

A briefing paper from the UK Hunger Alliance

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Challenge and opportunity

Despite the fact that there is enough food for everyone, almost 870 million' people go hungry every night. 2.3 million children die needlessly because of malnutrition each year and 165 million more have their future potential permanently damaged because they don't receive the right nutrients at the start of life. This is a human tragedy, with a clear moral imperative for world leaders to act and the UK should play a leading role.

The UN Secretary-General's Zero Hunger Challenge seeks to mobilise governments, businesses and civil society towards the goal of eradicating hunger by 2025 and realising the right to adequate food for all.² As the UK prepares to host a high-level 'Hunger Summit' in June 2013, it should urge G8 leaders to rise to the Zero Hunger Challenge.

The G8 can make a huge contribution to global efforts to tackle hunger by providing significant public funding for sustainable small-scale agriculture, which can can contribute to eradicating hunger, fuel economic growth and reduce poverty. The evidence presented in this briefing, based on extensive desk research and case studies sets out how **support to smallholder farmers, particularly women, is an essential part of achieving the goal of Zero Hunger**.

The G8 should increase investments in agriculture by:

- Scaling up public support for environmentally sustainable smallholderbased agricultural systems, including smallscale livestock and fish rearing
- Increasing support for women small-scale producers a 'game-changer'
- Promoting improved, more accountable, and joined-up country-led nutrition and food security strategies and approaches.

¹ IFAD, WFP, FAO (2012) The State of Food Insecurity in the World, FAO: Rome

² See the Zero Hunger Challenge: http://www.un.org/en/zerohunger/challenge.shtml

Overview

This policy briefing draws on a report,³ commissioned by the UK Hunger Alliance (HA) and written by the Overseas Development Institute (ODI), which investigates smallholder agriculture's contribution to better nutrition.⁴

The extensive review included long-term quantitative analysis on how smallholder agricultural development and other variables contribute towards tackling hunger in Bangladesh, Ghana, Tanzania, Zambia, and in Kerala in India. It also analysed interventions in Bangladesh, Cambodia, Nepal, Philippines, Mali and Zimbabwe, and micro-nutrient and health-focused programmes in Ethiopia, Ghana, Malawi and Tanzania.

Findings suggest that smallholder agricultural development that is environmentally sustainable, can dramatically reduce poverty and hunger. To have greatest impact, investments should:

- Empower small-scale women farmers
- Promote small-scale farming including home gardens, small-scale livestock and fish-rearing
- Complement agricultural programmes with education and nutrition communication, health services, clean water and sanitation.

Evidence from the case studies show these approaches can have striking positive impacts on nutrition and food:

- 4.5 million villagers improved their food security and nutrition status in Bangladesh by adopting home gardens that required few inputs and smallscale livestock rearing combined with women's leadership, education in nutrition, clean water and sanitation, and improved maternal and child health.
- Child stunting was cut by 16% in three years under the rights-and-livelihoods based SHOUHARDO



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intervention in Bangladesh involving 400,000 households. This included the integration of home gardens, women's empowerment, mother and child health, vitamin A supplements, awareness-raising on improved nutrition habits, immunisations, savings groups, and cash-for-work as a safety net.

- Child malnutrition fell in Kita in Mali after 1,400 poor women diversified diets through adopting vegetable home gardens that required few inputs and complemented this with raising awareness on food and nutrition practices, breastfeeding, sanitation, hygiene, and cooking demonstrations.
- Micronutrient deficiency and child malnutrition was reduced in most countries during a 10-year integrated micro-nutrient and health programme (MICAH) in Ethiopia, Ghana, Malawi and Tanzania, which reached 6 million villagers through diversifying diets. This included growing fruit and vegetables and raising small-scale livestock, supplementation, fortification, infant and child feeding practices, clean water and sanitation, and disease control.

³ ODI (2012) Smallholder agriculture's contribution to better nutrition, ODI: London

⁴ We define smallholders and smallholder agriculture as small scale food producers including farmers, herders, fisherfolk.

