



The All Party Parliamentary Group on  
Agriculture and Food for Development

# Why No Thought for Food?

A UK Parliamentary Inquiry into Global Food Security

January 2010





## Why No Thought For Food?

“We have to be very careful not to pull out of a sector. This is exactly what the development community did when it became too difficult in agriculture about 15 years ago... and we now have a big problem because of that.”

**Andrew Steer**, *Director General of Policy and Research DFID to the International Development Committee November 2009*

## Contents

Witnesses	3
A Message from Ronan Keating, UN FAO Goodwill Ambassador	4
Foreword: An Appetite for Change	5
Context 2050: A Perfect Storm	8
The Global Situation Today: A Hungry World	15
Donor Neglect	19
DFID Neglect	21
Recommendations	28
Conclusion	34

## Witnesses

The APPG has been delighted with the response from the world's leading authorities in the fields of agriculture and food security to its inquiry into the UK's role in addressing global food security.

During the course of the Inquiry the APPG received some 130 written submissions, which are available online, as well as hearing from 29 of the most respected experts directly. Those experts who provided oral evidence are listed below:

**Vanessa Adams**, *Director of Business Development West Africa Trade Hub;*

**Akin Adesina**, *Vice-President of the Alliance for a Green Revolution in Africa;*

**Tom Arnold**, *CEO, Concern Worldwide;*

**Brian Baldwin**, *Vice Chair of the Global Donor Platform for Rural Development (GDPRD);*

**John Beddington**, *UK Government Chief Scientist;*

**Simon Blackmore**, *Discipline Leader in Precision Farming and Agricultural Robotics;*

**Joachim von Braun**, *Director General of the International Food Policy Research Institute;*

**Andrée Carter**, *Director, UK Collaborative on Development Sciences;*

**Jacques Diouf**, *Director-General of the UN Food and Agriculture Organization;*

**Michael Gidney**, *Director of Policy, Traidcraft;*

**Peter Hazell**, *Agri-Economist and FARM-Africa Trustee;*

**Janice Jiggins**, *Wageningen University & One of the chief authors of 'Agriculture at a Crossroads: The International Assessment of Agriculture, Knowledge, Science and Technology for Development.'*

**Jane Kennedy**, *Former Minister of State for Farming and the Environment, Defra;*

**Sir David King**, *Former UK Government Chief Scientist and Director of the Smith School of Enterprise and the Environment - University of Oxford;*

**Ivan Lewis**, *Former Parliamentary Under-Secretary of State, DFID;*

**Richard Mkandawire**, *Head, Comprehensive African Agriculture Development Programme (CAADP), at the New Partnership for African Development (NEPAD);*

**David Nabarro**, *Special Representative of the UN Secretary General for Food Security and Nutrition; Senior UN System Coordinator for Avian and Pandemic Influenza;*

**William Otim-Nape**, *Former Director General of the Ugandan National Agricultural Research Organisation;*

**Christie Peacock**, *Chief Executive, FARM-Africa;*

**Malcolm Potts**, *Reproductive Scientist and Fred H. Bixby Endowed Chair in Population and Family Planning at the University of California, Berkeley;*

**Guy Poulter**, *Director of the Natural Resources Institute at the University of Greenwich;*

**Callum Roberts**, *Marine Conservation Biologist, York University;*

**Renwick Rose**, *Co-ordinator, Windward Islands National Farmers' Association;*

**Josette Sheeran**, *Executive Director, UN World Food Programme;*

**Olivier De Schutter**, *UN Special Rapporteur on the Right to Food;*

**Geoff Tansey**, *Author, Consultant and Joseph Rowntree Charitable Trust Visionary;*

**Camilla Toulmin**, *Director, International Institute for Environment and Development;*

**Steve Wiggins**, *Research Fellow and Programme Leader at the Overseas Development Institute;*

**Matthew Wyatt**, *Assistant President for External Affairs International Fund for Agricultural Development;*

# A Message from Ronan Keating, UN Food and Agriculture Organization (FAO) Goodwill Ambassador

FAO/Simone Casetta



I wish to express the joy and pride I feel to have been invited to write a few words at the beginning of this important report in my capacity as Goodwill Ambassador of the Food and Agriculture Organization of the United Nations.

I have been honoured to serve the UN Food and Agriculture Organization, in my position as FAO Goodwill Ambassador, since 2005. I wished to join the FAO's campaign to end world hunger, and since the very day of my nomination I have committed myself personally and professionally to address the universal humanitarian issues that underpin the FAO's mission – to build a food-secure world for present and future generations.

I don't pretend to be an expert on issues related to food security and sustainable development, but I joined the FAO and thus the United Nations family to lend support to help make visible the very real and dramatic problems, and the concrete challenges and activities that the FAO and the populations they support face everyday.

For the first time in history, more than one billion people are undernourished worldwide. This is about 100 million more than at the beginning of 2009 and it means that one in every six persons suffers from hunger every day. The events of the last three years have been particularly tragic as they have demonstrated how fragile our global food system is and how vulnerable we all are. This recent increase in hunger has not been the consequence of a poor global harvest, far from it: it was caused by the global economic crisis, which has reduced incomes and employment opportunities of the poor and significantly reduced their access to food.

It is for this reason that the theme chosen for the 2009 World Food Day was "Achieving Food Security in Times of Crisis". At a time when the fallout from the global economic crisis still dominates the news, the world needs to be reminded that not everyone works in offices, factories, or banks. The crisis is stalking the small-scale farms and rural areas of the world, where 70 percent of the world's hungry live and work.

As we move into 2010, let us reflect on those numbers and the human suffering behind them. Crisis or no crisis, we have the know-how and the resources to do something about hunger. Let us work together to make sure hunger is recognized as the critical problem it truly is, and solve it.

Make no mistake, though, the difference between success and failure will be political will alone.

Today's Parliamentarians hold the key to unlocking the problem of global food insecurity. The fundamental way to address poverty in the Global South must begin with putting agriculture back at the top of the international development agenda. Every day we put the world in our mouths and assume we have the right to do so but at the same time the 500 million smallholder farmers across the developing world are facing a daily struggle to produce, procure and provide enough food for their families and the 2 billion people they support.

Only Parliamentarians can generate the energy needed to take this discussion into the new and innovative directions needed, as this report demonstrates. As such I commend the All Party Parliamentary Group on Agriculture and Food for Development's report into global food security to you as an example of how the debate around this critical issue must be reignited and reinvigorated.

I hope the publication of this report can foster an even stronger commitment to ensuring that the one billion innocent victims from hunger have access to the necessary resources to cultivate their hope for a better life.

Thank you.

**Ronan Keating**  
UN FAO Goodwill Ambassador

## Foreword: An Appetite for Change

“There has been an erosion of capacity in agricultural research not just in the UK – there has been a sad decline in a lot of African institutions – what are we going to do about it?”

*Richard Mkandawire, Head, Comprehensive African Agriculture Development Programme (CAADP), at the New Partnership for African Development (NEPAD).*

“The UK government and DFID were part of the neglect of agriculture and the food issues in the 1990s and we should not forget that this was a political mistake which is haunting many nations today.”

*Jacques Diouf, Director-General of the UN Food and Agriculture Organization.*

In October 2008 the All Party Parliamentary Group (APPG) on Agriculture and Food for Development came into being with the aim of bringing together, in one place, Parliamentarians concerned with both the scientific and developmental aspects of agriculture. It was hoped that the APPG would develop into a forum for discussions around food security, growth and livelihoods in the developing world, bringing these crucial issues, as one, to a Parliamentary audience for the first time. From the start, the Group’s undertakings have been sustained by an extensive supporters’ network of experts drawn from a variety of different disciplines and sectors.

Two months after the Group’s formation in December 2008, Secretary of State for the Environment Hilary Benn declared “British agriculture has led the world on many occasions and we need it to do so again on sustainable agriculture”. As a former DFID Minister his observation was very welcome, although it raised serious questions around his old department’s continued neglect of agriculture – both at home and overseas.

It is difficult to believe that having pledged to halve the proportion of people who suffer from hunger by 2015 as part of the Millennium Development Goals (MDGs), DFID did not see the potential ‘value added’ by the British agricultural expertise and had not seized upon this opportunity to take the lead on the global stage in such a vital sector for rural development. The World Bank has worked out that economic growth from agriculture generates at least twice as much poverty reduction as growth from any other sector, and yet with so many successes under its belt, DFID has continued to oversee the dramatic decline in global Official Development Assistance (ODA) spent on agriculture – falling from \$6.2 billion in 1980 to \$2.3 billion in 2002. Yet at the very same time, global ODA levels have increased massively by 65% meaning that not only is international assistance for agriculture lower now than it

was in 1980 in real terms, but that as a share of total ODA it has fallen even more devastatingly from 17% in 1982 to just 3.7% in 2002.

Simultaneously public funds available for agricultural research have declined in recent years with what remains being largely channelled through multilateral institutions which DFID has simultaneously sought to reform. The question, then, is why has the Government consciously and deliberately run down its support for agriculture in international development when it once led the world – why no thought for food? After this abandonment of agriculture nearly 30 years ago, many NGOs who worked in this sector were left to deal with the growing problem as ‘firefighters’, while food insecurity escalated and the money available to support their vital work fell away. Their leadership role over the past three decades in community-led agricultural development cannot be underestimated and has ensured that many people have been saved from the indignity of chronic hunger and ultimately starvation.

