



**New pathways out  
of poverty in Africa:  
the promise of  
sustainable and  
inclusive agricultural  
transformation**

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**Cover photographs:**

The right infrastructure and policies can help small landholders across Africa to increase the amount and quality of their production, which in turn can stimulate further local economic development by creating decent work and business opportunities. These pictures show a number of CAFOD & Christian Aid supported projects aiming to promote environmentally sustainable and socially inclusive agricultural transformation: Picture 1, Solar panels outside a community greenhouse in Kenya, Annie Bungeroth/CAFOD; Picture 2, the operation of coffee cooperatives managed by small coffee growers in Burundi, Christian Aid; Picture 3 Road building in Kenya, Annie Bungeroth/CAFOD





## Executive Summary

Agricultural transformation has become a development priority for African governments and the international development community. It is commonly understood as a shift from 'low' productivity subsistence agriculture to more commercially-oriented production. This shift is seen as the first step away from the continent's continued dependence on raw commodity exports, and towards diversified and domestically integrated economies that provide sufficient employment opportunities to the world's youngest and fastest-growing population.

This is to be welcomed. However, this report highlights the risk that agricultural transformation strategies already underway in some African countries could increase inequality and further degrade the environment. To prevent this from happening agriculture transformation strategies need to:

- integrate actions that will build the resilience of producer households and wider ecosystems to climate and economic shocks, instead of focusing predominantly on increasing the productivity of smallholders
- link smallholder producers to the wider domestic economy.

CAFOD and Christian Aid programmes that support small agro-enterprise development, climate resilience building and inclusive agricultural market development include deliberate actions to ensure equitable and environmentally sustainable outcomes. To further promote the integration of these principles in the design and implementation of government policies, we have initiated an on-going dialogue with our partner organisations in Africa to determine how agricultural transformation policies in their own countries can contribute to more equitable and sustainable development.

This dialogue has been inspired by the international community's recognition that the 2030 Agenda for Sustainable Development, involving 17 Sustainable Development Goals (SDGs), demands new thinking on conventional development models. Already in 2011, the UN Department of Economic and Social Affairs recognised that 'continuation along previously trodden economic growth pathways... is no longer an option. There is an urgent need to find new development pathways which would ensure

environmental sustainability and reverse ecological destruction, while managing to provide, now and in the future, a decent livelihood for all of humankind'.<sup>1</sup>

In similar vein, the 2009 International Assessment of Agricultural Knowledge, Science and Technology for Development (IAASTD) concluded that the predominant industrial agricultural model cannot be sustained and will never be able to feed the world's future population.<sup>2</sup> The global food system, which depends on this model, is equally in crisis. High price volatility in global food markets led to a food crisis in 2007 and 2008, with millions of low-income consumers and smallholder farming households unable to afford or access basic staples.<sup>3</sup>

To support the civil society dialogue, we commissioned research to examine the economic theory and history of agricultural transformation, as well as the implementation and impact of policies that aim to support agricultural transformation of three African governments and donors respectively.<sup>4</sup> This briefing summarises why agricultural transformation is fundamental to a permanent end to hunger and poverty in Africa and sets out four priority areas for future dialogue and action on agricultural transformation in Africa.

The key development challenge for institutions driving economic transformation in Africa today is to assign greater value to natural and agricultural ecosystems and equality. Once these values underpin agricultural transformation strategies, it will become evident that they need to develop and implement accompanying policies and interventions, as well as the indicators for monitoring progress towards equality and sustainability.

Learning from the lessons of past transformation pathways, we recommend that African governments and development institutions increase their efforts to:

- 1 protect and promote local, national, and regional agri-food market systems.** Existing government and donor efforts are primarily focused on integrating local producers and industries into global value chains. While this is viable for certain cash crops in some areas, Africa's growing urban and better-connected regional markets offer greater opportunities for inclusive agricultural transformation

**2 protect the rights of vulnerable land users.** Most of the fertile arable land in Africa is already in use, mostly for producing food. However, many land users are not officially recognised or protected in law. To avoid the creation of dual rural economies, the multiple land use activities which sustain rural communities must be recognised, valued, and protected

**3 switch to environmentally sustainable production systems.** New innovations, approaches and technologies – many based on existing and low-cost farmer practices and already extensively in use – have shown great promise in increasing yields while also building soil health. This negates the need for investment in polluting industrial agricultural systems. These innovations will allow African countries to ‘leapfrog’ synthetic chemicals

and other (often expensive) inputs and techniques that have ‘oiled’ the agricultural transformations of many Western and Asian countries. This avoids further environmental degradation and enables more effective adaptation to climate change

**4 empower women agricultural producers and workers.** It is widely recognised that while women perform most agricultural labour in Africa, they have far less access than men to the services, skills, finance, assets, and markets that would increase the rewards of their labour. While efforts are already underway to increase such access, there has been far less focus on the equal and parallel need to understand and address gender norms, including those which lead to the disproportionate share of care and reproductive labour they perform in the household and communities.



## Introduction

Since independence, many African countries have aspired to follow the development pathway of most of today’s industrialised high income countries: the transformation of economic structures away from subsistence production and the export of unprocessed commodities, and the movement of the workforce into the formal waged sector – primarily manufacturing and services.<sup>5</sup>

However, these aspirations have not been realised. Most rural households continue to make a living from rain-fed agricultural production on shrinking plots of land. Those who are migrating to large urban centres in search of better opportunities often end up working in informal activities for very low rewards in precarious conditions. Yet, the experience of developed and newly industrialised countries show that it is possible to transform rural areas into thriving economic hubs that provide work and entrepreneurial opportunities to local populations. Most have done so by increasing agricultural productivity and linking small-scale producers to the rest of the economy. Unfortunately, this transformation has come at a cost to the environment and has also increased inequality in most of these countries.

