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Focus
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MARCH 1997

DEMINING CAMBODIA - THE LONG ROAD AHEAD
AUSTRALIAN SURGEONS WELcomed IN LAOS
ECONOMIC GROWTH - BOON OR BEAST?
## Contents

Focus is published quarterly by AusAID (the Australian Agency for International Development). It aims to make Australia’s overseas aid program more widely known and to encourage discussion on development issues. The views expressed are not necessarily those of AusAID or the Australian Government, nor do the boundaries and names shown on maps imply official endorsement by the Government. Articles and photographs may be reproduced with permission from the Director AusAID Public Affairs, telephone (06) 206 4960.

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### IN FOCUS

#### NEWSBRIEFS

#### UNFPA IN PAPUA NEW GUINEA

#### FEAR AND DESPAIR IN THAI/BURMA CAMPS

#### WORLD WATER DAY

#### AUSTRALIAN SURGEONS WELCOMED TO LAOS

#### DEMINING CAMBODIA - THE LONG ROAD AHEAD

#### THE WORLD’S LARGEST BUTTERFLY STILL FLIES IN PNG

#### AN ALTERNATIVE TO FEMALE GENDER MUTILATION FOR KENYAN GIRLS

#### ECONOMIC GROWTH: BOON OR BEAST?

#### DEVELOPMENT STATISTICS

#### DEVELOPMENT ISSUES BRIEF - TUBERCULOSIS - An overview of the global situation

2

2

7

8

9

11

15

19

23

25

29

31
Australia will contribute an extra $4 million over three years to combat the effects of anti-personnel landmines (APL) in Cambodia and Mozambique. The Minister for Foreign Affairs, Alexander Downer, said the decision to increase the funding was part of a principled and compassionate response by the Australian Government to the humanitarian disaster cause by misuse of anti-personnel landmines. It comes on top the $12 million provided over three years for a demining program in Cambodia and Laos announced last April.

Funding will be divided between Red Cross, World Vision Australia and Austcare, and will go towards mine detection and clearance, mine awareness, the production of artificial limbs and walking aids, and rehabilitation for people who have lost limbs as a result of landmines.

In his address to the Conference on Disarmament on 30 January, Mr Downer called for a treaty banning anti-personnel landmines in a time frame commensurate with the scale and urgency of the problem.

**Australia Combating Landmines**

**REVISED INTERNATIONAL SEMINAR SUPPORT SCHEME**

AusAID’s revised International Seminar Support Scheme (ISSS) is up and running. ISSS is a program administered by AusAID and provides financial support for selected participants to attend development-oriented international seminars in Australia and overseas. Applications can only be made by the seminar organiser.

Changes have been made to improve the effectiveness of the scheme, refining the selection criteria to ensure that seminars contribute in a practical way to the economic development/social advancement of developing countries and produce measurable and tangible outcomes.

Applications need to provide a convincing case for support, with clear objectives and detail how they will be achieved.

Applications now must be received four months prior to the commencement date of the seminar, to allow adequate time for assessment and payment two months before the seminar, and the four monthly deadlines for applications have been removed. Applications will now be considered on a continuous cycle.

The new ISSS guidelines and application are available from all AusAID offices and on the Internet web site:


Enquiries about ISSS can be directed to AusAID State Offices, AusAID in Canberra (06 2064970), or to Australian Diplomatic Missions.
$2 MILLION TOWARDS A LASTING PEACE IN RWANDA

Australia is providing a further $2 million to assist the resettlement of refugees returning to Rwanda and to help support the network of human rights monitors in the country. The funds will support the activities of UNHCR, AnglICORD (the Archbishop of Melbourne's International Relief and Development Fund), Australian Red Cross Society, CARE Australia and Community Aid Abroad.

Since late last year, over 1 million Rwandans have returned from refugee camps in surrounding countries, particularly Zaire and Tanzania. Most had fled Rwanda during the bloody civil war in 1994.

$2.5 MILLION IN FOOD AID FOR NORTH KOREA

Australia is providing $2.5 million in food aid to the World Food Programme (WFP) for its appeal for US$11.6 million for the Democratic People’s Republic of Korea (DPRK), in response to the worsening famine there.

Two successive years of extensive flooding in the DPRK have decimated areas which together produce some 60 per cent of North Korea’s food grain. Average cereal rations have dropped to less than 200 grams per person per day. This is less than half that needed to sustain health and well-being. WFP hopes to purchase 100 000 tonnes of food to meet the immediate needs of over 1.7 million people in the DPRK.

VIETNAM LEGAL SECTOR ASSISTANCE PROJECT CONTRACT SIGNED

Vietnam is in the midst of a profound transformation from socialist to a market-oriented economy. The transformation requires major reforms of Vietnam’s legal system. On 25 February Vietnamese Minister of Justice, Dr Nguyen Dinh Loc, and Parliamentary Secretary, Mr Andrew Thomson signed an agreement in Canberra for the Vietnam: Legal Sector Assistance Project. This $2.2 million AusAID-funded project will assist Vietnam to reform its legal system and integrate more effectively with the regional and international economy. The project will provide officers of the Vietnamese Ministry of Justice and other members of the Vietnamese legal community with expert training in the concepts and language of international economic law. It will increase Vietnam’s legal capacity to negotiate and support treaty and other obligations and assess the legal impact of regional and international economic engagement.

LEARNING FROM THE MURRAY-DARLING

The management of Australia’s Murray-Darling River may serve as a model for those planning the development of the Mekong Basin, with Ministers and senior officials from Cambodia, Laos, Vietnam and Thailand arriving in Australia last month for a special study tour.

The tour is part of an Australian aid project aimed at establishing strategic links and encouraging knowledge sharing between the Mekong River Commission (MRC) and the Murray-Darling Basin Commission (MDBC). AusAID has committed $900 000 over three years to the project which will assist the Mekong states in using the natural resources of the Mekong Basin in ways that are equitable, cooperative and sustainable. Appropriate management of the Basin is crucial because of the competing demands between and within countries for electricity, irrigated land, drinking water and fish and forest products.

The interchange between the MRC and MDBC is relevant because they face similar management challenges: like State governments in Australia which share an interest in the Murray-Darling River, the Mekong countries have different, and often competing, resource management priorities when it comes to the Mekong basin.
CONTROLLING TUBERCULOSIS IN THE ASIA PACIFIC

The importance of establishing regional coordination in tuberculosis control and prevention has been underlined with the provision by AusAID of $115,000 for an inter-regional training workshop and strategic planning meeting.

An initiative of the World Health Organisation’s Global Tuberculosis Programme (GTB), the workshop was held in the first week of February at the University of New South Wales and saw health officials from a range of countries in the Asia Pacific region, including India, Cambodia, the Philippines, Vietnam, Fiji and Papua New Guinea, gather together to develop strategies for controlling tuberculosis.

Tuberculosis is a serious health problem facing the world as it approaches a new millennium. With the emergence of multidrug-resistant strains and the spread of HIV/AIDS, the threat posed by the disease has increased, particularly in the Asia Pacific region. As inappropriate and incomplete treatment of tuberculosis in the past has aggravated the problem, a coordinated, global response has become more important than ever.

Mr Andrew Thomson, Parliamentary Secretary to the Minister for Foreign Affairs, announced AusAID’s 1996-97 contribution to the GTB, via satellite from Parliament House, to a World Health Organization press conference on 6 February.

Dr Arata Kochi, Director, WHO GTB and Dr Tom Friedan from the WHO South East Asia Regional Office also spoke at the press conference.

For an overview of the global tuberculosis situation, see the Development Issues Brief in this issue of Focus.