Investing in smallholders to meet the nutrition challenge



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Although there is enough food for everyone, almost 870 million people, mostly in developing countries – 15 percent of their total populations – were estimated to be chronically undernourished in 2010–2012, while amongst children under five, 26 percent of children were stunted and 16 percent were underweight.⁵

Deficiencies in micronutrients, especially of vitamin A, iodine, iron and zinc, are even more widespread; over 30 percent of the global population suffers from such 'hidden hunger'.⁶ Women, infants and children are particularly affected; vitamin A deficiency kills nearly 500,000 children annually; zinc deficiency claims the lives of another 350,000;⁷ and iron-deficiency anaemia during pregnancy is an underlying cause in one-fifth of maternal deaths each year.⁸

At the same time, obesity is rising rapidly, and is affecting all societies. Globally, 1.4 billion people are now obese, due to urbanisation and income growth, and diets shifting towards more meat, salt, sugar and fat.⁹

Despite their direct contribution to food production, smallholders – which include small-scale farmers, pastoralists, fisherfolk and forest dwellers – are disproportionately vulnerable to under-nutrition and micronutrient deficiencies, largely because long-term underinvestment means agri-food systems have not contributed to the alleviation of rural poverty.¹⁰

There are an estimated half a billion¹¹ smallholders cultivating 400 million farms of less than two hectares, and these farms support 1.5 billion people¹² and produce 80 percent of the food supply in developing countries.¹³ Indeed, smallholders use and manage more than 80 percent of farmland – and similar proportions of other natural resources – in Asia and Africa.¹⁴ Nevertheless, nearly all smallholders and farmworkers buy more food than they sell as they are not able to grow enough to feed themselves adequately throughout the year, and as a result make up about three quarters of the world's hungry.¹⁵

Governments have a crucial role to play in enabling smallholders to increase their productivity and incomes in an environmentally sustainable way, in the face of rapid population growth, accelerating climate change, and scarce natural resources, particularly water and biodiversity.¹⁶

5 IFAD, WFP and FAO (2012), The State of Food Insecurity in the World 2012, Rome

6 FAO (2012) Combating micronutrient deficiencies: Food-based approaches, FAO: Rome

- 7 Black, R E et al. (2008) Maternal and Child Undernutrition: Global and regional exposures and health consequences, The Lancet 371, No 9608, 19 January 2008, pp243-60
- 8 UNICEF (2008) Progress for children: A report card on maternal mortality, UNICEF: New York
- 9 IFAD, WFP, FAO (2012) The State of Food Insecurity in the World 2012, FAO: Rome
- 10 OECD (2010) Measuring aid to agriculture, OECD: Paris; De Schutter (2011) Report submitted by the Special Rapporteur on the right to food, Olivier De Schutter, to the UN Human Rights Council, 26 December 2011, A/HRC/19/59
- 11 FAO (2011) Save and grow, A policy maker's guide to the sustainable intensification of smallholder crop production, FAO: Rome
- World Bank (2007) World development report 2008, World Bank: Washington
 FAO (2011) Save and grow, A policy maker's guide to the sustainable
- intensification of smallholder crop production, FAO: Rome
- 14 IFAD (2011) Rural poverty report 2011, IFAD: Rome
- 15 IFAD (2011) Rural poverty report 2011, IFAD: Rome
- 16 World Bank (2007) World Development Report 2008; IAASTD (2009) Global Report; 'The Rome Principles' and The Declaration of the World Summit on Food Security 2009; Comprehensive Framework for Action (2010); IFAD Rural Poverty Report 2011, IFAD: Rome; Committee on World Food Security (2012) Global Strategic Framework, CFS: Rome

The ODI report findings show smallholder agricultural development contributes effectively to tackling hunger. This form of agriculture can improve food security and nutrition in the following ways:

- By making food available to households through production
- By reducing the real cost of food by increasing local and regional food supply
- By generating income for farmers and farmer workers, that enables access to nutritious food

Governments have a crucial role to play in enabling smallholders to increase their productivity and incomes in an environmentally sustainable way

• By providing incomes to others in the farm and rural off-farm economy through linkages in food production and consumption that create additional jobs and activities.

