



Australian aid: Approach to food security

OVER 800 MILLION PEOPLE ARE CHRONICALLY UNDERNOURISHED. HUNGER AND MALNUTRITION KILL MORE THAN FIVE MILLION CHILDREN A YEAR. THIS IS A HUMAN TRAGEDY OF THE MOST IMMENSE PROPORTIONS IN A WORLD THAT CAN PRODUCE SUFFICIENT FOOD FOR EVERYONE.

THE FACTS

The United Nations Food and Agriculture Organisation (FAO) estimates that there are 843 million people in developing and transition countries who continue to suffer from hunger. While one of the Millennium Development Goals is to reduce hunger by half by the year 2015 – the rate at which hunger is being reduced is substantially slower than what is necessary to meet this goal.

Each year up to five million children die of hunger and malnutrition, and in the developing world 20 million babies are born with low birth weights. These babies face increased risk of dying in infancy, and those that survive face increased risk of cognitive and other disabilities. It has been estimated by the FAO that each child whose physical and mental development is stunted by hunger and malnutrition stands to lose up to 10 per cent of their lifetime earnings. In countries where people are already living in extreme poverty, this has devastating implications for individuals and for national income.

About half of the world's undernourished people are from smallholder farming communities, 20 per cent are landless in rural areas and around 10 per cent live in communities whose livelihoods depend on herding, fishing or forest resources. The remaining 20 per cent live in cities. Hunger falls disproportionately on the most vulnerable groups, including women, children under the age of five, and the sick, old and infirm. Women and girls constitute 70 per cent of the world's undernourished people.

Food insecurity occurs when people do not always have physical and economic access to sufficient, safe and nutritious food. Chronic food insecurity is associated with chronic poverty. The chronically poor lack coping mechanisms when their incomes fall or they lose direct access to food. Poor coping mechanisms can result from income earners having many dependents, a lack of assets, living in remote areas, sickness and ill health. HIV/AIDS, in particular, can place enormous strains on the coping mechanisms of the poor because of its impact on the ability of the family to supply labour.

Most of today's armed conflicts and disasters are in regions dependent on agriculture and in countries with a high proportion of food-insecure households. Very few new conflicts start in food-secure environments. Conflicts can be exacerbated when undernourished people feel they have nothing to lose and join military service for access to food.

Government policies that affect food supply and how markets function can also undermine food security. Policies aimed at underpinning the prices of agricultural goods or encouraging producers to grow particular crops – often with the aim of achieving 'self-sufficiency' – can increase food insecurity. These policies can create incentives for producers to oversupply some products and undersupply others. This can result in a drain on government resources in the case of producer or consumer subsidies or, in cases where producers are encouraged to plant particular crops, shortages of alternate food sources in the event of an environmental disaster.

Urbanisation is a feature of developed and developing countries. Between 1960 and 2000 the proportion of developing country populations living in urban areas doubled. Increasing urbanisation creates challenges in terms of food distribution, affordability and safety. Changing dietary and food-buying habits associated with living in cities mean that many countries face the dual problem of widespread hunger on the one hand and major increases in

diabetes and heart disease on the other. In many countries there are also challenges in ensuring that small farmers are able to access the supply chain of supermarkets, where increasing numbers of city dwellers are purchasing food. Without this opportunity, many impoverished farmers will remain poor.

Environmental degradation often results from increased pressure on rural land due to high population growth rates and chronic poverty. Poor farmers move into ever more marginal land, leading to a vicious circle of lower productivity, environmental damage and increased food insecurity.

Food safety is also critical to food security. Food and water contamination is a major health risk worldwide. Unsafe food contains contaminants that can make people sick, either immediately or by increasing their risk of chronic disease. In addition, diseases in livestock can destroy export markets and people's livelihoods.

AUSTRALIA'S APPROACH TO FOOD SECURITY

In 2002–03 Australia announced that it would contribute \$1 billion over five years to programs and initiatives that would enhance food security for people in the developing world, with a particular focus in the Asia-Pacific region. Australia supports food security based on self-reliance, not self-sufficiency. This approach recognises the complementarity of domestic production and international trade.

Open international trade is the key to increasing food security in the long term. The Australian aid program seeks to assist developing countries to achieve the most from international trade reform by assisting them to undertake domestic reform where necessary to strengthen internal markets and to increase agricultural productivity and supporting infrastructure.

Other key components of Australia's approach to food issues include supporting developing countries to implement policies and practices to:

- > promote rural development, including sustainable agriculture, fishery and forestry production and natural resource management
- > increase food safety and export potential by meeting international food standards, and
- > increase women's access to agricultural credit, natural resources, technology and information.

