Growing Out of Poverty

A UK Parliamentary Inquiry into supporting and developing African agriculture, on behalf of the All Party Parliamentary Group on Agriculture and Food for Development



Cover photograph: Dan Chung, The Katine Project - The Guardian

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Agriculture is the life-line of the majority of the world's poor and food insecure population. Supporting climate-smart agriculture is an essential part of protecting the poorest and most vulnerable and of strengthening their resilience.

Andrew Mitchell, UK Secretary of State for International Development

Contents

Foreword by the Chair of the Group	
Lord Cameron of Dillington	4
Introduction	6
Working with Developing Countries	8
Crisis and Conflict	12
Focus on the Private Sector	17
Nutrition	21
Information Transfer and Training	24
Summary	27
Glossary	29



FOREWORD: A LANGUAGE TO UNITE THE CONTINENT

Lord Cameron of Dillington, APPG Chair

I believe the promotion of efficient agriculture is one of the most effective tools to ensure economic, social and political well-being in Africa. It's a view that's gaining acceptance worldwide; more so, in fact, since the publication of our All Party Parliamentary Group's first report, "Why No Thought for Food", in 2010. In some countries, as much as 90% of the population are subsistence farmers but, given the right support, they can be transformed into productive, economically active, well-fed contributors to their country's GDP and national food security.



Agriculture and rural development is not just about food security. It is a pathway to wealth creation and economic growth. It is the basis for social cohesion. It is the provider of employment. It is the foundation for political stability and the precursor for global peace and security.

Kanayo F Nwanze, UN IFAD President

Significantly, because most African farmers are female, agriculture can boost the economic and social status of women, empowering them to make decisions about their own lives and those of their families. Evidence shows that farmer parents who move from subsistence to surplus tend to spend any available cash on educating their children. Efficient agriculture can also reduce the nutritional shortcomings of expectant and recent mothers whilst simultaneously boosting the physical health and cognitive well-being of their children. So agricultural investment

returns not only a healthy citizen, capable of achieving their full potential and less likely to require healthcare interventions later in life, but also an important increase in national overall productivity.

What's more, good agricultural practice adds resilience to individual livelihoods and fosters environmental sustainability. By turning subsistence agriculture into a vibrant, profitable and sustainable rural sector, countries can make progress towards virtually all the Millennium Development Goals. Smallholder farmers in Africa represent the largest economically productive business sector in the developing world, yet produce just one-sixth of the output of their colleagues in Europe or North America. The latent potential of this sector is clear.

The consequences of food insecurity reach as far across time as they do across borders.

Over decades, hunger keeps economies stagnant [and] consigns and traps people in poverty. Food riots and the threat of famine upset the stability of cities, countries and regions...food scarcity can drive even relatively strong-growing economies toward protest and disorder. But hunger does more than upset our economic or political security. It upsets our conscience as a people.

Raj Shah, Administration USAID

How can we make this happen? This, our second inquiry, addresses that question. How can partners in the developed world generally, and our Department for International Development in particular, make best use of their resources to achieve this goal, not only in Africa but also in Southern Asia where the importance of agriculture as a development tool is equally critical? In undertaking our inquiry, we met and spoke with many experts: from Bill Gates and former Heads of State who continue to shape the international policy agenda, to smallholder farmers plying their fields in Ghana, Kenya, Tanzania and Zambia, whose voice is rarely heard.

Our agenda has been accorded the priority one would expect. When we invited the Embassies and High Commissions of African countries to give evidence, thirteen Ambassadors and High Commissioners came together in Westminster. Not only did they emphasise and discuss the importance of agriculture to their national livelihoods, but they also outlined their expectations for Governments, including that of the UK, to support their own efforts.

Evidence was also taken from representatives of the FAO; the United Nations World Food Programme; numerous NGOs, academics and scientists; other EU donor countries and institutions; public and private companies; a wide variety of relevant charitable foundations; Africa-based entrepreneurs; and the Minister and staff of DfID.

I hope the APPG's inquiry will be instrumental in helping DfID and other donors to identify and explore the best ways to support African agriculture and to help the 550 million smallholders worldwide to grow themselves out of poverty.

December 2011

INTRODUCTION

The importance of agriculture to Africa cannot be overstated. It remains a crucial sector in Africa's economies, accounting for about 30 per cent of sub-Saharan Africa's GDP and at least 40 per cent of export value. In most African countries, agriculture accounts for more than 60% of employment.

For sub-Saharan Africa and many other poor countries, agriculture and the economy are synonymous. Few countries have developed their economy without first developing their agriculture. So through catalytic funding that develops equitable, accessible markets that work for the poorest and most vulnerable, governments can reach millions of people in an effective manner. Such measures can also reach those too remote to benefit from traditional development partnerships. World Bank studies have demonstrated that growth in agriculture is at least twice as effective at reducing poverty as growth in any other sector

Our continent has the potential to be the breadbasket of the world.

Jacob Zuma, President of South Africa

of the economy, whilst a 1% growth in agriculture has been shown to generate approximately 1.5% growth in non-agricultural sectors. Smallholder agriculture provides wages, food and assets for the vast majority of Africans; by these three measures, smallholder farmers have the largest latent potential of any productive group in Africa.

GDP growth generated by agriculture is more than twice as effective at reducing poverty than growth in other sectors

Despite these compelling factors, agriculture fails to attract significant investment from Government or the private sector. The yield gap between Africa and the rest of the world – as much as six times - can partly be attributed to two decades of neglect of the needs of smallholders. However, even basic support can allow smallholder farmers to improve outputs and alleviate local hunger and undernutrition. Scaled up, such interventions can raise farmer incomes; improve consumer health and well-being; generate a vibrant rural economy; expand opportunities both upstream and downstream of the farmer's field, lessen the appeal of unsustainable urban migration, diminish

hunger at a regional level and develop valuable forex and tax receipts. To achieve such goals requires wide engagement across a broad range of factors, for aid alone cannot bring global hunger to an end.

A quiet revolution, led by Africa's smallholder farmers, is already underway.

Kofi Annan, Former UN Secretary General

It remains difficult to talk about Africa as a whole, thanks to the continent's vast diversity. Different countries face different challenges. They grow different crops, exist in different climates and possess varying levels of incentive and disincentive to produce. So while there can be no single path for the development of African agriculture, there are some common threads. More importantly, this diversity of opportunity presents Africa with a huge advantage in developing its natural resources, particularly agriculture.

It is important to recognise that no economy can be successful without having started with developing its agricultural sector.

Stephen O'Brien, Parliamentary Under-Secretary of State for International Development

This agricultural potential has attracted increasing attention, given that few countries have the ability to maintain their own self-sufficiency in food production and are turning to international markets to meet domestic demand. Many regions of the world are not endowed with the soil, climate, water and weather to meet the full range of their needs. For these countries, trading with an African breadbasket in return for capital investment into the continent is an economically attractive proposal. Indeed, a recent report from McKinsey suggests that growth in African agriculture could top US\$600bn in the next 20 years.

While such a rate of growth will require foreign investment, this will need to be managed so that the poor, the marginalised and the voiceless are not shut out from this growth.

In most low income countries of the world, agriculture means smallholder farmers. Thus the special needs of smallholders cannot be ignored; rather, they must be mainstreamed into national agricultural development plans. In terms of political and negotiating power, a huge discrepancy remains between larger farms, the private sector and international donors, and the smallholders who represent the vast majority of land and production for the continent. Developing suitable forums, through which the smallholder farmer can engage directly and equally at all stages of decision making, is a priority.

Smallholder agriculture takes on a number of quite different forms in the developing world. In sub-Saharan Africa, some 50% of smallholders must buy food because they do not produce enough for themselves, let alone to sell into markets. For these farmers, high crop prices can be a threat and do not represent an immediate opportunity to increase their household income. Compare the average spend: Africans spend between 60-70% of their total earnings on foodstuffs, compared to the 10-20% spent by

UK citizens. When prices go up, they have no 'buffer zone' and are likely to go hungry.

The link between food price volatility and wider political instability has recently been the subject of much discussion in response to the spread of the Arab Spring. Recent surveys show 88% of inhabitants of sub-Saharan Africa believe that food prices have increased significantly of late. Almost two thirds of sub-Saharan Africans perceive that, due to price increases, it will be increasingly difficult to feed their families in the next six months; 60% of these people are already reducing their daily food consumption.

