

The Montpellier Panel Report *Africa and Europe: Partnerships for Agricultural Development*



The Panel Members

- *Gordon Conway, Chair*
- *Tom Arnold*
- *Henri Carsalade*
- *Louise Fresco*
- *Peter Hazell*
- *Namanga Ngongi*
- *Joachim von Braun*
- *Lindiwe Majele Sibanda*
- *Ramadjita Tabo*
- *David Radcliffe*
- *Prabhu Pingali, Observer*

Executive Summary

For the first time in two generations, Africa has a real opportunity to achieve food and nutrition security through agricultural development. There is also an opportunity for Europe to play a unique and significant role, as a partner with African nations, in attaining this goal.

In Sub-Saharan Africa (SSA) in 2009 there were 265 million people (32% of the population) suffering from chronic hunger. Many of the hungry are women, children and the elderly. A staggering 40% of women of child-bearing age and nearly half of all pregnant women in SSA suffer from anaemia. According to the FAO some 100 million were added to the global list of chronically hungry as a result of the economic crisis and the 2007/2008 food price spike. Although, in some respects, the rise in food prices was a short-lived price spike, it has had a continuing, damaging effect on the livelihoods of people in SSA where grain prices have remained high and are forecast to remain high.

In the 1980's the international donor community started to pull out of agricultural investment and over the past two decades there has been too much emphasis on short term measures towards humanitarian food aid rather than on overcoming the barriers to agricultural development. One consequence is that average African cereal yields remain at little over 1 tonne per hectare. Nevertheless, there is growing optimism that Sub-Saharan Africa can achieve its much anticipated African Green

Contents

Executive Summary.....	1
A Major Opportunity.....	3
The New Commitments.....	5
The Need for Concerted Action.....	8
Sustaining Momentum...9	
Reducing Price Volatility.....	11
Tackling Chronic Hunger.....	11
References.....	13
The Panel Members	15

Members of the Panel serve in their personal capacity. They met for a day on March 26th 2010 in Montpellier and agreed on the outline and contents of this, the first Panel paper. The final version was produced by means of e-mail exchanges and some face to face meetings.

The work of the Panel is supported by the Bill & Melinda Gates Foundation. Information on each of the Panellists can be found at the end of this Paper.

Revolution building on the successes but recognising new challenges of natural resource scarcity, climate change and other issues. Food security is a key intermediary outcome in the development process. Recent estimates suggest that Africa has the potential to increase the value of its annual agricultural output from \$280 billion today to around \$800 billion by 2030. The experience of Asia shows that for each 1% acceleration in agricultural growth, there is about a 1.5% acceleration in non-agricultural growth. In effect there is a virtuous circle of development that hinges on agriculture.

African leaders have a new and growing commitment to agricultural development and combating hunger. Members of the African Union are committed to increase resources for agriculture and rural development to at least 10% of national budgets within 5 years. In SSA average annual growth in GDP has been over 5% for the period 2000-2008, and in agriculture has been over 3%. This combination is creating opportunities in domestic, regional and international agricultural markets, especially where there are supportive, stable governments.

As a response to the 2007/8 crisis there has been a renewed global momentum to combat hunger. At the 2009 L'Aquila summit of the G8 \$22.5 billion was pledged to this task, including \$3.5 billion from the United States (US), and \$3.8 billion from the European Commission, as well as significant commitments from several other European donors.

Nevertheless, European donors could do more, commit more resources, and work more closely together to align and coordinate their actions to Africa's emerging national, regional and cross-continent agendas. We believe the way forward is to build on the growing momentum of the Comprehensive African Agricultural Development Programme (CAADP), and to align aid to national African governmental strategies through a common vision and plan for agricultural development.

The opportunity for action is thus timely. The challenge is to ensure the momentum is sustained in terms of commitment and funding by the key African and European partners. We believe Europe is well placed to take the lead and drive forward change. In 2005/6 European support for agriculture began to increase. Today the European Union (EU) is responsible for over 60% of the world's Overseas Development Assistance (ODA), including about \$800 million per year to agricultural development in SSA.

There are three areas that need urgent attention:

1. Sustaining the momentum
2. Reducing price volatility
3. Tackling chronic hunger

Despite significant progress globally we have, on the one hand, a very top down global response character-

ised by strong rhetoric and the promises of large-scale funding and, on the other, a rich diversity of on-the-ground activities in sub-Saharan Africa undertaken by government and private agencies and NGOs but which remain uncoordinated. We believe there is a potentially dangerous gap between the two strands of activity. If we do not bridge the gap there is a risk that new investments will dissipate into more small scale activity, and we will not see the transformational change that is needed.

We recommend that European donors need to strengthen their commitment by developing coordinated support and investment plans for the institutions and initiatives that reflect the priorities of the AU and the African governments. The key elements are:

- African Implementing Frameworks and Programmes
- Regional Research Programmes,
- African Government Policies and Funding
- Global Coordination and;
- Major Donor Fund Programmes

The extreme volatility in the prices of cereals and other staple crops in recent years, has had persistent deleterious effects on food prices in developing countries. Food price volatility affects the poor the most.

We propose that new regulatory processes and efforts to prevent the imposition of export bans should be accompanied by a grain reserves policy.

There should also be explorations of alternative mechanisms, including a possible virtual reserve where each country would commit to contributing to a fund, if needed, for intervention in the grain markets.

In addition to the above institutional and policy interventions we also recommend a set of themes for coordinated European programming that will directly address the problems of chronic hunger:

- Country ownership
- Child undernutrition
- Going to scale
- Ecological resilience
- Community resilience
- Appropriate technologies
- Climate change and agriculture

In summary, Europe should grasp the opportunity to improve partnerships with those African nations which are formulating national and regional strategies to achieve food and nutrition security through agricultural development.

A Major Opportunity

For the first time in two generations, Africa has a real opportunity to achieve food and nutrition security through agricultural development. It is also an opportunity for Europe to play a unique and significant role, as a partner with African nations, in attaining this goal. In this brief document we describe the nature of the challenges Africa faces and the opportunities to be grasped, what financial and policy commitments have already been made and, finally, we suggest the need for concerted action by European donors.

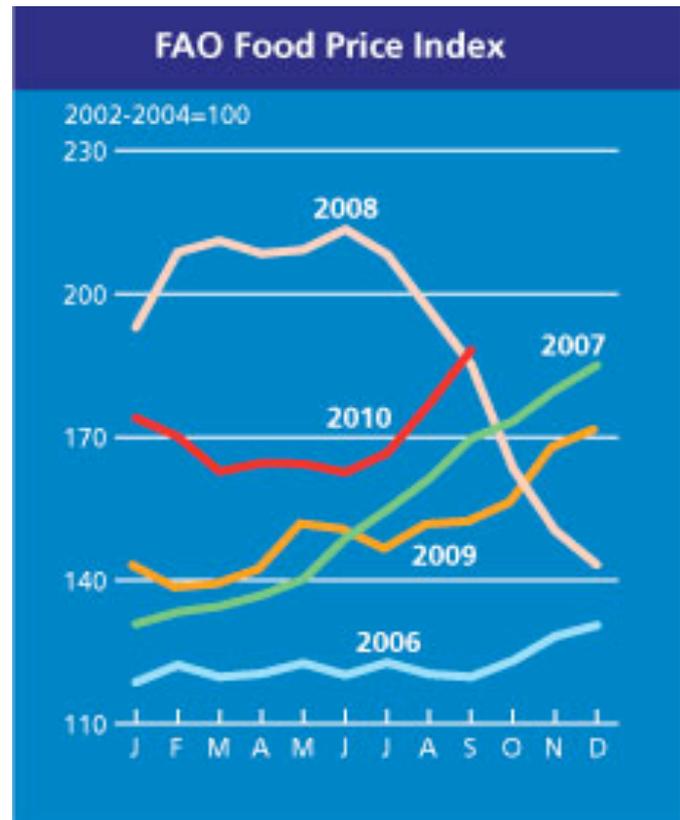
1. The Lack of Food and Nutrition Security

