AusAID produces a range of publications and visual materials on aid and development issues. These are available from:

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MANAGING WASTE IN THE PACIFIC

How can Australia help Pacific Island countries tackle their growing waste disposal problem? Finding answers to this question was the aim of a study mission to the South Pacific recently. Funded by AusAID, a group of experts in waste management went on a six week tour around the South Pacific to examine the region’s waste problem and design possible management strategies. Waste disposal poses an increasing environmental threat to the South Pacific. Development, population growth and increasing urbanisation, combined with a major space problem (a lot of waste and a little land), has led to a dramatic increase in pollution from urban and industrial waste. Developing safe, ecologically sound and practically sustainable ways of managing waste is crucial, particularly in some of the very small island countries which simply do not have the land area to appropriately dispose of waste. Findings from the study mission are expected to be available later this year.

AID TO TROUBLED AFGHANISTAN

Australia will provide $4.5 million for refugee and relief assistance to Afghanistan. Eighteen years of war has left Afghanistan agriculturally impoverished. Irrigation channels have been destroyed, much of the potentially useable land is mined, and the unstable political climate has prevented crop production structures from being properly maintained or extended. War and instability have also had a destructive impact in the country’s physical infrastructure, with clean water and basic health care services scarce. Three million dollars of Australia’s aid contribution will go to the World Food Programme to help counter the country’s major food shortages (current annual food deficit is approximately 1 million tonnes of cereals). The remaining $1.5 million will fund other aid projects to be run by Australian NGOs and multilateral agencies. De-mining, health, water supply and sanitation programs will be priority areas.

MEDICAL SELF-SUFFICIENCY IN THE PACIFIC

Funded by AusAID, Australia’s College of Surgeons is to set up a new medical training program at Fiji’s School of Medicine. The school’s postgraduate training program will train medical specialists in obstetrics, gynaecology, medicine, surgery, anaesthesia and paediatrics to serve the people of Fiji and other Pacific island countries. It will support FSM development as a medical training centre of the Pacific and lessen Fiji’s reliance on expatriate doctors. The $5 million project is expected to be completed by 2001.
**BETTER HEALTH FOR VIETNAMESE WOMEN AND CHILDREN**

Reducing the high maternal mortality rate in Vietnam is one of the aims of a new health project which will target women and children. The 4-year Primary Health Care for Women and Children project will focus both on meeting immediate health needs (through the provision of equipment, books, transport and essential drugs) and creating infrastructure which will better integrate health care and health awareness into community practice. The maternal mortality rate in Vietnam is estimated, country-wide, to be 100 - 220 deaths per 100 000 births. Many district hospitals are not equipped to deal with obstetric emergencies, such as caesarean sections or blood transfusions - there are not even adequate short-term facilities to store emergency supplies of blood. In a country where many women are anaemic and blood loss from haemorrhaging is the most common cause of death in childbirth, the lack of medical resources is critical. The infant mortality rate in Vietnam is between 30 and 40 per 1000 live births countrywide and the child mortality rate 40 per 1000 live births. Most of the deaths are due to preventable or treatable causes.

**UNIFEM VISIT**

Meeting with AusAID representatives on her visit to Australia and the region last month, the director of the United Nations Development Fund for Women (UNIFEM), Noeleen Heyzer, said the support provided by Australia over the years to the fund was highly valued, and she hoped that the partnership would continue to grow even stronger in the future. One of the smallest UN organisations, with a staff of only 25 and an annual budget of US$13 million, UNIFEM focuses on improving women’s economic, social and political status in the developing world. It has a leading role in implementing the Beijing Platform for Action arising from the Fourth World Conference on Women. Australia maintained its core contribution of $342 000 in 1996/97.

**WHEAT TO CHINA**

A shipment of 36 000 tonnes of Australian wheat arrived at Huangpu port, near Guangzhou in southern China recently. Worth approximately A$12 million, the wheat will be used by the United Nations World Food Program (WFP) in some of China’s poorest provinces. According to the World Bank, some 350 million people are living in poverty in China. Under the WFP scheme, local farmers and skilled labourers help construct new irrigation systems, establish erosion control measures, construct new and better land terraces and drinking water systems, plant fruit trees and pastures and improve rural roads. The Australian wheat will be used as an incentive and part payment for their work. In the Ningxia region, one of the provinces where the wheat is destined, safe drinking water is scarce and environmental degradation has led to poor crop yields and massive soil erosion.

**AID TO ERITREA**

AusAID will provide $700 000 to Eritrea for environmental and agricultural rehabilitation programs to be undertaken by World Vision Australia. The programs will help farmers defend their land against drought and pest outbreaks (thus increasing crop quality and production) and address environmental degradation through increased tree seedling production, including fruit trees.
BETTER WATER QUALITY FOR NEW DELHI

Australia is helping the Government of India improve water quality and sewage treatment for the people of New Delhi and surrounding cities. The AusAID project will boost the capacity and help improve the management of the Keshopur Sewage Treatment plant, which is currently operating at less than half its rated capacity. The Keshopur plant treats raw sewage from a larger sewer that drains directly into the Jamuna River, polluting both the river and the ground water. Beneficiaries will include those affected by the pollution from untreated waste water from the Keshopur area, particularly slum dwellers, living and working around the Najafgarh drain and Jamuna River.

BRINGING HEALTH CARE AND WATER TO TIBET

Australia will provide $3 million to help establish health and water supply infrastructure in Tibet. The remoteness of many Tibetan villages leaves them with little access to primary health care services or adequate water supply. The absence of these basic resources contribute to the region’s high rate of infant mortality (200 per 1000 live births) and death by preventable clinical diseases. The three year project will improve access to water and health care services in up to 54 poor rural villages in Shigatse Municipality.

ASSISTANCE TO DISADVANTAGED

Physically and mentally disadvantaged groups and individuals will be the beneficiaries of a $200 000 grant for a rehabilitation program in East Jerusalem. Mental and physical disability is a major problem in East Jerusalem’s West Bank. The Intifada, which began in 1987, and the accompanying suppression of the Palestinian population, resulted in large numbers of people suffering acute trauma, with associated mental and physical disabilities. The Australian Red Cross will use the AusAID grant for training, evaluation and development of new programs. A training unit will educate people in other organisations and government agencies about mental and physical disability, creating a pool of trained counsellors and community rehabilitation workers throughout the West Bank. The project is one of several being funded by a grant of $1.25 million to relief and rehabilitation activities in the Middle East.

TB WORKSHOP REPORT

The success of a WHO/AusAID tuberculosis management training workshop held at the University of New South Wales in February has been acknowledged with participants recommending a follow up workshop in early 1998. A major aim of the inter-regional workshop, attended by 29 TB experts from countries throughout Asia and the Pacific, was to provide technical training to managers working to control TB at a country level. Devising effective TB recording and reporting systems and medical supply planning were identified as important skills needed for controlling the spread of the disease.

FEMALE GENITAL MUTILATION: THE WORD SPREADS ON ALTERNATIVE RITUALS

The movement against female genital mutilation (FGM) is gaining momentum in Kenya, with a steadily growing number of people becoming involved in alternative rites of passage rituals. When an alternative ritual was first held in August last year (funded under AusAID’s Small Activities Scheme), one group participated. In a ceremony held in December, three groups from three different locations were involved. Today, the number of groups has risen to 10. The growth indicates that there is resistance in parts of Kenya to the traditional practice of FGM. Judging from the response to alternative ceremonies, developing community designed rituals is an effective strategy for eradicating the practice of FGM on adolescent girls.

PACIFIC ISLAND POPULATION WALL CHART

The South Pacific Commission in Noumea has produced, with funding from AusAID, a comprehensive Pacific Islands population wall chart, which for the first time summarises current population facts and figures for all Pacific Island countries and territories. The chart is available from the South Pacific Commission, PO Box D5 Noumea Cedex, New Caledonia.
NEW GUIDELINES FOR DEVELOPMENT ASSISTANCE

A new set of guidelines aimed at preventing conflict and building peace have been adopted by the Development Assistance Committee (DAC) at its annual meeting. In a policy statement, Conflict Peace and Development Cooperation on the threshold of the 21st Century, DAC identified violent conflict as one of the greatest impediments to development. The guidelines will be further refined and updated in the light of unfolding experience in these critical areas. The DAC also outlined a range of critical measures aimed at achieving better development partnerships over the next 20 years. These included efforts to prevent corruption in development cooperation, the building of better governance and a system of better integration for poorer countries into the globalising trade and investment systems. As part of its overall approach the Committee resolved to address, with renewed confidence, the challenges still impeding human progress towards a coherent international cooperation leading to a higher quality life for all in the 21st Century.

