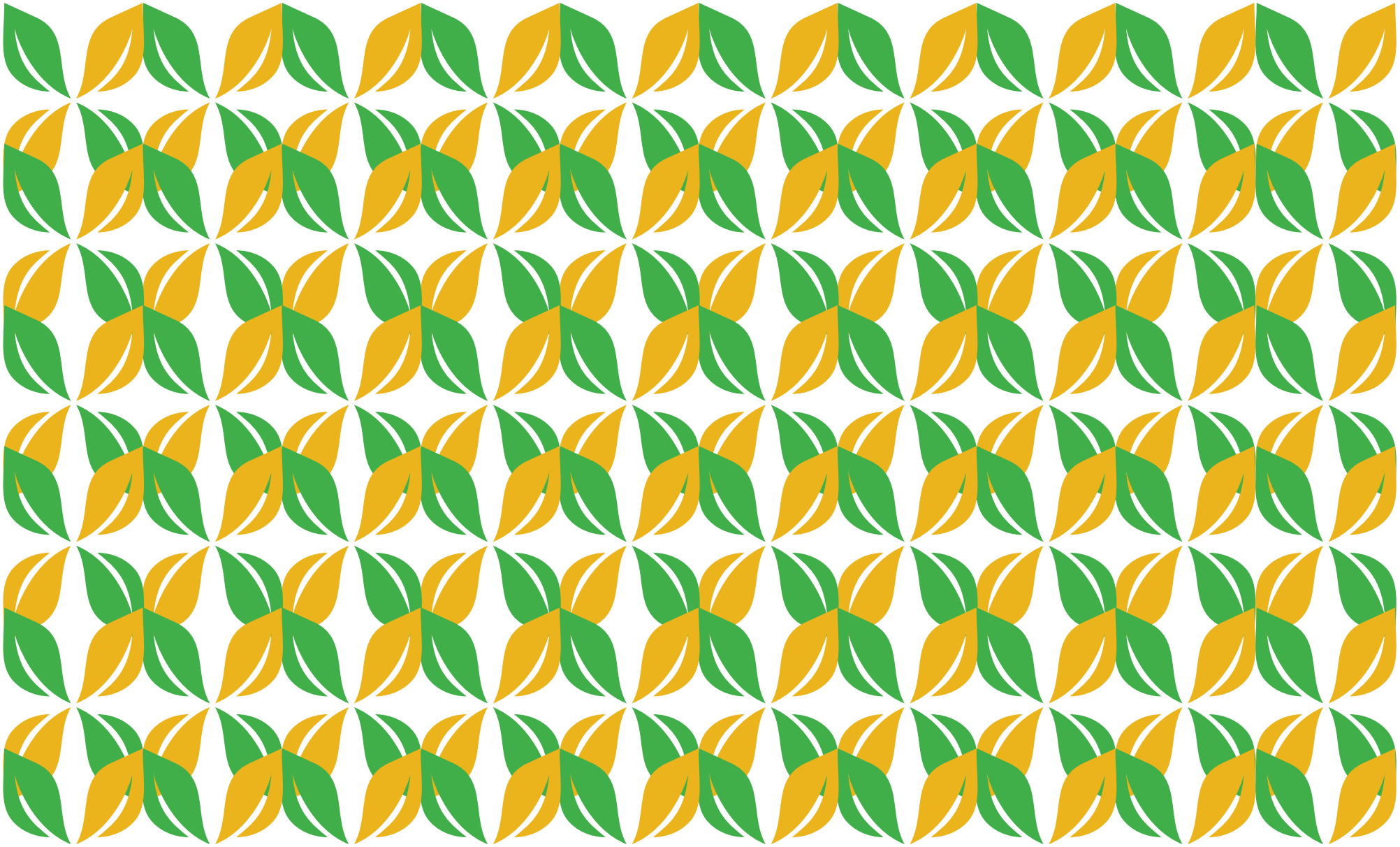

RIPE FOR CHANGE

THE PROMISE OF AFRICA'S
AGRICULTURAL TRANSFORMATION

ONE

RIPE FOR CHANGE

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BY USING SIMPLE IRRIGATION TECHNIQUES, A FEMALE FARMER IN BURKINA FASO IS ABLE TO GROW CROPS IN THE DRY SEASON. THE INCOME GENERATED FROM FARMING AND SELLING VEGETABLES HAS ENABLED HER TO SEND HER CHILDREN TO SCHOOL AND RECEIVE AN EDUCATION.

PHOTO: P. CASIER / CGIAR

RIPE FOR CHANGE

THE PROMISE OF AFRICA'S AGRICULTURAL TRANSFORMATION

PINEAPPLE SEEDLINGS GROW IN THE NURSERY AT BOMART FARMS IN NSAWAM, GHANA.