Currently the world is letting MDG 1, and the halving of the number of people who suffer from hunger globally, slip through its fingers and further out of reach. Even if we can reverse this trend of increasing hunger and somehow manage to meet this target in the remaining five years of the MDGs, which seems highly unlikely, what next? Little attention is being given to the global needs beyond 2015 – such as the need to double agricultural production by 2050 if the most basic requirements of an expected global population of 9 billion people are to be met. The continued neglect of agriculture and food security – and the reluctance to significantly reinvest in UK expertise in these areas – continues to fly in the face of all the evidence we have received during the nine-months of this inquiry. It therefore can only be seen as a missed opportunity – both for the UK and, more importantly, the wider development effort.

Despite 30 years of neglect, the UK still has an unrivalled bank of cross-sector expertise and experience which can help halt, and ultimately reverse, our current global slide towards hunger, although this expertise will not be around forever. Gareth Thomas, DFID Minister of State, has recently stated that, in the past, DFID seems to “have lost the plot a little” with respect to agriculture. Similarly, Andrew Steer, DFID’s Director General of Policy and Research, told the International Development Committee in November 2009, “We have to be very careful not to pull out of a sector. That is exactly what the development community did when it became too difficult in agriculture about 15 years ago...and we now have a big problem because of that. Much smarter would have been to say the problem is just as important as ever it was but we had better learn what we did wrong...[and] not [that] ‘This is too difficult; we are failing, therefore we are going to pull out of this sector’.” Although DFID is now beginning to recognise the errors it has made in this regard, it now urgently needs to begin putting policies in place to begin rectifying the situation.

As the then DFID Minister Ivan Lewis told our inquiry, “DFID cannot do everything: it has to pick and choose where it will take a lead”, although it remains unclear who decided that agriculture was an area which DFID should savagely withdraw from despite its expertise being well respected and still in high demand. At the same time, African countries are stuttering towards committing 10% of their national budget on agriculture – for them it is all about new, sustainable investment in food security and agricultural productivity. It is vital that DFID’s country programmes fully support this agricultural agenda. At the very least we should be putting 10% of our ODA into agriculture in those countries that are upholding their Maputo commitment – that is, we should be helping those that help themselves. For Africa, agriculture is the key and DFID must be there to help unlock that potential.

A large body of well respected work is now accruing on the subjects of food security and agriculture; indeed it has become evident that DFID must now build on the findings of influential works such as that of the International Assessment of Agriculture, Knowledge, Science and Technology for Development (IAASTD) and begin to implement fundamental changes to the way in which agriculture is practiced if hunger is to be averted in ways that will ensure equity and restore the environment – recommendations which DFID Ministers approved back in June 2008.

This report is the culmination of a nine-month inquiry by the APPG. During this time we have gathered information including some 130 written submissions and heard evidence from 29 sources in the UK, the developing world, and beyond; indeed we have been fortunate enough to hear from an exceptional calibre of witnesses who make up some of the world’s foremost experts and eminent authorities on food security issues whilst also taking in the views of key stakeholders on the ground. While it has not been possible to pick up on all of the important issues raised during the inquiry, the APPG does intend to revisit those issues brought to our attention by the witnesses which undoubtedly require further attention two notable examples of which are the areas of population – as raised by Malcolm Potts; food sovereignty as raised by several witnesses and; precision farming as raised by Simon Blackmore.

The result of all our work will be put to DFID for reply. A full copy of this report, the written submissions and minutes from the oral evidence sessions are available for download at [www.agricultureandfoodfordevelopment.org/inquiry](http://www.agricultureandfoodfordevelopment.org/inquiry).

This is the time for action and, while Parliamentarians have often been neglected as the vehicle for change in terms of food security, there is much that can be done in the Parliaments of the developed and developing worlds to remedy this situation. Rising food prices at home and abroad have created a level of public awareness and understanding not seen since the mid-1980s which in turn has created a unique opportunity for action in 2010. The cost of further inaction, however, does not bear thinking about.

We commend this report to you

**David Curry & Lord Cameron of Dillington**  
Co-Chairs  
APPG on Agriculture and Food for Development

**Ian Gibson**  
Former Chair  
APPG on Agriculture and Food for Development

*This report was written and compiled by James Birch with assistance from Patricia Constant, Chris Haines, Peter Simpson, Scott Smyth and Tony Worthington.*

*Thanks must go to the Natural Resources Institute at the University of Greenwich for publishing this report.*

*This report and inquiry could not have been possible without the financial support of Action Aid, CAZS-NR Bangor University, Christian Aid, Concern Worldwide UK, Farm Africa, Find your Feet, International Agri-Technology Centre, John Innes Centre, Rothamsted Research, The Natural Resources Institute at the University of Greenwich and the UK Food Group.*

*The APPG would also like to thank the Associate Parliamentary Food and Health Forum and; The Parliamentary and Scientific Committee for their assistance during this inquiry.*

*Copies of all written submissions and the minutes from the oral evidence sessions can be downloaded from [www.agricultureandfoodfordevelopment.org/inquiry](http://www.agricultureandfoodfordevelopment.org/inquiry)*



# Context 2050: A Perfect Storm

“There is an intrinsic link between the challenge we face to ensure food security through the 21st century and other global issues, most notably climate change, population growth and the need to sustainably manage the world’s rapidly growing demand for energy and water. It is predicted that by 2030 the world will need to produce 50 per cent more food and energy, together with 30 per cent more available fresh water, whilst mitigating and adapting to climate change. This threatens to create a ‘perfect storm’ of global events.”

**John Beddington, UK Government Chief Scientist**

These comments made by John Beddington in one of his first public statements following his appointment as Chief Scientist reflect a view that is increasingly shared by the international community. Food and safe drinking water are vital for our existence, but in wealthy developed countries these have been largely taken for granted. That is, up until now.

The recent steep rises in food prices, global food safety scares, and the continued volatility of the agricultural commodities market have had an impact not limited to the developing world, resulting in ‘food riots’ and social unrest in over 20 countries spreading over four continents. Yet, unsurprisingly, it is the poorest that have

suffered hardest, and the impact on developing nations has been disproportionately more severe as, for the first time in over a decade, world hunger has increased. The Food and Agriculture Organization (FAO), World Food Programme (WFP) and others confirmed that in June 2009, the number of the world’s hungry increased by over 100 million in 2009 due to the global financial crisis, taking the total to over 1 billion.

“Investment is needed in sustainable agriculture, which is the most important economic sector for most Africans. African governments have made a commitment to invest 10% of their budgets in agriculture. We will strengthen our support for their commitment.”

**The G8 2005**

“The tendency of decreasing ODA and national financing to agriculture must be reversed.”

**The G8 2009**

With the level of resources, skills and scientific know-how at the disposal of the International Community, this is an embarrassing failure, and one that is all the more stark when set against the backdrop of the successive binding commitments made by Governments (including the UK), which culminated at Gleneagles in 2005. Indeed our







Mike Goldwater/Concern Worldwide UK

expert witnesses unanimously agreed that without a twin track of delivering on these existing pledges and securing the necessary new investment in sustainable agriculture, the problem is only set to worsen.

“Many African economies have been growing very well over the past 15 years – where they don’t do so well is if you subtract population growth. The farm sectors seem to be doing rather well – internationally they are doing as well as any farm sectors in the rest of the world but per capita the increase isn’t that much because Africa is going through a demographic transition and is still in the high growth phase.”

**Steve Wiggins**, *Research Fellow and Programme Leader at the Overseas Development Institute*

“Rapid population growth is extraordinarily relevant to food security...we need to empower local communities with the information and technology they need.”

**Malcolm Potts**, *Reproductive Scientist and Fred H. Bixby Endowed Chair in Population and Family Planning at the University of California, Berkeley*

The world population is predicted to rise from its current 6 billion to over 9 billion by 2050, rising at a rate of 6 million a month. Africa’s population alone is projected to nearly double from 1 billion to 2 billion and estimates suggest that to meet the most basic of needs for this increased global population, food production will need to double. 2009 marked the first point in human history where urban populations outnumbered rural ones, a trend set to continue with urban populations set to swell to approximately 5 billion in 2030. This continued growth

in urbanization will result in additional and larger cities, which will need to be serviced with food, water and energy. Yet at the same time further assistance is required for rural populations of the developing world, of which 40% currently live in less-favoured agricultural areas with poor infrastructure, infertile soils and limited market access. In Sub-Saharan Africa this figure rises to 65%.

“The challenges are around sustainable consumption rather than rampant consumption which has become the model for our GDP growth.”

**Sir David King**, *Former UK Government Chief Scientist and Director of the Smith School of Enterprise and the Environment - University of Oxford*

Economic growth projected for the developing world will help lift people from poverty, but in other ways will add to the challenges ahead. A rise in incomes from £1 to £5 per day will result in a new consumer demand for different foodstuffs, with a shift in diet from largely carbohydrate-based foods to more protein-based ones as well as ‘high-value’ processed and packaged foodstuffs such as meat and dairy products. This increased consumption requires a greater input of animal feedstuffs, which in turn places a greater strain on available natural resources.

“Thinking hard about how rights for smallholder farmers, livestock keepers, hunters and gatherers can be protected in an era when land is starting to become seriously valuable is a major area to look at.”

**Camilla Toulmin**, *Director, International Institute for Environment and Development*



Frederic Courbet/ActionAid

foodstuffs, water from water-rich yet economically poor areas to water-poor but economically rich ones continues to be an unregulated phenomenon.

