



Reclaiming Agricultural Investment: Towards Public-Peasant Investment Synergies

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EXECUTIVE SUMMARY

This report argues that there is a need to 'reboot' the debate on agricultural investment, away from the narrow corporate centric perspective, towards maximising synergies between public investments and the investments made by small-scale food producers.

With nearly 1 billion people malnourished and at least 70 percent of the world's very poor living in rural areas, the majority of whom are dependent on agriculture for their livelihood, investing in agriculture is one of the most effective anti-poverty strategies. Yet, despite its vital importance, agricultural investment programmes are being increasingly left to the general commodity markets and outsourced to large-scale (corporate) investors unbound by the human rights obligations of states. In privatising responsibility for investing in agriculture, the dominant investment paradigm has succeeded in 'kicking away the ladder' and removed from the table key public policies to address the problems of rural poverty and hunger.

Instead the state is conceived of as a 'neutral broker' linking producers to agribusiness in a new development management approach characterised by value chains, supermarket contracts, and other forms of public-private partnerships. However, rather than acting as a vector of smallholder development, the agribusiness mode of production is more likely to lead to a situation whereby a small subset of producers prosper while the incidence and geography of rural hunger and poverty remain largely unchanged.

It is against this backdrop that this report makes a case for bringing back the state. This is demonstrated across a wide number of areas including:

- Reforming, not dissolving, agricultural development banks. Contrary to predictions that purely market driven approaches toward agricultural lending are viable, private sector financial institutions have not 'stepped in' when the state has withdrawn, leaving small-scale food producers and other rural peoples dependent on the usurious practices of informal money lending markets. This builds a case for reforming, not abandoning, agricultural development banks based on a stronger mix of public and private sector roles.
- Using public policy tools to open up new markets to small-scale food producers and strengthen local and regional food systems rather than relying on general commodity markets in order to retain greater value-added at holding and territorial level.
- The use of subsidies to compensate for resource inequality between different food producers in the use of agricultural inputs. A 'subsidy to sustainability' can also be deployed to incentivise farmers to adopt sound environmental practices.
- Setting a progressive agenda in agricultural research. A vast 'knowledge gap', in terms of funding and the allocation of resources, exists between conventional agriculture and biologically diversified farming systems. This is the result of the rise of the private R&D industry as well as the power of the corporate lobby to shape the direction of public agricultural research which has meant that research agendas have tended to focus on the problems facing commercial farmers as well as those that benefit most from the agro-industrial model, such as the pesticide and transgenics industries. Public agricultural research can therefore play a vital role in closing the knowledge gap and switching research priorities, in particular towards agro-ecology.

Not only public investments and policies that specifically target agriculture are necessary for agricultural and rural development. Also investments which create an enabling environment are necessary. These include:

- (Re)distributive land reform in countries marked by deep inequalities in ownership and access to land. For many small-scale food producers, land is much more than a factor of production: it is the basis of their livelihoods, a way to be counted in political decision making, a means towards social inclusion and access to basic services, and a component of their culture and collective identity. Pro-poor land reforms should therefore be enacted which strengthen their full, meaningful, and effective access to and control over land.

- Essential rural social services, such as electricity, health, and water as well as infrastructure, such as roads and telecommunications. Key to creating an enabling environment for farmers to invest is to address the massive inequalities in service provision and use as well as infrastructure development that exist between rural and urban areas. These are typically underinvested in by the private sector because of their public goods characteristics.
- Buffering against food price shocks through the maintenance of public stocks. In light of the food crisis, the role of public regulation in managing food price inflation must be revisited. Instead of relying on private risk management strategies and attending to the most vulnerable through targeted transfers, governments should intervene to stabilise prices. Public stocks can be an enormously useful and flexible tool for reducing volatility in agricultural commodity markets and averting and responding to food emergencies as well as performing a whole host of other functions.
- Building resilience through social protections especially those that invest in human capital formation and link 'livelihood protection' (social welfare and safety nets) and 'livelihood promotion' (investment in agriculture and other productive sectors).

Maximising synergies between public investments and the investments made by small-scale food producers involves a state-society interactive approach which looks at how progressive change can occur by exploiting competing political tendencies within society and the state apparatus. It reminds us that 'development' is never a de-politicised, technical, or automatic process but rather the outcome of conflict and real life struggles. The term 'synergy' as it is used in this report is therefore always imbued with this sense of uncertainty and creative tension. It should never be interpreted as presupposing 'win-win' outcomes or as representing the final word on what is, by definition, a continuously unfolding and dynamic process of development and change.

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INTRODUCTION

All over the world, small-scale food producers¹ invest in rural economies, societies and ecologies. These investments are critical to realising food security and nutrition. They sustain rural livelihoods and protect rural landscapes. They also form the basis for an understanding of collective identity, social solidarity and territorial integrity. Although marked by their diversity, these investments are unified by a series of balances and flows – between humans and nature, between production and reproduction and so on – that are constantly in motion and continuously being refined. It is this refinement process that characterises the very essence of the ‘art of farming’ (Van der Ploeg 2013).

Yet, if investment is only to be viewed from the narrow capitalist perspective of profit maximisation, then many of the investments made by small-scale food producers around the world are simply invisibilised. The centrality of ‘family capital’, not financial capital, is completely absent from this narrative. At a very fundamental level therefore, it is necessary to reclaim the concept of investment in order to make visible the investments made by small-scale food producers, both in the global North and South (Kay 2012).

While the investments made by small-scale food producers form the wellspring from which investing in agriculture and rural livelihoods should start, these investments are alone are not sufficient to secure the continuation of farming futures. This is down to many different reasons, some of which have to do with the political economy of smallholder production itself. Much of it has to do however with the adverse environment in which small-scale food producers must operate – whether it be the lack of democratic politics, the extraordinary ‘squeeze on agriculture’, the return of volatile and unpredictable food prices, the ongoing and worsening climate crisis, or the

renewed wave of corporate land enclosures. This means that, to a greater or lesser degree, the existence of small-scale food producers is marked by vulnerability, uncertainty, and risk.

It is for this reason that a second major argument of this report is to ‘bring the state back in’. In doing so, it takes seriously the perils and potentials of (rural) politics and the complicated and often contested role of the state in the lives of many rural peoples. The argument therefore is not to bring the state back in as a goal in and of itself but rather to identify how public investment in agriculture and rural livelihoods can strengthen the position of small-scale food producers. In making the case for public investment in agriculture and rural livelihoods, this report draws heavily on Jonathan Fox’s (1993) ‘state-society interactive approach’. This approach looks at how progressive change can come about through political interaction between pro-reform forces in the state and in society. When this interaction between pro-reform forces is mutually reinforcing, then the “boundaries of the politically possible” can be changed. It is this reciprocal interaction that this paper terms “public-peasant investment synergies”.

The outline of the report is as follows:

Part I makes the case for ‘rebooting’ the debate on investment in agriculture away from the narrow corporate centric perspective towards an alternative investment paradigm.

Part II takes an in depth look at how both public investments *in* and public investments *for* agriculture can facilitate and enhance the investments made by small-scale food producers.

Part III synthesises the key arguments by offering a series of reflections linked in part to on-going initiatives and policy processes around investment in land and agriculture.

¹ There is no universal definition of what constitutes a small-scale food producer. In its most encompassing form it includes peasant and smallholder farmers, fisher-folk, pastoralists, herders, indigenous people, rural women and youth.

PART I: REBOOTING THE DEBATE ON INVESTMENT IN AGRICULTURE

In rebooting the debate on investment in agriculture it is first necessary to overcome the 'agricultural investment dilemma' (Kydd and Dorward 2001). This refers to the extent to which the macro-economic reforms of the 1980s and 90s – also referred to as the 'Washington Consensus on Agriculture' – have succeeded in putting in place an ideological block on public investment and state involvement in agriculture. The result is that "despite recognition of the great importance of agriculture in rural development and poverty reduction, the [Washington Consensus on Agriculture] analysis and prescription ... makes it difficult to design and gain approval for specific public sector investment programmes which directly support agricultural development" (ibid: 470). This dilemma not only removes from the table key public policies to address the problems of rural poverty and hunger, it is also a remarkable reinvention of the history of the world's richest countries, which developed with the help of huge tariff walls, subsidies, and other 'price distorting' measures to protect and nurture their agricultural sectors. Ha-Joon Chang (2003) likens this process to rich countries 'kicking away the ladder' with which they climbed on top. He calls upon them to 'get history right' as much as they insist upon 'getting the prices right'.

1. The Washington Consensus on Agriculture

The history of states and markets in agriculture has largely followed broader shifts in economic thinking. Over the past few decades, the dominant paradigm has been defined by the 'Washington Consensus on Agriculture' (Kydd and Dorward 2001; Chang 2012). This refers to a set of common policy prescriptions put forward by the world's leading international financial institutions and donor governments. These include:

- the importance of 'getting the prices right' and eliminating 'distortions' by removing trade barriers, tariffs, price controls and subsidies in order to facilitate the smooth functioning of agricultural commodity markets
- the reshuffling and specialisation of agricultural production portfolios based on the theory of comparative advantage and a global agricultural division of labour
- the rolling back of the state through the restructuring and privatisation of public enterprises and marketing boards and the removal of regulatory controls in input and output markets
- a switch in investment priorities away from staple food crops for domestic consumption towards commercial crops destined for export accompanied by reforms in foreign exchange rate systems

The consequences of this model have been profound. In general terms they have performed poorly and have resulted in the slowing down of economic growth, rising inequality and persistent pervasive poverty (Chang 2012). The scaling back of public extension services, subsidised inputs and credit saw many small-scale farmers caught in a vicious cycle of debt while the dismantling of domestic price supports and national marketing boards put many of them out of business (Rosset 2000; Desmarais 2007). Unable to compete, some took up work as agricultural labourers on large plantations; many more simply abandoned agriculture and migrated to the city. As the UN Special Rapporteur on the Right to Food summarizes:

At the turn of the century, the result of [the policy shifts of the 1980s and 90s] was massive rural poverty and the ruin of small-scale farmers. Disempowered politically, small farmers had been marginalized economically in a development process that was intended to reward competitiveness in the agricultural sector and that had never truly invested in them (De Schutter 2011: 512).

Meanwhile, the focus on the production of agricultural commodities for world markets left many countries in the global South extremely vulnerable to price shocks and other market fluctuations. The simultaneous push for agricultural exports in a large number of countries that specialize in the same products frequently led to a collapse in prices while trade liberalisation resulted in the dumping of cheap, often subsidized, agricultural products from OECD countries on local markets (Chang 2012). For many countries in the global South, export-led growth has failed to deliver on its promises and has meant spending valuable foreign currency reserves on importing vital foodstuffs in which they had once been self-sufficient.

2. The limits of value chains and supermarket revolutions

These points touch on a deeper truth which relates to the core premise of the Washington Consensus on Agriculture that globalised markets can deliver the type of broad-based inclusive growth that lifts people out of poverty and hunger. This premise underlies a new development management approach characterised by value chains, supermarket contracts, and other forms of public-private partnerships that link producers to agribusiness.

Yet even if considered desirable, it is estimated that only a fraction of farmers in the developing world could be connected to global markets through contracts. The high transaction costs for agribusiness corporations in dealing with small-scale

producers and the operation of inclusion thresholds mean that for the majority of the world's small farmers, the supermarket option is simply unavailable.

Furthermore, it is far from clear that global value chains and contract farming arrangements are the benign facilitators of wealth creation that they are sometimes made out to be. Debt is often a powerful mechanism in these relationships, 'constituting the chain through which such new contract farming is activated, reproduced and, in some cases, dispossessed' (McMichael 2013: 672). While it may be possible to imagine conditions under which such arrangements can be made to work for small farmers, this would require significant investment and regulatory control by the state, not only to ensure the fairness of contracts but also to 'level the playing field' and increase the bargaining power of small producers. The paradox is that these types of arrangements often go hand in hand with the outsourcing of sovereignty and the transfer of decision making power to the private sector. With the signing of free trade agreements, bilateral investment treaties, and other initiatives such as the G8 New Alliance on Food Security and Nutrition (Haigh 2014), the space for democratic control and the exercise of public authority is greatly reduced. In this sense, they represent a much more far-reaching intervention into the governance of national food and agricultural systems than is perhaps evident at first glance.

In this process of territorial restructuring, new enclaves of wealth as well as new cleavages of inequality are created. Rather than acting as a vector of smallholder development, the agribusiness mode of production is therefore more likely to lead to a situation whereby a small subset of producers prosper while the incidence and geography of rural hunger and poverty remain largely unchanged. This, it is important to note, is not to discount the potential for harnessing agribusiness capital, but it is to be aware of its significant limitations and costs – particularly as the investment arm of a new rural development strategy.

3. There is an alternative: towards a new investment paradigm

There is an alternative discourse and practice around investment in agriculture than the one offered by the Washington Consensus. This alternative is based on a deeper reading of history and the role of the state in agricultural and rural development as well as the different purposes that investment in agriculture should serve. In what follows, its key components are sketched out:

First, it seeks to revalue agriculture in society by recognising the vital contribution agriculture makes to food security, employment, wealth creation, etc. Rather than accepting the standard modernisation narrative in which agriculture is viewed as a mere input for industrialisation and the growth of cities, it looks at how rural and urban linkages can be created

in a dynamic and complementary process of development and change. The goal of investment is thus not to 'release' people from the land, but to generate opportunities and create decent work so that poverty traps can be overcome and farming is once again viewed as an attractive enterprise. Agricultural investment should then adopt a long-term perspective, addressing key issues of sustainability and securing farming futures for the next generation of rural youth.

Second, it recognises that farmers, the majority of whom are smallholders, are the largest investors in agriculture and produce most of the food consumed in the developing world (FAO 2012). There are an estimated 500 million smallholder farms in the developing world that support almost 2 billion people who depend on them for their livelihoods (HLPE 2013). Collectively these small farms produce about 80 per cent of the food consumed in Asia and sub-Saharan Africa. To be sure, small farmers and food producers are differentiated according to social class, ethnicity, culture, generation etc. and often hold competing interests and views. Recognising them as key targets for investment – as well as investors in their own right – is however vital in moving the debate and practice around agricultural investment forward.