PHOTO: JONATHAN ERNST / WORLD BANK

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INTRODUCTION

Africa is growing. Economic growth is increasing steadily, at an average of 5% per annum for the past decade. At the same time, the population continues to expand rapidly – Africa's overall population is expected to quadruple within just 90 years.[1] This will require a huge increase in jobs and an acceleration in economic transformation, as well as a surge in agricultural production to supply the nutritious food that this immense population will demand. The potential for agriculture to drive inclusive economic growth, improve food security and create opportunities for millions of Africans is enormous. More than two-thirds of African citizens depend on agriculture for their incomes, yet the sector represents only a third of the continent's GDP.[2] Efforts to improve farmer productivity and increase incomes can therefore drive demand in other important economic sectors.[3] This dynamic increases economic growth while providing the opportunity to simultaneously lift millions of people out of poverty. The World Bank has calculated that growth in the agriculture sector is 2.5 times as effective at reducing poverty as growth in other sectors and more recent research shows that, in sub-Saharan Africa, growth in agriculture is 11 times more effective at poverty reduction than growth in other sectors.[4]

Almost all African countries could realise greater potential from their agricultural sectors, yet in recent decades countries have given vastly different levels of prioritisation to investments and policy reforms. In many places, natural resources and human capital are abundant; however, important interventions are lacking, such as infrastructure, research capacity, an enabling policy and business environment and public, private and donor financing.

Ten years ago, at the African Union (AU) summit in Maputo, Mozambique, African leaders made a bold commitment to reverse the under-investment that had held back the sector for so long, pledging to allocate at least 10% of national budgets to agriculture, to adopt sound agricultural development policies and to achieve at least 6% agricultural growth. Governments developed country-specific plans through the Comprehensive Africa Agriculture Development Programme (CAADP). However, progress on the Maputo targets has been mixed, with many countries falling short on their promises, while countries' CAADP plans, where implemented, lack proper accountability and tracking mechanisms. Furthermore, many plans miss out on priority areas, including post-harvest loss and the gender gap that exists in the sector.

At the AU summit in June 2014 in Equatorial Guinea, African leaders will have the chance to review and revitalise the Maputo Declaration and to make new policy commitments for the next ten years of African agriculture. At the same time, CAADP is undergoing its own reform process to ensure that it can better guide this development and provide a new results framework. To recognise this historic opportunity, ONE's report, "Ripe for Change: The Promise of Africa's Agricultural Transformation" aims to assess the successes and the shortcomings of the prior decade, while also presenting valuable lessons and policy recommendations, developed in consultation with key stakeholders, that could accelerate the pace of agricultural progress in Africa. It does this in three parts.

In the first section, "Profiling Success", the report presents three case studies of African countries (Ghana, Ethiopia and Burkina Faso) where real leadership, reform and investment in agriculture have helped foster national growth and development. Public spending offers one of the most direct and effective instruments for governments to promote inclusive agricultural growth. Yet as governments seek to implement reforms, increase agricultural spending and boost growth, they must grapple with a range of options and reforms to address their country- and context-specific concerns to reach their goals. These case studies illustrate how leaders in Ghana, Ethiopia and Burkina Faso have navigated these decisions and how they have shown remarkable progress in both agricultural success and economic development. They also offer important policy lessons for other leaders who wish to see similar results.

In the second section, "Renewing Maputo's Promise", the report looks at progress made by African countries in achieving (or falling short of) the Maputo targets, and surveys the challenges that they have faced in striving to reach these goals. There is a particular focus on the CAADP results framework, which underscores the importance of accountability and of improving farmers' access to information. Farmers have not had opportunities to hold leaders to account on prioritising the agriculture sector or on achieving CAADP progress and implementation. These challenges also demonstrate important areas for reform that could be enhanced in any new agreement reached in 2014.

Finally, in the third section, "Policy Recommendations for Africa's Agricultural Transformation", the report concludes by calling on policy-makers to seize the opportunities presented through transformations in the agriculture sector, the enhancement of public investment, strengthened ties with farmers, civil society and the private sector, and enhancements to the quality of public policy and spending. A range of policy options are presented for consideration by African leaders, including programmes aimed at narrowing the gender gap in agriculture, reforms designed to facilitate intra-regional trade, and heightened resources targeted at improving land governance.

Right now, African leaders are putting together the African Common Position on the Post-2015 Development Agenda, which will replace the Millennium Development Goals. An overarching objective is to ensure the end of extreme poverty by 2030, as well as economic transformation, enhanced transparency and sustainable development. The time is now – if governments commit to the vision of a continent-wide strategy to boost agricultural progress, it could usher in a new era of growth and shared prosperity.

FARMERS SORT TOMATOES IN ETHIOPIA.

PHOTO: STEPHEN BACHENHEIMER / WORLD BANK

EXECUTIVE SUMMARY

After decades of economic stagnation, African economies have been growing rapidly: real gross domestic product (GDP) grew by nearly 5% per year between 2000 and 2012.[1] Not all of this growth (particularly in oil, gas and minerals) has been broad-based or has contributed to poverty reduction. Agriculture, however, is a sector that involves two-thirds of Africans south of the Sahara, providing jobs, income and food security. It accounts for a third of the continent's GDP and in some countries (such as Ethiopia, Sierra Leone and Liberia), its contribution is as high as 50–60% of GDP.[2] The potential for economic transformation and development is enormous, but many African countries have not given sufficient attention to the sector, or maximised its benefits. Unless this is addressed, Africa will face enormous challenges in achieving its goal of poverty eradication.