Indeed, the development of flash points in Central and South Asia, the Middle East and Sub-Saharan Africa demonstrates an unsustainable reliance on rain-fed agriculture which has variable productivity, with noticeable effects ranging from the outputs of small-holder farmers at the most local level right up to the national GDP output in countries which are heavily reliant on agriculture.

Sub-Saharan Africa currently has a 'carrying capacity' of 0.1 – 5 persons per hectare in terms of water usage. With populations set to rise in this part of the world, it is estimated that by 2050 there will be 6 people per cultivable hectare of land in Uganda and 14 in Ethiopia by this time. An adequate renewable and sustainable supply of water for both human and agricultural use is key to meeting the global food requirements of 2050.

“What we see happening is that both private companies and sovereign governments in developing countries are seeking to solve the problem by purchasing land in poor countries and getting physical access over water, over phosphorus, over land, over biodiversity: if we don't offer alternatives, we will end up in a terrible geo-political mess.”

**Janice Jiggins, Wageningen University & One of the chief authors of 'Agriculture at a Crossroads: The International Assessment of Agriculture, Knowledge, Science and Technology for Development**

Similarly, inorganic fertilisers, such as phosphate, are finite in supply. Resource predictions, based on current extraction rates, anticipate that between 50 and 90 years of phosphate are left globally, leading some experts to believe we are already past 'peak phosphate' with future supplies set to decrease in quality and increase in price. Between May 2006 and May 2008, prices for wheat rose by 61%, maize 108% and rice 185%, yet over the same period, the price of urea (used in nitrogenous fertiliser) rose by 160% and DAP (Diammonium Phosphate) 318%. Increasing prices will impact greatly on the ability of smallholders to access these inputs and, in turn, on the fertility of their soil. This is a key concern for current social safety-net projects which rely heavily on such inputs for short-term gains. There will be a need to link these into longer-term sustainable agricultural development to ensure outputs.

“As the population grows the available freshwater supply falls, but as the population grows the demand for that population to meet all its needs grows – where does global demand meet global supply – roughly mid-century.”

**Sir David King, Former UK Government Chief Scientist and Director of the Smith School of Enterprise and the Environment - University of Oxford**

The physical and economic scarcity of fresh water will be an increasingly significant impediment to achieving global food security by 2050 as global food production needs to be significantly raised without increasing demands upon already unsustainably exploited water resources. While the Green Revolution doubled production of many food crops, this was accompanied by a trebling of water consumption - something which is no longer an option.

Total world demand for fresh water is projected to increase by over 30% by 2030, and energy demand by over 50%. Agriculture is reliant on both inputs and is by far the largest user of water, using approximately 70% of total supplies.

Already, a lack of water resources is becoming an increasing threat to farmers' livelihoods and wider political stability in many regions while the flow of 'virtual water', a concept which refers to the water embedded in the production and trade of various

“We need to help smallholder farmers adapt to climate change but we also need to involve them in change mitigation.”

**Matthew Wyatt**, *Assistant President for External Affairs International Fund for Agricultural Development*

“When shocks come slowly to African agriculture, farmers adjust – the shocks that they cannot deal with are those that arrive in one season.”

**Steve Wiggins**, *Research Fellow and Programme Leader at the Overseas Development Institute*

For Africa, climate change is fundamentally about agriculture. This is where 70% of the poorest individuals find their livelihoods: climate change and food security are so tightly intertwined it is impossible to talk about one without the other. Indeed, the force of climate change is already having a significant impact on crop production, with changes in temperature, significant increases in rainfall in some places and harsher drought conditions in others, causing shortages of staple foodstuffs including rice and cereals.

“The insect vectors, pests and diseases are moving extremely fast and we have frankly no grip whatsoever over what they might do in the next 20/30 years.”

**Janice Jiggins**, *Wageningen University & One of the chief authors of ‘Agriculture at a Crossroads: The International Assessment of Agriculture, Knowledge, Science and Technology for Development*

The increasingly rapid movement of both plant and animal diseases is also linked to climate change. Examples include: viruses such as foot and mouth, bluetongue, avian influenza; plant diseases such as those spread by whiteflies; and pests such as diamond back moth. These were, until recently, largely unknown in countries like the UK but they are spreading faster than previously anticipated, and are threatening livelihoods and economies in both the developing and developed world regardless of country borders.

In September last year, Richard Betts, Head of Climate Impacts at the Meteorological Office Hadley Centre, presented the new findings on the global consequences of climate change beyond 2°C. Betts stated, “Four degrees of warming, averaged over the globe, translates into even greater warming in many regions, along with major changes in rainfall. If greenhouse gas emissions are not cut soon, we could see major climate changes within our own lifetimes.” He concluded that, for Africa, the western and southern regions are expected to experience both large warming (up to 10°C) as well as a decrease in rainfall of up to 20% in some areas, with all computer models indicating reductions in rainfall over southern Africa. Regardless of what agreement, if any, is now made post-Copenhagen, climate change is going to hit African farmers hardest.

This is without doubt the biggest problem facing Africa today and it is a problem which the developed and developing world must come together to solve if the most haunting of forecasts beyond 2030 are to be avoided.





Natural Resources Institute, University of Greenwich

world's fish stocks is a result of decades of overfishing and a lack of robust global systems to manage the world's waters. This has not only affected the level of fish stocks themselves, but has also served to destabilize the wider marine eco-system – Callum Roberts told our inquiry that the footprint of fishing is essentially global but by fishing less we can get more. Unless immediate action is taken, scientists are suggesting that there could be a total collapse of marine fish stocks by 2050.

“The problem is that the ecosystems services from the oceans are so critical to life on earth that this has to be something that has to be managed – this is the starting point of our oxygen and the starting point of our food stock...it's absolutely critical to our way of life.”

**Sir David King**, *Former UK Government Chief Scientist and Director of the Smith School of Enterprise and the Environment - University of Oxford*

“There is a real danger that the poorest people in Africa are swept away in this anti-livestock sentiment, livestock is a pathway out of poverty.”

**Christie Peacock**, *Chief Executive, FARM-Africa*

Rising global temperatures are likely to impact on water, food and ecosystems in all regions. Extreme weather events will become both more severe and more frequent. Rising sea levels, increasing temperatures, acidification and flooding will hit hardest in the mega-deltas, which are important areas for food production, and will impact too on freshwater quality for many. Global greenhouse gas emissions must be simultaneously reduced by 80% by 2050 compared to 1990 levels if the chance of a 2-degree increase in global temperature is to be reduced to approximately 1 in 3. Currently, industrial agriculture is directly responsible for 14% of all greenhouse-gas emissions worldwide.

“Cheap food is not cheap – it will increasingly cost us.”

**Janice Jiggins**, *Wageningen University & One of the chief authors of 'Agriculture at a Crossroads: The International Assessment of Agriculture, Knowledge, Science and Technology for Development*

“If you are going to pay scientists to find out how much is safe to fish, then it is sensible to take heed of what they are saying, and that just isn't happening at the moment...By fishing less we can get more. The technical solutions are straightforward, implementing them is politically challenging.”

**Callum Roberts**, *Marine Conservation Biologist, York University*

At the same time, the marine environment is also an increasing cause for concern. The poor state of the

“While you can negotiate with your colleagues over how much fish you can take, you can't negotiate with nature about how much fish is produced...We are essentially fishing to full capacity across the whole footprint of the world's oceans now...that means if we want to increase the productivity of global fish supplies, we have to do it by managing fisheries better.”

**Callum Roberts**, *Marine Conservation Biologist, York University*

Food waste is another issue which requires urgent consideration. Reports indicate that in developing countries, on occasions, as much as 60% of produce is wasted through a straightforward lack of post-harvest technology, storage and infrastructure systems. Meanwhile, in developed countries, deeply-concerning food-waste levels are a direct result of consumers throwing away nearly a quarter of all purchased food as 'unwanted'.

“It is an industry...where unusually, farmers pay retail prices for inputs and receive wholesale prices for their outputs – not a resilient and sustainable practice.”

**Janice Jiggins**, *Wageningen University & One of the chief authors of 'Agriculture at a Crossroads: The International Assessment of Agriculture, Knowledge, Science and Technology for Development*

“There is a gap between theory underpinning government policy and practice on the ground... What we need is the kind of reform in trade policy which has been talked of for so very many years but has yet to be brought to bear.”

**Michael Gidney**, *Director of Policy, Traidcraft*



The food industry is now a global and highly complex industry governed by market forces where staple foods are exchanged as commodities; while unsustainable food supply chains, reinforced by distorting rules and regulations, often act to the detriment of small-scale farmers. In addition to the complicated and moral debate concerning the global trade of food products and patenting of materials which could be utilized for the common good, there is heightened international concern over food safety. With products and ingredients being sourced from all over the world, the risks to human health increase as supply chains are lengthened and the potential for adulteration and failure in the food chain grows.

“As one looks at the issue of smallholder farmers and how they engage with a rapidly globalized agricultural market...The issues of how to organize them better are critical: the issue of how to train them in quality, providing low-cost certification for them, and investing in infrastructure and finance to allow them to take advantage of these supermarket revolutions that we have.”

**Akin Adesina**, *Vice-President of the Alliance for a Green Revolution in Africa*

“All too often, developing countries have sacrificed their long-term interest in building robust agricultural systems to their short-term interests to buy cheap food on international markets.”

**Olivier De Schutter**, *UN Special Rapporteur on the Right to Food*

“Increasing productivity must be supported by access to markets – this is fundamental.”