ENFIELD SWORN IN AS JUDGE OF EASTERN CARRIBEAN SUPREME COURT

On 14 March 1997, the Hon. Justice Marcus Einfeld was sworn in as a Judge of the Eastern Caribbean Supreme Court. In an event attended by nearly all of the Dominican Republic’s parliament, its local legal profession and Australian dignitaries, Justice Einfeld commented that this was truly a great and exciting honour for Australia and him personally. He also pointed out that the opportunity to share resources and experience with a fellow commonwealth country, a companion democracy, and a joint inheritor of hundreds of years of British common law tradition was so great that everything had to be done to make it happen. And to assist in making it happen, AusAID and the Commonwealth Secretariat provided the necessary funding. Justice Einfeld will adjudicate on a range of matters in the Dominica Civil List. The accent being on real property matters, some of which date back more than 20 years. He will bring to the position a number of modern management practices that will be introduced into the Dominica Court.

PNG EDUCATION GETS A BOOST

Australia is to assist the Government of Papua New Guinea implement a comprehensive education reform program, ensuring all children receive at least 9 years of schooling. PNG’s primary education system reforms will see the introduction of three years of elementary schooling followed by a six year primary stream. AusAID will shortly implement the $16.5 million elementary education component designed to fund the construction of about 10 000 schools and the training of over 16 000 elementary school teachers. One of the main features of the program will see elementary schooling delivered in each of the existing 150 vernacular languages, a move expected to improve retention rates by making sure children are taught within their villages in languages they understand.

POLICE IN HUMAN RIGHTS TRAINING

As part of the Human Rights Fund, police officers in the Philippines and Nepal are to be trained in human rights issues aimed at improving their compliance with the provisions of international law. Increased interest in the Fund, jointly administered by the Department of Foreign Affairs and Trade and AusAID, has meant the initial amount of $75 000 for 1996/97 has been increased, bringing total annual funding for the scheme to $207 500. As part of the latest initiative, to be coordinated by the Australian Federal Police, five senior Philippines investigations officers visited Australia in June. As part of their training, they visited the offices of the New South Wales Police Royal Commission.

Meanwhile Nepal’s Law Society will conduct a program of three day seminars for senior police from the country’s two key regions. The seminars will cover human rights and procedural obligations.
CLEARING THE AIR

Australian scientists have provided the basis for tackling one of Jakarta’s major urban problems: particulate air pollution. Researchers from the CSIRO and the Australian Nuclear Science and Technology Organisation have conducted a year long study of the Indonesian capital’s air quality. The study provides a firm scientific foundation for air pollution control and reduction strategies in the extended Jakarta region, home to about 10 million people.

The scientists were mainly interested in the composition of suspended Fine Particles (those smaller than 10 micrometers in diameter), the source of Jakarta’s ubiquitous haze. There is a growing world wide concern that these particles pose a significant threat to human health. The AusAID-funded Jakarta study strengthens the CSIRO’s regional expertise in air pollution, ideally placing it to assist other South East Asian and Australian cities.

ASSISTANCE FOR BHUTANESE REFUGEES

Over 80 000 Bhutanese refugees living in eight camps in eastern Nepal are to receive Australian aid to meet their basic needs. A further 17 000 people living in the wider community will also benefit from the assistance. The large number of displaced people places considerable pressure on the local communities. Among other things, those living in the camps will receive assistance with shelter, water and sanitation, vocational training and education. The Australian Lutheran World Service and their partners will receive $610 000 over 3 years to implement the program. In addition, AusAID has provided $2.6 million for food aid through the World Food Programme (WFP). The funding will be used to buy 7 743 tonnes of locally grown rice and has been warmly welcomed by WFP as it has avoided a potential food crisis.

FUNDS FOR INTERNATIONAL HUMAN RIGHTS BODY

Australia has contributed US$50 000 to a United Nations fund which supports victims of torture. The UN Voluntary Trust Fund for Victims of Torture was established in 1982 and funds medical, psychological and social counselling and legal assistance for victims of torture and their relatives. It also runs seminars and training workshops for health care professionals in the treatment of victims. The Fund, based in Geneva, had initial responsibility for the victims of torture in Chile but now operates world wide to assist victims through projects ranging in value from US$5000 to $200 000.

ASSISTANCE FOR SUDAN

The construction of specialist health clinics, assistance with war refugees and a comprehensive road maintenance program, form the basis of a $3 million relief package in southern Sudan. Australia has also contributed $1 million towards a United Nations appeal to charter aircraft supplying NGOs with transportation for staff, supplies and medicines.

Under programs to be administered by Community Aid Abroad, World Vision Australia, Medecins Sans Frontieres and the Australian Red Cross, a greater degree of self reliance in health and nutrition will be encouraged. Australian funds will be spent on measures aimed at combatting Guinea Worm, river blindness and other preventable diseases. Surgical, logistical and evacuation support will also form part of a coordinated program which will see the deployment of Australian medical and relief personnel within Southern Sudan.
Non-government organisations and scientists working together to help the rural poor and hungry was the theme of a recent seminar supported by the Australian Centre for International Agricultural Research (ACIAR) and AusAID.

At a seminar jointly hosted by World Vision and the Crawford Fund in Parliament House some 150 people discussed successful case histories where Australian NGOs and scientists had helped each other to deliver humanitarian aid to some of the world’s poorest people. Typical of the many comments that were made afterwards was the following - taken from a letter received from one of the participants.

“Along with many others, I applaud the foresight of World Vision and the Crawford Fund in making the seminar possible. It was a bold, successful undertaking and doubtless will influence international agricultural development, NGO and other emergency relief agencies and donors.”

“The theme of the seminar went right to the heart of a major issue facing the international donor community on how to effectively and efficiently integrate across the continuum from emergency relief to development aid.”
In his opening address, the Hon Andrew Thomson, Parliamentary Secretary to the Minister for Foreign Affairs, set the scene by first emphasising the importance of agriculture in the economy of developing countries.

“Even in a rapidly urbanising world, it is important to maintain a productive rural sector,” he said, reminding his audience that “typically countries with rapid agricultural growth have rapid industrial growth.”

He went on to outline the critical role that NGOs can play as a bridge between scientists and local farming communities, and noted that Australia has funded some outstandingly successful partnerships between several Australian NGOs and scientists working in Africa and Asia with ACIAR.

The keynote address was delivered by Dr Christian Bonte-Friedheim, until recently the Director General of the International Service for National Agricultural Research. He stressed that the needs of farmers had to come first in any agricultural R&D project, and presented a thoughtful analysis of what is needed to make co-operation effective along the continuum from the farmer’s field to the scientist’s laboratory, and back. A central message was ‘time to get moving’ on the urgent problems of poverty alleviation and sustainable rural development.

He concluded that better education for the rural poor and stronger national agricultural extension and research services were keys to successful development.

Various case histories, which illustrated both the problems and the remarkable successes of co-operation between farmers, NGOs and scientists, were then presented by speakers from Kenya, Sri Lanka, Eritrea, Zimbabwe, Tanzania, Rwanda and India. These speakers represented NGOs like World Vision, the Overseas Service Bureau, and the Christian Missionary Society, as well as research organisations, such as the International Irrigation Management Institute, the International Crops Research Institute for the Semi-Arid Tropics, and the Australian Centre for International Agricultural Research.

These contributions stimulated lively discussion from the floor in which all agreed that the benefits of working together were such that new and improved mechanisms were urgently needed to encourage greater co-operation between farmers, NGOs and scientists.

In her summing up, Ms Beris Gwynne, Group Executive for International Programs at World Vision Australia, urged everyone to work with renewed vigour to build the co-operative networks which are clearly needed if we are to eliminate world poverty and hunger, without further damage to our environment.

Later that day at a special dinner hosted by the Crawford Fund’s Chairman, Mr James Ingram, the Hon Andrew Thomson and Mr John Anderson, Minister for Primary Industries and Energy, expressed their support for international agricultural research and development. They reiterated the critical role that IAR has in rural development for Australia, and our developing country neighbours.

Copies of the proceedings are available from The Crawford Fund for International Agricultural Research, 1 Leonard Street, Parkville VIC 3052.

Telephone: 61 3 9347 8328; Fax: 61 3 9347 3224

Email: crawford@werple.net.au

Price: $10.00 including postage.
The report of the committee to review Australia’s Overseas Aid Program was presented to the Minister for Foreign Affairs, the Hon. Alexander Downer MP, by Mr Paul Simons AM, the Chairman of the Committee on 2 May 1997. The Minister said in his speech at the launch, “The Committee’s report represents ... a fresh, independent reexamination of Australia’s aid policies and activities. It is, I consider, the most important contribution in over a decade to the public policy debate in Australia on the nature and role of our aid program.”

