

THE MAGAZINE OF AUSTRALIA'S OVERSEAS AID PROGRAM

focus

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AusAID

**SUSTAINABLE
DEVELOPMENT**

THE POLICY OF THE AUSTRALIAN GOVERNMENT IS TO INTEGRATE ENVIRONMENTAL CONSIDERATIONS INTO ALL ASPECTS OF DEVELOPMENT COOPERATION.



FROM THE MINISTER

‘Natural Resource Management’ sounds rather technical, but for the rural poor of developing countries, the issue is far from academic. In many parts of the world, the poor are completely dependent on the natural resources of their immediate environment. Provided the resources are managed well, the poor may prosper. If they are neglected or abused, the results can be catastrophic. The Australian aid program deals with the complex relationship between poverty reduction and sustainable natural resource management.

The policy of the Australian Government is to integrate environmental considerations into all aspects of development cooperation. The aim is no longer simply to avoid ‘doing harm’ to the environment. Since the poor are so dependent on their natural resource base, effective environmental management, in its broadest sense, is a key to long-term poverty reduction as well.

These principles underline the *Environmental Management Guide for Australia’s Aid Program 2003*.

In the agriculture, forestry and fisheries industries, sustainable resource management is particularly critical. The rural poor often base their livelihoods on productive activities in these areas, yet often this is also where the environment is under greatest stress.

Of course, environmental sustainability is but one of the many challenges farmers face. They must also face difficult climatic conditions, fluctuating commodity prices, the difficulty of accessing markets and services in remote areas, and the perpetual challenge of keeping up with global change. If these issues sound familiar to Australian ears, it is because they are concerns which Australian rural communities share with their counterparts in the developing world.

As Australians, we are proud of our national achievements in tackling these challenges, but we have also learned some painful environmental lessons in the process. As a result, Australia has a

tremendous store of expertise in environmentally sustainable agricultural development.

The rural development strategy for the aid program seeks to harness this expertise for the benefit of the developing countries in our region. The aim is to increase the incomes of the rural poor, through assistance in three major ways – by increasing agriculture sector productivity, by stimulating rural non-farm employment and by managing natural resources sustainably.

Alexander Downer
Minister for Foreign Affairs

The Minister for Foreign Affairs, Alexander Downer, inspects samples drawn from a household water tank in Nghia Hiep Commune, Viet Nam. The water samples contain the biological control agent *mesocyclops*. These are tiny naturally-occurring crustaceans which eat the larvae of the mosquito which transmits dengue fever.

Through a community-based project, the Australian Government is helping to reduce the incidence of dengue fever in Viet Nam. Photo: Andrew Rowell/DFAT

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Government aid in focus The Australian aid program is committed to reducing poverty and achieving sustainable development in the Asia Pacific, Africa and the Middle East. Australian businesses and people play a major role in delivering the aid program. Australian expertise, Australian experience and Australian resources are used to tackle poverty. And by investing in development Australia is investing in its future. In 2003–04 Australia plans to spend almost \$1.894 billion on development assistance. The aid program focuses on promoting regional peace, stability and economic development through several hundred large and small-scale projects. Countries Australia is committed to include Papua New Guinea, Fiji, Solomon Islands, Vanuatu, Samoa, Tonga, Kiribati, Tuvalu (the Pacific region); Indonesia, East Timor, Viet Nam, Philippines, China, Mongolia, Cambodia, Thailand, Lao PDR, Burma (East Asia); Bangladesh, India, Sri Lanka, Nepal, Pakistan, Maldives, Bhutan (South Asia); and Africa and the Middle East.

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COVER: A heavy load to carry, Chittagong Province, Bangladesh. Photo: Heldur Netocny/Panos Pictures

FOCUS ON SUSTAINABLE DEVELOPMENT



The Director General, Bruce Davis (third from right), with Bougainville leaders at Arawa. Bougainville has recently taken an important step towards autonomy. Photo: AusAID

The Minister for Foreign Affairs' statement to the Parliament *Australian Aid: Investing in Growth, Stability and Prosperity*, highlights the importance of promoting sustainable approaches to managing the environment and the use of scarce natural resources.

This priority reflects the fact that more than two thirds of the population in developing countries rely on agricultural and natural resources for their food and livelihoods. The majority of the world's rural poor are found in the Asia-Pacific region – further underscoring the importance of Australia's development assistance focus and the scale of the regional challenge.

Australia's response to the challenge in the Asia-Pacific region demonstrates a commitment to sustainable natural resource management. Australia is able to draw on substantial expertise in areas such as agriculture, forestry, fisheries and research.

The Australian aid program's updated environmental management guidelines help to ensure that aid activities continue to be based on internationally recognised 'best practice' principles of environmental assessment and management. The guide consolidates AusAID's approach to environmental management, reflecting revised legal requirements under the

Environment Protection and Biodiversity Conservation Act 1999.

Our new country strategy for Cambodia builds on Australia's successes in the agriculture sector in this country over the past 15 years. Australian assistance will support greater productivity and increase incomes for the rural poor by encouraging agricultural diversification and value adding.

In Nepal and in Sri Lanka, Australian-funded natural resource management projects are improving the lives of rural communities by enhancing income-generating opportunities for the poor.

And in Viet Nam, the North Vam Nao Water Management Project will help protect 300,000 residents from floods as well as facilitate broader economic and social development.

Greater capacity for agricultural research is a critical part of investing in rural people's futures.

In East Timor, we are helping to build scientific and agribusiness capacity through the 'Seeds of Life' initiative. This project is playing an important role in assisting local efforts to rehabilitate agriculture and develop new maize varieties to improve crop yields for East Timorese farmers.

In Afghanistan, Australia is helping the Afghan Government, international organisations and other partners to provide the seed that rural communities need to resume productive lives.

Support for global and regional organisations that assist developing countries to manage their natural resources sustainably is also an important part of Australia's approach.

The 2003–04 aid budget included a major initiative to support the work of the newly-created Global Conservation Trust to help developing countries conserve plant and genetic resources for food and agriculture.

Australian funding for the Global Environment Facility will assist in this organisation's efforts to combat the global threats posed by desertification and organic pollutants.

And in the Pacific, our continued support for regional environmental organisations is assisting our smaller neighbours to manage sustainably tuna and coastal fish stocks, food crops and forests.

Through these and similar efforts, we are making a significant and lasting contribution to helping countries in our region meet the challenge of sustainable natural resource management.

Bruce Davis
Director General
Australian Agency for International Development (AusAID)

WHAT'S NEW



WATER DISPLAY STEALS THE SHOW

'For AusAID's water display to win an award at the Royal Adelaide Show is a real achievement. For the award to come during International Year of Freshwater is especially pleasing,' said Chris Gallus, the Parliamentary Secretary to the Minister for Foreign Affairs.

Mrs Gallus's visit to the water display came just minutes after it was named Best Corporate Display.

'Living in Adelaide with its water problems, I'm conscious of water issues. In many developing countries water quality is variable and in some cases the cause of serious disease. That is why when I

visit our water projects overseas I'm immensely proud of the very real difference we are making to people's lives,' said Mrs Gallus.

Visitors to the AusAID water display press a button and listen to champion swimmer Geoff Huegill talking about the importance of clean water. They also become 'clean water ambassadors' for the day by having their photos taken for a special water passport.

'Taking part in the show gives me a chance to bring development issues and the Australian aid program to the people,' said Mrs Gallus. **EJ**



SOLOMONS – MAKING PEACE

AusAID, with other Australian government departments and New Zealand and Pacific colleagues, is restoring law and order in Solomon Islands. For the country's future stability it's vital to win back investor confidence and private sector development.

The Australian-led Regional Assistance Mission to Solomon Islands (RAMSI) is:

- » strengthening law and justice
- » improving economic management
- » maintaining access to basic services, especially health, and
- » supporting peacebuilding efforts and community development.

Assistance to Solomon Islands builds on AusAID's existing aid program. Australia is contributing \$25 million to an economic assistance package to help stabilise government finances. The aid package of law and order programs will not only help rebuild the police force and judiciary, but will also ensure an effective prison system to support the restoration of law and order.

Australia is providing an additional \$6 million to the Community Peace and Restoration Fund for small-scale, community-based projects. This will stimulate economic and social development at the village level throughout Solomon Islands. Since November 2000, over 560 projects have been completed across all provinces.

And Australia is continuing its support of the peace and reconciliation process through the Solomon Islands National Peace Council. Programs run by the council, such as the Weapons Free Village Campaign, play a critical role in reconciliation and peacebuilding.

To date more than 750 villages in Solomon Islands have declared themselves 'Weapons Free'.

Because real progress in Solomon Islands requires not just the restoration of law and order, but economic stability and growth, AusAID is set for a long-term role in helping Solomon Islands achieve lasting peace and sustainable development. **DM**

ABOVE LEFT: Mrs Gallus at the AusAID water display, 'Making Every Drop Count'. The display gives people a chance to learn more about the important role Australia is playing in aid delivery. Australia is helping to provide access to clean water to more than 1 billion people around the world. Photo: John Hemmings

ABOVE RIGHT: It's thumbs up for peace. Children from Mataruka in Guadalcanal celebrate the handing in of weapons at a community ceremony. Photo: Dominic Morice/AusAID.

PACIFIC ISLANDS STOPOVER – JOHN EALES



Rugby World Cup 2003 is generating plenty of interest in competing nations Fiji, Tonga and Samoa. Such is the popularity of the game in these countries that when World Cup Ambassador John Eales touched down in Fiji the excitement was palpable. The rugby great was visiting an AusAID health project in Taveuni (see page 25).



Labourers winnowing rice after a day of harvesting in the lowland rice paddies on the edge of Laguna de Bay, Luzon, Philippines. Farmers can more than double their annual yield using hybrid rice varieties developed by IRRI (International Rice Research Centre). Photo: Chris Stowers/Panos Pictures

FACING PAGE: Heavy going. Pulling a seed drill in China. Photo: Dermot Tatlow/Panos Pictures

WORKING WITH THE EARTH



Well over two thirds of the world's poor live in rural areas and most people in Asia, the Pacific and Africa rely on the Earth's natural resources for their living. Many communities are taking positive steps towards sustainable development.

SUSTAINABLE DEVELOPMENT



A peasant planting rice in the rain using a banana leaf as a rain cape, Bali, Indonesia. Photo: Mark Henley/Panos Pictures

FINDING BETTER WAYS TO LIVE OFF THE LAND, RIVERS AND SEA

In China a community celebrates the regeneration of a forest.
In India, a village has access to clean running water for the first time.
In Cambodia, crops flourish where landmines once lay.
The Australian aid program is helping to improve lives and to protect the environment.