Third, it adopts a multi-faceted understanding of investment. Investment should serve multiple purposes and build up multiple forms of capital, not just financial but also physical, human, intellectual, natural, and social. Too often, investment is reduced to what can be measured and more intangible assets, such as knowledge production, skill development etc. are overlooked. Many of the investments made by small-scale food producers are hereby invisibilised. It is therefore necessary to reclaim the concept of investment (see Box 1).

Fourth, it considers food and agriculture to be too important to be left to market forces alone. Agricultural investment should be seen not just as a business but also as a matter of human rights. As the legal discourse and practice on the Right to Food makes plain, states have fundamental human rights obligations in this regard, not only to respect and protect citizens' Right to Food but also to fulfil, to the maximum possible, their Right to Food through public policy and public investment.

Fifth, a transformative agenda for change would thus seek to build on forms of state-society interaction to maximise synergies between public investments and the investments made by small-scale food producers. This reflects a growing body of expert opinion that recognises the centrality of farmers, most of them smallholders, to any investment strategy for tackling rural poverty and food insecurity and the enabling role that governments can play in this. The focus of the FAO's (2012) State of Food and Agriculture report for example is "on the accumulation of capital by farmers in agriculture and the investments made by governments to facilitate this accumulation". The High Level Panel of Experts (2013) report for the Committee on World Security meanwhile outlines the different ways in which public investments and public policies can support the investments of smallholders.

Box 1. Investment: a contested concept

Investment can either be broadly or narrowly defined and what is and is not an investment is often a contested subject. Different investors will often focus on different things. A financial investor, such as a bank, will often measure investment according to the rate of return. An agribusiness enterprise or commercial farmer will measure investment according to increases in output, improvements in labour productivity, or efficiency savings that help maximise profits. A peasant meanwhile will measure investment in terms of a series of internal balances (between labour and consumption, utility and drudgery, people and living nature, production and reproduction, internal and external resources, autonomy and dependence, scale and intensity, etc.) that allow the peasant family to make a living (Van der Ploeg 2013).

Not all types of investment are equal in terms of their impact on poverty reduction and development. While some governments have focussed on attracting foreign direct investment (FDI) as a way to 'modernise' their agricultural sectors, analysis by the FAO (2012) concludes that FDI flows are marginal: "Given the relatively small size of FDI flows to primary agriculture reported in the international dataset, especially in low-income countries, it is unlikely that FDI can contribute significantly to raising capital stock in agriculture". Furthermore, "It is unclear how much [FDI] contributes to capital formation as opposed to a mere transfer of ownership" (ibid: 21). Investment should not be conflated with the simple buying up of land or the taking over of resources.

While increased incomes, productivity and profits are certainly relevant measures of investment, these also have their limitations. Often costs, social or environmental, are externalised and do not appear on the final balance sheet. A central argument also pivots around the critical role of labour. In the more economic, capitalistic notion of investment, labour is viewed as an input to be economised on. This is very different in the peasant mode of production, where labour, and labour driven forms of intensification, also contribute to capital formation (Van der Ploeg 2013). This is because the labour that is mobilised is from within the family unit (or in more collective/cooperative arrangements, the farming community), not from wage labour that is bought and sold on the market. Hence, the capitalist maxim of increasing profits through cost reductions on the labour side simply does not apply to the peasant style of farming.

Although peasant societies are certainly also informed by their own forms of petty exploitation and oppression and, it must be noted, increasingly do engage in market relations with all its tendencies towards class differentiation (Bernstein 2010), the mobilisation of family capital also has a number of advantages. As this family capital is not used to produce surplus value to be invested again in order to produce more surplus as the capitalist definition of investment would have it, it can be deployed in the search for balance, not profit. This balance allows the peasant farm and peasant cultures to reproduce themselves through a sophisticated fine-tuning process involving permanent cycles of observation, interpretation, adaptation and evaluation (Van der Ploeg 2013).

PART II: BRING BACK THE STATE – PUBLIC INVESTMENT IN DEPTH

Part I has shown that there is a need to ‘reboot’ the debate on agricultural investment, away from the narrow corporate centric perspective towards maximising synergies between public investments and the investments made by small-scale food producers.

Part II delves into this issue in depth. It looks at how both public investments *in* and public investments *for* agriculture can facilitate and enhance the investments made by small-scale food producers. Investments in agriculture, for example agricultural marketing boards, agricultural research, and agricultural development banks are specifically designed to foster agricultural development. Investments for agriculture, such as land reform, social protections, rural social services and infrastructure may not be specifically directed at agriculture but play a very important role in creating an enabling environment and in supporting rural livelihoods. These two types of public investment will be illustrated by drawing on various examples, both current and historical.

4. Rural finance and agricultural development banks: a second look

The world of rural and agricultural finance is highly complex. This section will not aim to cover all aspects of this vast topic but rather focus on the role that agricultural development banks can play in serving the financial needs of rural peoples. This is not to argue that agricultural development banks are the only or the best solution to rural finance. It is however to recognise that, contrary to the new rural finance paradigm that asserts that only a market driven approach towards agricultural lending is viable, public interventions in rural financial markets are justified. This is based on the recognition that in the absence of such interventions, private sector financial institutions largely fail to serve the needs of small-scale food producers and other rural peoples. This does not preclude a role for the private sector. Indeed, some of the best interventions are ones in which the private sector, the state, and rural communities participate in the design of rural financial products. When only profit seeking interests guide financial decision making however, it is unlikely that the needs of the rural poor will be met and the tension between outreach and sustainability adequately managed.

a) Old versus new rural finance paradigms

Nagarajan and Meyer (2005) chart the shift from what they identify as the old to the new rural finance paradigm. The old rural finance paradigm dominated in the 1960s and 70s and consisted of a host of rural credit projects led by governments and donors based on an assessment of the special costs and risks of extending financial services into rural areas. These projects, which were implemented in Asia and Latin America

in particular, included lending requirements and quotas on banks and other financial institutions, loans at preferential interest rates, credit guarantees, and targeted lending by development finance institutions. Subsidized agricultural credit programmes, such as BIMAS in Indonesia and Masagana 99 in the Philippines were favoured as a means to foster the adoption of Green Revolution technology, expand exports, and deliver cheap food supplies to urban areas. While these programmes accompanied significant increases in yields and levels of agricultural production, they were discontinued due to serious problems with loan recovery, leaving many farmers in debt. In response, the old financial paradigm collapsed as so-called ‘cheap credit’ and ‘cheap loans’ could not cover the costs of running rural financial institutions (ibid).

The new rural finance paradigm that emerged in the 1980s and 90s “is based on the principle that a commercial, market-based approach is most likely to reach large numbers of clients on a sustained basis” (ibid). Inspired in large part by the ‘microfinance revolution’ that swept the developing world, the new paradigm reflects a financial systems approach in which newly designed financial products and services are used to expand and integrate markets (ibid). In this paradigm, the role of government is limited to establishing an “enabling” environment, including the development of infrastructure and information systems along with supervisory structures to facilitate the smooth functioning of markets.

What to make of these shifts in thinking around rural finance? Unfortunately, the new conventional wisdom (NCW) on rural finance – while justified in some of its critiques of the old paradigm – is still based on the flawed assumption that the market will automatically ‘step in’ to take over those activities that were once the provenance of the state. As Ha-Joon Chang (2012: 35) comments:

The NCW believes that, if left to the market, adequate amounts of credit will be provided to almost everyone in most circumstances. At best, it will concede that small farmers may have too high risks for the private financial institutions to lend to them, but then it would go on to argue that the problem can be, and should be, solved without recourse to government-directed lending (to particular groups, including small farmers) or subsidized interest rates, by encouraging group-lending arrangements seen in currently fashionable micro-credit schemes. Consequently, the promoters of the NCW have pushed for the expansion of profit-seeking private sector financial institutions, with some micro-finance thrown in more recently. However, the result of these policies has been a reduction in small farmers’ access to credits, with negative consequences for their productivities.

The belief that the private sector will 'step in' has many times not been realised in practice. In Ghana for example, following the demand of the World Bank that the sectoral allocation of (subsidized) credit to agriculture be abolished, all major banks, with the exception of the state-owned Agricultural Development Bank, withdrew from funding agriculture (Owusu-Baah 2012). Barclays Bank, one of the two largest privately owned banks, closed down all its rural branches while Standard Bank, the other major bank, closed down its Agricultural Department at its Head Office (Chang 2012). Between 1997 and 2006, only 2% of commercial bank loans went to agricultural financing, in a country where agriculture dominates the economy (Owusu-Baah 2012).

b) Agricultural development banks: 'a case for reform, not dissolution'

Agricultural development banks were established 20 to 30 years ago to extend financial services, mainly credit at subsidized interest rates, to customers generally overlooked by mainstream commercial banks (Seibel 2000). Largely state owned and funded by governments and donor agencies, they run counter to the new rural finance paradigm that sees these activities as the domain of the market. Partly as a result of this, but also due to real problems regarding economic sustainability and poor state management, a number of them have been closed down or have problems attracting new sources of funding (ibid). Increasingly it seems, agricultural development banks are seen as the 'white elephants' of development finance (ibid).

Yet, as Seibel (2000) notes, "In regions where these banks have been closed, their market share has generally not been filled by other financial institutions". This builds a case for reforming, not abandoning, agricultural development banks. The ongoing reform of the Thai Bank for Agriculture and Agricultural Cooperatives (BAAC) is a useful example (see Box 2).

It is not only top-down, government directed reforms that work. New innovations in rural banking, which involve rural communities in financial decision making, have also proven successful. Ghana's Rural and Community Banks for instance are an interesting hybrid of state-owned banks and credit cooperatives (see Box 3).

c) Banking on the poor

The above discussion shows that institutional forms of financing can be designed to meet the needs of rural peoples. If the 'microfinance revolution' demonstrated that 'the poor are bankable' (Seibel 2000), then the successful reforms of agricultural development banks show that banking on the poor also pays.

Box 2. Bank for Agriculture and Agricultural Cooperatives, Thailand

Established as a state owned agricultural development bank in 1966, BAAC originally relied almost exclusively on capital from the government and as a consequence suffered from chronic funding shortages in its early years (Seibel, Giehler et al. 2005). In 1975, a new Bank of Thailand policy set a quota (initially 5 percent, later raised to 20 percent) for commercial bank agricultural lending. Since commercial banks could meet this quota by either lending directly to farmers or by making deposits in the BAAC, the fortunes of BAAC quickly improved. Since then BAAC has expanded rapidly through wholesale lending to farmer associations and cooperatives and in particular through retail lending to individual farmers organised into joint-liability groups (ibid). The result of the reform process is that BAAC has combined institutional viability with "the largest relative outreach by any agricultural development bank": 88 percent of farm households in Thailand now have access to the formal financial system (ibid).

Box 3. Rural and Community Banks, Ghana

Ghana's Rural and Community Banks (RCBs) are "private unit banks established through the initiative of local people at the local rural levels, with their main function to meet local credit requirements using locally mobilised savings". Until 1990, RCBs were established in partnership with the state-owned Bank of Ghana, which held preferential shares of 50 percent. Nowadays, RCBs are established wholly by local communities, although they continue to receive support from the Bank of Ghana through the national Rural Financial Services Project (RFSP). This project is helping to build the capacity of the RCBs by assisting in staff training in financial services and banking skills as well as providing computers and other internal control equipment on a two year credit arrangement. At the same time, the RFSP is also developing non-bank financial institutions and new financial products in order to help the RCBs expand their client base and better serve the needs of rural peoples.

From the establishment of the first RCB in 1976, there are now 123 nationwide. RCBs have been quite effective in mobilising rural savings. Their primary strength is that they are established in rural areas with the involvement of local communities, allowing them to develop a better understanding of the needs of small farmers and other rural clientele. The majority of RCBs are performing creditably – 84 percent were operating profitably in March 2007. RCBs held total deposits of 2, 452 billion cedis (9, 400 cedis: US\$1) as at the end of the first quarter of 2007.

Source: Owusu-Baah, K. (2012).

The lack of access of small-scale food producers to institutional finance means that they often have to rely on informal sources of finance including farmer credit from traders, input suppliers, moneylenders, friends and relatives, and savings clubs and associations (Shepherd). While some of these informal sources serve an important function, they can also leave small-scale food producers vulnerable to the exploitative practices of local moneylenders charging usurious interest rates (Chang 2012). Moreover, some studies (Shepherd) show that while working capital for day to day operations is not generally a major problem for smallholder farmers, a lack of investment capital remains a real constraint.

In light of these concerns, it is too soon to argue that the extension of rural finance can be left to the market alone. Contrary to the predictions of the new rural finance paradigm, private sector financial institutions have not 'stepped in' when the state has withdrawn. Chang (2012) argues that "the simple fact is that, without some subsidy elements and/or mandatory lending to small farmers, private sector financial institutions are not going to extend enough credits to small farmers". A stronger mix of public and private sector roles is thus envisioned.

5. Markets: why only access is not enough

Mainstream development discourse often talks about linking producers to markets. When it comes to markets and smallholders for example, policy prescriptions often pivot around the notion of market access. However, as the High Level Panel of Experts on Food Security and Nutrition (2013: 73) argues, "... smallholder agriculture is not located outside the markets. There is no point in 'linking' smallholder agriculture to the markets. The central issue is, instead, how to invest and with which stakeholders to increase and keep more value-added at holding and territorial level."

Box 4. Public procurement in Brazil

The Brazilian state is using public policy tools to open up new market spaces for poor, small-scale producers through its School Meals Programme and the Government Food Procurement Programme (PAA). Under the School Meals programme, each Brazilian municipality receives a daily subsidy for each student enrolled for 200 days a year with the requirement that 70% of the municipalities' procurements should be staple, non-processed foods, with 30% of the food coming from local family farms. The PAA programme meanwhile involves the public procurement of food, either by the state or by institutions such as schools, hospitals and restaurants, produced by small-scale farmers grouped together in associations and registered with the National Supply Company. This is set to benefit over 300 000 poor family farmers – about 10% of the total number of family farmers in Brazil.