SUPPORT FOR AGRICULTURAL DEVELOPMENT FUND

Australia will contribute up to $6.6 million over the next four years to the International Fund for Agricultural Development (IFAD).

Australia has supported the fund since it was set up by the United Nations in 1977, and for the first time this year will take up a position on the Executive Board.

The latest contribution will assist IFAD in its primary role of increasing food production, alleviating poverty and promoting basic economic development in disadvantaged rural regions of the world. Credit, technical assistance, small-scale infrastructure and community development are all included in IFAD’s agenda. In the 20 years it has been in operation, IFAD has funded 429 projects in 106 countries.

$3.6 MILLION FOR ETHIOPIA

Supplying clean water to rural communities is one of the activities supported by a $3.6 million contribution from the Australian Government to Ethiopian relief and rehabilitation efforts. The funding will be channelled through projects undertaken by CARE Australia, Community Aid Abroad, the International Committee of the Red Cross and the United Nations High Commissioner for Refugees.

Ethiopia remains one of the poorest countries in the world and has faced enormous challenges since the end of the civil war and the return of more than one million refugees to their homeland. The agricultural, water and sanitation, health and repatriation projects funded by the Australian Government are aimed at assisting Ethiopia regain the agricultural sustainability it once enjoyed.

RELIEF TO MOZAMBIQUE

Still emerging from the two decades of civil war which shattered its social and economic infrastructure, Mozambique has been Australia’s largest aid recipient in Africa for a number of years. To assist Mozambique maintain peace and successfully reintegrate returnees and internally displaced and demobilised soldiers, AusAID has recently agreed to provide further funding to World Vision Australia’s activities in Mozambique. AusAID has supported World’s Vision’s program in Mozambique since 1988-89 with the most recent allocation of just under $1 million going towards agricultural recovery, improved health care services and nutrition education.
FOCUS

GENDER AND DEVELOPMENT - AUSTRALIA’S AID COMMITMENT

The Minister for Foreign Affairs, Mr Alexander Downer, released AusAID’s new Gender and Development policy early in March. The new policy’s objectives are practical and forward looking. They include improving women’s access to education, health care and economic resources. A major priority will be to ensure that the needs of women and men are considered at all levels of the aid program.

This new policy on Gender and Development will feed into international best practice on the best way to meet the specific needs of women in developing countries. It will be used by contractors, consultants and NGOs which deliver Australia’s aid program. This will lead to increased long-term benefits from developing activities for both women and men.

Copies of the new policy are available on AusAID’s World Wide Web site (http://www.ausaid.gov.au) or from Bibliotech, GPO Box 4, Canberra ACT 2601, telephone 06 2495662, fax 06 2575088.

YUNUS IN CANBERRA

Internationally renowned founder of the Grameen Bank in Bangladesh, Professor Muhammad Yunus, spoke at a National Press Club lunch on 20 March. A charismatic figure, Professor Yunus is best known for his role in pioneering radical new methods in credit and savings services for the poor, known as “microfinance” or “microcredit”.

Microfinance is essentially the provision of small loans and savings facilities to the poor, most of whom have no access to the formal financial system. Many of the loans are tiny, but they make an enormous impact, with extremely high rates of loan repayment especially by women borrowers. The Grameen Bank’s techniques have been successfully used to help millions of people out of poverty, and have been adopted by aid agencies, NGOs and governments around the world. Professor Yunus was in Australia as a guest of AusAID.

AUSTRALIA TO PROVIDE EMERGENCY ASSISTANCE TO KENYA

Australia is providing $1 million to Kenya for emergency drought relief. Seasonal rainfalls in 1996 were well below average in the northern and eastern provinces of Kenya, and have resulted in crop failure and deteriorating pasture conditions. The Government of Kenya declared a state of emergency and commenced relief operations. The World Food Programme and the Food and Agriculture Organization of the United Nations found that relief measures are needed urgently if a serious food crisis is to be averted. Australia’s contribution will be used to assist the expansion of the WFP’s school feeding and food for work projects in drought affected areas of Kenya.

AUSTRALIA CONTINUES SUPPORT OF CONCESSIONAL LOANS

Australia has pledged $231.6 million to the Asian Development Fund, the soft loan facility of the Asian Development Bank, to support its activities over the next four years. Negotiations for the sixth replenishment of the ADF concluded in Tokyo last month, with donors agreeing to a US$6.3 billion replenishment, with more than half of the funds to come from the ADB’s internal resources. Australia’s contribution represents a full share of 6.49 per cent of the US$2.7 billion to be contributed by donor countries.

The ADF provides concessional loans to the poorest of the ADB’s developing member countries. Interest free and with repayment periods of 30 years or more, the loans are intended to improve conditions for the 750 million Asian people living in a state of poverty. A US$20 million loan to Cambodia in 1996 assisted with the development of basic education, through the provision of 28 million textbooks and 500 000 teacher guides.
HELPING REBUILD HOUSES IN FORMER YUGOSLAVIA

Australia has provided $1 million to the United Nations High Commissioner for Refugees to help finance the UNHCR’s work in the former Yugoslavia. The funds will be used in the UNHCR shelter program, which is repairing and rebuilding houses in the areas ravaged by the war. The UNHCR is the leading international agency providing assistance in the former Yugoslavia following the years of civil war which ended with the signing of the Dayton Peace Accord in November 1995.

Of the 2 million people displaced by the war, UNHCR estimates that only 250,000 have been able to return to their homes since the peace agreement. The lack of available housing has been a major impediment to repatriating refugees and displaced people. Channelling Australian assistance through UNHCR ensures that Australia’s aid will reach people most in need regardless of race or religion. This grant brings the total humanitarian assistance provided by the Australian Government to the former Yugoslavia to $10.5 million.

AUSTRALIAN FUND FOR COMBATTING DESERTIFICATION

AusAID will provide a further $600,000 to assist with the implementation of a United Nations Convention to combat desertification in African countries. Africa’s high rate of population growth, combined with the refugee crises which have plagued some regions, has led to excessive grazing and cultivation of land and increased pressure on forests. Eighty-six countries, including Australia, signed a UN Convention to combat desertification in 1994. Since then the Australian Government has already contributed a total of $370,000 to help several African countries develop national strategies for combating desertification.

The latest contribution is part of AusAID’s development assistance program for Africa and will see funding being channelled into both the preparation of anti-desertification action plans and their practical implementation.

HEALTH CARE PROJECT IN CAMBODIA

Efforts to improve the standard of health care in Cambodia are under way, with the commencement of the $13 million Health Promotion and Primary Health Care Project. A major focus of the project will be to assist with the development of health training and education on a national, provincial and district level. Despite the existence of hospitals at all these levels, public health standards are very low in Cambodia, with most operating at “first-aid” levels only. By promoting health care awareness in the general population and improving training to health care workers and managers, it is hoped adequate primary health care will eventually be available to all Cambodians.

Victorian-based consultants ACIL Australia Pty Ltd will manage the three-year project.

AUSAID HELPS KEEP VIETNAM’S FORESTS ALIVE AND HEALTHY

Three CSIRO scientists from the Australian Tree Seed Centre have been awarded medals for their contribution to the protection and development of forest in Vietnam. Stephen Midgley, Chris Harwood and Khongsak Pinyopusarerk were presented with the medals by Vietnamese Ambassador to Australia, His Excellency Mr Tran Van Tung, on behalf of the Government of Vietnam. AusAID has provided funding for several of the projects which the scientists have been involved with, including $38,000 for the Third International Casuarina Workshop Project and $75,000 for the Production of Improved Seed in Vietnam, Laos and Philippines Project.