The plight of the planet has never been under closer scrutiny. As the world's population expands and the need for resources increases, more pressure is put on the environment. The challenge in both developed and developing countries is to protect the environment for future generations. The way to do this is through good environmental management – in short, through sustainable development.

There are three main causes of environmental degradation. Firstly, excessive consumption causing the over-exploitation of resources such as timber and fishing. Secondly, market failures that cause goods and services related to the

environment to be grossly undervalued. And thirdly, weak governance. If a country's governing institutions don't manage the environment, it leads to the neglect of that country's natural resources. Management of natural resources needs to be integrated into the development of national policies and programs.

POVERTY CYCLES

The interactive cycle between landscape damage and poverty is well known. It goes like this. If a community is forced to eke out a living on land that has erodible soil or where water is scarce, crops fail and the livestock is sickly. As a result, farmers don't produce enough food for the community's



PJ Chandrawathie tends her calf, Hikkaduwa, Sri Lanka. Livestock are prized assets. Photo: Will Salter

needs. To cover their losses they try to grow more crops or increase the size of their herds. This effort in turn disturbs more topsoil, removes more nutrients from the soil and puts yet greater strain on the already degraded resources.

If efforts to reduce poverty are to succeed it's necessary first to relieve pressure on the environment. There's little point in funding programs that improve, for example, health and education services to poor communities if the environment in which they live is severely degraded. People in these situations are struggling just to survive.

The Australian aid program takes into account environmental issues throughout the design and

implementation stages of its development assistance programs. Environmental considerations include devising specific measures for achieving sustainable agriculture, clean water and better management of natural resources.

SUSTAINABLE AGRICULTURE

Landscapes and natural resources can't be rehabilitated quickly – many decades may be needed to allow natural vegetation systems to regenerate.

In Guangxi Province in southern China, for example, Australia has been restoring, for the last few years, degraded karst mountain areas in nine very poor townships and their 70 villages. By improving traditional farming

practices and encouraging some new farming techniques, Australia is helping to reduce poverty. Australia is also stimulating rural non-farm employment by encouraging new household enterprises. These in turn will raise incomes.

In a bid to protect forests from the over-exploitation of wood for fuel, Australia is also advocating alternative energy sources. Further, by increasing staple food production on flat land the planting of crops on steep mountain areas will be reduced. Cropping on mountain land inhibits natural revegetation and increases soil loss.

Likewise, Australia is helping Indonesia rehabilitate and manage

its coral reefs so that fisher people on the coast can continue to earn a living. In Nepal and Sri Lanka long-term assistance is helping those countries to manage their natural and plantation forests successfully.

LIVESTOCK

For poor farmers keeping livestock is important as a food source and potentially for income generation. Not only are animals assets, eggs and dairy products are increasingly in demand. Animals are also essential for providing draught power (as needed in ploughing) and a cheap form of fertiliser.

The aid program, through ACIAR (Australian Centre for International Agricultural



Research), has been working in many countries on ways to improve livestock condition.

Indian and Australian scientists have developed high protein feed supplements from oil seed products. After being fed to cows and buffaloes, there's a significant increase in milk production – about a litre a day. Fat and protein yields also increase. This has major implications for farmers and consumers alike. Dairying is the sole source of income for about 11 million poor farming families in India. Increased production means more income for poor farmers to spend on food and perhaps other services, such as education and health. Farmers' incomes are also raised without putting extra pressure on the environment.

WATER MANAGEMENT

Over the past century the world's population has tripled but water use has increased six-fold. In rural areas, irrigated agriculture, responsible for 70 per cent of Asia's food is already limited by the availability of water. Salinisation, waterlogging and deteriorating water quality further threaten the region's productivity. In the Pacific, rapid population growth, urbanisation and demands of industrial development are

placing ever greater strains on limited water resources.

The Australian Government, with other countries, is trying to work through the problems. The aid program's water policy, *Making Every Drop Count*, highlights measures that can be taken to manage water resources responsibly.

In Hebei in China, Australia is working with local authorities to demonstrate technologies and practices that can help poor farmers not only increase agricultural production but also reduce water use. These advances are without cost to the environment. Over 900,000 poor farmers will benefit from Australia's assistance through savings on water, energy and fertiliser and through increased production and quality of agricultural products.

RESEARCH

Sustainable natural resource management is rarely about the short-term 'quick fix' approach yet it must come to terms with the immediate problems, such as the world's demand for more food.

Where does the answer lie to feeding increasing populations, safeguarding subsistence farming and preserving the environment? To keep pace with the challenges

ahead, farmers and crop scientists will need to innovate. Genetic diversity and research may hold a key. Seeds and other plant material have the potential to provide the raw ingredients for developing new crop varieties. These will be capable of increasing yields, improving quality, enhancing pest resistance and adapting to evolving climatic conditions. Furthermore, they will use less of the world's most precious natural resource – water. Australia is at the forefront of international support for gene diversity (see *Genes Worth Banking*, page 10).

In East Timor an agricultural project is underway, working with communities to increase food production. Seeds of Life began in 2000 to help the county's rural recovery following the vote for independence. It's introducing improved varieties of crops that can produce higher yields using less land.

Trials carried out in four areas have shown yields for introduced maize, sweet potato and peanut varieties are significantly higher than for local crop varieties. Providing that the taste is acceptable to villagers, farmers are likely to choose to plant the new varieties (See also *Viewpoint*, page 27.)

GOVERNANCE

Sustainable environmental management relies on legislation and sound government policies for support. Governing institutions need to take the lead in enacting thoughtful, appropriate and consistent programs.

It's the poor who suffer disproportionately from increasing environmental degradation and are particularly susceptible to the impacts of natural disasters. Strong environmental guidelines and good government policies for land use are likely to make the biggest difference to the poor.

For these reasons, the Australian Government is working with many developing countries to help build up public institutions that can generate suitable environment policies and laws and the regulatory frameworks to enforce them.

In India, for example, Australian aid has helped strengthen the country's national pollution control legislation. It has also helped construct its first hazardous waste treatment and storage facility in Hyderabad.

In Cambodia Australia is strengthening the agricultural service to help poor farmers to ensure a viable food supply. In Nepal Australia's involvement in forestry management has reduced

long-term soil erosion and supported the most disadvantaged people in affected areas.

In Samoa Australia is helping to reform the Ministry of Agriculture, Forests, Fisheries and Meteorology to revitalise that country's agriculture. It's also helping to develop Samoa's quarantine service to protect the country's plants, animals and agricultural produce against exotic pests and diseases. After the experience of the taro disaster, Samoa is particularly vigilant (see *Beating the Blight*, page 10).

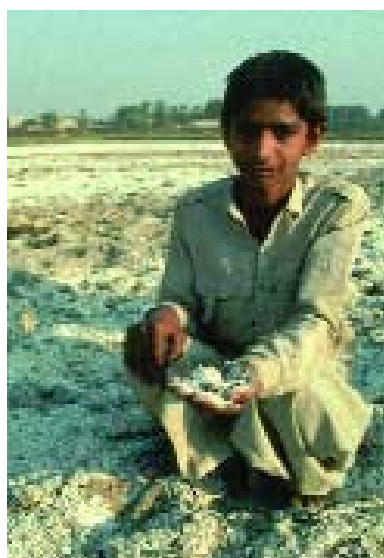
In many countries, including China, Indonesia, Papua New Guinea and East Timor, Australian assistance with new geographic information systems is enabling better agricultural land-use planning and management. In the Pacific Australia is helping tuna stocks to be managed sustainably through supporting scientific research into preferred harvest levels.

Many of AusAID's most successful programs have been those where management responsibility has been decentralised to the local level, yet also involve several levels of government. The recently completed Tonga Environmental Planning and Management Project, in which many good environmental directions have been institutionalised by the national government, is one such example.

INVESTING IN THE FUTURE

No doubt tensions will continue to arise over the use and management of natural resources. The myriad of overlapping factors that contribute to environmental degradation will continue to cause debate in both developing and developed countries. But what seems clear is that most people are prepared to invest in the environment.

The poor will protect their environment if they can see it will improve their lives. With enthusiasm they will take up such activities as protecting water sources, replanting trees and improving soil fertility if they can see the benefits. It's the challenge of aid delivery to demonstrate the benefits. **MS and EJ**



BRINGING IN THE HARVEST

Australia's allocation of \$45 million to support Iraq's reconstruction is targeting areas where Australia can contribute best. One of the main areas is agriculture.

Iraq's transition from a corrupt, command-driven economy under Saddam Hussein to an open system that benefits all Iraqis is a slow and painful process. One of the first tasks is revitalising the country's agricultural systems – and Australia is helping to do just that.

A team of Australian experts has been in Iraq since April 2003 working with the United Nations and American advisers as well as with Iraqi counterparts.



A great deal has been achieved already. Iraq's winter wheat and barley crops have been harvested, prices set and farmers paid. Administration buildings are restored and a communications system installed linking Baghdad with regional offices in various provinces. Farm machinery is being repaired, grain testing equipment set up and seeds are being provided for the next planting season.

FACING PAGE LEFT: Australia is helping Indonesia rehabilitate and manage its coral reefs so that people can continue to make a sustainable living from fishing. Photo: AusAID

FACING PAGE RIGHT: Farmers on the outskirts of Delhi, India, tie down their corn.

Photo: Chris Stowers/Panos Pictures
ABOVE LEFT: Evidence of salination in Pakistan. An AusAID program in the Punjab has helped restore rural land poisoned by salt to agricultural productivity. Photo: Chris Stowers/Panos/Pictures

ABOVE: Gathering wood in the northern mountainous region of Sapa, Viet Nam. Photo: Suzette Mitchell



BEATING THE BLIGHT

Taro has been a major subsistence crop in the Pacific region for thousands of years and consequently holds great cultural importance. It's the essential ingredient for many ceremonial dishes.

But in 1993 disaster struck in Samoa with the arrival of Taro Leaf Blight. This was Samoa's first experience of this virulent disease that attacks and destroys taro leaves before killing the plant. It swept through Samoa very quickly, devastating taro production. Thousands of farmers had to abandon their crops, taro exports were wiped out and the country was forced to import large quantities of rice and other foodstuffs. The national economy was badly affected.

The extent and devastation of the Taro Leaf Blight outbreak also showed the vulnerability of other Pacific nations.

In response, the Australian Government gave its support to the Taro Genetic Resources Conservation and Utilisation Project. This project involved close cooperation between nine Pacific Island nations, the Secretariat of the South Pacific Community and several Australian centres of expertise. It aimed to conserve the region's

taro genetic resources and to develop new, leaf blight-resistant varieties of taro.