Source: Schneider, Shiki et al. (2010)

This section looks at how different types of markets that support small-scale food producers can be strengthened through public policy and public investment. It also re-examines the role that agricultural marketing boards can play in supporting domestic producers and national food markets.

a) Creating new markets through public investment

The High Level Panel of Experts (2013) gives the highest priority to local and domestic markets and the promotion of new markets that create direct linkages between producers and consumers. Public investment can play a key role in opening up new markets to small-scale food producers through a variety of innovative strategies. Two examples are given here: i) public procurement in Brazil and ii) the development of local food systems in the United States.

b) Revisiting agricultural marketing boards

With the onset of neoliberalism and the globalisation of agricultural markets a number of reforms were undertaken to limit the state's involvement in the economy. In the area of agricultural marketing, this led to the dismantling or (partial) privatisation of many state-owned marketing boards which had hitherto played an important role in the agriculture of many developing countries.

However, privatisation and deregulation did not automatically lead to vibrant private sector firms taking over these functions from the state (Chang 2012). For example, following the dismantling of Mexico's state grain trading agency CONASUPO, influential producers were unable to find buyers for their crops as private sector actors were not ready to step in (Fox and Haight 2010). In the end, the Mexican government was forced to intervene to provide 'order' to national grain markets. The Marketing Support and Services Agency (ASERCA) was created in 1991 to facilitate commercial producers in the marketing of their crops and to distribute compensatory payments to grain producers in general, including many low-income subsistence and peasant producers.

This shows that "... markets do not spring up naturally once the dead hand of the state is removed" (Chang 2012). Even the World Bank (2007) acknowledges that state retreat has in many cases not been met by private sector uptake and suggests a whole range of public intervention and public-private partnerships in the area of marketing. As a result, new questions are being raised, not just about the value of state-controlled marketing boards but also about the wider role of the state in agricultural and food markets (see Box 6). As Dorward, Kydd, et al. (2006: 29) write: "Important unresolved empirical and policy questions are posed by the tensions between the historical record of successful state sponsored marketing systems involvement in agricultural development in poorer agricultural economies on the one hand and more recent and continuing policies emphasizing the pre-eminence of private market development in poorer and less poor agricultural economies on the other".

Box 5. Food Hubs: supporting intermediated marketing of local foods in the United States

Throughout the US, Food Hubs are creating new marketing opportunities for rural food producers. They are a response to the growing demand by consumers for nutritious, healthy foods of a known provenance. Food Hubs help producers tap into this demand by supplying local foods to direct, and in particular, intermediated markets: restaurants, grocery stores, and other institutions, such as schools, hospitals, nursing homes and corporate cafeterias. These institutions may wish to procure local and regional foods but are often hamstrung in their ability to do so by logistical and informational obstacles (Matson, Sullins et al. 2013). By managing the aggregation, distribution and marketing of source-identified food products, Food Hubs help producers satisfy wholesale, retail and institutional demand for local and regional food products in the quantities they require.

For producers, the Food Hub acts as a 'one-stop shop' for marketing their produce. Food Hub functions include market access for local producers, information sharing, transportation

and distribution, brokerage services, product bundling and aggregation, maintaining producer-consumer connections, and providing producer-oriented technical assistance. This includes so-called 'virtual food hubs': electronic platforms for transmitting information quickly among buyers and sellers of local and regional food products and providing instant access to information on product availability and price (ibid).

Food Hubs are supported in a number of ways by the US Department of Agriculture (USDA). The 'Know Your Farmer, Know Your Food' initiative for instance provides information on all the Federal resources available to support local food system development (Barham, Tropp et al. 2012). USDA's Rural Development Community Facilities grants and loan programme meanwhile helps finance the physical assets of local food projects owned by municipalities or nonprofits including buildings and equipment for farmers' markets; school kitchens, community kitchens, and food banks; food storage and distribution centres; and food preparation centres (ibid).

Box 6. State-controlled marketing boards: are there positive lessons to learn?

The dismantling of state-controlled marketing boards, state trading enterprises and other parastatals in food and agriculture has been a major feature of the shift in agrarian policy making from state-led to market-led development. From their once considerable power to influence all aspects of the marketing system, the activities of marketing boards - where they still operate - are now limited to a few core functions such as providing market information and maintaining security stocks. Some exceptions to this rule do exist, notably in sub-Saharan Africa, where parastatals continue to handle the majority of the marketing and distribution of export crops (Kherallah, Delgado et al. 2000).

The disappearance or transformation of marketing boards and other parastatals is not necessarily to be mourned. Marketing boards have a mixed record at best. Many marketing boards were extractive in nature, used by governments to squeeze surpluses out of their farming populations and to contain urban wages through price restraints on staple foods (Crawford 1997; Chang 2012). In countries with repressive food marketing policies, parallel or black markets emerged for crops that were unregulated (Kherallah, Delgado et al. 2000). Explicit taxation, the high marketing costs of state enterprises, and the overvaluation of the currency restrained the development of markets for export crops in particular (ibid). Finally, corrupt and authoritarian regimes have not been adverse to using marketing boards as a means of consolidating power by placing political appointees on to the board (Crawford 1997).

Marketing boards must however be evaluated within their particular (geo)political context. Many marketing boards that were created during the 1960s and 70s were set up for political as much as commercial reasons in a macro-economic policy environment that was explicitly biased towards industrial development and urbanisation (Crawford 1997). National drives for self-sufficiency, of which state-controlled marketing boards

were a prominent feature, were many times used to subdue (rural) unrest and side-step difficult agrarian questions. This points to the dangers of the extreme politicisation of marketing boards but should not be confused with any intrinsic problems of state involvement per se.

Moreover, despite their weaknesses, marketing boards also performed valuable functions and were often an important instrument to assert national sovereignty in agricultural policy making and to control the distribution of staple foods. Mexico's grain trading agency CONASUPO for example offered an official purchase price for basic grains and acted as an intermediary between domestic and international markets, providing a buffer against international market swings and subsidized competition (Fox and Haight 2010). Although the agency's support prices favoured those farmers with enough farmland to produce marketable surpluses, they nevertheless "... had become a high-profile symbol of the government's commitment to the peasant economy" (ibid: 15).

The criticism against marketing boards must also be balanced against the alternatives. State monopolies in agricultural marketing systems have now largely been replaced by the oligopolistic practices of multi-national food buyers and retailers. The result is a state of 'agropoly' in which a small number of agribusiness corporations exert an inordinate degree of influence in world input, processing, trading and retail markets (Berne Declaration and EcoNexus 2013). This represents a remarkable loss of accountability and democratic control over the world's food system.

Thus, while "On the whole the picture of marketing boards in the literature is a depressing one" (Crawford 1997), the above considerations should lead to a more nuanced understanding of their performance and, more generally, the role of the state in agricultural marketing.

6. Subsidies: limits and potentials

Subsidies are not strictly speaking considered investments. However, the vast scale of subsidy programmes currently in operation mean that their impact upon investment decisions cannot be overlooked: global farm subsidies exceed US\$500 billion per annum while subsidies to fishing range between US\$15 billion and US\$21 billion (Bulte, Damania et al. 2004). OECD country subsidies amount to an estimated US\$1 billion a day (Weis 2007). This section looks at how subsidies are distributed and examines ways in which they can potentially be used to spur on the investments made by small-scale food producers, increase food security, and switch to more agro-ecological farming methods.

a) The politics of subsidies

The role that subsidies play in agricultural and rural development processes is highly contested. Too often subsidies have perverse effects. As they cannot usefully be separated from the mediation of class interests, subsidies have often tended to disproportionately benefit better-off farmers whose resources and lobbying power are far greater. Eighty percent of the subsidies that fall under the EU's Common Agricultural Policy (CAP) for example go to the richest 20 percent of farmers. The concentration of the benefits of CAP subsidies in the hands of fewer and bigger land holdings has coincided with dramatic processes of land concentration within the EU (Borras, Franco et al. 2013). Even subsidy regimes with significant outreach to low-income farmers, such as Mexico's programme for direct farm payments known as 'Procampo', do not necessarily serve a pro-poor agenda (see Box 7). This shows that a focus on the politics of subsidies, rather than aggregate spending levels, is essential.

b) A case for input subsidies?

Does this mean that subsidies have no role to play in rural development? The Malawi agricultural input subsidy programme (see Box 8) provides an example of a large-scale subsidy programme that aims to alleviate the affordability and profitability constraints associated with increased input use in order to bolster staple crop productivity (Dorward and Chirwa 2011). In a country where 88 percent of the population is rural, 52 percent of the rural population is classified as poor, and only 3.4 percent have access to credit for food crop inputs, the programme is presented by the government as a necessary intervention to improve national food security and rural household incomes (ibid).

Despite showing some signs of success, the sustainability of Malawi's input subsidy programme is in doubt as the tripling of international fertiliser prices greatly inflated the costs of the programme. Between 2005/6 to 2008/9, the costs of the programme increased from 6 percent of total government expenditure to more than 16 percent (Dorward and Chirwa 2011). Although fertiliser prices have since come down, the government has committed itself to controlling costs by limiting the volume of subsidized fertilizers in future years (ibid).

Box 7. Procampo: 'Both reaching and missing the poor'

Procampo was introduced by the Mexican government in 1993 in order to buffer against the predicted drop in the price of corn with the coming into force of the North American Free Trade Agreement (NAFTA). As part of a combined trade opening/compensation payment strategy, it involves a direct transfer payment, allocated on a per hectare basis, to all producers who had been growing grain during the period immediately preceding the 1993 - 1994 registration process. The official rationale for introducing Procampo focussed heavily on equity concerns, promising to reach low-income producers previously marginalised by the earlier support price system of the state's grain trading agency CONASUPO. On the surface, it would appear that Procampo has had significant success with achieving this aim. In 2001, 61.5% of participants had less than 2 hectares and 86% had less than 5 hectares of land. By 2005, the programme reached at least 1.6 million low income producers.

Yet these statistics, while showing that Procampo does reach subsistence and sub-subsistence producers to a significant degree, do not reveal how comprehensive the programme's coverage is. Household survey data from 2004 for example show that in low-income rural localities, Procampo only reaches 7% of those with less than 1 hectare, 19% of those with 1-2 hectares, and 39% of those with 2-5 hectares. A different survey, based on a representative national sample of grain producers meanwhile found that half of them received Procampo payments in 2007. When examined from outside its own parameters then, it appears that Procampo still excludes the poorest producers.

Various adjustments could permit Procampo's system of direct payments to be more redistributive. Payments could be limited to once a year, thereby eliminating privileges for better-off, irrigated producers who can engage in multiple-cropping. Producers with less than 5 hectares could receive a substantially larger per hectare payment. In 2009, a cap was also introduced to limit the total amount of payments a farmer can receive per harvest cycle.

Even so, stepping back to look at the distribution of a whole host of other subsidies and support mechanisms shows how public resources are largely concentrated in the hands of a few. A World Bank review of Mexican agricultural spending concludes that more than half goes to the richest 10% of producers. These include some of the biggest transnational corporations: subsidies to food processing giants GIMSA and MINSA, who together control 97% of the industrial corn flour market, for example grew from US\$2 billion in 1994 to US\$5 billion in 1998 (Patel 2007). This capture and diversion of public resources means that although "Procampo is the most progressive of Mexico's national grain support programs, reaching more low-income farmers than any other", it still falls far short of redistributing wealth and opportunities to the poorest Mexicans.

Source: Fox, J. and L. Haight (2010)

Box 8. The Malawi Agricultural Input Subsidy Programme

The two major stated objectives of the Malawi agricultural input subsidy programme are to achieve food self-sufficiency and to increase the income of resource poor households through increased food and cash crop production. The programme aims to do this by addressing the long term problems of input affordability and what Dorward and Chirwa (2011) refer to as the 'low productivity maize trap'. In this trap, poor producers who are unable to obtain organic or inorganic fertilizers become 'locked in' to the continual cultivation of low productivity maize, unable to increase their output in order to raise incomes and improve household food security. This leads to a 'hungry gap' during the cropping period.

In light of this, the Malawian government began a large-scale input subsidy programme in 2005. Vouchers or coupons are distributed to approximately 50% of the farmers in the country to receive fertilisers for maize production, with further vouchers for tobacco fertilisers and for improved maize seeds. There has been considerable variation over time and between areas in the criteria determining prioritization and selection of beneficiaries, numbers of people receiving coupons, and numbers of coupons received per household, with important roles played by Traditional Authorities, Village Development Committees, local government, and the Ministry of Agricultural and Food Security, among other stakeholders. The programme has grown substantially over time. In 2008/9, 5.9 million coupons were extended, with the selection of more than 1.5 million fertiliser coupon beneficiaries from over 2.5 million farm households.

So far, the input subsidy programme has led to incremental maize production levels and a substantial improvement in national food self-sufficiency. The average estimated net imports over the four marketing seasons following subsidies in 2005/6 to 2008/9 amount to just over 1,000 MT, compared with nearly 132,000 MT over the previous eight seasons. Food self-sufficiency is of course not the same as food security and the evidence on this score appears to be more mixed, with higher maize prices giving some cause for concern as well as the disproportionate subsidies received by male headed households with more land and other assets. Widespread food shortages have however not been reported and it appears that rising nominal wage rates have partially offset these price rises. Efforts have also been made to improve the targeting process. Furthermore, the poverty incidence has fallen in Malawi from 52% in 2004/5 to 40% in 2007/8 and 2008/9. An indicative modelling scenario of livelihood and labour market effects of the programme comparing beneficiary and non-beneficiary households also finds that the programme may have increased real incomes between 10% and 100% compared to a situation where no subsidies were used.