Women's empowerment

The violation of women's rights, gender inequality, discrimination, power imbalances between women and men, lack of property rights and access to education are key factors explaining poor nutritional outcomes.

Tackling gender inequality and empowering women farmers can improve food security and nutrition through both increased food production and better use of food and income. Women have been consistently found to be more likely to invest in their children's health and wellbeing, and the income and resources that women control wields disproportionately strong effects on health and nutrition outcomes generally.¹⁷ From the evidence, reaching women farmers is particularly important in contexts where women are becoming more responsible for agricultural work traditionally done by men as men migrate to urban areas for other work.¹⁸

A study of developing countries by the International Food Policy Research Institute in 2000 found that as much as half of the reduction in hunger from 1970 to 1995 could be attributed to improvements in women's status in society. Progress in women's education



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(which explained 43 percent of gains in food security) was nearly as significant as increased food availability (26 percent) and health advances (19 percent) put together.¹⁹ Overall, the FAO estimates that closing the gender gap in agriculture could reduce the number of

¹⁷ World Bank (2007) From agriculture to nutrition: pathways, synergies and outcomes, World Bank: Washington

¹⁸ Lastarria-Cornhiel, S (2008) Feminization of agriculture: Trends and driving forces, World Bank: Washington

IFPRI (2000) Explaining child malnutrition in developing countries: A crosscountry analysis, Research report 111 IFPRI: Washington; De Schutter (2012)
 Women's rights and the right to food, Report submitted by the Special Rapporteur on the right to food, Olivier De Schutter, UN Human Rights Council, 24 December 2012, A/HRC/22/50

hungry people in the world by 12 to 17 percent, or by 100-150 million. $^{\rm 20}$

The following would be game-changers in improving nutritional outcomes:

 Improving women's access to – and control of – land, water, firewood and other productive resources, and their access to credit, microinsurance, secondary education and rural extension services

 Allowing women to make decisions regarding the household budget, and protecting women from pressure to renounce optimal breastfeeding practices.²¹

Home gardens and livestock rearing

Home gardens take a wide variety of forms, and can be found in backyards, farmyards, kitchens, containers, small patches of available land, vacant lots, on rooftops and tabletops, and along roadsides and the edge of fields. They are generally close to home and a source of water, and are managed by family members using low-cost, locally available inputs.



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Their products include local varieties of fruit, vegetables, medicinal plants, herbs, condiments, and sometimes secondary staples like legumes and sweet potatoes, most of which are grown for household consumption.²² Since home gardens are often controlled by mothers, they can increase their access to food and incomes from sales of surplus, and since these gardens occupy small areas, low-income households with little land can participate too. And they are proven to work. In a review of 30 agricultural programmes that recorded nutritional impact, home gardens were very likely – seen in 11 out of 13 cases – to improve nutrition.²³

Since home gardens are often controlled by mothers, they can increase their access to food and incomes from sales of surplus, and since these gardens occupy small areas, low-income households with little land can participate too.

²⁰ FAO (2011) The state of food and agriculture, 2010-2011: Women in agriculture: Closing the gender gap for development, FAO: Rome

²¹ See: ActionAid et al. (2012) What works for women, ActionAid: London; De Schutter (2011) Report submitted by the Special Rapporteur on the right to food, Olivier De Schutter, to the UN Human Rights Council, 26 December 2011, A/HRC/19/59

²² FAO (2012) Combating micronutrient deficiencies: Food-based approaches, FAO: Rome

²³ Berti P et al. (2004) A review of the effectiveness of agricultural interventions in improving nutrition outcomes, Public Health Nutrition, 2004; 7 (5): 599-609