Receiving the medal, Mr Midgley said the award represented “many years of good-willed collaboration between many like-minded Vietnamese and Australian scientists working towards a common goal of sustainable management of Vietnam’s forest resource.”
Margaret O’Callaghan has been the United Nations Population Fund (UNFPA) Representative in Papua New Guinea for the past three and a half years, working with the Government and NGOs to implement a multi-sectoral program of assistance to the National Population Policy. She is one of two Australians working as UNFPA country representatives.

She reports that, as a result of the work of UNFPA and agencies such as AusAID, the people of Papua New Guinea are developing a greater appreciation of population issues. This is both from a personal point of view and from the view of provincial and national governments. The Government clearly recognises the need to provide families with the information and means to plan their families, if they wish to do so, but it is inhibited in its capacity to provide the necessary services. UNFPA and other agencies, including NGOs, are helping to fill the gaps by providing training for staff, improved curriculum in schools, equipment and information materials - resources which are playing their part in helping to reduce the high level of infant mortality and maternal mortality.

UNFPA is the only donor working with Government and other managers to develop their capacity to use Census and other data and take these important factors into account in development planning. Provincial managers have been participating in workshops which help them to understand the implications of, for example, their province’s growth rate and age structure, issues to which most of the planners have no previous exposure. Understanding these issues will help them in allocating scarce resources more equitably and rationally than in the past.

UNFPA is also helping to address issues relating to strengthening the capacity of women to share equally in the benefits of development and to improve their reproductive health. Margaret has been involved in an innovative Role Models Visits to Schools exercise, which aims to help male students recognise the prejudices and discrimination which women face in heavily male oriented workplaces. The Role Models also act as an inspiration to young women to continue their education.

Through her work with UNFPA, Margaret has been made very much aware of the ways in which multilateral and bilateral forms of development assistance are complementary, and the comparative advantages each has under particular circumstances.
Conditions in refugee camps along the Thai/Burma border have deteriorated significantly in recent months, according to AusAID officer Ralph Kennedy.

Negotiations for the repatriation of the refugees have not yet commenced, and there is uncertainty as to how long they will be permitted to stay in camps on the Thai side of the border.

Mr Kennedy visited the region on a review mission in March and said the people in the camps appeared “far more despondent” than they had been 15 months earlier when he was last there.

“[The refugees] realise there is no quick solution for them to return home. They also fear for their safety - some are sleeping in the jungle at nights and only coming back to the camps in the day.”

The noticeable deterioration appears largely to be the result of an increase in activity by forces sympathetic to the SLORC, Kennedy said. There were a number of attacks on camps in February, with one camp totally burnt down and two close to destroyed. In addition to shelter and food, much needed medical supplies were lost in the fires. The refugees are still living in fear and in temporary shelters more than a month or so after the attacks on the camps.

There are now over 114 000 refugees in camps on the Thai side of the border, an increase of more than 13 000 from January 1997. Many of them are in poor health, with malaria, respiratory problems and malnutrition common. Some 10 000 of those displaced from camps burnt down in the recent attacks will eventually be housed in a new camp at Ban Nu Paw. With an abundance of clean water and building materials, refugees began arriving at the new camp in early March.

AusAID has, for a number of years, given funding to the Burma Border Consortium (BBC), which provides food, shelter, mosquito nets and blankets to all the camps. AusAID also supports Medicins Sans Frontieres (MSF), the major NGO providing medical supplies and assistance to the refugees.
Water is central to life. As over 75 per cent of the human body consists of water, our survival depends on access to clean water. Water is also critical to produce the food we eat, for industry and power to create jobs, for many recreational activities, for transport and to preserve ecosystems.

World Water Day provides an opportunity to focus on the importance of water, the massive unmet demand for water in many developing countries and the challenges involved in its sustainable management. More than 1 billion people are without access to safe water and 1.7 billion
people are without access to adequate sanitation facilities. Freshwater is a limited resource for which our demands are growing daily as a consequence of population growth and development. Resolution of the competing demands for water can only be effectively and equitably achieved if there is an integrated approach to water resource planning and management.

Human health is the most obvious benefit from improvements in water supply and sanitation - intestinal disorders such as severe diarrhoea are among the most serious and prevalent health risks to children exposed to poor sanitation or contaminated water supplies. Of the 5 million children who are estimated to die annually of diarrhoeal diseases in the developing world, the majority come from poor urban families. Increased competition for water threatens food production in a number of river basins where poverty is present. Inadequate water supply and sanitation also contribute to poverty and global instability - it has been suggested that future wars may be fought to secure increasingly scarce water resources.

While there is still a long way to go to provide adequate water and sanitation facilities, the fact that considerable progress has been made in recent years indicates that appropriate solutions are available. The World Health Organisation (WHO) reports that between 1980 and 1990, urban water supply services increased by over 150 per cent to service 58 per cent of rural inhabitants around the world. It has been estimated that over the next 25 years annual investment of $35 billion will be required to meet the new demand for water supply and sanitation infrastructure in Asia. Aid programs do not have the resources to meet these new needs, let alone overcome existing water and sanitation shortages. However, aid programs can assist with strengthening the capacities of the people involved with water planning, policy and management, as well as helping mobilise domestic and international private sector investments to meet these urgent water needs.

As a country that is regularly subject to severe drought, Australia is accustomed to dealing with water scarcity and has extensive expertise in delivering aid to the water supply and sanitation sector. AusAID has long recognised the enormous benefits which are to be derived from improvements in water supply and sanitation facilities. Within Australia's bilateral aid program, expenditure on water supply and sanitation activities has increased over the past five years from $10 million in 1990-91 to $50 million per annum over the last two years. Australia's approach to the provision of water supply and sanitation projects has been to involve local communities in project design and implementation. Local community involvement, taking into account women's and men's roles in the sector, is cost-effective, focuses on the real needs of communities and builds skills, understanding and commitment which will assist long term maintenance of services.

International co-operation in the water management sector is experiencing a renaissance. A Global Water Partnership (GWP), including donor and recipient governments as well as NGOs, professional associations and the water industry, was formed in 1996. Its aim is to facilitate a partnership approach among members to address practical problems in water management. The GWP is complemented by the World Water Council (WWC), a forward-looking forum for analysis of strategic issues and awareness-raising related to water resources.
Interplast Australia is a plastic and reconstructive surgery group managed by the Royal Australasian College of Surgeons in Melbourne. They have been running programs since 1983 and have carried out nearly 8000 operations in the Pacific and Asia. AusAID funds about 80 per cent of their work. Robert Simms, a medical and science journalist and photographer, reports on the recent Interplast Australia visit to Vientiane in Laos.
The Mahosot Hospital in Vientiane, Laos seemed daunting for 36 year old Mr Ming. He had travelled for two days by boat down the Mekong River from Sayaboury to be there while the visiting Australian surgeons were in town, but now he hesitated. He had lived with his cleft lip deformity since birth. He wanted it fixed but the thought of surgery worried him.

Had he realised the members of the Interplast Australia surgical team were some of the best in their fields, he could have relaxed. Their expertise as surgeons and physicians is highly regarded throughout the region. Interplast, a volunteer group formed by the Royal Australasian College of Surgeons and supported by AusAID and Rotary International, sends more than 15 teams of plastic and reconstructive surgeons to the Pacific Islands and countries north of Australia each year. They have performed close to 8000 operations since the program began in 1983.
Burns scar revisions and cleft lip and palate operations are generally the most common conditions treated by the surgeons. In Laos, the case load was dominated by cleft lips like Mr Ming’s. In fact, all but 2 patients had this deformity. They had been referred to the hospital by workers on AusAID projects in different parts of the country. Their ages ranged from just 4 months up to 41 years old. The operation involves first carefully mapping out where to make incisions in the lip. Once small portions of the skin and muscle are removed, the cut edges can be realigned and sutured. Within a few weeks, the scar caused by the operation begins to fade and the lip looks virtually normal.