The need for greater investment in African agriculture has never been more urgent. Farmers across the continent face mounting challenges: land degradation, rapid population growth and changing climate patterns threaten to imperil agricultural productivity and roll back progress on socioeconomic gains. At the same time, new approaches and innovations – commodity exchanges, advances in information and communications technology, and new crop varieties – have opened up possibilities to manage farmers' risks, increase prices for their goods and strengthen resilience to weather-related disasters. In addition, fresh evidence of what works in narrowing the gender gap presents African policy-makers with new opportunities for transforming the agriculture sector. Lastly, renewed attention to value addition, agro-processing and post-harvest management holds enormous potential to increase incomes and create employment opportunities.

Ten years after African leaders made historic commitments to grow their agriculture sectors in the 2003 Maputo Declaration, ONE's report, "Ripe for Change: The Promise of Africa's Agricultural Transformation", reflects on achievements made thus far and highlights the challenges that lie ahead. The African Union (AU)'s 2014 Year of Agriculture and Food Security is a fresh opportunity for Africans to renew their pledges, and the ability of leaders to seize these opportunities and manage the growing challenges in the agriculture sector will determine the development prospects of countries across the continent.

KEY FINDINGS

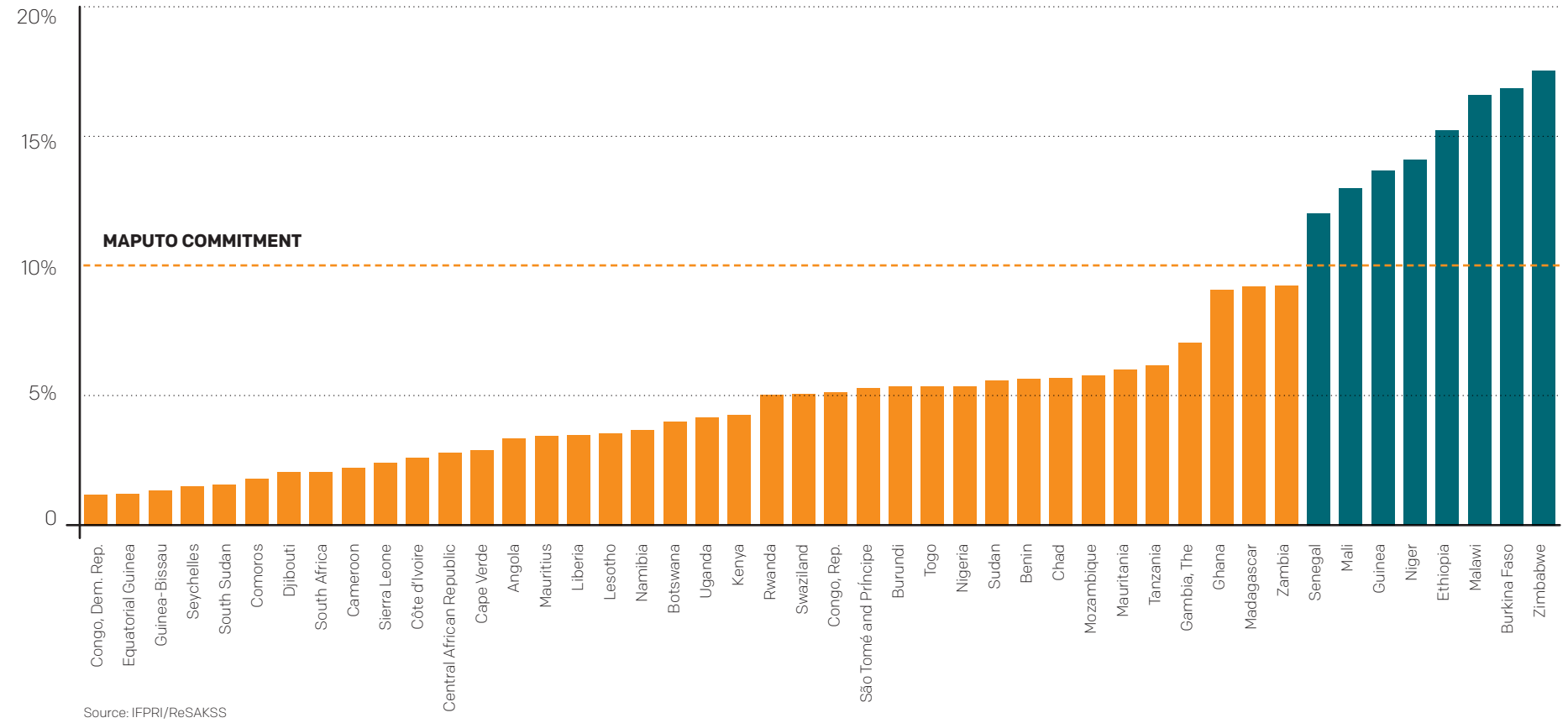
1 Investments in agriculture pay off.