The report reaffirms some major pillars of the current aid program. These include its Asia-Pacific focus...
and the design of country-specific aid programs, but it also proposes a wide-ranging, new agenda for the program. Amongst the Report recommendations are:

- a single, development-focused objective for the aid program;
- the adoption of realistic targets for aid volume; and
- suggests changes to aid administration to improve the efficiency and effectiveness of the program.

The Minister outlined a two-step process designed to ensure that the community has the opportunity to consider the report thoroughly and thoughtfully.

The first step will be a period of public comment on the report. Written comments on the report are invited. Letters seeking this comment are being sent to a wide range of interested parties. In addition, a number of public seminars are being held to provide further opportunities for discussion. Taking into account public reactions to the report, the Government will, as a second step, carry out whole-of-Government consultations and prepare its formal response to the report.

In accepting the report, Mr Downer welcomed the challenges it presents to the way the Government administers the aid program. The Government’s response to the Simons Report is expected by the end of the year, in time for incorporation in next year’s budget.

The Simon’s Report is available from AusAID’s Internet site at www.ausaid.gov.au, or from Bibliotech, phone 06 2492479, fax 06 2575088 or write to:

GPO Box 4
CANBERRA ACT 2601.

Feedback on the Review can be sent to:

The Corporate Strategies Team,
AusAID,
GPO Box 887,
CANBERRA ACT 2601.
The Australian Expert Service Overseas Program (AESOP) is an independent, not for profit organisation specialising in alleviating poverty in countries of the Pacific and South East Asia. AESOP achieves this by giving businesses a kick start in productivity know-how and/or technological understanding. AESOP is able to provide this service by utilising the expertise and experience of retired business and trades people who undertake voluntary assignments. Volunteers provide training and assistance at all levels to client companies. With this expert guidance and hands-on assistance, cottage industries can grow into flourishing businesses. Employment opportunities are created and client companies become more successful and competitive; their employees gain knowledge and competency. AESOP helps businesses and institutions at grass roots level; providing a valuable adjunct to private sector development and at the same time, quietly achieving goodwill as part of Australia’s aid program.

Developing Business for a Developing World

RUTH VANDENTOL, AESOP
Since 1981, AESOP has provided assistance in 23 countries and has successfully completed more than 1400 projects. AESOP receives support from AusAID and Australian businesses.

Typical AESOP case-studies are:

**PAPUA NEW GUINEA COCOA & COCONUT RESEARCH INSTITUTE**
An agricultural engineer with small business management expertise spent a fortnight with the Institute providing technical advice in the evaluation of solar drier designs for drying fermented cocoa. Solar drying is kind to the environment, saving trees and energy sources, giving the cocoa growers an invaluable technological kick-start.

**RAROTONGA FREIGHT SERVICES LTD. COOK ISLANDS**
A volunteer with computer programming experience introduced and instructed staff in the use of hardware and software, devising a data base program to use in the marketing and recording of the company’s pawpaw operation. The outcome: staff were able to complete procedures much faster, freeing up marketing processes and the pawpaw growers received their pay cheques on time!

**TONGA COLD STORE, TONGA**
A newly established meat processing and small goods company required an experienced butcher to instruct in product diversification, improve production methods and train staff. Changes were instigated to the drying, smoking and cooking methods and efficient smokehouse procedures introduced. Proper packaging of products to extend shelf life was a priority and wholesale changes to smoked and cooked meats were made. New products together with new work practices were introduced.

**WILEX MARKETING INTERNATIONAL, WESTERN SAMOA**
A volunteer was required to assist in the commissioning of a new cocoa processing plant. The project provided many long term benefits which are still on going, both in terms of staff training and new procedure. Higher morale, new and improved product quality were the results of this successful project.

**TOUR VANUATU, VANUATU**
An experienced fitter and turner with teaching experience assisted the company with the development and implementation of a fleet management program, resulting in reduced operating costs. The volunteer designed covered trailers to be used on airport transfers which are to be manufactured in Australia. The company achieved its first profit.

**NAURU PHOSPHATE CORPORATION, REPUBLIC OF NAURU**
A motor mechanic specialising in prime movers and forklifts was required to train drivers in the use of forklift trucks and equipment to a level where they could obtain a competency certificate. Sixteen drivers were trained and are now eligible for an Australian fork lift driver’s licence. Hands-on training enabled the company to become competitive and provided employees with valuable training.

If you would like to know more about AESOP and the way it helps alleviate poverty by creating employment in the developing countries of our region, write to: PO Box 25 Deakin West ACT 2600 or telephone: 06 285 1686.
The Kandrian Gloucester Integrated Development Project (KGIDP) is located in West New Britain, PNG. Funded by AusAID and the Government of PNG, the Project has the objective of increasing incomes and improving access to social infrastructure for the 40,000 inhabitants of Kandrian District.

While being an integrated project with several key aspects, the main component addressing the income objective is the forestry program. Central to the forestry program has been the promotion of the concept of managing natural regeneration as a method of reforestation. This will contribute to the sustainable harvest of PNG’s lowland rainforest.

KGIDP is managed by ANUTECH Pty Ltd and Project Design & Management Pty Ltd, Canberra. The Project commenced in March 1993 and will end in December 1997.

The majority of logging in Papua New Guinea occurs in lowland areas of virgin forest. Selective logging, the practice of harvesting the commercial trees (above 50 cm diameter breast height) from the forest, leaving the smaller trees (residuals) to continue to grow so that they form the next harvest, is the normal practice. However, concerns have been raised over the damage to the forest, including the residual trees, during logging operations.

Results from research in lowland forests in PNG has shown that many potential future harvestable trees are destroyed by intense logging activity, particularly where large commercial trees are located close together, a quite common occurrence in PNG’s rainforests. The average number of commercial
sized trees per hectare in lowland rainforest in PNG is only around eight to ten, but when these are felled and extracted hundreds of smaller trees are destroyed. Research in West New Britain (WNB) showed that the logging of six trees in one trial plot resulted in a decrease of residuals (young trees with a diameter of between 10 and 50 cm) from 210 to 76.

Research has also shown that many of the residual trees which survive logging show little response to the extra space and nutrients available and only those trees that are healthy before logging and remain undamaged during logging will increase their growth rate. While seedling regeneration after logging is abundant, the species mix is dominated by fast growing pioneer species with low to medium commercial value, and the tree seedlings are interspersed with shrubs and vines which slow their growth.

Application of techniques which combine the two themes of (i) protecting desirable residuals and (ii) assisting natural regeneration of high value species, would lessen environmental damage caused by logging and improve the economic viability of logging operations.

On 1 July 1997 the PNG Forest Authority (PNGFA) will introduce a new logging Code of Practice, which, among other aspects, calls for the marking of desirable residuals before logging and improved extraction of felled trees.

A natural regeneration technique has been demonstrated by the Kandrian Gloucester Integrated Development Project (KGIDP) in West New Britain at eight 50 hectare sites. Each demonstration plot will be tended six times over a period of two years. The first tend occurs six to nine months after logging, to allow time for the germination of seedlings (to be used to transplant into gaps in the logged-over forest), and involves:

- selection of desirable residuals;
- clearing of vines and undesirable tree and weed species; and
- transplanting of high value seedlings into gaps which have no desirable residuals.

At the beginning, forestry officers discuss the technique with local villagers, who are paid to do the tending work, and the desirable species are identified (not only those from a commercial basis, but traditional desirable species that may be used for medicine, food or in the construction of canoes).

The identification of these species can be a learning experience for both forestry officers and the local people.

Subsequent tends focus on clearing the vines and undesirable species, and filling gaps if those seedlings previously transplanted have not survived. Each tend requires less supervision of the local people, who complete the work with nothing other than a bush knife.
Over recent years the PNG Government has collected levies from logging for future reforestation. The KGIDP has developed a large scale technique (following the same field practice) which has accessed the reforestation levies. Following the success of the eight demonstration plots, the Project, working closely with the PNGFA, established six large scale areas with a combined area in excess of 3000 hectares. At a labour cost for tending of K75 /ha, the six large scale areas will provide a payout of K225 000 to approximately 1500 villagers over a two year period. With an average per capita income of around K150/annum, the application of the reforestation levies in WNB will increase cash income to participating villagers by about 50 per cent. It will also:

• help conserve the biodiversity and preserve the forest resource by increasing the rate of natural reforestation of the forest after logging (and increasing its economic value, thereby reducing the likelihood that it will be cleared for agricultural or other purposes);

• increase future income by increasing the number and quality of high value species available for harvest in the next rotation; and

• provide an incentive for villagers to set aside parts of their land for long term forest management, as the work can be carried out by the traditional landowners (avoiding complications associated with leasing and alienating customarily owned land).