The commitments made by the international development community in the 2030 Agenda for Sustainable Development, if implemented, would help African countries achieve more sustainable

and equitable agricultural transformations. To do so will require governments and donors to focus on the strategic role of smallholder producers, who constitute the largest group of natural resource managers, as well as the small and medium enterprises to which they are connected. More and better investment in the technologies, infrastructure and services required by small-scale producers and agri-enterprises, and rewards for ecosystem restoration and sustainable land management, will ensure more sustainable and equitable agricultural transformations. This, in turn, will drive structural economic transformation and sustain poverty reduction across Africa.

In this context, African countries are scaling up their own plans to transform their agricultural sectors. This report builds on CAFOD and Christian Aid’s research and programme experience, as well as our ongoing dialogue with partner organisations around Africa’s structural economic transformation agenda. Section one provides an overview of the importance of agricultural transformation for poverty reduction. Sections two to four summarise the findings of our research. They assess whether and how African and donor agricultural transformation strategies have integrated and implemented measures to sustain the environment and promote equity. The final section sets out four priority areas for action to build the foundation for sustainable and inclusive agricultural transformation on the continent.



## Poverty reduction cannot be sustained without agricultural transformation

The demographic transformation underway on the African continent, which has the world's fastest growing urban and youth populations, as well as the world's fastest expanding rural population<sup>6</sup> is creating unprecedented demand for food and jobs. Economic history has shown that both these can be supplied in the process of agricultural transformation (see box).

### What is agricultural transformation?

Agricultural transformation is a term used to describe the shift from 'low'-productivity subsistence agriculture to more commercially orientated production. The shift towards commercial production leads to higher incomes for the same labour effort, mostly through using new technology and knowledge or investing new capital. The economic history of most industrialised countries shows that such changes in production set off a chain reaction of interlinked processes which eventually led to economic transformation through the development of industries. These create secure, wage-earning jobs and a reasonable income for self-employed producers. This is the only known permanent pathway out of poverty.<sup>7</sup>

The new technologies, innovations and inputs required by commercially-orientated farming households to boost productivity also create opportunities for enterprises and workers that can supply this demand. Examples include seed banks, input retailers, transport providers, land workers, and local producers of non-synthetic fertilisers. Finally, increased output can be a catalyst for further investment in agro-processing enterprises that add value to farm produce locally, as well as a myriad of services and enterprises that are needed to bring these transformed products to intermediary or final consumers.

These 'linkages' to the local and national economy, and the new opportunities for work and entrepreneurship they create, are what drive agricultural transformation and its impact on broader economic transformation. Agro-processing enterprises, which add value to food and non-food agricultural products, are often the first or most prominent manufacturing activity in agriculture-based economies. These enterprises, which range in size, can create large numbers of manufacturing work opportunities.

As the bedrock of a national development strategy, agricultural transformation can have a huge impact on poverty reduction and the creation of decent jobs.<sup>8</sup>

First, growth in the agriculture sector through an increase in agriculture productivity can reduce poverty more than in any other sector of the economy. According to the World Bank, "GDP growth originating in the primary agriculture sector is about four to five times more effective in raising incomes of extremely poor people than GDP growth originating outside the sector".<sup>9</sup> Studies have estimated that in sub-Saharan Africa, investment in agriculture contributes up to 4.25 times more to poverty reduction than the equivalent investment in the services sector.<sup>10</sup> Therefore, increasing productivity on smallholder farms remains a priority in the fight against rural poverty.

Second, agricultural transformation can create decent work and entrepreneurial opportunities on a

large scale; 60-90% of the workforce in most African countries are self-employed producers, either part-time or full-time.<sup>11</sup> It is estimated that 40% of all Africans who will be entering the workforce in the next decade will still work in primary agricultural production.<sup>12</sup> In contrast, waged jobs in registered businesses and public institutions will only employ about a quarter of new jobseekers between now and 2035.<sup>13</sup>

While most smallholders do not produce commodities for national or international value chains, they do sell their surplus food in local informal markets, thus sustaining local food economies. Globally, more than 80% of smallholders trade in local and domestic markets.<sup>14</sup> Many of these food producers are 'reluctant' micro-entrepreneurs, and may not be able or willing to switch to commercial production for formal markets. In the Sahel, for example, up to a quarter of rural households rely on non-farm income to buy food and earn a living, and in countries such

as Ethiopia and Malawi, rural population increases in some areas mean that many landholdings are becoming too small to support the food and income needs of households all year round, even with the best land management and agronomic practices.<sup>15</sup> These include communities supported by Christian Aid and CAFOD to build climate-resilient livelihoods through adopting resilient agricultural practices and participating in agricultural markets.

However, these smallholders could benefit from work opportunities in enterprises linked to producers, such as seed banks, credit providers, storage providers,

transporters, distributors, processing industries, and traders, or from earning wages by working on the land of medium-sized commercial producers. These enterprises can offer a first step out of less rewarding labour producing food for subsistence, paving the way for the creation of more and larger formally registered enterprises in other parts of the economy. The higher and more stable incomes and additional tax revenues that they generate can sustain the initial poverty reduction from growth in the agriculture sector. The creation of large numbers of more rewarding work opportunities will ultimately be the only long-term means of exiting poverty permanently in Africa.

## Agriculture transformation is already a priority in Africa

Agriculture transformation has become a development priority for African countries. In their 2014 Malabo Declaration (on Accelerated Agricultural Growth and Transformation) governments committed to continue honouring their 10-year old target to spend 10% of the public budget on increasing agricultural productivity. In addition, they are now paying more attention to creating links between agricultural producers and the rest of the economy and attracting more private investment in agri-food value chains.

The Africa Union's (AU) Agenda 2063 – adopted in January 2015 – recognised that growth alone will not enable Africa to fulfil its social goals and identified structural economic transformation as its overarching objective. The UN Economic Commission for Africa (UNECA) and the AU have been leading debates on this new iteration of a decades-old desire to diversify the continent's economies, advising that to diversify away from dependence on raw material exports, governments must support strategic industries to start up and grow. This is primarily through making connections between the agriculture and extractives industries and the enterprises linked to these activities.