Source: Dorward, A. and E. Chirwa (2011).

c) A subsidy to sustainability

This raises another issue, namely the agro-ecological sustainability of the programme. The input subsidy programme is currently tied to the use of synthetic fertilisers which, in addition to making small farmers dependent on external inputs, are a major contributor to global greenhouse gas emissions. In a context where the government of Malawi is already looking to scale back the input subsidy programme, agro-forestry offers many advantages including the greater use of organic fertilisers, increasing farmer control over production processes, and a possible way to phase out subsidization over the longer term (see Box 9). Thus, despite the sharp distinction often made between an investment and a subsidy, the question need not necessarily be framed as an either/or. The example below of a 'subsidy to sustainability' shows how positive synergies can be created through the use of selective subsidies and complementary investments.

Box 9. A 'subsidy to sustainability'?:**The promise of agro-forestry**

Agro-forestry refers to a range of techniques and practices involving the integration of trees into farming systems. By adding biomass and replenishing soil fertility, improving soil aggregation, and providing a favourable environment for soil fauna and flora to flourish, agro-forestry systems improve productivity through an organic and integrated soil management approach.

Even though the benefits of agro-forestry are substantial, a significant obstacle to the adoption of agro-forestry practices still remains, namely the time-lag that exists between the initial investment and the realisation of its benefits. It takes on average two years before farmers will see a return on their investment, depending on the growing period of the trees (Ajayi, Akkinifesi et al. 2008). For poor farmers, this time-lag is a major constraint.

In Malawi, the government is exploring an innovative solution to overcome this adoption threshold by offering a so-called 'subsidy to sustainability' that would link fertiliser subsidies to complementary investments in agro-forestry (De Schutter 2010). This would not only reward more ecologically sound, climate friendly farming practices, but would also offer the Malawian government a possible exit strategy from fertilizer subsidies altogether. Evidence from Zambia suggests that agro-forestry can be as, or even more effective, at raising rural incomes than synthetic fertiliser practices, even when these are partially subsidised. Maize intercropped with the tree species *Sesbania* in particular holds out much promise, granting farmers a greater net income from year 3 onwards compared to maize cultivated conventionally, even when a 50 percent subsidy on synthetic fertilizer is factored in (Ajayi, Akkinifesi et al. 2008). When one includes the beneficial ecosystem services provided by agro-forestry systems compared to the negative externalities generated by conventional farming practices then the true accounting costs are likely to be even more in favour of agro-forestry.

Source: Extract adapted from Kay (2012)

7. Agricultural research: setting a progressive agenda

Investing in agricultural research and development (R&D) has been widely recognised to be one of the most effective strategies for increasing agricultural growth and reducing poverty. Following a comprehensive analysis of public investment in agriculture, IFPRI (2012) concludes that “A strongly consistent finding across the literature are the high social returns to public investment in agricultural R&D”. Similarly, the UN Special Rapporteur notes that “While agricultural spending is among the four top contributors to increasing rural welfare, along with public spending in education, health and roads, agricultural research has the greatest overall impact on poverty and agricultural productivity in developing countries” (De Schutter 2010). Furthermore, R&D investments sustain higher returns over a longer time frame compared to other forms of agricultural investment (Mogues, Yu et al. 2012).

a) Shifting research priorities: the need to close the knowledge gap

While investment in agricultural research and development is broadly acknowledged to make a vital contribution to agricultural development and poverty reduction, the composition of this investment is equally, if not more, important. A vast ‘knowledge gap’, in terms of funding and the allocation of resources, exists between conventional agriculture and biologically diversified farming systems. Globally, as much as 90 to 95 percent of investment in research and the development of technology and know-how goes to conventional agriculture (Wageningen University 2013). This comes despite warnings and wide-spread scientific consensus that, in the face of increasing global resource scarcity, environmental degradation, and climate change, ‘business as usual’ is not an option (IAASTD 2009). Instead of investing in a highly chemical and petro-dependent form of agriculture that depletes the resource base on which it depends, funding should be channelled towards agricultural approaches, such as agro-ecology, that work to restore the ecological balance between humans and nature (see Box 10).

This knowledge and funding gap is the result of a growing trend towards privatisation in mainstream agricultural research and extension services, including the rise of private sector Research and Development, the decline in public research funds for agriculture, the pressure for public institutions to generate income, the advent of the intellectual property rights system, and the increasing commodification of genetic resources (Parmentier 2014). The rise of the private R&D industry as well as the power of the corporate lobby to shape the direction of public agricultural research has meant that research agendas have tended to focus on the problems facing large, commercial farmers (Dorward, Kydd et al. 2003) as well as those that benefit most from the agro-industrial model, such as the pesticide and transgenics industries (Parmentier 2014).

Box 10. What is agro-ecology?

Agro-ecology is a science, a practice, and a movement. As a science, it combines insights from both agronomy and ecology in order to generate an agro-ecological systems approach to the management of natural landscapes. This management is based on key ecological principles which advance a form of low-external input, sustainable agriculture based on farming systems which are resource-conserving, resilient and highly biodiverse. As a practice, it involves a multitude of farming techniques, such as integrated pest management, conservation tillage, aquaculture, agro-forestry, that are adapted to best suit local circumstances and rely heavily on local, traditional, and indigenous knowledge of ecological systems. As a movement, agro-ecology has been taken up by a large number of farmers’ organisations, including the worldwide peasant movement, *La Via Campesina*. Agro-ecology in this sense does not involve just the technical aspects of farming but is allied to a set of broader social and political goals, including the quests for food, energetic and technological sovereignty (Altieri and Toledo 2011), as well as processes of ‘repeasantization’ (Van der Ploeg 2008).

Carlisle and Miles (2013: 220) argue that “... this ‘knowledge gap’ is at the crux of the ‘yield gap’ that is often raised as the impediment to transitioning a greater share of global agriculture to diversified, agroecological production”. Insufficient data is believed to exist to support the claim that these systems can feed a growing world population. This means that, even when the high costs of the industrial agricultural model are recognised, these are often rationalised on the basis that this model is the most effective at raising yields and meeting rising global food demand. However, given that non-conventional agricultural systems receive a fraction of the research funds, the problem of insufficient data is in large part due to the lack of well designed studies that could help identify and improve the productivity of such systems (ibid). Furthermore, a growing body of evidence shows that biologically diversified farming systems can meet global food needs sustainably and efficiently as they outperform chemically managed monocultures across a wide range of indicators. The experience with sustainable rice intensification is one prominent example (see Box 11).

b) Scaling ‘up’ and scaling ‘out’ strategies for an agro-ecological transition

Investing in agro-ecology thus requires investing in knowledge. As the UN Special Rapporteur on the Right to Food argues, “Research in agroecological practices, in particular, should be prioritized, because of the considerable and largely untapped potential of such practices” (De Schutter 2010: 17).

This research will have to come through public sector funding given that the private sector, due to vested commercial interests and the limited options for patenting, is unlikely to be interested.

Parmentier (2014) offers the following recommendations for prioritising agroecology in public agricultural research, extension services and education by:

- Focusing public agricultural research on agro-ecological innovations, such as improving the productivity of local varieties through growing practices, land use and soil fertility management and building on farmers' agro-ecological knowledge, know-how and innovations;
- Closely associating representatives from peasants' organisations and farmer-to-farmer networks, and consumers in defining public research and extension services priorities, as well as in controlling, designing, conducting and monitoring research activities;
- Supporting the development of farmer-led and community-driven participatory research and extension services for the co-construction and dissemination of agro-ecological knowledge, e.g. through funding support;
- Paying specific attention, not only to optimizing agro-ecologically peasant agricultures, but also to identifying the best transition paths for increasing the agro-ecological integration of industrial farms, whether at large or small scale;
- Mainstreaming agro-ecology in agricultural education.

How can investing in agro-ecological research and development facilitate a wider agro-ecological transition? One can differentiate between strategies for vertically 'scaling up' agro-ecology through institutionalising supportive policies and horizontal 'scaling out' agro-ecology through farmer to farmer networks (Parmentier 2014). Ultimately, both strategies, involving a constellation of actors (farmers' organizations, public authorities, NGOs, academic institutions, research centres) are required for an agro-ecological transition.

Cuba's agro-ecological revolution provides one of the best examples of how to make such a transition work (see Box 12). According to Altieri and Toledo (2011), "No other country in the world has achieved this level of success with a form of agriculture that reduces food miles, energy and input use, and effectively closes local production and consumption cycles". Key success factors include the spread of farmer-to-farmer models of knowledge diffusion and exchange; the creation of farming cooperatives and the transfer of 80% of formerly state-owned farmland to cooperative and individual farmers; and a supportive state committed to the renewal of peasant farming.

Box 11. Sustainable rice intensification

The system of sustainably rice intensification (SRI), which is based on a set of agro-ecological observations, practices, and principles, has proven remarkably successful in achieving high yields (regularly even above 10tons/ha). Initially developed in response to the biophysical conditions and socio-economic needs of small rice farmers on the Madagascar Plateau in the early 1980s, SRI is now being practiced in more than 35 countries (Parmentier 2014).

SRI adopts a radically different approach to intensification than conventional rice research. Rather than rolling out a new technology according to certain specific and precisely defined guidelines, SRI involves a set of practices and principles to be followed and implemented flexibly according to the specific agro-ecological and socio-economic conditions faced by farmers. These practices include:

- the use of very young, 8- to 12-day-old seedlings in transplantation;
- transplanting single seedlings per hill quickly, with minimal root disturbance
- widely spaced hills, ranging from 20 × 20 up to 50 × 50cm
- an alternate wet and dry soil moisture regime (no permanent flooding) to maintain aerobic soil conditions
- the use of organic, rather than mineral, fertilizers;
- frequent weeding, preferably performed using a surface rotary hoe, during early crop development stages so as to control weeds and aerate the soil.

Since SRI is based on a diversified set of agro-ecological practices rather than a standardised, best management approach, it is ideally suited to the circumstances of small farmers. It has also been shown to work best with horizontal, rather than top-down extension approaches such as Farmer Field Schools and Farmer-to-Farmer initiatives. Furthermore, in addition to achieving higher yields while greatly reducing dependence on external inputs (seeds as well as agricultural chemicals), SRI has been shown to increase farmers' resilience to droughts and flooding as well as to infestations by pests and diseases.

Despite the success of SRI and strong signs that its achievements can be replicated elsewhere and even applied to other crop systems, significant institutional and ideological obstacles from the conventional rice research establishment prevent its wider application. According to Stoop (2011: 443), "The obstacles may range from obtaining funding, limited respectability and, consequently, barriers to having the results published, suggesting that there are risks in going against vested interests and established research doctrines and paradigms". This shows that there is still a fundamental tension between the major research and development efforts that rely on a very limited and standardised set of research-based technologies and the diverse field realities faced by the vast majority of (smallholder) farmers.

Source: Stoop (2011)

Can Cuba’s agro-ecological revolution be replicated elsewhere? Some sceptics argue that Cuba’s unique characteristics and historical experience make it an unlikely model for emulation. This is however to miss the possibilities for spreading agro-ecological knowledge and practices based on state investments and policies that help consolidate bottom-up, farmer-led approaches and strengthen local research and problem-solving capacities. Considering that “in the typical case, in most countries most of the time, there are abundant and productive ecological farming practices ‘on offer’, but low adoption of them is the norm, because what is lacking is a methodology to create a social dynamic of widespread adoption” (Rosset, Machin Sosa et al. 2011: 168), the combination between scaling up and scaling out strategies can prove most effective.

8. Competing tendencies in land reform

Land is at the heart of rural life. For many rural peoples, land is much more than a factor of production. It is the basis of their livelihoods, a way to be counted in political decision making, a means towards social inclusion and access to basic services, and a component of their culture and collective identities (Franco 2007). It is not surprising therefore, that the issue of land reform remains a key concern for many rural peoples around the world.

This section examines the issue of land reform, and in particular pro-poor land reform. It argues that land questions cannot be separated from wider questions of rural democratisation and that from this perspective, achieving the full, meaningful, and effective access to and control over land by the rural poor is considered to be the most desirable objective of a land policy today (ibid). This is especially so in light of a new round of corporate, state-brokered (trans)national enclosures whereby rural working peoples are losing their once effective control over significant areas of the world’s land, water, wetlands, pasturelands, fisheries and forests, often for generations to come (Franco, Borras Jr. et al. 2013).

a) A typology of land reform policies

‘Land reform’ is often advanced as the solution to the plight of landless and near-landless rural peoples. However, without unpacking the meaning and purpose of land reform policies, there is a danger that land reform actually becomes a means by which new forms of oppression are created or existing forms of inequality and exclusion are further entrenched. In reality, there are many different types of land reforms, not all of which can be considered pro-poor.

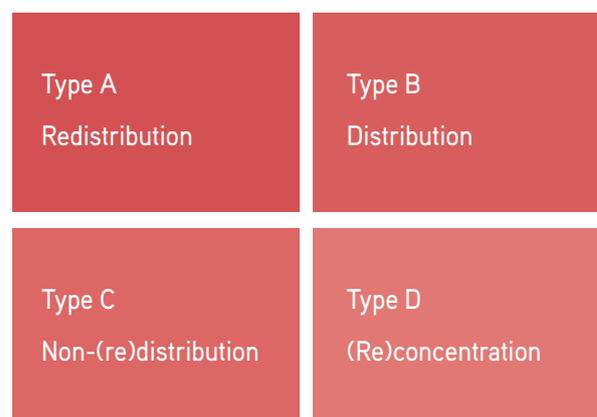
Borras and Franco (2012) develop a typology of land reform policies defined by the different flows of land-based wealth and power (see Figure 1).

Box 12. Cuba’s agro-ecological revolution

Cuba’s transition from a form of high-input, export-oriented, industrial agriculture towards agro-ecological farming has been a remarkable success. Following the economic crisis triggered by the collapse of the Soviet trading bloc which imposed extraordinary high scarcity costs for imported agricultural inputs, the Cuban government embarked on a national programme for food sovereignty and self-reliance. At the heart of this programme were Cuba’s small farmers whose knowledge and use of organic fertilisers, biological forms of pest control, and animal traction made them remarkably adept at responding to the economic crisis. Key to the spread of these and other agro-ecological practices was the research, training and extension infrastructure put in place by the state, NGOs including the Asociacion Cubana de Tecnicos Agricolas y Forestales (ACTAF), and farmers’ organisations such as the National Association of Small Farmers (ANAP). This extensive network of farmers, facilitators, promoters and coordinators has transformed agro-ecology into a national movement for change.