After five years, the project has achieved its objectives. Hundreds of taro varieties have been collected from throughout the region and a representative 'core' collection is now maintained at a newly-established regional germplasm centre in Fiji. This core collection represents about 90 per cent of the taro genetic diversity in the region. Together with collections in Papua New Guinea and Samoa, this material forms the basis of breeding programs to develop improved taro varieties. So far, nine improved blight-resistant varieties of taro have been released to farmers in Samoa and Papua New Guinea.

As a result of this project, these new leaf blight-resistant varieties are ready to send to other countries, such as Fiji, and Vanuatu, should they ever have the misfortune to see Taro Leaf Blight. IK

ABOVE: Taro. The root of the plant can be baked, roasted or boiled. The leaves provide an important source of minerals and vitamins. Photos: Yvonne Green/AusAID

GENES

WORTH BANKING

With the launch of the Global Conservation Trust, Australia is making a major contribution to the international effort to conserve the world's diversity of crop varieties.

Why is conserving crop varieties important? In 10,000 years of settled agriculture, 50,000 varieties of edible plants have been discovered. Today humans cultivate about 7,000 plants for food, and many more for fibres and medicines. Three crops – wheat, rice and corn – provide more than half of the world's food supply and are the staple foods for 4 billion people.

Paradoxically, this reliance on a diminishing number of crop varieties increases the risk to the world's food supply. Pests, disease and climate change pose the greatest threats – any one of these factors has the power to eradicate the crop yields of whole countries. An example is the devastating leaf blight that hit Samoa in 1993 (see *Beating the Blight*).

Gene banks play a very practical role in protecting and enhancing the world's agriculture. 'The conservation of crop diversity is a little known necessity for meeting

the most fundamental need of humankind: the need for food,' said Geoffrey Hawtin, Interim Executive Secretary of the Global Conservation Trust, at the trust's launch.

'This globally significant conservation effort is far more than a warehousing exercise. The whole purpose of carefully collecting, documenting, studying and conserving crop resources is to make them easier to use – and thus more useful. Gene banks distribute hundreds of thousands of samples from their collections each year upon request from scientists, breeders and farmers all over the world for their use in research and crop improvement,' he explained.

Gene banks have also helped countries ruined by war and conflict – such as Cambodia, Afghanistan and East Timor – by 'providing seeds originating in those countries to farmers for planting,' said The Honourable



The world's population currently stands at 6 billion and is estimated to swell to almost 9 billion by 2050. To cope with ever greater demands for food, agriculture must become more productive. And it must do this while facing climate change, diminishing arable land, threats from disease and pests, and competing demands for fresh water.

Tim Fischer, Chairman of the ATSE Crawford Fund. 'It is almost certain that gene banks holding samples of Iraqi material will be called upon to restore them to Iraq.'

the world. Some 65 per cent of these gene banks are located in developing countries. In total they hold over 5.4 million samples of plant material.

AUSTRALIA, THROUGH AUSAID, HAS PLEDGED \$16.5 MILLION TOWARDS THE GLOBAL CONSERVATION TRUST OVER FIVE YEARS.

Like the plants they preserve, gene banks come in many forms. They range from the enormous collection of over 80,000 samples at IRRI (International Rice Research Institute) in the Philippines to small collections of a few local fruit trees, like those assembled by school children in Sarawak.

Altogether there are about 1,470 gene banks in national, regional and international institutes around

Due mainly to a lack of financial resources, numerous crop diversity collections are in danger of collapse. In many gene banks, living seeds are lost because there is not enough funding to repair and service the facilities that house them. The Global Conservation Trust will go a long way towards reversing this trend and prevent vital genetic material from disappearing permanently. SB & DH

ABOVE: Sorghum diversity. Through experimentation plant breeders develop new varieties of sorghum that can resist pests and diseases and cope with different growing environments.

Photo: Saskia van Oosterhout

ABOVE RIGHT: Preparing *in vitro* plantlets – part of the scientific work to preserve the world's agricultural diversity.

Photo: Thierry Gennen. Photos from <http://startwithaseed.org/pressalbum>

For further information about the Global Conservation Trust

<<http://startwithaseed.org>> and on the Crawford Fund <www.crawfordfund.org>

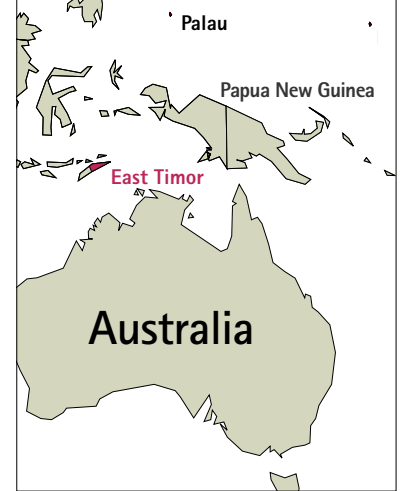


FACTS ABOUT THE GLOBAL CONSERVATION TRUST

- » The Global Conservation Trust will help ensure that existing gene banks receive adequate funding to conserve and maintain their collections.
- » The funding goal for the Global Conservation Trust is US\$260 million.
- » The large endowment fund will earn US\$10–14 million per year. This will be used to ensure the long-term conservation of eligible national, regional and international collections of crop diversity. Funds will also cover technical assistance to improve systems of crop diversity conservation in gene banks around the world.
- » Australia's initial payment of \$5.5 million in May 2003 makes Australia the first international player to make a financial contribution towards this important effort to conserve crop diversity.

STARTING

FROM SCRATCH



Away from the international spotlight, the people of East Timor continue the difficult and painstaking task of building a new nation. As freelance journalist Brad Collis found out, work is well underway towards solving some of the basic problems.

A VILLAGE TAPS ITS FUTURE

Manuel Vicente is proud of his village, Miguir, which straddles the narrow ribbon of bitumen linking East Timor with Indonesian West Timor.

The village has come through some grim years in the country's struggle to be free and Miguir nestles uncomfortably close to the border where militia groups remain a threatening presence.

WATER AND SANITATION PROJECTS HAVE RECENTLY BEEN ESTABLISHED IN THE DISTRICTS OF COVALIMA, BONONARO AND VIQUEQUE. AUSTRALIA IS CONTRIBUTING \$14.5 MILLION OVER THREE YEARS.

ABOVE: Manuel Vicente at one of the taps in his village of Miguir, East Timor. 'Compared to other villages this is a big advance,' he says. Photo: Brad Collis

Nonetheless, Mr Vicente regards his village as a model for the future – an example of what can be achieved with persistence. Behind the low bamboo fences that separate the simple houses from mostly United Nations' traffic are taps and

concrete water tanks – simple but vital infrastructure that raises both health standards and morale.

'Compared to other villages this is a big advance,' he says. 'It's something we aimed for and we have achieved it.'

The system, installed as part of an AusAID-funded community water supply and sanitation program, pipes water down from a mountain spring three kilometres away and holds it in concrete tanks. These tanks feed a series of community taps that supply household water. The project has also supplied self-composting toilets for each household.

The completion of the project is a great step forward. It illustrates not only the very basic needs facing the East Timorese but also shows clearly what can be achieved when one village makes up its mind to take responsibility for its future.

By 1999 about 20 families had toilets and there were several community taps, but the work was interrupted by the violence that followed the referendum in which the East Timorese voted overwhelmingly for independence.

For many months those few taps in Miguir were a lifesaving rallying point for thousands of refugees fleeing into West Timor, and again, on their tentative return, under the watch of Australian peacekeeping troops.

The task of building a nation from scratch will take years. In so many cases it will be about replicating what has been achieved in Miguir. Most East Timorese live in villages – more than 70 per cent of them remain without a water supply or sanitation. Changing this fact is going to take a lot of time, hard work, and continuing overseas aid.



John Leigh admits he was unprepared for the extent of the devastation when he arrived in Dili in December 2002. 'We found every piece of information gone. There were no civic records left at all – no land titles, no town planning, no maps showing the layout of water and power supplies ... all destroyed.'

People illegally occupying property, knowing that the government is not in a position to administer the situation, has been one of the many problems. But the majority of the people want to resolve matters. 'There's no question the people here are bursting to move on,' says Mr Leigh who more than anybody realises it's not a straightforward matter. Those who have bought land in good faith have to be compensated.

'People are very attached to their land roots. Village land, community land, sacred land – it underpins society in East Timor. The land tribunal will therefore have to resolve cultural as well as legal issues,' he says.

'We're starting from scratch. There are no titles and no rules.'

By his own admission, John Leigh has become 'passionate' about his work in East Timor and he wonders how many people working in property law back home in Australia can lay claim to that emotion!

Brad Collis's visit to East Timor was arranged by the ATSE Crawford Fund.

TOP: Children delight in their new water supply, Miguir, East Timor.

ABOVE: John Leigh – taking property law back to square one. Photos: Brad Collis

LAND RIGHTS AND HOT PROPERTY

The paint was barely dry on the new Parliament House in the capital, Dili, when questions began surfacing about one of the most difficult issues facing East Timor. Who owns the land?

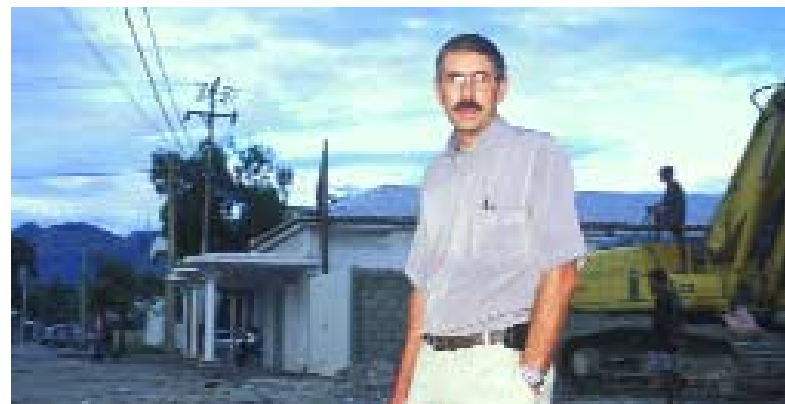
East Timor was occupied by the Portuguese from the 1500s until it was taken over by Indonesia in 1975. Now that it's independent, there are competing claims over land, with original owners arguing they never sold their land and any later purchases are invalid. The few land records that survived the post-referendum devastation in 1999

tend to be overlapping or contestable Portuguese and Indonesian titles.