The prevalence of cleft lips may suggest the condition is more common in this region than in Western countries, but in fact that is probably not the case. In Australia, cleft lips and palates are corrected within the first year of life so are rarely seen in older children or adults. However, in Laos and many other Asian and Pacific countries, the lack of surgical expertise has led to a backlog of cases.

Mr Harold McComb, senior plastic surgeon and team leader on this visit, said cleft lip operations are relatively straightforward and safe. “We have had no post-operative complications and most patients were able to go home just 4 or 5 days after surgery,” he said. “The operation usually takes less than 2 hours but it makes an incredible difference to the lives of the patients, particularly children.”

While Mr Ming is not a child, his operation greatly improved his self-confidence and self-esteem. The man who shyly approached the reception desk at the clinic left hospital with a twinkle in his eye and a spring in his step. His face has been transformed from one that caused him embarrassment to an appearance bordering on handsome.

This type of result is an indication of the skill of the Australian medics. Only top surgeons, anaesthetists and nurses are chosen to be part of the Interplast contingent. On this visit to Laos, the team included surgeons Harold McComb and Chris Bennett, anaesthetist Alan Wallace and theatre sisters Leonie McNamara and Kerrie Westwood. Even though all are volunteers, they see no difference between clients in their Australian consulting rooms and the patients waiting outside the clinic.
local hospital clinic. If the patients can be helped they will be.

Performing operations is Interplast’s prime purpose on visits to countries like Laos, but education also is an important part of their work. The Australians give lectures to local medical staff and are assisted by them during the operations. This helps to improve their surgical techniques and the post-operative care of patients. In some cases, hospital staff are brought back to Australia for extended training. Over the past 13 years, more than 20 trainees in surgery and anaesthetics have been sent to major Australian hospitals to upgrade their qualifications.

During a reception held by the ambassador Mr Roland Rich at the Australian Embassy in Vientiane, the Interplast team presented

Dr Bounthaphany, the Director of Surgery at Mahosot Hospital, with a set of the appropriate surgical instruments for cleft lip operations. The instruments, donated by the Rotary Clubs of Perth, along with the training given to the local surgeons by the Interplast team, should encourage the Lao surgeons to take on more of these procedures.

In time, it is hoped the local doctors will be able to manage all cases presenting at the hospital and will no longer need the help of the Australian specialists.

This Interplast visit to Vientiane was the second to Laos. The first was in January, 1996. Both were funded by AusAID and the Australian Embassy in Laos.

Presentation of a set of cleft lip surgical instruments to Dr Bounthaphany, the Director of Surgery at Mahosot Hospital, by Harold McComb. The Australian ambassador Roland Rich (left) and the Lao Minister of Health Dr Ponmek Dalavay were also there.
Thanks to the Cambodian Mine Action Centre (CMAC), however, Soe and his family may soon live free from the fear of losing a child or a limb to mines. Teams from CMAC have been painstakingly removing mines and unexploded ordinance from around his house since late last year, when mass defections by Khmer Rouge soldiers made work here possible.

AusAID is the biggest donor to an indigenous Cambodian organisation effectively ridding Cambodia of deadly landmines.

It is in many respects an unremarkable house, seen a million times around Cambodia. Except that in their desperation for land, Soe and San have squatted in the midst of a mine field. Bright red skull and crossbones signs dot the fields around them.

“I know it is a minefield, but I have no land” says Soe, who fled Cambodia in 1979, spending over 14 years in a refugee camp on the Thai border. “I have told the children not to walk far from home”.

Thanks to the Cambodian Mine Action Centre (CMAC), however, Soe and his family may soon live free from the fear of losing a child or a limb to mines. Teams from CMAC have been painstakingly removing mines and unexploded ordinance from around his house since late last year, when mass defections by Khmer Rouge soldiers made work here possible.
Like much of Cambodia, this spot, 38 kilometres from the northwestern town of Battambang has seen many ferocious battles. Government and Khmer Rouge troops fought backwards and forwards over this territory for years, leaving it littered with mines and other deadly war debris. Using metal detectors and probes CMAC’s demining teams have scoured this land inch by inch. In an area less than a square kilometre, they’ve found and destroyed 669 anti-personnel mines and 215 pieces of unexploded ordinance.

Estimates of the number of landmines scattered throughout Cambodia vary from 4 to 6 million. The mines, lain by all sides and factions during Cambodia’s 25 years of civil war kill or maim up to 300 people per month. While relative peace has returned to Cambodia, landmines and unexploded ordinance still litter the countryside, remaining active for decades.

For an adult stepping on an anti-personnel landmine usually means the loss of a leg, or a foot. For a child, it usually means the loss of a life. Most of the accidents occur miles from help. It can take many hours to reach even the most basic first aid posts, that is if the victim survives that long and if they can find the money that is sometimes demanded to take them there.

The Cambodian Mine Action Centre which has undertaken the daunting task of ridding Cambodia of landmines, is an impressive organisation. In a country where many national institutions are weak and the rule of law is shaky, CMAC has developed into a well organised and effective national demining agency, responsible for its own large-scale demining operations and for the coordination of all demining in Cambodia.
Of its 1800 Cambodian employees, many are ex-soldiers, drawn from all factions and sides in Cambodia’s civil war. Not only do they understand the need for discipline and strict operating procedures in the dangerous business of demining, but their battlefield experience gives them a decided advantage in estimating where and how mines might have been laid. While they won’t be drawn on this, many are undoubtedly removing mines, they themselves or their armies, had once laid.

At the moment, almost all demining is done manually relying on hand-held metal detectors. Dozens of two-man teams will work on an area identified as a mine field, checking for booby traps, clipping grass and undergrowth, marking any metal detected, then carefully prodding the soil to expose a mine. It is dangerous work, demanding enormous concentration.

Slowing down the process even further is the high mineral or “laterite” content of Cambodian soil. Metal detectors currently in use will pick up any metal in the ground, be it a mine, a bullet, a discarded helmet, an unexploded mortar shell or simply high mineral content in the soil. In some areas the mineral content is so high, metal detectors are unusable and prodding is the only way forward.

The bulk of CMAC funding comes from international donors who contribute to a Trust Fund administered by the United Nations Development Programme (UNDP). Australia, which has committed $9 million over three years, is the biggest donor.

Since early 1994, up to eight soldiers from the Australian

33-year-old Cher Nak stepped on a landmine while fighting near Poi Pet last April.
Defence Force have also worked with CMAC at any one time, providing technical advice and helping develop the capacity of local staff in leadership, administration and management skills. At least two of these soldiers have returned to work at CMAC permanently following their service in the army.

CMAC currently clears 12 square kilometres of land year; a rate which would see it take up to 150 years to clear Cambodia of landmines. To speed this up, CMAC is actively developing and trialing new demining methods and technologies. According to Richard Warren, an Australian ex-soldier now working as UNDP Coordinator at CMAC, a combination of new technologies and additional funding could see Cambodia free of landmines in 60 years.

“There is new technology which is being developed, which if it comes on line will help. There’s a company in Europe which is developing a technology which will allow them to detect explosives in the ground. This means a mine detector will no longer be needed to detect the metal, which in a field with a lot of shrapnel, can help.”