This comes at a time when the share of agricultural production in the overall economy has shrunk in many African countries, but not because agricultural workers and producers have moved to more productive economic activities for higher rewards. Instead, they have tended to move into precarious and badly rewarded and informal service-providing activities resulting in a 'transfer' of poverty due to a

lack of decent work opportunities in other parts of the economy.<sup>16</sup> This can be explained, in part, by the fact that agriculture-based livelihoods are no longer a viable option for many of the rural poor. Rather than being pulled by better opportunities and higher-quality work for higher rewards, they are being pushed out of work in primary agriculture or off farms in rural areas.

The exodus of workers to low-reward activities can be explained by two factors. First, this migration is the delayed consequence of many decades of neglect by both governments and development institutions in the agriculture sector. Increasing population pressures coupled with the lack of investment in basic infrastructure, services, and inputs have combined to reinforce an intergenerational cycle of poverty for many rural households. This is despite efforts to revive the sector in the past decade. Second, this vulnerability has been compounded by climate change. Growing climate variability – especially the increasing severity and incidence of floods and droughts, as well as slow onset changes such as higher temperatures and lower and less predictable rainfall – have added to the many other risks already faced by producers.<sup>17</sup>

Therefore, despite an average agricultural GDP growth of 3.3% over the past decade,<sup>18</sup> poverty remains pervasive among family farming households, soil and land degradation has accelerated<sup>19</sup>, and agricultural production, processing and trade activities have not provided the number of good jobs and entrepreneurial opportunities needed to lift large numbers of people out of poverty. Growth by itself has not set the

continent on the path to long-term sustainable development.

To reduce poverty and inequality through agriculture growth and to avoid the creation of new forms of

poverty and environmental degradation requires both an increase in agricultural productivity of smallholder producers (see 5.3) and the development of links between producers and other sectors of the economy. It is also necessary to consider environmental impacts.

### Coffee processing is the first-stage of industrialisation in Burundi

The coffee sector employs more than a million people in Burundi, the second-poorest country in the world, with a population of 11 million people. Most of the sector's estimated 600,000-800,000 smallholder coffee growers work in temporary, seasonal jobs that make up the vast majority of work in the sector. Current development interventions in the coffee sector, including by Christian Aid, are focusing on boosting coffee productivity and quality, developing cooperative enterprises, and gaining access to niche markets. Coffee production has fallen to about a quarter of production levels in the 1980s, mainly due to highly volatile international prices and the country's 10 year-long conflict, leading rural households to abandon this crop.

However, Burundians and international development partners believe that a shift in focus on more specialised, higher-quality coffee targeted at sales in niche markets can revive the sector. Coffee is grown alongside food and other cash crops, or in some instances intercropped, by around half of Burundi's rural households, who cultivate an average of around 200 trees each. The once-a-year lump-sum income from raw coffee bean sales make a very significant contribution to the cash income of rural families, and is mostly spent on school fees, health insurance, building projects and other small investments, including livestock. The latter is an important source of manure used as organic fertiliser, which allows producers to increase their output by up to four-fold<sup>20</sup> and get paid premium prices once they gain organic certification.

But the sector's potential to contribute to the creation of work and entrepreneurial opportunities is even higher through linkages with suppliers of inputs and services to growers, processors, distributors, traders and transporters. During the harvesting and processing season, the sector plays a key role in stimulating the rural economy, with traders and workers at coffee washing stations injecting large amounts of cash into rural areas to buy goods and services. According to the World Bank, the processing sector – comprising 200 coffee washing stations, 10 mills and four roasters – has already led to a modest first stage of rural industrialisation. Coffee-washing stations employ more than 370,000 temporary workers, many of them women, and a further 2,100 waged skilled and unskilled public sector jobs have been created in the sector.<sup>21</sup> These numbers do not include the various types of work generated by upstream industries, transporters, and other functions in the value chain.



## Are African agriculture transformation plans delivering on equality and sustainability?

In the African Union's 2013 Malabo Declaration, African governments stated their resolve to "ensure that the agricultural growth and transformation process is inclusive" and to "enhance the resilience of agricultural livelihoods and production systems to climate variability and other risks". Their commitments were mainly focused on the following:

- targeted budget lines that support the increased consumption of locally produced food, especially through innovative school feeding programmes

- promoting preferential entry for women and youth in agri-business jobs
- promoting private public partnerships in 'strategic' value chains that include smallholders
- mainstreaming resilience and risk management in all policies, strategies and investment plans for agriculture development.

These actions, if implemented, will go some way to include women and young people in commercial agricultural projects and agri-business work opportunities, align commercial agricultural development strategies with existing initiatives to build resilience, and increase institutional demand for locally produced food. However, they are far from sufficient, and in the case of strategic value chains, can have unintended social and environmental consequences (see Tanzania box and section 5.3).

Experiences from other parts of the world have shown that agricultural transformation can lead to

unintended negative outcomes for social cohesion and the environment. Today, some of the most successfully 'transformed' economies, such as those of Brazil and Mexico, are also the most unequal. The experience of agricultural transformation in India has shown that its agricultural 'green' revolution, which has led to major increases in agricultural productivity and rural incomes, and subsequent shifts in the economy, also led to large-scale environmental destruction. And in Western modern economies, the industrialised agri-food system is under increased scrutiny given its negative impacts on human health and the environment.<sup>22</sup>

### Should African countries try to emulate the Asian Green Revolution?

During the period between 1966 and 2000 a staple grain revolution took place in Asia and Latin America. In India and South East Asia, average rice yields per unit of land doubled, wheat yields increased three-fold, and maize yields increased more than 1.5-fold.<sup>23</sup> It became known as the Green Revolution.