The success of this model is such that Cuba’s family farmers, many of whom are part of the *campesino a campesino* (farmer-to-farmer) movement, currently produce over 65 percent of the country’s food, on only 25 percent of the land (Rosset, Machin Sosa et al. 2011). Between 1996-2005, Cuba posted the highest food production scores in Latin America and the Caribbean with an annual growth in per capita food production of 4.2% compared to a regional average of 0% (Altieri and Funes-Monzote 2012). Cuba now imports only 16% of its food while the use of agricultural chemicals declined by 72% between 1988 – 2007 (ibid). Evidence even shows that agro-ecology increases farmers’ resilience to hurricanes and severe storms. Evaluations conducted in the Holguin and Las Tunas regions of Cuba after Hurricane Ike struck in 2008 revealed that agro-ecological farms suffered significantly less damage and recovered faster than monocultures (Altieri and Toledo 2011).

Figure 1. Types of land reform



Source: Borras and Franco (2012)

Borras and Franco only consider the first two types, A and B, to form part of a pro-poor land reform policy since both involve the transfer of land-based wealth and power to landless and near-landless working peoples (Borras Jr. and Franco 2012). The distinction between the two is that in redistributive land policies this transfer involves taking resources from one social class or group in society to redistribute to another, while distributive policies do not involve this kind of zero-sum logic. Distributive policies may mean for example affirming and protecting pre-existing land access and occupancy by poor peasants whose tenure is insecure. Sometimes they are enacted precisely to avoid the often more politically contentious redistributive option.

The latter two types, C and D, are not considered to be pro-poor. Non-(re)distribution is defined by the maintenance of the status quo, usually marked by land-based inequality and exclusion. (Re)concentration involves the transfer of land and decision-making power over land into the hands of economically and politically dominant social classes and groups. Both undermine the livelihoods of rural working peoples, either through forms of direct dispossession or through adverse incorporation into corporate enclaves and value chains.

Box 13 provides an illustration of how some of these different types of land reform policies – and struggles by rural peoples to shape their direction – find expression in the agro-fruit sectors of Chile and the Philippines.

b) Land policy: development and implementation

In the face of a new round of enclosures, there has been a call by some for greater 'land tenure security', understood as providing, promoting and/or protecting the property rights of the exclusive owners and/or users of land, usually through the issue of private and individual land titles (Borras Jr. and Franco 2012). However this can be a dangerous thing to call for as it is not clear whose security is being promoted and protected:

Land tenure security can mean the property security of big landlords living in the capital city and relying on tenants or farm workers to make the land productive. It can also mean the property security of corrupt government officials, who may have made claims over vast tracts of far-flung public land through anomalous deals and for speculative purposes. Security in land property can also mean security of the banks that are selling capital for profit, and need collateral in case of payment default. In the current context of global land grabbing 'security' can, and in fact does always also, refer to the security of (trans)national capital invested in land, for example, secure property rights to allow for a secure 99 year lease or indeed an outright sale (Borras Jr. and Franco 2012: 6).

With this in mind, two examples are presented here of land policies which are notable in two key aspects: i) they go beyond the fixation with individual and private land titles by recognising a plurality of land tenure systems, including customary and collective forms of land use; and ii) they were developed with a relatively high level of participation and inclusivity. The first is the 1997 Land Law of Mozambique and the second are the Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries and Forests in the Context of National Food Security endorsed by the member states of the Committee on World Food Security in May 2012.

Ultimately however, no law – neither the 'hard' law of the Mozambican Land Law nor the 'soft' law in the guise of the Tenure Guidelines – is self-implementing or self-interpreting. The new trend towards reconcentration in Mozambique shows that even the most progressive land policy is not by itself sufficient to safeguard the rights of the rural poor. It is only through processes of rural democratisation and the building up of social and political organisations capable of effectively and democratically representing the plural identities and interests of rural peoples, that the poor, marginalised and excluded sectors of society can mobilise to claim their land rights and make them real (Franco 2007).

c) Beyond land reform towards land sovereignty?

This section has revealed the potential but also the limitations of land reform to transform the lives of the rural poor for the better. The contested meaning and purpose of land reform policies will continue to be shaped by the unfolding of rural politics and the daily struggles of the rural poor to claim and defend their rights.

Land – always at the centre of rural life – has at the present conjuncture come to the fore again in light of a renewed corporate and (trans)national push to enclose the commons. Against this wave of 'land grabbing', Borras and Franco (2012) make the case for a peoples' counter-enclosure that encompasses both defensive (against non(re)distributive land reforms) and proactive elements (in favour of (re)distributive reforms). The aim of this peoples' counter-enclosure is to realise the vision of 'land sovereignty' defined as "the right of working peoples to have effective access to, use of, and control over land and the benefits of its use and occupation, where land is understood as a resource, territory and landscape" (ibid).

The state plays a complicated role in this struggle. On the one hand, many 'land grabs' are brokered by the state in order to serve the interests of capital accumulation. Much of the land that is being grabbed is actually public land, officially owned by the state. Using its coercive capacity, the state has at times driven people off their land by force. More commonly, although no less destructive to the livelihoods of rural peoples, the state engages in 'simplification' processes that render actual

Box 13. A comparison of the role of land reform processes in the development of the agro-fruit sectors in the Philippines and Chile

Chile and the Philippines offer two contrasting accounts of the development of a commercial, export oriented agro-fruit sector in the context of two very different land reform processes. Together they reveal how land reform policies and the ability of autonomous rural organisations to shape these policies determine who benefits and who loses from these fruit exporting booms.

In the Philippines, the agro-fruit sector has been dominated by large plantations controlled by the state, transnational fruit companies, and a few big landlords. Together they formed what has been termed an “agra-agri elite”, an alliance between a domestic landlord elite and a multinational corporate elite that was seen to block any opportunity for redistributive reform in this sector (Borras Jr. and Franco 2005). The collapse of the Marcos dictatorship in 1986 however opened up the political space for a national debate on land reform - a longstanding struggle for many rural peoples in the country. This led to the passing of the 1988 Comprehensive Agrarian Reform Programme (CARP).

The complex dynamics that unfolded following the passing of CARP must be seen in light of the design of the land reform programme itself, the extreme difficulties in extending the redistributive principle to the commercial agro-fruit plantations, and the relative power of plantation farmworkers in pushing for and claiming their rights. No single predetermined outcome of the CARP, which was neither a revolutionary, nor a conservative land reform programme but a liberal compromise, was therefore guaranteed.

In their examination of these dynamics on banana plantations, Borras and Franco (2005) identify three variable paths: a landlord/multi-national corporation path; a cooperative path; and a family farms path. The family farm path is considered to be the most progressive and the one most faithful to the goals of redistributive land reform. In this path, “the pre-reform form and organization of plantation operations (from production and processing to marketing) is radically transformed, with individual family farms now existing and playing an important role in operations” (ibid). This is in contrast to the other two paths in which no individual land titles were extended and the commercial farm elite continued to exert control, to a greater or lesser extent, over the process. A key factor identified in the family farm path is the presence of autonomous organizations of farmworkers that rose up to fight for their rights in policymaking and policy implementation phases of the land reform process. In this fight the “control over land remains important to the capacity and autonomy of farmworkers’ households in seeking to secure, construct, maintain, defend, and sustain their livelihoods” (ibid).

Redistributive land reform is thus difficult, but not impossible.

The political context and nature of the land reform process in Chile is quite different. The Chilean fruit export ‘miracle’ began with the military regime of General Pinochet in the mid-1970s and the switch to radical free-market capitalism. Growth was indeed spectacular: between 1975 and 1994, the average yearly growth rate of agricultural exports was 17.9 percent (Kay 2002). In just 20 years, Chile became one of the main world exporters of off-season temperate fruits (Cox 2012). What these remarkable growth figures do not reveal however is that the fruit export miracle, along with the rise of other so-called ‘non-traditional agricultural exports’, was used by the regime to effect a victory of capitalist over peasant agriculture in the context of a comprehensive agrarian counter-reform.

In the agro-fruit sector, this anti-peasant bias of the agrarian counter-reform contained many elements including the exploitation of cheap peasant labour, especially seasonal female wage workers, and the deregulation and breaking up of the farm workers’ union and lowering of real salaries paid (Kurtz 2001). Set in the wider context of unequal credit markets and the dismantling of public marketing boards and peasant cooperatives, along with a “political vision that sought to undermine the social and organizational bases of reformist or radical politics”, the above policies amounted to a full scale assault on Chile’s peasantry and a dress rehearsal for structural adjustment policies (ibid).

The reconcentration of land following the collectivist redistributive land reforms enacted under President Allende in the early 1970s represented a particularly painful set back. According to Marcus Kurtz (2001), “the fruit export boom encouraged land concentration as capitalist entrepreneurs bought land from peasant farmers (principally parceleros) who generally did not have the capital to shift from crop cultivation to fruit farming”. Those that did make the switch were often forced to sell their land subsequently to capitalist farmers due to the pressure of mounting debts (ibid). This dramatic reconcentration of land is illustrated in Table 1 which shows that the percentage of agricultural land occupied by peasant holdings fell from 63.4 percent in 1973 to 27.7 percent in 1997. The total land occupied by capitalist holdings meanwhile increased from 36.6 percent to 72.2 percent over the same period.

The increasingly class-stratified pattern of land tenure meant that the surge in agricultural exports coincided with a surge in rural poverty. Rural poverty rates increased from 25 percent in 1970 to 53.5 percent in 1987 (ibid). Chile’s counter-land reform therefore had devastating consequences.

Table 1. Percentage of peasant holdings and capitalist holdings 1973 - 1997

| Farm Size Stratum | 1973 | 1976 | 1979 | 1986 | 1990s | 1997 |
|----------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Minifundio | 9.7 | 9.7 | 13.3 | 14.0 | | |
| Family labor farm | 13.1 | 24.9 | 29.0 | 26.0 | | |
| Reform sector | 40.6 | 18.1 | 4.0 | 3.0 | | |
| Total peasant holdings | 63.4 | 52.7 | 46.3 | 43.0 | 39.0 | 27.7 |
| Capitalist farms | 36.6 | 43.4 | 36.3 | 31.0 | | |
| Large agribusiness | 0.0 | 2.9 | 16.9 | 26.0 | | |
| Total capitalist holdings | 36.6 | 47.3 | 53.2 | 57.0 | 61.0 | 72.2 |

Note: Units are in basic irrigated hectares

Source: Kurtz (2001)

Box 14. From paper to practice: the 1997 Mozambican Land Law

The 1997 Mozambican Land Law has been described as “the best land law in Africa” (Tanner 2010). The recognition it affords to customary land use rights and the unusual degree of investigation, consultation and public deliberation that went into it, are argued to make it a truly progressive land law (Franco 2009).

Land in Mozambique is public land, officially owned by the state. Traditional forms of land administration, including customary forms of land access and use, had however developed over time and were in effect the land management system of the country. From the outset therefore, an agreement was reached that the new Land Law should focus on protecting existing local occupation and use rights and changing the ways in which the state-allocated land use and benefit right (DUAT) could be used.

The 1997 Land Law contains many positive aspects. It recognises the legitimacy of extensive customarily acquired land rights by local communities and gives them full legal equivalence to a state-allocated DUAT. It takes into account the obstacles faced by many local communities in officially registering their land rights by affording community based evidence the same credibility and legal status as title documents.

Private investors can also apply for and obtain new DUATS, but they must consult local communities first. Local people have the right to refuse. The signing into force of the new Land Law was followed by a National Land Campaign to inform local communities of their rights.

Despite its progressive nature, actual implementation of the Land Law has been ‘patchy’ (Tanner 2010). The registration of community rights has been undermined by weak public sector commitment, with NGO programmes often acting as the main source of funding. Although community DUATs need not be officially registered to be legal, the slow progress that has made in this area risks seriously understating the extent of legal land use and occupation and creates an impression of large ‘empty areas’ available for investment (ibid). This is especially so when one compares the

priority given to registering private sector requests for new land rights. While 180 community delimitations had been registered by mid-2003, 20 000 privately held DUAT’s had been registered (ibid).

There is evidence that this fast-tracking of private land applications is driving a new wave of land enclosures by large-scale investors. In Zambezia province, just 11 percent of applicants were allocated nearly 74 percent of the area approved, while 59 percent of applicants received just below 3 percent (ibid). In Gaza province meanwhile, out of 41 cases, 17 (42 percent) account for 95 percent of the area requested, while 13 cases (32 percent) account for less than 1 percent of the area applied for (ibid). It is often claimed by public officials that the requirement of prior community consultation is sufficient to safeguard the rights of local land users. However, as Christopher Tanner (2010: 124) notes, “...in the face of rising demand for land, communities ‘participate’ in [consultations] from an essentially defensive position, and most agreements to date scarcely enable them to maintain current living standards, never mind achieve a lift out of poverty”.

Despite these major concerns, Tanner does not consider the land law to have failed. As he argues:

The development of the Land Law itself was a major achievement, not only because it provided an innovative and workable solution to very complex problems, but also because it was developed through a participatory exercise that included civil society, academics, and all the line ministries and sectors with an interest or role in land and resource management. It had, and still has, widespread support across the country, especially among those who promote local, community based development and who expect the state to respect and protect the basic rights of its citizens (Tanner 2010: 121)

The patchy implementation of the Land Law and the priority afforded to private land applications do however risk creating a growing gap between the *de facto* and *de jure* land rights of local communities. In the face of growing demand for and pressure on land, more still needs to be done to move the Land Law from paper to practice.

Box 15. The Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries, and Forests in the Context of National Food Security

The Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries, and Forests in the Context of National Food Security (hereafter Tenure Guidelines) are the first international instrument to apply an economic, social and cultural rights based approach to the governance of land, fisheries and forests. They were adopted by the member states of the reformed UN Committee on World Food Security (CFS) in May 2012 following a three year multi-stakeholder consultation. Civil society organisations, social movements and food producers and worker organisations actively participated throughout the entire process.