To support both the concepts of protecting residual trees during logging, and assisting the natural regeneration of high value species,
publicity materials and training aids were produced as part of the Project, including:

• an awareness video in Melanesian Pidgin titled *Lukautim Bus* (Look after the Forest), as well as an English subtitled version;

• a technical video titled *Reforestation Naturally - The Technique*;

• a pamphlet to promote the “natural reforestation” concept; and

• a technical pamphlet on the natural reforestation technique.

In support of the process developed and progress to date, the PNGFA has agreed to establish a natural reforestation section within their Reforestation Division, which will be headed by the Project’s Forestry Coordinator. All other Project foresters have been offered positions either in the Reforestation Division headquarters, or in WNB, to continue work on natural regeneration. The establishment of a natural reforestation section and the use of reforestation levies in 1996 and 1997 will not only enable the KGIDP’s work to continue after the Project ends (December 1997), but will enable the work to be extended to other provinces in PNG.

The technique has application for lowland forests in other Pacific countries, and has attracted interest from environmental groups and foresters from Fiji, Vanuatu, Solomon Islands and Australia.

*Adapted from KGIDP publications:*

Reforestation Naturally.

Natural Reforestation - The Technique.

*KGIDP*
The Kandrian Gloucester Integrated Development Project (KGIDP) is located in West New Britain, PNG. Funded by both AusAID and the Government of PNG, the Project has the objective of increasing incomes and improving access to social services for the 40,000 inhabitants of the Kandrian Gloucester District. The Project is managed by ANUTECH Pty Ltd and Project Design & Management. It began in 1993 and is scheduled to finish in 1997.

Many of the people of Kandrian Gloucester District live on the coast or on nearby islands. While settling on islands separates people from agricultural land and fresh water, it is popular due to the high prevalence of malaria in West New Britain. The incidence of malaria is lower on the islands because they have an environment less suited to mosquitoes, as the islands are more exposed (windier) and have less stagnant water (in which mosquitoes breed).

Many of the island villages have an area less than 1 km², and ground water, which itself is limited, is regarded by many villagers as suitable only for washing. The islands don’t generally have any natural running water, and women traditionally paddle canoes to shore (from 500 metres up to 2 km), then walk inland to collect fresh water.

1. The initial structure for a 10,000 gallon ferro-cement tank after completion of the base and frame
Photo: P Cosgrove
The Project has built more than 30 ferro cement tanks in the past two years. Local people have been trained and now act as contractors to the Project to construct tanks. The selection of target villages is made by district health workers, in consultation with Project staff and the Provincial Water Supply & Sanitation Committee, and is based on the following criteria:

- Distance to fresh water for drinking and washing.
- Reliability of the fresh water (taking into consideration the water supply during the dry season).

While often done in conjunction with visits to food gardens, collecting water can still take several hours three or four times each week. It is a heavy task, difficult in bad weather, and presents a problem for the aged or sick.

In recent years some villages have purchased outboard motors, which reduce the time and effort to collect water. For many houses however, collecting water remains one of the main problems, and the need for fresh water among the highest development priorities. The lack of fresh water undoubtedly contributes to poor sanitation and to health problems for people on the islands.

To improve health and sanitation conditions and to reduce the burden of carrying water, the Kandrian Gloucester Integrated Development Project (KGIDP) is implementing a village water supply program, focusing on remote villages with poor or inadequate water supply. Since the village water supply program commenced in early 1996, the Project has constructed water supplies in 27 villages.

The most common water supply provided by the Project has been the construction of ferro cement tanks which store rainwater collected from existing buildings in the village or from specially constructed rain catchments. The simple technology is relatively inexpensive, easy to maintain, and does not require mechanical pumps or electricity.

To complement the ferro cement tanks, the Project recommends the construction of shallow wells (with simple hand pumps) to provide water for washing or other purposes. This low cost addition to the village water supply helps ensure the use of ferro cement tanks solely for drinking water.

The Project has built more than 30 ferro cement tanks in the past two years. Local people have been trained and now act as contractors to the Project to construct tanks. The selection of target villages is made by district health workers, in consultation with Project staff and the Provincial Water Supply & Sanitation Committee, and is based on the following criteria:

- Distance to fresh water for drinking and washing.
- Reliability of the fresh water (taking into consideration the water supply during the dry season).
• Water quality.
• Village population.
• Community interest and forecast participation during construction.

The construction technique is relatively simple but labour intensive. A group of 5 to 6 workers takes 2 to 4 weeks to build a 10 000 gallon (45 000 litre) ferro cement tank. Existing buildings in the village are utilised for catchments if there are buildings with suitable roofing. Otherwise a building (5m x 10m) is constructed specifically for the tank. It is preferred to use several existing buildings in the village to catch water to reduce costs and maximise the intake when it rains. Depending on factors such as the location of the village, the basic 10 000 gallon tank (using existing roofs) can be built at a cost of about K6000. This does not include the cost of sand and gravel, which is provided by the community as part of their contribution to the water supply.

To formalise the community awareness process, a formal agreement is signed by all parties involved in each water supply to ensure their understanding of their roles and responsibilities. In brief:

• The Project is responsible for funding both the construction and field costs (including awareness, planning and training activities).
• The Division of Health is responsible for the conduct of awareness and training (to include operation and maintenance of water supplies). Health staff will also provide assistance to procure parts and/or repair the water supplies in the event of a break down.
• The village is responsible for the provision of labour and local materials and housing for health staff and construction workers.

The villages also agree to (i) use the water supplies as stipulated, (ii) take adequate care of the water catchment, tank, taps and drainage system, and (iii) establish a maintenance account so that spare parts can be purchased in the event of a breakdown. If private buildings are used for rain catchments, the owners of the buildings also sign the agreement in support of the proposed water supply.

In addition to the formal agreements, the Project utilises a check-list to document:

3. The inside of a 10 000 gallon ferro-cement tank during application of the 1st of 8 layers of cement
Photo: P Cosgrove

4. The inside of a 10 000 gallon ferro-cement tank following application of the last of 8 layers of cement to the wall
Photo: P Cosgrove
• community discussions;
• agreements regarding the supply of local materials;
• provision of housing for labourers;
• establishment of a maintenance account; and
• training of one or more village members.

The check-list is also used for monitoring purposes, in particular to identify any problems during the awareness and construction stages.

As part of the construction program, at least one villager joins the water supply team in each location and works on a full-time basis. This results in the villager being trained in construction and maintenance. While maintenance on the tank itself should be minimal, it is important that the villager can repair gutters and replace plumbing fittings and to order parts and make repairs as necessary.

In addition to the training of villagers, health staff have been trained in tank restoration. This will complement the increasing number of people with skills in the construction of ferro-cement tanks and shallow wells, and help extend the longevity of tanks constructed, which should last in excess of 20 years (before any major maintenance is required).

By the end of 1997 the Project aims to build another 16 tanks, promote the construction technique and train health staff and villagers so that the program may continue once the Project ends. Over a 2 year period the Project aims to build water supplies in 45 villages with a population in excess of 8000 people.
Urban planner Matt McIntyre knows all the tricks of tightrope walker, but nowhere have they been more put to the test than in his new job as the first resource planner for the Pacific island of Niue.

The world’s biggest uplifted coral atoll, Niue has many of the ingredients for an interesting out-of-the-way tourist destination. This island of about 18 km in diameter is studded with limestone rocks and caves with stalactites and stalagmites and beaches. It is surrounded by gloriously blue sea. In the centre is an indigenous forest which locals says is full of sacred places.

Tourism, according to the government, has the potential to become the major income earner for the remote self-governing island. Other money spinners are honey production and an Australian initiative, a llama quarantine station.

However, the government is all too aware of the pitfalls that tourism could bring, so it has agreed to develop a resource base, embracing every natural asset from trees through to the marine life. The base will determine how tourism can be developed without straining the already pressured environment and complicated land ownership rights which make it difficult to identify who owns what.

The Pacific region as a whole has a low number of technically-trained people to call on in these specialised areas. As a result AusAID is funding the Pacific Technical Assistance Facility (PACTAF), a new personnel recruitment and placement service and has contracted the Overseas Service Bureau to manage this complex and important development.