These productivity increases were brought about primarily by the development of hybrid cereal seeds through investment by public international research institutions. This technology was transferred to national institutions, who adapted and disseminated the seeds – as well as synthetic fertilisers and pesticides – to better-off farmers in 'high-potential' areas. Governments also built irrigation and transport infrastructure in these locations.

The Green Revolution has been credited with contributing to widespread poverty reduction, reducing the prices of staple crops, and avoiding the conversion of thousands of hectares of land into agricultural cultivation. Multi-country studies of rice-growing areas in Asia show that the migration of workers to more productive areas resulted in wage equalisation and was one of the primary means of redistributing the gains of Green Revolution technologies to marginal areas.<sup>24</sup>

Since the turn of the millennium, and especially in the wake of the 2008 food crisis, the international development community and the Africa Union have increased both their commitments and actual support to agricultural productivity increases in Africa. This commitment to revive the agricultural sector has renewed the interest of African governments in the technologies and investment approaches that were credited with the success of the Green Revolution in Asia. Governments have been supported and encouraged to copy this experience by initiatives such as the Alliance for a Green Revolution in Africa (AGRA).

However, there is now increasing recognition that the Asian Green Revolution led to severe environmental degradation.<sup>25</sup> It also increased inequality between landowners and the landless and between different regions, as well as increased social stress due to indebtedness among households. This is holding back development today.

Debt among smallholder farmers increased as a result of their taking loans to purchase new inputs such as machinery or seeds; over-zealous mechanisation led to lower farm wages and reduced employment; and biodiversity loss increased as farmers rejected traditional practices in favour of agronomic practices that depended on the high use of synthetic fertilisers, which has seen average use increase seven-fold. This has led to soil degradation, water pollution as well as a de-skilling of rural labour.<sup>26</sup> While many better-off smallholder farmers eventually benefited from higher incomes, those in low-potential and non-irrigated areas saw fewer or no benefits, since government strategy was based on intensification of yields only in favourable areas.<sup>27</sup> In South Asia, the poorest areas relying on rain-fed agriculture have seen little benefit from Green Revolution technologies. This has widened inter-regional disparities.

Strategies to increase food production were concentrated on mono-crop production of staple cereals, at the expense of more nutrition-dense crops.<sup>28</sup> In the Philippines, for example, intensive rice monoculture

systems have led to the loss of wild leafy vegetables and fish that the poor had previously harvested from rice paddies<sup>29</sup> and in India, prices of micronutrient-dense foods, such as legumes, rose relative to rice, leading to a decline in pulse consumption across all income groups and the attendant negative health consequences.

In contrast, as has been highlighted by many UN bodies and international experts,<sup>30</sup> diversified and environmentally sustainable agricultural systems, have and will, continue to sustain productivity increases without corresponding environmental damage. Former UN special rapporteur for the right to food, Olivier De Schutter, has described this as the 'New Green Revolution'.<sup>31</sup> If developing countries continue along the path of previous agricultural transformations, the IFPRI anticipates a 2% productivity decline per decade with yields potentially dropping by up to 27% in some developing countries for key staple crops.<sup>32</sup>

These experiences show that to sustain poverty reduction over the long-term, African governments will need to re-orientate their support towards more sustainable agricultural production models and prioritise equal development in their agricultural transformation strategies.

Christian Aid and CAFOD commissioned three case studies to find out whether the new global commitments to a more sustainable and inclusive development model are reflected in the current agricultural transformation strategies of Ethiopia, Rwanda and Tanzania. Ethiopia is recognised as the forerunner among African countries in attempting to link its agricultural and industrial development strategies through the development of agro-industrial parks and clusters, connecting commercial smallholders to agro-enterprises, mostly directed at the export market. Rwanda has been recognised for its success in rapidly reducing extreme poverty. The Tanzanian government has been a keen promoter of an agricultural development model based on attracting large-scale investment for primary export production.

### 3.1 Agriculture transformation and inequality

In terms of inequality, the findings showed that Ethiopia's strategy has brought more benefit to sedentary crop producers who live near planned or existing infrastructure developments. Between 2000 and 2011, the poorest 10% of the population, who are effectively landless, have grown worse off, mainly due to food price inflation. The Rwandan strategy, by contrast, has focused on crops produced and consumed by the poor, which generate immediate income and build farmers' assets, as opposed to those with the highest market potential. This has implications for gender equality, as men predominantly control more 'prestigious' cash crops whereas women are responsible for the food crops that sustain household nutrition. This strategy, which included the conversion of 2,500 farmer associations into formal cooperatives; the introduction of

integrated livestock and crop farming and agro-ecological farming practices; combined with social grants, subsidies, extension services; improvements in basic service provision, and a land law that secures tenure rights for all existing private landholders, has raised the incomes of the poorest 20% faster than that of the top earning 20% since 2007, reducing inequality.<sup>33</sup>



## Tanzania's agricultural transformation strategy: the risk of rising inequality and vulnerability

The Tanzanian government's agricultural transformation strategy is focused primarily on three crops – rice, maize and sugar. Donors such as the Department for International Development (DFID) and USAID support this strategy and, in line with the government's agricultural budget priorities, have focused aid on financing investments in large irrigation projects, industrial-scale estate farms, and exporters who source from smallholder producers of rice, sugar and maize.

The *Southern Agricultural Growth Corridor of Tanzania (SAGCOT)*, launched in 2010, is a key mechanism through which the government hopes to attract agri-businesses to invest in large farms and source from smallholder 'out-growers'. It covers more than a quarter of Tanzania's land area, and has led the government to take more central control over the allocation of state-owned land to agri-business investors. The initiative is supported by several donors, including DFID.

