



## indigo foundation

### Water assistance in M'bore, Indonesia

#### M'bore – the village

**M'bore** is one of the sub-villages of Delha, a region of Rote Island, Indonesia. Rote is off the South West coast of West Timor and is an arid island. M'bore lies at approximately 500m elevation. It is an isolated village of 22 families. Agriculture is the key source of income for all families and consists of harvesting the lontar palm for sugar and small scale vegetable crops. Drinking water is collected 3 km return walk from M'bore. The area has two key resources which could be used more effectively: a **freshwater lake** and its surrounding **fertile soil**.

#### Nature and purpose of project

Traditionally, M'bore farmers use small areas for their crops. This is because of the limited capacity to irrigate (irrigation is done by carrying baskets of water to the crops), limited knowledge of alternate, appropriate cash crops and limited time. Better access to its natural resources and improved farming techniques is important to improve the health and standard of living of the community.

In 2001 and 2002 Indigo Foundation (IF), at the request of the community to help improve the level of nutrition in the area (people would often only eat vegetables once a week), provided training in the production of fruit and vegetables. We used **permaculture** principles and the training resulted in a clear increase in vegetable production and consumption across Delha (M'bore sold vegetables to the other villages). The main plants were watermelon, chilli, tomatoes, garlic and red onions. This success has led to great enthusiasm within the community to develop their agriculture capacity by using the local lake to irrigate crops.

This project involves the construction of an **irrigation system** in the area near the lake. The implementation of an irrigation system, which includes the installation of a pump, pipelines, and reservoir, is crucial to increasing crop production in the area. The main objective of the project is to supply water for rice paddies. This is not a traditional crop for the people of M'bore, however rice is the staple food and a very lucrative crop.

Given the **critical** nature of water on the island, there are strong concerns that irrigation may deplete the lake water and lower the water table - effectively compromising the long term quality and availability of water. Therefore, M'bore community has requested technical assistance from IF to a) assess the environmental feasibility of the project and b) should the project be feasible, assist with planning and implementation of the irrigation system.

Alongside the technical concerns of this project are a range of community development issues relevant to **sustainability, equity, community ownership** and **transparency** that need to be addressed. For example, who will bear the cost and responsibility of maintaining the system? Is there clear agreement between the owners and users of the water about the installation and use of the water system? Will the work of installing *and* the benefits derived from the irrigation system be equitably distributed between community members or households? Unless equity exists, unfair power structures may be reinforced, and some people may miss out on the advantages of any assistance.

IF has also been asked to facilitate discussion on these community development issues. The community has demonstrated its commitment by outlining its initial contribution to costs and labour. Based on the community's calculations, the cost of implementation is about \$2,000.

#### Who benefits?

M'bore is known for its cohesive community structure and strong leadership. It is anticipated that all households within the community will benefit in two ways: greater consumption of fruit and vegetables and increased income through the sale of these. The broader regional community will benefit by having greater and more regular access to nutritional food. The community also believes that improved food in the area will assist in attracting tourists to Delha (a prime surfing location).

#### Indigo Foundation and Rote

Over the last four years, we have been working with our local partner in Delha, *Lua Lemba Education and Community Development Foundation*. Together, we have established a **senior high school**, the first in this area; begun a **micro-finance scheme**, which supplies credit to those who cannot access more formal financial services; and built three mother and child **health clinics**.