

GREENSPEAK

by Ibu Kat

THREE FOR THE TREES

Bali's environmental problems are glaringly obvious, but there's good news, too. Here's an inspiring story about three Indonesians who recently won major national and international awards for their work in conservation and reforestation on some of Bali's most challenging terrain.

It just takes a few minutes to cut down a tree. Even around Ubud the roar of chainsaws is often heard, cutting down the bigger trees for a fast fistful of rupiah and leaving big holes in the skyline. Out in the jungles, from Sumatra to Irian Jaya, forests are disappearing as swiftly as smoke. The current building boom consumes huge amounts of hardwood, almost none of which is certified as sustainable. Most of those pretty wooden floors come from Indonesia's national parks and forests. And the densest, most desirable hardwoods are the slowest-growing; a big ironwood tree can be 800 years old. Please think about that when you choose the shingles for your new villa.



Some NGOs are particularly close to my heart and I've been following the Friends of the National Parks Foundation (FNPF) for a decade now. Founded by veterinarian Bayu Wirayudha, FNPF now has conservation/reforestation projects in Kalimantan and on Nusa Penida. It also runs the Bali Wildlife Rescue Centre which rescues, rehabilitates and releases native wildlife (which is most often displaced as a result of deforestation).

Bayu dedicates himself to the twin causes of wildlife conservation and habitat protection and renewal. In the Indonesian context, habitat means forests. Although FNPF's work is most visible through its conservation efforts on behalf of the orang utan and Bali Starling, establishing and protecting forests naturally creates habitat for entire ecosystems of insects, birds, mammals and reptiles.

About eight years ago Bayu was searching for a sanctuary for the Bali Starlings he was breeding in captivity with another NGO. After two years of negotiations all 41 villages on the nearby island of Nusa Penida agreed to protect the birds under traditional law, and FNPF moved the birds there. Since then many birds have been successfully released from the FNPF centre, and now about 105 Bali Starlings are living and breeding freely on Nusa Penida and nearby Nusa Lembongan. Because the whole island has undertaken protection of the Bali Starling, not one bird has been poached by locals. Education programs in schools and communities help the people understand that a large, healthy population of Bali Starlings in the wild will attract international bird watchers and eco-tourists.

FNPF is also using this informal bird sanctuary to release cockatoos, Mitchell's lorikeets and Java sparrows. But Nusa Penida was almost completely deforested many years ago and lacks habitat for the growing bird population. FNPF was given 100 hectares of barren land by the government for a reforestation project. Although it was a long way from the release centre, Bayu and his team established a nursery at the centre and painstakingly planted about 20,000 trees on 32 hectares of the dry, windy hill top. All the soil had long since eroded away, leaving only limestone to work with.

Planting here meant digging holes in the limestone bluff, hauling in compost to fill the holes, planting the trees at the beginning of the rainy season and mulching them, watering them through the first dry season and monitoring them every three months through the first three years of growth. Survival rate of the saplings even in these harsh conditions was over 70%. The new forest was about 150 cm high when

a recent fire caused by a carelessly dropped cigarette set the dry grass alight and destroyed many of these young trees. Bayu will be focusing future reforestation efforts with community planting on another 20 hectare site which will be easier to monitor.

The FNPF nursery gives away free saplings to the villagers and encourages people to plant as many as possible in their gardens and farms; this year about 80,000 young trees will be given to Nusa Penida communities. The exceptionally long wet seasons of the past few years has helped with the greening of this arid island. With community support, FNPF has already planted about five kilometres of roadside trees to provide a food and shelter corridor for birds and other wildlife as they travel from place to place.

In October, Bayu received the prestigious 2012 Rainforest Award in San Francisco from the international conservation organization Rainforest Action Network (RAN)

"As a Balinese NGO we have an inherent understanding of local communities, culture, spirituality, needs and challenges," Bayu explains. "This gives us the ability to work closely with the local communities to design programs that benefit them, and the wildlife and habitats located around them."