This strategy, however, poses two major risks. First, the focus of state resources on only a few crops will not be sufficient to provide the work and enterprise opportunities needed to sustain rural areas. This will require scaling up support for the production and marketing of the diverse range of produce and livestock already consumed and traded by Tanzanians. These include cassava, bananas, sweet potatoes, and many other fruits and vegetables. Unlike many other African countries, Tanzania is close to being food self-sufficient, and many of the country's rural population – which stands at 70% of the total population – already make a decent livelihood from primary agriculture. Supporting their ability to increase the total output of their farms in an environmentally and commercially sustainable way, and combining this with support for market infrastructure and pricing information, can catalyse local enterprise development in a variety of agricultural market chains.

Second, the focus on attracting large-scale agri-businesses to manage large areas of land under the SAGCOT initiative can create a highly unequal pattern of rural development by displacing existing land users. Tanzania does not have large areas of fertile unused land available for agricultural investment. In areas where there are fertile volcanic soils, almost all the land has been in use for many years and in less fertile areas much of the land is in continuous use, for example, by herders and pastoralists. Many populations who have settled in so-called 'unused' areas do not have formally recognised legal user rights to the land, which has led to forced displacement when large agri-businesses are invited to develop the land for commercial farming.

In 2008, for example, Kilombero Plantations Limited, a part-British public private partnership company, supported by DFID, acquired an area of 5,000 hectares to farm rice on an industrial scale and source rice from 6,000 out-growers. While many of the out-grower farmers reported a doubling of yields thanks to the technical services and inputs provided by the company, about 150 households who made a living from farming were evicted from the area as they had no legal title to the land, and they reported worse living conditions in the new areas in which they were resettled, with very limited work and agricultural opportunities.

Furthermore, among the rice out-growers many chose not to sell to the company or follow company guidelines for synthetic fertiliser use. They wanted to be able to sell to buyers who offered the higher prices and did not want to take on the risk of new debts to pay for chemical fertilisers which could harm the soil. These decisions show that for many smallholder producers, integrating into agri-value chains can be a very risky livelihood activity. It underlines the importance of an agricultural transformation strategy that focuses on a greater diversity of produce that supports total farm productivity, and enables ecologically and financially sustainable productivity increases.<sup>34</sup>

In all three countries, however, women producers and rural land workers are still left behind. Young women especially are excluded from decent work opportunities in the agriculture sector. There is a high level of rhetorical commitment to women's inclusion in all African countries' National Agriculture Investment Plans, yet very few provide detailed action plans on how women farmers are to be supported – two countries which do are Ethiopia and Rwanda.<sup>35</sup>

A recent evaluation of gender equality in Ethiopia concluded that the Ethiopian government has made major strides in providing a favourable policy environment for gender equality.<sup>36</sup> These include the constitutional prohibition of gender discrimination and guarantee of equal rights to women; reforms to the penal code, particularly family laws; and affirmative action policies across economic, educational and political settings. The second national Growth and Transformation Plan, for example, has put a focus on introducing gender-sensitive extension services and recognises the importance of targeting these services at young women, who may otherwise no longer see a future in agricultural production.

In Kenya, a survey of young rural women showed that they see little opportunity in pursuing work in commercial agricultural production. If they had access to credit, most young people in rural areas would not choose to invest in agricultural skills training, but in opportunities outside of agriculture.<sup>37</sup>

While women provide the bulk of agricultural labour, they function mainly at subsistence level. The division of household tasks and earnings from sales are dictated by social norms with women performing most reproductive, care and household tasks, while having less control over the use of earnings. Yet none of the agriculture transformation strategies we investigated aim to address these equally important dimensions of women's inequality.

Neither do the strategies address the inequalities created through large-scale land-based investments. The government of Tanzania, for example, is keen to attract investors in mega-farms to produce commodities for export in areas that are less populated by sedentary farming communities. However, the experiences of local land users in these areas (section 5.2) show that this strategy could lead to the development of a 'dual' economy, with small 'islands of success' in a growing sea of poverty, due to the forced displacement of existing land users, depriving them of their existing means of livelihoods without any better alternatives.<sup>38</sup>

### 3.2 Agriculture transformation and environmental sustainability:

The findings of the country studies show that all three governments have taken innovative actions to restore soils, landscapes and manage watersheds to secure future agriculture production and growth, with Ethiopia taking a lead. Already in the late 1990s the Tigray Bureau of Agriculture and Natural Resources had started piloting an integrated community-based watershed management approach, which has helped communities that previously relied on rainfall to invest in wells and pumps and grow crops where nothing grew before.

This project, which was based on the labour of farmers and communities to rehabilitate the watershed, was scaled up to 450 watersheds, on 400,000 hectares of degraded land, across five regions. Overall poverty was reduced by 20% in these areas, as was dependence on food aid.<sup>39</sup> This programme was expanded in 2005 to several thousand watersheds in 319 districts. It is now called the Productive Safety Net Programme, and includes subsidies for public works, cash transfers and community-based social infrastructure programmes.

More recently, the government started implementing very ambitious plans for zero carbon growth and integrating climate resilience into its agriculture transformation plans, set out in the Climate Resilient Green Economy Strategy it launched in 2011. The strategy proposes more than 40 priority interventions that would help the country move away from a 'business-as-usual' growth model to reduce its projected greenhouse gas emissions. Actions in the agriculture sector include, among others, scaling up the 'adoption of cropping systems with a reduced reliance on external inputs'.

Yet, the government is at the same time actively promoting an increased uptake of synthetic fertilizer blends to increase food security and create jobs in the manufacturing sector through the construction of domestic fertilizer blending plants. While this would help to restore soil fertility and improve cereal yields in the short term, an overdependence on chemical fertilizers could harm soil health in the longer term, as explained in the analysis of the Green Revolution above. The projected increased uptake of chemical fertilizers would also lead to an eight-fold increase in greenhouse gas emissions from fertilizers by 2030.<sup>40</sup> These impacts can be avoided by putting equal effort into scaling up the use of less fossil-fuel intensive and more ecological soil fertility management techniques such as composting, intercropping with legumes, and so on.