**William Otim-Nape**, *Former Director General of the Ugandan National Agricultural Research Organisation*

“Most importantly for us it is not only a matter of producing food...For us, agricultural development also means development of the farmer – getting the small farmers to understand – we talk about standards – if people don’t understand trade policy, then what?”

**Renwick Rose**, *Co-ordinator, Windward Islands National Farmers’ Association*

What does this mean for global food security? Simply put, the world must produce 50% more food – safe food, on less land, with less fresh water, using less energy, fertiliser and pesticide – by 2030, whilst at the same time bringing down sharply the level of greenhouse-gas emissions emitted globally. It is a daunting challenge, but one we *can, and must*, meet.

Yet agriculture cannot stand alone. It is crucial that a cross-sector approach, incorporating human health, among other considerations, is used to secure an increase in agricultural production. Indeed it is inescapable that in many regions of Africa the labour force has been fatally weakened by endemic disease.

AIDS, for example, has decimated the agricultural work-force in Africa meaning that many men and women are unable to look after their livestock and crops properly, leaving largely inexperienced children and youths to secure family livelihoods. At the same time, huge reservoir of knowledge has been lost amongst extension workers as well as at management levels, compounding issues around a wider lack of training and institutional memory.

Conversely, food insecurity can have both severe and widespread effects in people living with HIV-AIDS, with the International Food Policy Research Institute showing that hunger and HIV often co-exist and interact with each other. Indeed it is estimated that



adults living with HIV need 10-30% more energy than prior to infection.

As long as the impact of endemic diseases such as malaria, TB and HIV/AIDS continues, it is unlikely that Africa will be able to attain the high rates of economic growth to which the New Partnership for Africa's Development (NEPAD) aspires and subsequently meet the food security needs of the continent. A failure to act on food security and agriculture in the short term risks losing key development gains in other sectors such as health, nutrition and education, among others, in the longer term with clear implications for poverty and inequality.

"We need to help create a stable food market which can meet global demand for future generations. This is both a moral duty and an investment in our future security."

**Hilary Benn**, *Secretary of State for the Department of the Environment, Food and Rural Affairs*

"There is an awful lot to be learned within Africa about how to improve African agricultural performance – if Africa wants models of better agricultural performance, a lot of them are already in Africa."

**Steve Wiggins**, *Research Fellow and Programme Leader at the Overseas Development Institute*

"We can learn things from other places... To survive in agriculture means sharing."

**Geoff Tansey**, *Author, Consultant and Joseph Rowntree Charitable Trust Visionary*

"DFID needs to recognize that it is not just in the big international research centres that work is done but it's very often on that interface between high science and a lot of local knowledge about local conditions, practices, varieties of seeds and in trying to get a better marriage between the research community and the beneficiaries of that research."

**Camilla Toulmin**, *Director, International Institute for Environment and Development*

There is a unanimous view amongst the international community and donor organizations that such a *Perfect Storm* can still be avoided. Any potential solution must balance existing indigenous knowledge and best practice in the field with new science, cutting-edge technologies and appropriate social interventions. It is important that whatever choices are made are based on clear and present evidence that they will benefit the poorest of farmers.

"This is going to require a massive improvement in global governance so that we begin to manage these things in the run up to 2050 and not after a series of disasters."

**Sir David King**, *Former UK Government Chief Scientist and Director of the Smith School of Enterprise and the Environment - University of Oxford*

"The time period in which to act and start speaking on this is extremely short because these things are already happening and they are increasing."

**Janice Jiggins**, *Wageningen University & One of the chief authors of 'Agriculture at a Crossroads: The International Assessment of Agriculture, Knowledge, Science and Technology for Development*

# The Global Situation Today: A Hungry World

“African Union Heads of State and Ministers have expressed their recognition of the crucial role of agriculture. In sub-Saharan Africa, agriculture contributes at least 40 per cent of exports, 30% of GDP, up to 30 percent of foreign exchange earnings and 70 to 80% of employment. Accelerating growth in agriculture is critical to sustained growth and industrial diversification in the wider economy. In both rural and urban areas, poor people, particularly women, depend directly on agriculture for their livelihoods and food security.”

## Commission for Africa

“Everyone has the right to a standard of living adequate for the health and well-being of himself and his family, including food...”

## Universal Declaration of Human Rights. Article 25

“The fundamental way to address poverty in Africa must start with getting agriculture back on the agenda.”

**Akin Adesina**, *Vice-President of the Alliance for a Green Revolution in Africa*

“Smallholders can turn around the food production equations tomorrow if given the resources: these are the most efficient producers the world over.”

**Brian Baldwin**, *Vice Chair of the Global Donor Platform for Rural Development (GDPRD)*

“We cannot expect to reach 2050 with a well-fed world if we think business-as-usual is the answer – it isn’t...we have the wrong rules, wrong institutions and the wrong incentives...the UK had an absolutely fundamental role in creating the structure of the global economy today and shaping the food system. Now we have a responsibility to change.”

**Geoff Tansey**, *Author, Consultant and Joseph Rowntree Charitable Trust Visionary*

There can be no peace and prosperity without a secure food supply and the world has just witnessed the passing of an ominous landmark.

Over 1 billion individuals today suffer from chronic hunger: more than 1 in 6 people worldwide and more than at any other time in recorded history. Unsurprisingly the vast majority of these people come from Asia and sub-Saharan Africa with just 15 million living in the developed world.



Brian Sokoll/ActionAid

But this is a neglected problem rather than a new one.

The latest Millennium Development Goals' (MDGs) Progress Reports for 2008/9 show that movement towards reducing hunger by half in sub-Saharan Africa is not only insufficient to reach the target on current trends; but that it is also being eroded by the global recession as the declining incomes of the poorest cannot compete with escalating food prices on global markets, leaving the livelihoods of millions of families' in jeopardy. For 1 billion people in the developing world who spend 70% of their budget on food, compared to just 15% of the average budget in the UK dedicated to food, the doubling or tripling of grain prices means a threat to their very existence.



Frederic Courbet/ActionAid



Des Willie/ActionAid

“Half the people we provide food aid to in the world are poor farmers who cannot even produce enough to sustain their families...we want to get these farmers off food aid...our goal is to figure out how we are going to get out.”

**Josette Sheeran, Executive Director, UN World Food Programme**

The recent fall in commodity prices has bucked a trend which: saw food prices rise 83% between 2005 and 2008 and; saw more than 20 countries succumb to food riots; and indirectly led to the fall of two heads of state – the Madagascar and Haitian Presidents. Yet the underlying causes remain unaddressed.

The result has been that in the second half of 2009 some 105 million additional people were forced into chronic hunger and malnutrition, with the situation likely only to get worse in 2010 as the developing world remains firmly in the grip of the economic crises.

“WFP is voluntarily funded – we have 10% of our money this year – we have no idea next month what we can do or can’t do – less than 2% of our money is multiple-year predictable funding – we have no core budget, no assured funds from anywhere – what this does is force us to be spot buyers and panic shippers – we urge not to lose the focus on emergency action even as we try to invest in the longer-term solutions.”

**Josette Sheeran, Executive Director, UN World Food Programme**



While food aid can help mitigate these pressures in the short term, it cannot pull 100 million people per year out of hunger for the next six years. This is what must be achieved if MDG 1 is to be delivered on time, though this in turn is only half of the global hunger problem.

No developed economy in the world has achieved prolonged growth without developing its agricultural industry first. This is why the Gleneagles Communiqué of the 2005 meeting of the G8 stated that *“Investment is needed in sustainable agriculture, which is the most important economic sector for most Africans. African governments have made a commitment to invest 10% of their budgets in agriculture. We will strengthen our support for the commitment”* – a sentiment reflected by DFID’s 2005 policy paper which extolled agriculture as *“the key to poverty reduction”*.

*“The central focus needs to be on the small-farm economy in developing countries.”*

**Joachim von Braun**, *Director General of the International Food Policy Research Institute*

*“We are part of the 2 billion worldwide who are producing food on small family farms and increasingly the evidence shows that all of the models of large-scale farming have not been able to solve the problems of world food supply and ensuring people get it.”*

**Renwick Rose**, *Co-ordinator, Windward Islands National Farmers’ Association*

Agriculture forms the basis of rural economies throughout the developing world, indeed, the World Development Report 2008 stated that *“improving the productivity, profitability and sustainability of smallholder farming is the main pathway out of poverty in using agriculture for development.”*

Investment and the provision of skills – which are crucial to any sustainable outcome - are the key to utilizing agriculture and food as drivers for poverty relief in the longer term, whilst helping to reach the 1.3 billion people in the developing world who work in the sector and who constitute the vast majority of the poor, living on less than \$1 a day.

With the average farm in Africa under 2 hectares in size, many farmers are in fact net buyers of food who struggle to secure adequate livelihoods from other sources to complement their own yield to feed their families. Of the 1.2 billion people living on less than \$1 a day, approximately 500 million are smallholder farmers, farm labourers and their dependants struggling, on a daily basis, to secure their families’ livelihoods; many of the others have given up on agriculture and a rural life to

pursue the dream of a better existence in the cities – a dream which remains unfulfilled for most.

When seen alongside the pressures on the finite availability of arable land, a lack of formal land rights, displacement as a result of increasing foreign investments in fertile land, an absence of extension services, limited access to water and the effects of climate change, it seems certain that business-as-usual will do nothing more than accelerate the number of people suffering chronic hunger worldwide.