A few trail-blazing African countries have already shown how successful policy reforms and effective investment can lead to growth and poverty reduction. Although many of these countries' investments pre-date their Maputo commitments, some key policy lessons can be gleaned from their success stories. In Ghana and Burkina Faso, export-led growth in cocoa and cotton has contributed to improved development outcomes and substantial poverty reduction: poverty rates have decreased by more than 44% in Ghana and by 37% in Burkina Faso, and in the latter country cotton farmers' incomes have risen by 20–40%. Moreover, expanding cotton production in Burkina Faso has not displaced food crop production: rather, the two have been coordinated together, so that household food security for cotton farmers has also improved. Ethiopia meanwhile exemplifies a sustained political commitment to agriculture and a bold recognition of the sector's centrality to promoting inclusive growth. While in previous decades famine and drought have ravaged the country, recent investments in extension workers, rural roads and modern market-building mechanisms, such as a commodity exchange, have enabled cereal production to increase and have helped improve nutrition outcomes by increasing the number of calories that rural people consume by roughly 50%.[3]

2 The Maputo commitments were critical for focusing attention on the sector, but many countries have fallen short of their promises, and more attention needs to be given to the type of agricultural investments made.

The 2003 Maputo Declaration recognised the critical link between agricultural growth and economic development and aimed to boost public investment in the sector, with government commitments to allocate at least 10% of national budgets to agriculture, adopt sound agricultural and rural development policies and achieve at least 6% agricultural growth. However, progress on the Maputo targets has been mixed. Ten years after the agreement was made, fewer than a fifth of African countries have met either the 10% expenditure or the 6% growth target. Across the continent, the average share of total public expenditure allocated to the agriculture sector has barely exceeded 6% per year since 1995.

FIGURE 1: Public Agricultural Expenditure for Select African Countries, Average 2003–10[4]



Source: IFPRI/ReSAKSS

Nevertheless, certain countries are demonstrating real commitment and illustrating the success that is possible with sustained investment and political will, among them Burkina Faso, Ethiopia, Guinea, Malawi, Mali, Niger and Senegal, all of which have consistently allocated 10% of their budget to agriculture in most years between 2003 and 2010; and Ghana, Madagascar and Zambia, which have averaged 9%.[5] These countries have also made progress on the first Millennium Development Goal (MDG) target of cutting extreme poverty by half – only one of them is not on track to achieve this.[6] Other countries – Burundi, Congo and Togo – have shown their commitment by substantially increasing agricultural expenditure since 2003.

However, while the Maputo spending target has stimulated investment in many countries, many lessons have also been learned in the past decade, including the need to measure the quality of agricultural spending and to standardise what counts as resources for agriculture. Countries were incentivised to meet the 10% goal without being held accountable on the effectiveness of that spending. Research shows that investing in public goods such as research and development (R&D) and infrastructure gives much higher returns on investment – through productivity gains and market access, for example – than other investments such as input subsidies. Trying to monitor spending is difficult because different classification structures exist and countries report their agriculture spending in different ways, across different time periods.

3 CAADP has been a useful process for countries to organise their agricultural plans, but these plans have lacked accountability and have missed out on key areas for progress.

Following the Maputo Declaration, governments received support to draw up their own context-specific agriculture development plans through the Comprehensive Africa Agriculture Development Programme (CAADP). In order to eliminate hunger and create wealth through agriculture, CAADP supported countries' efforts to achieve the Maputo target of 10% expenditure and that of 6% annual growth in agricultural GDP. As a supporting entity, CAADP guides countries through a robust process by first developing a country compact, then creating an investment plan reviewed by an independent party and ultimately convening a business meeting that investors can attend. To date, 43 countries have initiated the CAADP process, of which 38 have signed CAADP compacts, and 28 have launched fully costed and technically reviewed plans to accelerate agricultural development.[7]

While meeting the measurable 10% spending target is admirable, it is only part of the story in achieving a transformation of the agriculture sector – the quality and effectiveness of investment are just as critical. Many stakeholders agree that CAADP's priorities should be expanded to address areas that are largely missing from the original investment plans – in particular, agribusiness and the private sector, post-harvest loss and women farmers.

- First, CAADP plans that were developed early on largely ignored the role of the private sector and the idea that public investment should support a strong environment for businesses to increase responsible and inclusive investment. For far too long poor policies, state-run monopolies and other market inefficiencies have held back private sector activity and innovation by farmers.
- Second, even if farmers achieve significant productivity gains, they still face hurdles in storing their crops and transporting them to market. Better and more innovative systems for post-harvest management should be a key component of all investment plans.
- Third and finally, the productivity gap between men and women must be addressed. Women farmers across the region consistently produce less per hectare than their male counterparts. A decade after the Maputo Declaration, these issues are central to improving the CAADP process and country investment plans.

Another crucial improvement for CAADP is to implement an accountability framework that tracks progress and holds governments accountable to their investment plans. CAADP has developed a robust results framework that includes important indicators to track progress on efficiencies gained in agriculture and improvements in farmers' livelihoods. It is now up to African leaders to commit to this tool and support an index to determine which countries are spending public resources on the right kind of investments and implementing the right policies for their own unique environments.

4 2014 offers an historic opportunity to make renewed and more robust commitments on agriculture for the next decade.

In an effort to increase political will, Yayi Boni, President of Benin and 2012 AU Chairperson, declared 2014 to be the AU's Year of Agriculture and Food Security, a commitment confirmed by AUC Chairperson Nkosazana Dlamini-Zuma. The Year of Agriculture and Food Security presents a once-in-a-decade opportunity for a review and renewal of African leadership and commitment to an African-led decade of agriculture. As part of this historic year, African governments should make new commitments that build on the previous Maputo Declaration and that strengthen CAADP by signing on to the accountability framework. The complete set of re-commitments must be unveiled at the AU Summit in June this year.