It's a daunting task ahead of him but John Leigh, a former Melbourne land valuer and property law lecturer, is helping to rebuild the country's entire land titles system. As he explains, 'There's a lot of coffee country that was owned by Portuguese families who fled when the Indonesians invaded and left their properties with caretakers. After a decade or so, and assuming everything had changed forever, a

lot of caretakers sold the land. Now the original owners are turning up, creating some really complex legal issues.'

While the task of restoring civil administration is immense, there are signs of progress. The Directorate for Land and Property, the first department established under East Timor legislation, is being set up. With 70 local staff, John Leigh, whose position is funded by AusAID, is devising a land registry system, navigating an often fraught path through disputed claims.





TURNING BACK THE SANDS

Local Mongolian photographer Hasibagen can still remember the deep blue sky and transforming clouds of his childhood home, the sound of wind whistling through grassland, of fine rain tapping the tents and the fragrance from damp desert plants. He recalls magical sights of swans drifting and rising from the lake and the night sky of crystal stars. He says, 'It was these feelings for nature which inspired me to become a photographer.'



Camping on the summer pastures, Right Banner, Alxa League, Inner Mongolia, China, 1985. This tradition, like the pastures, has since disappeared.

FACING PAGE: Troubled mother, Ejina Banner, Alxa League, Inner Mongolia, China.

Photos: Hasibagen



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The AusAID Alxa League project has assisted preparation of Hasibagen's photographic work *Cry for Nature*. The book, which includes these photographs, illustrates past and present environments in Alxa League, Inner Mongolia, China. It also provides vivid and objective evidence of how years of droughts and irrational land use have caused environmental degradation and major sandstorms. Copies of the book can be obtained through the project's office.

Readers interested in ordering a copy of *Cry for Nature* should write to the Editor, *Focus*, Public Affairs Group, AusAID, GPO Box 887, Canberra, ACT 2601 or email focus@ausaid.gov.au

[1] The first sandstorm of western China was born in Alxa League in 1985.

[2] Torgut Mongol herders in Ejina Banner, Alxa League, 1994 – the year that other branches of the Black River ceased flowing. This branch stopped in 1996.

[3] Last leaves in Ejina Banner, Alxa League, among the dying Euphrasian poplars, 1995.

[4] Red pasture in Ejina Banner, 1992. After the Black River dried up, this area rapidly turned to sand. [5] The same area as it looks today.

[6] Autumn along the Helanshan Mountains, 1985. Overstocking has since reduced the variety and palatability of plants in this pasture.

[7] Green boundary. Livestock controls and pasture seeding can improve some desertified sites in the Tengri Desert.

Photos: Hasibagen



REHABILITATING THE LAND

When Hasibagen returned to his home in Alxa League in western Inner Mongolia in China all was not well.

As Hasibagen says, 'In 1985, when I took a camera to try to recapture and portray these special childhood memories, what I found was not grand cloudbursts of thunderous lightning, rolling clouds and driving rain, but sandstorms I had never seen before. The first sandstorm from western China originated in Alxa League. Then the sandstorms increased and worsened each following year. Tranquil desert turned to shifting sand dunes and my beautiful green home village was invaded by sand.'

Alxa League covers an area of 270,000 square kilometres and has a population of just over 170,000. Two major deserts dominate the landscape. The Tenggeli Desert is characterised by tall sand dunes that are slowly drifting away. The Gobi (stony) Desert is all that remains after the sand dunes have moved on. Unlike the deserts found in Australia, these deserts are in very cold climates with winter temperatures below 30 degrees centigrade. The area given over to desert is expanding as livestock numbers – mainly camels, goats and sheep – increase. The delicate ecosystem can only sustain a small number of livestock.

The Australian Government has helped fund the Alxa League Environmental Rehabilitation and Management Project to help redress the worst effects of environmental changes. The project is assisting local government and residents in a remote and desertifying part of

rural Inner Mongolia to recognise signs of land degradation. Importantly, it is also teaching people how to rectify the problems.

Herders and farmers are learning how to protect their natural resources. To stop overgrazing some herders have removed their animals from selected pieces of land where they're growing instead medicinal plants, like the desert ginseng.

An environmental curriculum for primary and secondary schools has also been developed. The Alxa League Government has adopted this program for all schools.

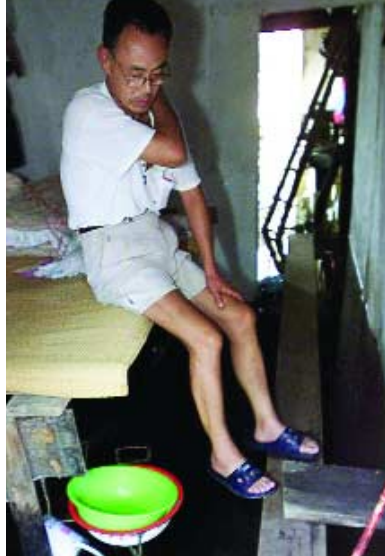
The Helanshan mountain range dominates the southern boundary of Alxa League. The area is a major national park maintaining a rich biodiversity of plants and animals. It also holds a special place in Mongolian culture, with two important Buddhist temples. Religious leaders, called lamas, are working with the project to inform the community about the best ways to protect their environment.

Hasibagen sums up the shift in attitude towards the land, 'I learned from the project that actions to improve the environment include both "hardware" investments in physical activities and "software" changes in thinking and ways of acting.'

Simon Field, ACIL Australia

For more information

< alxacil@public.hh.nm.cn >



SAVING LIVES FROM YANGTZE'S FLOODS

The floods along the Yangtze can't be prevented but new Australian and Chinese expertise in technical forecasting is giving those who live on the floodplain vital warning to evacuate.

The Yangtze River, known to the Chinese as Chang Jiang (long river), with its source high in the Tibetan mountains runs more than 8,000 kilometres through southern China to Shanghai. About 400 million people live in the Yangtze catchments, which support 40 per cent of China's agricultural and industrial output. The Yangtze carries two-thirds of the country's fresh water and provides an important navigation link between major cities.

During the flood season, which runs from June to August, the middle reaches of the Yangtze River rise more than 10 metres above normal level. In the last major flood, in 1998, it rose over 15 metres above its dry season level at Wuhan. Existing flood forecasting and management systems proved inadequate and thousands of people were killed.

Although most environmental experts agree that the scale of the 1998 flood disaster was unusual, the risk of further serious flooding remains high.

To help predict Yangtze flood patterns, the Australian Government, through AusAID, has provided \$16 million to the Yangtze River Flood Control and

Management Project. Australian expert advisers in different specialty areas, such as in instrumentation, hydrologic and hydraulic modelling, communications and forecasting have also travelled to China.

Any initial doubts from the Chinese about the value of expert advisers from Australia, a dry country with a relatively small river system and a tiny population, were quickly dispelled. During a study tour of Australian scientific institutions, the Chinese were particularly impressed with Australian systems for projecting and forecasting the results of rising floodwaters.

Continued efforts from the Australian-Chinese partnership in planning and organising a computer-based, decision-support system and flood forecasting system have been very successful.

Keith Russell, SAGRIC

<www.yangtze.sagric.com>

ABOVE: A local man sits on his bed in his flooded home on the banks of the Yangtze River at Wuhan in Hubei Province. Photo: AFP



FACTORY POLLUTION CUT

Datong in Shanxi Province in northern China is a heavily-polluted industrial city of three million. Many people suffer poor health.

ABOUT POLLUTION IN SHANXI PROVINCE

- » Shanxi Province has about 1,000 coal gasification plants which discharge over 15 million tonnes of waste water each year.
- » The waste that is discharged in Shanxi Province contains around 3 million tonnes of contaminants, many of which are carcinogenic or otherwise harmful to human or animal health.
- » Linkages have been established between Shanxi's industrial pollutants and the death rate of humans and livestock. The pollution is also directly responsible for significant degradation of farmland, flora and cultural heritage sites. The resulting economic loss to the community is very high.



No one denies air and water pollution is a serious problem in Datong. 'On winter mornings in still conditions a thick brown smog covers Datong, reducing visibility to about 200 metres, making it difficult for anyone with respiratory problems to breathe. Downstream from Datong the villagers suffer the consequences of polluted water on crops and animals,' says Les Gray, the Australian team leader of the Datong Cleaner Environment Project.

Giant coal gasification plants dominate the Datong landscape. As coal is converted into coke and gas to provide energy for the region, high levels of toxic waste pump into the air and leak into the water system.

The Datong Cleaner Environment Project, funded by the Australian Government through AusAID, has been working on a number of fronts to cut pollution. A concerted effort to reduce water discharge from the Datong Coal Gasification Company has achieved encouraging results. A technological breakthrough has

allowed the plant to reduce its wastewater discharge by 30 per cent while also extracting pollutants. This in turn is reversing the effects of the long-term degradation of river water.

For the first time the coal gasification company has been able to meet China's most stringent standard for wastewater discharge. By the end of the three-year \$16 million project in 2004, the discharge will be reduced by 50 per cent. This will bring social, economic and health benefits.

The Australian team has been keen to develop the expertise of local workers so the advanced technology may be applied to other industries in Datong and elsewhere in China. The success of the project has important implications for many other industrial sites.

As for Datong – the project is providing a sound basis for the long-term sustainable development of water resources. Improved water standards add impetus to raising the quality of life of the local community. **PH**

LEFT: Working in the fields next to the coal gasification plants in Datong, Shanxi Province. Photo: Mark Henley/Panos Pictures



RESTORING

SHANGRI-LA

On his visit to a project in the remote north-west corner of Yunnan Province in China, David Butcher from WWF Australia saw what can be achieved from small beginnings. Here is his report.

The project is conducted by the WWF China Program Office in the virtually inaccessible Baimaxueshan (Buy-ma-shoo-shan – native Chinese speakers please excuse my phonetics), or the ‘White Horse Snow Mountains’. It comprises part of the upper catchment of the Yangtze River on the southern access road to the Tibetan Plateau, and is on the border of Yunnan and Sichuan provinces.

Baimaxueshan is a protected area of some 300,000 hectares, with a population of around 35,000 people, mainly Tibetan. This is one of the most bio-diverse parts of the world, with some 10,000 recorded higher altitude plant species and many species of unique animals, including rare primates and the enigmatic red or common panda.

Up until 1998, the mainstay of local communities was the devastating clear felling of montane forests. Little funds from this activity, however, actually made their way back to the people – and with an annual average per capita income of 600 RMB (some \$120), this was one of the poorest areas in China.

There is little doubt that the completely destructive forestry of the upper river catchments was a significant contributing factor in the

1998 catastrophic floods that were particularly devastating along the Yangtze. When the Central Chinese Government imposed a national ban on logging soon after, suddenly removing 85 per cent of the area’s meagre income, the makings of a social and environmental disaster were underway.