In Kalimantan, FNPF has been active in Tanjung Putung National Park since 2000, restoring the native forest and monitoring the existing forest. Over 50 hectares of a severely degraded slash-and-burn area has been reforested in Pesalat. In Benguruh, 125 hectares has been planted and another 50 hectares of very difficult wetland is now being reforested. The organization's work in Kalimantan includes the rehabilitation and release of wildlife including orang utan, sea turtles, endangered birds and sun bears. As in Nusa Penida, FNPF runs community development and environmental education programs.

In October, Bayu received the prestigious 2012 Rainforest Award in San Francisco from the international conservation organization Rainforest Action Network (RAN). The RAN judges were deeply impressed with Bayu's work. The award recognized Bayu's life long commitment to deep activism, species and forest conservation as well as groundbreaking community development projects. Bayu joins a rich history of previous awardees that includes Robert F. Kennedy Jr, Maria Gunnoe, Vandana Shiva and environmental activists from around the world. In 2007 the Bali Governor awarded Bayu as an Environment Pioneer.

If the dry, windswept hills of Nusa Penida are a challenge to reforest, imagine the difficulties of establishing a new forest in the lava fields of the Mount Batur volcanic crater in Kintamani. Probo Raharjo and his wife Driya Suwindrati are committed to doing just that.

Driya and Probo were awarded the Djaram Black Innovation Award 2012, selected from 900 contestants from across Indonesia

Always interested in the environment, Probo studied forestry at university and later joined the Forestry Department. Proud as he was of his green uniform, he felt he could be achieving even more outside of government bureaucracy. So along with his day job, he helped create Yayasan Bali Hijau Lestari (YBHL) with partner Pak Putu Swedia and the Japanese NGO Asian Green Forest Network in 2007. The Yayasan's goal is to promote environmental activities and education.

Beginning in 2007 the Yayasan started an ambitious project to reforest part of the caldera of Gunung Batur in Kintamani. Like FNPF, his team had to laboriously dig holes in the lava field and carry in compost. Workers and volunteers planted trees at the beginning of each rainy season, tucking in each tender sapling with mulch and prayers. Over 40,000 saplings have been planted over the past five years and the survival rate is 50 – 60%, which is amazing in that arid moonscape.

Although the results have been good, the young couple felt that there must be an easier and cheaper way to achieve their goal of planting new forests in difficult terrain. They came up

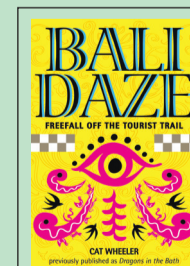
with a system called Kantung Hijau, an elegantly simple solution which could revolutionize reforestation in Indonesia and beyond.

After much experimentation, they developed a sturdy jute bag shaped like a pyramid about 22 centimetres high and across the base. The pyramid is filled with about two litres of compost and the seedling is planted in an opening at the top. A strong jute handle completes the design. Instead of digging holes, filling them with compost and planting and mulching each sapling, the jute bags can simply be carried into the area to be reforested and placed on the ground at the beginning of the rainy season.

The generous quantity of compost contained in the bag is sufficient to give the young tree a good start, and can't be washed away by the rain. The pyramid shape of the bag ensures that it is stable and can't be blown over even in high winds. The sapling's roots will grow right through the jute into the earth, and the bag will gradually decompose and become compost itself.

Brilliant. So brilliant that Driya and Probo were awarded the Djaram Black Innovation Award 2012, selected from 900 contestants from across Indonesia.

The fourth annual Bali Reforestation Festival takes place on December 2. Volunteers are invited to take part in planting 2,500 trees (some of which will be using the new Kantung Hijau system for the first time). Gather at Pura Jati, Toya Bungkah, Kintamani at 0730 and dedicate a few hours to making Bali's environment a little bit more sustainable, one tree at a time. T Shirts and lunch boxes will be provided. Please contact bali.reff@gmail.com for more information.



Ibu Kat's book of stories *Bali Daze - Freefall off the Tourist Trail* is Available from :

- Ganesha Books in Ubud and Seminyak
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