The Australian aid program also provides strong support for agricultural research, including funding the Australian Centre for International Agricultural Research (ACIAR). ACIAR's research includes a focus on agricultural diversification, sustainable resource management and food safety. A variety of activities are also aimed at boosting smallholder production and creating links to markets.

Through its food aid program Australia aims to ensure that children and other vulnerable groups have access to food and that, in the event of disasters and emergencies, transitory and emergency food needs are met in ways that encourage recovery and rehabilitation.

The majority of Australia's food aid is now delivered directly through the United Nations World Food Programme (WFP) and is provided in the form of in-kind contributions or cash grants to allow the WFP maximum flexibility to respond to urgent needs for food. Where it is cost effective to do so and Australia produces the required food types, Australian commodities are purchased to support food aid requirements.

Examples of approaches adopted in AusAID-funded activities that have been successful or innovative in developing countries follow. These are preceded by best practice principles or lessons learned from international literature and Australia's own experience in providing food-related development assistance.

Effective management of natural resources is fundamental to long-term food security.

In the **Southern Philippines** Australia is supporting an activity to improve the standard of living, food security, social capital and environmental stewardship of poor rural communities. The activity focuses on the uplands, where cultivation on steep slopes (often in excess of 15 per cent) presents major challenges for sustainable agriculture. Farm productivity is low and in some cases declining, whereas population growth is high at around 2.7 per cent. The activity is managed by ACIAR and builds on a previous project that supported the formation of 400 Landcare groups.

Under this activity Australian experience in Landcare is linked with farming groups in the Southern Philippines to help farmers adopt sustainable agricultural practices. The activity is premised on the understanding that, while soil conservation is a focus of Landcare activities, poor farmers are primarily interested in making a living, principally through more productive plantings on land where the soil has been stabilised. Linking the adoption of conservation measures to these opportunities is resulting in improvements in food security, livelihoods and the environment. In addition, through supporting the Landcare groups this activity is assisting poor farmers to improve their links to government institutions and access to basic services.

Fisheries are one of the most important sources of food and income for people of Pacific island communities. Coastal fisheries, in particular, are vital to food security and living standards, with fish being a critical part of the diet of many Pacific islanders.

In **Tonga** Australia is supporting an activity aimed at enhancing the food security and income-earning opportunities of coastal communities through fishing. The pilot activity involves coastal communities being allocated special management areas adjacent to where they live, on the condition that they have an approved management plan

in place. Communities are being assisted to develop these plans, which aim to conserve and develop their use of aquatic resources.

The large market in China and Hong Kong for live fish, such as grouper, has encouraged overfishing, including destructive and environmentally damaging practices, and increased pressure on stocks. For fishing communities in **Indonesia**, particularly around Bali, the consequences of overfishing may be dramatic in terms of lost income and food security. Australia, through ACIAR, is supporting research into the potential for grouper aquaculture. If such aquaculture were successful, it could supply fish for the Asian market and become an important income earner in coastal regions in Indonesia.

Initial results of the research are positive, with survival rates, which stood at five per cent before research, now at 50 per cent among some variants of the species. Farmers around the site of the research in Bali are now adopting the technology and achieving similar survival rates.

Technological advances can improve food security and the livelihoods of the poor. However, for this to occur the poor must have ready access to the technology.

In **Papua New Guinea** Australia is providing long-term support to the National Agriculture Research Institute (NARI). The role of NARI is to undertake research that is responsive to the needs of farmers and households, with the aim of enhancing the productivity, efficiency and sustainability of smallholder agriculture and improving farmer income and food security. To help ensure that research filters down to small farm holders, the Agricultural Innovations Grant Facility, which provides competitive funding for agricultural research and development institutions to undertake outreach activities, was established in 2004.

Sweet potato is the primary source of dietary energy for 60 per cent of the population of Papua New Guinea. However, there are numerous factors limiting sweet potato production and many farmers grow varieties that are inappropriate for their local

environment. To help ensure that research filters down to small farm holders, the Agricultural Innovations Grant Facility was established in 2004 to provide competitive funding for agricultural research and development institutions to undertake outreach activities. By working closely with farmers this approach allows communities to benefit immediately by adopting higher yielding varieties of the crop.

Almost 90 per cent of farm households in the **Lao People's Democratic Republic** own livestock, which provide the bulk of their cash income and a safety net. Traditional livestock production systems in the north of the country involve farmers grazing their livestock far from home on crops grown in cleared patches of forest. These systems do not provide a surplus to enable farmers to move out of poverty. Developing feed resources closer to the village was identified as one way to help farmers better manage their livestock and potentially become livestock producers rather than keepers.