*“Fundamentally it is a woman’s issue more than a man’s issue...but smallholder agriculture systems have to get support...and more capacity in the international community is required to respond to countries’ needs.”*

**David Nabarro**, *Special Representative of the UN Secretary General for Food Security and Nutrition; Senior UN System Coordinator for Avian and Pandemic Influenza*



Sarah Elliott/ActionAid



Natural Resources Institute, University of Greenwich

Many of the challenges facing smallholder farmers have a particular and targeted impact on women smallholders. Indeed, in some sub-Saharan African countries women make up to 80% of the economically active labour force in agriculture, provide up to 80% of all food produced and undertake up to 90% of certain agricultural activities.

Daughters often farm for their fathers, wives for their husbands and sisters for their brothers on land to which they have no legal right and with little or no access to the final harvested crop. Those women fortunate to have access to land of their own are often forced to cultivate land that is smaller, more marginal and notably less fertile than that of their male peers meaning that they are often the first in their community forced to adopt damaging coping strategies to maintain staple food consumption, with long-term implications for poverty, vulnerability and malnutrition.

“For the first time in its history the WFP is now asking not only is the cup full for children, but what is in it.”

**Josette Sheeran, Executive Director, UN World Food Programme**

“About 6% of GDP can be lost with high rates of malnutrition: this is a huge cost to the developing world economies.”

**Josette Sheeran, Executive Director, UN World Food Programme**

Beyond production, malnutrition and hidden hunger too are key concerns which must be addressed. The number of undernourished people in the world has increased by 115 million in the last two years due to higher food prices; while the total cost of under-nutrition to national economies is estimated to be between \$20-30 billion per year.

Some 6 million children worldwide die every year from treatable diseases and infections resulting from malnutrition, roughly one every six seconds, yet estimates show 684,000 could be saved by increasing access to vitamin A and zinc. Similarly, iodine deficiency threatens 1.9 million people worldwide and yet is easily countered by adding iodine to salt. Investing in combating malnutrition not only saves lives, but also accelerates development. For example, eliminating iron deficiency would help 2 million people and improve national productivity levels by as much as 20%.

“Starvation is the characteristic of some people not having enough food to eat. It is not the characteristic of there being not enough food to eat.”

**Amartya Sen, Recipient of the 1998 Nobel Memorial Prize in Economic Sciences**

“We will fail entirely in our task if we do not also increase accessibility to food for those who are hungry...if we double the volume of food produced but we don't tackle the issues of inequality, lack of purchasing power for the poor, we will simply not do anything to combat hunger effectively...the right to food is hugely important as it can guide us to making the right choices...it obliges us to focus on the plight of the most vulnerable.”

**Olivier De Schutter, UN Special Rapporteur on the Right to Food**

The concept of a *Right to Food* as a human right is a binding obligation defined as “the right of every man, woman and child, alone or in community with others, to have physical and economic access at all times to adequate food or means for its procurement in ways consistent with human dignity.” Although well-established under international law, and recognized in the Universal Declaration on Human Rights and the International Covenant on Economic, Social and Cultural Rights, the obligation is not currently enforced. There is a need for states to be pro-actively engaged in strengthening people's access to, and their utilization of, resources as well as the means to ensure their livelihood and thereby food security in the longer term. States also have the obligation to provide that right directly, on pain of penalties for those that do not. It should also be noted here that the *Right to Water* is also fundamentally relevant to the *Right to Food*.

“If we react to the challenge of having to produce more food without taking into account the social and environmental dimensions, we will fail.”

**Olivier De Schutter, UN Special Rapporteur on the Right to Food**

# Donor Neglect



Kate Holt/ActionAid



Sven Torfinn/ActionAid

“Agriculture has served as a basis for growth and reduced poverty in many countries, but more countries could benefit if governments and donors were to reverse years of policy neglect and remedy their underinvestment and misinvestment in agriculture.”

**World Bank Development Report 2008**

“Today the small farmers are not being supported... The critical issue is that international development institutions and multilateral finance institutions have pursued policies of abandonment over the last 20/30 years and what we need today are policies of support for farmers.”

**Akin Adesina, Vice-President of the Alliance for a Green Revolution in Africa**



Des Willier/ActionAid

Rural hunger and poverty decline dramatically when education, investment, and suitable technologies really reach farmers and provide them with new options and techniques to improve their productivity.

**“It’s not about the quantity of aid but the quality.”**  
**Christie Peacock, Chief Executive, FARM-Africa**

Economists widely accept that a 1% increase in per capita agricultural output leads to a 1.6% increase in the income of the poorest 20% of society while the World Bank estimates that economic growth from agriculture is at least twice as effective in reducing poverty as growth in any other sector. Statistical relationships have been demonstrated between agricultural productivity and poverty reduction with a 10% increase in agricultural yields leading to a reduction of up to 12% in the number of people living on less than a dollar a day. This has led the International Food Policy Research Institute to conclude that an additional annual contribution of \$2.9 billion to agricultural research and development by 2013 would lift 144 million people out of less than a dollar-a-day poverty by 2020.

**“Food is politics at its most raw.”**  
**Hilary Benn, Secretary of State for the Department of the Environment, Food and Rural Affairs**

**“The Green Revolution essentially grew on the science systems of the US, UK, Germany, France and Japan.”**  
**Joachim von Braun, Director General of the International Food Policy Research Institute**

The Green Revolution in Asia brought about some dramatic and long lasting achievements. Yet some argue, and with good evidence, that in some circumstances it may have bypassed the poorest of farmers and led to considerable long-term environmental damage. Despite this, the deemed ‘success’ of the Green Revolution together with the then growing food mountains in Europe and North America gave the international community (including DFID) a false belief that the world’s food insecurity and associated agricultural problems were a thing of the past and that they had been solved in much of the world by a solitary ‘silver bullet’. In the years that followed, despite constituting over 75% of farms in Africa and Asia, international assistance for smallholder agriculture diminished, particularly as the idea of market-driven development took over the development agenda in the 1980s. Over the intervening years, agriculture continued to slip down the international agenda, the culmination of which saw no explicit reference to the need to sustainably support agriculture in the Millennium Development Goals (MDGs) in 2000.

# DFID Neglect



Gareth Bentley/Concern Worldwide UK

“Up until the early 1980s, the UK was one of the outstanding countries in the world with knowledge and experience of smallholder agriculture in Africa.”

**Guy Poulter**, *Director of the Natural Resources Institute at the University of Greenwich*

“We need to address these long term goals and the UK science system needs to invest domestically and abroad.”

**Joachim Von Braun**, *Director General of the International Food Policy Research Institute*

“Built on an understanding of livelihoods, this paper shows why DFID believes agriculture should be placed at the heart of efforts to reduce poverty.”

**DFID Policy Paper 2003**

DFID has neglected agriculture for many years with bilateral spending on agriculture programmes in Sub-Saharan Africa amounting to little more than £20 million, or 0.35% of the total DFID budget of £5.7 billion, in 2008/09. Of this just £13.7 million is spent on the Least Developed Countries (LDCs).

Attempts were made to rectify the situation and, for example, in 2003, DFID produced its own strategic paper on agriculture which, using the livelihoods approach to development that was in vogue at the time, explained why DFID should place agriculture at the heart of its efforts to reduce poverty worldwide. The Gleneagles Communiqué of the G8 in 2005 even stated that, “Investment is needed in sustainable agriculture, which is the most important economic sector for most Africans.”

But alas there was no marked change in DFID's practices nor was there in that of any other major international agency. Instead there was a continuation of the previous trend which had witnessed the volume of assistance spent on agriculture fall from \$6.2 billion in 1980 to \$2.3 billion in 2002, however during this period global ODA levels increased by 65% meaning that not only has the international assistance for agriculture from donors such as DFID fallen sharply in real terms, but that it has also fallen even more devastatingly as a proportion of total global ODA from 17% of total ODA in 1982 to just 3.7% in 2002.

Even following the publication of the World Development Report on Agriculture in late 2007, which stated that "agriculture continues to be a fundamental instrument for sustainable development and poverty reduction" and "it is time to place agriculture afresh at the center of the development agenda", DFID's support to sustainable agricultural development has remained lukewarm. Fundamentally, it is not because the UK cannot help or because there is no recognition of the problem at hand, but because – simply put – DFID does not feel it is currently high enough on its list of priorities. At the APPG's final inquiry session, then DFID Minister Ivan Lewis said, "DFID cannot specialize in everything, it has to pick and choose where it will take a lead".

"UK science has been quite internally focused...we need to become much more global in our approach if we want to remain at the forefront of global science."

**Akin Adesina, Vice-President of the Alliance for a Green Revolution in Africa**

"The challenge is how you take that technology to the farmers on the ground to make sure they increase their productivity – this is where there is a missing link."

**Richard Mkandwire, Head, Comprehensive African Agriculture Development Programme (CAADP), at the New Partnership for African Development (NEPAD)**

At the DFID 'country office' level, there has been a gradual decline in agricultural 'livelihood specialists' as a result – as Prospect (the scientists' and other professionals' trade union) stated in its evidence to the Science and Technology Committee Inquiry into DFID's Management of Science, "DFID's capacity to act as an intelligent customer has been weakened". Alongside this, there has also been an almost total collapse of agricultural extension services in many African countries, leading to calls for the development of new innovative initiatives to ensure that agricultural knowledge and experience can be spread. Without the complementary investment in extension services and in the adaptation and translation of frontline, blue sky, high-level science into resources, tools and techniques that are readily available to smallholders on the ground, investment in research will never realise its true potential in terms of returns on investment.

Meanwhile, centrally in DFID, experts with a background in agricultural science are now severely under-represented at senior levels whilst, for those who are still present, it is no longer clear whether they are employed for their specific agricultural skill sets.