In Sub-Saharan Africa (SSA) in 2009 there were 265 million people (32% of the population) suffering from chronic hunger.¹ This is partly a consequence of droughts, floods, civil strife or other calamities, yet severe hunger is also a day-to-day occurrence, both persistent and widespread. Many of the hungry are women, children and the elderly that represent the most vulnerable groups. A staggering 40% of women of child bearing age in SSA suffer from anaemia and nearly half of all pregnant women. The latter are more likely to fall ill or die in child birth. 14% of babies have low birth weight. Globally 1 in 4 children under age 5, nearly 129 million, are underweight. As a result they will either die or suffer from acute or chronic disease.²

Statistics on Nutrition Security (NEPAD Ten Year Strategy for the Reduction of Vitamin and Mineral Deficiencies (VMD) Draft Action Plan 2008-11)

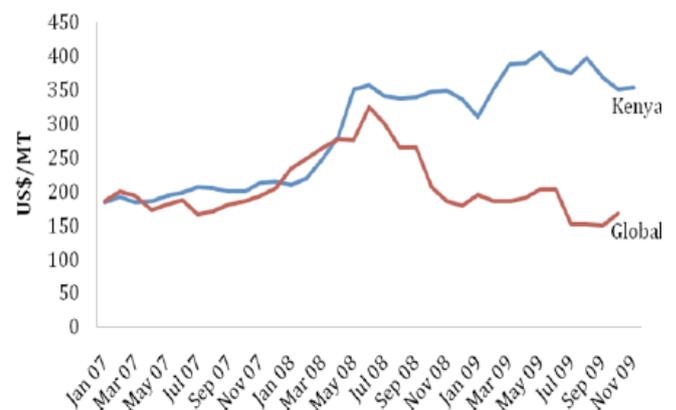
- 337 million Africans consume less than 2,100KCal per day
- 200 million Africans are chronically malnourished
- 5 million die of hunger annually
- 126 million children are underweight
- About 50% of the children are stunted
- 25 million live with HIV/AIDS with Southern Africa being the most affected sub region
- Vitamin mineral deficiencies unacceptably high
- Anaemia due to Iron Deficiency in children under five years is about 40% while it can be as high as 80% in pregnant and lactating women and 40% of the general population
- Vitamin A deficiency affects some 60% of the general population
- Iodine Deficiency affects about 5% of the population
- Zinc and Folate deficiencies
- 12 deaths per minute are recorded as a result of hunger and malnutrition

According to the FAO some 100 million were added to the global list of chronically hungry as a result of the economic crisis and the 2007/2008 food price spike.³ The global total was estimated to be over one billion hungry in 2009.



Trajectory of the Food Price Index since 2006.⁴

Although the rise in food prices was a short-lived price spike, it has had a continuing, damaging effect on the livelihoods of people in Sub-Saharan Africa where grain prices have remained high, in many cases higher than the 2008 peak.⁵ According to the FAO and the OECD, average wheat and coarse grain prices are projected to be 15-40% higher over the next decade in real terms relative to 1997-2006, while for vegetable oils, real prices are expected to be more than 40% higher.⁶



While globally maize prices have fallen, they remained high in Kenya (and other African countries).⁷

The 2007/08 spike together with the current spike that began with the drought in Russia and neighbouring countries remind us that we must deal both with the extreme price volatility and the chronic hunger crisis. The latter is driven by an unprecedented combination of global processes: rising populations, increased per capita incomes affecting diet and food consumption, growing demand for biofuels, rising oil and fertiliser prices, increasing water and land scarcity, the impact of climate change, slowing of productivity increases, strong price fluctuations and inequities in global commodity markets as well as poor access to food due to a lack of purchasing power

Hunger is multidimensional. This is reflected in the Global Hunger Index (GHI) which combines three weighted indicators; the proportion of undernourished as a percentage of the population with insufficient dietary intake; the prevalence of underweight children under the age of five and the mortality rate of children under the age of five.

South Asia and Sub Saharan Africa have the highest GHI scores. In Sub Saharan Africa low government effectiveness, conflict, political instability, high rates of HIV/AIDS are among major factors that lead to high child mortality and a high proportion of people who cannot meet the calorific requirements.⁸

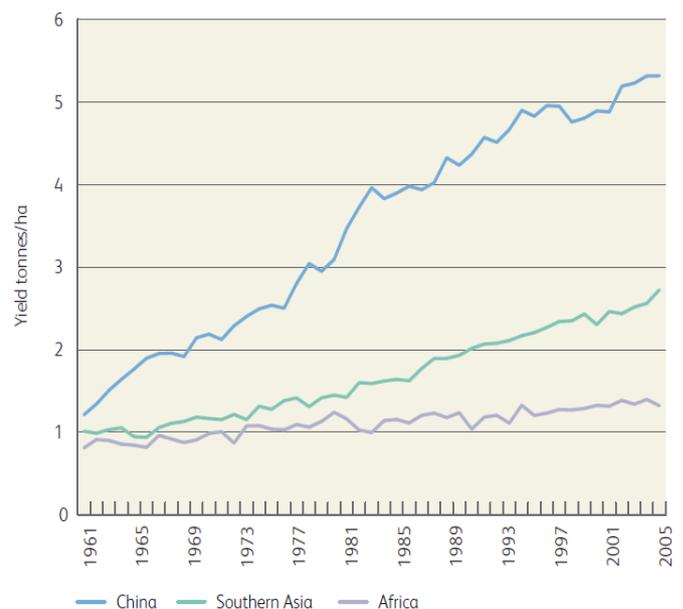
Some countries such as Angola, Ethiopia, Ghana, Mozambique have made significant progress in improving their GHI, but others still have very high levels such as Burundi, Chad, the Democratic Republic of Congo and Eritrea. Poor economic growth, strong agricultural performance and increasing gender equity can reduce hunger below what would be expected based on income. The wellbeing of mothers and children are critical elements of the solution.

The window for opportunity for improving child nutrition spans the period from -9 to +24 months - the 1,000 days when children are in the greatest need of adequate amounts of nutritious food and without it risk experiencing lifelong damage, including poor physical and cognitive development, poor health and even early death. After the age of 2 the effects of undernutrition are largely irreversible.