Bangladesh

Since 1990, some 4.5 million people in 900,000 poor households in Bangladesh have benefited from more diverse diets rich in micro-nutrients, under a programme run by Helen Keller International and local women's groups. This was through the introduction of home gardens, poultry and small-scale livestock raising, coupled with peerto-peer training, women's leadership development, clean water, latrines, sanitation, and improved maternal health and nutrition education. Producing and consuming fruit that is rich in micro-nutrients, leafy green vegetables, eggs, chicken liver and poultry increased, while the risk of childhood night-blindness dropped and anaemia 'decreased significantly' for infants aged 6 to 59 months.²⁴ Costing about \$8/household per year, the approach has been adopted in Cambodia, Nepal and the Philippines, and has also been adapted for Niger.25



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Increased productivity meant more income for participants and a more diverse diet. Child malnutrition fell in participating villages and the proportion of children under five gaining access to vitamin A-rich food increased by 40 percent.

Case Study

Mali

1,400 poor women organised in 36 village associations benefited from a programme in Kita in southern Mali, run by Action Against Hunger, that combined the promotion of vegetable 'health gardens', with education and awareness raising on improving nutrition habits on diet, hygiene and child care. In an area of high rates of vulnerability, poverty and acute malnutrition, the programme combined education and raising awareness on improved food and nutrition practices, breastfeeding, hygiene, sanitation, and culinary demonstrations, as well as on composting, pedalpumps, and drip irrigation. Increased productivity meant more income for participants and a more diverse diet. Child malnutrition fell in participating villages and the proportion of children under five gaining access to vitamin A-rich food increased by 40 percent.²⁶

²⁴ Helen Keller International (2010) Nutrition bulletin, Vol.8 Issue 1, March 2010

²⁵ FAO (2012) Combating micronutrient deficiencies: Food-based approaches, FAO: Rome

²⁶ ODI (2012) Smallholder agriculture's contribution to better nutrition, ODI: London

Complementary initiatives

Food security is just one underlying factor or determinant of nutrition, along with the quality of maternal and childcare, the adequacy and use of preventative and curative health services, and whether individuals are living in a healthy environment and have access to clean water and adequate sanitation.²⁷

UNICEF frames the determinants of child malnutrition, mortality, and disability as inadequate diet and disease, and these in turn originate from three factors: insufficient access to food; inadequate care; and poor water, sanitation and health services.²⁸ This highlights the importance of integrating support for small-scale agriculture into broader strategies to improve nutrition.

As such, improvements in nutrition require complementary initiatives such as awareness-raising on improving nutrition habits.

Although still at a trial and pilot stage, the research found that biofortification – the improvement at crop

level of the micronutrient content of staples – has the potential to provide important benefits for rural populations. It improves access to micronutrient-rich food produced locally at more affordable prices, as illustrated by the adoption of the conventionally-bred orange-fleshed sweet potato (OFSP) in drought-prone Zambézia province in Mozambique.²⁹ Complemented with public communication campaigns and nutrition extension, about 1,000 small-scale farmers (70 percent women) took up vitamin A-rich OFSP as an alternative to local white-fleshed sweet potato varieties and monotonous cassava-based diets. Surveys showed that children were 10 times more likely to eat OFSP frequently, and vitamin A deficiency dropped from 60 to 38 percent over two years.³⁰

However, so far adoption of biofortification has not been widespread and the ODI report finds that it remains to be seen how acceptable biofortified staple foods may be and whether they are a more effective way to improve the quality of diets, rather than through consumption of more diverse foodstuffs.

Case Study

Improving micro-nutrient deficiency - the MICAH programme

The MICAH (Micronutrient And Health) project³¹ in **Ethiopia, Ghana, Malawi, Tanzania** was launched by World Vision Canada. This 10 year integrated programme reached 6 million people and resulted in a reduction of micronutrient malnutrition such as vitamin A deficiency (Ethiopia, Tanzania, and Ghana) and iodine deficiency (Malawi and Tanzania). Child malnutrition was reduced in most countries through dietary diversification by fruit and vegetable cultivation and raising smallscale livestock, supplementation, food fortification, improved infant and child feeding practices, clean water and sanitation, and disease control. Large increases in exclusive breastfeeding and immunisations were reported, and anaemia rates and malaria prevalence decreased in women, pregnant women and pre-school children in Ghana, Malawi and Tanzania.