"The two best contraceptive methods for world population are education of girls and a bit of economic growth. If you put those together you have some chance of slowing down population growth."

**Tom Arnold, CEO, Concern Worldwide**





Gareth Bentley/Concern Worldwide UK

During his meeting with the inquiry, former DFID Minister Ivan Lewis developed his argument for DFID “*not doing everything*” further, arguing that “*money was not the only measure of success*” and that the UK Government could instead “*exert considerable pressure*” on other Governments in areas where DFID could not take a lead. Yet investment is the key to utilizing agriculture as a driver for poverty relief – helping to reach the 700 million rural poor worldwide who either work directly in agriculture or are dependent upon it. A ten-year evaluation of the Consultative Group on International Agricultural Research showed that for every dollar spent on international agricultural research \$9 were returned in benefits to poor communities and that rates of return of between 40% and 80% are typical for high-quality agricultural research.

“Cooperation here is clearly the watchword in trying to improve science.”

**John Beddington, UK Government Chief Scientist**

Decades of neglect have led to stagnation in agricultural productivity with the average growth in cereal yields falling from 6% to 1.5% in the developing world. According to the FAO, \$30 billion of additional funds will be needed annually to rectify this situation in order to meet MDG 1 on time. With some European governments now disputing their ability to afford such provisions, the UK – a country with unrivalled expertise in this area – must take a lead on hunger and help to put agri-food priorities back at the top of the international development agenda, since few others are either willing or able to do so.

Indeed, during the course of this inquiry it has become evident that a renewed UK leadership in the agriculture and food security sector is very much desired in large parts of anglophone Africa as well as at the very highest echelons of the multilateral institutions involved.

“We need even more investment in agriculture, in research and in irrigation.”

**Hilary Benn, Secretary of State for the Department of the Environment, Food and Rural Affairs**

“You need to capacity-build right at the highest level, down at the primary school level, and all the way in-between.”

**Sir David King, Former UK Government Chief Scientist and Director of the Smith School of Enterprise and the Environment - University of Oxford**

DFID’s continued unwillingness to direct additional budgetary resources towards global food security sends out a clear message to African Governments. To date only 8 African countries have met the 2003 Maputo Declaration of directing 10% of total. It is difficult to believe that it is a coincidence that the 2008 World Bank Report recorded that a mere 4% of official ODA, on average, went to agriculture while also noting that in sub-Saharan Africa public spending for agriculture, on average, stood at 4% of total Government spending. Economic models have shown that a budgetary commitment from African Governments of 14% to agricultural investments would lead to economic growth able to reduce poverty rates by more than 25% by 2015.



Mike Goldwater/Concern Worldwide UK

“25 years ago the world came together to try to feed Africa, in 25 years time Africa could feed the world.”

**Hilary Benn**, *Secretary of State for the Department of the Environment, Food and Rural Affairs*

DFID can point to some positive developments in agriculture and food security, such as its sustained support for the UN World Food Programme although according to WFP figures this fell by nearly a quarter last year from \$169 in 2008 to \$128 million in 2009. Still this is in sharp contrast to its commitment in 2007 which stood at almost half this total, \$67 million. It has also made a welcome signal that it plans to double its spending on international agricultural research over the next five years. However, UK institutions look set to be left behind, as the entirety of this money has been tied to multilateral institutions. DFID’s bold decision to untie its aid was, and is, fundamentally right. It is just that aid money should be spent to meet the needs of recipient countries alone, and not used for the purpose of supporting the donors’ own enterprises and thereby forcing developed-world solutions onto the developing world. However, such a move could not have been intended to positively discriminate **against** UK research organizations as it has done, not least because a clause in the 2002 International Development Act specifically exempts not-for-profit research organization.

“There is a serious skill constraint – you cannot quickly mobilize if you do not have agriculture, agronomic, animal production, natural resource management and technical skills – you cannot run agriculture at the frontiers with generalists, and to rebuild that requires a strong effort.”

**Jacques Diouf**, *Director-General of the UN Food and Agriculture Organization*

“There is no question at all – we are seeing a decline of the highly technical scientists...the numbers are simply not there: you look for soil scientists in Africa and there may be only four.”

**Richard Mkwandire**, *Head, Comprehensive African Agriculture Development Programme (CAADP), at the New Partnership for African Development (NEPAD)*

“We are not going to get the effectiveness that we need until you can also support the capacity of development across a whole string of disciplines in Africa.”

**Brian Baldwin**, *Vice Chair of the Global Donor Platform for Rural Development (GDPRD)*

With more or less a monopoly over the funding of agricultural science for international development and its associated skills, DFID seems to have made a conscious decision in 2002, at the time of the untying of aid, to scale back its support for the UK science base, in the face of a continued demand from the developing world and global recognition that the UK led the world in many of these disciplines. It is clear from our inquiry that the developing world did not, and does not, share DFID’s negative view of its obligations to ensure the health of the British science base to compete on the international stage: nor has any evidence since been produced to condone this arbitrary decision. Subsequently, the UK has decided to redirect the majority of its funding through multilateral institutions such as the CGIAR at a time when it was very critical of the institution and publicly calling for its reform, thereby prioritizing the support of a flawed system very much to the detriment of UK Science.



“In the fragile states of Afghanistan and parts of Africa you can count the agriculture expertise from outside on one or two hands – they are far outnumbered by military experts, and I think agriculture and food security as security issues has only dawned on political leadership very recently.”

**Jacques Diouf**, *Director-General of the UN Food and Agriculture Organization*

In the last couple of years, and under considerable pressure, DFID has begun making modest research funds available jointly with UK Research Councils for competitive calls funding up to 80% of full economic costs for inputs from UK organisations. Similarly, DFID has been at the forefront of very complex processes to reform the CGIAR. However, there has still not been any recognition from DFID that they themselves have any need for, and hence a responsibility to maintain, the knowledge and understanding of smallholder farming in the developing world built up in UK universities and research institutes over the past 100 years (or more in some cases).

Failure to properly publicly fund the UK science and development infrastructure over the last decade has led to a catastrophic decrease in the ability of British scientists to assist within the wider developmental context. When speaking to the 2003/04 House of Commons Science and Technology Committee’s Inquiry on The Use of Science in UK International Development Policy, Sir David King, then Government Chief Scientist, warned the Government of the consequences of its new policy of untying of aid:

“DFID’s untying of research may well compromise the sustainability of the UK research base operating in areas of particular relevance to the developing world, and may serve to distance DFID from the Research Councils even further. Untying research may also result in a disengagement of other potential UK players in capacity building exercises with developing countries [...and...] may further undermine the UK research base in international development – in natural and social sciences – and thus our own capacity in this area. This would be contrary to global calls for global action – especially given that the UK has strong technical experience and leadership in critical development areas, e.g. agricultural R&D, biotechnology and medical research. Untying research is likely to further distance policy interests between DFID and much of the rest of Government – whose interests are predominantly UK-centric, and would reinforce the arguably artificial division between British interests (and influence) and international development interests.”

The Science and Technology Committee was unwavering in its support for Sir David King’s comments and the way untied aid was introduced, and stated, “DFID should not have chosen to pursue a policy that the Government’s Chief Scientist now believes could be so damaging, without consideration of measures that could be taken if not by DFID then by other Government departments, to minimise the negative impact of this policy on the UK. It is certain that the contribution that is being made to aid quality by Britain’s highly regarded agricultural scientists has been shrunken by the past and present policies on agriculture.”

“Farming populations all across the world are ageing populations, young people are no longer interested in simply hoe and cutlass and fork and hard labour, we have found they are very interested when you start to talk about irrigation and greenhouses and forms of appropriate technology...they get excited about these things and if we are not making that investment and connecting them to that then I don’t think we are going to be successful.”

**Renwick Rose**, *Co-ordinator, Windward Islands National Farmers’ Association*

Mike Goldwater/Concern Worldwide UK



It is difficult to justify the neglect of the UK skills base: where it has a disciplinary comparative advantage over multilateral institutions; where UK and developing world interests converge, such as with pest vectors; when building collaboration between scientists in the developing and developed world is the most productive way forward; or, as in cases highlighted to us, where UK expertise is requested by the developing countries themselves. Developing-world capacity is crucial in food security and agricultural research. However, the UK is quickly becoming little more than a cashier writing cheques which others can cash, unable even to evaluate the impact of its work because of the dearth of internal expertise in this area.

“We need to work with developing countries to significantly and sustainably raise their agricultural productivity.”

**Hilary Benn**, *Secretary of State for the Department of the Environment, Food and Rural Affairs*

“British agriculture has led the world on many occasions in the past, and we need it to do so again on sustainable agriculture.”

**Hilary Benn**, *Secretary of State for the Department of the Environment, Food and Rural Affairs*

“We are concerned that some of the technical people who used to be in the DFID offices at the country level are no longer there...and very few DFID agricultural scientists at the country level, which is of extreme concern.”

**Richard Mkandwire**, *Head, Comprehensive African Agriculture Development Programme (CAADP), at the New Partnership for African Development (NEPAD)*

It has been particularly serious that very few young scientists have been recruited, as evidenced by the diminishing number of UK students applying for work experience overseas through the Tropical Agriculture Award Fund scheme. Similarly, there are also very few skilled agricultural project managers available to British consultancy firms working overseas. As a consequence, the UK work force has aged and diminished. Unless serious and early action is taken, there is a real risk that an important asset for the UK – one which could help DFID to meet its ever-growing international commitments, including its promises on the MDGs, whilst at the same time ensuring value for money for the UK taxpayer – will continue to decline in strength.