Although they contain weaknesses, the Tenure Guidelines also contain many positive points that can be used to reform and set in place progressive tenure policies. For example, the Tenure Guidelines:

- Enable public participation and democratic decision making power over land use, allocation and planning (Articles 3B and 4.7) and call for States to set up national multi-stakeholder platforms in order to collaborate on the implementation of the Guidelines (26.2)

- Recognize and respect all legitimate tenure rights holders and their rights, even those that are not currently protected by law such as customary, informal and subsidiary (e.g. gathering) rights (4.4, 5.3, 7.1 and 8.2)
- Call for redistributive land reforms to be implemented where a high degree of ownership is combined with a significant level of rural poverty (15.3), with the beneficiaries of land reform, such as women, pastoralists, indigenous peoples, and marginalized groups, clearly identified (15.5) and afforded the full measure of support (15.8)
- Adopt a holistic and sustainable approach to the management of natural resources (3B) and call on States to respect and protect publicly-owned land, fisheries and forests that are collectively used and managed, also known as ‘the commons’ (8.3)

These and other elements make the Tenure Guidelines a potentially powerful policy tool with which to tackle burning land issues. Following their adoption, the Tenure Guidelines are now in an ‘implementation’ phase during which this potential will be tested.

land uses by local people invisible and create the impression of vast areas of 'empty lands' (Scott 1998; Borras Jr. and Franco 2012). On the other hand, the state also has the power to intervene positively to protect and fulfil the rights of poor rural peoples. States have throughout history played important roles in redistributive land reforms and wider campaigns for (rural) social justice. Borras and Franco argue that no one path necessarily exists in the defence against elite and corporate capture. It is important however that "... wherever possible and appropriate, state-driven redistributive land reforms should be seriously considered and implemented – and should never be dismissed *a priori*" (Borras Jr. and Franco 2012: 10).

9. Creating an enabling environment by investing in rural social services and infrastructure development

Key to creating an enabling environment for small-scale food producers to invest is to address the massive inequalities in service provision and use and infrastructure development that exist between rural and urban areas – access to which is in turn differentiated along class, gender, ethnic and other lines. Without access to affordable and good quality social services and adequate investment in infrastructure development, the tide of rural flight and impoverishment is unlikely to be reversed.

It is also an area where the case for public spending is strong given that they touch on issues of basic human welfare and rights and involve investments which, given the non-rival, and non-exclusive nature of public goods, are traditionally neglected by the private sector. An agri-business firm for example will build roads connecting its enterprise to markets and other hubs but will have no incentive to invest in road and transport networks that benefit other producers and the wider rural community. Empirical evidence shows that public investment in rural public goods such as roads, education, health, and telecommunications lead to exceptionally high returns (Benin, Pratt et al. 2008; FAO 2012; Mogue, Yu et al. 2012).

Investment in rural social services and infrastructure development is a vast area. Here, the focus is limited to three key areas: electricity, health, and water.

a) electricity

Investment in rural electrification schemes has a number of benefits for agricultural development, including crowding in private investment in agro-processing and irrigation facilities as well as other cottage industries for farm inputs, thereby expanding the marketability of farm produce, creating off-farm employment opportunities and raising rural incomes (Benin, Pratt et al. 2008). However, electrification requires costly infrastructure that many private investors

are unwilling to take on given low expectations for a return of profit. Governments meanwhile have tended to favour big cities and large energy users in their planning and expenditures. The result is that globally, huge disparities in electricity access exist between urban and rural areas.

The problem is most acute in Africa. While two-thirds of the continent's population lives in rural areas, only 19% of rural Africans have access to electricity (Hathaway 2012). This drops to 8% if one excludes North Africa. More than 444 million rural Africans are waiting for access to electricity, roughly four times more than the number of urban Africans without access (ibid).

Although the challenges remain substantial, there are a number of positive cases of public investments that have expanded rural access rates. Mauritius, Morocco and Tunisia have achieved notable success in their drives to extend their national power grids into rural areas. The Moroccan government for example launched its Global Rural Electrification Programme in 1997 at a time when 45% of Moroccans lived in rural areas but only 18% had access to electricity (ibid). With the goal to reach 100% rural electrification within 10 years, the state's national electricity company – the Office National de l'Électricité – connected 4 000 communities per year between 1997 and 2008, succeeding in increasing Morocco's access rate to 99% (ibid).

Rural electrification strategies need not be solely state-led. The case of Ghana's dual national and local electricity programmes shows how a combination of state and community initiatives can be effective in tackling rural energy poverty (see Box 16).

Box 16. Ghana's twin state and community electrification strategy

In 1989, the government of Ghana launched two complementary electrification programmes at state and community level – the National Electrification Scheme (NES) and the Self-Help Electrification Programme (SHEP) – with the overall goal to connect all communities with more than 500 people to the national grid by 2020.

The SHEP Programme is specifically designed to reward community organising by fast-tracking funds to communities who set up village electrification committees. These committees have several responsibilities, including procuring a number of low-voltage poles, assisting in acquisition and clearing of right-of-ways, and providing public information and awareness on wiring homes. Through these joint efforts, the pace of rural electrification was able to be accelerated so that by 2004, the NES and SHEP together had managed to electrify over 3 000 communities.

Source: Hathaway, T. (2012).

b) health

Health problems and other debilitating illnesses have major negative economic effects, including loss of work days and wages, decline in productivity, medical costs, burden of family care etc. and can lead to spiralling poverty (Benin, Pratt et al. 2008). Public investment in health services is therefore essential.

Here again however, aggregate spending levels mask huge inequalities between rural and urban areas. In China for example, the decollectivisation of agriculture went hand in hand with a decline in the collective welfare system: while 80%–90% of the rural population was covered by an organised cooperative medical system in 1979, this fell to 40%–45% in 1984 (Sengupta 2012). Meanwhile, the cost of accessing health services remains prohibitive: of the 30% of patients in the country that did not use inpatient care when they were advised to do by doctors, 74.4% of respondents from rural areas reported that the reason was that it was simply too expensive (*ibid*).

To deal with these problems, the Chinese government launched the New Rural Cooperative Medical Scheme (NCMS) in July 2003. Under this scheme, the premium is divided between central government, local authorities, and individual payments with the central government contributing around 80% of the costs. By 2008, the programme was covering over 800 million rural Chinese (*ibid*). Review of the NCMS shows that it has helped to significantly expand access to health care for rural residents, although out-of-pocket expenses remain an issue. Nevertheless, as “...the largest and most sustained initiative in post-liberalisation in China to reverse the trend of privatisation and inequity in health care and access”, the NCMS is an important initiative (*ibid*: 198)

Closing the gap in access to affordable and good quality health care services between rural and urban residents requires significant political will and momentum. Iran shows how remote and sparsely populated rural areas can be reached by putting health care at the heart of public policy (see Box 17).

c) water

Water is a key constraint to agricultural production. Investments in water infrastructure and irrigation systems therefore often yield substantial benefits. By increasing the area under cultivation, opening up opportunities for multi-cropping as well as crop diversification, and reducing crop losses, farmers can receive higher and more stable incomes.

Despite the importance of water to agricultural growth and rural development, public investment in irrigation systems has often lagged behind. In Africa for instance, public investment for this sector stalled for nearly a decade between the mid-1990s and 2000s, with loans for irrigation and drainage systems in 2002–5 actually dropping below that of 1978–81 (Woodhouse and Ganho 2011). Today, less than 5% of African agriculture is irrigated (*ibid*). This can partly be explained by the failures of earlier rounds of state-managed irrigation

Box 17. Iran's public health houses

Iran's public health houses are designed to bring affordable and good quality health care to remote rural areas. They are located in rural villages and serve a target population of about 1 500. The distance that people from surrounding areas have to walk to reach the village in which the health house is located is typically no more than one hour. The houses are run by health workers recruited from the local area who have undergone a two year training funded completely by the state. In return, the workers are formally obliged to remain and serve at the village health house for a minimum of four years after completing their study. Almost 30 000 community health workers are working in these health houses. As the most basic unit in the country's health care system, each health house is linked up to a wider network of rural health centres which cover between 6 000 to 10 000 people, perform a wider range of medical procedures, and supervise the operation of the health houses. These rural health centres are in turn connected to urban health centres and hospitals through a referral system. As such, rural villagers are integrated into a comprehensive health care and information system funded entirely by the national government.

Source: Sengupta, A. (2012).

systems which were plagued by a number of physical design failures due to cost-cutting measures or inadequate river flow records. It also however reflects the conspicuous withdrawal of state agencies from irrigation management as part of structural adjustment measures to reduce government budget deficits.

Where public investment in irrigation and water infrastructure is forthcoming, positive impacts can be observed. When agricultural productivity was declining in the Office du Niger region in Mali in the early 1980s, the government agency committed to a series of technical improvements in water management to raise yields while also engaging farmers' organisations in management decisions and the governance of the scheme. As a result, the average productivity of the rice crop trebled between the mid-1980s and 2002 (*ibid*). Expanded and improved irrigation also allowed for a larger area to be cultivated during the dry season for higher value crops, such as fruit and vegetables, increasing the value of the scheme output by a further 46% in 2002.

Similarly, the South African government has mobilised public resources to establish, rehabilitate, and revitalise smallholder irrigation schemes. A case-study of the Tugela Ferry irrigation project in KwaZulu-Natal shows that such schemes play an important role in improving household welfare and reducing rural poverty. While three quarters of smallholders without access to irrigation were classified as poor, this fell to 55% for those with access to irrigation facilities (Sinyolo, Mudhara et al. 2014). Although irrigation is therefore not in and of itself

a solution to rural poverty and needs to be accompanied by complementary investments, it forms an important part of a holistic rural development strategy.

Such a holistic strategy must also include support for informal water management systems. The vast majority of public funds have traditionally gone to formal irrigation systems using standard engineering structures (dams, canals, pumps) to store and distribute water on the floodplains of major river systems. During the Green Revolution for example, a 'betting on the strong' policy was followed in which farmers located in more prosperous regions with easy access to water and favourable agro-climatic conditions were prioritised for investment (Djurfeldt and Jirstrom 2005). This not only led to increasing regional disparities but also entrenched a form of agriculture in which funds for irrigation were tied to the adoption of a wider technological package including new high-yielding varieties and chemical inputs. The ecological impacts of this model can be high, particularly as the new varieties require up to three times more water than traditional varieties. In addition to the risk of ground water depletion, tube-wells and other irrigation systems which draw upon alkaline ground water reserves can result in salinization. In 1992, it was found that close to a quarter of all irrigated lands suffered from salinization (Otero and Pechlaner 2008).

These findings lead to two important considerations. Firstly, the need for a spatially differentiated investment policy to correct earlier imbalances and growing disparities between traditionally more favoured regions and those with more difficult agro-climatic conditions. Analyses conducted for China and India suggest that more investments in less-developed/favoured areas not only offer the largest poverty reduction per unit of spending, but also lead to the highest economic returns (Thorat and Fan 2007). Secondly, the need not only for more careful geographical targeting of public investment but also for investment in informal and alternative water management techniques that make use of indigenous technology better suited to more drought prone and marginal environments. Techniques such as water harvesting, micro-irrigation technologies, mulching, and the construction of hill-side terraces lined with grass shrubs and trees which enhance the ability of the soil to catch and store water are all relevant here (see Box 18).

10. Responding to the food price crisis: the role of public stocks

The 2007-2008 and 2011 food crises are estimated to have increased the ranks of those living in extreme poverty by between 130 to 150 million, pushing the total of those suffering from hunger and food insecurity to over 1 billion (De Schutter 2011). Food riots erupted in 33 countries around the world (Grebmer, Torero et al. 2011).

Box 18. Water and women in Swaziland

Adapting to climate change and dealing with challenges relating to water scarcity are issues that confront communities in many different countries, even when it comes to securing access to adequate drinking water. In Swaziland, it is common for people to have to travel long distances - walking up to four hours a day - to fetch water. This puts a particular burden on women as such activities are typically viewed as women's work. Projects such as the Lower Usuthu Smallholder Irrigation Project developed by the government together with the International Fund for Agricultural Development (IFAD) form part of a strategy to tackle water scarcity through the construction of water harvesting tanks and good environmental management practices to alleviate current and future stresses on water resources. The project for instance aims "... to reduce land degradation, preserve biodiversity and mitigate the impact of climate change through the application of sustainable land management practices - including water conservation, minimal tillage, conservation agriculture, rangeland management, forestation and increased capacity for biomass energy production". The water harvesting tanks are also fitted with pipes that can channel water to backyard gardens, thereby allowing homesteads to grow extra vegetables. In this way, the health, food security and livelihoods of poor rural people as well as their resilience to climate change are all improved.

Source: IFAD (2013)

This section will focus on the policy responses to the global food crisis and why - amidst record hunger, record harvests and record profits for the world's major agrifood corporations (Holt-Gimenez and Shattuck 2011) - the hitherto neoliberal consensus that, in the face of dramatic inflation, incomes can be stabilised without touching prices needs to change.

a) The 'ABCD' framework

The dominant approach in academic and political circles since the 1980s to food price instability has been to reduce the effects of price instability rather than intervening to stabilise prices. Prices in this neoliberal framework are signals that determine the most efficient and productive allocation of resources and should therefore not be distorted. A whole host of different instruments for stabilising prices - both public and market-based - are hereby sidelined. Frank Galtier (2009) describes these different instruments in his 'ABCD framework':

In the neoliberal 'optimum strategy', price instability is handled by risk management strategies using private insurance and hedging instruments - B-instruments - or public instruments, such as conditional cash transfers, for targeting vulnerable households - D-instruments (Galtier 2009). As Galtier (2009: 8) notes, "This highly attractive strategy has been,

Table 2. Strategies for managing price instability

| | | | |
|---------------------|--------------------|------------------|---|
| | Objective ▶ | Stabilise prices | Reduce the effects of price instability |
| Governance ▼ | | | |
| Market-based | | Category A | Category B |
| Public | | Category C | Category D |

Source: Galtier (2009)

and continues to be, fascinating to the academic world and decision-makers; the general feeling is that *it should work*. Nevertheless, as time passed, doubt began to creep in". The failure of private risk insurance instruments to take hold in food markets as well as the inability of D instruments to stop the nutritional situation of vulnerable households from deteriorating contributed to this doubt (ibid). As the global food crisis brought the era of cheap food to a dramatic end, renewed attention is being paid to the role of public regulation in managing food price inflation. This has focussed in particular on the use of C instruments in the form of public stocks and various measures taken on borders to control import and export flows. This section will examine the potential of public stocks in greater detail.

b) A closer look at public stocks

Public stocks can be an enormously useful tool for improving the access to, and distribution of, food. They can reduce volatility in agricultural commodity markets, support more remunerative prices for producers, stimulate agricultural production and investment, avert and respond to food emergencies, provide a market for small-scale producers, and create a reliable source of food for social safety nets (Sampson 2012). Specifically in terms of price stabilization, food reserves (in the form of buffer stocks) offer two major advantages. First, they are effective: if large volumes are bought or sold, the effect on prices is certain. Second, their effect on prices is immediate: it occurs as soon as grain is bought or sold, sometimes even before (Galtier 2013). The history of Indonesia's efforts to control the price of rice, at the centre of which lies the state's Food Logistics Agency 'BULOG', is an interesting example in this respect (see Box 19).