27 World Bank (2007) From agriculture to nutrition: pathways, synergies and outcomes, World Bank: Washington

²⁸ Pelletier, D L (2002) Towards a common understanding of malnutrition. Assessing the contribution of the UNICEF framework, Background paper, World Bank/UNICEF Nutrition Assessment, September 2002

²⁹ De Schutter (2011) Report submitted by the Special Rapporteur on the right to food, Olivier De Schutter, to the UN Human Rights Council, 26 December 2011, A/HRC/19/59

³⁰ De Schutter (2011) Report submitted by the Special Rapporteur on the right to food, Olivier De Schutter, to the UN Human Rights Council, 26 December 2011, A/HRC/19/59, p11

³¹ Berti et al. (2010) An adequacy evaluation of a 10-year, four-country nutrition and health programme. International Journal of Epidemiology, 39 (2): 613-629.

Reducing stunting – the SHOUHARDO programme

The prevalence of stunting among children aged 6-24 months was reduced by an exceptional 16% over three years in Bangladesh, as a result of the SHOUHARDO programme run by CARE International. Home gardens were integrated with a range of complementary measures for 400,000 households in four marginal regions prone to cyclones, flooding and natural disasters. Direct nutrition interventions, such as mother and child health and nutrition (MCHN) care consisting of food rations, pre-natal care, vitamin A supplements and child growth monitoring, were integrated with local health referrals, immunisations, clean water, sanitation, savings groups, cash-for-work, girls' education and awareness raising on improved nutrition habits (e.g. on optimal breastfeeding and weaning). Women and adolescent girls' empowerment groups were formed within village development committees to defend the rights of poor communities.³²

Policy drivers

A broad consensus exists on policies for development of agriculture, and smallholder agriculture in particular (perhaps best expressed in the World Development Report 2008). Governments need to focus on two aspects above all else:

1. Rural investment climate

Ensure that there is a rural investment climate that encourages agricultural investment and innovation that ensures benefits for smallholders, in particular women, are maximised.³³ These enabling conditions include:

- peace, law and order in rural areas
- a reasonably stable macro-economic climate
- support for key institutions such as property rights, weights and measures, contract law, financial supervision and regulation, and business regulations that protect public interests but do not deter investors.



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³² Smith, L.C., F.Kahn, T.R.Frankenberger, and A.Wadud (2011) Admissible Evidence in the Court of Development Evaluation? The Impact of CARE'S SHOUHARDO Project on Child Stunting in Bangladesh. IDS WORKING PAPER Volume 2011 Number 376; October http://www.ids.ac.uk/files/dmfile/Wp376.pdf

³³ World Bank (2007) World development report 2008, World Bank: Washington

2. Public goods

Supply public goods; those goods that private investors will not otherwise supply. These include:

- physical infrastructure of roads, power lines, in some areas irrigation and drainage
- investments in education, health care, clean water and sanitation
- knowledge generation through agricultural research, preferably that takes account of indigenous knowledge and extension.

Public goods matter especially for smallholders. Public agricultural research needs to focus on smallholder

needs and women in particular, with technical innovations that are low-cost, environmentally sustainable, ensure adaptation to climate change, and that call on intermediate technologies that raise yields of food crops without heavy demands for labour or external inputs.

While these basic conditions can do much to stimulate agricultural growth, many smallholders and women face difficulties in markets, especially for seeds, inputs, insurance, financial services and technical assistance. Farmers' co-operatives can give access to inputs on credit or direct state provision where they do not function.

Conclusions and recommendations

Smallholder agriculture development is a proven pathway to reducing poverty and hunger in poor countries.