Mike Goldwater/Concern Worldwide UK



Mike Goldwater/Concern Worldwide UK

“I want to see an agricultural revolution that helps poor farmers in developing countries to grow more and we need to ensure more of the food they produce gets to market rather than being left to rot, as more than half is at present.”

**Prime Minister Gordon Brown, April 2008**

“We need to be looking at very serious international cooperation in trying to work together to solve some of these scientific problems.”

**John Beddington, UK Government Chief Scientist**

“Scientists themselves are very keen to work together: it’s the funding systems that preclude them from doing so.”

**Akin Adesina, Vice-President of the Alliance for a Green Revolution in Africa**

“There is no insurance against that [food insecurity], other than heavy investment in science.”

**Jacques Diouf, Director-General of the UN Food and Agricultural Association**

“We urge the international community to support Africa’s effort to increase investment and innovation in agriculture, by funding a major growth in research and extension services in Africa over the next ten years. The support should be channelled through regional research organisations, universities and centres of excellence.”

**Commission for Africa**

As prospect (the scientists’ and other professionals’ trade union) stated in its evidence to the Science and Technology Committee Inquiry into DFID’s Management of Science:

“In an era when so many members of a burgeoning world community are forced to live in poverty, and in degraded and degrading environments, policies based on sound science administered by governments that understand the requirement for improving the quality of life in urban and rural communities are essential.”

Andrée Carter of the UK Collaborative on Development Sciences (UKCDS) predicts that the sector needs 500–1000 new agricultural science staff to operate as required, or less than 0.3% of the pool of new entrants to the job market between now and 2020. In a period of economic recession, when more people are looking for employment than at any other time in the past 10 years, it makes sense to invest in a sector which can not only readily absorb new staff members, but that actually has an underlying need for a replenished workforce.

Andrew Natsios, former head of USAID, said at Monterey in 2002 that he regretted that agriculture had been “basically defunded by virtually all of the donor aid agencies and all of the international banks.” He called this “perhaps the most devastating mistake made by the northern countries and the international financial institutions in the past fifteen years”.

# Recommendation 1: Re-establish Agriculture and Food at the Centre of DFID's Fight Against Poverty

Overall the UK remains a pace-setter in international development to whom other countries look for a lead. Thus it is even more important that DFID must act first and act strongly in its support for agriculture if the global slide towards hunger is to be reversed.

*Aim: Provide political leadership at the highest level, both nationally and internationally, to address the serious threats posed by food insecurity.*

“For 20-30 years, Parliamentarians have been able to slip a bit out of the driving seat on food and we think that has to stop, because if they don't get engaged then we won't get the kind of necessary energy behind this issue that it now really badly needs.”

**David Nabarro**, *Special Representative of the UN Secretary General for Food Security and Nutrition; Senior UN System Coordinator for Avian and Pandemic Influenza*

“I'd like the UK government to come out with an international policy on research.”

**Andrée Carter**, *Director, UK Collaborative on Development Sciences*

“There has been an erosion of capacity in agricultural research, not just in the UK but also in Africa, and there is a severe brain drain...out of Africa. There has also been a sad decline in a lot of African institutions and maybe in this country as well...a short-termism and lack of agricultural research.”

**Richard Mkandwire**, *Head, Comprehensive African Agriculture Development Programme (CAADP), at the New Partnership for African Development (NEPAD)*





Gareth Bentley/Concern Worldwide UK

*DFID should:*

1. Recognize the importance of MDG 1 to eradicate extreme poverty and hunger, reducing by half the proportion of people who suffer from hunger by rectifying the imbalance in its country offices due to the lack of in-house agricultural expertise;
2. Commit 10% of UK Overseas Aid to Food Security and Sustainable Agriculture, thereby doubling current commitments – a symbolic pledge to match the Maputo Declaration, which committed African nations to commit 10% of their budget to agriculture, to help contribute towards the additional \$30bn a year required to tackle chronic hunger globally;
3. Ensure that the follow up to the Copenhagen Climate Change Conference (COP15) gives high priority to the needs of the poorest farmers in the developing world in adapting to climate change;
4. Ensure that the existing international pledges for \$20bn to tackle food security, made since June 2008, are urgently delivered and disbursed. In line with this, DFID should release information on the status of current pledges outlining what has been committed, when it was committed, what has been delivered, and when it has been delivered;
5. Build on the remaining strength of British science to develop capacity with developing and emerging nations, with both the public and private sectors, ensuring that the untying of aid does not inhibit the UK from making a valuable contribution in this respect. In order to achieve this, DFID must undertake a review of UK skills and expertise on International Development and Agricultural Development, and use this as a basis to restock UK expertise and address current skill gaps;
6. Support African governments to deliver on the Maputo Declaration and commit 10% of their GDP to agriculture and rural development (Maputo Declaration, 2003) and to develop national strategies which integrate adaptation and disaster risk reduction (DRR) approaches for food security with a focus on smallholder based agricultural systems;
7. Enhance cooperation and availability of international networks of co-operation and surveillance amongst researchers to combat the spread of plant pests and livestock diseases – preventing outbreaks at source rather than at the UK border;
8. Encourage the UKCDS's individual members and UK Government as a whole to pay particular attention to how they can contribute to a cross-disciplinary approach to increasing food security.

## Recommendation 2: Re-focus on Agricultural Education and Extension

*Aim: Provide farmers in the developing world with adequate education and training to lift themselves out of poverty and fill the gap left by the crumbling extension services.*

“You discount the knowledge of rural people and small farmers: there is a huge problem in the way we do our education.”

**Geoff Tansey**, Author, Consultant and Joseph Rowntree Charitable Trust Visionary

“Stop focusing simply on primary school education, which is set out in MDG1, but look at education holistically...you have to look at the whole chain of education and support it.”

**Sir David King**, Former UK Government Chief Scientist and Director of the Smith School of Enterprise and the Environment - University of Oxford

“The central part of the comprehensive agenda is investment in innovation and science and technology...all which increase agriculture productivity across the whole food value chain.”

**Joachim von Braun**, Director General of the International Food Policy Research Institute



Frederic Courbet/ActionAid

*DFID should:*

1. Look beyond primary education and, as the Commission for Africa advised, develop several African Centres of Excellence for Science, Technology and Agriculture;
2. Encourage and support partnerships between UK Universities and those in the global South – including support for increased student exchanges and funded PhD scholarships undertaken in developing countries on projects rooted in food security;
3. Look very seriously at the poor condition of extension services in Africa, given that it is crucial that advances in agricultural science and productivity should be made available to all farmers;
4. Establish a pairing programme for Parliamentarians and Policy Makers with Farmers, NGO Technicians and Agricultural Scientists in order to garner greater understanding and communication of key issues and constraints, enabling policy makers to make informed decisions;
5. Re-focus its efforts on women farmers who, in many parts of Africa, form up to 70% of the total agricultural workforce, and 60–80% of the labour to produce food for households and for sale, safeguarding them from unfair land tenure and inheritance, and giving them access to microcredit facilities;
6. Help improve trade literacy amongst developing world farmers, opening new market access for farmers through a wider understanding of the increasing number of standards and quality requirements which need to be met in order to supply international markets;
7. Step up its efforts to translate science into practice through initiatives such as the Research into Use programme to help extend the dissemination and availability of ‘off the shelf’ agricultural research and technology to African farmers;
8. Strengthen the implementation of the Committee on World Food Security (CFS) reform process at the UN FAO following the recent agreement at the 35th session of the CFS;
9. Implement the findings of the comprehensive International Assessment of Agricultural Knowledge, Science and Technology for Development (IAASTD) approved by Ministers in June 2008.



Kevin Leighton/Christian Aid

# Recommendation 3: Legislate for Change

*Aim: Ensure that UK Policy Makers actively promote the individual's right to food in domestic legislation whilst also presenting suitable policy options internationally and to other Governments.*

“If the rules don't lead you where you want to go, there is no other route than to change the rules. We have no choice but to reinvent farming and agriculture and the rules under which it operates. The only question is: do we do this in a reasonably well thought out way or, as we saw in the response to the food price hikes, it happens chaotically and to everyone's disadvantage.”

**Janice Jiggins**, *Wageningen University & One of the chief authors of 'Agriculture at a Crossroads: The International Assessment of Agriculture, Knowledge, Science and Technology for Development*

“Any national leader is neglecting their duty to not make it their most urgent priority...to figure out how to procure, produce and provide access to enough food.”

**Josette Sheeran**, *Executive Director, UN World Food Programme*

“Hunger is not simply a problem of food availability – it is also a problem of accessibility and therefore producing more will not serve to combat hunger if we do not tackle inequalities and the mechanisms which produce exclusion and marginalization...the right to food is a counterweight to the marginalization of small-scale farmers in the political process where they are often unrepresented and unable to influence.”