The Laos Forages and Livestock Project identified a range of livestock fodder that was suited to the geography and climate. The project was implemented by the International Centre for Tropical Agriculture and the Lao PDR National Agriculture and Forestry Research Institute with supporting research from ACIAR and CSIRO. It focused on five northern districts in Lao PDR, combining new technologies and farmer innovation. It did this by identifying problems experienced by farmers and providing technical solutions that delivered quick results.

Feedback on the project suggests that it has had a positive impact. Of the 1381 farmers working with the project in 2004, 65 per cent reported significant impacts including saved labour and time, increased numbers of animals, shorter time to fatten animals, increased survival of animals and higher stock prices.

The Asian Development Bank aims to build on the success of the project by funding a US\$10 million participatory livestock development project. This will

involve expanding the forages approach to other provinces in Lao PDR and to neighbouring countries.

Storing genetic samples of crops can support food security following environmental or agricultural disasters.

Taro is the most important staple food in **Samoa**, and during the 1980s it became a major export crop. However, in 1993 leaf blight struck, wiping out almost the entire national crop of taro and destroying export earnings. In response, a breeding program was started with assistance from Australia. The program, which finished in 2001, was found to have improved food security in the region by making available taro that is resistant to leaf blight. In addition, the program established the Regional Germplasm Centre, which houses and conserves different varieties of taro from the region, including those varieties bred to be resistant to leaf blight.

The centre has now expanded to cover a range of other crops important to the region including yam, sweet potato, cassava, banana, kava and vanilla. Through the ongoing research and activities of the Regional Germplasm Centre, farmers in the region will have access to increased genetic diversity. This should help to prevent a repeat of the Samoan experience with taro leaf blight.

Transboundary epidemic livestock disease can hurt the rural poor and negatively impact on the capacity of countries to participate in regional and international trade.

Foot and mouth disease (FMD) is the most important livestock disease at a global level because of its impact on production and trade. In the event of an outbreak, FMD has the potential to devastate rural incomes of the poor who may lack the resources to replace diseased livestock.

Australia is supporting a reference laboratory in Thailand for **ASEAN** member countries. This laboratory will monitor viruses active in the region, exchange information on outbreaks, diagnose

outbreaks, monitor vaccination programs, provide training and conduct projects to support the national and regional FMD control effort. The Australian assistance will build on a relationship already established between the CSIRO Australian Animal Health Laboratory and the ASEAN reference laboratory to help it reach the standards and expertise required to fulfil its functions. It will also support the development of a plan for the operation of the laboratory.

Chronic illness can reduce household labour supply. To cope with this some households reduce the variety of crops grown.

In **Zambia** Australia is supporting an activity that aims to diversify food crops, particularly among those households living with HIV/AIDS. Crops are being introduced that will increase the diversity and nutritional value of diets, while taking account of the reduced labour available in families affected by HIV/AIDS. In addition, practical training is being provided at the basic education stage in agroforestry and natural resource management with the aim of increasing food security among HIV/AIDS affected families.

Experience shows that providing food aid to women is an effective way of ensuring that it reaches needy children.

Australia is supporting the WFP's Vulnerable Group Development Programme in **Bangladesh**. This program targets extremely poor women, with the aim of increasing their nutritional status so that they can participate in mainstream NGO development programmes which address chronic poverty.

The WFP program provides 750,000 households headed by women with monthly food rations of wheat (30 kg) or fortified flour (25 kg). Australian wheat is being used for approximately 123,000 of these households. In addition to food aid, the program provides training to participants to develop awareness of social and legal issues, income generation training, and savings and credit facilities.



FURTHER INFORMATION AND RESOURCES

AUSTRALIA'S STRATEGY AND ACTIVITIES

www.ausaid.gov.au/publications/ (Food security strategy, May 2004)

www.aciar.gov.au (Australian Centre for International Agricultural Research)

GENERAL INFORMATION OF FOOD SECURITY ISSUES

www.fao.org (Food and Agriculture Organisation of the United Nations)

www.wfp.org (United Nations World Food Programme)

www.ifpri.org (International Food Policy Research Institute)

www.developmentgateway.com (food security links to a number of sites)

www.aigf.org (Agricultural Innovations and Grants Facility in Papua New Guinea)

MORE INFORMATION ABOUT AUSTRALIAN AID

Further information about the Australian Government's overseas aid program is available online at www.ausaid.gov.au

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FRONT COVER IMAGE: *Taro is a staple crop throughout the Pacific and is an important source of export income in Samoa, Tonga and Fiji. The root of the plant can be baked, roasted or boiled. The leaves provide an important source of minerals and vitamins.*
PHOTO: Yvonne Green/AusAID

BACK COVER IMAGE: *Improved forage crops grown close to the village reduces the need for unsupervised grazing and greatly lessens the time and labour burdens of villagers, including women and children.* PHOTO: Laos Forages and Livestock Project

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