

With Flying Colors: Three Case Reports

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The ASEAN Aceh Fertilizer Project

In December 1983, a urea plant was completed in Lhok Seumawe, the Special Province of Aceh in North Sumatra. The plant went onstream the following month and now has an annual production capacity of 570,000 tons.

Despite the recent weak demand in and outside Indonesia and falls in international prices, plant operations have proceeded at a steady pace. The credit for this success goes to a stable supply of the raw material (natural gas), organizational improvement following inauguration of the ASEAN Aceh Fertilizer (AAF) Project, thorough on-site guidance and installation of highly reliable production equipment.

This plant is a significant undertaking because it was the first project launched under the ASEAN industrialization scheme agreed upon at the first ASEAN summit conference in Bali in February 1976 and was meant to promote cooperation within the ASEAN region. Each member country proposed a project of its own, and currently the ASEAN Bintul Fertilizer (ABF) Project is under way in Malaysia, in addition to the Aceh project.

Then Prime Minister Takeo Fukuda committed Japan to providing \$1 billion for the ASEAN industrialization scheme when he made a round of ASEAN visits in August 1977. The project got off the ground in October 1979 when Japan exchanged protocols on AAF and signed a credit agreement with the government of Indonesia.

The AAF Project produces a steady supply of urea fertilizer to Indonesia and

other ASEAN countries at low prices. It runs on joint investments by the ASEAN member countries, yen credits from Japan's Overseas Economic Cooperation Fund (OECF) and loans from the Export-Import Bank of Japan.

The AAF Project covers the construction of the urea fertilizer plant, purchase of plant-related equipment and the management of a port for product shipment, water in-take equipment and worker housing. A construction contract was awarded after international bidding to Toyo Engineering Corp. (TEC), which boasts previous experience in similar projects around the world as well as high-level technology. With the cooperation of local subcontractors, TEC undertook all phases of construction, from designing to building.

In the planning stage, project costs were estimated at \$313 million, including \$93.9 million in contributions from the ASEAN nations. However, the budget was revised upward to \$410 million, with additional funds raised by OECF loans and Ex-Im Bank buyers' credits. The ASEAN share was left unchanged. OECF loans at 2.5% interest per annum, with a 25-year redemption period and a seven-year grace period, totaled ¥46,230 million.

The budget was amended partly because procurement procedures were delayed by about one year and partly because plant specifications were modified. The construction and plant works made good headway and were completed three months ahead of schedule in December 1983. A ceremony marking completion was held in January 1984, attended by the President of Indonesia and representatives from ASEAN and Japan.

Lhok Seumawe was chosen as the site for the urea plant for two main reasons. First, the necessary raw material, natural gas, abounds in the area; secondly, since Lhok Seumawe is close to Malaysia and other ASEAN countries, shipping

costs for products could be kept low.

According to a comprehensive evaluation by OECF, the AAF Project started out with an even higher operating ratio than originally planned, and continues to utilize most of its capacity. Wholehearted support and cooperation from P.T. Pusri and other experienced Indonesian fertilizer producers have also contributed to efficient operations of the AAF Project plant.

The Aceh plant's recent reevaluated financial internal ratio of return (FIRR) stood at 7.9%, compared with the 11.8% originally estimated. The lower than expected FIRR is due to the fact that about a year after production started, urea prices on the international market fell suddenly. OECF rates this project as "successful," since progress has been smooth from construction on.

Toyo Engineering, which designed and built the plant, says its initial-year operating ratio was more than 95%, and considerable profits were recorded. In and after the second year, however, the price slump caused business to deteriorate, although the project as a whole is still profitable.

The urea plant now employs a workforce of about 800. Another 100 are employed in maintenance and other general service departments. Of the total, 750 (85%) are Aceh Province residents; the project has been an important source of expanded local employment opportunities and there is very low turnover at the plant.

Toyo Engineering has built a vocational training center adjacent to the plant and donated it to the Indonesian government. The center is now open to the local public and functions as an effective vehicle of communication between the plant and local residents.

The standard of living in the Aceh region has improved considerably and appropriate technology has been transferred to the local community since plant operations began. The project has been highly acclaimed as a successful example of Japan-ASEAN economic cooperation, based not only on production efficiency and profits, but also on the economic contributions it has made in Aceh Province. ●



The first project launched under the ASEAN industrialization scheme was the successful Aceh Fertilizer Project in North Sumatra, Indonesia.