Despite being part of the private sector, smallholder farmers still require support from the public sector. This is in common with farmers of all sizes in most parts of the developed world. At the most basic level, subsistence farmers will continue to need basic research outputs and public goods such as agricultural extension that will largely, sometimes entirely, remain unprofitable for the private sector.



The lack of tools to manage risk all too often dampens the entrepreneurial spirit of people. But when a family no longer fears for its ability to feed itself, it can diversify its crops to sell to the market. When the interest rate on loans is 20% or even 30% instead of 200%, a farmer may invest in fertilizer or improved seeds. When a farmer has a secure contract with a credible buyer, she will take the time to improve the quality of her produce.

Kanayo F. Nwanze, UN IFAD President

WORKING WITH DEVELOPING COUNTRIES

In the past three decades, African agricultural exports have declined, even as the vast majority of employment on the continent still depends on income from the agricultural sector. This is due, in part, to inadequate infrastructure. Lack of roads, lack of irrigation and poor storage facilities jeopardise the hard work of farmers in the field, undermine the discoveries of researchers in the lab and depress markets eagerly waiting for products to buy.

Hillary Clinton, US Secretary of State

Many successes in tackling food security in the developing world have resulted from co-operation at grassroots and the very highest inter-Governmental levels. In Brazil, Bangladesh and Mozambique concerted effort at both levels has created remarkable results, reducing both hunger and under-nutrition over the past 10 years.

However, the necessary investment in infrastructure and research demands political will at the highest level - not only to achieve clear planning, but also to secure private funding to assist in their delivery. The political capital required to make such long-term investment ahead of demand, and far ahead of measurable impacts and returns, tends only to reside in the hands of Prime Ministers and Presidents, rather than individual sector ministries. Despite this, both are crucial to integrating smallholders into the market on equitable terms.

In addition to political will, agricultural sector policies and plans must be fundamentally locally owned if they are to succeed. Donors may contribute as much as 5% of their ODA to agriculture and food security, but the vast majority of funding comes from the developing countries' own Finance Ministries as well as private streams of capital

Donors can make valuable contributions to food security in areas beyond the reach of many of the developing world's governments, but co-operation in agricultural development must focus on locally-led partnerships if that development is going to endure. In Africa these partnerships can sometimes be regional, or even wider if taking place under the CAADP umbrella. Donors must approach agriculture in a way that allows meaningful inputs and suggestions from all stakeholders, allowing quicker upscaling of effective solutions, rather than using top-down and technocratic approaches. Such a reflective attitude would be extremely valuable for a development agency such as DflD.

Appropriate design of policies and programmes is essential. Adopting a process that fully engages stakeholders at all levels allows programmes' implementation to be fully evaluated and accountable to the intended beneficiaries. Donors can help with this good governance agenda by strengthening Parliamentary processes and the Parliamentary Committee Systems of

Agriculture First in Tanzania

During our field visit to Tanzania we met the
Permanent Secretary of The Prime Minister's Office
and the President of the Agricultural Council of
Tanzania. We heard how Tanzania's development
strategy is based on a policy of "Agriculture First", to
address food security, poverty and rural
development. This strategy envisages public-private
partnerships focused on specific agricultural growth
corridors and centred around farm hubs to develop
the entire value chain, including the end markets.
Government funding, with help from CAADP, acts as
a catalyst for private investment.

The programme has now grown to more than 50 partners, including local government, banks, local suppliers and farming cooperatives. Arranged in clusters around a central hub, a larger farm, smallholders can benefit from economies of scale and achieve critical mass to deliver return on investment in roads, energy, irrigation schemes, farm advisory services and other inputs.

Appropriate coordination and communication are essential – partners want an investment blueprint that shows a clear role for investors and participants, underpinning investor confidence and allowing the Tanzanian government to go to the private sector and invite further opportunities. The blueprint is also approved by the local magistrate to ensure understanding, applicability and appropriateness.

Involving smallholders directly in the negotiations strengthens local capacity, while even those smallholders not directly involved benefit for free from the critical mass and the investment in local infrastructure.

these countries, given that as many as 80% of rural constituents will be reliant on agriculture for their livelihoods.

Understanding smallholder farmers' long-term needs, and promoting them more effectively within the democratic process, will do much to help them; good governance also attracts investment. Moreover, local Government needs encouragement to play a greater role.

For an effective partnership to become established, the roles of the public sector and other actors must be identified. In the longer term the provision of private goods, such as improved seeds, fertiliser and other inputs, should be left to the private sector although there may be a potential role for local government to kick-start these processes.

The Inquiry was frequently told that the greatest poverty in sub-Saharan African agriculture is a poverty of information. That's why the public goods of extension services, research and development have the potential to improve the lives of hundreds of millions of people directly, and indirectly, provided there is a 'joined-up' approach from public institutions such as universities and government ministries.

Evidence provided to the APPG suggested that it would now be practically and financially difficult for DfID to rebuild agricultural extension and translational advice services throughout sub-Saharan Africa along traditional lines. Nevertheless, the problem of how to get help and advice to smallholder farmers remains as important as ever and there is much the UK and others can do to find and fund ways of doing this.

One area demanding immediate investment is agricultural and nutritional monitoring and evaluation. This will provide much-needed evidence to help scale up new innovations that really work. In Kenya, for example, the Inquiry heard how there is no mechanism for Parliamentarians and others to find out what has succeeded or failed, apart from hearing direct from their constituents. Thus they have nothing on which to base future investment decisions. Compare this to the health sector, where evidence has been collated every step of the way.

Without this vital 'policy learning', there can be no investment or scaling-up of successful projects nor any lessons learnt from failed projects. In recent years, it was felt, donor policy had been too focused on primary education at the expense of secondary and tertiary institutions. Scaling-up local research into monitoring and evaluation could prove effective at developing capacity within African institutions and articulating the real needs of smallholder farmers.

The march towards achieving an African Green Revolution is about scaling up thousands of small successes occurring across the continent to create sustained transformation. It is also about making farming attractive to young people with ambition and drive. They are the generation we need to make change sustainable.

Kofi Annan, former UN Secretary

Land tenure and ownership are important but sensitive issues for agricultural development, comprising a complicated web of ancient traditions and modern law. Farmers must be confident about their tenures before they will reinvest in their farm. Farming faces competition from other resource-intensive industries such as mining, tourism and housing.

These issues are best decided locally, but partner countries can offer assistance with GIS mapping, land registration systems, negotiations and arbitration. Often the rights of the poorest and most marginalised groups are neglected in favour of much needed, but often misdirected, direct capital investment, while control over large swathes of natural resources is often unsustainable, both ecologically and socially. Meanwhile women, who produce the vast majority of food in Africa, are denied the right to own land in many countries. Property rights and land reform can unlock economic growth and empower women, giving them access to and control over their own finances and other crucial inputs.

Agriculture is the backbone of the rural economy and food security is a fundamental human right.

Jacob Zuma, President of South Africa

From the evidence received, 227 million hectares of developing country land has been sold, leased or licensed since 2001, while 60 million hectares of land was purchased or leased in Africa alone by foreign corporations and foreign state interests. There was little public, or even Parliamentary scrutiny. Such deals need closer monitoring so that they do not prove to the detriment of local people. It is ironic that as African agriculture's potential is realised, the more this danger is likely to increase. The UK and other donors can help promote appropriate land leases and contracts which benefit local farmers and communities. This could be achieved by establishing an international fund for supporting developing countries in land negotiations, or by establishing a facility of technical support and expertise upon which these countries could draw. This facility or legal

service could come from experienced volunteers in all countries who could provide their expertise at cost, not only in the setting up of commercial arrangements, but also afterwards in the mediation of disputes that might arise.

Land is often the primary focus concerning large-scale, long-term investments. Yet the true value of freshwater, essential to many economic sectors, is not widely recognised; water scarcity currently affects one in three people worldwide - either as a result of physical scarcity, due to unsustainable use; or as a result of economic scarcity caused by poor governance, lack of technical training and financial restrictions limiting access.

What do you do if you have no water and you have no food? You migrate.

Professor Sir John Beddington,

UK Government Chief Scientist

In sub-Saharan Africa only 2% of renewable water resources are used for agricultural irrigation. That compares to 36% in Southern Asia. Irrigated farming can more than double agricultural output; but, depending on how the water is managed, this could prove either beneficial or disastrous for the people of Africa.