The "right" mix of reforms is, of course, highly dependent on context. Policy-makers at all levels, civil society actors, farmers' organisations and the private sector are best suited to determine what their particular country, region or local district needs. However, this report reviews a range of policy lessons gleaned from successes (and failures) in implementing agricultural reforms, including through the CAADP process and through consultations with African civil society organisations, farmer cooperatives and organisations that represent the interests of smallholder farmers, and committed development partners to provide options for policy-makers seeking to achieve similar success.

1) Make time-bound commitments to meet the Maputo pledge of spending at least 10% on effective agriculture investments, through transparent and accountable budgets.

2) Narrow the gender gap in agriculture.

3) Strengthen land governance and security of tenure rights.

4) Reduce barriers to intra-regional trade.

5) Increase R&D investment to at least 1% of agricultural GDP and bolster extension services.

6) Integrate sustainability and climate resilience into national agriculture plans.

7) Prioritise reducing post-harvest loss in national agriculture plans.

8) Design nutrition goals into agriculture sector strategies.

9) Foster an enabling environment for smallholder integration and responsible private sector investment.

10) Accelerate implementation of agriculture plans and ensure pro-poor results for smallholder farmers.

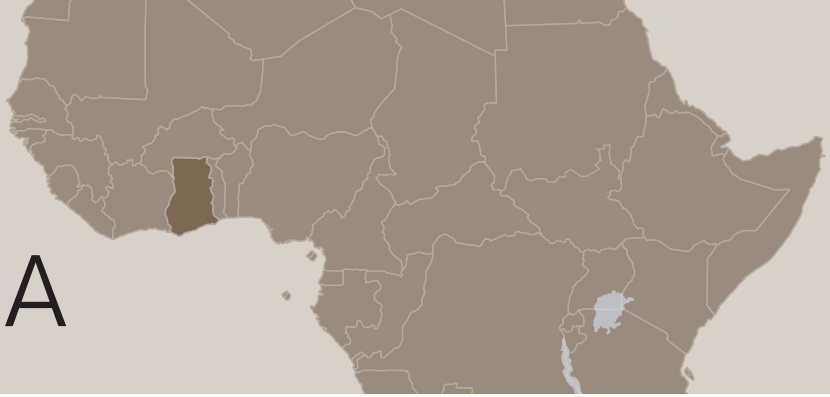
A BUSY SCENE FROM THE SEKONA LOCAL FOOD MARKET IN OSUN STATE, NIGERIA, WHERE FARMERS HAVE NOTICED AN INCREASED DEMAND FOR THEIR PRODUCTS SINCE THE INCEPTION OF THE OSUN STATE HOME-GROWN SCHOOL FEEDING PROGRAMME. THE PROGRAMME WAS ESTABLISHED TO IMPROVE THE NUTRITIONAL STATUS OF SCHOOLCHILDREN, INCREASING THEIR ENROLMENT, RETENTION AND COMPLETION RATES IN PRIMARY SCHOOLS.

PHOTO: BILL & MELINDA GATES FOUNDATION

PROFILING SUCCESS

Globally, very few countries have achieved rapid economic growth without growth in agriculture either preceding it or accompanying it. Some powerful examples of how agricultural growth can help foster wider economic development can be seen in the case studies of China, Vietnam and Brazil (see Appendix 1). Each of these three countries has a unique story and yet they share a common thread: strong and capable government institutions that have implemented a strategy of agricultural development underpinned by considerable public investment, designed to foster broad prosperity. While these examples are not without their critics, they provide valuable lessons for policy-makers in Africa. Ultimately, African governments must make their own decisions about the best policies and investments to support agricultural development and poverty reduction in their own countries. They can also look to successful models of agricultural development closer to home.

A number of African countries have led the way in investing substantial public resources in agriculture, and they are reaping the rewards. In this section, we profile three African countries that have met (or have come very close to meeting) their Maputo targets of 10% of government expenditure going to agriculture: Ghana, Ethiopia and Burkina Faso. We highlight the investments and reforms that each of these governments has prioritised and how these reforms have promoted wider economic development and poverty reduction (and also the challenges associated with these strategies). We also draw out key policy lessons that could be useful for other countries in sub-Saharan Africa.



GHANA

KEY STATISTICS

GOVERNMENT EXPENDITURE ON AGRICULTURE
(as share of total government expenditure)[1]

Average since Maputo (2003–10)

9.1%

2008	2009	2010
10.2%	9.0%	9.1%

AGRICULTURAL GDP GROWTH[2]

Average since Maputo (2003–12)

3.4%

2008	2009	2010	2011	2012
7.4%	7.2%	5.3%	0.8%	1.4%

AGRICULTURAL GDP
(as share of total GDP)[3]

In 2012

22.7%

2008	2009	2010	2011	2012
31.0%	31.8%	29.8%	25.3%	22.7%

LABOUR FORCE EMPLOYED IN AGRICULTURE
(as share of total labour force)[4]

In 2013

53.8%

1998	2013
57.5%	53.8%

MDG1a: EXTREME POVERTY
(percentage of population living on less than $1.25 a day)[5]

