

EAST BALI POVERTY PROJECT DYNAMIC UPDATE: FEBRUARY 2002

Torrential rain creates disasters and opportunities

By David Booth

Flash floods take on a new meaning one thousand metres up the steep and arid eastern slopes of Mount Agung. For ten months of the year, there is no water to be seen except for the murky and slimy last-season-rainwater in the open vats near a few homes, and the spring water that locals trek up to three hours to get in their small plastic buckets. But now is the rainy season; the only time that crops can be planted, and when people can step outside their homes to bathe in the clean rain; and hang their dirty clothes out to wash. Yet it is also the time when mega storms rage, that the land disappears to the sea far below - up to thirty centimetres per year washing away from the fragile and sandy hillsides, rushing down to the sea, and cutting hundreds of families off from even the most basic facilities.

We also have to deal with the latest man-made peril: a recent road-widening job by the government that did only that! Widen the steep and sandy tracks that are up to 40% slope – leaving in many cases up to ten-metre high sheer vertical slopes, that collapse daily. I don't know if any of you remember the Aberfan disaster in Wales in the 1960's, when a huge contoured slag-heap collapsed onto a school during heavy rains killing hundreds of children. We certainly won't have a disaster of those proportions, yet the daily rains put all of East Bali Poverty Project staff at peril each day as they weave around the fallen soil and trees and negotiate the deep ruts on their Suzuki Trail bikes. It only takes twenty minutes of torrential rain for the raging torrents to rip into the volcanic sand surface and leave gullies up to forty centimetres deep.

So, I equate the months of November to March as months of opportunity that can also be fraught with disaster. We have therefore developed techniques over the last three year to take advantage of the opportunities, and introduced measures to mitigate the potential disasters.

The first step was to address the long-term nutrition needs of the children, in a way that would contribute to our ultimate goal of sustainable social and economic development. The problems facing us and the children at the outset, apart from illiteracy, were threefold: endemic iodine deficiency and malnutrition, a diet consisting primarily of cassava and corn - the only crops that could be farmed on the steep and sandy slopes, and the means of reducing erosion on the narrow and precipitous dirt tracks so that we could get to the children every day.

Organic vegetable gardens were needed that would serve the dual purpose of educating the children how to convert volcanic sand into fertile soil, and then how to eventually develop kitchen gardens at their own home. Yet the key to introducing any kind of crops apart from the present ones of cassava and corn, apart from soil improvement, was erosion control. Working with our expert volunteers, we soon designed simple vegetable gardens near the schools, and the children prepared organic compost. The subsequent addition of worm fertiliser at the time of planting the seeds ensured that the soil was sufficiently improved, and eventually we proved that almost any kind of vegetables could grow in this previously barren land.

The solution for erosion control presented the greatest challenge. Extensive research yielded an answer that seemed too simple to be true! A grass called Vetiver. Looking like elephant grass, Vetiver is an upright, rigid, dense and deeply-rooted clump grass, that binds the soil forming a barrier like a hedge, slows down rainwater runoff and allows sediments to stay on site, eventually forming natural terraces.

Nobody in Bali had heard of it, although it was widely cultivated in Java, but only for the precious oil obtained from the roots. Communication with Vetiver experts in USA, Philippines, Australia and Thailand provided the key advice for us to go ahead. We bought the first batch in March 2000, and now, not only have we saved the roads and developed sustainable organic gardens by all of our four schools, but we also have a wide client base of businesses and individuals in Bali who are also benefiting from this wander grass – and everyone who purchases Vetiver knows that all the money they pay is going directly back into the project to help us to help the children to help themselves.

If you would like more information about The East Bali Poverty Project, or would like to make a