
Setting an ethical research agenda: the role of the public sector

Ruth Segal argues that public funding should be directed towards research that works explicitly towards creating a diverse and plural research system and answers the needs of poor and food-insecure farmers.

The concept of research 'for the public good' – and of research outputs as 'public goods' – has been understood in different ways over time, interpreted to fit with competing development discourses, and has been used to justify a wide range of public research interventions which are often contradictory. To prioritise food and farming research for the public good, we need to consider what we mean by 'public good', including asking who is the public – or publics?

An ethical research agenda can be defined as one which creates research to develop a food system providing outcomes of social welfare, food security and environmental sustainability.¹ To produce these outcomes, policy and research should consider not just production goals (quantity of food) but environmental and socio-economic goals too: including access to food by all; the nutritional value of food produced; biodiversity; resilience to climate change; the cultural value of food (including the relationships between people and place); the livelihoods people can make through producing food and the quality of their jobs.

If that is an ethical food system, then research to support it needs to take multiple approaches, because the answers to those questions look different to different people, in different contexts, with different constraints.

Research: who is it for?

An ethical agricultural research agenda must move beyond technical questions about yield and production to examine political questions about access – to productive inputs and outputs,

knowledge and power to decide on research agendas.

As experience from the Green Revolution onwards has shown, forms of agricultural research shape modes of production. Ten years ago, the IAASTD report argued that the global agri-food system has been shaped by those with the power to do so, and choices about priorities for research and investments have been based on a development model designed in industrialised nations, often disregarding local knowledge, culture, interests and ecosystems.²

IAASTD argued that a focus on production and profit, not sustainability and development goals has given rise to the social, health and environmental problems now confronting both developing and industrialised countries. Most investment in crop research and innovation has ignored locally important crops that provide vital dietary diversity, or crops that are important for women's livelihoods. Therefore, these 'orphan crops' are less economically attractive for many farmers.

The IAASTD analysis also described the huge impacts of globalisation, which has led to a shift in agricultural systems towards export production. Agricultural outputs in developing countries are now often the raw materials for a global market in processed foods. The type of product produced, where, how, who by and who for, have all been affected by the integration of agriculture into global markets. Inputs to the agriculture system, including research, are therefore becoming geared towards the incorporation of food production into global food value chains. But such

globalisation processes often have a negative impact on food security for poor and marginal communities in countries of the South, and have increased inequality³.

The expansion of markets, coupled with unequal power relations in the food system "...has resulted in the luxury tastes of the richest parts of the world being allowed to compete against the satisfaction of the basic needs of the poor."⁴

Addressing inequalities

Policy makers who champion the role of the private sector in delivering food security rarely take into account power relations within the food system. Instead, they assume that trade-based approaches to food security will enable the private sector to deliver desired food system outcomes. By this logic, if the best way of reducing poverty is to connect smallholders to global markets, then research which enables them to provide products for multinational food corporations could be seen to be 'for the public good'.

As a result, research has overwhelmingly supported market-based approaches to achieving food security, and more so as private sector R&D increases. While it is impossible to get reliable figures for private investment in agricultural R&D, evidence from sub-Saharan Africa shows private investment bias towards a limited number of commodity crops.⁵

Agribusinesses and processing companies employ agronomists to work with farmers, providing them with plant varieties that best serve their product lines, e.g. potato varieties that are best for making crisps.⁶ In this way, such companies

are shaping the direction of agricultural research directly on the ground. This leaves a huge gap of investment in the crops that could make the most difference for poorer smallholders.

The dominant model of development (agricultural growth leads to economic growth, poverty reduction and a shrinking agriculture sector) underpins this approach. Against this model, civil society and farmer groups have developed radically different visions of how the food system should operate. Right to Food and food sovereignty approaches call for forms of production, e.g. agro-ecology, which consider context, scale and diversity. Proponents call for food policy to focus on goals of social justice, human rights and environmental sustainability.

What research is needed to make this a reality? The private sector makes most money from technical solutions that can be applied at scale, so there is more incentive to invest in research for commercial crops than for those grown by small-scale farmers. It is difficult to make money from poor farmers who cannot buy agricultural inputs, or are unwilling to take the risks associated with trying out new crop varieties.

Publicly-funded research should aim to meet the needs of those farmers, focusing on 'neglected' crops and crops for bio- and dietary diversity. It should be explicitly directed towards forms of research that are not receiving attention from private sector actors.

Public research, which produces knowledge and places it in the public domain, should be a public good. However, publicly-funded research is often shaped by donor priorities rather than the needs of farmers, and has not always focused on development outcomes.⁷ Not all forms of knowledge are equally available, accessible or relevant to all publics. Research centres may produce new seed varieties or knowledge about better farming techniques, but farmers may need additional resources to use this knowledge, including access to the seeds, or to extension services so they can learn new approaches. Without these inputs, research is unlikely to deliver benefits to farmers. The public good outcomes from research therefore depend on policy, regulation, infrastructure and institutional

support to overcome barriers to access. Policy research on overcoming these barriers is needed to support public agricultural research.

Public good outcomes also depend on the usefulness of the research to the end-user. Barriers might include not only the form in which the knowledge is available, but the relevance of the knowledge to the context in which it is to be used. Farmers are unlikely to use technologies which do not address problems they have identified. Researchers, instead of searching for a 'silver bullet' technology that can be applied at scale, should be working at farm level directly with small-scale farmers to produce research outcomes that meet their needs. Farmers must be acknowledged for their role as innovators, rather than merely as recipients of outputs from research centres. This includes appreciation of the generations of knowledge and daily research embodied in 'traditional' seed varieties.

These debates about forms of research have been ongoing for decades, since the development of 'farmer first' and other participatory and co-creation research methods in the 1980s.⁸ But such approaches have remained at the margins of research agendas. As UN agencies report increasing numbers of food insecure people⁹, there is a new urgency to ensure the voices of farmers are heard in research systems.

But even with better directed research, farmers will not grow crops for local food security if commodity crops provide them with a better income. Policy research is needed to identify mechanisms that enable farmers to make a living from growing healthy food sustainably. Research is needed into what incentives will enable them to make that shift, for instance from cocoa production for global markets to crops for diverse diets for local communities. This could include research into emerging rural-urban systems which support small-holder production.¹⁰ The public sector has a key role to play in identifying these policy and other mechanisms. Its strategic focus should be on farmers in marginalised areas, who are often physically difficult to reach, and socially or politically marginalised. This includes focussing on the needs of women farmers.

Publicly-funded research should

be working explicitly towards creating a diverse and plural research system. This means recognising the multiple routes to food security and different research needs for different contexts. It means supporting multiple methods for innovation in diverse contexts, and developing mechanisms to bring a wider range of voices into research processes, so farmers themselves can identify investments that will best meet their needs. It means asking who benefits from current approaches and challenging power and inequality in the current food system. It means recognising that 'good' is different for different people.

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