Change since 1992

-44%

1992	2006
51.1%	28.6%

MDG1c: PREVALENCE OF UNDERNOURISHMENT
(percentage of population)[6]

Change since 1991

-88%

1991	2006
40.5%	5.0%

INTRODUCTION

Ghana has experienced some of the most rapid agricultural growth in the world, reaching a rate of more than 7% in 2008–09 and averaging over 5% annually over the past 25 years.[7] While agriculture's share of total GDP has steadily declined (due to the rapid growth of services), it remains substantial at 23%.[8] Agriculture is by far the largest provider of livelihoods, and most of those employed in the sector are smallholder farmers.[9] The expanded cultivation of staple crops such as maize, rice, yam, cassava and plantain has driven agricultural growth in recent years.[10] Cash crops such as cocoa, cashews, cotton, palm oil and pineapples are valuable exports and an engine of growth for the whole economy.[11] Many describe cocoa, in particular, as the "lifeblood" of the Ghanaian economy. It is the most lucrative source of export earnings (exports of cocoa beans, butter, powder and cake combined were worth $2.4 billion in 2011), providing revenue for the government to pump into infrastructure and social services, and supporting the livelihoods of more than three million people (12% of the population).[12] Ghana's investment in the agricultural sector has been substantial and has helped to drive overall growth; it has met, or has very nearly met, the Maputo agriculture spending target for at least the past six years.[13] Ghana signed its Comprehensive Africa Agriculture Development Programme (CAADP) compact in October 2009. In June 2010, it finalised its investment plan and held a business meeting, the final stage in the CAADP process.[14]

During its agricultural boom over the past two decades, Ghana has seen an unprecedented decline in poverty and hunger.[15] It stands out as one of few sub-Saharan African countries to have met (and indeed, far exceeded) the MDG target of halving the prevalence of undernourishment. It has also almost halved the proportion of people living on less than $1.25 per day, lifting 1.6 million people out of poverty between 1992 and 2006.[16]

ACCOUNTING FOR SUCCESS

Ghana's agricultural transformation agenda has transcended party politics and has remained a top priority for successive governments, enabling strategies to be implemented with broad support and without interruption. The vision and political will of the country's leaders have been responsible for much of this success. Jerry John Rawlings, who led Ghana between 1981 and 2001 under the National Democratic Congress, was dedicated to achieving nationwide food security and to kickstarting a process of reform that made Ghana an inspiration for poor countries in Africa and beyond.[17] In recognition of this achievement, he received the FAO Agricola medal and the World Hunger Award.[18] In 1988, Rawlings' government instituted the annual "National Farmers' Day", a public celebration (which continues today) that recognises and rewards the important contribution of Ghana's farmers to national development and food security, including the awarding of prizes (such as tools, tractors, insurance and even houses) to outstanding farmers around the country.[19]

His successor, John Kufuor (of the New Patriotic Party), took up the issue of food security, slashing hunger levels by two-thirds during his eight-year rule (2001–09).[20] Kufuor received the World Food Prize in 2011, and cited the commercialisation and modernisation of the cocoa industry as being key to this success.[21] During his presidency (2009–12), John Atta Mills (of the National Democratic Congress) also put an emphasis on agriculture and food security, deeming these the "basis" of all other development.[22] Among other achievements, Mills launched a six-year cocoa rehabilitation programme, expanded the "Youth in Agriculture Programme" he had devised 10 years earlier (when he was chairman of the Economic Management team) and oversaw record production of cocoa, with the highest ever percentage of the world price being paid to farmers.[23]

The current President, John Mahama (also of the National Democratic Congress), has maintained this strong focus on agriculture. Mahama, formerly Minister of Communications, has taken a special interest in the potential of technology to increase agricultural productivity and in encouraging more young people to enter commercial farming.[24]

These leaders, along with their colleagues in government, have instituted a series of reforms and strategic public investments that have spurred agricultural development and have improved livelihoods for citizens.

Gradual market liberalisation of the agricultural sector and targeted public investment have increased production and distributed the benefits of growth.

Unlike many other African countries, Ghana has implemented liberalising reforms gradually, carefully maintaining distinct roles for the public and private sectors. Up until the 1990s, the state retained a monopoly on input distribution, procurement and marketing in the cocoa sector. In 1992, the government began to allow private licensed buying companies to compete with the state marketing board, a change that helped curb corruption and boost production.[25] However, the government retains a strong presence in the cocoa sector. The parastatal Ghana Cocoa Board (Cocobod) sets a minimum price that must be paid to farmers and also ensures high quality across the sector, tests and approves agrochemicals, and invests surplus into public goods such as R&D and extension.[26] For example, in 2001, Cocobod initiated a mass free spraying programme to protect crops against pests and diseases; 93% of participating farmers said that this had improved yields.[27] This initiative continues under the current government, with the 2012/13 budget earmarking GH¢44.9 million for the programme.[28] Cocobod also carries out community development work, including constructing health facilities, distributing anti-malarial bed-nets and providing solar-powered street lights.[29] The government also offers protection to farmers of staple crops through the National Food Buffer Stock Company (NAFCO), which guarantees a minimum price and a ready market through a stabilising buffer stock mechanism and the purchase of crops like maize, rice and soya for use by state institutions such as the military, schools and hospitals.[30]

The government has increased its focus on creating agro-processing industries and promoting private sector investment.