The management and release of stocks was thus a key policy response to the food crisis. Stock interventions took place in 35 countries, including Burkina Faso, India, Ethiopia, Senegal, Cameroon, China, and Pakistan (Mousseau 2010). Not all of these interventions, it should be noted, were successful. With global economic policies encouraging, sometimes even mandating, the scaling down of reserves, the government's ability to stabilise prices has been curtailed in many countries. Public

stocks in and of themselves are also not likely to be nearly as effective as when they are combined with other instruments.

In sum, the orthodox economic approach that has dominated for the past few decades has not been able to prevent the global food crisis nor sufficiently reduce the effects of these dramatic price hikes. Instead of relying on private risk management strategies and attending to the most vulnerable through targeted transfers, a new strategy must build resilience through a range of measures that protect people and their livelihoods. Public stocks should be included in this approach and cannot be dismissed *a priori* as a 'political non-starter' (Sampson 2012). How public stocks can slot into a more comprehensive approach towards resilience and what role social safety nets play in this approach is the focus of the following section.

11. Building resilience through social protections

In the past, the 'old food security agenda' was defined by national strategic grain reserve management, food price policies, fertiliser and seed subsidies, subsidised input credit programmes for small farmers, and parastatal marketing agencies (Devereux 2008). However, "The abolition of these interventions under structural adjustment conditionalities in the 1980s and 1990s paved the way for the 'new social protection agenda' which does not attempt to interfere with the market but instead compensates poor and vulnerable people for "entitlement failures' ... firstly with food aid and increasingly with (conditional or unconditional) cash transfers" (ibid: 3). This shift reveals that "... deep policy divides and differences of agenda are hiding behind the unifying concept of social protection" (Mousseau 2010).

This section examines elements of this new social protection agenda. It argues that conditional cash transfers can be effective but that they cannot by themselves protect livelihoods. Building truly resilient food systems requires combining social protection with support to small-scale food producers through an array of complementary interventions and investments.

Box 19. Indonesia: a rice economy at a crossroads

Food security in Indonesia has always centred on the price of its dominant staple food: rice. To ensure access to rice at affordable prices for poor consumers and remunerative prices for producers, the state's Food Logistics Agency 'BULOG' (Badan Urusan Logistik) operated a floor and ceiling price policy. This price band policy rested on four key interrelated policy instruments:

1. monopoly control over international trade in rice
2. public procurement of rice to lift the price on rural markets to the floor price
3. extensive logistical facilities, including a nationwide complex of warehouses, to accumulate public stocks used to defend a ceiling price in urban markets
4. public investment in the rice sector, including in irrigation facilities, market infrastructure, new rice technology, subsidised inputs, technical advice, and research

In this price stabilisation programme, public stocks play an integral part, acting as a 'balancing wheel' to smooth over fluctuations in the production and consumption of rice (Galtier 2013). The last prong of the strategy meanwhile – public investment in the rice sector – allowed for vast increases in the production of rice. This meant that public procurement did not depress the profitability of private trade: from 1975 to 1985, public procurements never exceeded 12 per cent of total production and 15 per cent of consumption (10 per cent in normal years) while the ceiling price for consumers was maintained around the international price level (Crola 2012). In the years where domestic production did fall below the required levels to maintain the buffer stock, it was supplemented by imports.

By most counts, Indonesia's price stabilisation programme can be considered highly successful. As Crola (2012: 45) notes: "Rice production grew by nearly 150 per cent between 1968 and 1989 and Indonesia, which was routinely the world's

largest importer in the mid-1970s – often with one-fifth of the rice supplied internationally – reached self-sufficiency in 1984...Rural poverty fell from 40 per cent in 1976 to 21 per cent in 1987, followed by a huge improvement in food security; the percentage of people suffering from malnutrition fell from 24 per cent (1979 to 1981) to 13 per cent (1995 to 1997)".

Notwithstanding this success, state monopoly control over international trade was sharply critiqued by free-market advocates. Indonesia's rice price stabilisation programme came under attack for being very expensive in budgetary terms and for depriving poor consumers of cheaper imports (Mittal 2008). Liberalisation, it was argued, would benefit Indonesian farmers by incentivising them to diversify into high value export crops (*ibid*). The 1997 – 98 Asian financial crisis forced the issue to a head and in the government's binding letter of intent to the IMF, BULOG lost its power in price stabilisation as the rice trade was liberalised. The result was a full blown 'rice crisis': in 1998 Indonesia became the world's largest importer of rice and the largest recipient of international food aid (*ibid*).

In subsequent years, there has been an active debate as to the future direction of Indonesia's 'rice economy'. Some observers argue that Indonesia is currently caught in a 'painful transition' from 'parastatals to private trade', but that ultimately Indonesia should rely much more heavily on rice imports for its food security (Arifin 2008). However, the extreme price hikes and volatility that have characterised international food markets in recent years make such an argument much less convincing. Public intervention was furthermore successful in reducing the impact of the global food crisis – in 2008 the price of rice actually decreased in Indonesia while it was escalating in neighbouring countries (Mousseau 2010). The Indonesian government has now signalled its intent for BULOG to once again set minimum farm prices and maximum consumer prices for key staple commodities including rice, soybeans, sugar, corn and meat (Bland 2012).

a) The CCT 'wave'

Over the past decade, the discourse on social protection has been dominated by conditional cash transfers (CCTs). Fiszbein and Schady (2009) define CCTs as "... programs that transfer cash, generally to poor households, on the condition that those households make prespecified investments in the human capital of their children". CCTs vary a great deal in scale, from nationwide to niche programmes, and in scope, requiring different degrees of household compliance with schooling or health indicators (*ibid*).

Countries have been adopting or are in the process of adopting CCTs at a rapid rate. As Fiszbein and Schady (2009: 1) note, "Virtually every country in Latin America has such a program. Elsewhere, there are large-scale programs in

Bangladesh, Indonesia, and Turkey, and pilot programs in Cambodia, Malawi, Morocco, Pakistan, and South Africa, among others". CCTs even exist in developed countries, including in New York City and Washington, DC (*ibid*). Figure 2 shows the speed of this CCT 'wave'.

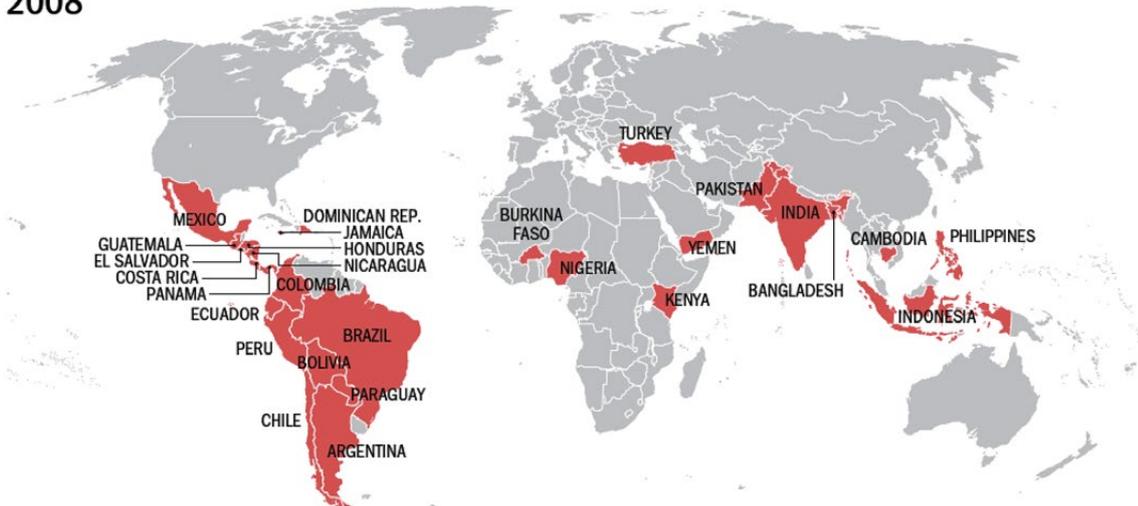
In their global review of CCTs for the World Bank, Fiszbein and Schady (2009: 27) argue that "...the programs have been effective in the sense that there is solid evidence of their positive impacts in reducing short-term poverty and increasing the use of education and health services. Those achievements should not be minimized because they are powerful proof that well-designed public programs can have significant effects on critical social indicators". An often cited reference point is the 'iconic' example of Mexico's social assistance programme 'Oportunidades' (see Box 20).

Figure 2. CCTs in the world, 1997 and 2008

1997



2008



Source: Fiszbein and Schady (2009)

Mexico's anti-poverty programme is certainly a classic example of a CCT. New forms are however being designed. Ethiopia has experimented with an employment based safety net that aims to transition participating households from food insecure to food secure after five years (see Box 21). By combining both conditional and unconditional transfer components through public works and direct support, it offers a new approach to the politics of graduation and dependency (Devereux 2008). In 2009, it was the largest operating social protection program in sub-Saharan Africa (outside of South Africa), reaching more than 7 million Ethiopians (Andersson, Mekonnen et al. 2009).

b) Progress and regress: CCTs in context

As the spread of the CCT wave demonstrates, CCTs have proven to be remarkably popular in recent years. CCTs are however not a panacea and even their most ardent supporters acknowledge that they cannot substitute for a comprehensive

social protection system (Fiszbein and Schady 2009). While not wishing to diminish the positive impact CCTs can and have had on the lives of the most poor and vulnerable, CCTs must be evaluated against the backdrop of broader socio-economic changes.

Mexico's Oportunidades programme for instance has been introduced following years of regressive agricultural spending: more than half of Mexican agricultural spending goes to the richest 10 percent of producers (Fox and Haight 2010). This has largely cancelled out the redistributive impact of rural development spending and explains why farm employment decreased significantly between 2001 to 2008 even as agricultural spending almost doubled during the same period (ibid). According to Fox and Haight (2010: 13), "This is the context for Mexico's essentially two-track approach to rural development, in which economic policies target agricultural spending mainly to larger, irrigated growers. The vast majority of low income producers, in contrast, are addressed instead

Box 20. Mexico's 'Oportunidades': An 'iconic' example of a CCT

Oportunidades (originally called 'Progresa') is an anti-poverty and human resources investment programme that is based on making conditional cash transfers to mothers. It was introduced in August 1997 and now covers approximately 30 million poor, predominantly rural, Mexicans (Fiszbein and Schady 2009). The cash transfers are conditional on child and adolescent school attendance, infants receiving micronutrient supplements, mothers attending sessions on nutritional and health practices, and all family members having regular health and nutritional check-ups (ibid). Systematic data collection and impact assessments were built in right from the start and are generally considered to be one of the major strengths of the programme (ibid).

Evaluations of Oportunidades show that it is having a significant positive impact on poverty, food security, and education. It is estimated that Oportunidades decreased the squared poverty gap by 29 percent (ibid). The median value of food consumption is 11 percent higher for beneficiary households than for comparable control households, and the median caloric consumption has increased by 8 percent, largely due to the increased consumption of meats, fruits, and vegetables (ibid). Oportunidades also increased caloric diversity as measured by the number of different foodstuffs consumed (ibid). Studies have shown

that the programme has led to an improvement in rural schooling attainment (Behrman 2010). This has been supported by the government's support for new educational facilities in rural areas through the rehabilitation of primary schools and *telesecundarias*; the provision of grants to parent associations to pay for minor classroom maintenance and repairs; and the construction of new secondary schools in some communities (Fiszbein and Schady 2009).

The programme has also stimulated investment in land, draft animals, agricultural production and micro-enterprises by helping landless households to obtain land and poor farming families to overcome credit constraints. Gertler, Martinez et al. (2006) find that "For each peso transferred, beneficiary households used 88 cents to purchase consumption goods and services, and invested the rest. The investments improved the household's ability to generate income with an estimated rate of return of 17.55%. By investing transfers to raise income, beneficiary households were able to increase their consumption by 34% after five and a half years in the program". They argue that these investments in productive assets and income generating activities suggest that the programme may help to raise living standards on a more permanent basis, even after the programme ends.