CMAC is also trialing new metal detectors, including one developed by South Australian manufacturer, Minelab Electronics Pty Ltd. specifically designed to eradicate the background noise produced by high laterite soils.

But the technology which offers the biggest quantum leap in the rate of demining is the use of mechanical deminers, large machines, designed to withstand the impact of large amounts of explosives, which can roll over minefields detonating mines along the way.

While aware of the pitfalls of employing such high expense, high maintenance, high technology, CMAC is hoping to conduct field trials of mechanical deminers during 1997.

“All these factors are contributing to changing the potential end date of ridding Cambodia of landmines” says Richard Warren.
John Hibberd was Team Leader and Conservationist for AusAID's Oro Conservation Project in Papua New Guinea from 1995 to 1997. A conservation consultant with International Forest Environment Research and Management, John is based in Canberra, Australia and works for government and NGO agencies on a range of conservation, biodiversity survey and collaborative management issues throughout the Pacific and SE Asia. Here he reports on the progress of the Oro Conservation Project.

High up in the forest canopy of Papua New Guinea's Oro Province, a large - a very large - chocolate-brown and yellow butterfly dips and wheels between the trees. Spying a flash of bright lime-green leaves, the world's largest butterfly, with a wingspan close to a foot, descends onto a vine which has twined its way up a rainforest from the dark humid forest floor 30 metres below. The female Queen Alexandra Birdwing butterfly (QABB) has come to lay eggs to perpetuate the species' life cycle. High above her, the stunning iridescent green and blue male continues to fly. Its wings slowly flap, more like a bat than a butterfly.

Oro Province, on the other side of the Owen Stanley Ranges from the nation's capital Port Moresby, is the only known home of the QABB, one of the world's rarest butterflies. The butterfly adorns the Oro Provincial flag - possibly the only flag in the world to have a butterfly as an emblem.
The QABB is an enigma. It was first discovered over 90 years ago by the early field naturalist Meek in the headwaters of a river near Kokoda, and has been seen by few non-nationals. This rarely seen butterfly is the focus of the AusAID-funded Oro Conservation Project.

Members of the project team are working with the PNG Department of Conservation and Environment and the Oro Provincial Government to find out more about this butterfly’s distribution, habits and habitat. Starting in 1995, a small team of four expatriate advisers are helping to train local and national officers to survey, research and manage the butterfly. Much of the Project’s activities centre around the village communities. They are the key to the butterfly’s survival, because all the big trees with suitable Aristolochia vines so far identified as
having QABB breeding populations stand on customary owned land. The QABB will only lay its eggs on a single rare species of *Aristolochia*.

To date, the QABB has been found by the survey teams in three separate areas, all in Oro Province. Of the three areas, the heartland for QABB is the Managalase Plateau. This saucer-shaped basin, lying between 650 and 850 metres above sea level, is inland from the Oro coast at Oro Bay. Bumping and juddering for an hour and a half along a truly awful road from the Bay, one reaches Afore, the District’s administrative centre. This is a different world to the hot humid coastal plain. The air is cooler, and undisturbed rainforest stretches across the plateau to the distant hills of the Hydrographer’s Range, the Sibium Mountains and the Guava Ranges beyond. Hemmed in by these mountains, which in places exceed 2000 metres altitude, the rich volcanic soils have nurtured a rainforest special even by PNG’s high biodiversity levels.

Why should the QABB only be found in such restricted locations and only in Oro province when its food plant, the *Aristolochia* vine, occurs elsewhere in PNG? Why should the QABB be so rare in numbers, when its close relative, the Priamus Birdwing, occurs particularly vigorously on the plateau, and this provides ample nutrients to sustain the caterpillars of such a large butterfly.

To better understand QABB’s needs and its microhabitat, a novel approach to scientific data collection has been employed in the project. In villages with QABB habitat around the Province, ten people with high school education have been selected as monitors. They regularly record sightings of QABB adults visiting nectar plants such as Hibiscus and the red-flowering Ixora in their village and on particular *Aristolochia* vines in the primary forest near their village.

Collinson, a young Managalase man from Kawowoki village, relates, “I think it is important to save this butterfly because it only lives in this
Province. It is part of our life. I have seen the destruction of the forest when other landowners have let their trees be sold. But I have also seen villages like at Kau Wildlife Area who have kept their big bush (primary rainforest) and are still getting benefit from the use of the resources”.

Education on the QABB is often reinforced through the children, and a schools education booklet is being worked on with the help of local teachers. This will provide children with information on QABB and on the importance of protecting its habitat. Chris Mercer adds, “It will also give them some simple science projects that they can undertake on school land”.

Joash Yambut, a young Sepik man, is the Project’s Liaison Officer, charged with the responsibility of encouraging the participation of local communities in the Project, and with ascertaining their aspirations and desires. “Local communities will stay here long after the project has gone”, he says, “and if we cannot build conservation of QABB into their traditions and existing institutions, especially the non-government ones, the project may not be sustainable”.

One way of achieving the links between the project’s activities and practical conservation action will be through the initiation of a range of economic opportunities. Development of ecotourism and insect trading are two activities that will generate income through rainforest conservation. At Ondahari on the Plains, a simple 8-bed lodge is nearly complete so that Russel Hauro’s environment group can receive income from visitors coming to see the regular flights of QABB around his vines and nectar plantings, and to walk in the rainforest. The Insect Farming and Trading Agency, based at Lae, is collaborating with the Project to establish a network of insect traders upon the Plateau. There is worldwide interest in PNG insects, some of which are bejewelled or gigantically grotesque, and it is estimated that some 60 families could generate up to 50 Kina per fortnight from this activity. Both of these activities, of course, require the villagers to keep areas of primary rainforest intact.

The future survival of the Queen Alexandra Birdwing butterfly will depend upon three things. Firstly, upon the willingness, and ability, of the local people of the Managalase Plateau (and other areas in Oro Province) to keep their primary rainforest in the face of the need for land to feed burgeoning populations. Secondly, it is essential that the scientific research can show that the QABB population is stable and capable of maintaining its presence in its known habitats. And thirdly, the governments of Papua New Guinea - national, provincial and local - must continue their interest in the butterfly as a symbol of the nation’s rich biodiversity and to materially assist these village communities to develop in a manner which retains much of the primary forest habitat.

By the completion of the project at the end of 1999, the PNG Department of Conservation and Environment and AusAID hope that we will have learnt much more about the biology and needs of the Queen Alexandra Birdwing butterfly and that the villagers around the plateau and elsewhere in the Province will be safeguarding the survival of one of the world’s rarest and most beautiful insects, as well as enjoying the economic and social development benefits linked to the survival of the butterfly.
Creating a cultural alternative to female circumcision is the aim behind an innovative project to eliminate the practice in Kenya. The idea behind the project is to do away with the harmful elements of the initiation ritual (the practice of female circumcision) while maintaining the culturally meaningful aspects that have traditionally accompanied it (family life education, bestowing of presents, celebration and honour of the girls). In this way, girls and their parents are in a position to reject female circumcision without being denied participation in a culturally significant initiation process.

Funded by AusAID, an international NGO, Program for Appropriate Technology in Health (PATH), has been working in conjunction with Kenyan women’s development body, Mandaleo Ya Wanawake (MYWO), to develop and promote coming of age ceremonies which do not involve female genital mutilation (FGM). AusAID representatives Patricia Kayser and Pat Duggan attended what is understood to be Kenya’s first alternative graduation ceremony in Meru in August. It was a satisfying moment for the patient and committed efforts of PATH/MYWO workers, who had spent many months finding a small group of women willing to say ‘no’ to circumcision.