Managed by the “People Prepared” arm of the Overseas Service Bureau, the service recruits qualified and skilled technical people from Australia to assist short-term human resource shortages. It takes three months for the Bureau to recruit, brief and place the successful candidates, who are chosen as much for their knowledge as well as their commitment to training counterparts and their sensitivity on cross-cultural issues.

The program was initiated by AusAID to assist its neighbours meet their human resource needs. Pacific Island Countries have a shortage of skilled people largely because they have very small populations.

The PACTAF initiative is open to employers in government ministries and departments, non government organisations, corporations and private enterprise.
A Memorandum of Understanding has to be signed between AusAID and each Pacific island before the program can be implemented. Over the next three years, around thirty Australians are expected to fill essential senior-middle management positions in the Pacific.

As Peter Britton, Director of Overseas Service Bureau’s Public Affairs Unit, said “The service is a valuable way of making Australian know-how available in the Pacific at an affordable price.”

“What has been shown in a relatively short time is that Australian technical expertise is in high demand within the Pacific, as is the need for capacity building in some crucial areas like water, education and sanitation.”

The PACTAF program focuses on capacity building within the employing agency. Each position is outcomes-oriented, with a heavy emphasis on training.

“We are delighted to be involved with PACTAF because it complements our efforts to diversify opportunities available for Australians to live and work alongside people in developing communities,” said Mr Britton.

Niue is not the first country to approach Australia for this practical support. So far, there have been 20 requests under this new scheme, each as different as the needs of the individual countries.

In Western Samoa, for instance, former Queensland policy adviser Jim Pearse is working as Post Secondary Education Adviser with the island’s Ministry of Education. His task is to assist the development of forward planing and policy development skills within the Ministry and the country’s post secondary educational institutions.

In Kiribati, Dain Bolwell has been appointed Labour Adviser working with the Ministry of Labour, Employment and Co-operatives. He is focussing on industrial relations legislation and occupational health and safety policy. Mr Bolwell, previously a senior manager with the Department of Employment, Education, Training and Youth Affairs, will lead and train a number of counterparts in managing policy reforms.
Not all the positions are based in the policy units of government departments.

In Tonga, Tony Johnson has been appointed Spray Painting Adviser at the Tonga Maritime Polytechnic Institute as part of a small-scale project in which Australia has provided a state-of-the-art spray painting booth. This multi-faceted project addresses environmental problems, upgrades teaching facilities, provides training the trainer programs, and involves the private sector.

Taniela Fusimalohi, who works in the Tongan Office of the Prime Minister, explained that the scheme enabled the country to get specialised staff quickly and at a reasonable cost.

“The Overseas Service Bureau has a wonderful reputation in Tonga. PACTAF ... enhances our involvement with Australia,” he said.

These sentiments were echoed by Tokasa Vuinimasi, the Principal Administrative Officer within Fiji’s Public Service Commission.

"PACTAF is a cost effective way for Fiji to get top quality senior staff whom we cannot recruit locally. The Fiji Government has every confidence that through PACTAF it will continue to receive high quality and well-prepared staff to help achieve the country’s social and economic goals."

Fiji is currently seeking qualified people to take up key positions in the Inland Revenue Department, the Ministry of Education, Women and Culture, the Ministry of Labour and Industrial Relations, the Ministry of Commerce, Industry, Trade and Public Enterprise and the Director of Public Prosecutions.

Peter Dwan, who works within the People Prepared unit of Overseas Service Bureau, says the positions are all seen as critical to the development of Fiji.

"At the moment we are searching for an Occupational Health and Safety Adviser who can conduct on the job training of 30 inspectors who have recently graduated from Ballarat University, as well as develop a certificate course and codes of ethics and practice,” he explained.

The position provides many challenges in a country which has a thriving, but not always safe, clothing industry. Fiji recently introduced a new Safety At Work Act assisted by the New South Wales WorkCare Department.

Equally as important is the request for a Deputy Director of Public Prosecutions to work in the country’s Serious Fraud Unit. Mr Dwan is currently talking with senior Australian barristers in his hunt for someone skilled in conducting fraud prosecutions, and who can train staff in prosecuting.

Meanwhile over in the Inland Revenue Department, Deputy Commissioner Mataiati Vereteyaco is anxiously waiting for an Australian Principal Assessor to join his team. Fiji has never had a Principal Assessor before. With the recommendations made by the
1996 Company Tax Advisory Panel due to be introduced from next year, there is an urgent need for someone skilled in drafting tax rulings and training staff in the Compliance Section to join the team.

"The job is suitable for a qualified accountant with relevant experience in taxation law," said the Deputy Commissioner, who sees the position as an important step in helping Fiji streamline and rationalise its current tax system and assist in the overall tax reform program.

For further information about PACTAF, please contact:
People Prepared,
Overseas Service Bureau,
PO Box 350,
Fitzroy, Victoria 3065,
Australia;
phone: 0011 61 3 9279 1788;
fax: 0011 61 3 9419 1098;
email: osb@vicnet.net.au
Here is an aid story that has something for everyone. Direct poverty alleviation in a developing country; sustainable, ecologically sound microenterprise development; healthy trade and export income for both Australia and Indonesia; assistance for people with disabilities in Australia......the list continues.

The Royal WA Institute for the Blind has been manufacturing woven seagrass furniture for over eighty years using the skills of blind mastercraftspeople. Seagrass weaving is a painstaking task, requiring great skill, patience and perseverance. The Royal WA Institute for the Blind has had a successful, albeit modest, market for its chairs, two and three seater lounges, coffee tables and side tables. The furniture is superb quality, and can last a lifetime. Indeed some eighty-year-old furniture has been recently brought into The Royal Institute for minor repairs! Seagrass is a completely natural and renewable product. It is seeded and harvested once a year along many coastlines and can also be found in countries such as Australia, China, Philippines, Thailand and Indonesia. The raw material is woven into a rope with no chemicals or other products added. The rope is then woven onto rattan frames.

With only two mastercraftspeople left in The Royal Institute, demand for the furniture far exceeds supply. Supply of the product is in danger of being totally extinguished as the two remaining mastercraftspeople are due to retire shortly. It is not easy to transfer the skill to younger people within Australia. There are many mainstream employment options available now, such as computer work. There are no young Australians, vision-impaired or otherwise, who are willing to learn this intricate craft.

Through an AusAID funding initiative known as the Private Sector Linkages Program (PSLP),
The Royal WA Institute for the Blind has been able to develop a joint venture with a small firm in Indonesia to ensure that the art of seagrass weaving continues, and the manufacture of quality ‘Royal Weave’ seagrass furniture. Linking up with Kudos Rattan Furniture Company in the town of Kudus in Central Java (about one and a half hours drive from Semarang, the province’s capital), The Royal Institute has trained locals in weaving, frame making and finishing. This venture has meant employment for 50 people, with expansion of up to 500 employees within the next two years. The seeds for an entire local industry have been planted.

‘Royal Weave’ seagrass furniture shipments have already been made to Belgium, England, Germany, Italy, Singapore and Australia. Plans are already being made to expand the factory to meet the demand for more furniture. There is strong potential for further markets in New Zealand, the USA, Holland and Spain.

The benefits for Kudus are obvious - but what are the benefits for The Royal WA Institute for the Blind? Firstly, The Royal Institute is the sole Australian importer of the ‘Royal Weave’ range of seagrass products. By transferring the skill to Indonesia, The Royal Institute now has more product to sell within Australia. Secondly, The Royal Institute has entered into a royalty agreement with Kudos Rattan Furniture Company which will see a royalty paid for every piece of seagrass production for the international market, thus creating export income. The Royal WA Institute for the Blind is mostly self-funding, and the success of this venture means less reliance on the State and Federal Governments for supplementary funding.

According to Lyn-Marie Hegarty, Marketing and Development Manager of The Royal Institute, this project would not have been undertaken had it not been for the funding provided by AusAID.

So there we have it, a ‘win-win’ for a poorer area of Indonesia, and for vision-impaired people of Western Australia. It’s also a ‘win’ for the buyers of this high quality, hand-made seagrass furniture.
In the developing world nearly 2 billion people live in cities. Between 1980 and 1995 the urban population in low income economies rose from 21 per cent to 29 per cent - that in middle-income economies from 52 per cent to 61 per cent. In high-income economies the urban population is now 78 per cent.

More than 1.3 billion people live on less than a dollar a day and 2 billion more are only marginally better off. About 60 per cent of the poor live in South Asia and Sub-Saharan Africa, which together account for 39 per cent of the world’s population but only 14 per cent of its aggregate GDP.

