

# Agriculture and food systems for a sustainable future: an integrated approach

Agriculture and food systems are at the centre of the debates around post-2015 development goals and targets. Hunger and food insecurity remain major development priorities, made worse by climate change, price volatility in globalised food markets and over-consumption in wealthy countries. Existing agriculture and food systems are central to sustaining poor people's livelihoods and are technically capable of producing adequate food for all, but they place major stress on environmental assets including soils, water, fisheries and biodiversity. Post-2015 goals and agendas need to support a transformation of food systems to make them more productive, environmentally sustainable and resilient while preserving and enhancing these livelihood benefits. The agroecological and agroindustrial technical solutions to that challenge are well advanced, but the systemic political, economic and social barriers to change are substantial and under-appreciated.

## Policy pointers

**Strategies to eliminate hunger** and under-nutrition can achieve important environmental and socio-economic co-benefits by integrating agriculture and food systems, the environment and livelihoods.

**Policymakers should give** greater attention to the role of small agricultural producers in combating hunger and food insecurity and develop strategies to support them.

**Growing competition from** foreign investors for land represents a potential threat to the food security of local populations. Deals that reallocate land used by local people for food production should be subject to careful legal scrutiny and cost-benefit analysis.

**Food insecurity in urban areas** has less to do with the availability of food than with factors such as low income that limit access, and with those such as lack of health care and public services that compound it.

## Existing policy frameworks and development agendas

Reducing hunger and under-nutrition has long been a global priority. The Millennium Development Goals (MDGs) address it through the MDG1 target to 'halve, between 1990 and 2015, the proportion of people who suffer from hunger'. The target raised the profile of food security and helped spur global, regional and national programmes ranging from direct provision of food in emergencies, to support to small farmers, to investment in agricultural research. These built on existing national responses such as Poverty Reduction Strategies and agricultural sector strategies.

However, despite the impetus of the MDGs, progress has been disappointing, and the global target is unlikely to be reached by 2015. While malnutrition has stabilised globally since 1990 and declined in some regions (notably South Asia), there has been a significant increase in sub-Saharan Africa. The food price crisis and

subsequent agricultural commodity speculation showed that the world trade system is not well adapted to ensuring food security for all; yet few initiatives linked to the MDG hunger target focused on creating a more just system. In retrospect, the structure of the MDGs was probably too compartmentalised, encouraging 'easy wins' through interventions focused narrowly on hunger reduction and increased caloric intake. An integrated approach linking food security and nutrition to ecosystem productivity and sustainable livelihoods might have been more effective in the long term, providing it could have dealt with political economy challenges of food production and consumption. These include imperfect competition and dominance of transnationals and trade systems tilted in favour of the more powerful countries.

Some other processes have come closer to that approach. The Comprehensive African Agricultural Development Programme (CAADP), which predates the MDGs, aims to eliminate hunger and reduce poverty in Africa through sustainable agriculture.

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## Issues of equity and fairness in food systems require more attention

Participating governments have agreed to increase public investment in agriculture by a minimum of 10 per cent of national budgets and to raise agricultural productivity by at least 6 per cent. Through a multi-stakeholder consultation process, countries developed 'CAADP compacts', which generally build on existing agricultural strategies. The programme is built around four pillars: (i) extending the area under sustainable land management; (ii) improving rural infrastructure and trade-related capacities for market access; (iii) increasing food supply and reducing hunger, and (iv) agricultural research, technology dissemination and adoption. While the programme has potential, given its focus on building the foundations for sustainable solutions, progress has been slow and transaction costs huge.

### Learning from experience

The technological and resource allocation challenges to food systems, which are likely to increase with population growth and climate change, are receiving much attention; the equally critical issues of equity and fairness less so. Recent experience suggests that support to small-scale producers, protection from competition with other land uses, better targeted approaches to reducing food insecurity for poor urban households and participatory food system planning and governance can increase food security while sustaining livelihoods and ecosystems.

#### **Realising the potential of small producers.**

Smallholder farming supports over 2 billion people, including a majority of the world's poor. But small-scale food production (from arable farming, pastoralism, aquaculture, fishing and multiple use forestry), processing and marketing are considered by some to be unproductive, inefficient and incapable of producing quality outputs reliably. Yet small-scale food production may actually offer the most direct route to ending hunger and malnutrition and reducing global poverty.<sup>1,2</sup> Small producers also represent a potential army of environmental stewards, protecting forests, soils, water supplies, fisheries and other goods and services in a way that governments and large companies cannot. The key is overcoming the challenges small producers confront to move beyond a precarious subsistence level — to 'step up' rather than simply 'hang in'.<sup>3</sup>

The challenges include:

- **Securing rights to land.** Large investors, including transnational food companies, are

aggressively moving into many developing countries, creating some new employment while elbowing out small independent farmers. Such 'land grabbing' to feed global markets is becoming widespread as cheap land becomes a scarce commodity.<sup>4</sup> Women, who comprise 70 per cent of the food production work force in Africa, face additional barriers because customary rights generally favour men.<sup>5</sup> A number of organisations, including IIED, are researching legal measures and providing capacity support to protect these vulnerable groups and the land they work on.