The findings point to three ways in which smallholder agriculture can be steered to have a greater impact on nutrition:

- empowering women farmers;
- promoting home gardens and small-scale livestock and fish raising;
- complementing agricultural programmes with education and awareness-raising on improving nutrition habits, health services, clean water and sanitation.

Tackling female disadvantage in agriculture is the 'game-changer', and this can be achieved by ensuring access to land for women in national laws and through recognition of collective rights to grazing, firewood and water. Addressing inequalities in women's access to education, credit, local markets and extension services are vital, too.

The UK and G8 leaders should take up the UN Secretary-General's 'Zero Hunger Challenge' and make the goals of eradicating hunger by 2025 and realizing the right to adequate food for all a top priority. We recommend that the leaders:

Scale up public support for small-scale environmentally sustainable agricultural systems

- G8 leaders and other donors should commit to funding the gap in country agriculture plans, including The Comprehensive Africa Agriculture Development Programme (CAADP). Donors should also commit to support the development of new country plans for interested countries including financial resources. This should be committed through robust financing for multilateral mechanisms such as the Global Agriculture and Food Security Programme (GAFSP) public sector window
- The UK Government should use this opportunity to announce an additional £425 million per year for investment in small-scale agriculture, in accordance with the Enough Food for Everyone IF campaign asks on investing in small-scale farmers, nutrition and climate³⁴

³⁴ See the Enough Food for Everyone IF Campaign (2013): http://enoughfoodif.org/sites/default/files/IF_executive_summary.PDF

- Public goods and financial support for agriculture should be directed towards supporting smallholders. Donors should provide funding and commitment to enable country-led strategies to this effect.
- G8 leaders should add new indicators to monitor the impact of their commitments on small-scale producers, women and gender inequality, building on the 'Food and Nutrition Security Scorecard' in the 2012 *G8 Accountability Report* to enable better tracking of donor investments.

Increase support for women small-scale producers

• Funding for agriculture should address women's needs and tackle gender inequality in agriculture by recognising, promoting and protecting the rights of women smallholders to land, grazing, firewood and water bodies, and by improving access to rural extension services and local markets, especially for inputs, insurance and finance.

Promote improved, more accountable and joined-up country-led nutrition and food security strategies and approaches

• Donors should ensure a joined-up multi-sector approach to address hunger and malnutrition



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through health care, clean water and sanitation, and education on child care, hygiene and nutrition ensuring that investments in agriculture deliver the greatest benefits for improving nutrition.

• Donors should increase support to existing multistakeholder platforms at the country level – for example, such as CAADP in Africa or the Scale Up Nutrition (SUN) platforms – to ensure greater monitoring, accountability and alignment of national food security and nutrition strategies.

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Action Against Hunger is committed to ending child hunger. We work to save the lives of malnourished children while providing communities with sustainable access to safe water and long-term solutions to hunger.

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Founded as a British charity in 1972, ActionAid is an international NGO working in 45 countries worldwide, and our positions and recommendations reflect the experiences of our staff and partners in Africa, Asia, the Americas and Europe. Our vision is a world without poverty and injustice in which every person enjoys the right to a life with dignity. We work with poor and excluded people to eradicate poverty and injustice.



Defending Dignity. Fighting Poverty.

CARE International is a leading humanitarian organisation which fights global poverty and provides lifesaving assistance in emergencies. We place special focus on working with poor girls and women because, equipped with the proper resources, they have the power to help lift families and communities out of poverty.



Concern Worldwide specialise in tackling hunger with the most vulnerable people in the world's poorest places. We know hunger affects everything for the world's poorest people. We believe no one should have to live with hunger and the damage it does.



Oxfam GB delivers emergency assistance to people affected by disasters or conflict, and helps to build vulnerable people's resilience to future crises. We also work with others on long-term programmes to eradicate poverty and combat injustice.



Save the Children works in 120 countries. We save children's lives. We fight for their rights. We help them fulfil their potential.

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Tearfund is a Christian relief and development agency working with a global network of churches to help eradicate poverty. Tearfund supports local partners in more than 50 developing countries and has operational programmes in response to disasters.



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