**Olivier De Schutter**, *UN Special Rapporteur on the Right to Food*







*DFID should:*

1. Support the World Food Programme (WFP) in its drive to become more efficient by providing longer-term, more predictable funding for the WFP, encouraging and enabling it to continue to increase its local procurement policies and helping to build local capacities via longer term production contracts;
2. Move to end trade-distorting subsidies and policies by completing a pro-poor agreement at the Doha round of talks at the World Trade Organization and ensure that policies cease to discriminate against the poorest countries in the world;
3. Take every possible opportunity to support ethical sourcing by UK companies in the developing world, safeguarding the poorest farmers in the poorest countries;
4. Provide a lead in regulating UK companies' investment in overseas land to ensure that such deals do not act to the detriment of local food security;
5. Respond to the adverse consequences for health and education in neglecting food security. It should pay particular attention to ensuring that mothers and young children receive access to healthy and sustainable diets to ensure they enjoy a healthy and fulfilling life;
6. Support investments and social protection schemes that provide poor farmers with the services and support they need to build resilience and reduce vulnerability now and in the future;
7. Encourage a revival of World Bank lending for agricultural infrastructure, in consultation with all actors in the agriculture sector, including: lending for transport corridors, rural energy, clean water, irrigation, and farm-to-market roads; rebuilding key government departments like agriculture; agricultural R&D, extension and education; unlocking credit systems for small farmers; and use of smart subsidies to increase access to fertilizers;
8. Undertake, with other donors, Parliamentary-strengthening work with agricultural select committees given the crucial importance of good governance in establishing a supportive environment for agricultural productivity.

# Conclusion



Kevin Leighton/Christian Aid

“We have a current responsibility because we still command the world through our economic power – we put the world in our mouths and we assume we have the right to do that.”

**Geoff Tansey**, *Author, Consultant and Joseph Rowntree Charitable Trust Visionary*

“We must move forward with available technologies – we need every tool in the bag.”

**Sir David King**, *Former UK Government Chief Scientist and Director of the Smith School of Enterprise and the Environment - University of Oxford*

“Promoting vibrant rural communities by increasing food productivity of smallholder farmers, raising rural incomes and expanding rural access to food productivity of smallholder farmers, raising rural incomes and expanding rural access to essential public services and infrastructure... the global epicentre of extreme poverty is the smallholder farm.

Of the roughly 850 million living in chronic hunger, smallholder farmers constitute half. Remember that these farmers also constitute the bulk of the private sector economic activity in many developing countries, so improving their economic lot will make a huge difference to the countries’ prospects for long-term economic growth... Addressing rural poverty requires making farms more productive, raising farmers’ incomes, improving the lives of the rural landless and expanding essential services.”

**Jeffrey Sachs**, *leader of the Millennium Project*

2010 presents a historic opportunity for the UK to seize the initiative, mark a break with past DFID policy, and help set the agenda for the coming decades in the fight against hunger. Currently 500 million smallholder farmers face a daily struggle to meet the needs of the 2 billion people who are dependent upon them, that is nearly one-third of humanity. The magnitude of this challenge cannot be underestimated, however;

the public mood for change is growing as people continue to feel the twin effects of rising prices and uncertain livelihoods from the economic crisis, and empathize with those in the developing world who go to sleep hungry. Now is the time for the UK to act.

**“The food-price related rise in conflict and the destabilizing of governments is a pervasive phenomenon.”**

**Jacques Diouf**, *Director-General of the UN Food and Agriculture Organization*

**“I think we have to start by using to much greater effect many of the technologies we have, and get inputs into the hands of small farmers.”**

**Joachim von Braun**, *Director General of the International Food Policy Research Institute*

Between now and 2050, any workable solution aimed at avoiding the very real threat of the ‘Perfect Storm’ scenario will need to be able to access and utilize a wide range and combination of all or some of the strategies listed above. This will also require that those involved and responsible for political leadership and those tasked with managing food security strategies have a general understanding of the wider context and issues at stake.

In view of the complexity of the scenario set out by John Beddington, as outlined at the beginning of this report, no one single-issue approach is likely to provide a workable solution which can address the problem of global food security on its own, nor will a simple increase in the financial assistance for agriculture act as a magic-bullet to solve the problems caused by decades of neglect. While it would undoubtedly help the situation there is an overarching need to choose the right policies and implement them in a high quality and sustainable manner. The solution will involve understanding and implementation of a wide range of political, managerial, social, scientific and ecological factors. Fundamentally, there will be a basic need for a new generation of multiskilled and multidisciplinary practitioners capable of integrating well with everyone else involved.

**“The international division of labour leads to certain countries specializing in gaining while other countries specialize in losing.”**

**Olivier De Schutter**, *UN Special Rapporteur on the Right to Food*

To date, much of the world has benefited from agricultural development, yet Africa continues to miss out: 22 of the 30 least developed countries in the world



Gareth Bentley/Concern Worldwide UK



Mike Goldwater/Concern Worldwide UK

are found in Africa. This is the greatest challenge facing the continent and the scale of the task ahead is daunting. Sustained attention to the issues highlighted above is required if Africa is to feed itself by 2050 and become a bread basket once more.

“Our global governance procedures emerged after the Second World War to meet a totally separate set of challenges to those we face now...this is going to require a massive improvement in global governance so that we begin to manage these things in the run-up to 2050 and not after a series of disasters.”

**Sir David King**, *Former UK Government Chief Scientist and Director of the Smith School of Enterprise and the Environment - University of Oxford*

“How can we reduce the cost of research procurement, research design – on how we put projects together and how we deliver them so that they are high quality for HEFCE assessment but also of direct benefit to the target audience and stakeholders involved...We don’t necessarily need more research – we want to be able to talk to each other, exchange experiences and add value to what has already been funded.”

**Andrée Carter**, *Director, UK Collaborative on Development Sciences*

The UK must help the developing world by providing opportunities to lift itself out of hunger and poverty – be it via education and extension, infrastructure and trade, or research and development. If countries like the UK do not take a lead, another decade will be lost and progress towards MDG1 will be lost. The UK must also encourage African Governments to meet their commitments under the Maputo Agreement and build a climate of cooperation with Southern Governments to ensure that the needs of their citizens are heard and met.

It is only right and proper that this issue is identified as one for Parliamentarians in Africa, and their colleagues here, to address. As the World Bank Development Report in 2008 stated:

“Without social peace, adequate governance, and sound macro-fundamentals, few parts of an agricultural agenda can be effectively implemented. This basic premise was all too often missing in agriculture-based countries until the mid-1990s, particularly in sub-Saharan Africa...To pursue agriculture-for-development agendas, local, national, and global governance for agriculture need to be improved.”

“In order to begin any of this, good governance is absolutely important.”

**Guy Poulter**, *Director of the Natural Resources Institute at the University of Greenwich*

“We need to move towards a triangular model of accountability in which both donors and recipient governments are responsible to the beneficiaries.”

**Olivier De Schutter**, *UN Special Rapporteur on the Right to Food*

Ultimately, Parliamentarians can do much to ensure that donor policies and the needs of the very poorest are matched, helping to ensure that the hungry don't go unfed. Informed and empowered parliamentarians are crucial, both for seeing that appropriate budgets and legislation are in place and by scrutinizing the delivery of targets and policies – Parliamentarians are the only body of stakeholders able to exert the necessary levels of oversight and pressure.

“Investing in agriculture, where you can do that, can help to resolve conflict.”

**Matthew Wyatt**, *Assistant President for External Affairs International Fund for Agricultural Development*

“Unless we manage these holistically – and there is the real challenge – we are going to be faced with conflict, as we move forward in time, the order of which we haven't seen before.”

**Sir David King**, *Former UK Government Chief Scientist and Director of the Smith School of Enterprise and the Environment - University of Oxford*

“There is a risk that the current crisis will both make things worse and take the eye off the ball of the food crisis...the costs of not getting it right, in terms of lost human potential and early deaths are enormous.”

**Tom Arnold**, *CEO, Concern Worldwide*

“The silent hunger crisis, affecting one-sixth of all of humanity, poses a serious risk for world peace and security.”

**Jacques Diouf**, *Director-General of the UN Food and Agriculture Organization*

“Hunger is a moral challenge to each one of us as global citizens, but it is also a threat to the political and economic stability of poor nations around the world.”

**Prime Minister Gordon Brown**, *April 2008*

Hunger is not only a moral issue; it is an economic and social issue; it is a diplomatic issue; it is a security issue; and it is one that requires the developed world to act now if this global slide towards hunger is to be stopped. As a country with unrivalled expertise in this area, and to which others look for a lead in the field of international development, the UK must act first and act now to help set the agenda.

Given our dependency on food imports, the UK is not immune to the potential impacts of its declining investment in agricultural research and development at home and abroad. Indeed in a world where many of the technical skills needed for agriculture and climate change adaptation cut across both the developed and developing world – an increased investment in agriculture is an increased both directly and in-directly for the UK's benefit.

As former Defra Minister Jane Kennedy told this inquiry:

“There can be no UK food security, without global food security.”

“The time to act differently is now.”

**Geoff Tansey**, *Author, Consultant and Joseph Rowntree Charitable Trust Visionary*



David Rose/Christian Aid

# Sponsors

The publication of this report could not have been possible without the support of the following organizations



John Innes Centre

**CONCERN**  
worldwide





**This report was written and compiled by James Birch with assistance from Patricia Constant, Chris Haines, Peter Simpson, Scott Smyth and Tony Worthington.**



*Gareth Bentley/Concern Worldwide UK*

**The APPG would also like to thank the Associate Parliamentary Food and Health Forum and; The Parliamentary and Scientific Committee for their assistance during this inquiry**



**The All Party Parliamentary Group on Agriculture and Food for Development  
Room 311 Star Chamber Court  
Houses of Parliament  
London  
SW1A 0AA**

**Telephone:** 020 7219 5472

**Email:** birchj@parliament.uk

**Website:** [www.agricultureandfoodfordevelopment.org](http://www.agricultureandfoodfordevelopment.org)

**This Report is printed on paper from a sustainable source.**