

## Stories from the Field



### FLOODS OF FORTUNE :

How Partnering Private  
Sector Companies is Improving  
Irrigation Services for Smallholder  
Farmers in East Java.

Pilanggede village in Bojonegoro district in East Java is in a flurry of activity as rice farmers are busy harvesting their crop. One farmer, Mu'minah, a 48-year old mother of two, is paying close attention to a half hectare block of land next door to the village hall. "That's Pak Dasa's land", says Mu'minah pointing to the newly harvested field, "it was used as a demonstration plot for a new project that combines irrigation with a new package of inputs for rice. Dasa got a very good yield this season", states Mu'minah.

The project Mu'minah refers to is the Tertiary Irrigation Technical Assistance (TIRTA) program, an Australian government initiative implemented in partnership with the Government of Indonesia. Primary irrigation, with its big canals, is the responsibility of the central government. Secondary irrigation, with its smaller canals, is looked after by the provincial and district governments, while 'last mile' tertiary irrigation is left mainly to the farmers themselves to organize. In most cases the 41,000 tertiary schemes in Indonesia are not working properly because they are undercapitalized. TIRTA is bringing together farmer groups with small local private operators to invest in irrigation to increase overall land productivity.

One such investor is Haji Moch Achsin. As part of his rice mill business, he has invested in the pumps and small canals needed to provide water to farmers along the

Solo River in Bojenegoro. In As part of his rice mill business, he has invested in the pumps and small canals needed to provide water to farmers along the Solo River in Bojenegoro. In return for getting water in the dry season the farmers pay him with a portion of their additional rice harvest - usually between 17-20 percent depending on the time of year. "Irrigating is a big investment for me", explains Haji Achsin, "it can be hundreds of thousands of dollars. If crops fail for reasons other than supply of water, then I lose on my investment",

To protect Haji Achsin's investment and to boost farmer productivity TIRTA has partnered Haji Achsin with Syngenta, a major agricultural input retailer in Indonesia. The two businesses have made an agreement through which Syngenta provides Haji Achsin with packets of Syngenta products, which he then sells to the farmers on credit. As part of the



**Haji Moch Achsin signing the MOU with TIRTA**

agreement, Syngenta has established a demonstration plot in Pilanggede village on Dasa's land to show farmers when and how the products should be used and their correct application. Syngenta in Pilanggede to teach other farmers, such as Mu'minah, the correct farming techniques. For the farmers who choose to participate, the cost of the Syngenta package will only be paid after their harvest and in-kind.

"The difference with TIRTA's business model", explains Haji Achsin, "is that it links me with other private sector partners to provide yield-boosting

inputs that are good for farmers and good for me. This is very innovative and actually reduces the risk of crop failure. So this, in effect, is like an insurance policy on my investment", says Haji Achsin. "What interested me most about TIRTA's proposed business model is that it included good agricultural practices with the use of fertilizer and pesticides", says Haji Achsin. "This is something new but makes good business sense to me".

As a smallholder farmer in Pilanggede, Mu'minah is also very interested in the TIRTA program. "I am a widow of four years", says Mu'minah. "My two boys still live at home and I have to support my family on our 0.67 hectare block of land. I have watched the demonstration plot with great interest because I want to know if it is possible to increase my rice yields", she says.

This season Mu'minah's land was irrigated but she only harvested the equivalent of 5.5 tonnes per hectare, a little more than 50% of optimum productivity. "I lost some of my crop due to rice stem borer infestation", she explains. "I did use pesticides, but didn't use the full dose. I know this now having seen the demonstration plot", explains Mu'minah. "But this is better than last year. Last year I had sporadic irrigation and I only achieved less than 3 tonnes per hectare. The previous year all three of my crops failed because of lack of water". says Mu'minah. "This means my current harvest must be used to pay off debts accumulated during the previous two years".

In comparison, Dasa's demonstration plot yielded the equivalent of 8.8 tonnes per hectare. "The trainers from Syngenta told us about their fertilizer and pesticide regime", says Mu'minah. "I realized from watching them that I have been using the wrong dose and the wrong spraying schedule", admits Mu'minah. "But the products are expensive and I cannot afford them. Usually I borrow money

from my family. If they can't lend me money, then I don't use products. I do not want to use the money lender as the interest rate is too high". The option of credit from Haji Achsin with a payment in-kind after Mu'minah harvests her rice is therefore an attractive offer. "If I can get yields like I saw at the demonstration plot then I would be very interested in purchasing the Syngenta packet from Haji Achsin", states Mu'minah.

Haji Achsin says that if farmers follow a regime of irrigation and good agricultural practices then, on average, farmers like Mu'minah will experience an increase in income of approximately Rp.10 million per harvest. For Mu'minah this would represent a 44% increase in the income from her current harvest. "If I could achieve productivity like Dasa's demonstration plot then it would take huge pressure off me", says Mu'minah. "When my husband was ill he had to go to hospital and at that time there was no free health care. This put a huge drain on the family. My youngest son, Udin, is currently working as a labourer in a roof tile factory because I can't afford to send him to university", says Mu'minah. "That is why I am interested in following this program".

The partnership between Haji Achsin and Syngenta is expected to irrigate 150 hectares of land in Pilanggede village, serving approximately 400 farmer households with water and crop protection services. "The way I see it is that everyone benefits", says Haji Achsin, "Syngenta gets to sell their products, farmers get to purchase fertilizer and pesticides they wouldn't otherwise be able to afford, I make a greater profit, and farmers get a higher income as a result of improved productivity". Mu'minah is also positive about her family's future. "I am looking forward to the day when I can save money rather than worrying about putting food on the table", says Mu'minah. "I see this as a big opportunity to turn around the fortunes of my family".