Ecological soil fertility management on a large scale has already been trialled with great success in the Tigray region. Results from the 10-year Tigray Project showed that composting is feasible, preferable to farmers, and increased both their yields and the resilience of the soil in the face of uncertain rainfall

patterns.<sup>41</sup> Just as many of the other integrated approaches in this project have since been adopted in current watershed management schemes and other agricultural development programmes, the same could be done to scale up the adoption of more sustainable soil fertility management techniques.

### Synthetic fertilisers will fuel an unsustainable agriculture transformation

Evidence shows that when applied to tropical ecosystems, synthetic nitrogen, one of the key ingredients in these blends, generates 10-100 times more nitrous oxide, a powerful greenhouse gas, than it would in northern and more temperate ecosystems.<sup>42</sup> Recent studies demonstrate that a range of chemical fertilisers are also responsible for much of the earth's lost organic soil matter, which is undermining the resilience of producers and ecosystems to the increasingly uncertain rainfall patterns across Africa.<sup>43</sup> A 2009 evaluation of the environmental and social impacts of an Ethiopian fertiliser support project found that 'farmers do really understand how continuous and sole application of inorganic fertilizer disrupts the natural capacity of soil to store nutrient reserve and release them when the plant need them. Loss of soil organic carbon (humus) reduce the capacity of soil to maintain its natural nutrient reserves (fertility), deteriorate soil structure, weaken its resistance to erosion (increase erosion), reduce vegetation/biomass cover and consequently worsening land degradation situation'.<sup>44</sup>

Maintaining and increasing agro-biodiversity is fundamental to build the resilience of future agriculture systems and to sustaining inclusive transformation.<sup>45</sup> This will become a major challenge in most African countries, given that their agricultural transformation strategies are primarily focused on expanding the commercial production of only a handful of 'strategic' crop or livestock sectors, generally for export, including through promoting mono-crop plantation production. However, producers

themselves are taking the lead in breeding varieties that are better adapted to climate change in many countries.

In Tanzania, for example, market forces and farmer-to-farmer contact between potato growers have been the key drivers of growth in this sector, given that neither public nor private extension services are sufficiently flexible, demand-driven and responsive to the needs of farmers.<sup>46</sup>



## 4 Do donors support sustainable and inclusive agriculture transformation?

Our survey of the agriculture development programmes of the World Bank, Dutch Ministry of Foreign Affairs, and USAID found that they all recognise the need for inclusive and sustainable agricultural transformation, in principle. They have all increased their support for building the resilience of vulnerable food producers to climate change and other shocks, and the World Bank and Dutch government are supporting large-scale reforestation and re-greening efforts across Africa to address landscape degradation and desertification.<sup>47</sup>

All three have increased their financial contributions to agriculture development programmes in the past decade, and are scaling up their support for commercial agricultural market system development, including agro-enterprise development and the integration of smallholders in national and global value chains. A substantial proportion of their support goes to increasing the productivity of smallholder farming systems, and integrating smallholder producers into global value chains. They are also increasing attention in their programmes to improving women's access producers to inputs, services, and markets.

However, their increasing use of public aid money to leverage private finance for infrastructure and industrial-scale plantation investments – through enterprise funds, public private partnerships, and development finance institutions – is undermining resilience and creating new forms of poverty in many areas of Africa (see sections 3.1, 3.2 and 5.3).<sup>48</sup> Furthermore, some of the policy reforms they are advising African countries to adopt equally undermine inclusive and sustainable transformation.

For example, through the G7 New Alliance for Food Security and Nutrition (NAFSN) in Africa, these donors are conditioning their support on African governments reforming seed and land laws to attract more agri-business investment. The initiative encourages, among other things, the adoption of seed laws that fail to recognise, protect and develop, or in some countries actively criminalise, the informal seed

systems that make up 90% of all seed transactions in Africa. These systems form the bedrock of innovation for future seed diversity, which is fundamental to building resilient agriculture and food systems on the continent.<sup>49</sup>

In summary, while some donor agricultural programmes and investments target poor and vulnerable producers, and are directed at supporting more sustainable agricultural production, these are fragmented. Furthermore, their impact is undermined by agricultural investments and policy reforms supported by the same donors, which threaten the livelihoods of small producers and fail to create an enabling environment that stimulate linkages between producers and the rest of the economy.<sup>50</sup> These linkages are what will power the creation of new work and entrepreneurial opportunities in rural areas to sustain current poverty reduction efforts.



## New directions for sustainable and inclusive agricultural transformation in Africa

Based on the findings of our background research and case studies, we recommend that African governments, institutions, and donors focus their agriculture transformation strategies and programmes on following four critical actions (set out in 5.1-5.4), to build a pathway towards equitable and sustainable development: protecting and promoting local and regional agri-food market systems; protecting the rights of vulnerable land users; promoting environmentally sustainable agriculture production systems; and empowering women agricultural producers and workers.

### 5.1 Protect and promote local, national and regional agri-food market systems

Promoting local, national and regional supply chains in the agri-food system has by far the greatest potential to create decent work and entrepreneurial opportunities for Africa's growing rural and youth population. Evidence shows that the growing urban demand for higher-value and processed foods offer enormous potential for value addition.<sup>51</sup> Urban areas consume more than half of all food produced, with a shift in consumption away from staple grains to dairy, meat, fruit and vegetables, and processed foods.<sup>52</sup>

Unfortunately, this demand is increasingly met through imports.<sup>53</sup>

To reverse this trend would require policy measures to facilitate linkages between formal enterprises and small or informal enterprises, and between agri-businesses and smallholder producers, and to help agri-enterprises and producers increase their production capabilities. The largest number of work opportunities will be created in small and medium enterprises that supply inputs and services and process, transport, and distribute agricultural produce. Industrial policies should promote the linkages between these enterprises.<sup>54</sup> Small local or national agricultural market size does not pose the same constraints as it does in other industries, given that the lower cost of equipment and available skills for processing activities such as canning, milling and oil pressing require less capital investment.<sup>55</sup>