- **Reversing 'decades of underinvestment'.<sup>2</sup>** Small producers often lack access to affordable inputs, roads and transport, electricity, irrigation, extension services, appropriate technology and market infrastructure. Where these investments are made, agriculture can develop as an engine of economic growth, as has been the case in Ghana. But investment must be comprehensive rather than narrowly 'smart'. Malawi's Farm Input Subsidies Initiative has had dramatic results for production, but there are concerns about its financial and environmental sustainability. Researchers suggest that complementary measures including improved extension services, agricultural research, expanded road networks, greater use of organic fertilisers and conservation agriculture could make the programme more effective and resilient.<sup>6</sup>
  - **Increasing output.** One of the myths about smallholder farming is that low productivity cannot be overcome. However, the recent Montpellier Panel report affirms a growing body of evidence that 'sustainable intensification', strategies building on existing practices and technologies within appropriate policy and socio-economic frameworks, can vastly increase small producer output in environmentally sustainable, climate resilient ways.
  - **Gaining access to formal markets.** The rise of 'ethical markets' and certification schemes has highlighted the potential of small producers to participate effectively in formal markets and global value chains. Organising small farmers requires upfront investment and ongoing support, but the benefits accrue throughout the value chain. For producers, they include income stability, higher returns, improved productivity, reduced vulnerability and risk, and food security (sometimes as a spill-over effect of improved agricultural practices related to export crop production). Some ethical value chains, such as cut flowers, are too 'technically demanding' for the poorest producers. But very poor and food-insecure households have been able to
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participate in others, including coffee in Central America and beans in Ethiopia. In all cases, participation in value chains helps producers build the assets they need to improve their livelihoods.<sup>2</sup>

- **Keeping informal market options open.** Informal marketing channels have many advantages for small producers, being generally more in tune with their cash flow and production patterns.<sup>7</sup> Ignoring or trying to 'regularise' informal markets may hurt more than help small producers and their often poor and food insecure customers.
- **Strengthening community control over agrobiodiversity.** Current research by IIED suggests that supporting farmers to retain control over genetic diversity of their staple food crops and to use their biocultural heritage can strengthen food security by increasing resilience to climate risk.<sup>8</sup>

**Prioritising agricultural land use.** Land grabs' are not only turning land from smallholder to plantation agricultural production, they are also taking over agricultural land for mining, petroleum extraction, tourism, biofuels and forest plantations.<sup>4</sup> None of these uses directly addresses the hunger challenge, and the loss of land for agriculture may endanger local people's food security. Some deals are legally questionable as well: farmers and their organisations need help in scrutinising contracts and developing skills to contest deals and land use changes.

**Improving food access, nutritional value and affordability.** For poor urban households and others unable to produce their own food, low incomes are the most direct cause of hunger and under-nutrition. Poor water, sanitation and health care exacerbate the effects of hunger and malnutrition, while lack of access to electricity or other energy sources limits food choices and preparation options. Much attention has been focused on the real but limited potentials of urban agriculture, but little on addressing the multiple factors that lock urban people into food insecure lives. Safety net programmes, informal savings groups and provision of basic services in informal neighbourhoods are likely to have a greater impact on people's food security than urban gardens.<sup>9</sup>

**Making food system governance more inclusive and responsive.** Governance of food systems is profoundly undemocratic, mostly involving unilateral decisions of large corporations, and government and international agency policies and investments that are in large part shaped by the interests and priorities of these powerful actors. Sustainable, equitable and fair food systems

require more participatory forms of governance. Examples of participatory food system governance are springing up at the local level worldwide, led by networks of farmer associations, NGOs and local governments.<sup>10</sup> The challenge is to scale up participatory governance institutions so that they equitably represent the full range of stakeholders, including those who are not directly engaged in agriculture and food production.

## Principles and directions for future action

This experience points to opportunities to increase the contribution of agriculture and food systems to ending hunger and achieving food security, while generating environmental and social benefits, including:

- Investing in small producers and supporting business models that link them to markets in non-exploitative ways.
- Prioritising small-scale agricultural and pastoral land use over other uses in food insecure countries and regions.
- Quantifying and exploring methods to recover the social costs of over-consumption and waste, including those related to increased competition for agricultural land and resources.
- Supporting participatory approaches to food system governance, at local to national scales.
- Taking an integrated approach: addressing hunger and nutrition will require working on multiple fronts, across trade, education, health, gender equality, social protection, legal rights and the environment.

