regular/annual basis so that it is convenient for MIs to provide the correct data and for the Secretariat to compile them in their database.

(5) Others

In order to produce wider impact at regional level as well as to increase the values of AUN/SEED-Net project, it is recommended to discuss how to further involve and work more effectively with MIs in Singapore and Brunei.

3-7. Lessons

The lessons for similar projects including the Phase 3 are as follows.

(1) Development of higher education and networking approach

- 1) South-South cooperation is effective in assistance in higher education in engineering field.
- 2) Long-term cooperation is effective in assisting the projects of network development.
- 3) Reciprocal benefits for Japanese Supporting Universities enable continuing support from them compared to one-sided assistance.
- 4) Involvement of ministries in charge of higher education from the beginning of the project is important in view of sustainability.

(2) Region-wide project approach

Since there are many countries, institutions and personnel involved in the region-wide project, and they are physically distant, it is important to make extra efforts to share the project concept and contents and to create ownership at relevant parties including both counterparts and Japanese sides.

(3) Preparations for the Phase 3 (on top of the above)

1) Project Design/PDM

- 1) The plans and objectives are recommended to be feasible and realistically achievable based on the experiences and lessons of the Phase 2.
- 2) The concrete plans and objectives are recommended to be shared among relevant parties, and that PDM is to be concrete and well articulated for better understanding.
- 3) Activities related to sustainability issue in view of the post project period are recommended to be included in the project design.
- 4) In developing PDM, it is recommended to analyze and sort out the expected outcomes within (direct) or outside (indirect) of the project scope. As the fundamental concept of the project is to develop and evolve the networks, it is necessary to do this so that Output, Project Purpose, Overall Goal and impact/ripple effects will be evaluated fairly.

2) Sustainability

- 1) On the issues of establishing “regional academic societies” and “partnership university” as organizations, it is recommended to prepare concrete plans and roadmaps including alternatives other than organization so that ways to achieve objectives are clearly understood by relevant parties, and the monitoring of the project progress is enhanced.
- 2) On the issue of Secretariat functions, it is recommended to discuss its future in consideration of efficiency during the implementation of the Phase 3 and sustainability after the Phase 3. In addition, it is important to consider the necessity and significance of the contributions by the Secretariat to Japanese side as well. The AUN/SEED-Net network is contributing to the global human resource development in Japan, strengthening further linkages between universities in ASEAN and Japan, promoting collaborative educational programs and brain circulation in the ASEAN region and Japan.
- 3) How to promote further cost sharing on the ASEAN side including MIs needs to be explored.
- 4) In order to establish “the AUN/SEED-Net brand” and in view of the increased competitions from other scholarship programs, it is worthwhile considering the selection of applicants to be more competitive in the degree programs.
- 5) It is preferable for Secretariat to maintain contacts constantly with all the graduates (449 graduates as of Mar. 2012) , for example, by sending mailing news and others so that contact address will be recorded and updated and it will enhance the sense of solidarity among the graduates.

3) Project Management

- 6) Construction of database to collect and compile the project activities and relevant data in line with PDM indicators are recommended together with regular monitoring exercise based on the data.
- 7) Regarding the data stipulated in the PDM and necessary for evaluation needs to be shared in advance among relevant parties so that they understand the project objectives and methods of verification, and as a result, collection of correct data is enhanced.

In addition, it is recommended to analyze the issues, challenges and recommendations for the Phase 2, and necessary improvements will be incorporated in the preparation of the Phase 3 based on the lessons from the past experiences.