While the linkages created by global value chains are important in some areas, they are limited. Recent years have seen greater efforts to increase smallholder productivity and link them to global supply chains as part of an export-led transformation strategy. Exclusive reliance on such a narrow strategy, however, can increase the vulnerability of producers to volatile global commodity prices,

exclude local populations from work opportunities in new enterprises through displacement, and therefore risk disrupting the ways in which communities already pursue livelihood strategies that generate some measure of resilience. In Ethiopia, for example, local communities that previously relied on home-grown food, have been reluctant to take jobs in the burgeoning floriculture industry as the wages on offer are insufficient for them to buy food in the market and pay other living costs. These jobs have mostly been taken by migrants with even more insecure access to land.<sup>56</sup>

Research shows that linking producers to small and medium urban centres leads to faster poverty reduction and more inclusive and sustainable growth than an exclusive focus on mega-cities and export markets.<sup>57</sup> Consumers in small and medium towns and cities tend to establish a closer relationship with their surrounding food providers. This, in turn, provides a more conducive environment for the emergence of local food economies and market systems that are environmentally sustainable and provide higher returns to producers and local processing, transport, and distribution enterprises.

While headlines are filled with more prominent agricultural initiatives such as AGRA and the New Alliance, what some term a 'quiet' revolution in local food value chains has already been underway in parts of Africa,<sup>58</sup> fuelled by the activity of local small and medium enterprises processing, transporting, distributing and selling these products in local urban centres, creating work and entrepreneurial opportunities.



### Local and regional food marketing driving agricultural transformation in West Africa

In West Africa, the food economy has changed significantly in the past two decades. The post-independence economy – which was dominated by exports of raw agricultural commodities with local trade supporting mainly self-sufficient communities – has given way to trade over longer distances, connecting cities and rural areas and regions. Cash crop export markets are now a fraction of the size of regional markets. Across the region, two-thirds of household food needs are now met by markets. Food imports from outside the region were estimated at only 6.5% of total domestic food demand in 2015.

Regional demand for more processed products has driven the development of food processing and distribution enterprises. These activities are not part of the primary sector and are increasingly performed off the farm and outside the household, contributing to job creation in urban and rural areas. Marketing and processing of agricultural products now makes up 40% of the value of the total food economy.

Apart from a few relatively large industrial structures such as breweries and flour mills, the West African agro-processing sector primarily consists of micro- and small-and-medium enterprises which are often family operated and informal. These enterprises are involved in the production of agricultural inputs, small-scale commercial farming, agro-processing including wood and textiles, manufacturing or trading machinery, and provision of support services such as packaging, transport and finance. Their production processes are frequently artisanal, involving limited mechanisation and standardisation. However, some enterprises have evolved into larger, more productive companies supplying the regional market.<sup>59</sup>

### 5.2 Protect the rights of vulnerable land users

Since the turn of the millennium, there has been a new surge of both foreign and domestic private investors leasing large tracts of land across many of Africa's more fertile arable areas. In many cases this has led to the involuntary displacement of existing land users, who live in communities governed by customary law and whose right to the land is

therefore not protected by formal land laws. The loss of their most important asset – the land they have used for food and cash crop cultivation, livestock grazing, fishing and gathering of wild products – increases their vulnerability to shocks and can lead to a desperate cycle of poverty.<sup>60</sup> The new work opportunities created on large plantations often do not pay sufficient wages to replace the value of the diverse crops and wild products upon which they previously relied for subsistence and income, especially in areas where food prices have risen more rapidly than wages.<sup>61</sup>

The continuation of this model of agriculture investment risks creating a dual rural society, with a new underclass, trapped in a cycle of poverty, existing alongside a few large industrial estates, with very few linkages to local workers, enterprises and communities. It is therefore paramount that efforts by governments, pan-African institutions and donors continue to reform land governance systems to protect the land use rights of vulnerable communities.

### Ethiopia's floriculture industry – opportunities and challenges

Ethiopia's new floriculture industry has been hailed as an agriculture transformation success story. It contributes 80% of the total foreign revenue earnings of the horticulture sector, which is the fifth-largest export sector in the country, and employs 85,000 people directly and 200,000 indirectly, many of whom are women. Average wages in the industry are more than double the statutory minimum wage. But flower farms have been allocated land previously used for food production and pasture, which are of critical importance to local livelihoods. Wages on the farms are still only between a third and a quarter of the living wage. This is insufficient to buy food in the market and pay for housing and remittances. Those who still have access to land have however benefited from the increasing demand for food in the areas surrounding farms.<sup>62</sup>

## 5.3 Promote environmentally sustainable production systems

Aside from the social and economic pitfalls of the current global food system, the conventional agronomic practices upon which it is built are undermining its ecological foundation through overuse of chemicals and the effects of agricultural

pollution. This is increasing soil degradation, reducing ecosystem capacity to generate sustainable yields and increasing micro-nutrient deficiencies and hunger.<sup>63</sup>

Agricultural production and marketing systems that increase agro-biodiversity, restore soil health, minimise the use of synthetic inputs, and conserve water have been shown to produce greater and more stable yield increases. This has not only increased incomes, but has also led to greater resilience to environmental stresses such as drought, particularly among vulnerable smallholder producers in developing countries, and especially in arid and semi-arid areas.<sup>64</sup>

Yet rhetoric and funding for Green Revolution-type approaches prevail in the strategies and funding priorities for research, innovation and commercial agriculture programmes of most African countries and their development partners. A fundamental rethinking of the concept of agricultural productivity is needed to enable more effective policy decisions. Rather than simply measuring an increase in crop yield per unit of labour or land, it is important to assess the increase in agro-biodiversity, total farm output, and environmental benefits provided per unit of labour or land.