Ghana's first Food and Agriculture Sector Development Policy (FASDEP I) was launched in 2002 and aimed to forge linkages in the value chain. FASDEP II, the revised sector policy developed in 2007, gives greater attention to increasing productivity along the value chain, achieving high quality levels in crops suitable for international markets and supporting commercialisation and market access, including through increased private sector engagement.[31] Under President Kufuor, the government began to invest in national cocoa processing facilities; previously, the country had exported almost the entire crop for processing in foreign plants.[32] The government's initial target was a 40% level of domestic processing, which it achieved by 2012 (although this is still lower than other major cocoa exporters such as Côte d'Ivoire).[33] President Mills' government carried these policies forward and, among other measures, commissioned a $40 million, wholly Ghanaian-owned cocoa processing company to compete with multinational firms.[34] More broadly, Ghana's "free zones" (export processing zones) scheme promotes opportunities for companies involved in processing commodities such as cocoa, cashews, tropical fruits and vegetables.[35] A good example of a recent initiative to develop public-private partnerships is the Ghana Commercial Agriculture Project (2012–17), supported by USAID and the World Bank, which has a special focus on linking smallholders to commercial business through contract farming and outgrower schemes.[36] So far, it has identified a number of investment opportunities, including seed and cassava processing.[37]

R&D has been a key priority for public investment.

Included in the Maputo Agreement was a commitment to spend 1% of the value of agricultural GDP on agricultural R&D each year. While Ghana has not met this target, it has spent a relatively high proportion of 0.7% each year on average since 2003.[38] Cumulatively, this amounted to just under $400 million between 2003 and 2008 (in 2005 $ PPP).[39] Under the Cocoa Rehabilitation Project, which lasted from the mid-1980s to the mid-1990s within the overall Economic Reform Programme instigated by President Rawlings, the state paid farmers to replace diseased trees with new higher-yielding varieties developed by the state-funded Cocoa Research Institute, resulting in a near doubling of productivity.[40] In partnership with donors, Ghana was also one of the first countries to prioritise investing in new disease-resistant varieties of cassava back in the 1970s and 1980s. Cassava, a formerly "unfashionable" crop that is nevertheless important in the diet of the poor, had come under severe threat from the mosaic virus and from mealybug infestation.[41] Through these interventions, the production of cassava and associated products (such as gari) boomed, prices dropped – helping to achieve food security for millions of people – and cassava became an important cash crop, providing additional income for rural households.[42]

Ghana's agriculture and the wider economy have benefited considerably from public investment in infrastructure, especially transport.[43]

Ghana has positioned itself as the "gateway to West Africa" and its transport network is rated well above the sub-Saharan African average.[44] Five air cargo lines serve Accra's international airport, providing affordable freight services and relatively quick flights to Europe.[45] Recent years have also seen a rapid increase in cargo through the

country's two main commercial sea ports, at Tema and Takoradi, especially transhipment to landlocked neighbours Burkina Faso, Mali and Niger.[46] The rural economy has also benefited from strong public investment in feeder roads. The Department of Feeder Roads, established in 1981, aims to ensure that at least 80% of rural communities can access a safe, all-weather feeder road within a 2km radius and at minimum cost.[47] Cocobod has a special fund dedicated to maintaining and upgrading roads in cocoa-growing areas. Ghana's total public expenditure on feeder roads increased more than five-fold between 2002 and 2007, and a relatively high proportion of feeder roads (68%) are in good or fair condition.[48] As in other countries, investment in roads has accelerated rural development: it is estimated that Ghana's public expenditure on feeder roads has seen a return of 8.8 times in terms of agricultural productivity.[49]

INFORMATION AND COMMUNICATIONS TECHNOLOGY (ICT) IN AGRICULTURE

Boosting extension services using ICT holds the potential to transform smallholder agriculture, and Ghana is at the forefront of this revolution. The government has been quick to seize on the potential of using ICT for agricultural development. Its 2003 Ghana ICT for Accelerated Development (ICT4AD) Policy sets out detailed plans for the strategic adoption of ICT for the modernisation of agriculture and the promotion of agro-business.[50] The country is also positioning itself as a regional hub for human resources in ICT, with public-private initiatives such as the Kofi Annan ICT Centre of Excellence providing training, research and networking services for the whole of West Africa.[51] The explosive growth of mobile phones in particular – which are affordable, practical and increasingly ubiquitous in even poor, remote areas of Africa – has the potential to unlock a new future for farmers. An extraordinary array of mobile solutions has been developed to address common challenges facing farmers, including barriers to education and training, poor access to financial and insurance services and lack of real-time information on markets, weather and agronomy.