Concern Worldwide and Mike Goldwater

Granddaughter of Karita Kayirangwa, president of the

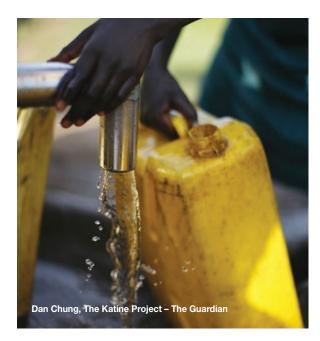
Abadasubirinyuma Co-operative, Southern province, Rwanda.

Demand for water is expected to increase by 40% in the next 20 years. Responsible production, environmental management and security of supply will be developing countries' biggest problems.

Agriculture accounts for 70% of all global water usage. According to the UN World Water Development Report, "Few countries are conscious of how much water they use, for which purposes and how much they can withdraw

without serious environmental consequences". Yet without this measured approach, the risks to production could increase food price volatility and undermine private sector development gains made elsewhere.

Fair recognition of water's role in food production provides developing countries with an opportunity to develop fair prices for agricultural goods; prices which represent both the cost of production and its environmental impact. Establishing a basic minimum water right will ensure cooperation between farms of all sizes to achieve environmental sustainability.



In Africa 90% of all river basins and lakes are transboundary. Britain and other countries must reconsider their positions on the UN Convention on Non-Navigational Uses of International Watercourses if the risks of future disputes between thirsty nations are to be minimised.

Groundwater, which is also transboundary in many cases, provides reliable water to more than 100 million people in Africa and is the resource of choice for developing rural water supplies. These underground resources must be defined by their location, quality, quantity and recharge rate, so they can be managed sustainably for future generations. This important mapping of African aquifers is constrained by a shortage of local hydro-geologists and, bearing in mind the wealth of hydrological experience the UK possesses, DflD's current work in assisting in this area could perhaps be increased.

Applying the UK experience in registration and control of abstraction licences, beyond a minimum right to water, will avoid the problems currently being encountered in some of the overused aquifers of India and China. Britain's extensive knowledge and experience has much to

contribute to appropriate conservation and application of water for agricultural purposes in the developing world.

Weather forecasting is taken for granted in most developed countries but becomes very important in agricultural development initiatives in developing countries. When a poor smallholder farmer invests in improved seeds with the aim of producing three or four times her normal yield, she is often risking all the family wealth to do so. That puts on the line her family's ability to survive, for if she plants and there is no rain to take the seeds beyond germination, the crop will fail and she will be unable to buy more seeds to feed the family.

This terrifying risk can only get worse with climate change and is not helped by the absence of good seasonal forecasts. Even 10-day or three-day forecasts are rare, for Africa has only one-eighth of the recommended number of World Meteorological Organisation climate stations per

It has often been said that the sustainable agricultural practices of the future will be knowledge-intensive...we must continue to ensure that the farmer is at the centre of these efforts... to make sure we reach our audience.

Not only does knowledge need to be disseminated; our knowledge networks need to be enriched, democratised, and expanded.

Kanayo F. Nwanze, UN IFAD President



thousand square kilometres. Often there is no link between them and the farmers, or even the extension services; the information simply does not reach the farmers. Evidence to the Inquiry indicated that farmers in Zimbabwe achieved an overall 17% yield increase when they had access to this information and were able to apply it. It was suggested to the Inquiry that the UK should draw upon the finances it has set aside for fast start climate change adaptation to develop training and support to link African farmers and extension officers into existing meteorological systems, providing farmers with accurate real-time information.

Already mobile phones are being used throughout Africa to disseminate information including weather forecasts. So, investing resources in further encouragement of free and localised agricultural information and weather 'apps' would seem to represent a good use of funds. Meanwhile, by contributing to the development of the observation network of climate stations, the UK could also build capacity in Africa to collect data sets to inform future policy at a

national, regional and international level and to help monitor climate change.

Concern Worldwide and Mike Goldwater.

Tomato seeds being planted at the Abadasubirinyuma Co-operative, Rwanda.



Agriculture in Africa has been held back for decades...farmers in Africa have also faced the lack of investment from the private sector as well as governments and the global community. These challenges have eroded the foundation of African agriculture. But that foundation is being rebuilt.

Hillary Clinton, US Secretary of State

The risk to crops from climate change events present a significant obstacle. Just 3% of agricultural losses caused by natural hazards are insured, compared to 40% in the developed world. How can we tailor innovative insurance systems to meet their specific needs? Such schemes might not only reduce the burden of risk, but also increase the ability to bounce back more quickly and more sustainably post-disaster. Index-based insurance programmes, for example, make payments automatically to a farmer's mobile phone if certain conditions, such as rainfall below a certain threshold, are met.

This micro-crop insurance provides a safety-net that can not only maintain a family's food security, but also give them access to other financial services such as credit – allowing further investment and a rise out of poverty. A recent trial in Ghana showed that farmers who were offered credit and micro-insurance experienced a 40% reduction in the number of households in which members missed a meal compared to those who only received credit or those who received nothing.

The UK has a strong insurance sector upon which DflD could draw to develop technical expertise and advantage in this area.

CRISIS AND CONFLICT

Food security is not just about food. But it is all about security...massive hunger poses a threat to the stability of governments, societies, and borders. Since 2007, there have been riots over food in more than 60 countries.

Hillary Clinton, US Secretary of State

At its inception, the FAO's founding vision was: "Progress toward freedom from want is essential to lasting peace."
Thus agricultural development must be seen as a long-term solution to a pervasive long-term problem. However, the need for food and nutrition is both essential and instant, particularly when situations arise as a result of man-made crises or natural disasters. It is the most vulnerable people, with the fewest survival options available to them, who are most affected.

Not just human welfare...

Around one billion of the world's poorest people rely on livestock for food, transport, draught, skins, building materials and fertiliser. Disasters can have massive impacts on livestock, affecting both short and long-term food security, debt, education, migration into cities for work, and malnutrition.

Loss of livestock also increases the amount of time taken for recovery following a disaster.

In Myanmar following Cyclone Nagris in 2008, 50% of the country's livestock was killed and many more injured. The loss of draught animals meant that local farmers were unable to plant rice and this directly affected longer-term food security. The importance of combining an animal welfare response with a humanitarian response cannot be underestimated, given the importance of animals to so many rural livelihoods. Yet this area remains largely unrecognised in traditional disaster response.

As these crises become more frequent, food security responses must involve multiple sectors and cover all approaches. The response must focus on meeting more than short-term emergency needs; we also need social and ecosystem resilience, for the long term.

Partner countries should not underestimate the scale of the problem. Crises such as the 2011 drought in the Horn of

Africa and the famine in Somalia are symptomatic of a wider humanitarian crisis where nearly one billion people suffer from chronic hunger and a further billion suffer from under-nutrition.

It is right that we tackle the crisis we see today, but we must also look forward to prevent the famine of tomorrow.

Andrew Mitchell, UK Secretary of State for International Development

The solution? A dynamic approach which acknowledges the immediate need for cash and food but recognises its insufficiency as an overall policy response. What's needed is a strategy of long-term post-incident agricultural rehabilitation, which can secure individual growth and livelihoods as well as the basic provision of services required by farmers to rebuild after such crises.

Humanitarian interventions are more than a quick fix 'get-in and get-out' engagement. Instead, they should be interpreted as the point at which the political need of addressing underlying structural issues becomes self-evident. While they meet short-term needs, they should also deliver long-term development to create sustainable solutions. Their deployment should address underlying factors, such as knowledge gaps in resource-poor and vulnerable communities. But it is the fundamental ingredient of sustainable agriculture - an adequate price per tonne - that is the most important outcome; this rewards the farmer and ensures that they have enough money to re-invest to maintain production the following year.

This model of sustainability gives individuals a stake in their local community, to provide the necessary incentives for increased local agricultural production. The approach must be farmer-centric, prioritising the individual farmer's needs while keeping local decision-makers informed and engaged, perhaps by creating opportunities for appropriate power-sharing mechanisms and involvement in wider national planning.