It was at this point that WWF became involved.

The difficulty was that the population was desperately poor – and a program therefore needed to be established to restore forest quality and quantity, reduce pressure being placed on the area’s natural resources, while helping to improve the livelihoods of local people.

With the commitment of the people of Baimaxueshan, the innovative AusAID-funded project that eventually developed has achieved some truly spectacular results:

- » A new sustainable industry based on Matsutake mushrooms – providing 80 per cent of the local people’s cash income.
- » Food shortages have been addressed through the introduction of new varieties of wheat, corn and virus-free potatoes, with training on the proper use of fertilisers and



David Butcher, Chief Executive Officer of WWF Australia, visiting schoolchildren in Baimaxueshan, China. Photo: WWF Australia

- pesticides. Production has increased 100–250 per cent.
- » Local villagers are being helped to provide better infrastructure – clean sources of water for human and animal consumption, water tanks, biogas generators and mini-hydro plants.
- » The consumption of fuel wood has been reduced by replacing open-hearth chimney-less fires with efficient wood burning stoves – reducing wood use by 60 per cent and freeing up several hours of women’s time and, more importantly, reducing respiratory tract ailments and the low-grade corneal inflammation associated with chronic smoke contact.
- » Two villages are now conducting reafforestation projects.
- » Traditional religion has been built into conservation activities,

with new forest protection rules now blessed by Tibetan monks.

- » The program is likely to be extended to 10 other sites in the area.

From such small beginnings, enormously important programs that have positive effects upon people and their environment can evolve. It is this type of project that convinces me that WWF is an extremely effective and innovative organisation.

Why Shangri-La? Well, that’s the Tibetan name for this area, except locals pronounce it shang-griller. While I was there it was not hard for me to imagine that I was truly part of *The Lost Horizon*, which popularised the name in Western cultures.

For more information <www.wwf.org.au>

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FACTS ABOUT LANDMINE CLEARANCE IN CAMBODIA

- » Incident rates from landmines and unexploded ordnance (UXOs) have decreased, from 11 casualties a day in 1996 to two casualties in 2003.
- » An area of about 4,500 square kilometres is still contaminated by landmines and/or UXOs.
- » About 46 per cent of villages in Cambodia (6,400 villages) are situated in areas uncleared of landmines and/or UXOs.
- » People from communities living under the threat of unexploded landmines and/or UXOs have restricted access to natural resources, such as water and forests. They also have limited access to transport routes, health services and educational facilities.
- » Australia began helping with landmine clearance in Cambodia in 1994. Since this time, Australia has helped to clear over 11.5 million square metres of contaminated land. Over 95,000 landmines and UXOs have been destroyed, allowing resettlement of more than 1,400 families in nearly 60 villages.
- » During his visit to Cambodia in June 2003, the Minister for Foreign Affairs, Alexander Downer, announced funding of a further \$2 million to the Cambodian Mine Action Centre to continue its demining work. Australia has contributed to date over \$24 million to landmine action.

For more information <www.aisaid.gov.au/human/landmines.cfm>



LEFT: Clearing landmines. Looking at this explosion it's not difficult to imagine the damage landmines cause. Photo: AusAID

ABOVE: Villager from Puok, Siem Reap Province – a region that once was heavily contaminated with landmines. Since their clearance women from the area have been able to return to their former occupations of tending to the village crop – in this case eggplants (aubergines). Photo: Doug Melvin/AusAID

RECLAIMING THE

LAND

In increasing numbers
Cambodian villagers are
returning to their fields.

Demining activities have made the fields in Cambodia safe again. Farmlands destroyed during three decades of civil war and conflict are gradually being re-established.

With their roads cleared of mines, villagers are also attending local markets and participating in the commercial life of the country. A sense of confidence is spreading – but not among the poorest people.

The poor tend to live on marginal land – that is, in areas

where the soil is degraded and there's limited access to water. These stretches of land are also heavily affected by landmines. There's a high incidence of injuries in forest areas (33 per cent) where poor people must forage for firewood and in villages located in former conflict areas (24 per cent). Landmine victims – the amputees – form a distinctly vulnerable group in the country.

In April 2002, Banteay Srey, a local non-government organisation,

set up a sustainable development project. Supported by the Australian Government's overseas aid program at the Australian Embassy in Cambodia's capital, Phnom Penh, it ran for nine months. In that short time it laid firm foundations for the future progress of hundreds of poor rural women and their families in the provinces of Battambang and Siem Reap.

The project has sunk 79 wells providing some 270 poor families with clean and accessible water sources. It has also helped to establish permaculture as a method of using the newly available water to grow crops. (Permaculture is a system of agriculture which does not involve yearly crops but crops that are self-sustaining.) The crops are used either as food for the villagers or sold at local markets to raise income. **DM**



In 1996, the Government of Viet Nam recognised that the Tam Dao Range was under pressure and decided to take action.

PARK PROTECTION



From afar, the Tam Dao National Park near Hanoi in Viet Nam's north could be three islands floating on white cloud. But looks are deceptive. For tucked underneath lies a steep mountain range, 80 kilometres long, providing living space for about 1,000 different types of plants and animals. The park is rich in beauty and its timbers are highly prized by the logging business.

But the effects of human activity were taking their toll.

By 1996 large areas of soil in the Tam Dao Range had become degraded through poor farming practices that followed intensive logging. About a quarter of the animal species in the area were endangered and 38 plant species needed strict conservation. This was the situation when the

Government of Viet Nam declared the area a national park. In doing so, the government paved the way for an exciting experiment in land management.

For generations, Mr Hung and his family lived off the land within what is now the Tam Dao National Park. His farm, in a buffer zone on the lower slopes of the park, was poor, degraded and unproductive – a legacy of excessive tree clearing. But Mr Hung's ambitions were high. He was determined to turn his fortunes around, regenerate his barren soil and use the land wisely and productively.

Working with park staff and overseas advisers contracted by AusAID, Mr Hung began adding lime to counteract soil acidity and fertiliser to provide nutrients for his crops. He also planted native

fruit and timber trees from seeds collected locally, fodder crops and fast growing eucalypt hybrids for firewood. Within three months he started to notice a change. The fodder was flourishing. Native trees were thriving and new plantings were providing the soil with organic matter and nutrients.

Because the farm was now tilled on the contour with banks to control run-off after heavy rain, much less topsoil was eroding. A

dam was built to provide small-scale irrigation during the dry winter season. Emboldened by this success, Mr Hung moved on to bigger and better things by developing a plant nursery where he can graft the superior fruit varieties.

Mr Hung's farm is now serving as a model for the local community. He has forged the way for change and development in rural farming practices within the

Tam Dao National Park. And other farmers are following his lead.

Dr Sharon Brown and Dr Peter Dart from the University of Queensland guided the development of Mr Hung's farm. 'What we did was bring in information from other AusAID and ACIAR projects and tried to make everything Mr Hung plants productive and profitable.'

The project worked so well because it met the needs of farmers and directly involved the local people. As Dr Brown says, 'Empowering community

members is the essential thing. Farmers need to take an active part in improving their livelihoods and this is being achieved.'

Australian aid and partner organisations working together with Mr Hung have set a precedent within Tam Dao National Park that productive farming and land rehabilitation can be achieved. All it takes is a little cooperation and a few carefully selected small-scale targets. VQ

For more information contact Dr Sharon Brown <sbrown@uq.edu.au> or Dr Peter Dart <p.dart@uq.edu.au>

FACING PAGE LEFT: Mr Hung's farm showing Tam Dao National Park in the background. Liming degraded acid soils and planting fodder and fruit trees has improved farm production. Photo: Sharon Brown

FACING PAGE MIDDLE: Within in three months of establishing this improved mango variety, Mr Hung was able to propagate more than 300 grafted seedlings, which neighbours are now planting on their farms. Photo: Peter Dart

FACING PAGE RIGHT: Women from the San Diu minority group live in the buffer zone so they too are benefiting from the land rehabilitation efforts. Photo: Peter Dart

WASTE NOT



LANDCARE PHILIPPINES STYLE

On the southern Philippines island of Mindanao a genuine grassroots campaign has taken hold. Landcare groups, formed by local farmers, are succeeding in reducing soil erosion and in rejuvenating fragile farming lands.

Farming on Mindanao's once heavily-forested, steep, upland slopes has cleared deep-rooted trees that held soil in place. These have been replaced by shallow-rooted crops, destroying the soil's natural support and causing erosion.

Everyone was aware of the problem, but fixing it was a little harder. Many initiatives exhorting farmers to tackle the problem were lost in broader environmental messages. But one initiative, by the World Agroforestry Centre, struck a chord – natural vegetative strips planted across slopes, to shore up eroding soil. Soon almost 100 Landcare groups were planting these strips in and around Claveria, in Mindanao's north.



Native vegetative strips can be used to grow productive plants, as well as support soil on upland slopes. Photos: ACIAR



Landcare groups were also becoming active in two other areas of the island. Australian assistance through ACIAR (Australian Centre for International Agricultural Research) helped to build links between the three groups and support their efforts.

The results have been stunning. Today more than 360 Landcare groups with 4,500 members are active throughout Mindanao. Each area is supported by Landcare coordinators, allowing groups to access the expertise needed to help achieve their aims. Almost 500 seed nurseries have been established, cooperatives have been formed to buy organic fertilisers

and commercial companies are now taking up the technology.

Farmers like Henry Binahom, who recently visited Australia to tell his story at the National Landcare Conference, are not only the beneficiaries, but also the initiators of much of this work. Speaking to ABC Rural Radio Mr Binahom summed up the Landcare experience in the Philippines. 'We developed initiatives on our own because we believe in bringing reforestation in the area.' Warren Page, ACIAR

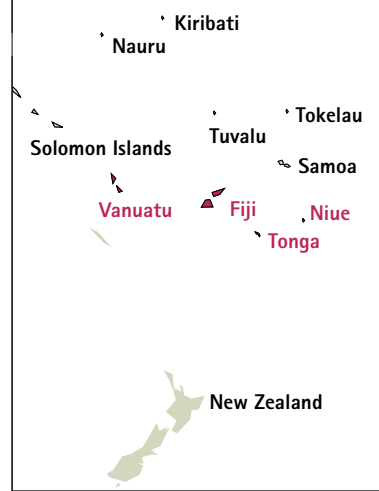
<www.aciar.gov.au>

Putting out the rubbish is not something taken for granted in Tonga. Only about one in five households in the urban area of the capital Nuku'alofa has its waste collected regularly.