Of the world’s 130 million square kilometres of land, a mere 10 per cent is used for crops, pastures, and gardens. South Asia, with 45 per cent of its land devoted to such uses, is rich in arable land. Sub-Saharan Africa, with only 6 per cent, is poor in arable land by contrast.
Better-educated people tend to be healthier, and the neglect of education takes its toll on human life. Of every 1000 newborn babies in developing countries, 88 will not reach their fifth birthday. Of those who survive to their 15th birthday, 21 per cent will die before reaching their 60th.

Energy consumption per capita in low- and middle-income economies is now 740 kilograms of oil equivalent, up from 690 kilograms in 1980. Rising with income, per capita use in the high-income economies is now 5100 kilograms, up from 4600 kilograms in 1980.

Fortunately, energy efficiency also rises with income. For every kilogram of oil equivalent, low-income economies generate $1.10 in GDP - middle-income economies $1.20, and high-income economies $3.40.
The poor state of the telecommunications sector is a major constraint on development prospects in many Asia Pacific countries. Governments in most developing countries in the region now recognise that good telecommunications systems are an essential infrastructural element for strong economic growth, both to promote domestic economic activities, and to encourage full participation in the international economy. Across the Asia Pacific region, therefore, governments are keen to promote investment in and the rapid growth of telecommunications systems. Many international development cooperation agencies provide assistance in one form or another to support the expansion of telecommunications in Asia. This paper provides some information about the activities of both bilateral and multilateral development cooperation agencies in the telecommunications sector in the region.

The first section of this development issues brief provides a brief overview of the state of development of the telecommunications sector in the Asia Pacific countries. The next section provides information about the activities of international development assistance agencies - especially AusAID, Japanese official agencies, the Asian Development Bank, and the World Bank – in the region. The final main section reviews some of the main policy issues which will affect the prospects for growth in the telecommunications sector in Asia during the next decade or so.

### Table 1: Telecommunications Indicators in the Asia Pacific

<table>
<thead>
<tr>
<th>Countries</th>
<th>Total population (millions)</th>
<th>Income per capita</th>
<th>Telephone lines/100 inhabitants</th>
<th>Waiting time for a line (years)</th>
<th>Faults per line per year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lower income (26)</td>
<td>2973</td>
<td>530</td>
<td>1.85</td>
<td>1.3</td>
<td>122</td>
</tr>
<tr>
<td>Upper income (9)</td>
<td>76</td>
<td>9710</td>
<td>41</td>
<td>0.01</td>
<td>16</td>
</tr>
<tr>
<td>OECD (3)</td>
<td>146</td>
<td>31110</td>
<td>48.15</td>
<td>Nil</td>
<td>3</td>
</tr>
<tr>
<td>Asia Pacific</td>
<td>3195</td>
<td>2180</td>
<td>4.9</td>
<td>0.8</td>
<td>26</td>
</tr>
</tbody>
</table>

Source: Asia Pacific Telecommunication Indicators, International Telecommunication Union 1995, p. 35-38

1 Afghanistan, Bangladesh, India, Bhutan, Cambodia, China, D.P.R Korea, Fiji, India, Indonesia, Iran, Kiribati, Laos P.D.R., Malaysia, Maldives, Micronesia, Mongolia, Myanmar, Nepal, Pakistan, PNG, Philippines, Solomon Islands, Sri Lanka, Thailand, Tonga, Vanuatu and Vietnam.
OECD countries), the coverage was almost 50 main lines for each 100 inhabitants.

Not only is the supply of services relatively low in developing countries, but the quality of those services is often very unsatisfactory as well. The poor quality of service is usually reflected in various indicators - technical, financial, economic, and so on - so the summary data shown in Table 1 is indicative of a much wider range of problems. The official waiting time for a telephone line, probably grossly understated, is about 16 months in the poorest countries. In the higher income and OECD countries, average official waiting time is almost nil. Similarly, there are large differences in the numbers of faults reported annually.

Paradoxically, it is precisely the unsatisfactory state of the telecommunications industry in the developing countries today which holds out the promise of rapid growth. In recent years, growth rates in the telecommunications sector in many Asian Pacific countries have been very rapid. In the ten years to 1994, the average annual growth rate in main lines was about 18 per cent a year. And the rate of growth is accelerating. The growth rate in China has been phenomenal. Main telephone lines growth averaged 26 per cent during the decade, while the local network increased by a remarkable 57 per cent in one year (1993-94)!

While the growth rate in other countries such as Indonesia, Thailand, Vietnam, Micronesia and

Table 2: Growth in the Main Telephone Lines in the Asia Pacific

<table>
<thead>
<tr>
<th>Countries</th>
<th>Main lines 1984 (thousands)</th>
<th>Main lines 1994 (thousands)</th>
<th>Compound Annual Growth Rate (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lower income</td>
<td>10788</td>
<td>55099</td>
<td>18</td>
</tr>
<tr>
<td>Upper income</td>
<td>12084</td>
<td>30990</td>
<td>10</td>
</tr>
<tr>
<td>OECD</td>
<td>51069</td>
<td>70378</td>
<td>3</td>
</tr>
<tr>
<td>Asia Pacific</td>
<td>73940</td>
<td>156467</td>
<td>8</td>
</tr>
</tbody>
</table>

Source: Asia Pacific Telecommunication Indicators, International Telecommunication Union 1995, p. 36

Table 3: Growth in the Outgoing International Traffic in the Asia Pacific Area

<table>
<thead>
<tr>
<th>Countries</th>
<th>Millions of Minutes 1984</th>
<th>Millions of Minutes 1994</th>
<th>Annual Growth (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lower Income</td>
<td>201</td>
<td>2708</td>
<td>30</td>
</tr>
<tr>
<td>Upper Income</td>
<td>324</td>
<td>3145</td>
<td>25</td>
</tr>
<tr>
<td>OECD</td>
<td>396</td>
<td>2332</td>
<td>19</td>
</tr>
<tr>
<td>Asia Pacific</td>
<td>921</td>
<td>8184</td>
<td>24</td>
</tr>
</tbody>
</table>

Source: Asia Pacific Telecommunication Indicators (1995), International Telecommunication Union, p. 35-38

Table 4: Telecommunications Funding from Selected International Development Agencies in the Asia Pacific Region. 1991-1995 (US$ million)

<table>
<thead>
<tr>
<th>Agencies</th>
<th>Grants to Public Sector</th>
<th>Loans to Public Sector</th>
<th>Concessional Loans/ Credits Public Sector</th>
<th>Private Sector Grant, Equity &amp; Loans</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Japan ODA *</td>
<td>564</td>
<td>1841</td>
<td>130</td>
<td>10</td>
<td>2405</td>
</tr>
<tr>
<td>World Bank</td>
<td>1084</td>
<td>130</td>
<td>10</td>
<td>1224</td>
<td></td>
</tr>
<tr>
<td>Asian Development Bank</td>
<td>9</td>
<td>664</td>
<td>25</td>
<td>698</td>
<td></td>
</tr>
<tr>
<td>AusAID</td>
<td>32</td>
<td>117</td>
<td>1</td>
<td>150</td>
<td></td>
</tr>
<tr>
<td>Totals</td>
<td>605</td>
<td>3589</td>
<td>272</td>
<td>4477</td>
<td></td>
</tr>
</tbody>
</table>

Source: Annual Agency Reports

* Includes a small amount of assistance to other regions.

2 Brunei Darussalam, French Polynesia, Guam, Hong Kong, Korea, Macau, New Caledonia, Singapore and Taiwan-China.
more recently the Philippines, has not been as spectacular as in China, the rate of expansion in these other countries has also been very rapid.

The growth in cellular mobile telephone subscribers during early 1990s was even more spectacular than the growth in main telephone lines. In six lower income countries for which the International Telecommunications Union published data, the compound annual growth rate was about 100 per cent. The upper income countries averaged almost 60 per cent, while the OECD countries averaged about 50 per cent. In many countries, particularly the lower income ones, cellular subscribers are becoming a significant proportion of total telephone subscribers. The most notable case is in Cambodia, where cellular services were provided to over 60 per cent of subscribers in 1994.

High growth rates are not only a phenomenon in domestic calls. The lower income countries are also catching up in the use of international calls (Table 3). During the decade from 1984, outgoing international traffic for the lower income countries grew at nearly 30 per cent per year. This, of course, is greatly facilitating 'crossing cultural frontiers'. Intra-regional telephone traffic is estimated to be growing even faster than total international traffic.

In summary, growth rates are impressive, especially for the lower income countries. But the growth is taking place from a very low base and will be hard to sustain. The region-wide data, also, hide large differences within the region. The performance of individual countries has in the past varied widely, and is likely to continue to do so. The lower income countries will continue to face marked institutional and capital constraints.