2. An African Green Revolution

Over the past two decades there has been too much emphasis on short term measures towards humanitarian food aid rather than on overcoming the barriers to agricultural development. One consequence is that average African cereal yields remain at little over 1 tonne per hectare.⁹

Two thirds of the population of Sub-Saharan Africa is rural, and the approximately 33 million small farms (less than 2 ha) make up 80% of all farms and supply up



Average cereal yields in Sub Saharan Africa are much less than those of China and India

to 90% of agricultural production in some countries.¹⁰ Although urban migration is proceeding rapidly, by 2030 the population is still projected to be about 52% rural. While some large land holdings will be acquired by Middle East and Asian investors and farmed at an industrialised scale on the Brazilian model, agricultural development for some time to come will continue to depend on small holder agriculture.¹¹

There is growing optimism, however, that Sub-Saharan Africa can achieve its much anticipated Green Revolution. Food security is a key intermediary outcome in the development process. Very few countries have experienced rapid economic growth without preceding or accompanying growth in agriculture.¹² This is not because agriculture has a capacity for very fast growth but because of its size. In Sub-Saharan Africa the agricultural sector accounts for over 80% of the labour force and 50% of the GDP. Experience has shown that even modest rates of growth have a considerable multiplier effect, increasing rural incomes which in turn create consumer demand and hence growth in the non-agricultural sector.¹³ The experience of Asia shows that for each 1% acceleration in agricultural growth there is about a 1.5% acceleration in non-agricultural growth.¹⁴ More specifically:

An increase in overall GDP coming from agricultural labour productivity is on average 2.9 times more effective in raising the incomes of the poorest quintile in developing countries ... than an equivalent increase in GDP coming from non-agricultural labour productivity.¹⁵

In effect there is a virtuous circle that hinges on agricultural development.

The Virtuous Circle of Agricultural Development

As agriculture develops - greater yields and production of subsistence and cash crops - farmers become more prosperous and the rural poor, whether landless or on smallholdings, also benefit through wage labour. Chronic hunger decreases. The rural economy also grows - through the creation of small rural businesses - providing more employment and improved rural facilities, especially schools and health clinics. Poor people emerging from a subsistence economy have cash to purchase medicines and locally made household goods, and can afford school fees for their children. Roads and markets develop so that the rural economy connects to the urban economy and to the growing industrial sector. Free trade provides opportunities for greater imports and exports. In particular, high value agricultural exports can accelerate agricultural development, further intensifying the virtuous circle.

In addition to these benefits, vigorous agricultural growth can stimulate world trade, providing significant benefits for all countries, developed and developing. As the developing countries prosper, they import more - a \$1 increase in their agricultural growth was estimated in 1995 to lead to an increase in the value of their imports of \$0.73.¹⁶ This means also greater prosperity for the developed countries.

How do we achieve this virtuous circle? Some have argued that what we need is a repeat of the Green Revolution - a search for new technologies similar to those of the semi-dwarf cereal varieties that will deliver a quantum leap in yields and production. For a number of reasons this is unlikely to be an effective strategy. The environments that were ideal for the Green Revolution varieties are already fully exploited. The poor and hungry live today in very different circumstances. The challenge today in Sub-Saharan Africa is to develop interventions that will deliver for relatively small farmers in more diverse, poorly endowed, risk-prone environments.

The technologies of the first Green Revolution were developed on experiment stations that were favoured with fertile soils, well-controlled water sources, and other factors suitable for high production. There was little perception of the complexity and diversity of farmers' physical environments and farming systems, let alone the diversity of the economic and social environment.

By contrast, Sub-Saharan Africa requires a variety of locally adapted interventions targeted on specific needs. It will take a combination of appropriate technologies and economic, social and institutional investments, involving both the public and the private sector. Examples of recent successes include:

- Cassava production in West Africa. 40% of the world's production comes from Africa and recently

Nigeria surpassed Brazil as the world's leading producer. Cassava now provides Africa's second most important calorie source; one third of all Africans consume cassava as a food staple.¹⁷

- The Alliance for a Green Revolution in Africa (AGRA) has funded 60 crop breeding programs; introduced 125 new crop varieties into the field; provided start-up capital for 35 African seed enterprises (that have collectively produced approximately 15,000 MT of certified seed), and enlisted 9,200 agro-dealers who have provided smallholder farmers with \$45 million worth of seed and farm inputs.
- The new rices for Africa (NERICAs) are transforming West Africa, benefitting 20 million mostly women farmers and helping reduce high rice import bills. Rice now contributes more calories and protein than any other cereal in humid West Africa, and about the same as all roots and tubers combined.

The New Commitments

1. Growing African commitment

These successes and others throughout the continent are a reflection of a new and growing commitment by African leaders to agricultural development and combating hunger.

Members of the African Union made a commitment in Maputo in 2003 to increase resources for agriculture and rural development to at least 10% of national budgets within 5 years.¹⁸

At the summit, leaders also adopted the Comprehensive Africa Agriculture Development Programme (CAADP) as a framework for accelerating agricultural development and food security on the continent. After a slow start, over the last year there has been significant progress on national implementation of CAADP with 22 national governments signing compacts that commit to specific agricultural plans and investments.

Rwanda's CAADP commitment

Context

- Agricultural spending by the Rwandan government in 2005 was 3% of total spending rising to 7% in 2010.
- The agriculture sector currently provides 40% of GDP and 80% of employment.
- Despite a decade of rapid economic growth in Rwanda, poverty remains high and economic opportunities for women are limited, particularly in rural areas.
- Females head approximately one-third of all

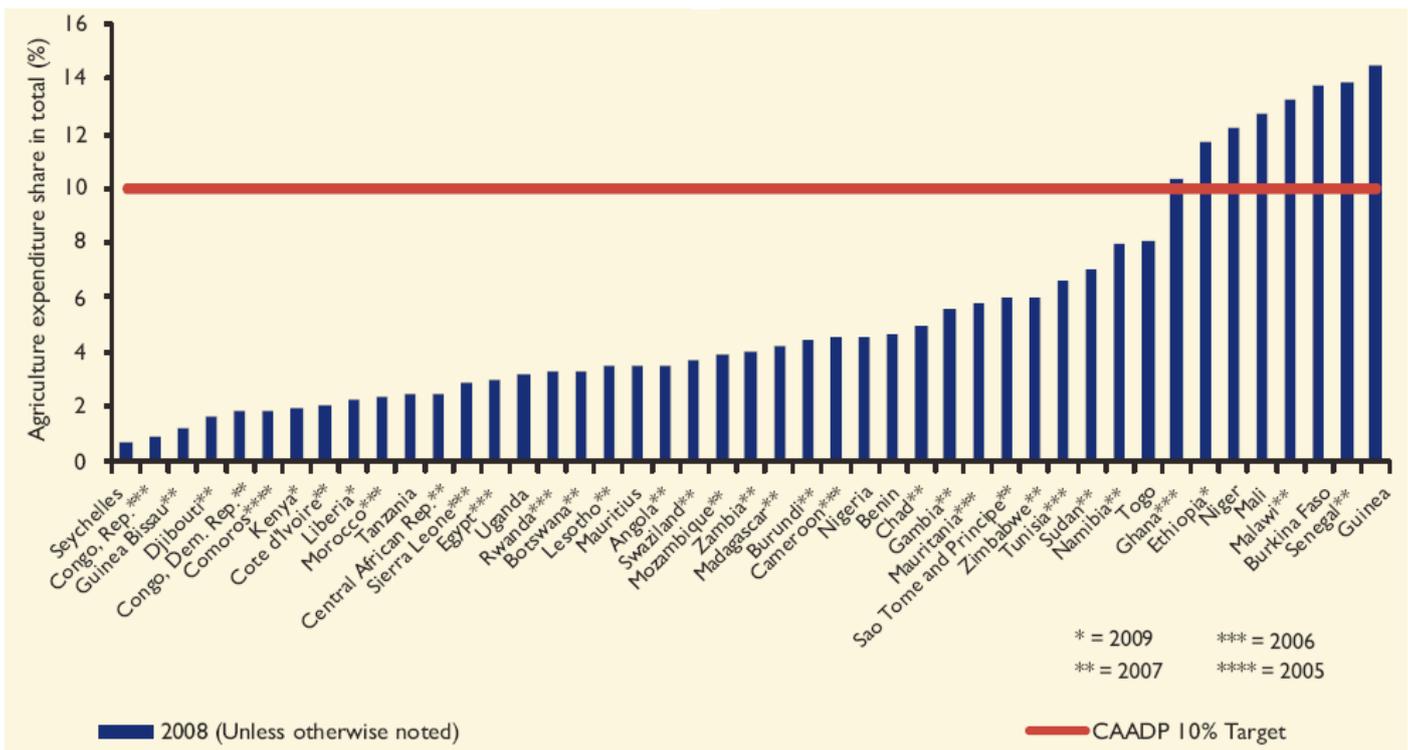
households in Rwanda. There is a direct correlation between low levels of education among women and food insecurity.