Bilaterally DfID continues to undertake a number of Conditional Cash Transfer programmes to help those who

cannot use agriculture to lever themselves out of their vulnerability. In Ethiopia the Productive Safety Nets Programme has helped keep 7-8 million people out of hunger in the past 5 years, while the northern Kenya Hunger Safety Net Programme has used monthly transfers of \$10 to keep highly vulnerable families from hunger. Both schemes were instrumental in restricting the effects of the recent Horn of Africa drought in Ethiopia and Kenya, whilst also providing excellent value for money by reducing the need for further reactive disaster relief. Yet while such mechanisms may help to avoid further deterioration of the

Post-conflict redevelopment: why agriculture's important for Angola

In 2002 Angola came to peace after many years of debilitating conflict. In the past nine years successive Governments have faced the challenge of achieving political stability whilst engendering much-needed development within the country. During the war much of the country's infrastructure was destroyed. Government priorities are still largely focused on the removal of land-mines and the rebuilding of roads.

However Parliament recognises that agricultural development and the creation of sustainable valuechains, via better transport and storage, remains central to reducing poverty and increasing long-term stability. One such programme aims to develop 'new villages' where former combatants are inserted into civil life as agricultural and value-added practitioners. The aim is to commercialise agriculture and diversify the crops in production in order to kick-start a broader economy. Similarly the Government has signalled its intention to invest in agricultural research with the establishment of the Faculty of Agricultural Sciences at Wambo University. Angola is also co-operating with Brazil on the production of grains and fuels and in the Mkala region on several irrigation projects.

situation, what's really needed is a mechanism to bridge short-term coping strategies with longer-term resilience building for food security.

While hunger is widely acknowledged to be found in the aftermath of most crises, there is an increasing awareness of the role that hunger can play as a cause of conflict development - a point borne out by the widespread 2008

food riots which spread over four continents and affected over 20 countries. Within sub-Saharan Africa there is a statistically significant correlation between access to adequate food and perceived levels of well-being. Interventions that promote food security could be a positive step both to secure individual livelihoods and to facilitate stability in the surrounding community.

In sub-Saharan Africa, some 57% of the population has experienced at least one time in the past 12 months when they have not had enough food to meet their families' needs.

Looking beyond sub-Saharan Africa to two countries recently affected by the Arab Spring, Egypt and Tunisia both show interesting trends. In Egypt it is noticeable that

Overcoming the continent's agricultural challenges will provide the platform for Africa to meet its wider ambitions of prosperity and peace. It is why the neglect of Africa's agriculture in recent decades has been so damaging and its impact so serious.

Kofi Annan, former Secretary General of the United Nations

the proportion of people unable to meet the fundamental food needs of their family rose from 23% in 2009 to 36% in 2010 and to 43% at the start of 2011. Similarly in Tunisia the figure rose from 11% in 2009 to 17% at the start of 2011. At the same time the number of citizens of these two countries declaring themselves as 'thriving' markedly fell, despite increases in GDP per capita over the same period.

Donors can, and must, do more to reduce vulnerability in advance of shocks, building resilience and adaptive capacity into local food systems. Knowledge and training allows individual farmers to modify and transform the ways in which they produce food, and to sustain their local community in the event of a livelihood-threatening event. But it is difficult to measure impact and ascertain value for money in interventions to build local resilience, given that the opportunity cost of not investing in such schemes cannot fully be appreciated where they succeed. Lord Ashdown's recent Human Emergency Response Review estimated that £1 invested in prevention could save as much as £4 in response. Professor Paul Collier, Director for the Study of African Economies at Oxford University, has stated that a 1% increase in a society's development results in a 1% reduction in the likelihood of violent conflict.

Only a handful of societies develop without first developing their agriculture. With up to 80% of African citizens engaged in agriculture, it would seem pragmatic to believe



Sierra Leone aims for self-sufficiency

"Agriculture is very important in Africa and at election times energy and agriculture become a major focus"

Sierra Leone High Commissioner

The average consumer in West Africa consumes 104kg of rice per capita per year. Sierra Leone used to export rice to West Africa, but its capacity to produce, harvest and transport crops was severely damaged by 11 years of civil war.

Much of the arable land that was once returning surpluses is now used for subsistence farming, resulting in a 30% annual deficit in rice production, approximately 115,000 metric tons.

The Sierra Leone Government is now trying to introduce mechanised farming, with the help of donors like China and India who have part-provided 380 tractors to increase the land under cultivation. In addition the Government has released new improved rice seed to farmers and increased access to farm inputs, although areas such as the Guinea border still has no mechanisation; here, farmers rely on cattle, hoes and intensive labour. More than 80% of the rural population (5.6 million people) depend on the land for their livelihoods while 96% of these people produce rice.

The overall Government aim is to be self sufficient in food production by 2011/12. As in much of Sub-Saharan Africa, land ownership is a problem; the current system is a mix of traditional ownership (run by the Chiefs and Elders) often overlapping with small scale ownership. Parliament is now trying to align and integrate the two systems although a large amount of land remains unused.

A college faculty focused on agriculture does exist at the national university. However, indigenous knowledge used by smallholders has not been collected and there is no relationship between them and the academics. Smallholders also tend to lack the organisation required to form associations which might enable them to collectively access micro-finance and markets.

that agricultural development and food security provide the highest potential returns for building resilience. They also offer the most viable route for reintegration back into society for former combatants and those displaced. The stabilisation of agriculture is stabilisation through agriculture.

Much of the UK's current contributions in the event of a crisis are made through UN architecture such as the United Nations World Food Programme (WFP) which has successfully sought to reform its operations over the past few years.



Sven Torfinn/Panos Pictures/ActionAid

Vasta Metani (29), sifts through some of her rice harvest which is drying in the sun, Mlaviwa village, Phalombe district, Malawi.

One success story is the WFP's recently launched Purchase for Progress (P4P) Programme. This helps the WFP secure local and regional sources for its food aid and provides the smallholder farmers involved with a secure and predictable market for their output. Such interventions provide an important foundation for other institutions (such as the UN Food and Agriculture Organisation (FAO)) and

the private sector to enter the scene dynamically, transforming local agriculture in the longer-term.

Despite this and similar successes, the single-year funding of the UN WFP inhibits both its effectiveness and its ability to act in anticipation of impending crises. Currently the WFP begins each year with a funding balance of close to



zero given that it has no financial reserves and no borrowing capacity. Its reliance on donations for specific crises means that donor contributions often arrive too late to respond in an adequate way. This can prolong the crisis and suffering, as well as costing donor nations more in the long run. But by supporting the work of the WFP over longer cycles, the UK could help the WFP avoid panic buying of short-term needs and help the P4P programme release the potential of a far larger number of smallholder farmers.

Encouraging the UN World Food Programme to work with the UN FAO can help to ensure the restoration of wider food production as soon as possible after a crisis. Indeed, itself going through a much-needed reform, the UN FAO's structure and mandate provide a means for evaluating longer-term problems in the field and their potential solutions.



FOCUS ON THE PRIVATE SECTOR

Farmers are entrepreneurs, and by partnering with companies they can get the access to the markets, financing and technology they need.

Chengal Reddy, co-chair of the Indian Farmers and Industry Alliance

There is a growing appreciation that the answer to longterm sustainable agricultural development including smallholder farmers lies, at least in part, in the private sector and the encouragement of more commerciallyoriented farmers.

Farming is a commercial enterprise but the private sector has not always engaged well with smallholders. Governments, with assistance from donors, must act to create the conditions that attract pro-poor private sector investment to secure and sustain the livelihoods of smallholder farmers. This by its very nature needs to be a long-term venture.

Government's role in kick-starting a commercially-viable smallholder agriculture should include the building of infrastructure such as rural roads; the provision of inputs through subsidy schemes; the removal of barriers to an effective marketplace; and frameworks for coordination and cooperation of public sector partnerships with the private

sector. The provision of public goods in areas such as research, agricultural education and extension are also part of the long-term role of governments.

Poor farmers often can't afford to risk planting a different kind of crop, trying out new and more environmentally sustainable methods of farming, or seek new markets for their produce. But making such improvements is an essential step for economic growth and for increasing global food production. If smallholders and other poor rural people have opportunities to be entrepreneurs...rural situations can be transformed. And although agriculture will remain central to rural life, it will need to be just one of many paths that poor rural people can take to overcome poverty.

Kanayo F. Nwanze, UN IFAD President

The African Enterprise Challenge Fund (Nairobi):

New financial instruments seem to indicate that private sector engagement with smallholders can have potentially game-changing impacts.

Challenge Funds engage the private sector as a key actor in development by awarding multi donor cost-shared grants. These deliver programmes, with both business and pro-poor agendas, in areas which business would not ordinarily be willing to engage. Innovation and additionality are key attributes that ensure added value in areas that would otherwise face high risk barriers of implementation and where commercial banks would not provide support. The Challenge Fund aims to unlock the longer-term potential for the business in terms of its profitability, sustainability and high developmental impacts.

