

## EvSum103

# NORTH SUMATRA SPRINKLER IRRIGATION PROJECT

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## The Project

The project provided 33 'Wright Rain' sprinkler irrigation units and associated equipment at a cost of about £0.75m to be used on a government owned estate near Medan specialising in cigar wrapper production. It was hoped that greater yields and higher unit prices due to improved quality could be obtained.

## The Evaluation

The evaluation of the effectiveness and value of the project was undertaken by Mr G Allanson, a lecturer at the School of Agrarian Studies at Wye College. He studied the history of the project and visited Medan.

## The Main Findings

- The project was technically most successful: it achieved the high yield level predicted (a 20% improvement) and quality also improved.
- The economic performance fell below the most pessimistic levels estimated at appraisal because of the fall in the world market price for cigar wrapper leaf and increased domestic production costs.
- The acreage of tobacco was reduced in an attempt to maintain prices and a diversified planting program was started. However, profits from tobacco continued to fall and failed to cover the full cost of diversification.
- Nevertheless, the higher production on the irrigated area made possible the release of more land for sugar cane, cocoa and oil palm planting.
- The work force benefited from the project most because the rate of decline in tobacco was slowed by efficient irrigation; "natural wastage" roughly equalled the fall in demand for labour with the slower adoption of less labour-intensive crops.

## Lessons

- The evaluation underlined the risks associated with partial cost-benefit analyses when an excellent solution to one set of technical problems diverted attention from the economic context and status of the estate system as a whole. It also demonstrated that sensitivity tests are no substitute for proper market analysis.