

Terminal Evaluation

Latin America and the Caribbean

1. Outline of the Project

Country:

Uruguay

Project title:

Forest Products Testing Technology Project

Issue/Sector:

Forest Products Study

Cooperation scheme:

Project-Type Technical Cooperation

Division in charge:

Forestry and Natural Environment
Department

Total cost:**Period of
Cooperation**

October 1998 -
September 2003
(R/D) 17 April 1998
(Extension)
(F/U)

Partner Country's Implementing Organization:

Technology Laboratory of Uruguay (LATU)

Supporting Organization in Japan:

Forestry Agency, Independent Administrative Institution, Forestry and Forest
Products Research Institute, Ministry of Education, Culture, Sports, Science and
Technology, National University

Related Cooperation:**1-1 Background of the Project**

Uruguay had a small population of 3 million and 2 million hectares of land that was appropriate for afforestation. Therefore, the country had a high potential for developing its forestry. Uruguay promoted afforestation in the early 1970s in order to make it the new national fundamental industry. Assuming that the initial afforestation area has already had its cutting cycle, and that the current afforestation area has also reached its logging period, it is an urgent task to set quality standards for wooden materials to enhance the additional value of these resources as much as possible. Under these circumstances, the government of Uruguay requested the government of Japan for technical cooperation with the aims of improving and homogenizing wooden material quality to make the material durable for export competition, by establishing a system to test the quality of wooden materials and by improving the production and management skills in the forestry products industry.

1-2 Project Overview**(1) Overall Goal**

To promote quality improvement and standardization of wooden products of Eucalyptus species and Pinus species in Uruguay.

(2) Project Purpose

LATU will acquire the capability to implement quality inspections according to wooden products standards.

(3) Outputs

- 1) Quality specifications for wooden products will be established based on the relevant test methods.
- 2) A quality inspection system of wooden products will be established at LATU.

(4) Inputs

Japanese side:

Long-term Experts	6	Equipments	238,644 thousand yen
Short-term Experts	16	Local Cost	36,657 thousand yen
Trainees received	8		

Uruguay's Side:

Counterparts	12		
Facilities (experimental wing for saw milling, executive offices for experts, etc.)			
Land	2,300m ²	Others	
Local Cost	US\$572,643		

2. Evaluation Team

Members of Evaluation Team	Team Leader/General: Shinji YOSHIURA, Director, Forestry and Environment Division, Forestry and Natural Environment Department, JICA
	Testing Technology: Takuoki HISADA, Principal Research Coordinator, Independent Administrative Institution, Forestry and Forest Products Research Institute
	Inspecting Technology: Hideyuki FUJIOKA, Director, Standard and Monitoring Division, Standard and Labeling Department, Independent Administrative Institution, Center for Food Quality, Labeling and Consumer Services Headquarters
	Planning Management: Hiroyuki HASHIMOTO, Project Officer, Forestry and Environment Division, Forestry and Natural Environment Department, JICA
	Evaluation Analysis: Yasuyo HIROUCHI, International Development Associates Ltd.

Period of Evaluation	16 February 2003 -	Type of Evaluation:
	8 March 2003	

3. Results of Evaluation

3-1 Summary of Evaluation Results

(1) Relevance

The project is highly relevant, judging from the national policies of Uruguay and the needs of the implementing organization. The total volume of production and exports of wooden products of the Eucalyptus and the Pinus species have been increasing. This met the needs of the industry to improve the quality of wooden products of these species and to promote standardization. However, it was found that the original PDM was not clear enough in the setting of numerical objectives, and modification made ¥ at the mid-term evaluation was not sufficient. Therefore, it should be reflected that there were some sectors which were hard to evaluate at the terminal evaluation.

(2) Effectiveness

Each output has been accomplished before the completion of the project, and the project purpose is expected to be accomplished for the most part. Some activities which were delayed will be accomplished with the allocation of short-term experts or the training of counterparts by the end of the project. The LATU industry corresponding group utilized the transferred techniques in the project on site at the commissioned testing, and their effectiveness was confirmed.