- One out of ten children die before their fifth birthday; of those who live, approximately 52% are chronically malnourished.

Action

- The Government of Rwanda was the first country to sign a CAADP Compact. To implement the Compact, the government developed the Strategic Plan for the Transformation of Agriculture (PSTA II), which aligns development partners with the government’s strategies and tactics. The Sector Wide Approach (SWAp) and Agriculture Sector Working Group (ASWG) are the two donor coordinating mechanisms through which the government ensures policy continuity and maximizes the effectiveness of development assistance.
- PSTA II consists of
 1. Program I (\$658 million) - the intensification and development of sustainable production systems.
 2. Program II (\$42 million) - support for the professional development of producers.
 3. Program III (\$128 million) - to promote commodity chain and agribusiness development.
 4. Program IV (19.5 million) - support for institutional development

Agricultural expenditures as a share of total spending¹⁹



There has been significant economic progress in Africa in recent years. In Sub-Saharan Africa average annual growth in GDP has been over 5% for the period 2000-2008, and in agriculture has been over 3%.²⁰ These averages hide considerable variation (from Nigeria at 7% agricultural growth to Zimbabwe at minus 8.5%). Nevertheless the combination of higher agricultural growth and agricultural prices are creating opportunities in domestic, regional and international markets, especially where there are supportive, stable governments.

A recent McKinsey report²¹ has suggested that if Africa could raise yields on key crops it could increase the value of its agricultural production by \$235 billion over the next two decades. Coupled to this, if Africa could shift a proportion of cultivation to higher value crops such as fruit and vegetables, they would benefit from a further \$140 billion annually by 2030.

In summary, we are in ‘a period of optimism’ about the prospects for Africa and African agriculture.²²

2. The Global Pledges

That optimism is beginning to have an effect on the donor community, reversing the downward trend of agricultural investment of the past two decades. In the 1980s the international donor community began to pull out of agricultural investment, believing that it could be left to private investors. At that time, donor spending on agriculture totaled 17% of Overseas Development Assistance (ODA) and 30% of World Bank lending. By the mid 2000s the figures were 4% and 7% respectively. Although Europe was not at the forefront of this move, it did eventually follow the US and World Bank lead.

Food and Nutrition: An AU Summit

A gathering of leading African and international food and nutrition experts met on the 24th July 2010 prior to the 15th AU Summit in Kampala, Uganda under the theme “Africa must feed itself. No child should go to bed hungry. Reduce child stunting by 50 percent in the next five years and Beyond”.

The meeting underlined the importance of food and nutrition security in human, social, and economic development in Africa. Discussions centred on four programmatic themes, namely, maternal, infant and child nutrition, home grown school feeding, dietary diversity and food fortification and biofortification, that link to the main theme of the AU summit and are viewed as a key mechanism to advance food and nutrition security and agricultural development in Africa. The participants reinforced the recent national, continental and international commitment to put food and nutrition at the centre stage of social and economic development strategies and investments. Nutrition needs to be visible in all government sectors and be appropriately funded.

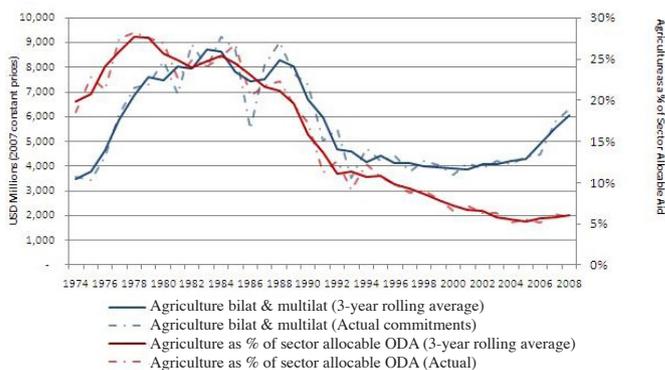
They agreed to:

- Strengthen their role in leading and supporting the scale up of programmes and projects on mother, infant and child nutrition, dietary diversification, fortification (including biofortification) and home grown school feeding among others that link to “nutritionalisation of agricultural programmes”.
- Ensure that Africa becomes self sustainable in food production and reduce dependency on food aid. There can be no nutrition without food. This means for instance that the call for governments to commit 10% of their public expenditure to agricultural development as called for by the Maputo declaration (2003), will have positive spin-offs for nutrition in Africa.
- Improve nutrition information systems and capacities as a means to enhance monitoring and evaluation of programmes.
- Support the proposal to establish an African food and nutrition day (30th October) to be commemorated in every country on an annual basis. This will serve as a platform to share experiences and report progress made towards a 50% reduction of stunting and other nutrition disorders in the next five years and beyond, to ensure that Africa is free of malnutrition.

Resolutions of the AU Summit specific to Nutrition Security

On the commemoration of Africa Day for Food and Nutrition Security, the Assembly decided that an Africa Food and Nutrition Security Day (AFND) will be commemorated on 30 October every year.

Since the 2007/8 crisis there has been renewed commitment to combat hunger. Although the turnaround



Long-term trends in global DAC agricultural aid²³

began in 2006 it gained further momentum after the food price crisis. At the 2009 L’Aquila summit of the G8 \$22.5 billion was pledged to this task, including \$3.5 billion from the United States (US), and \$3.8 billion from the European Commission, as well as significant commitments from several other European donors.

Some of this money is being channelled through a new programme established at the World Bank, the Global Agriculture and Food Security Program (GAFSP), (funded with initial commitments of about \$900 million by US, Canada, Spain, Ireland, the Republic of Korea and the Bill & Melinda Gates Foundation). The US commitments are being administered through the new ‘Feed the Future’ strategy under which country led plans are currently being developed.²⁴ The European Commission is utilising existing aid instruments such as the Food Facility (€1 billion) and Food Security Thematic Programme (now moving into a new phase).

To date not all of the pledges have been realised, but significant sums have been committed and are being spent.