In South Sudan the Challenge Fund allowed the brewer SAB Miller to develop an outgrower scheme to source sorghum from smallholders, commercialising their enterprises.

It's a similar situation in Sierra Leone, where agribusiness has remained largely dormant since the civil war. Despite this, the Challenge Fund has supported the development of a certified organic cocoa plant, exporting to Switzerland and redeveloping a value chain which currently sees cocoa take eight hours to travel from farm gate to port before even leaving the country.

The Challenge Fund:

- Contributes up to \$1m grants to agribusiness with companies contributing at least 50% to leverage money from beyond the usual donors
- Invests in businesses that have the capacity to manage the process for the fund including project preparation, support and management
- Funded by the UK, Netherlands, Australia and others
- Has contributed to 40 projects in 18 countries with \$27m dispersed to date and 2.5m people reached with improved incomes
- 80% of projects have been in agriculture, including cassava and avocado outgrowers for export and import replacement, agri-input schemes, rural finance, etc

To integrate successfully with the value chain, smallholders need a fundamental change in approach, becoming market rather than substance oriented. They must think about the end market before they plant their seeds, and a market that can buy agricultural products on a consistent basis will stimulate production and allow the creation of vibrant value chains in the rural economy.

Business can help transform agriculture, but we can't do it alone...by working collaboratively with farmers, governments and others, we can achieve our common goals of increasing health and prosperity while protecting the planet.

Paul Polman, CEO Unilever

Public or private investment that improves the workings of the market chain, and reduces risk, will reap large dividends for smallholder farmers and the local economy. Energy supplies must be included within infrastructure development, so that smallholder farmers can process or add value to their crops. This develops local value-chains and allows the development of rural enterprises; ultimately this helps a greater number of people out of poverty and out of primary level agriculture.

It is important to appreciate that decision-making in the private sector is influenced by business interests. So if governments can reduce transaction costs in the agricultural sector, the private sector is more likely to invest in agriculture.

Patient capital makes markets work for the poor by balancing seemingly competing aims: it is an investing approach with long time horizons; it's about building systems that encourage – indeed demand – real, sustained, and honest engagement with low income people as active participants; it uses markets not to maximise profits but as a listening device, because when someone has the choice to pay for a product (even at a subsidised price) she has the chance to have a say about what she desires, what she feels is worthwhile, what she does and does not want.

Jacqueline Novogratz, Acumen Fund

For example, in some countries a lack of foreign currency combines with a current need to import food and makes local sourcing a double priority. By identifying imported goods that could be grown locally, substantial national benefit can be gained.

The governments of Kenya and Uganda, for example, have reduced the duty payable on alcoholic beverages when

Simple actions enable farmers in Zambia to pull themselves out of poverty

EPFC (Eastern Province Farmers' Cooperatives) is a not-for-profit business set up by UK entrepreneur John Hamlin in 2007 to provide farming services to smallholder farmers in Zambia. The organisation gives more than a thousand registered farmers an opportunity to access knowledge, links to market and become selfstanding businesses. Practically, EPFC offers its farmers: training, high quality seeds, and the purchase of their crops at a farm-gate price that matches or betters any other buyer. This has transformational effects for the farmer. Typically any farmer joining EPFC has earned less than \$100 in the previous year. After 3 years, the most organised farmers have the means to earn in excess of \$3000 per annum. This is more than enough to take the farmer and his family out of poverty with sufficient money to pay for school fees, health care, home improvements and, crucially, to invest in improved farm productivity.

From 2012 onwards, the development of this first EPFC group will be entirely covered through operational surpluses and, in time, the group will benefit the local economy by more than \$3m each year. This is money that is generated entirely by the farmers and is completely self-sustaining. As most of the money is spent close to home, this draws in traders and provides a general improvement in infrastructure creating a lively and healthy local economy.

With a small amount of seed capital, the next period will see EPFC scale up its operations to include several thousand more farmers. This will build on the experience of selling into regional markets in Zambia, Malawi and South Africa to access the growing demand for their products in Europe and Asia. Crucially, this creates a self-sustaining link between the needs of local farmers in Africa with the needs of people in the North.

production uses local raw materials. This incentivises companies to invest in capital infrastructure to avail themselves of such benefits. Kenya has taken this a step further by removing all duty payable on the early stages of a brew made from local barley; it counteracts the illicit, often harmful, production of alcohol. But it has allowed the company concerned to source more grain from farmers and indirectly increased the tax receipts for the government too.

Why losing less is as important as growing more

Developing countries can suffer very significant post-harvest losses of food. Global demand for food is expected to rise by as much as 70% in the next 40 years, yet reduction of post-harvest losses could offset over half that additional need while increasing the incomes of smallholder farmers.

Often only very basic interventions will prevent losses, which generally occur close to where the crops are grown and are the result of lack of expertise, incentive or the ability to adopt preventative measures. Levels of losses, and the preventative measures that may be adopted, range from the relatively stable commodities such as cereal grains, pulses and oil seeds, to more perishable items such as fruit, vegetables, fish and meat.

For cereal grains, pulses and oil seeds, losses commonly occur due to grain scattering or as a result of bio-deterioration caused by various pest activity. Cumulative losses of cereals grains in sub-Saharan Africa typically range from 14 to 17%, with a potential value of around US\$4bn per annum.

For roots and tubers such as cassava, yams, sweet potatoes, etc, post-harvest losses are of the same order of magnitude. For example, Africa-wide cassava losses in 2002 were estimated to be about 18% or 101 million tonnes.

Here, poor handling, marketing and transport are a particular problem.

There are few accurate loss figures available for fruit and vegetables. Unlike grains, there are no generally accepted methods for assessing losses of fresh produce. Individual case studies give losses ranging from 0% to 100%.

Losses of the very perishable animal and fishery products can be very high, although surprisingly few reliable studies are available. Aggregated figures for Africa suggest that for fish, financial losses would be at least US\$ 70 million for each percentage point of loss.

Much more investment is needed into research on loss prevention measures and disseminating best practice for prevention.

Access to finance and investment remains a major barrier for smallholder agriculture. Few lending institutions are willing to take on the associated risks of investment for less

Concern Worldwide and Mike Goldwater.

Zainab Nyirazirwanda, 45, a widow whose husband died in 1994. Gakenke district, Northern Rwanda.

than 20-30% interest annually. Demographic change over the next 20 years will intensify this issue as more men and women of working age create demand for savings, loans and other investments.

While donors themselves should not take on the role of a bank, there is an opportunity to facilitate an increase in private sector investor confidence, and encourage NGOs and others who have demonstrated a clear reduction in the risk associated with agricultural investments. Private sector investment would open the door to new finance streams for farmers, providing catalytic capital which will in turn generate additional funding from other sources.

While public-private partnerships are the best route to long-term sustainability, such schemes need good co-ordination to bring benefits to smallholder farmers. Mozambique has leveraged some £1.5bn of agricultural investments over 10 years by using £200m of public sector money alongside £100m of donor finance as a catalyst for wider investments. By reducing entry costs and developing competitive, flexible and sustainable markets, sufficient critical mass has ensured economies of scale that deliver equitable and beneficial relationships for smallholders. This has allowed the public sector to gradually retreat from this sector in the knowledge that the market is beginning to work.

Sharing in Diageo's chain of African success

Diageo began its African operations in Sierra Leone in 1826 and now operates in 40 African countries. It is interested in long-term social and economic development by stimulating agricultural development and creating value for all Diageo stakeholders. It has a large agricultural footprint, including the development of agricultural corridors with the World Bank; value chains with NGOs in areas such as developing seed types; technical assistance with linking to markets; and microfinance as an enabler for smallholders.

Currently it employs 5,000 people directly and 100,000 indirectly. It pays over £400m in taxes to African governments and over 100,000 local shareholders own many Diageo businesses and receive dividend payments. An example of Diageo's activities is the development of local value chains in order to source 250,000 metric tons of grain a year for its 14 breweries across the continent. Some 60% of this grain is locally sourced, developing local markets as a catalyst for wider development and sustainable livelihoods for local people.

It provides extension for local farmers including 'know-how' on seed types and farming practices. Their engagement stimulates farmer investment into the production of other crops and investment into up-and downstream areas such as transport and storage.