Output 1 (Testing technique sector): The technical transfer of various testing techniques of nearly 30 methods in nine testing and analysis items necessary for the standardization of wooden products will almost all be achieved by the end of the project. The

counterparts are able to prepare the specimens, conduct the test and analysis by themselves. Fifty-three (53) testing manuals are going to be elaborated, corresponding to the testing items. The database system will be constructed by the end of the project. Quality specifications of some specification items regarding fundamental and mechanical properties for wooden products will be established based on the transferred methods by the end of the project.

Output 2 (Inspecting technique sector): Together with the survey on standards of various countries and international standards, testing methods of wooden products according to applications were transferred and their results were compiled in a manual. A quality specification system, which consists of 72 testing methods of wooden products, will be established by the end of the project.

(3) Efficiency

Most of the necessary inputs had been made as planned by the Japanese side, except for a long-term expert in the field of inspection technology, who was not dispatched in the first year. The inputs by the Uruguayan side had been mostly appropriate in spite of its economic crisis. However, it would have been more efficient if more counterparts had been assigned to the project so that each counterpart could have concentrated on one technical field. Judging from the above information, the project was evaluated to have had high efficiency.

(4) Impact

Some direct impacts were that the technical capacity of LATU has increased greatly, and that LATU has become recognized internationally. As an indirect impact, LATU has provided wood experts and the wood industry with useful information acquired through the project. As the project has left direct and indirect positive impacts, it was evaluated as having had high impacts overall.

(5) Sustainability

Uruguay's economic policy gives high priority to the forestry and wood industry. Therefore, LATU is able to continuously receive political and financial support from the government. Financially, as LATU is entitled to 0.3% of the total amount of the export of non-traditional products of Uruguay, it can be said that its income is relatively stable. However, considering the impacts of the economic crisis in the neighboring countries in and after the end of the 1990s, LATU must strengthen its system of quality inspection and certification in order to acquire more stable revenue by charging for those services.

Technically, the level of technical skills and knowledge of the counterparts have increased greatly, and they are expected to remain in the same departments in the future. Therefore, these techniques will be utilized and improved continuously by conducting tests and inspections in their day-to-day work. Judging from the above political, economic and technical reasons, the sustainability of the project was high.

3-2 Factors that promoted realization of effects

(1) Factors Concerning the Planning

- 1) Uruguay promotes its forestry and wooden material sectors as its new industries, and therefore, it understood the activities of and was cooperative with the project.
- 2) Activities of the project were consistent with the needs of the wooden material industry, and the transferred technology was utilized in a practical manner. In line with the progress of its activities, commissions for testing from the wooden material industry increased.

(2) Factors concerning the Implementation Process

- 1) As the retention rate of the counterparts was high, the project could be implemented efficiently.
- 2) The economic crisis in Uruguay made it difficult to pay the construction cost for the experimental wing of the afforestation, which was planned to be built by the Uruguayan side. However, the input from Japanese side enabled the construction to take place as planned and helped to avoid any adverse effects to the activities.
- 3) The activities in the field of inspection techniques had not progressed by the time the mid-term evaluation was conducted, but the activities were drastically promoted through the activities carried out by the long-term expert who was dispatched in the latter half of the project (April 2001).

3-3 Factors that Impeded the Realization of Effects

(1) Factors Concerning the Planning

- 1) The PDM of the project was developed without utilizing the PCM method, which caused many problems in the aspects of consistency, logic, etc., especially because the indicators established at the beginning of the project were not clear. Even though

there were some corrections made to the indicators, they could not be totally improved. Therefore, they had a negative influence on the mutual understanding, regarding such factors as the accomplishment of outputs on both sides at the final evaluation.

2) Regarding the number of long-term experts and their areas of profession, it was seen that a vast range of activities were planned. Therefore, much time was spent on the selection of short-term experts, the arrangement and timing of their dispatch, and their acceptance.

(2) Factors concerning the Implementation Process

1) As long-term experts in the field of inspection techniques had not been dispatched, the activities in the first half of the project were significantly behind schedule, and this was accompanied by the delayed timing in providing the inputs (the equipment). These factors also had adverse effects on the activities in the latter half of the project.