## Recommendations on integration into global goals and targets

Sustainable agricultural and food systems are important elements of any strategy to address the most pressing challenges of the post-2015 development agenda. These challenges include eliminating hunger and food insecurity, improving health and nutrition, reducing poverty, reversing environmental degradation and building social and economic resilience in the face of climate change. Some organisations are promoting a global goal for agriculture. Another approach would be to mainstream it into broader goals.

The following recommendations are equally relevant to either approach:

- Goals on eliminating hunger and malnutrition should include targets, indicators and strategies to make food production, processing, trading
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and distribution more sustainable, fair, equitable, and resilient.

- Increasing the security, viability and market share of small producers should be a major component of any strategies for improving food security and reducing poverty.
- Strategies and indicators should be developed to target the special vulnerabilities of urban poor households that result in food insecurity and under-nutrition.
- Goals, targets and strategies for water and energy should reinforce rather than undermine the development of sustainable food production systems capable of eliminating hunger and food insecurity. Where trade-offs are required (as in the case of scarce water supplies or biofuels), the needs of the poorest and most vulnerable should take precedence. The post-2015 agenda

generally needs to address the trade-offs between the consumption of energy and raw materials in wealthier countries (including emerging economies), and the consequences for poverty reduction, livelihoods and environmental sustainability elsewhere.

- Inclusive and multi-stakeholder processes, ranging from local food system governance institutions to major initiatives such as the CAADP, take time and resources, and there is always the risk that they will lack the sufficient capacities to implement the outcomes. The post-2015 process needs to build on existing processes rather than replace them with a new framework with global ambitions.

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## Knowledge Products

This paper is one in a series examining how new goals and strategies can address priority development issues in a way that integrates their environmental, economic and social dimensions. The series is based on a framework developed by the Independent Research Forum on a Post-2015 Sustainable Development Agenda. Copies of the framing paper can be downloaded at <http://pubs.iied.org/G03559>

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## Notes

<sup>1</sup> The Montpellier Panel. 2013. *Sustainable Intensification: A New Paradigm for African Agriculture*. Imperial College, London.  
<sup>2</sup> Vorley, B., Cotula, L., Chan, M. 2012. *Tipping the Balance: Policies to Shape Agricultural Investments and Markets in Favour of Small-Scale Farmers*. IIED and Oxfam Research Report, December 2012. Oxfam International, Oxford.  
<sup>3</sup> Dorward, A. et al. 2009. Hanging in, stepping up and stepping out: livelihood aspirations and strategies of the poor. *Development in Practice* 19 (2), 240–247.  
<sup>4</sup> Cotula, L., Polack, E. 2012. *The global land rush: what the evidence reveals about scale and geography*. IIED, London. <http://pubs.iied.org/17124IIED>.  
<sup>5</sup> Kenton, N. 2012. Agricultural development: business as usual is not an option. IIED blog, 5 April 2012. <http://www.iied.org/agricultural-development-business-usual-not-option>.  
<sup>6</sup> Dorward, A., Chirwa, E. 2012. *The Development Situation in Malawi*. Written evidence submitted by Andrew Dorward and Ephraim Chirwa. [www.publications.parliament.uk/pa/cm201012/cmselect/cmintdev/writev/malawi/mal29.htm](http://www.publications.parliament.uk/pa/cm201012/cmselect/cmintdev/writev/malawi/mal29.htm).  
<sup>7</sup> Vorley, B., del Pozo-Vergnes, E., Barnett, A. 2012. *Small Producer Agency in the Globalised Market: Making Choices in a Changing World*. IIED, London; Hivos, The Hague.  
<sup>8</sup> Swiderska, K. 2013. Supporting biocultural innovation by smallholder farmers. IIED blog 14 April 2013. [www.iied.org/supporting-biocultural-innovation-smallholder-farmers](http://www.iied.org/supporting-biocultural-innovation-smallholder-farmers).  
<sup>9</sup> Satterthwaite, D. 2011. Why are the main means by which urban dwellers avoid hunger ignored? IIED blog, 5 October 2013. [www.iied.org/why-are-main-means-which-urban-dwellers-avoid-hunger-ignored](http://www.iied.org/why-are-main-means-which-urban-dwellers-avoid-hunger-ignored).  
<sup>10</sup> Pimbert, M. 2012. *Putting citizens at the heart of food system governance*. IIED, London <http://pubs.iied.org/17125IIED>.