Box 21. Food for work: Ethiopia's Productive Safety Net Programme

Ethiopia's Productive Safety Net Programme (PSNP) was launched in 2005 by the Ethiopian government and a consortium of donors in an attempt to address chronic food insecurity and to pivot away from the aid and emergency appeal model upon which Ethiopia had become so dependent. Each year since the mid-1980s, the Ethiopian government has had to ask international partners to provide emergency food relief for between one million and 14 million Ethiopians (IDL Group). Yet, with over 80 percent of Ethiopia's population living in rural areas and heavily dependent on rain fed agriculture (Andersson, Mekonnen et al. 2009), "relief was saving lives, but not livelihoods" (IDL Group). The PSNP therefore has two main objectives:

1. Protect against hunger, impoverishment, and asset depletion of chronically food insecure households through cash and/or food transfers
2. Support and expand livelihood opportunities and build community assets through labour intensive public works

The PSNP combines conditional and unconditional transfer elements. Most PSNP participants – 80 to 90 percent - are required to work for five days a month on public works, including schools, roads, soil and water conservation, vegetable gardens, and micro-dams for irrigation (Devereux 2008; Andersson, Mekonnen et al. 2009). The community identifies the public works to be undertaken and the district puts together a plan and a budget (UNDP). The public works must be 'communal' in nature, with the exception of investments undertaken on the land of poor women headed households (ibid). For their contribution to the public works, each household member is eligible to receive a transfer equivalent to 15kg of cereal, to be paid either in cash or in food depending on the grain availability in the market (ibid). Households eligible for direct unconditional transfers are those who, in addition to being chronically food insecure, have no labour and no other sources of support. They may include disabled people, orphans, and people who are sick, elderly, pregnant or lactating.

with social policies including... welfare payments such as the well-known *Oportunidades* program". Note that this is not a critique of *Oportunidades* itself – indeed the authors comment on the programme's pro-poor outlook, although they do question its long-term impact in the aftermath of the global economic downturn.

This discussion does however call into question the wider agenda that CCTs serve. If CCTs are simply to act as a palliative for an agricultural policy that has largely given up on investing in low-income producers based on prejudiced assessments of economic viability, then their potential will be severely limited. If, on the other hand, synergies can be created between what Stephen Devereaux (2008) terms 'livelihood protection' (social welfare and safety nets) and 'livelihood promotion' (investment in agriculture and other productive sectors), then CCTs can play a much stronger, and much more progressive role.

c) Building resilient food systems by maximising synergies

A different two-track approach that links social protection and support to small-scale food producers is needed. This means moving beyond a purely welfarist agenda towards an integrated approach that links livelihood protection and livelihood promotion and addresses the complex vulnerabilities faced by small-scale food producers (Devereux 2008). As Frederic Mousseau (2010: 18) argues, "Confining public intervention to safety nets and leaving investment in agriculture to the private sector is not going to address the root causes of the food price crisis. Public interventions are needed to guide investment and establish more equitable and sustainable food and farming systems". One way these synergies between social protection and support for small-scale food producers can be expanded is through complementary interventions between what in Galtier's (2009, 2013) framework were identified as type C instruments (public stocks; regulation of import and export flows) and type D instruments (social transfers). Brazil's Zero Hunger Programme offers one of the best examples of this strategy (see Box 22).

Other examples include public distribution systems in India, Bangladesh and Indonesia that are based on public procurement and the maintenance of public stocks which are used to stabilize food prices and respond to crises, in addition to supporting farmers' incomes and providing new marketing channels for farm products (Mousseau 2010). In Bangladesh, the government combines a safety net programme supporting direct food transfers/subsidies, with a cash transfer scheme, a fertilizer distribution network, public procurement of rice, and a public food stock, to support both small farmers and poor and low-income groups (ibid).

Building resilient food systems thus requires many different complementary interventions that maximise the synergies between livelihood protection and livelihood promotion (Devereux 2008). The concept of social protection can not simply be reduced to safety nets and cash transfers that too often function as transition policies in the structural adjustment period (Mousseau 2010). Above all, "Social protection implies the notion of the right to be protected and the responsibility of the State to fulfil this right" (ibid).

Box 22. Brazil's Food Security Policy – The Zero Hunger Programme

Since 2003, Brazilian Food Security policy has been defined by the Zero Hunger Programme, a cross-cutting programme that integrates aspects of public health, nutrition, social assistance, education and agriculture. It is strongly based on the Right to Food which was recognised in 2009 in an amendment to the Brazilian constitution as a fundamental human right. It operates on two tracks: i) a structural level which aims at strengthening human capabilities and includes policies such as employment and income generation measures, the promotion of family farms, and agrarian reform in order to tackle the primary causes of hunger and poverty; ii) specific food policies targeting immediate needs amongst the most vulnerable segments of the population.

Three key policies have been integral to the programme's success. Firstly, the 'Bolsa Familia', a conditional cash transfer programme that makes transfers to poor, food insecure families based on child school attendance, health check ups for young mothers and pregnant women, and enrolment in professional training programmes by unemployed adults. Secondly, the School Meals Programme under which each Brazilian municipality receives a per diem subsidy for each student enrolled for 200 days a year on the condition that 30% of the food purchased for school meals comes from local family farms. Thirdly, the government Food Procurement Programme (PAA) which involves public procurement of food, either by the state or by institutions such as schools, hospitals and popular public restaurants, produced by small-scale farmers (see also Box 4 for more on the creation of these 'new markets').

The Zero Hunger programme has coincided with a remarkable improvement in Brazil's standard of living: between 1997 and 2007, infant mortality fell by almost 40% while the percentage of the population living below US\$2 per day has decreased by 9% since the start of the programme.

Source: Schneider, Shiki et al. (2010)

PART III: TOWARDS 'RESPONSIBLE' AGRICULTURAL INVESTMENT

In conclusion, this report will seek to synthesise the key arguments of this paper. It will do so by offering a series of reflections linked in part to on-going initiatives and policy processes around investment in land and agriculture.

At policy levels, the debate on investment in agriculture risks degenerating into a series of key word associations that obscure as much as they illuminate. 'Responsible' agricultural investments should facilitate 'access to markets', promote 'value chain development', respect and protect 'land tenure security' and so on. But what do these terms actually mean? Whose access is being facilitated and on what terms? What kind of land tenure security is being respected and protected and for what purposes? It is important to note that these questions are not immediately answered by stating that such investments target smallholders. After all, contract farming schemes that plug small-scale food producers into corporate controlled value chains are also 'small-holder based'. In the absence of any consensus on what constitutes 'responsible' investment, how it can be monitored, and how it should be enforced, the distinction between a productive 'investment' and an illegitimate 'grab' is far from clear.

This points to the need to set the notion of 'responsible' agricultural investment within a broader political framework within which it can be unpacked and understood. In general terms, three competing tendencies can be identified:

In the first tendency, the notion of 'responsible' investment is broadly aligned with the Washington Consensus on Agriculture. It seeks to further encourage export-led growth and the growing specialisation and integration of national agricultural sectors into world markets based on the theory of comparative advantage. The role of the state in this tendency is to facilitate capital accumulation and reward commercial and entrepreneurial styles of farming by creating a favourable business climate, establishing transparency and the rule of law, and generally allowing market incentives and price signals to prevail. It seeks to attract large-scale (corporate) investment in agriculture by eliminating barriers to capital mobility and securing investor protections through for example bilateral investments treaties, free trade agreements and open and efficient land markets based on private property rights and clear land titles.

In the second tendency, 'responsible' investment is defined by a range of private and public investments that are 'smallholder sensitive', meaning they take into account and promote – although not necessarily prioritise – the interests of smallholders. It looks at how to harness agribusiness capital through a number of 'inclusive' business models and public-private partnerships in order to raise the performance of agriculture in national development and economic growth. The role of the state in this tendency is to implement key safeguards and regulatory controls in order to ensure that investments are

'responsible' as well as to extract commitments from large-scale agricultural investors in the spirit of corporate social responsibility. The state also has a responsibility to invest in areas where the private sector is largely absent such as in essential public goods. It should address market failures and compensate those left out by the development process through for example the maintenance of security stocks or conditional cash transfers.

In the third tendency, the investments made by small-scale food producers are taken as the starting point for defining 'responsible' investment. These investments serve multiple functions, build up multiple forms of capital, and set the conditions for social reproduction and the continuation of farming livelihoods for the next generation of rural youth. Such investments are allied to the broader political project of 'food sovereignty', articulated by the global peasant movement *La Via Campesina* as 'the right of people to define their own agriculture and food policies' through 'safe, healthy and ecologically sustainable production' (McMichael 2009). The role of the state in this tendency and political project is complicated. On the one hand, there is a clear need for the investments of small-scale food producers to be made visible in policy circles and to be supported by public investments. On the other hand, it is also the case that many rural livelihoods have been overturned throughout history by states pursuing 'high modernist' visions of development and progress (Scott 1998) and a large number of small-scale food producers find themselves in an adversarial relationship with their governments (Edelman 2013). In advocating to bring the state back in, you thus have to be 'careful what you ask for' (McDonald and Ruiters 2012).

This is particularly true in the current juncture in which many states have been privatised (or think in terms of privatisation) and the hegemonic investment paradigm is defined by tendency one. Even if this is at times supplemented by tendency two as development and equity concerns have risen to the fore, it can be difficult to maintain faith in good government. The state is however not a monolithic actor and power resources are never statically distributed (Fox 1993). Against a state-capital alliance, the interaction between pro-reform forces within the state and society can lead to unexpected political outcomes and open the door for (re)distributive policies.

This report has argued for an alternative investment paradigm that brings together tendency two and tendency three in a transformative agenda for change. A key word that has been used in this respect has been 'synergy'. By building on forms of state-society interaction to maximise synergies between public investments and the investments made by small-scale food producers, new pathways have opened up to strengthen rural livelihoods and agricultural development. There have been a number of different types of synergy that have been described in this report including:

- Joint responsibility between government authorities and farmers' organisations for the provision of key rural services. Ghana's Rural and Community Banks, which are a hybrid of a state-owned bank and farmer credit cooperatives, are effectively mobilising rural savings and extending credit, training staff in financial services and banking skills, and developing non-bank financial institutions and new financial products for traditionally underserved rural clientele such as smallholder farmers. Also in Ghana, the twin state and community electrification strategy is effectively tackling rural energy poverty by fast-tracking government funds to communities who set up village electrification committees. Through these joint efforts over 3 000 communities had been electrified between 1989 and 2004.
- The creation of 'new markets' that allow small-scale food producers to market their products and which build up local and regional food systems rather than general commodity markets. Brazil's Food Procurement Programme (PAA), which involves the public procurement of food, either by the state or by institutions such as schools, hospitals and restaurants, produced by small-scale farmers is set to benefit over 300 000 poor family farmers. In the United States meanwhile, Food Hubs, which are supported by the US Department of Agriculture, help producers satisfy wholesale, retail and institutional demand for local and regional food products by managing the aggregation, distribution and marketing of source-identified food products.
- Public investments and public policies that support agro-ecological farming methods practiced by many family farmers. Cuba's transition from a form of high-input, export-oriented, industrial agriculture towards agro-ecological farming relied heavily on the research, training and extension infrastructure put in place by the state to harness the knowledge of Cuba's small farmers in the use of organic fertilisers, biological forms of pest control, animal traction and other practices. The success of this model is such that Cuba's family farmers currently produce over 65 percent of the country's food. Other agro-ecological experiments are being replicated elsewhere. In Malawi, the government is exploring the possibility of a 'subsidy to sustainability' by linking fertiliser subsidies to complementary investments in agro-forestry while in Swaziland, the government is investing in a smallholder irrigation project that tackles water scarcity through the construction of water harvesting tanks and good environmental management practices, such as minimal tillage, conservation agriculture, rangeland management, and forestation, to alleviate current and future stresses on water resources.
- Social protection programmes that are based on synergies between livelihood protection and livelihood promotion. Mexico's anti-poverty and human resource investment programme 'Oportunidades' makes conditional cash transfers to mothers and covers approximately 30 million poor, predominantly rural, Mexicans. Evaluations of Oportunidades show that it is having a significant positive impact on poverty, food security, and education. The programme has stimulated investment in land, draft animals, agricultural production and micro-enterprises by helping landless households to obtain land and poor farming families to overcome credit constraints. Brazil's cross-cutting Zero Hunger programme meanwhile integrates aspects of public health, nutrition, social assistance, education and agriculture. It combines a conditional cash transfer programme to satisfy the immediate needs of the most vulnerable segments of the population with employment and income generation measures for family farmers through a School Meals Programme and the Government Food Procurement Programme.

Although the focus of this report has been on maximising synergies between the state and small-scale food producers, it is important to note that synergy does not mean the absence of conflict: synergies can be negative as well as positive. As the sections on land reform and subsidies discussed, the capture and diversion of public resources and policies can lead to concentration as well as redistribution. The concept is thus imbued with an element of tension that reflects the delicate balance between autonomy and independence that peasant farmers must strike in order to resist various forms of 'control grabbing'. The argument for greater public investment in this paper should therefore not be interpreted as implying the rolling out of technocratic instruments drawn from a predefined public policy toolbox and applied universally in a best practice approach. The development of truly synergistic policies relies instead on the building up of social and political organisations capable of effectively and democratically representing the identities and interests of society vis-à-vis the state. It is only when actions from above are met by these actions from below, that the boundaries of the politically possible can be changed.

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What does 'responsible' agricultural investment mean? In the absence of any consensus on what constitutes responsible investment, how it can be monitored, and how it should be enforced, the distinction between a productive investment and an illegitimate 'grab' is far from clear. This report argues that there is a need to reboot the debate on agricultural investment, away from the narrow corporate centric perspective, towards maximising synergies between public investments and the investments made by small-scale food producers. Looking back throughout history, it examines moments of state-society interaction, in which investments from above have built on and strengthened investments from below. It is these public-peasant investment synergies which point the way towards an economically just, ecologically sound and truly responsible investment framework.

AGRARIAN JUSTICE PROGRAMME

In recent years, various actors, from big foreign and domestic corporate business and finance to governments, have initiated a large-scale worldwide enclosure of agricultural lands, mostly in the Global South but also elsewhere. This is done for large-scale industrial and industrial agriculture ventures and often packaged as large-scale investment for rural development. But rather than being investment that is going to benefit the majority of rural people, especially the poorest and most vulnerable, this process constitutes a new wave of land and water 'grabbing'. It is a global phenomenon whereby the access, use and right to land and other closely associated natural resources is being taken over - on a large-scale and/or by large-scale capital - resulting in a cascade of negative impacts on rural livelihoods and ecologies, human rights, and local food security.

In this context TNI aims to contribute to strengthening the campaigns by agrarian social movements in order to make them more effective in resisting land and water grabbing; and in developing and advancing alternatives such as land/food/water sovereignty and agro-ecological farming systems.



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