2) Many counterparts had assignments other than the project activities, which hampered the technical transfer in many cases.

3) With the increase of testing, which were commissioned from the industry to the project, LATU responded by organizing a group which engage in the testing to try to avoid any adverse effects to the project activities, but certain affects could not be helped, such as having to share equipment, etc.

3-4 Conclusion

The Joint Evaluation Team concluded that the project purpose would generally be achieved by the end of the project, and LATU would be capable of implementing quality inspections according to the wooden products standards.

The transfer of various testing techniques (nearly 30 methods in 9 testing and analysis items) necessary for the standardization of wooden products will be achieved for the most part, and quality specifications of some specification items regarding the fundamental and mechanical properties of wooden products will be established based on the transferred methods by the end of the project. One hundred-fifty (150) national and international performance standards and testing methods were collected, and a quality inspection system, which consists of 72 testing methods of wooden products, is expected to be established by the end of the project. These results enable LATU to technically support the establishment of wooden products standards in Uruguay with responsible organizations.

In the course of the project implementation, prioritized and common techniques of testing and inspection have been transferred to the counterparts, although the kinds of established quality specifications are limited in terms of test items and species. However, it is understood in general that a technical cooperation project could transfer only such common techniques, and therefore the recipients are expected to develop their capability and to build up necessary databases through continuous testing/research work and by applying the acquired experiences to various cases by themselves.

There are so many kinds of testing and inspection methods and items for each species, place of growth and end use of trees. In order to enhance the testing and inspection ability of LATU and accumulate data to standardize the wooden products of Uruguay, LASTU must develop the achievements gained through the project.

Finally, the Uruguayan side expresses its uppermost appreciation to the Japanese side for its cooperation over the last 20 years for the development of Uruguay's forest sector that has come to make an important socio-economic impact, generating real jobs in the countryside. A close relationship of trust has been fostered during this cooperation, and this might be one of the key positive factors of the project, which should not be overlooked.

3-5 Recommendations

(1) Recommendations Till the Termination of the Project

1) The counterparts should learn and fully understand the manuals for testing methods and product inspection, as well as implement appropriate inspections according to the manuals.

2) The counterparts should enhance their inspecting abilities at the factories of saw milling, etc.

3) The project should put its outputs together as referential materials for LATU to utilize for dissemination.

(2) Recommendations for After the Termination of the Project

1) LATU should build an inspecting system for wood and should become able to respond to the commissioned testing or technical order from the wooden material industry.

2) LATU, utilizing the transferred methods in the project, should increase the number of data for its database and research items, as well as set up a committee to establish a national standard with the cooperation of concerned organizations.

3) LATU should further improve its technical capabilities for testing and inspecting, which was acquired through the project, as well as fulfill its role as the implementing organization of testing and inspecting wooden products by publishing the results in public relations magazines, other magazines, on Internet homepages, etc.

3-6 Lessons Learned

The indicators of the original PDM were not concrete. Even though the project attempted to review the indicators at the mid-term evaluation, the indicators could not be expressed in numerical terms due to the time restriction. To supplement it, the evaluation mentioned that the "indicators (and detailed items) need to be discussed between the organization in the partner country and the Japanese side again and an agreement must be reached" in the management instruction survey report. However, numerical indicators were not set till the terminal evaluation. Therefore, it took time for JICA to reach an agreement with the organization in the partner country on "how to measure the achievements of project purpose regarding outputs" at the final evaluation.

Some of the reasons that the numerical objectives for indicators were not set might be as follows: "As it was not clearly described in the minutes of the discussion at the mid-term evaluation, the necessity was not strongly recognized." "As it took eight months from the dispatch of a survey team to the completion of the report, the feedback to concerned persons was delayed."

In case similar problems occur in other projects, it is favorable "to describe the issues found at the evaluation survey together with necessary actions in the minutes, in order to make it easier to provide the follow-up activities." Also, necessary measures must be considered in order to implement the follow-up activities on subject matters indicated by the survey team in countries where JICA does not have overseas offices.

3-7 Follow-up Situation

N/A