



2010 International Development Conference  
**BIODIVERSITY AND WORLD FOOD SECURITY:  
Nourishing the Planet and Its People**  
Parliament House, Canberra  
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## **MEDIA RELEASE**

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### **Dietary Diversity the best approach to diet-related diseases**

A new approach to hunger and malnutrition is needed to cope with the unprecedented epidemic of diet-related diseases around the world, warned Dr Emile Frison, Director General of Bioversity International, a research centre dedicated to the use of agricultural biodiversity.

Dr Frison joined other biodiversity conservation specialists and advocates at the Crawford Fund's 2010 international conference titled "*Biodiversity and World Food Security: Nourishing the Planet and its People*," being held in Parliament House, Canberra over 30 August to 1 September.

Speaking at this key event in the Australasian region related to the UN International Year of Biodiversity, Dr Frison said there is an urgent need to explore ways to improve nutrition through dietary diversity.

"Many studies have now shown clearly that a more diverse diet is associated with longer life and lower incidence of specific diseases such as heart disease and type 2 diabetes," Frison said.

Frison pointed out that diseases formerly associated with affluence are growing fastest in poorer countries.

"Eighty percent of the deaths from obesity, type 2 diabetes, heart disease and cancers are occurring in low- and middle-income countries," he said.

Non-communicable diseases account for 70% of all adult deaths in the Western Pacific Region, according to the World Health Organization (WHO).

Frison used Australia's neighbour, the South Pacific island of Kiribati as an example. In 1981, he said, 12% of the adults were obese. Twenty five years later, in 2006, more than half – 51% were obese. Four out of five adults are overweight, and at the same time, 13% of the children are underweight.

"This mirrors the global situation," Frison said.

According to the Food and Agriculture Organization (FAO), about 1.02 billion people are short of food. And according to the WHO, more than a billion are seriously overweight. Two billion – mostly women and young children – suffer from the hidden hunger of missing micronutrients such as vitamins and minerals.

"Most of the problems are the results of a gross over-simplification of the diet, but it is no good just trying to replace what is missing with pills and supplements. We need a new approach," Frison said.

Bioversity International has been working in many countries to research how agricultural biodiversity can deliver dietary diversity and better health.

In Kenya, for example, people traditionally ate more than 200 different plant species as leafy greens. Many of these traditional leafy vegetables are far richer in essential nutrients than cabbages and kale, which were often the only green vegetables available in markets. Leaf amaranth, for example, contains more than 10 times more iron than cabbage. Cleome, also known as cat's whiskers, is 100 times richer in vitamin A precursors. And nightshade leaves contain 10 times more calcium than cabbage.

“Despite being nutritionally so valuable, these vegetables were shunned by people for a host of reasons. They were perceived as backward and stigmatized as “poor peoples’ food”. Supplies in the market were erratic and of poor quality. Young people, especially in the cities, did not know how to prepare them,” he said.

Working with partners on the ground, including an NGO called Family Concern and Uchumi Supermarkets, Bioversity tackled all elements of the supply chain. Farmers learned to grow the crops and to supply the regular, high-quality deliveries that supermarkets need. Colourful leaflets explained the benefits of traditional leafy vegetables and how to prepare them. Celebrities endorsed and promoted a return to traditional diets.

“Deliveries to markets shot up from 30 to 400 tonnes per month,” Frison told the Crawford Fund Conference, “and these traditional leafy vegetables are now common in open-air markets too. Even so, supplies often run out by early afternoon, showing that demand is still unmet. And the income of the farm families supplying these vegetables has gone up between 2 and 20 times.”

Despite its successes there, Frison stresses that Bioversity’s work in East Africa is not intended to be replicated around the world with the same species and the same interventions.

“I wouldn’t expect it to work with other cultures in other countries,” he said. “It is the methods and ideas behind this food-based approach that are globally applicable.”

Two examples from the Western Pacific exemplify this food-based approach. On Pohnpei, the Island Food Community has used posters and other channels to direct peoples’ attention to specific varieties of Pandanus fruit that are very rich in vitamin A precursors. The country also issued a set of stamps to promote karat bananas, which are also extremely rich in provitamin A. Each stamp carries a message explaining that karat is an ideal food for babies over 6 months, in addition to breast milk.

Frison told the conference that when the WHO and others first started to discuss micronutrient deficiencies, they favoured a food-systems approach based on dietary diversity. Over time, however, the medical establishment “captured” the problem with a simplistic solution to over-simplified diets.

The pendulum may be swinging back. The first Pacific Food Summit in Vanuatu in April 2010 cited “declines in traditional food crops” as one of the primary factors behind the epidemic of diet-related diseases in the region. The Summit noted that previous efforts to halt the rising tide of diet-related diseases have had very little impact.

“We must return to a food-based approach to malnutrition,” Frison urged. “Not only is it more sustainable, it also has many other benefits, such as treating multiple deficiencies, protecting the environment, improving incomes and promoting the welfare of whole communities.”

Other speakers at this year’s Crawford Fund annual event include:

- Dr Cristián Samper, Director of the world’s largest and most visited natural history collection, the National Museum of Natural History, Smithsonian Institution;
- Professor Steve Hopper, an internationally recognised Australian plant conservation biologist who is Director of the Royal Botanic Gardens, Kew, arguably the planet’s most famous garden;
- Professor Hugh Possingham, member of the Wentworth Group of Concerned Scientists and Director of the Ecology Centre at the University of Queensland
- Dr Megan Clark, Chief Executive, CSIRO.

Speakers from Australia, Asia and Africa will also be addressing biodiversity issues for fisheries, livestock, forestry, microbials, biosecurity, and GM and biodiversity.

*Further press materials, the program and other background is available at <http://www.crawfordfund.org/conference/conf2010.html> or contact Cathy Reade on 0413 575 934 to pre-arrange interviews. Media releases will be available on an embargoed basis, on request or in the Theatre Foyer, Parliament House from 8.15am, 31 August.*

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