3. The European Response

In recent years, Europe has a good track record of support for agricultural development. Examples include:

- Europe’s key role in getting agricultural development back on to the political agenda, notably at the Kampala conference of 2004²⁵
- Europe’s support for a shift from food aid to food security in the 1990s (including the move to regional and local purchases, 1996).
- Individual country commitments such as the Irish Hunger Task Force which reported in 2008²⁶

As a consequence, European support for agriculture began to increase again. Today the European Union (EU) is responsible for over 60% of the world’s ODA. Of this, the EU (i.e. EC and member states’ combined ODA) gives about \$1.75 billion- to agricultural

development with nearly 50% going to SSA.²⁷ Of the EU donors, France and the EC both contributed more support than the US in 2007. Some small European countries, such as Denmark, contribute greater amounts as a percentage of their GDP.

Europe's support varies widely in terms of the agricultural sector targeted. Only France puts the majority of its funding (80%) into agricultural research. By contrast the US puts two thirds of its aid into agricultural policy, which is also the biggest category for the UK. Although this pattern of support may appear complementary, recipient countries vary, for example with France focusing its support on Francophone countries and the UK and other donors on Anglophone countries. Yet, it is clear, European donors could do more, commit more resources, and work more closely together to align and coordinate their actions to Africa's emerging national, regional and cross-continent agendas. We believe the way forward is to build on the growing momentum of CAADP and align aid to national African governmental strategies through a common vision and plan for agricultural development.

Europe is now in a strong position to have more impact:

- The EU is the largest agricultural development donor in Africa.
- Europe has extensive and long established knowledge and experience of agricultural development.
- Europe is also home to the Common Agricultural Policy (CAP) and its reform process which have given it the political experience of negotiating a regional approach to agriculture.
- EU is the largest agricultural commodities trade partner with Africa

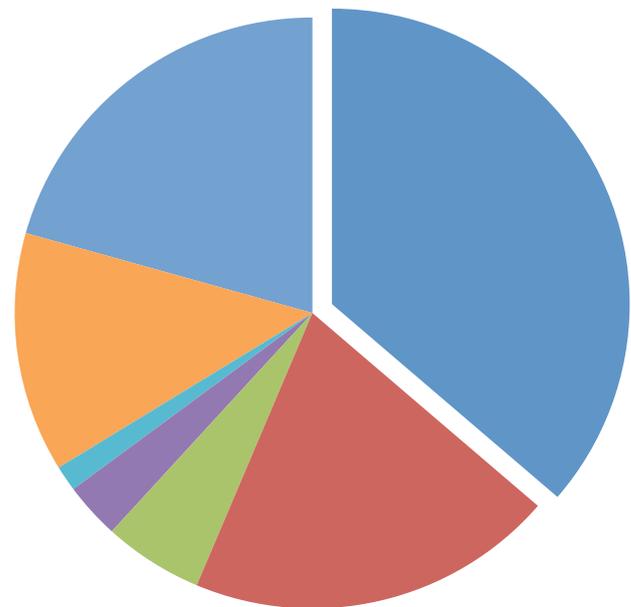
Notably, European donors have been strong supporters of:

- The Comprehensive African Agricultural Development Programme (CAADP),
- The Consultative Group on International Agricultural Research (CGIAR), and
- The various African regional and sub regional research organisations

Europe is the largest donor to the CGIAR. Within Europe the EC and the UK are the largest donors²⁸ Developing African agriculture is also in the interest of Europe and the European people:

- Agricultural development contributes to trade in which both Europe and Africa benefit,

- The European public are committed, despite the current financial crisis, to helping Africa reduce poverty and hunger.
- Agriculture is the largest source of gainful employment that can contribute to the reduction of illegal immigration.
- European security depends, in part, on a world free of hunger.



- Europe
- North America
- Pacific Rim
- Developing Countries
- Foundations
- Int. & Regional Org.
- Non-Members

CGIAR Funding by Member (2009)

The Need for Concerted Action

The opportunity for action is timely and challenging. It should build on the political momentum generated by the impact of the recent food price spikes and the initiatives already set in motion by African governments, European donors and the rest of the global community (including new global actors such as China and Brazil).

The challenge is to ensure the momentum is sustained, for at least the next decade, in terms of commitment and funding by the key partners.

We believe Europe is well placed to take the lead and drive forward change.

There are three areas that need urgent attention:

1. Sustaining the momentum
2. Reducing price volatility
3. Tackling chronic hunger

1. Sustaining the momentum

There has been significant progress globally, in Europe and in Africa since L'Aquila. Nevertheless, in effect, we now have:

- On the one hand, a very top down global response characterised by strong rhetoric and the pledges of large-scale funding, and
- On the other, a rich diversity of on-the-ground activities in Sub-Saharan Africa undertaken by government and private agencies and NGOs

We believe there is a potentially dangerous gap between the two strands of activity. If we do not bridge the gap there is risk that new investments will dissipate into more small scale activity, and we will not see the transformational change that is needed.

Sustaining the momentum can take various economic, political and institutional forms. **We recommend that European donors strengthen their commitment by developing a coordinated policy of support for the institutions and initiatives that reflect the priorities of the AU and the African governments:**

a) African Implementing Frameworks and Programmes

Of central importance are two linked programmes that are African owned and provide a framework, policies and implementation for agricultural development. They have both achieved significant successes in recent years, and have received European support but this could be significantly increased.

- The Comprehensive African Agriculture Development Programme (CAADP)²⁹

Established by the AU assembly in 2003, CAADP focuses on improving food security, nutrition and increasing incomes in Africa's largely farming based economies. Key aims include: raising agricultural productivity by at least 6% per year; and increasing public investment in agriculture to 10% of national budgets per year.

CAADP implements its agenda through African regional and economic communities, national roundtables and four key thematic pillars (Land and water management, Market access, Food supply and hunger and Agricultural research).

After a slow start progress, has been good. 22 national governments have signed compacts that commit to specific agricultural plans and investments. There is strong support for the CAADP process among European donors, working together through channels such as the Global Donor Platform for Rural Development.

- The Alliance for a Green Revolution for Africa (AGRA)

AGRA (funded by the Bill and Melinda Gates Foundation, the UK's DFID and the Rockefeller Foundation) has now signed an MOU with CAADP to implement programmes across the four CAADP Pillars, particularly in high potential bread-basket areas.

In its target sites it works with: governments in terms of subsidies and investments, the CAADP roundtable process, the research community (both national and global), the private sector (in setting up seed companies and agrodealer networks), with commercial banks (providing microcredit) and with local communities of farmers and farmer organisations. These are genuinely integrative, public-private partnerships. Apart from the UK and Denmark there are no other European donors.

b) Regional Research Programmes

- The Consultative Group on International Agricultural Research (CGIAR)

The global CGIAR is of crucial importance to African agriculture. Four of its 16 institutes are based in Africa (ILRI working on livestock, IITA - tropical crops, the Africa Rice Centre and the World Agroforestry Centre). But others have major programmes there e.g. CIMMYT - the maize and wheat centre, ICRISAT - crops research in the semi arid tropics, and IRRI - rice. Each feeds genetic material and other public goods to the National Agricultural Research Systems (NARS) in the region.

The CGIAR is going through major reform that will make it more efficient and responsive to country needs. Europe is a major supporter, but the CGIAR needs a substantial increase in funding if the reform is to be effective. There is also a need for the NARS to be strengthened so that they can be more effective partners with the CGIAR and translators of innovations into farm practice.

CGIAR reform is part of a general transformation of international agricultural research for development, managed by the Global Forum on Agricultural Research (GFAR). The 'AR4D Road Map, emerging from the First Global Conference on Agricultural Research for Development 2010, outlines the objectives and stakeholder roles in this transformation. There is also a need to strengthen the NARS and CGIAR/NARS linkages to ensure more rapid uptake and use of CGIAR developed technologies.