Other examples of the extent of Diageo's work include Nigeria, where every year Diageo purchases 50,000 tons of grain and supports 30,000 local farmers, and Uganda where 2,000 smallholders with some 1-2 acres each have come together to sell barley to Diageo, with resulting improvements in infrastructure to aid the movement of grain. All this is undertaken at a cost competitive to landed costs in the EU.

Public and private sector engagements require consistency of approach. Some investments may only see returns in the medium to longer term and a long-term relationship (minimum of seven or eight years) is needed for smallholder farmers to lift themselves out of poverty and benefit all partners. Indeed, while the private sector must be a driving force, Governments have an important role as interested facilitators, safeguarding the emerging processes and agreements. An innovative approach taken by the World Bank in Nigeria has seen the establishment of codes of practice for employers with global compact standards on employee well-being, for example. This embeds best practice in the private sector companies themselves.

Before feeding the world Africa needs to be able to improve conditions for its own people and it needs to make considerable effort on this front. International aid will therefore continue to play a key role.

Societe Generale 2010

The private sector is likely to play a significant role in lifting a large number of smallholders out of poverty. But this growth is likely to focus on smallholders in the most favourable and easily accessed locations – those on the most productive land or in proximity to urban developments. Similarly, growth will focus on profitable

Priority must be given to growing more food, not cash crops. The market within Africa for staple food crops is estimated at \$150 billion a year. This far exceeds the revenue Africa receives for internationally traded cash crops like coffee, cocoa, tea and cut flowers. Food — primarily for domestic consumption - must be our focus

Kofi Annan, former Secretary General of the United Nations

cash-crops rather than on staples for local markets. Some interventions will therefore be necessary, to fill the gaps where the private sector is not operational. Engagement with trade associations working with poorer, food-insecure farmers will be important. Those who grow food for themselves, rather than for the market, must also be given opportunities.

Modern techniques have been applied most aggressively to the big cash crops in rich countries. Just like in health, there isn't a lot of market incentive to use the latest science for the needs of the poor.

Bill Gates, co-chair and trustee of the Bill and Melinda Gates Foundation

NUTRITION

Stunting causes a 10% reduction in lifetime earnings potential and a 3% reduction in annual GDP

Proper nutrition in developing countries is a major issue, yet neglected. In 1990 about a quarter of all children in developing countries were estimated as being underweight. More than 20 years later, the figure remains obstinately at one-fifth. Similarly, an estimated 178 million children were stunted in 2005 whereas the current UNICEF estimate is that 195 million children are affected by stunting today, representing one in three children under five years of age. In all developing regions, children in rural areas are more likely to be underweight than urban children.

A child suffering from malnutrition at a young age has diminished her lifelong potential before the majority of her life has even begun.

Raj Shah, Administration USAID

The APPG Inquiry Team supports the argument that if the debates on food security and agriculture are to reflect all of the critical issues, then the issue of nutrition must take equal billing alongside. This approach responds to the unique vulnerability and support required by women and young children in the area of nutrition. Food security policies and interventions must fundamentally recognise and address the multiple drivers of hunger and malnutrition which extend beyond a simple focus on producing more food.

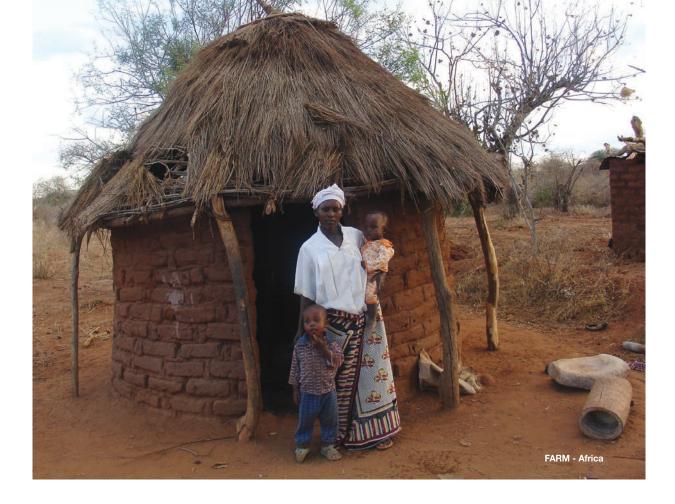
A broader consideration of the socio-economic and cultural factors which affect livelihoods and consumption patterns is required to develop diverse and complementary strategies to improve household diets and meet their specific nutritional needs. This is of particular concern when considering children and pregnant and lactating women. Here, a simple focus on providing a set kilocalorie-based diet is inadequate, as it neglects the crucial need for adequate protein, fat, vitamins and minerals. Child stunting, if not addressed before the age of two, causes irreversible physical and mental impairments – a stark and permanent loss of individual human potential. This has serious consequences for the child, their family and the wider national economy.

In the Democratic Republic of Congo, research has shown that the biggest limiting factor on food and nutrition security is income. That has major implications for larger households, particularly their ability to provide their children with the nutrients they need to grow up healthy, do well at school and become economically and socially productive adults. There is also a stark contrast between the cost of a nutritious diet – that is, one that meets an individual's requirements for energy, fat, protein and micronutrients – and a diet that meets energy requirements alone. A diet that provides sufficient energy for children is four times cheaper than a diet that provides the required nutrients for optimal growth and development of children. For those families surveyed, that nutritious diet remained out of reach.

Food security is as much about access as it is availability, as much about quality as it is quantity. While the world saw some improvements in the absolute number of people hungry in 2009, the complication here is that an increase in aggregate food availability does not necessarily equate to improved nutrition. Subsequent price rises and increasing volatility in markets continues to hit the most vulnerable hardest: nowhere more so than in economic access to a stable nutritious diet, meaning that more people are going hungry than before. Estimates suggest that on top of the one billion hungry people worldwide there are a further one billion who suffer from hidden hunger.

The World Bank's 2007 report, "From Agriculture to Nutrition: Pathways, Synergies and Outcomes", acknowledges that the majority of agriculture programmes have not sought to have an impact on under-nutrition and do not measure any impact in this area. Therefore DfID must integrate nutrition into its agricultural programmes, adopting a multi-sector approach that ensures impact and measures its effect.

Cash transfers have been seen to have a major positive impact on households' diet quality, providing nutritional equity to the very poorest families. Given that 75% of rural and 97% of urban households are net buyers of food, even in agricultural areas, the importance of reaching consumers with nutritional intervention cannot be underestimated. Food security policies here, as elsewhere, must be gendersensitive and address the multiple roles and challenges women face. Only by addressing these issues can donors help to maximise their capacity to produce and provide for their children in a manner which guarantees their long-term development.



DfID's recent strategy, "The neglected crisis of undernutrition" focused on a cross-sectoral approach combining specific, direct interventions such as the treatment of severe acute malnutrition, alongside indirect interventions such as social protection programmes. In addition, the strategy highlighted DfID's commitment to addressing the gap between agriculture and nutrition through a three-pronged approach which is critical to agriculture's contribution to MDG1: (1) a focus on consumption as well as production, with a particular emphasis on the lack of economic access since the poorest families are net food buyers; (2) nutrition education to farmers with a particular emphasis on women; and (3) investing in agricultural research to help identify approaches that can tackle under-nutrition. The UK Government must deliver on this agenda if it is to reach its ambitious goal to "improve the nutrition of at least 12 million children over the next five years", a figure which amounts to ten per cent of all undernourished children around the world.

Agriculture is the most important pathway to nutrition, notwithstanding the fact that the nutrition and agricultural agendas are, and should remain, autonomous and distinct. However, better coordination, cooperation and learning between the two agendas is required. Both nutrition and agricultural development require twin tracks: short-term alleviation and longer-term prevention. Links in agricultural pathways should consider the role of nutrition, health and social protection, and that the design of social safety nets

should complement agricultural programmes, to ensure they reach the very poorest citizens including those labourers without land of their own, given that the advent of industrial jobs for women away from the agricultural sector may have a detrimental impact on child nutrition.

With better diets comes market diversification and increased demand for new agricultural products. Markets are the only way of properly engaging millions of people and creating new opportunities for them, especially in rural areas where the problems are most acute. Increased incomes from agricultural activities, on which rural communities rely, may also make more resources available to families to manage illnesses. Higher-quality diets can help to strengthen the resistance to the worst effects of HIV/AIDS and malaria; additional income can also be used for health services.

We strongly believe that with our commitment and hard work we can bring stability and we can bring prosperity to the Liberian people, to a nation once characterized as a failed state. We can become a post- conflict success story building upon our agriculture activities.