By all accounts it was a joyous occasion: a celebration for the 30 girls themselves (aged between 12 - 24) and a celebration of the idea of
alternative ceremonies. “PATH’s painstaking and patient approach paid off handsomely for these girls - the day was a great celebration for them,” Duggan said.

With approximately 400 witnesses and considerable local publicity, the ceremony was an important milestone in the slow process of changing the attitudes many Kenyan people have about the requirements of womanhood. The girls and their mothers danced and sang songs with a “circumcision through education” theme, making the event an “an important momentum builder for more alternative initiation ceremonies,” Duggan said.

The girls participated in a week long workshop before the big day, in which they were given intensive “family life education” from their godmothers. Normally the girls would undergo a circumcision ceremony after this training, but this time they dressed up in their best clothes and paraded through town to the site of the ceremony at Thuraka Primary School in Meru.

A representative of the District Commissioner’s office was the guest of honour at the ceremony. His presence typified the unique mix of past and present which characterised the alternative ritual: he handed the girls presents (as is tradition), but he also spoke of the need to change the harmful tradition of FGM.

FGM has declined in Kenya since independence from 100 per cent to 50 per cent. However the cultural significance attached to female circumcision continues to make it difficult for girls to reject the practice. It is still seen by many Kenyan men and women as a necessary step which a girl must take in order to become an “adult” and a respectable woman. Many girls, understandably, fear that by rejecting it they will never gain the esteem and privileges of circumcised girls.

There are signs, however, that attitudes are changing. Research into the role of FGM in Kenya conducted by PATH over the last two years (funded by the Ford Foundation) has revealed ambivalence in the attitudes of men. Although many extolled the virtues of circumcised girls (more well-mannered and docile, better wives) they frequently expressed a personal preference to marry an uncircumcised girl.

As it is fathers who make the final decision on whether their daughters are circumcised, Duggan said these findings suggest the “beginning of communities accepting uncircumcised girls into their families”.

The project recognises that any project aiming to eradicate FGM must take into account the religious, social and cultural belief structures which support the practice. It gives support to women and girls who reject female circumcision and helps promote this decision as a legitimate one.
Is economic growth or zero population growth the only hope of improving the lot of “the wretched of the earth”? Are the bottom 80 per cent of the world’s population doomed to fall further and further behind those in the developed economies? Do the costs of economic growth exceed the benefits? This beef, by Dr David Clark of the School of Economics, University of NSW, surveys the latest research on economic growth to argue that its benefits far outweigh its negatives.

From the “dark, Satanic mills” of mid 19th century England to the Asian sweatshops of our era, highly selective and flawed data has been used by both defenders and opponents of economic growth. However, recent research has produced new insights. It is no accident that the continent which most attracts the attention of aid agencies and grandstanding pop stars, Africa, is also the region where economic growth has been least impressive.

Similarly, the region with the highest growth rates in modern history, East Asia, has seen the sharpest improvements in average living standards, health and in most countries - substantial reductions in poverty over the past quarter century (see the World Bank net site). It is also no accident that Australia’s unemployment rate is highest when our growth is rate is poorest. (See EPAC, 1995).
Clearly, economic growth has great benefits, difficult as they may be to measure. For example, India is often considered a poor country. Yet, among the country’s more than 900 million people are now some 200 million ten times the population of Malaysia who could be considered comfortably off (defined as having a monthly disposable income of at least $US145).

Similarly, according to Asia Week between 1979 and 1994 the number of Chinese living in “absolute poverty” declined from 250 million to fewer than 100 million. Economic growth improved their lives.

But there are certainly negatives of economic growth. Take the following examples:

• The fastest growing economy, China, is now the world’s most polluted. Fifteen million tons of dust and smoke and 1.4 million tons of sulphur dioxide pour into the air each year and some Chinese cities can no longer be seen from satellites;

• Only 2 per cent of Bangkok’s 6 million people have their sewage treated and more vehicles and cheap fuel have left Bangkok’s children with body lead levels among the world’s highest.

• The 15-16 million hectares of primary forest cover in the Philippines in the mid-1960s has now shrunk to a meagre 0.8 million hectares.

Clearly, these economies will have to devote more resources to reducing what economists can the “negative externalities” of growth (this and other key problems facing China and her neighbours are discussed in detail in Clark, 1996).

But we should also acknowledge that higher income levels and industrialisation have encouraged discovery of new resources and sources of energy, much more efficient use of existing resources, and the use of substitutes for some unrenewable resources.

What effects has growth had on the distribution of income and wealth? Two key facts stand out. The first is that far from cross-country growth rates and living standards converging, the income gap between the rich and poor has widened dramatically. For example, between 1870 and 1985 the ratio of incomes in the richest and poorest countries increased sixfold and the average income gap between the richest and poorest countries grew almost ninefold from $US1 500 to over $US12 000 (Pritchett, 1995). The biggest divergence is between East Asia and Africa.

The second key fact is that, contrary to what many people believe, economic growth does not necessarily increase the gap between the rich and poor in an individual economy. For example, just-released World Bank research shows:

• In the 88 instances where a country achieved per capita GDP growth for a decade, inequality improved slightly in about half the cases and worsened slightly in the other half.

• Changes inequality in economies which are growing strongly are not dramatic. However, growth almost always improves the incomes of the poorest sections of society. Among the 57 countries that grew at least 2 per cent for a decade, incomes of the poorest fifth of the population improved in all but three, while in India poverty declined in an 14 states that achieved growth in mean income.

• Although growth does not consistently affect inequality one way or the other, the level of inequality does affect growth. In general, developing countries with a more equal distribution of assets particularly in land ownership have grown more rapidly than countries with a less equal distribution of assets.
For example, the most dynamic region of the world over the past 30 years East Asia has a relatively equal distribution of land and has achieved unusually high rates of growth.

- Between 1985 and 1990, poverty has fallen in all the countries for which data is available, except China. This is an important exception.

Although economy-wide data is lacking, income differentials are widening dramatically. For example, according to the London Economist, the income of the poorest Guangdong peasant is now only 34th that of the richest resident.

However, the relationship between economic growth and the distribution of income and wealth is a highly complex and contentious one. Economists use a measure called the Gini coefficient to attempt to measure income and wealth inequality. This measures inequality on a 100 point scale where 1 represents perfect equality and 100 represents absolute inequality, that is, all wealth held by just one household.

Recent World Bank Gini coefficient measures range from high inequality in countries such as Brazil (57) and South Africa (62) to low inequality in countries such as Belgium (27) and India (33).

Indeed, only a few countries with high inequality have reduced inequality at all. Among these exceptions are Costa Rica (it reduced its Gini coefficient from 50 in 1961 to 46 in 1989) and Turkey (from 56 in 1968 to 44 in 1987).

However, Gini coefficients reflect value judgements about the importance to be attached to inequality at different points in the distribution (see Atkinson, 1983) and are only as reliable as the data used to derive them.

Another key question attracting closer scrutiny is the relationship between economic growth and population growth. Is the latter a key cause of the developing world’s problems, as many environmentalists argue?

Such people argue that rapid population growth greatly hurts economic growth because of scarcer natural resources, reduced investments (per child) in health and education, and lower rates of capital accumulation per worker.

However, the empirical evidence provides an equally convincing, and seemingly contradictory, answer: there is no strong, stable relationship between countries’ population growth and their per capita output growth rates.