- FARA and sub-regional bodies

Complementing the CGIAR in Africa is the Forum for Agricultural Research in Africa (FARA), an umbrella organisation playing an important advocacy and coor-

dination role for the major stakeholders in agricultural research and development in Africa - the NARS, the advanced research institutions and African institutions of the CGIAR.³⁰

Key parts of the network are several sub regional research bodies - ASARECA in eastern Africa,³¹ CORAF/ WECARD for west and central Africa, and a directorate in SADC for southern Africa.³² These are variously funded by the EU, DFID, France, Switzerland and Sweden.

c) African Government Policies and Funding

In many respects the most important element in progress towards national and regional food security is the reform of the policies and budgets of African governments towards a more agriculture supportive position. These are matters for those governments but European donors can play a helpful role in supporting analytical policy research on request.

Key issues include:

- Freeing of internal markets;
- Investment in infrastructure (rural roads, irrigation, rural energy)
- Revitalisation of extension services;
- Strengthening of research systems;
- Support for national micro-credit schemes;
- Encouragement of seed companies and input networks;
- Making fertilizer accessible to farmers;
- Provision of market information;
- Support of agricultural export industries;
- Helping to create incentives or new markets for ecosystem services
- Strengthening the capacity of key stakeholders including farmers and farmer organisations;

d) Global Coordination

The recent food price spikes have brought it home that food security is a global challenge that requires concerted international action. Currently there are two bodies that have a global coordinating role. In both cases, European governments and the EC need to be active around a common agenda:

- Comprehensive Framework for Action (CFA)³³

The CFA was set up in 2008 as a response to the 2007/8 food price spike. It was designed to encourage concerted responses to the crisis with simultaneous focus on the immediate needs of vulnerable populations and the building of longer term resilience. A recent meeting in Dublin has broadened this 'twin track' focus to include environmental sustainability, gender equity and the pre-requisites for improved nutrition.

- The Committee on World Food Security (CFS)³⁴

The CFS was established in 1974 as a result of the food crisis of the 1970s. It is the ideal candidate for the role of overarching strategic body that is needed to synchronize action in the world food system. It has recently been reformed with a wider remit beyond the UN organisations and could become more effective. It met recently to tackle some of the issues underlying hunger and food supply, including land tenure, climate change and the impact of food trading markets. The committee has welcomed inclusion of different stakeholders such as NGOs and the private sector.

e) Major Donor Fund Programmes

A significant proportion of the L'Aquila commitments will be implemented through three major donor programmes. In the case of the European Commission programmes European countries have formal role in determining policies and priorities and need to act in a concerted and forward looking manner. At present there is little involvement in the GAFSP World Bank programme, but an active presence could have an important impact. The US programme would, we believe, welcome European donors as partners in selected countries.

- European Union Programmes

Adding to the European Commission's (EC) ongoing agricultural programmes at country level, which are supported by the European Development Fund, the Food Security Thematic Programme (FSTP) was created in 2007 to address food security at global, continental and regional levels. Its total financial allocation from 2007-2010 was €925 million (\$1.3 billion). A second phase is currently being programmed for 2011-13. The FSTP includes investments in:

- International public goods through research and technology,
- Information systems to improve food security response strategies,
- Exploiting the potential of continental and regional approaches and linking relief and rehabilitation with development,
- In exceptional situations in fragile and failed states addressing food security and policy support.

In December 2008, the EC also launched a three year €1billion Food Facility to bridge the gap between emergency aid and medium to long-term development aid in 50 countries, of which 32 are African.

A new EU Policy Framework to assist Developing Countries address Food Security Challenges was issued in 2010. This policy calls for a 50% increase in funding to agricultural research, extension and innovation

in developing countries, by the European Commission and EU member states by 2015. The policy stresses the importance of country ownership. Articulated in Africa through the CAADP process, the food security policy is complemented by a policy on humanitarian food assistance, which sets out the objectives, principles and approaches underpinning the EU's efforts to tackle acute food insecurity and malnutrition in times of crisis.

- Global Agriculture and Food Security Program (GAFSP)³⁵

A newly created multilateral donor trust fund at the World Bank. It focuses on the immediate targeting and delivery of additional funding to public and private entities in support of national and regional strategic plans that are designed and implemented by developing country governments and their regional partners.

Commitments to date are \$900 million over 3 years, of which \$254 million has been received. The first recipients are Bangladesh, Haiti, Rwanda, Sierra Leone, and Togo, with grants ranging from \$35 to \$50 million targeted at either boosting yields in staples like rice, maize and cassava or improving farmers' access to better seeds, technical advice and better ways to link farmers to markets.

So far there are six donors, only two of which (Spain and Ireland) are European.

- The US Feed the Future programme³⁶

The US initiative was launched in May 2010 in response to President Obama's pledge of at least \$3.5 billion for agricultural development and food security over three years. It is committed to working in partnership to invest in country-owned plans that support results-based programs and partnerships. In the initial phase, joint country plans are being drawn up in alignment with CAADP process. The intention is that the programme will help to leverage and align more than \$18.5 billion from other donors in support of a common approach to achieve sustainable food security. There are significant opportunities for European donors to partner in the process.

2. Reducing Price Volatility³⁷

Recent years have seen extreme volatility in the prices of cereals and other staple crops, with persistent deleterious effects on food prices in developing countries. Food price volatility affects the poorest the most.

Price volatility is an international event that requires international action. At present most of policy decisions appear to be panic responses, with little attention to program design and potential market consequences. There appears to be no systematic thinking

behind determination of optimal food stocks. It is now evident, that food markets must not be excluded from the appropriate regulation of the banking and financial system, as the staple food and feed markets (grain and oil seeds) are now closely connected to the speculative activities in financial markets.

We propose that new regulatory processes and efforts to prevent the imposition of export bans should be accompanied by a grain reserves policy as follows:

1. First, the creation of a small, independent physical reserve at the World Food Program exclusively for emergency response and humanitarian assistance;
2. Second, modest national and physical reserves for African regions and for individual nations (especially those that are landlocked)

There should also be explorations of alternative mechanisms, including a possible virtual reserve where each country would commit to contributing to a fund, if needed, for intervention in the grain markets.

3. Tackling Chronic Hunger

In addition to the above institutional and policy interventions we also recommend a set of themes for coordinated European programming that will directly address the problems of chronic hunger:

Country owned programmes.

Country ownership is an essential prerequisite for ensuring that the appropriate policies, institutions and public investments are made available for sustained agricultural development. Such programmes inspired by strong political leadership and supported by good governance are at the core of the CAADP process. Donor support for the continuation of this process is required together with further refinement of the 'compacts' investment opportunities (compacts as 'living documents') and the development of complementary macroeconomic policies together with better trade (national and regional within Africa) and agricultural sector policies.

Child undernutrition

In Sub-Saharan Africa the proportion of children under five who are underweight has only marginally decreased over the past 20 years - from 27% to 24%. Recent evidence clearly shows that the window of opportunity for improving nutrition spans the 1,000 days between conception and a child's second birthday. This is not only the period not only when children are in greatest need of adequate amounts of nutritious food for healthy development, but also when interventions are most likely to prevent undernutrition from setting

in. After the age of two, the effects of undernutrition are largely irreversible. Children who are undernourished during the thousand-day window risk poor physical and cognitive development, poor health, and even early death. Furthermore, when poorly nourished girls grow up, they tend to give birth to underweight babies, perpetuating the cycle of undernutrition.