Ellen Sirleaf Johnson, President of Liberia

How cash transfers aid nutrition

In Tessaoua district, Maradi region, Save the Children targeted 1,500 of the very poorest households with cash transfers. They could then afford a far wider range of nutritious foods and improve their children's nutritional intake. After the first distribution some 80% of households were able to enrich the millet-based gruel usually given to young children (notably during the weaning period) with milk, compared to just 50% prior to the first distribution. The additional spending on food led to a substantial increase in intake of fats, proteins and micronutrients (calcium, folic acid, vitamin C, etc.).

A similar scheme in Nicaragua, where the average stunting prevalence nationally was 41.5%, led within two years to a reduction in malnutrition among children in families receiving cash that was 1.7 times greater than the national trend. In South Africa, children in families receiving a pension are on average five centimetres taller than children in families without a pension.



Concern Worldwide and Mike Goldwater.

Triphonie Bosenibo, 36, with Valentine Umutesi, 18 months. Gakenke district, Northern Rwanda.

INFORMATION TRANSFER AND TRAINING

A poor person, even if they have land, will remain poor if they are not creative. But a poor person, even if they are landless, can break out of poverty if they have the means to be creative and innovative.

Kanayo F. Nwanze, UN IFAD President

Farmers throughout the globe realise the importance of knowledge and information. Nowhere is this more true than the poor countries of the world, like sub-Saharan Africa, where the margins between success and failure are so small but the consequences so great.

Centuries of practice show that smallholders are determined and resilient. Although they usually have a desire to upgrade their technical knowledge, they tend to be risk averse. Currently, however, not only are small-scale poor farmers not receiving appropriate information on new or improved agriculture techniques, but in many cases they have also lost the traditional knowledge of a generation of farmers decimated by the AIDS epidemic. A means must be found to support new and innovative extension systems, farmer field schools and other methods of reaching diverse and spread-out populations. In this way, existing indigenous knowledge can be recorded, adapted and used in combination with new information and techniques. The increasing local capacity, augmented by partner organisations, can then transfer this knowledge to other farmers. This is particularly important if we are to achieve that important transition from subsistence to marketorientated production.

DfID sees building long-term resilience into national agricultural systems as key in reducing the effects of potential food crisis in the horn and across the whole of Africa.

Andrew Mitchell, UK Secretary of State for International Development

Reliable, timely and accurate information allows farmers to mitigate some of the many risks faced in their day-to-day activities. Much of the knowledge required, such as that on improved seeds, production techniques and post-harvest storage already exists, although it usually needs adapting to local contexts. Yet there is a real problem in terms of the separation of research, teaching, extension and policymaking which permeates both the developing and developed world.

If research is to achieve the level of poverty alleviation that it desires, then a new means of linking these services together must be implemented. Those who undertake

research may be rewarded in terms of peer reviews and publications, but they are given few incentives for passing on developed knowledge to the next stage in the chain, let alone extending such research down to the end user in the field. Sometimes this may be the fault of the scientists, but

One aspect to many of these solutions...is the need for international co-operation. Gone is the time when individual aid agencies or international financial institutions could have a significant impact alone, without broad co-operation with other institutions, domestic and international, working on the same themes

Kevin Cleaver, associate vice-president Programme Management Department UN FAO



Dan Chung, The Katine Project - The Guardian

more generally researchers are simply frustrated as they are not given the means to extend their research findings from laboratories to farmers. Grants to African research institutes simply allow them to open their doors in the morning and shut them in the evening, whereas visiting farms requires vehicles, fuel, overnight subsistence and more. Furthermore, the advantage of scientists visiting farmers is that the scientists learn about the real problems on the land, which are different to those to be overcome in the laboratory.

We need a new mechanism that allows successes and failures emerging from research initiatives to be processed

through collective learning and so become a basis for policy and decision-making. Until we have it and governments and donors continue to 'stay the course' by seeing preliminary research translated into developments in the field, it will remain extremely difficult for agricultural research and development to realise its full potential. The lack of such links is indicative of the neglect that African institutions of higher education and research continue to experience as well as the lack of priority currently given to developing capacity in the developing world.

We also need to rekindle interest in the agricultural sector as a viable business option, a valid career choice for

We must also...strengthen linkages between the smallholder and the larger, marketoriented farming operations. This is not a matter of big farms versus small. Responsible, large scale farming systems can play an important role in directly supporting small farmers through technical advice, transfer of new technologies and support and access to markets – as long as smallholders are not undermined by large scale land acquisitions

Kofi Annan, former UN Secretary General

smallholder farmers, and a rewarding option for the vast number of undergraduates leaving university but unable to find jobs in other sectors. Learning institutions must reconnect with agriculture; primary and secondary schools with farming communities; and high schools with the



Dan Chung, The Katine Project - The Guardian

productive sector, especially in rural areas. Indeed the urgency of this requirement becomes all the more apparent when one considers that a large number of agricultural researchers, particularly in Africa, are now moving towards retirement. Few experts of a similar stature are emerging to

Cambodian model provides inspiration for Mozambique

International Development Enterprises has set up a franchising organisation which buys bulk inputs like seed and fertiliser and breaks them down into the small amounts needed by smallholder farmers. It then provides training and business support for franchised advisers who visit smallholders and give them advice on crops and markets. The central franchiser sells the products – including irrigation equipment - to the advisers at a profit. The advisers, many of whom get around on motorbikes, sell the products on to farmers, also making a profit. In other words, the system operates throughout as a market place. The advisers are small businessmen in their own right and the farmers buy advice, equipment and inputs at a price they can afford, in a form and in quantities they can easily use as part of a programme to boost the range, quality and value of their crops. At present there are 60 advisers but the aim is to expand until there are some 600 farm advisers operating as franchisees. At that point IDE intends to spin off the whole opera5on as a self-sustaining business – maintaining the market concept right through to the end.

Plans are well advanced to introduce the programme to Mozambique, before wider deployment across Africa and Asia.

take their place, resulting in a growing gap between the required research and the actual capacity of research institutes. International research centres such as CGIAR are subject to restructuring and refunding, but this substantial investment by the international community will not achieve the desired developmental impact if the national agricultural research institutes remain weak. It is here that governments and donors have truly failed. The public sector's ability to deliver research at a national level must not be diminished further, following the marginalisation and closure of many institutes in recent years. This is also true of UK institutions and their distinguished history in supporting, partnering and building research capacity in other countries.

The UK's once considerable research capacity for the developing world has been greatly reduced in recent years and the UK economy has likewise lost a considerable opportunity. However, despite the considerable recent advances in agricultural research across the world, UK institutions still have a unique opportunity to partner with those in Africa. Such moves would provide much needed capacity building as well as triangular research partnerships with other middle income and developed countries such as the BRIC countries. Brazil and China in particular, spending \$1.8bn and \$1.1bn respectively per year on agricultural

Central to the resolution of the ethnic tensions and clashes is the issue of food security and agricultural development. You must know that a hungry man is an angry man. A man with an empty stomach is boiling volcano but a full stomach is a well of peace.

Gen. Salva Kiir Mayardit, President of the Government of South Sudan

research, have much to offer in terms of knowledge base and experience. External financial investment in African agriculture brings associated benefits to trade, transport, business development and construction.

Within the developed world DflD should look to build more partnerships with the EU's large agricultural research bodies and the US's Feed the Future initiative. Given that progress towards MDG 1 can be said not only to be stalling, but moving in the wrong direction, additional focus and cooperation is required in this area to ensure that hunger does not blight another generation of Africans.

Demand remains for highly skilled scientists and researchers to develop food systems in developing countries and yet few are coming forward to take on the challenge. Countries like the UK should help kick-start the market by training the next generation of scientists in order to help build capacity

in developing countries and to help them develop their own home-grown expertise.

Despite the existence of good research, the major challenge remains providing farmers access to this knowledge while ensuring they retain local ownership of the process. There are some excellent institutions in Africa and elsewhere delivering excellent research results, but they require further long-term capacity building and support to promote local ownership, whilst also embedding the relevant knowledge in



Dan Chung, The Katine Project - The Guardian

the community. This will provide communities with the means to solve their own problems in the longer term.

Agricultural extension and the linking of farmers to markets must remain a two-way process incorporating knowledge accrued in the field with that developed by both local and international research institutions. Currently there is often a dearth of information on what is happening on the ground. Without this input it is impossible to understand the problems farmers face as they see them, and to develop solutions that can tackle them.