It's not surprising then that most of the rubbish finds a home in an informal dump, about 4 kilometres from the Nuku'alofa town centre. The site is within a mangrove swamp on the edge of a lagoon and it's in a very unsanitary condition. It attracts vermin and provides breeding ponds for mosquitoes. Access is uncontrolled and scavenging is common. Leached material and leakages from the site enter the lagoon.

Recognising the growing environmental and health problems, the governments of Tonga and Australia have been working towards constructing a new waste disposal facility. They're also developing a waste disposal system to stop people from dumping rubbish illegally. Communities will have a say in how the new system is run and Australia will help build up the Tonga Ministry of Works so it can manage it efficiently. EJ

A pig takes up residence in the informal dump at Nuku'alofa. Photo: AusAID



SWEET SMELL OF SUCCESS



Sandalwood has been used for thousands of years and is of great social, religious and economic importance in many parts of the world.

ABOVE LEFT: Village group in front of hybrid sandalwood planted in Vitu Levu, Fiji.
ABOVE RIGHT: Sandalwood plantation on Efate, Vanuatu. Photos: CSIRO



The oil from the fragrant inner wood, or heartwood, of several sandalwood (*Santalum*) species is extracted for use in cosmetics, soaps, aromatherapy, perfumery and medicines. The wood is powdered for incense sticks or used for carving ornamental objects. It's a versatile and precious commodity but in the wild few sandalwood trees remain. These are mainly located in inaccessible areas, remote from human habitation.

The AusAID-funded SPRIG Project (South Pacific Regional Initiative on Forest Genetic Resources), now in its second phase, is helping Vanuatu, Fiji, Tonga and Niue to develop and sustainably exploit their prized

sandalwood resources. Conservation and sustainable management strategies are being progressively implemented with encouraging results.

Santalum yasi, found only in Fiji and Tonga, produces one of the most highly sought after sandalwood timbers. It's an ideal tree cash crop for people living in remote Pacific islands because the product is of very high value (around \$20 per kilogram) and non-perishable. Small trees yield about \$5,000 worth of heartwood, although in Tonga one tree recently sold for \$25,000. Sandalwood is a root parasite and needs to be grown with other tree species. Accordingly, its cultivation and utilisation has

minimal environmental impact. Production of sandalwood is also highly compatible with conservation of biodiversity and fragile island ecosystems.

The commercial value of sandalwood depends on its heartwood oil content and composition, and the quantity of heartwood per tree. CSIRO Forestry and Forest Products, the managing agent for SPRIG, is assisting Pacific partners to identify trees with good heartwood for inclusion in conservation and improvement programs. In Fiji the Forestry Department has developed techniques for grafting and clonally propagating sandalwood by cuttings, which will speed up improvement for the species.

Spontaneous hybrid sandalwood (with Indian sandalwood) grows much faster than the parent species and produces heartwood from an earlier age. Mr Alfereti Aropio, a villager from Rotuma (Fiji), has been growing hybrid sandalwood on a small scale since 1997, and based on encouraging results is now planning to extend his area planted under sandalwood to one hectare. Mr Aropio says 'the project will bring much needed income that will benefit both my family and the Juju community.'

The work of SPRIG and CSIRO and its Pacific partners on sandalwood has tremendous potential to contribute to rural economies and improve living standards for the people in the Pacific. Lex Thomson, CSIRO Forestry and Forest Products

For further information contact:
Lex.Thomson@csiro.au
<<http://www.ffp.csiro.au/tigr/atcscmain/watwedo/projects/sprig/>>

PACIFIC ISLANDS STOPOVER – JOHN EALES



It's all smiles at the new hospital in Taveuni, Fiji. Sister Emily Kaufuti (left) and Sister Mere Saumi meet rugby hero John Eales. Photo: AusAID

In the Pacific, rugby fever is running hot in Fiji, Tonga and Samoa as the three nations prepare to cheer on their national teams at the Rugby World Cup in Australia.

These countries have produced many players with exceptional skill and style. The popularity of the game is such that when former Wallabies captain John Eales recently visited an AusAID health project in Fiji the recognition was instant.

John Eales was visiting the island of Taveuni where Australia has funded a new 22-bed hospital, three health centres, three nursing stations, an ambulance and medical boat. To link them all, a very high frequency communications network has also been installed.

There was excitement as staff and patients sought autographs

from the rugby great. The presence alone of the sporting hero, who is the Rugby World Cup Ambassador, made many an ill patient feel a little better for the meeting.

The people of Taveuni suffer from a range of health problems. Among the more serious are diabetes, cardiac disease, dengue fever and skin diseases.

Until now, health services on the island have been basic and people with serious illnesses either had to travel to Suva for treatment, or in some cases forego medical treatment altogether.

The new hospital has changed that. Surgeons are now able to fly to the island and treat patients in a new operating theatre. Nursing and health staff are available around the island and where access by ambulance is not possible, a medical boat can pick

up the injured or ill. Gone are the days when intensive care consisted of nothing but an oxygen pump. Beyond the hospital, in nearby villages, new AusAID-funded water tanks are ensuring people have access to clean water – essential for disease prevention. And nearby new houses built by AusAID mean hospital staff can live close to work.

The importance of the health system was not lost on John Eales, who was given a tour of the hospital by Sister Emily Kaufuti. People who may have died from preventable or treatable illnesses now are able to receive good quality hospital and outpatient health care.

For John Eales the visit was a chance to learn more about the difference Australian aid can make in developing countries. **EJ**

LOOKING AHEAD – PAPUA NEW GUINEA



Export-driven economic growth, rural development and poverty reduction, particularly through agriculture, forestry and fisheries, are central to the Government of Papua New Guinea's medium-term development strategy.

Australian aid is supporting research in most of Papua New Guinea's main crops, including cocoa, coconut, taro, sweet potato, sugar and oil palm, as well as livestock, forestry and fisheries. Recent studies have shown all these areas have potential to grow, spreading the benefits of development to isolated communities.

Papua New Guinea is a diverse country, rich in resources and

beauty, yet many of its inhabitants live in poor and remote districts. A new comprehensive handbook is assisting the Government of Papua New Guinea to help these areas. One of the book's main purposes is to 'target development assistance to disadvantaged communities' and to understand better their specific problems.

The *Papua New Guinea Rural Development Handbook* provides detailed information for each of Papua New Guinea's 89 districts. Topics covered include population, land potential and tenure, agricultural production systems, access to services, cash income and nutrition. For government policy-makers, donors and anyone working in social, economic and

rural development in Papua New Guinea the handbook, complete with maps and graphs, is an invaluable resource. **RT**

ABOVE LEFT: Dr Wake Yalu of Papua New Guinea's Forest Research Institute explains his work on indigenous forest species to ACIAR board members Dr Beth Woods and Dr John Williams. Photo: ACIAR
LEFT: A collaborative effort. Information contained in Papua New Guinean databases formed the basis of the research. Funds supplied by ACIAR allowed the databases to be analysed and AusAID commissioned the Australian National University to produce the book. The finished product is also available on compact disk from <books@ausaid.gov.au>

TONGA FISH

As the sun slowly rises over the water in the Tongan capital, Nuku'alofa, a rush of activity begins on the waterfront. The first of a group of small fishing boats ties up at the wharf, its catch quickly unloaded and laid out on nearby trestles ready to be sold immediately. The scene has been repeated many times over the years.

Further down the coast another fishing activity is underway. This time it's at a research station off the main road from the beach. Here Tongan aquaculture scientists examine large artificial tanks containing green snails and giant clams. They check growth rates and shell quality.

The scientists are looking for new ways of generating income from fish because there's concern about over-fishing in the waters off Tonga.

Green snails and giant clams are being tested as an alternative income generator because Tonga's natural environment suits them. They're also lucrative for they sell at premium prices overseas, particularly in Japan where one snail alone can fetch \$150.

The idea is that, in time, people will be able to farm their own clams and snails in the waters hugging Tonga's coastline. This will reduce pressure on fishing, incomes will rise and fewer wild fish will need to be caught, allowing fish stocks to recover.

This work is part of a broader fisheries management project in Tonga, funded by the Australian Government, to further develop Tonga's commercial fisheries. **EJ**



AusAID team leader Marc Wilson (left) and technical officer Sitiveni Sefesi with a green snail. The men are working on a project to establish a green snail and giant clam industry in Tonga. The aim is to reduce overfishing. Photo: Rob Walker

DROP IN POPS



POPs, which stands for 'Persistent Organic Pollutants', are man-made chemicals that are toxic and don't break down quickly in the environment. They accumulate up the food chain and pose serious health risks to humans and the environment.

It's not well known that countries throughout the Pacific have stockpiles of agricultural pesticides and PCBs (polychlorinated biphenyls). As a group these chemicals are called Persistent Organic Pollutants (POPs).

The Australian Government, through AusAID, is helping 13 Pacific Island nations to get rid of their chemical stockpiles. POPs are being packaged in accordance with stringent international and Australian guidelines for transport to Australia. Here, they will be destroyed in a state-of-the-art treatment facility designed by CSIRO (Commonwealth Science and Industry Research Organisation). Through physico-chemical processes (not incineration), POPs are rendered harmless. There is no threat to public health.

The 13 Pacific Island countries are Fiji, Cook Islands, Federated States of Micronesia, Kiribati, Marshall Islands, Nauru, Niue, Palau, Samoa, Solomon Islands,

Tonga, Tuvalu and Vanuatu. Each is a densely-populated, small, island state that lacks the specialised resources for treatment and disposal of these harmful chemicals.

And among the island communities there tends to be a lack of awareness about the hazardous nature of chemicals. Storage facilities are often totally inadequate.

Exposure to POPs can cause developmental delays, liver damage, certain cancers and interfere with hormone functions. As they're fat-soluble they're able to collect in breast tissue, making women and breastfeeding infants particularly vulnerable.

Recent scientific studies show that POPs evaporate in hot equatorial regions and condense and precipitate near the poles. Many Arctic and Antarctic birds, and small land and marine animals, are dying from the direct or indirect effects of accumulated POPs. Clearly, eradication of these chemicals in the Asia-Pacific region is very important for the world's health. **Stefanie Pidcock, GHD Pty Ltd**

For further information contact Stefanie_Pidcock@ghd.com.au <www.sprep.org.ws>

ABOVE: Villagers hang their washing on disused electrical transformers contaminated with PCBs (polychlorinated biphenyls) in Chuuk, Federated States of Micronesia. Photo: John O'Grady/SPREP

SOW SEEDS FOR DEVELOPMENT, NOT VIOLENCE

Dr Masa Iwanaga is Director General of the International Maize and Wheat Improvement Centre (CIMMYT) and has more than two decades of experience in international agricultural research and development. He believes that much of the world's civil conflict is fuelled by poverty and hunger. Here he shares his thoughts about what should and can be done in rural areas to combat poverty and social unrest.