The key ingredients for adequate child nutrition are:

- 'A well-nourished and empowered mother who has good nutrition and health before and during her pregnancy;
- who receives adequate health support and care to ensure a safe delivery for herself and her newborn baby;
- who breastfeeds exclusively for the first six months of the infant's life and continues breastfeeding until at least two years of age;
- who provides the infant with nutritious complementary foods in adequate quantities and frequency starting at six months of age; and
- who has access to safe water, sanitation, and preventive and curative healthcare.³⁸

Going to scale³⁹

One of the most powerful approaches to agricultural development is to scale up promising programmes, technologies and projects that have proven successful at local level to a national or even regional level. Potentially this can deliver 'quick wins' and should be of interest to European donors, particularly those - with an interest in facilitating the role of private and public-private investments in agricultural development in Africa.

There is an urgent need to identify the barriers and opportunities for place specific development and for investment in value chains (e.g. provision of start up funds for local and regional seed and fertiliser companies, for agro-dealer networks, for development of private output market, for credit programmes, smart subsidies and weather insurance programmes), and to scale up locally successful programs to national and regional scale.

Several mechanisms are available:

- Via Cooperative/ Farmer Associations - which may already be in existence or created for the purpose, e.g. the Kenya dairy cooperatives
- Through government or quasi government activity - involving either state ownership of production or some mixture of state supply of inputs

and state purchases e.g. the Malawi fertiliser subsidy programme

- By the private sector - common in the production and marketing of high value export crops, e.g. teas, coffee and cocoa.
- Through public-private partnerships - joint investment models of various kinds

Ecological resilience

Continued growth in agricultural production depends on agroecology-based programmes that deliver improved sustainability and resilience of production. These include maintaining soil fertility levels, conserving soil and water, resisting pests, diseases and weeds, and adapting to climate change where the solutions rest heavily on ecological principles and practices. Such approaches need to be positioned to take advantage of any emerging markets or incentives for environmental services, including for reduction of net greenhouse gas emissions. Examples include:

- Conservation farming and watershed management including small scale irrigation and water harvesting;
- Integrated Pest Management programmes (IPM) for pest, disease and weeds;
- And the development of ecological approaches to tolerating drought, flooding and other climate change stresses.

Community resilience

Complementing ecological resilience is the need for programmes that deliver improved access and rights to assets that increase sustainability and resilience of farm households. The livelihoods of farm households depend crucially on the assets (both tangible and intangible) that they own or have access to and on their capacity to turn these assets into food for consumption and agricultural products for sale. In many situations access to assets is barred and at the other end of the value chain the returns are low. Community based (co-operative and farmer association) approaches can help to:

1. Improve land tenure and the rights and access to assets of women and minority groups, and
2. Tackle water and forest management, farmer education, participatory extension services and marketing.

Appropriate technologies

The returns to agricultural research are considerable. For every \$1 invested in CGIAR research, \$9 worth of additional food is produced in developing countries where it is needed most⁴⁰. The development of agricultural technologies today is largely a product of global innovation systems, involving advanced public and private laboratories in the industrialised world and translational research institutions such as the CGIAR.⁴¹ However for developing countries to benefit they need support for regional and national innovation systems that can interface with the global innovation systems and adapt products for their own use.

In general, technologies are appropriate for African agriculture if they work, are accessible and sustainable with minimal environmental consequences. Such technologies may be:

1. Traditional or, conventional in approach, or intermediate between these or,
2. Based on new platform technologies such as biotechnology, nanotechnology or information and communication technology.

Climate Change and Agriculture

Agriculture is both a victim and a culprit of climate change. There is an urgent need for more research and for radical solutions to both adaptation and mitigation as they relate to agriculture.

1. A better understanding of the impacts of climate change on agriculture needs to be coupled with improved adaptation technologies including the breeding of new varieties and the development of new cropping systems, especially for drought tolerance.
2. Agriculture (together with land use changes and deforestation) is responsible for over 30% of Greenhouse Gas Emissions. 70% of the mitigation potential lies in developing countries, mostly through carbon sequestration. Means need to be urgently found to ensure developing country farmers are compensated for their mitigation efforts.

Conclusion

The resurgence of interest in food security following the food price crisis of 2008, coupled with the rebound of agricultural growth in Africa and in the institutional framework provided by CAADP provides a unique opportunity to make a significant and sustainable impact on poverty reduction and food security in Africa. It is important to build on current momentum and Europe is well placed to be the partner of choice in supporting regional and national policies and programmes to drive Africa's agricultural and economic development.

References

- 1 Food and Agriculture Organisation. 2009. *The state of food insecurity in the world 2009*. Rome; FAO. 2010. *FAOSTAT: Production*. <http://faostat.fao.org/site/339/default.aspx>.
- 2 2010 Global Hunger Index *The Challenge of Hunger: Focus on the crisis of child under nutrition*, IFPRI Issue Brief 65, October 2010
- 3 FAO. 2009. *The state of food insecurity in the world 2009*. Rome; FAO. 2010. *FAOSTAT: Production*. <http://faostat.fao.org/site/339/default.aspx>.
- 4 FAO. 2010. *Food prices indices*. www.fao.org/world-foodsituation/FoodPricesIndex/en/.
- 5 FAO. 2009. *The state of food and agriculture: livestock in the balance*. Rome: FAO. 2009.
- 6 Organisation for Economic Co-operation and Development/ FAO. 2010. *Agricultural outlook 2010-2019*. Paris: OECD.
- 7 World Bank .2010. *Food price watch, February 2010*. Poverty Reduction and Equity Group (PREM). Washington, DC: The World Bank.
- 8 von Grebmer, K., Ruel, M., Menon, P., Nestorova, B., Olonfinbiyi, T., Fritschel, H., Yohannes, Y., von Oppeln, C., Towey, O., Golden, K. & Thompson, J. 2010 *global hunger index. The challenge of hunger: focus on the crisis of child undernutrition*. Bonn: IFPRI, Concern Worldwide and Weltwonderhilife, October 2010.
- 9 World Bank .2010. *Food price watch, February 2010*. Poverty Reduction and Equity Group (PREM), Washington, DC: The World Bank
- 10 Wiggins, S. 2009. *Can the smallholder model deliver poverty reduction and food security for a rapidly growing population in Africa? Expert meeting on how to feed the world in 2050*. FAO. Economic and social development department, 24-26 June; Nagayets, O. 2005. *Small farms: current status and key trends*, Information Brief for the Future of Small Farms workshop. Wye College. June 2005.
- 11 Valdés, A., Foster, W., Anriquez, G., Azzarri, C., Covarrubias, K., Davis, B., DiGiuseppe, S., Essam, T., Hartz, T., de la O, A., P., Quiñones, E., Stamoulis, K., Winters, P. & Zezza, A. 2007. *A profile of the rural poor*. Background Paper for IFAD Rural Poverty Report 2009; Collier, P. 2010. *The plundered planet: how to reconcile prosperity with nature*. London: Allen Lane.
- 12 Mellor, J.W. 1995. Introduction In: *Agriculture on the road to industrialization*. ed. Mellor, J.W. Baltimore: John Hopkins University Press.