Given the diversity of agro-ecological conditions and farming systems across Africa, environmentally sustainable production approaches will differ. However, they all have in common the ability to create new and more meaningful work and entrepreneurial opportunities. Once the value of natural and agricultural ecosystems is put at the forefront and the risks taken by farmers accounted for, governments can lead a radical re-orientation of research priorities and extension services. Extension agents can become facilitators of on-farm research and experimentation, with producers treated as open-source and high value innovators and natural resource managers, rather than mere consumers of external inputs. This can reverse the trend where farming jobs have lost their value and skills-base in recent decades due to growing dependence on agro-chemical inputs and out-migration by knowledgeable producers.

Conservation agriculture and agro-forestry, for example, are labour-intensive activities at the start of the production cycle, and the demand for soil fertility improvements and pest management can create enterprise opportunities in the production and trade of non-synthetic fertilisers, soil fertility management services, and non-chemical pesticides.<sup>65</sup> The need for resilient seed adapted to local climates and soils can create opportunities for seed banks, cooperative breeding and other forms of enterprise. Given the leading role played by women in seed genetic conservation and adaptation, they can benefit enormously from work opportunities in these areas.<sup>66</sup>

## 5.4 Empower women agricultural producers and workers

Improving the access of women – who make up half of the agricultural labour force in Africa – to land, credit, cooperative membership, agricultural and agri-business services, skills, inputs, markets, infrastructure and work opportunities in agro-enterprises is necessary to ensure that they benefit equally from agricultural transformation. While women's networks on the continent are already helping to ensure that more women producers organise together to push for changes in policies and attitudes,<sup>67</sup> there is an urgent need for more substantial efforts. This is not simply for reasons of equity. It is estimated that even if women simply had the same access to productive resources such as land and seed as men, they could increase yields on their farms by 25-30%.<sup>68</sup>

Most donors that support agriculture transformation have started to recognise, and in some cases address, the need to empower women producers and workers.<sup>69</sup> Increasingly, African governments are acting to reform legal systems to give women equal land rights to men or targeting extension services directly at women.<sup>70</sup> These efforts need to be scaled up and those responsible for agriculture policy-making should give priority to moving from rhetoric to action, applying similar efforts to securing the workplace rights of women workers in agro-enterprises, which overall employ larger numbers of women than other formal enterprises in Africa.<sup>71</sup>

Furthermore, while these efforts are necessary, they are, on their own, insufficient to ensure the equal participation of women in the agricultural transformation underway on the continent. Decision makers need to pay equal attention to reducing the disproportionate share of unpaid care and reproductive labour performed by women by providing social grants, childcare solutions and investment in the development and dissemination of labour-saving technologies and machinery, as well as basic infrastructure, such as affordable modern energy services and clean water.<sup>72</sup> The social and cultural norms that dictate gender roles

in the agricultural economy also hold back women from work opportunities. Women contribute a disproportionate share of unpaid productive labour on family farms, and in many cultures, men, not women, are seen as the real embodiment of a farmer<sup>73</sup> and, as such, are tasked with managing cash crops, while women predominantly cultivate family food crops.

### Moving forward

Policy makers need to re-orientate policy priorities to place, at front and centre, the urgent need for national- and household-level food security, the social inclusion of marginalised groups and the protection of bio-diversity. These actions will require a radical shift in the values that underpin agricultural transformation. This is the only way to ensure a long-term path out of poverty.

Christian Aid and CAFOD will continue to discuss these themes with donors that support agricultural transformation and with African CSOs that are advocating for the alignment of their governments' agricultural transformation strategies with the global sustainable development goals. We will support civil society efforts to do more research and advocacy on the four actions outlined above: protecting and promoting local, national and regional agri-food market systems; protecting the rights of vulnerable land users; promoting environmentally sustainable agriculture production systems; and empowering women agricultural producers and workers.

We will also support our partner organisations in Africa to share their findings, experiences, and recommendations with the UN Economic Commission for Africa and the African Union. This is part of our broader commitment to promoting a dialogue between civil society and the Economic Commission for Africa on the alignment and implementation of the goals set out in Agenda 2030, the Africa Union's Vision 2063 and Comprehensive African Agriculture Development Programme, and the continent's structural economic transformation agenda.



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## New pathways out of poverty in Africa: the promise of sustainable and inclusive agricultural transformation

Agricultural transformation has become a development priority for African governments and the international development community. Christian Aid and CAFOD welcome the focus of this agenda on reducing dependence on raw commodity exports, on diversifying economies, and on creating decent work opportunities for the world's youngest and fastest-growing population. However, this report highlights the risk that agricultural transformation strategies can increase inequality and further degrade the environment. Through the lens of the Sustainable Development Goals and drawing on discussions with civil society partner organisations in a number of African countries, this discussion paper summarises why agricultural transformation is fundamental to a permanent end to hunger and poverty in Africa and sets out four priority areas for future dialogue and action on agricultural transformation in Africa.

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Poverty is not part of God's plan. We believe that a better world is possible. As the official overseas aid agency for the Catholic Church in England and Wales, we work in more than 40 countries seeking local solutions to end poverty and injustice. We provide people with the skills and opportunities to live with dignity, support their families and flourish. Because we are part of the local Church, we can reach people and places that others can't. With the Catholic community we put our faith into action to help our sisters and brothers living in poverty to reach their full potential, regardless of religion, race or culture.

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Christian Aid is a Christian organisation that insists the world can and must be swiftly changed to one where everyone can live a full life, free from poverty. We work globally for profound change that eradicates the causes of poverty, striving to achieve equality, dignity and freedom for all, regardless of faith or nationality. We are part of a wider movement for social justice. We provide urgent, practical and effective assistance where need is great, tackling the effects of poverty as well as its root causes.



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