A sensible answer to the question is that “It depends on country conditions”. But this is not very helpful. Is it most harmful in poor countries? In land-scarce countries? In countries with poor policies? (See Kling and Pritchett, 1994) What is clear is that
economic growth and increased individual incomes improves the health of a country’s population. Over the last century, the main improvement has come from better water and sewerage systems and other public health initiatives, rather than just advances in medical knowledge and procedure.

Indeed, a recent World Bank study, concluded: Country differences in income growth rates over the last three decades explain roughly 40 per cent of the cross country differences in mortality improvements. Since rising income causes improved health (most likely through increased public and private spending on goods that directly or indirectly improve health, raising per capita incomes will be an important component of any country’s health strategy. The estimates imply that if income were 1 per cent higher in the developing countries, as many as 33 000 infant and 53 000 child deaths would be averted annually (Pritchett and Summers, 1996).

Finally, despite such improvements, many developing economies face a great political dilemma. Their economic success has created a growing, affluent middle class, many members of which want more funds spent on minimising the negatives of growth and a devolution of the concentrated economic and political power held by the ruling elites.

At least until the 1990s take-off of China, most of the dynamic economies of East Asia placed considerable stress on “shared growth”, despite their authoritarian political regimes. Investment in education promoted social mobility and enhanced workers’ economic opportunities. Land reform was carried out in Japan, Korea, and Taiwan/China. Japan and Taiwan/China, and South Korea in the 1980s, fostered the development of small and medium-sized enterprises, while Hong Kong and Singapore provided low-cost housing for a majority of residents.

The big question now is whether further strong economic growth is possible without further political liberalisation without allowing genuinely free elections, Western-style parliamentary opposition parties, growth of real trade unions and full freedom of the media.

More than 150 years ago, Karl Marx predicted that capitalism would spread to all corners of the globe and that with it would go Western forms of parliamentary democracy and values. His first prediction was certainly correct. It will be interesting to see whether he was as prescient about the second.

Suggested further reading:
Atkinson, A.B. (1983) The Economics of Inequality. OUP.

Good Net starting points are:
http://quasar.poly.edu:9090/WorldBank/tides.html
http://www.nuff.ox.ac.uk/Economics/Growth/
The Australian Government, through AusAID, is a major partner in the World Health Organization Expanded Programme on Immunization (EPI) and polio eradication in the Western Pacific Region (WPR). Listed here are some recent statistics from the program.

**EPI GENERAL**

**Achievements of the EPI**
- High routine coverage of infants with all antigens has been maintained for five years (approximately 90 per cent)
- Total reported EPI target diseases continue to decline as a result of sustained high immunisation coverage
- Cambodia and Laos have dramatically improved EPI coverage
- Poliomyelitis is on the verge of eradication from the region
- Neonatal tetanus elimination activities have accelerated considerably over the past 2 years (China now significantly involved)
- Hepatitis B immunisation is now integrated with the EPI to some degree in 34 out of 36 countries and areas (WPR most advanced region in the world)
- EPI disease surveillance systems improving under the impetus of AFP surveillance
- Several countries are drafting and implementing plans on improving sterilization and injection practices
- Cold chain and logistics management is improving and tremendous partner support has been provided for equipment (China, Vietnam, Laos, Cambodia, Mongolia, Papua New Guinea, Pacific Island Countries)
- Vaccine production and quality control issues are being addressed

**CONSTRAINTS OF THE EPI**
- Cost of the EPI (vaccines and operations) increasing in some countries and posing major problems for health sectors (e.g. China)
- Cambodia, Laos and Papua New Guinea still have relatively low immunisation coverage and regular outbreaks of disease
- Outbreaks of measles continue to occur in low coverage areas
- Neonatal tetanus is still under reported and cases are often not investigated
- Sterilisation and injection practices in the EPI still require major improvements and input of resources
- Reemerging diseases such as diphtheria are beginning to occur in the Region
- Surveillance and laboratory systems for poliomyelitis eradication continue to require improvement

### REPORTED MEASLES CASES IN THE PRE-VACCINE ERA AND 1994, SELECTED COUNTRIES OF THE WESTERN PACIFIC REGION

<table>
<thead>
<tr>
<th>Country</th>
<th>Pre-vaccine era</th>
<th>1994</th>
<th>% change</th>
<th>Coverage 1994</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cambodia</td>
<td>57 605 (1982)</td>
<td>946</td>
<td>-98%</td>
<td>53%</td>
</tr>
<tr>
<td>China</td>
<td>2 377 776 (1978)</td>
<td>76 204</td>
<td>-96%</td>
<td>89%</td>
</tr>
<tr>
<td>Philippines</td>
<td>43 648 (1983)</td>
<td>25 245</td>
<td>-42%</td>
<td>86%</td>
</tr>
<tr>
<td>Papua New Guinea</td>
<td>16 519 (1981)</td>
<td>6821</td>
<td>-59%</td>
<td>84%</td>
</tr>
<tr>
<td>Vietnam</td>
<td>122 558 (1977)</td>
<td>11 853</td>
<td>-84%</td>
<td>96%</td>
</tr>
<tr>
<td>WPRO Total (includes all countries)</td>
<td>1 317 588 (1980)</td>
<td>110 206</td>
<td>83%</td>
<td>89%</td>
</tr>
</tbody>
</table>

**REPORTED MEASLES CASES IN THE WESTERN PACIFIC REGION 1983–95**

- Thousands of cases
- China
- Excluding China

<table>
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<tr>
<th>Year</th>
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<tr>
<td>83</td>
<td>781</td>
<td>213</td>
</tr>
<tr>
<td>84</td>
<td>620</td>
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</tr>
<tr>
<td>95</td>
<td>53</td>
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</table>
The cost of hepatitis B vaccine remains a major constraint to full integration with the FPT.

**FUTURE PLANS OF THE EPI**

1. All countries will begin the certification process. The certification of the eradication of polio from the Western Pacific Region will begin with those countries where polio has not been reported for many years (Australia, New Zealand, Japan, Korea etc.) followed by the recently endemic countries.

2. Measles control activities will be accelerated. This will include strengthening of surveillance systems, improved EPI coverage in high risk areas, and ultimately special immunisation activities.

3. Neonatal tetanus elimination will be consolidated through continued efforts to identify high risk areas, the improvement of surveillance and investigation of cases, accurate monitoring of the proportion of infants protected at birth, and institutionalisation of immunisation of pregnant women.

4. Hepatitis B vaccine will be fully integrated with the EPI in all endemic countries.

5. Sterilisation and injection practices in the EPI will be further improved to ensure safe injections to all children and women.

6. Continued efforts will be made to ensure vaccine self sufficiency for countries and to improve vaccine quality in producing countries.

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### Reported cases of measles and neonatal tetanus in the Western Pacific Region 1994-95

<table>
<thead>
<tr>
<th>Country</th>
<th>Measles</th>
<th></th>
<th>Measles</th>
<th></th>
<th>Neonatal tetanus</th>
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<tbody>
<tr>
<td></td>
<td>94</td>
<td>95</td>
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Latest available data from WPRO CEIS as of 5 SEPT 1996.

*Hospital surveillance data.

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### Tetanus and neonatal tetanus cases Western Pacific Region 1983–95

- **Total tetanus**
- **Neonatal tetanus**

![Bar chart showing tetanus and neonatal tetanus cases Western Pacific Region 1983–95](chart.png)
In 1993 the World Health Organisation (WHO) declared tuberculosis a global emergency, with one third of the world's population, or 1.9 billion people, infected. Within the last decade of this century it is estimated there may be more than 30 million tuberculosis deaths. About 95 per cent of sufferers are in the developing world, with South-East Asia, the Western Pacific and Africa the worst affected regions. Tuberculosis poses a serious health threat to many countries, aggravated by tuberculosis association with HIV/AIDS and by the emergence of multidrug-resistant strains which result from incomplete or inappropriate treatment of the disease.