Poor policy performance and monopolistic practices still prevail in many countries in Asia Pacific. Furthermore, a quite huge amount of capital will be needed to sustain recent growth rates in the telecommunications sector. One recent World Bank study estimated that in the lower income countries of Asia alone, over US$90-120 billion would be needed for new investments in telecommunications during the period 1995-2000.

**TELECOMMUNICATIONS ACTIVITIES OF INTERNATIONAL DEVELOPMENT AGENCIES**

The main purpose of the international development agencies is to promote growth in the developing countries which is economically, socially and environmentally sustainable. The Japan Overseas Development Agency, the World Bank, and the Asian Development Bank (ADB) have been the most important development agencies operating in the telecommunications sector in the Asia Pacific region (Table 4). The Australian Agency for International Development (AusAID) has also provided support for selected activities in telecommunications in the region.

The activities of the international agencies directly affect the telecommunications industries in the region in four main ways:

**Capital.** The agencies provide capital to developing countries, mainly for public sector telecommunications projects. Telecommunications projects in the lower growth countries have contributed to the rapid overall economic growth within the region. Together, the international development agencies made financing commitments in telecommunications amounting to over US$4 billion during the 1991-1995 period (Table 4).

**Commercial opportunities.** The goods and services financed under most of these telecommunication projects have provided business opportunities for telecommunications industries in many countries. In most cases, the goods and services procured by the development agencies have been purchased under international competitive bidding procedures.

**Direct support for private sector.** Some of the development agencies have also provided capital to directly support private sector ventures in the region. To date the amount of capital provided to telecommunications through private sector financing windows has been relatively small. However, with the increased recognition of the importance of the private sector, direct support to the telecommunications sector is expected to rapidly increase during the next decade.

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3 Peter Smith and Gregory Staple, 1994, Telecommunications Sector Reform in Asia, World Bank Discussion Papers #232, page ix.
Policy advice. All of the agencies assist with policy advice of various kinds. Arguably, this is the most important form of assistance that the international community can offer because it is clear that in the longer term, the large amounts of private sector capital required to support continued rapid growth in telecommunications will not occur unless there is a good ‘enabling environment’ to facilitate inward capital flows. The bilateral agencies (Japan and Australia) provide assistance with sectoral studies and technical advice, while the multilateral banks emphasise ‘policy dialogue’ activities which are reinforced by the conditions attached to the loans that the banks provide.

Several aspects of the pattern of assistance provided by the international community stand out (Table 4, and Annex data).

- Over half of the development assistance has been provided by the Japanese Overseas Development Assistance program. About 30 percent of the Japanese assistance has been in grants and about 70 per cent has been in loans.
- Nearly all of the assistance is to public sector agencies or corporations. This reflects the fact that most international assistance arrangements are carried out on a government-to-government basis.
- Only about US$ 11 million was directly provided to the private sector. This was mainly from the International Finance Corporation, the World Bank’s private sector wing. The Asian Development Bank also has a private sector window, but no loans were made for telecommunications projects during the period. AusAID also has a Private Sector Linkage Program which finances, on a cost-sharing basis, feasibility studies undertaken by the private sector.
- About three quarters of the assistance is in the form of loans to public sector agencies with recipient government guarantees for repayment. However, most of these loans have not been provided on a soft-loan concessional basis. Rather, because telecommunications projects tend to have good commercial prospects, most loans from the World Bank and the ADB have been made at near-commercial hard-loan interest rates.
- AusAID provided a high proportion of the concessional loan assistance during the period under the former DIFF (Development Import Finance Facility) to the telecommunications sector. This funding supported the 14 development projects with private sector initiatives in the Cook Islands, China, Indonesia and PNG. These projects involved training, technical assistance and the provision of hardware for long distance, satellite, local and railroad communications.

The amount of financial assistance provided by the major development agencies, while significant, is relatively small compared to the long-term financial needs. The total of slightly over US$4 billion of assistance to the telecommunications sector is less than 5 per cent of the estimated US$5 100 billion or more of investment needs during the next five years. Furthermore, aid budgets are shrinking. Not only is total aid being reduced, but the proportion devoted to the sector has also declined. The recent figures indicate that the telecommunications sector averages about 1-2 per cent of the total aid assistance. A review of figures during the 1970s indicates the proportion of telecommunications assistance averaged 2-4 per cent.

The perspective of the international development agencies

The decline in financial assistance to the telecommunications sector in the region has been caused by two mutually reinforcing trends:

Greater competing demands. During the 1970s and into the 1980s, international development agencies provided considerable support for infrastructure, of which the telecommunications sector forms a major part. Infrastructure is critical for development. However, it is not the only factor. There has been increasing appreciation of the fact that bridges, roads and dams alone do not guarantee that development will take place. In recent years, therefore, many donor aid agencies from OECD countries have been reallocating resources away from ‘hard’ infrastructural projects involving much engineering work towards ‘softer’ projects in education, health, institutional development, the environment, and so on.
Changing role of sector assistance. A major shift is taking place in the type of assistance that most international development agencies provide. During the 1970s and early 1980s, most of the development assistance in telecommunications was to public sector telecommunications departments or agencies. This assistance was for the improvement and expansion of the networks as well as institutional strengthening. Based on reports of the Asian Development Bank and the World Bank, projects in the sector proved to be highly successful with high economic rates of return. However, demand for telecommunications services continued to grow at a rapid rate. Furthermore, following rapid changes in technology in the sector along with an international trend to reconsider the role of government, there has been a growing recognition that the traditional reliance on public sector agencies in the telecommunications sector is no longer appropriate. Private sources of capital and know-how are needed if telecommunications demands are to be met. As a result, the role of the international development agencies has been shifting from that of a supplier of capital to that of a catalyst or facilitator to promote the entry of the private sector into telecommunications. Policy advice and technical assistance, which leads to promoting competition and improving the regulatory environment, have become a major part of the agenda of the international development agencies.

Perhaps the single most important approach that international development assistance agencies are now taking towards telecommunications in developing countries in the Asia Pacific is to give strong support to pro-market microeconomic reforms in the sector. The main challenge is to facilitate the effective operation of markets in the sector. But this will not be easy. Experience shows that there is no single model of reform. Across the Asia Pacific there is great diversity in the fundamental factors – technical, political, and human – which affect the prospects for the industry. Each country and each telecommunications sector is different.

Nevertheless, there are some important general principles which, in recent years, have become widely accepted across Asia Pacific. These principles are:

- promotion of competition;
- an emphasis on the private sector; and
- improvement of the regulatory environment for the industry.

Promote competition. Traditionally, the telecommunications sector has been regarded as a good example of an industry which is a natural monopoly. The rationale for this approach was that, first, duplication of facilities such as telephone wires would be inefficient, and that second, economies of scale were important. But modern technologies in telecommunications have largely undermined the traditional approach. When new technologies provide for a much wider range of communications choices and allow for competition on the existing system, there is little basis for the natural monopoly argument. There are now many types of services and demands which make competition possible at all levels. Even at the local loop monopoly level, competition is possible. The cellular telephone, which in many cases is now supplementing the older wireline systems, is a good example. And in many situations (up to 200 subscribers per square kilometre) the cost of wireless is below that of wireline service. There is overwhelming evidence of the benefit of competition both within and outside of any particular region. Besides lowering costs and prices, competition normally brings the greatest benefits in terms of better service.

Privatisation does matter. Many policy makers in Asia Pacific (although certainly not all) now see the issue of privatisation not as a political issue, but rather as a practical option which needs to be considered. With only a few exceptions, governments and public corporations do not have access to sufficient resources to meet the needs in the telecommunications sector. Capital and innovation from the private sector are clearly critical for telecommunications reform. This does not, however, necessarily mean the privatisation of existing state-owned carriers. It is the degree of contestability in the sector which is important rather than ownership in itself. Private sector monopolists will not necessarily provide good service: the Philippines had private sector ownership in the telecommunications sector for many years, but until recent pro-market reforms the level of service was poor.

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What is important, then, is the potential for competition, and that barriers to entry in the sector be low. In the majority of the developing countries in the Asia Pacific area, there may be relatively little to gain by the immediate privatisation of the existing state-owned networks. And the political costs and delays can be great. But open entry to new firms, particularly at the local level, can stimulate higher investment and yield quick results. There is no single blueprint or institutional arrangement which will guarantee success. Open entry to the private sector can take place in various ways. The process might involve awarding franchises on a competitive basis in specific areas, or joint venture arrangements, or build-transfer schemes and so on.

