

# New technologies a winner

Experts weigh up the best ways to spend \$65 billion. By Rebecca Thyer

**D**uring the next four years, the world's governments will collectively spend US\$50 billion (A\$65 billion) on development assistance. But deciding how this money should be spent and how global challenges – from eradicating AIDS to alleviating world hunger – should be prioritised, is daunting.

This difficult task was posed to a gathering of some of the globe's greatest economists last year. The Copenhagen Consensus project aimed to set priorities for confronting 10 serious global challenges: civil conflicts; climate change; communicable diseases; education; financial stability; governance; hunger and malnutrition; migration; trade reform; and water and sanitation.

The expert panel assessed 10 challenge papers written for the Convention answering the question: "What would be the best ways of advancing global welfare, and particularly the welfare of developing countries, if an additional US\$50 billion of resources were at governments' disposal?"

During the week-long Convention, experts ranked all proposals (see table). The panel was guided mainly by economic costs and benefits.

Propositions to alleviate malnutrition ranked highly, especially a proposal to increase spending on research into new agricultural technologies, which came in at number five. It stated that



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Development of new agricultural technologies

investment in agricultural technologies was "the single most effective means of increasing the incomes of those groups in the developing world who suffer from chronic hunger".

The 'Hunger and Malnutrition' challenge paper, by Jere R Behrman (University of Pennsylvania economics professor and Population Studies Center director), Harold Alderman (lead

human development economist in the Africa Region of the World Bank, Washington DC) and John Hoddinott (senior research fellow at the International Food Policy Research Institute, Washington DC), proposed investing in technology to develop agriculture.

An opportunity existed, they believed, to focus on developing improved seed varieties and agricultural practices to enable people to grow higher and consistent yields of more nutritious food. However, this was not just to help subsistence farmers grow more to eat.

"Rather it is a question of more productive farming, which gives farmers a better return on their investment, increases demand for the labour of landless people and reduces the price of food to make it more accessible to both rural and urban populations."

The Green Revolution of the 1960s and 70s is a clear example of how modern plant breeding advances can be widely employed for the benefit of the poor, the proposal stated.

High-yielding dwarf varieties of rice and wheat have vastly increased the supply of staple foods in Asia and South America. Similar advances could be derived using the best technologies available now, including biotechnological advances.

While the 'Hunger and Malnutrition' paper said it was difficult to estimate returns on investment in this area accurately, studies had shown that the relatively modest up-front costs of plant breeding could be quickly recouped.

Additionally, benefits continue to accrue for many years until the seeds are displaced by the use of new varieties with even more benefits.

## Challenges and opportunities

PROJECT RATING	CHALLENGE	OPPORTUNITY
Very good	1 Diseases	Control of HIV/AIDS
Very good	2 Malnutrition	Providing micro nutrients
Very good	3 Subsidies and Trade	Trade liberalisation
Very Good	4 Diseases	Control of malaria
Good	5 Malnutrition	Development of new agricultural technologies
Good	6 Sanitation & Water	Small-scale water technology for livelihoods
Good	7 Sanitation & Water	Community-managed water supply and sanitation
Good	8 Sanitation & Water	Research on water productivity in food production
Good	9 Government	Lowering the cost of starting a new business
Fair	10 Migration	Lowering barriers to migration for skilled workers
Fair	11 Malnutrition	Improving infant and child nutrition
Fair	12 Malnutrition	Reducing the prevalence of low birth weight
Fair	13 Diseases	Scaled-up basic health services
Bad	14 Migration	Guest worker programs for the unskilled
Bad	15 Climate	Optimal carbon tax
Bad	16 Climate	The Kyoto Protocol
Bad	17 Climate	Value-at-risk carbon tax