**Epidemiology of Tuberculosis**

Tuberculosis is an infectious disease caused by the bacillus Mycobacterium tuberculosis. In most cases the bacilli are located in the lungs, and infection is most commonly transmitted by persons with active pulmonary tuberculosis who have coughed or sneezed the bacteria into the air. Clinical disease, however, occurs in only five to ten percent of people who are exposed to the bacteria and may develop weeks to years after primary infection. Since the tuberculosis infection can be for life and active tuberculosis can develop at a later date, reducing the incidence of tuberculosis in a community is a slow process. Once a person has been exposed to the tuberculosis bacteria, any lapse in the immune system can cause the dormant disease to be reactivated. This means that people who have HIV, which destroys the immune system, have a much greater chance of developing the illness, either through primary infection or because the HIV has reactivated a latent tuberculosis infection. Tuberculosis is already the opportunistic infection that most frequently kills HIV positive people.

**Tuberculosis on the Rise**

In the 1960s it was thought that tuberculosis had been eradicated, but by the early 1990s the rate of decline of tuberculosis in many countries had slowed. In 1993 WHO declared a global emergency and passed a resolution calling for national and international action to implement WHO's global tuberculosis strategy. Given that active tuberculosis usually develops many years after the initial infection, the current pandemic probably has its roots in the 1970s and 1980s when there was widespread neglect of treatment programs. In 1995 tuberculosis killed almost 3 million people, the highest death toll from the disease in human history. As the leading infectious killer of youth and adults, tuberculosis is responsible for more deaths than leprosy, tropical diseases, malaria and diarrhoea combined.

**Tuberculosis in the Asia Pacific Region**

The Asia Pacific area accounts for 60 per cent of the global tuberculosis burden. In the years 1990 to 2000, it is estimated that South and Southeast Asia will have the highest number of cases, with East Asia and the Pacific following. In the years 1990-1999, over 12 million tuberculosis deaths are predicted in South and Southeast Asia and 7 million deaths in East Asia and the Pacific. The scenario for Asia in particular is expected to worsen dramatically due to the spread of HIV. It is expected that the dual epidemic of tuberculosis and HIV/AIDS in sub-Saharan Africa will be surpassed in Asia, where two-thirds of the world's active tuberculosis cases are located, and where HIV is spreading more rapidly than anywhere else in the world. Socioeconomic conditions have considerable bearing on the persistent and escalating incidence of tuberculosis in developing countries. Crowded living conditions, poor nutrition, inadequate health care infrastructure, and weak surveillance are all significant factors in spreading the disease. Displaced people and refugees are particularly at risk. Conditions in refugee camps and shelters are often ripe for tuberculosis transmission, and as many as half of the world's refugees may be infected. Treatment of tuberculosis...
is often a low priority in the services provided to refugees. When treatment is provided short-cuts are sometimes taken or patients leave the refugee camp before being cured, which can result in the development and spread of multidrug-resistant tuberculosis.

**MULTIDRUG-RESISTANT STRAINS**

Deficient treatment of tuberculosis has resulted in the emergence of strains which are resistant to the drugs that once destroyed bacteria in 100% of cases. Both doctors and patients are responsible for the poor treatment. On the one hand, doctors and black market street sellers may prescribe incorrect drug treatment. On the other hand, patients do not always complete the full six-month course of drugs because they begin to feel better after a short period and because the drugs can have unpleasant side-effects. Owing to the emergence of multidrug-resistant strains, unsupervised and incomplete tuberculosis treatment is regarded as being worse than no treatment at all.

Multidrug-resistant tuberculosis is a growing threat worldwide. It is estimated that more than 50 million people may already be infected with drug-resistant bacteria. The treatment of multidrug-resistant tuberculosis involves a more complex regime than for standard tuberculosis and is estimated to be 100 times more expensive. Potentially incurable, it presents a significant problem, since even a single untreatable case of multidrug-resistant tuberculosis can cause substantial harm over time.

In many developing countries, particularly in Asia, multidrug resistant strains have emerged because national tuberculosis control programs in these countries have not been able to achieve a high cure rate in the past. For the poorest, who are often most at risk, obtaining treatment and drugs may be relatively expensive. In addition, regular visits to a treatment centre may be difficult, particularly in rural areas where health care is often inaccessible. However, proper treatment can be supervised by appropriately trained, non-medical authorities at the local level.

**PROSPECTS FOR TREATMENT**

WHO now endorses a strategy called DOTS, or “directly observed treatment, short-course”. The course is of 6-8 months duration and involves the tuberculosis patient regularly taking anti-tuberculosis medication under the close supervision of a health worker or family member. The health worker or volunteer is responsible for monitoring the case until the person under their care is cured. In this way, the DOTS strategy places the primary responsibility for curing tuberculosis patients on the health worker/volunteer rather than the patient. This weighting of responsibility is intended to eliminate the risk of inadequate or interrupted treatment.

It is estimated that currently only 10% of the world’s patients, notably in China, Tanzania and New York city, are being treated with the DOTS strategy. Medicines for DOTS cost around $11 per patient, and the treatment also requires a functional primary health care system and trained health workers.

Some have questioned the applicability of DOTS in developing countries. Their concern is that direct observation is not always possible where health care is inaccessible. Also, people undergoing treatment may fear losing their jobs due to the lengthy time commitment involved. These difficulties are not insurmountable, however, since local authorities in developing countries, such as village headmen, teachers or traditional healers, who have received basic training, can supervise DOTS.

**THE COSTS OF TUBERCULOSIS**

Eight out of ten of those struck by tuberculosis are aged from 15-59 years. Consequently, the social and economic costs of tuberculosis are greater than those of a disease which exclusively affects children or the elderly. The death of adults in their prime, who are parents, community leaders, and producers in most societies, presents a particularly onerous burden. Furthermore, infection with tuberculosis is concentrated in lower socioeconomic groups who can least afford treatment. However, where functioning health systems exist, the marginal cost of providing tuberculosis treatment and monitoring is minimal, compared to the cumulative economic costs of not treating the disease.

**REASONS FOR ACTION**

With falling rates of tuberculosis in the 1960s and 1970s, industrialised nations reduced funding levels and research to fight tuberculosis. As health care resources shifted to other issues, expertise in tuberculosis declined. A corollary of this has been that assistance to developing nations, with growing populations and poorly-equipped medical services, does not often focus on tuberculosis. In the absence of a global strategy to control tuberculosis, much of the progress made in containing the disease has been lost.

There are increasing calls for tuberculosis control to be integrated into existing primary health care systems. Since the availability of qualified or experienced persons remains limited, this would require some extra training of primary health care workers, who would themselves need access to expert supervision. Demonstrated political will is also needed to maintain a well-planned and sustainable tuberculosis program, through which, if possible, tuberculosis drugs are provided free of cost. Organising effective treatment services has proven difficult for many countries. The purchase of anti-tuberculosis drugs is a burden for developing countries with a limited supply of foreign exchange. In many cases, doctors are relying on antiquated (but still effective) diagnostic tools, since most research on tuberculosis stopped before the era of modern biotechnology. In spite of the difficulties, however, tuberculosis has a cure, and its treatment is relatively inexpensive. Successful treatment requires 6-8 months of uninterrupted medication. Treatment programs need to ensure that the full course of medication is taken and that patients are completely cured.