Many remaining extension services, particularly in Africa, are currently stretched to breaking point. Innovative and inventive solutions are required to engage groups of farmers, because targeting individual farmers has become an impossibility in terms of time and costs required. Investment in information provision and extension services must promote 'horizontal development' between farmers, cooperatives and other grassroots organisations to develop a platform for cost-effective future engagements where the voices of even the poorest farmers can be heard. In Tanzania larger farmers have engaged in such a process whereby both their knowledge and discounts (for example, a 25% reduction on the cost of imported fertiliser) are benefiting their neighbouring smallholders.

SUMMARY

If donor and developing countries are seeking a catalyst in the developing world to improve the local economy, provide long-term stable nutrition, help the role of women in society and provide the means to educate the next generation, then focusing on smallholder agriculture is really the most productive way to achieve it.

The efforts to link subsistence farmers to markets and then, as appropriate, to the world of profitable agriculture have to be driven at the highest levels of government in the countries concerned. But such governments must actively involve the local smallholders themselves and develop their capacity to learn and become responsible entrepreneurial farmers.

Donor governments' role is to provide some of the building blocks for these locally-led programmes. These could include the monitoring and evaluation of training and investment programmes; satellite registration of land boundaries; assistance in achieving equitable outside investment in farming and food processing which still allows the local farmers to prosper; improved storage and distribution of water; improved storage of crops; better weather forecasts that actually reach the farmers; and

above all helping improve the access of farmers to capital with which to upgrade their irrigation, crop storage and marketing facilities.

In the wider world, the UK and other donor countries must ensure that the UN World Food Programme and other international organisations have proper multi-annual funding. Only in this way will they be able to promote the necessary long-term resilience building programmes, which are so much cheaper and effective than the alternative of emergency aid in order to deal with the sporadic crises which would otherwise occur.

All developing countries must encourage appropriate, sustainable and equitable private sector investment in agriculture, both from beyond and within their boundaries. At all times the interests of the smallholder farmer must be paramount. But this does not preclude larger operations, which can not only provide the scale to justify the public sector infrastructure investment necessary to kick-start a local agricultural revolution but also economies of scale to enable access to appropriate inputs, training and processing at appropriate times.



Sven Torfinn/Panos Pictures/ActionAid

Agnes Topola and husband Justin who began farming in 1981. Nagoli village, Phalombe, Malawi.

Governments must ensure that the commercial voice of the local farmer is developed and given the priority that it merits. One cannot forget that at an aggregated level, smallholders represent the vast majority of production, employment and land in the developing world and yet seldom have a voice in discussions that reflects this. Governments must also ensure that she or he has access to cheap capital and training to allow them to properly develop their business, should they wish to, in the longer run.

There is no doubt that development of a varied and mixedcrop agriculture will also help prevent the serious malnutrition that currently exists in some parts of the world. Too often traditional diets have left children short of

Investing in agriculture is one of the most high-impact cost-effective strategies available for reducing poverty and saving and improving lives...oftentimes people think if you're modern, you don't do agriculture anymore. Well, nothing could be further from the truth. If you don't do agriculture, you don't eat. And that's the most important goal of any society – to sustain itself and to sustain the next generation.

Hillary Clinton, US Secretary of State

sufficient vitamins, iron, minerals and protein to develop cognitively and physically into fully functioning adults. Training mothers to understand the need for mixed diets could in turn lead to increased demand for new agricultural products.

But the greatest poverty in Africa remains that of information and knowledge. All countries must continue to invest in agricultural research, both on an international and local scale. The biggest problem to be overcome remains communicating the considerable progress being made in the research stations to the mostly-female farmers on the ground. What's also required is an effective feed-back loop, allowing smallholders to be active agents in developing solutions to their problems. Local Governments must be encouraged to properly fund their agricultural extension services and to understand their importance. Technology can help to provide answers for the communication problem.

This report paints a clear picture. The millions of subsistence farmers in sub-Saharan Africa need training in how best to grow and market modern agricultural crops, or else Africa's forecast population explosion will compound with climate change to result in future humanitarian disasters and conflict that will be far far costlier than today's delivery of agricultural assistance and information.



Concern Worldwide and Mike Goldwater

Genevieve Manishimwe, 40, Nyange village, Gakenke disrict. She has four children, including Diane, 7. After support from Concern her farming has bought in additional money, which she has used to build a house and to buy three plots of land, a cow and two pigs.

GLOSSARY

APPG

The All-Party Parliamentary Group on Agriculture and Food for Development is a group of MPs and Peers, of all political backgrounds, from the UK Parliament. Its meetings are also attended by academics, members of affiliated NGOs and other experienced and interested parties.

BRIC

An acronym referring to the countries of Brazil, Russia, India and China. Coined in 2001, it describes these four countries as being at a similar stage of newly advanced economic development.

CAADP

The Comprehensive Africa Agriculture Development Programme is the agricultural program of the New Partnership for Africa's Development, a programme of the African Union. It focuses on improving food security, nutrition and increasing incomes in Africa's largely farming based economies. It aims to do this by raising productivity by at least 6% per year and increasing public investment in agriculture to 10% of national budgets per year.

CGIAR

The Consultative Group on International Agricultural Research is a global partnership that unites organisations involved in research for sustainable development with the funders of this work. Its vision is to reduce poverty and hunger; improve human health and nutrition; and enhance ecosystem resilience through high-quality agricultural research, partnership and leadership.

DfID

The Department for International Development was set up in 1997, its top objective being to fight world poverty. It is a UK Government department headed by a Cabinet minister.

FAO

The Food and Agriculture Organisation of the United Nations, FAO's mandate is to raise levels of nutrition, improve agricultural productivity, better the lives of rural populations and contribute to the growth of the world economy.

Feed the Future

The United States Government's global hunger and food security initiative. It supports country-driven approaches to address the root causes of hunger and poverty and forge long-term solutions to chronic food insecurity and undernutrition.

IFAD

The International Fund for Agricultural Development is a specialised agency of the United Nations. It is dedicated to eradicating rural poverty in developing nations. IFAD focuses on country-specific solutions, involving increasing rural poor peoples' access to financial services, markets, technology, land and other natural resources.

MDG

In September 2000, world leaders came together in New York to adopt the United Nations Millennium Declaration, committing their nations to a new global partnership to reduce extreme poverty and setting out a series of time-bound targets, with a deadline of 2015. These have become known as the Millennium Development Goals: Ending Poverty and Hunger; Universal Education; Gender Equality; Child Health; Maternal Health; Combat HIV/AIDS; Environmental Sustainability; Global Partnership.

ODA

Official Development Assistance measures development aid provided by member states of the Development Assistance Committee.

P4P (PURCHASE FOR PROGRESS)

This is a five-year initiative of the UN WFP. It enables low-income farmers to supply food to WFP operations, thus creating a sophisticated market for commodities in developing countries.

UN WFP

The United Nation's World Food Programme is the world's largest humanitarian organisation addressing hunger worldwide. WFP provides food to 90 million people per year, 58 million of whom are children. Its ultimate goal is to eliminate the need for food aid itself, by helping to build assets and promote self-reliance.

USAID

The United States Agency for International Development is responsible for administering civilian foreign aid - economic, development and humanitarian assistance around the world, in support of the foreign policy goals of the US.



If you look at the Korean Peninsula at night, I think you'll see the stark contrast between success or failure in global development. In South Korea, you'll see at night a country lit up with lights and energy and grid and economic activity. And in all that brightness is the reality of a country that started in the 1960s with a lower agricultural production rate than most East African countries, a higher child malnutrition rate, a lower education rate; but had effective development partnerships with countries around the world, invested in their education and their people, pursued a growth strategy that first started with agriculture and then transitioned to manufactured goods and technology and innovation, and today is not just a donor itself, but is also hosting the global meeting on development and redefining the example of success. And in America, we have more jobs related to our trade with South Korea than we do have jobs related to trade with France.

The opposite end of that spectrum is the challenge when things go the other way. In North Korea, you'll see at night virtually no lights. And hidden in the darkness is a child malnutrition rate of nearly 50 percent, is a huge amount of personal and individual suffering and poverty, and is the global instability that comes from autocratic regimes that don't make the right choices and don't engage the world in a right way

Raj Shah, Administrator USAID



The APPG would like to thank all those who gave evidence and attended our meetings for their assistance during this inquiry.

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