- 13 Hazell, P. & Haggblade, S. 1993. Farm-nonfarm linkages and the welfare of the poor. In: *Including the poor*. eds. Lipton, M. & van der Gaag, J. Washington DC: World Bank.
- 14 Mellor, J.W. 1995. Introduction. In: *Agriculture on the road to industrialization*. Ed. Mellor, J.W. Baltimore: John Hopkins University Press.
- 15 Bravo-Ortega, C. & Lederman, D. 2005. *Agriculture and national welfare around the world: causality and international heterogeneity since 1960*. World Bank Policy Research Working Paper 3499, February 2005.
- 16 Pinstrup-Anderson, P., Lundberg, M. & Garrett, J.L. 1995. *Foreign assistance to agriculture: a win-win proposition*. Food Policy Report, Washington, DC: IFPRI.
- 17 Haggblade, S. & Hazell, P. 2010. *Successes in African Agriculture: lessons for the future*. Baltimore: The John Hopkins University Press.
- 18 African Union. 2006. *Resolution of the Abuja Food Security Summit*. Abuja, Nigeria. December 4-7 2006. www.africa-union.org/root/au/Conferences/Past/2006/December/REA/summit/doc/Abuja_Res_Final_Eng_tracked.doc; Fan, S., Omilola, B. & Lambert, M. 2009. *Public spending for agriculture in Africa: trends and composition*. Working Paper No. 28. Washington, DC: Regional Strategic Analysis and Knowledge Support Systems (ReSAKSS).
- 19 Fan, S., Omilola, B. & Lambert, M. 2009. *Public spending for agriculture in Africa: trends and composition*. Working Paper No. 28. Washington, DC: Regional Strategic Analysis and Knowledge Support Systems (ReSAKSS).
- 20 World Bank. 2010. *World development indicators 2010*. Washington DC: World Bank. <http://data.worldbank.org/sites/default/files/wdi/complete.pdf>.
- 21 The McKinsey Global Institute. 2010. *Lions on the move: the progress and potential of african economies*, June 2010. http://www.mckinsey.com/mgi/publications/progress_and_potential_of_african_economies/pdfs/MGI_african_economies_full_report.pdf.
- 22 Binswanger-Mkhize, H. & Mc Calla, A.F. 2008. *The changing context and prospects for agricultural and rural development in Africa*. AfDB-IFAD Joint Evaluation of ARD in Africa.
- 23 Coppard, D. 2010. *Agricultural development assistance: a summary review of trends and the challenges of monitoring progress*. London: Development Initiatives and One.
- 24 Feed the Future. 2010. *Feed the future*. <http://www.feedthefuture.gov/>.
- 25 International Food Policy Research Institute. 2004. *Assuring food and nutrition security in Africa by 2020*. Kampala, Uganda April 1-3 2004, Washington DC: IFPRI.
- 26 Hunger Task Force. 2008. *Report of the Government of Ireland*. http://www.irishaid.gov.ie/uploads/hunger_task_force.pdf.
- 27 Hearn, B., Koc, V., Piesse, J. & Thirtle, C. 2010. *A preliminary analysis of European assistance to agriculture in sub-Saharan Africa*. <http://www3.imperial.ac.uk/africanagriculturaldevelopment/resources/europeanactivity/donorfinancial/aiddatanalysis>.
- 28 Consultative Group on International Agricultural Research. 2009. *CGIAR Annual Report 2009* <http://www.cgiar.org>.
- 29 The Comprehensive Africa Agriculture Development Programme (CAADP). 2010. *CAADP*. <http://www.nepad-caadp.net/>.
- 30 Forum for Agricultural Research in Africa. 2007. *FARA*. <http://www.fara-africa.org/>.
- 31 Association for Strengthening Agricultural Research in Eastern and Central Africa (ASARECA). 2010. *ASARECA: Transforming agriculture for improved livelihoods*. <http://www.asareca.org/index.php?a=1>.
- 32 West and Central African Council for Agricultural Research and Development (CORAF/WECARD). 2010. *CORAF/WECARD*. <http://www.coraf.org/>.
- 33 UN High level task force in the global food security crisis. 2010. *Updated comprehensive framework for action*. Dublin, May 2010. <http://www.reliefweb.int/rw/rwb.nsf/db900SID/SNAA-85F8U2?OpenDocument>.
- 34 Von Braun, J. 2010 Strategic body needed to beat food crises. *Nature*. 465: 548-549; FAO. 2009. *Global platform for food security revitalized*. <http://www.fao.org/news/story/0/item/36446/icode/en/>.
- 35 World Bank. 2010. *Five countries receive food security support through multi-donor fund*. <http://web.worldbank.org/WBSITE/EXTERNAL/NEWS/0,,contentMDK:22626597~pagePK:64257043~piPK:437376~theSitePK:4607,00.html>.
- 36 Feed the Future. 2010. *The global commitment to food security*. <http://www.feedthefuture.gov/commitment.html>
- 37 Von Braun, J. 2010. Food security - priorities for the G20: a commentary for the Korea - World Bank High Level Conference on "Post-Crisis Growth and

Development”, Busan, Korea. June 3-4 2010.

38 Von Grebmer, K., Ruel, M., Menon, P., Nestorova, B., Olonfinbiyi, T., Fritschel, H., Yohannes, Y., von Opeln, C., Towey, O., Golden, K. & Thompson, J. 2010 *global hunger index. The challenge of hunger: focus on the crisis of child undernutrition*. Bonn: IFPRI, Concern Worldwide and Weltwonderhilfe, October 2010.

39 Haggblade, S. & Hazell, P. 2010. *Successes in African Agriculture: lessons for the future (IFPRI)*. Baltimore: The John Hopkins University Press.

40 CGIAR. no date. *Increased investment in agricultural science is key to avoiding future world crises*. http://www.cgiar.org/pdf/alliance_increased_investment_in_agricultural_science.pdf.

41 Conway, G. & Waage, J. 2010. *Science and innovation for development*. London: UK Collaborative on Development Sciences.

The Montpellier Panel - Affiliations

(Note: Members serve in their personal capacity)

1. Sir Gordon Conway, Professor of International Development, Imperial College, London
2. Tom Arnold, Chief Executive, Concern Worldwide, Dublin
3. Henri Carsalade, Président d’Agropolis International, Montpellier
4. Louise Fresco, Professor of Foundations of Sustainable Development in International Perspective, Universiteit van Amsterdam, Amsterdam
5. Peter Hazell, Visiting Professor, Imperial College, London
6. Namanga Ngongi, President, Alliance for a Green Revolution for Africa (AGRA), Nairobi
7. Prabhu Pingali, Deputy Director, Agriculture Development Division, Bill and Melinda Gates Foundation, Seattle
8. Joachim von Braun, Director, Department of Economic and Technological Change, ZEF, University of Bonn, Bonn
9. Lindiwe Majele Sibanda, Chief Executive and Head of Diplomatic Mission, Food, Agriculture and Natural Resources Policy Analysis Network (FANRPAN), Johannesburg
10. Ramadjita Tabo, Deputy Executive Director, Forum for Agricultural Research in Africa (FARA), Accra
11. David Radcliffe, Senior Policy Advisor, Agricultural Research for Development, Directorate-General, Development and Relations with Africa, Caribbean and Pacific States, European Commission, Brussels

Panel Members met for a day on March 26th 2010 in Montpellier and agreed on the outline and contents of this, the first Panel paper. The final version was produced by means of email exchanges and some face to face meetings.