In the field – Dr Masa Iwanaga: Photo: AM Sanchez/CIMMYT

Conflicts and other social maladies that cripple developing countries are exacerbated by poverty and hunger. More than 70 per cent of the population in these countries live in rural areas and rely on agriculture for their existence. To make sustainable development a reality for these people, we must begin in farmers' fields.

International agricultural research provides enduring solutions to poverty, hunger and resulting social unrest. The positive effects of agricultural research are felt throughout the economy and not in rural areas alone. Unfortunately, according to the International Food Policy Research Institute, development assistance directed specifically at agriculture fell almost 50 per cent in real terms from 1986 to 1996.

As a result, food production did not keep pace with population growth in most poor countries between 1990 and 1996. Rather than funding research, government aid is increasingly

directed towards emergency assistance to cope with the ravages of war and famine.

Australia recognises that the basis for civil security and sustainable development for *all* people lies in the countryside. An example of Australia's investment in rural development is the Seeds of Life Project in East Timor.

More than 90 per cent of the population engages in subsistence farming. Many saw their fields and crops devastated during the civil strife that ignited in 1999 following East Timor's vote for independence from Indonesia. By the time war ended, the country's seed supplies had been consumed or destroyed. In response, ACIAR (Australian Centre for International Agricultural Research) put together a unique initiative to protect food sources and bolster East Timor's damaged agricultural system.

The Seeds of Life Project is a collaborative effort building agricultural, scientific and agribusiness capacity throughout East Timor – and with maize as a staple crop the work of CIMMYT is integral to local efforts. Already new maize varieties promise better yields for East Timorese farmers. And these increased yields can be produced using less land – which means not only is more food available to feed families but also the land not needed for agriculture can be used for other income-

generating enterprises. This is how to reduce poverty.

The choice to help people rebuild their lives and become less vulnerable to poverty and hunger may be all that stands between us now and a future marked by continued insecurity, conflict and violence. Presently, in developing countries, about 300,000 children under the age of 18 serve in armed government forces or rebel groups. Most of them have left or lost their families in rural areas because of unbearable economic insecurity, hunger and political violence.

Many preconditions for disaster can be averted by investing wisely in rural areas. No more should children have to fight for food. No more should people have to lose their means of earning a living simply for want of seed.

CIMMYT helps to alleviate poverty and hunger and promote sustainable development through research on maize and wheat in developing countries across the world. For more information see <www.cimmyt.org>

VIEWPOINT is a forum for readers to express their ideas and perspectives on overseas development issues. Views do not necessarily reflect the ideas and policies of the Australian Government. Readers who would like to contribute should send their articles (not exceeding 500 words) with full contact details to the Editor, Focus, Public Affairs Group, AusAID, GPO box 887 Canberra ACT 2601 or email focus@ausaid.gov.au

KNOWLEDGE GROWS ON TREES

Australia has been helping Nepal with forestry management for nearly 40 years. For the last 25 years efforts have been concentrated in Sindhu Palchok and Kabhre Palanchok, two districts to the east of Kathmandu. Gains have been far reaching for the poor communities that depend on the forests. The latest improvement is an education program especially for women.



What do domestic water buffaloes and young girls' school results have in common?

Across the hills of Nepal, finding the answer is simple – many girls miss out on an education because they're working. They may be taking the family's water buffalo out to graze or they may be in the forest collecting firewood to heat the evening meal.

With little emphasis on girls' education, it's no wonder that women's literacy rates are below 30 per cent nationally.

There are, however, signs of change.

The Australian Government began funding a massive tree planting program in partnership with the Nepalese Department of Forests as far back as 1978. The aim was to combat serious soil erosion caused by the unchecked cutting down of too many trees and the general over use of the forests. From the outset the participation by the local



communities that depend on forest resources was key to resolving the problem.

Small communities were organised into forest user groups and given an exclusive area of the forest to use renewably. Each group was also encouraged to develop small business schemes that could be sustained by its own piece of plantation or natural forest. The model has proved so successful that it's been adopted in many other countries.

With the improvement in the quality of life of local people as a direct result of better forestry

management, other programs have flourished. An example is the Women's Empowerment Program that was launched with the forest user groups in 1999. This program has been designed specifically to improve the knowledge and skills of women. Through group discussions women consider new ways to improve their lives.

Kamala Tamang, who comes from Katunge in Kabhre Palanchok, was one of the first participants in the Women's Empowerment Program. 'Although I had to leave school after completing only Grade 3,' she said,

'I have now been able to improve my literacy skills as well as learn about important things such as nutrition. This new knowledge has also shown me the importance of a good education and I will make sure that my children will have more opportunity than me to stay at school.'

Nowadays, women from even the remotest corners of the project's districts are attending women's classes regularly. They're held usually in the evenings in the village meeting hall. And girls and women are not only learning literacy and numeracy skills but also life skills. Topics range from dealing with problems in pregnancy to how to compost. Some groups have begun entrepreneurial projects, including vegetable growing, and have established their own sub-committee in the forest user groups.

Although many challenges remain for the poor Nepalese forestry communities, at least women's ideas and increasing know-how are becoming part of the equation and part of the solution!

Frans Arentz and Ben Munro, Nepal–Australia Community Resource Management and Livelihoods Project (NACRAMP).

For more information
<www.nacrmpl.com.np>

LEFT: Hauling back fodder and pine needles from the forest for livestock bedding – part of the heavy workload that prevents girls from attending school. Photo NACRAMP

RIGHT: Women are learning not only to read and write but also analytical and organisational skills. As a result they're taking a fuller part in decision-making in the community. Photo NACRAMP

GENDER

ACHIEVEMENTS OF AUSTRALIA'S AID TO NEPAL

- » 780 forest user groups registered in the two districts.
- » 22,000 hectares of pine plantations managed by community groups.
- » 17,500 hectares of natural forest handed over to community groups.
- » Workload – particularly women collecting firewood and animal fodder – greatly reduced.
- » 18 drinking water supply schemes servicing around 10,000 villagers completed.
- » Literacy training given to over 10,000 villagers, mainly women.
- » Income-generation activities based on timber and non-timber forest products have commenced with two community sawmills established.
- » New income generating opportunities such as livestock and agriculture introduced.
- » Community members have been mobilised to give technical training and support to their people.

WHAT A DIFFERENCE A MAMA CARD MAKES

The oil palm industry is one of Papua New Guinea's rural success stories. High growth in oil palm exports over the last decade has lifted the incomes of many smallholders, particularly women.

Oil palms are typically grown on blocks of land occupied by several families. These families lease the land from oil palm companies, which pay them for the harvested fruit – or, as it used to be, they paid the men, not the women!

But that's history since the Mama Lus Frut Scheme, first introduced into the Hoskins area in 1997. The scheme allows women to be paid directly for their part in harvesting. Their job is to collect loose fruit that falls from the oil palms as it's harvested by the men. Collecting the loose fruit has always been women's work, but before the introduction of the Mama Lus Frut Scheme payment was given only to the men – or recorded on the 'papa card'.

After covering loan repayments and farm equipment costs, the men felt free to use any surplus income for their social activities – such as drinking and gambling. Little of the harvesting profits went towards feeding and clothing the families. With women not receiving money for their work, not unreasonably they preferred to spend their time growing and selling vegetables. The loose fruit

was left to rot on the ground – not a good situation as it contains a high proportion of oil.

Under the new scheme, women are given harvest nets and their own payment card (called the 'mama card'), which allows them to collect the fallen fruit, sell it and receive their own monthly payment cheque. The scheme spread rapidly, and today women on most of the oil palm blocks in the Hoskins area have a mama card.

The mama card has made a big difference to household incomes – with, as expected, most of the increase going to women. This has led to more spending on food, clothing, household items and education.

The women have also attained a degree of financial independence. Some have used the extra income to start small businesses such as raising poultry or selling secondhand clothing. Others have used mama cards to support their extended family and social networks. Many of the women have invited female relatives to join them in collecting fruit and to share in the mama card payments. The improvements in family welfare are clear, but one of the



Picking up the loose oil palm fruit is women's work. Photo: ACIAR

unforeseen effects has been a large decrease in domestic violence.

ACIAR (Australian Centre for International Agricultural Research) has recently evaluated, refined and extended the scheme to other regions, and to unemployed men and youths in the broader community. The changes have contributed to an overall increase in smallholder productivity in the oil palm industry. A new ACIAR project aims to trial similar approaches in the cocoa and coconut industries, as well as to extend the scheme to other oil palm growing areas.

Heather Briggs, ACIAR

For more information

<<http://www.aciar.gov.au/web.nsf/doc/JF-RN-5J478K>>



CHICKEN FEVER

Keeping chickens is a way of life for many communities around the world. In developing countries, chickens provide one of the most important sources of income and food.

In a small dusty village in Mozambique, a woman gazes at her chickens. 'These chickens mean I can buy shoes, this piece of cloth, this scarf,' she says with pride.

For many women in Africa owning chickens can mean the difference between living in poverty and earning a basic income. They are the most accessible livestock for farmers of lesser means and are easier to look after than goats and cattle, which require herding.

But chickens have a deadly enemy – Newcastle Disease. The disease can spread quickly and quietly, killing up to 80 per cent of village flocks each year.

Over the past 18 years, ACIAR (Australian Centre for International Agricultural Research), with funding from

AusAID, has been supporting projects to control Newcastle Disease in chickens. Two vaccines have now been developed that are highly successful in eliminating the virus.

By putting one drop of the vaccine in both eyes of a chicken every four months, the chicken is protected against the highly infectious virus. People who have vaccinated now have larger numbers of chickens to show for it. This is encouraging others to follow.

The advantages are many. More chickens mean more meat, more eggs, greater family assets, a source of income and ready cash in emergencies. Once farming families gain confidence in the vaccination process and believe that their chickens will not die, they begin to eat more poultry meat and eggs.

This is especially important for pregnant women and children. Poultry can make a crucial difference in areas where childhood malnutrition is common. Malnutrition inhibits growth, increases the likelihood of illness and can affect mental development.

AusAID is now funding more trials and vaccination campaigns in Mozambique, Tanzania and Malawi. Because so many adults have died of HIV/AIDS, many households in these countries are headed by children or grandparents. For them it's not possible to raise goats and cattle because that would require more work – such as finding fodder – and being away from home. Given this, raising poultry is the best option.

Once Newcastle Disease is controlled in village chickens, some more fortunate farming families are able to sell their chickens to buy goats and, later, maybe cattle. In this way incomes increase and lives improve.