**Improve the regulatory environment.** Reforms in telecommunications are likely to require reforms in the regulatory environment. This does not mean the elimination of regulations; in fact, it will often mean the establishment of an independent regulator and the design of new (and hopefully better) regulations. At present, in many countries in the Asia Pacific region the existing national service provider (often a state-owned firm) is also the regulator. Such an arrangement is unlikely to promote fair and open competition. Open entry and competition is critically dependent on having fair and equitable interconnection arrangements. If, for example, the existing dominant state-owned carrier is not willing to provide adequate service for interconnections, there will be little effective competition. Private investment will soon dry up.

---

### AusAID Assistance to the Telecommunications Sector in the Asia Pacific Region, 1991-1995

<table>
<thead>
<tr>
<th>Country</th>
<th>Project</th>
<th>Project</th>
<th>A$m</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bilateral Program</td>
<td>Grants</td>
<td>India Telecommunications</td>
<td>14.5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Kiri Cola Telecommunications</td>
<td>0.3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Laos Satellite Earth station</td>
<td>1.9</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Pakistan Telecommunications</td>
<td>2.8</td>
</tr>
<tr>
<td></td>
<td></td>
<td>PNG Communications Sector Support</td>
<td>7.7</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Tuvalu Outer Island Telecommunications</td>
<td>5.1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Vanuatu Radio Transmitter</td>
<td>4.9</td>
</tr>
<tr>
<td></td>
<td></td>
<td>AAECP Telecommunications Cooperation</td>
<td>3.1</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Total Bilateral</strong></td>
<td><strong>40.3</strong></td>
</tr>
</tbody>
</table>

| Concessional Finance Program | Loans | Cook Is. Satellite Earth Stations | 0.6 |
|                              |       | China Ningbo Telephone Exchange | 14.1 |
|                              |       | Xian/Qinghuai Zengzhou Telecomm. | 10.6 |
|                              |       | Lanzhou/Urmi Optical Fibre Link | 25.0 |
|                              |       | Anhui/Qinghai Telecommunications | 5.1 |
|                              |       | Tibet/Gansu/Ningxia Telecommunications | 21.3 |
|                              |       | Lanxin Railway Communications | 7.3 |
|                              |       | Xinjiang Optical Fibre Cable | 14.5 |
|                              |       | Shanxi Telecommunications | 3.5 |
|                              |       | Indonesia Radio Republic Indonesia FM/SW | 8.3 |
|                              |       | Rural Telecommunications Phase V | 25.2 |
|                              |       | PNG Digital Telephone Exchange | 1.4 |
|                              |       | PNG Digital Telecommunications | 12.7 |
|                              |       | **Total Bilateral** | **149.6** |

| Private Sector Linkages Program Matching Grants | Matching Grants | China Meteorological Data Logger | 0.1 |
|                                               |                 | Indonesia Radio Frequency Spectrum Management | 0.3 |
|                                               |                 | Laos National Broadcasting | 0.1 |
|                                               |                 | Malaysia Process Control and Plant Optimisation | 0.1 |
|                                               |                 | **Total PSLP** | **0.6** |
|                                               |                 | **Total Telecommunications Assistance** | **190.5** |

*Source: AusAID’s Activity Management System*

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6 For more information, see Telecommunications Sector Reform in Asia.
Rather, an independent regulator is needed which has an arrays length relationship with the existing dominant carrier. Other major issues for the regulator to address involve the design of price control arrangements for dominant providers, transaction fees with affiliated companies, frequency management, and data collection and analysis.

**CONCLUSIONS**

Telecommunications will continue to have a profound impact in the Asia Pacific region. The policies of governments in the region will be vital both to encourage internal economic and social growth, and to bolster regional development. Some considerations which will influence future development of the telecommunications sector involve:

- the huge latent demand for improved telecommunications services. The service levels of telecommunications in the developing countries in the Asia Pacific are far below demand and will provide business opportunities long into the future.

- the demonstration effect of successful policies. Reforms and rapid growth are taking place in a number of countries across the region which will provide encouragement for other countries to improve their policy frameworks.

### Asian Development Bank Assistance to the Telecommunications Sector in the Asia Pacific Region, 1991-1995

<table>
<thead>
<tr>
<th>Approval Year</th>
<th>Country</th>
<th>Project</th>
<th>Loan/Grant US$m</th>
</tr>
</thead>
<tbody>
<tr>
<td>95</td>
<td>China</td>
<td>Second Telecommunications</td>
<td>100.0</td>
</tr>
<tr>
<td>93</td>
<td>Indonesia</td>
<td>Long Distance River-optics</td>
<td>100.0</td>
</tr>
<tr>
<td>93</td>
<td>Indonesia</td>
<td>Second Telecommunications</td>
<td>195.0</td>
</tr>
<tr>
<td>92</td>
<td>Thailand</td>
<td>Telecommunications Development</td>
<td>185.0</td>
</tr>
</tbody>
</table>
| 93            | Thailand  | Second Rural Telecommunications               | 84.0            | Total OCR 664.0

### ADB Concessional Loans (Asian Development Fund)

<table>
<thead>
<tr>
<th>Approval Year</th>
<th>Country</th>
<th>Project</th>
<th>Loan/Grant US$m</th>
</tr>
</thead>
<tbody>
<tr>
<td>92</td>
<td>Cook Is.</td>
<td>Emergency Rehabilitation</td>
<td>0.5</td>
</tr>
</tbody>
</table>
| 94            | Mongolia  | Telecommunications Digital Networks           | 24.5            | Total ADF 25.0

### ADB Private Sector investments

None during the period

### ADB Technical Assistance

<table>
<thead>
<tr>
<th>Approval Year</th>
<th>Country</th>
<th>Project</th>
<th>Loan/Grant US$m</th>
</tr>
</thead>
<tbody>
<tr>
<td>95</td>
<td>China</td>
<td>Provincial Telecomm Institutional Support</td>
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</tr>
<tr>
<td>94</td>
<td>China</td>
<td>Second Telecommunications</td>
<td>0.3</td>
</tr>
<tr>
<td>93</td>
<td>China</td>
<td>Telecommunications Management Support</td>
<td>0.6</td>
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<td>92</td>
<td>China</td>
<td>Telecommunications</td>
<td>0.2</td>
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<tr>
<td>93</td>
<td>Indonesia</td>
<td>Rural Telecommunications</td>
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<td>94</td>
<td>Indonesia</td>
<td>Third Telecommunications</td>
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</tr>
<tr>
<td>92</td>
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<td>Integrated National Telecomm Plan</td>
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<tr>
<td>91</td>
<td>Indonesia</td>
<td>Second Telecommunications</td>
<td>0.6</td>
</tr>
<tr>
<td>94</td>
<td>Mongolia</td>
<td>Telecommunications Strengthening</td>
<td>2.0</td>
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<tr>
<td>92</td>
<td>Mongolia</td>
<td>Telecommunications Development</td>
<td>0.6</td>
</tr>
<tr>
<td>95</td>
<td>Thailand</td>
<td>Rural Telecomm Socioeconomic Impact</td>
<td>0.2</td>
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<tr>
<td>93</td>
<td>Thailand</td>
<td>Telecommun Restructuring and Privatization</td>
<td>0.6</td>
</tr>
</tbody>
</table>
| 94            | Unidentified | Telecommunications Development               | 1.1             | Total IFC 9.0

Total ADB Assistance 698.0

*Source: Annual Reports, Asian Development Bank 1991-1995*
• the changing role of the international development agencies. They are changing their roles from that of suppliers of capital to that of providers of policy advice and catalysts for increased private sector participation.

• major changes in economic policies to increase the supply of capital and technology. Reforms to meet telecommunications demands in the Asia Pacific region will involve increased competition and open entry, farther private sector participation and the establishment of independent regulators.

<table>
<thead>
<tr>
<th>Approval Year</th>
<th>Country</th>
<th>Project</th>
<th>World Bank US$m</th>
<th>Total Project Costs US$m</th>
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</thead>
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<tr>
<td>1995</td>
<td>Japan</td>
<td>日本海外发展援助</td>
<td>63</td>
<td>247</td>
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<td>Japan</td>
<td>日本海外发展援助</td>
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<td>2047</td>
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<td>Japan</td>
<td>日本海外发展援助</td>
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<td>472</td>
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<td>Japan</td>
<td>日本海外发展援助</td>
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<td>Japan</td>
<td>日本海外发展援助</td>
<td>78</td>
<td>493</td>
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<tr>
<td>Totals</td>
<td>Japan</td>
<td>日本海外发展援助</td>
<td>300</td>
<td>1841</td>
</tr>
</tbody>
</table>

Source: Annual Reports, Japan Overseas Development Assistance, 1991–1995
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