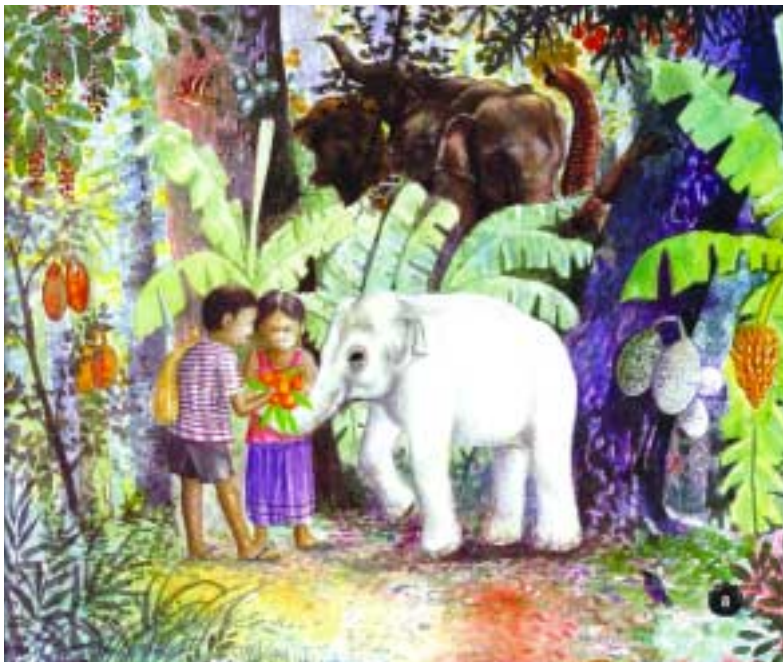
With the control of Newcastle Disease now possible, the humble chicken can play an important part in the fight against poverty. **EJ**

ABOVE LEFT: A bird in the hand is worth...! It takes two people to hold a chicken still so that the vaccination can be dropped into both eyes. Photo: Robyn Alders/ACIAR

ABOVE RIGHT: Chickens scavenging for food around the family home. Photo: AusAID

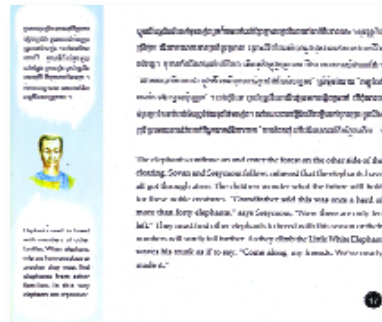
VOLUNTEERING

SAVING ELEPHANTS



A bilingual storybook for children raises awareness of elephant conservation in provincial Cambodia.
Photo: James Walters

Youth ambassador turns author to help the wildlife conservation effort in Cambodia.



James Walters of Queanbeyan was properly ambitious when he was selected to go to Cambodia as an Australian Youth Ambassador in 2002.

He would use his special skills – in his case graphic design and communications – to help the people of his host country.

One of 18 young men and women assigned to 15 different countries in the March 2002 intake of AusAID youth ambassadors, James was attached to the Phnom Penh-based non-government organisation, Save Cambodia's Wildlife.

His new assignment was to provide James with a unique challenge that seemed tailor-made for his specialised talents – and his desire to help Cambodians.

Could he write and design a book in support of the campaign to preserve Cambodia's fast dwindling population of elephants?

James certainly could and immediately plunged into his work. By December 2002 *The Little White Elephant* was rolling off the presses.

A bilingual (Khmer and English) children's book, James's creation was an important component of a broad wildlife conservation strategy, targeted at children in remote areas,

especially those of farming and hunting families.

The Little White Elephant proved an instant success because it manages beautifully to weave some weighty issues into a concise narrative with a strong appeal to children.

In tackling the two main threats to Cambodia's elephant population – hunting and the killing of animals encroaching on farmland – the adventures, and tragic end, of a little white elephant convincingly questions the perception of elephants as pests and instead demonstrates their ecological and cultural value.

James Walters has a double degree in communications and graphic design. Before signing on as a youth ambassador he had embarked on a career in Australia's advertising industry.

But the success of *The Little White Elephant* has put those plans on hold, at least for the time being.

The former youth ambassador is now back in Cambodia working on a new children's book. GE

For further information about the Australian Youth Ambassadors for Development (AYAD) Program contact <www.ausaid.gov.au/youtham>

INBRIEF

PACIFIC ISLANDS FORUM 2003

The 34th Pacific Islands Forum, held in Auckland, New Zealand, was attended by leaders from each of the 16 Pacific Island member countries, including Australia's Prime Minister, John Howard.

Australian Government initiatives include:

- » **Transportation:** Funding a study on the pooling of regional transportation resources to ensure their ongoing economic sustainability.
- » **Policing:** \$15 million to enhance the operational capability of police officers, ultimately leading to quicker and more effective responses to crime.
- » **HIV/AIDS:** An additional \$12.5 million to help Pacific Island organisations to curb the spread of HIV/AIDS.
- » **Sport:** An assessment of sports development to identify ways of improving the level of sports skills and participation in Pacific Island countries.

The forum was a great success according to the Prime Minister, John Howard, 'This has been quite a watershed meeting. It's the most engaged forum meeting I've ever been to.'

LIVESTOCK REVOLUTION

A visit to the butchers or the supermarket for meat and milk is an everyday, unremarkable event in Australia. But in many developing countries these products have not been available to large sections of the population.

Things are changing though. Incomes are rising and demand



for meat and dairy products is increasing.

Because livestock contributes to the livelihoods of 70 per cent of the world's poor, including farmers, traders and labourers, the new demand for dairy and meat products has huge implications.

Some of the implications were discussed at the recent ATSE Crawford Fund annual conference in Canberra. Agricultural specialists from around the world looked at how this livestock revolution could offer a pathway from poverty for developing countries. Speakers touched on issues, such as nutrition, income growth and participation in rapidly growing markets, the environment and public health.

The Minister for Foreign Affairs, Alexander Downer, opened the conference by paying tribute to the late Professor Derek Tribe for his inspirational work into agricultural research and poverty reduction.



LEFT: The Minister for Foreign Affairs, Alexander Downer, opening the ATSE Crawford Fund annual conference, 'The Livestock Revolution: A Pathway from Poverty' at Parliament House, Canberra. There were over 250 participants. Photo: ATSE Crawford Fund

ABOVE: Senator Robert Hill presents Taniela Faletau with his youth leadership award at Parliament House, Canberra. Photo: AusAID

TONGA STUDENT

Taniela Faletau from Tonga is one of six winners of the inaugural Commonwealth Youth Leadership Awards presented in Canberra in recently.

Taniela is on an Australian Development Scholarship, studying for a graduate diploma in environment studies at the University of Newcastle. He is specialising in sustainability.

In his country he has already made a contribution to environment management, working with consultants to formulate a lagoon management plan and as a project officer with the Tonga Climate Change Project.

The Commonwealth Youth Leadership Awards offer opportunities to young post-graduate students from eligible Asian and Pacific Commonwealth countries to prepare for leadership roles in their home country.

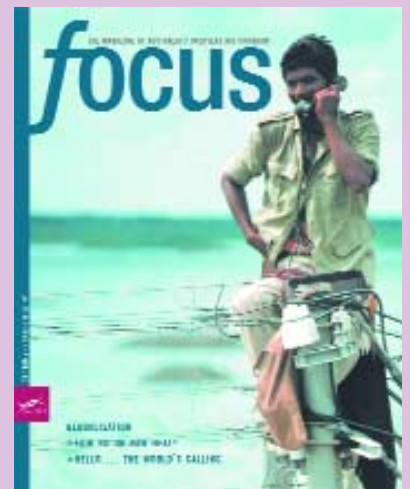
The awards are part of Youth for the Future, which was initiated by the Prime Minister, John Howard. They are to nurture the skills and enthusiasm of young

people in Commonwealth countries in enterprise development, volunteering, mentoring and leadership.

ENVIRONMENT AND DEVELOPMENT

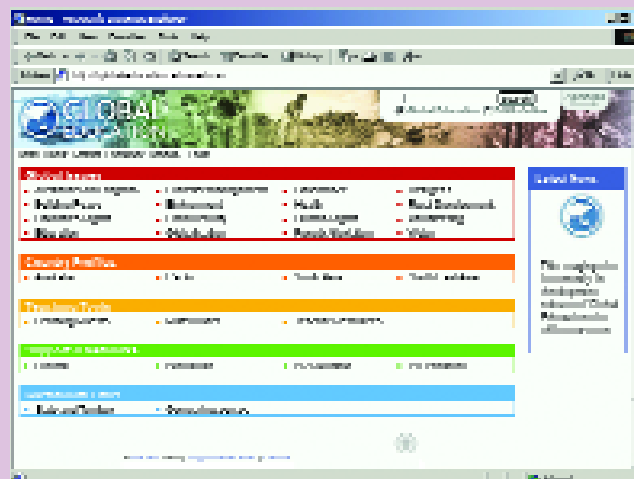
Barbara Hardy, AO, Australia's eminent person on the Asia-Pacific Forum on Environment and Development (APFED), attended a meeting of APFED members in Mongolia in August 2003. This meeting progressed APFED's compilation of a report on 'best policy practices' in environment, poverty and sustainable development in the region.

APFED is an independent body established in 2001 by the 10th Environment Congress for Asia and the Pacific, organised by the Ministry of the Environment of Japan. APFED's final report will be delivered to the 2005 Ministerial Conference on Environment and Development in Asia and the Pacific. The forum consists of 23 eminent persons. Mrs Hardy was appointed as the Australian member of the APFED in 2002.



GLOBALEDUCATION

The new global education website www.globaleducation.edna.edu.au



Logging on to the new Global Education website means you too can cross countries and boundaries with ease. You need no passport or airline ticket. The world is at your fingertips.

The global education website will introduce students to the environment issues facing the planet – to land degradation, urbanisation, climate change, pollution and marine and coastal decline. Learn what causes these problems and how they can be overcome.

Include a global perspective in your classroom:

- » Develop global citizenship.
- » Expand knowledge and understanding of people and communities.
- » Build positive values and attitudes.
- » Promote initiative and participation.

Build a shared future! **AB**

BRINGING THE WORLD TO YOU

Imagine being a migratory bird flying vast distances over the world. You see how the landscape changes, how forests grow or shrink, how rivers change colour or size, how deserts expand and how cities eat further into the countryside.

You wonder why you can't see as many animals roaming free, or you marvel at the giant stands of trees that are always there, guiding you to your destination.

Teachers should contact AusAID for professional development in global education tel: (02) 6206 4969



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