For example, CocoaLink – a public-private partnership between the Ghana Cocoa Board, Hershey and the World Cocoa Foundation – is an outreach programme which allows farmers to send agricultural queries (in the form of photos or text) direct to experts via SMS and to receive free, practical and timely information and advice in return. The Cocoa Research Institute also supports the programme by providing agricultural and social content.[52] The mobile platform is complemented by weekly visits by field officers to train farmers on mobile phone usage, agronomy and social issues and to collect useful data via a CocoaLink registration application pre-loaded onto smartphones. Over 4,000 cocoa farmers in 15 villages have registered with the service, and the programme is aiming to reach 100,000 farmers by the end of 2014. Almost 40% of registered farmers have attended community education sessions. The project recently finished its pilot phase (2011–13) and, while it is difficult to fully assess impact so early on, project partners estimate that the yields of CocoaLink-trained farmers are 15–40% higher than those of non-trained farmers.[53]

LASTING IMPACT

Government reforms and investments have led to real rises in production and in farmers' incomes. Analysis suggests that Ghana's public spending on agriculture has had an exceptionally high return (16.8 times) in terms of agricultural output per capita.[54] The proportion of the rural population living below the rural poverty line fell by 38% between 1992 and 2006.[55] Analysis by the International Food Policy Research Institute (IFPRI) (taking into account sources of income for both poor and non-poor rural households) shows how increased income from the agriculture sector, especially crop production, has largely driven Ghana's rapid reduction in rural poverty.[56] Growth in the government's focus area of cocoa has been more pro-poor than growth in other sectors; poverty among cocoa-producing households plummeted from 60% in 1991/92 to 24% in 2005.[57] Furthermore, the budding domestic agro-processing industry encouraged by the government has huge potential to open up higher-value jobs for Ghanaians.

However, gains have not been even, and Ghana's growth strategy of focusing on key commodities in particular geographic areas has exacerbated regional disparities. Exports have generated much of the growth, and key sectors such as cocoa have received the lion's share of government support. While this support for cash crops has not undermined national food security (the production of staples has also expanded due to increased areas of land under cultivation, and hunger has been cut by 88%), it has reinforced a north/south divide that has remained entrenched since colonial rule. Conditions in the north of Ghana – dry savannah far from the coast and the capital Accra – are unsuitable for growing cocoa or many other types of export crop. Most of this region's agriculture is subsistence farming,[58] and Ghana's remaining areas of poverty are most concentrated among staple crop farmers, particularly in the north.[59] Despite various government and donor projects, there has been (until recently) no concerted government strategy to balance regional development.[60] However, the government's recent Ghana Shared Growth and Development Agenda (2010–13) paid special attention to the northern savannah region and has established a Savannah Accelerated Development Authority (SADA) to cultivate growth corridors, attract investment and foster the development of a "Forested North" with flourishing, commercialised agriculture by 2030.[61]

POLICY LESSONS

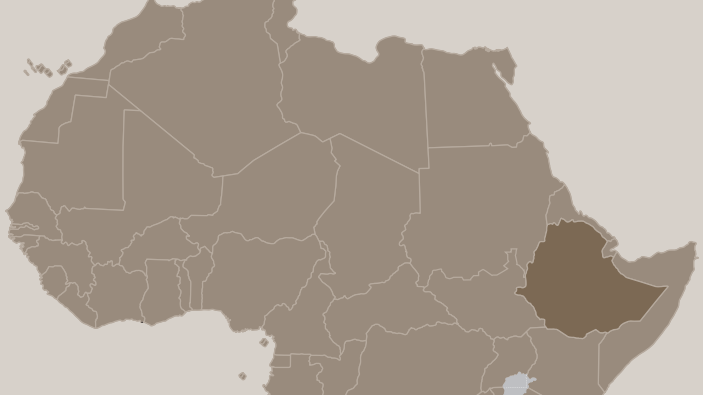
1) **Prioritise agriculture as an engine of growth for the entire economy and implement strategies consistently across successive governments.** Strong individual leaders – including Presidents Rawlings, Kufuor and Mills – took personal responsibility for revitalising Ghana's agriculture and ensuring food security as a national priority, sowing the seeds of success over many decades. Consequently, the country has maintained a trend towards high levels of public investment, meeting the AU Maputo 10% commitment in recent years, and likely to have been already meeting these spending levels (or coming close to them) long before 2003.[62]

2) **Implement liberalisation of input and output markets gradually to manage market failures and reduce the costs and risks faced by farmers and private investors.** Ghana has continued to liberalise agriculture, promote competition and encourage increased private sector investment, but it has also understood where to intervene to address market failures and protect farmers' livelihoods, reinvesting surplus into public goods such as R&D, extension services and community development.[63]

3) **Invest public money into public goods such as R&D, product standards and transport infrastructure, to boost both the quantity and quality of production.** For example, state-sponsored R&D has helped to enhance Ghana's reputation for superior-quality cocoa and to enable small farmers to compete even in high-quality, international markets.[64] Expenditure on feeder roads has seen very high returns, and investment in ports and aviation has helped position the country as a gateway to West Africa.

4) **Ensure inclusive agricultural growth that benefits all citizens.** Ghana's north/south divide is a case in point, as the government's strong support to the valuable export sector (especially cocoa) in the south of the country – without any complementary strategy for the north – has exacerbated regional inequalities.

ETHIOPIA



KEY STATISTICS

GOVERNMENT EXPENDITURE ON AGRICULTURE
(as share of total government expenditure)[1]

Average since Maputo (2003–10)

15.2%

2008	2009	2010
18.9%	17.5%	21.2%

AGRICULTURAL GDP GROWTH[2]

Average since Maputo (2003–12)

6.9%

2008	2009	2010	2011	2012
7.5%	6.4%	5.1%	5.2%	4.9%

AGRICULTURAL GDP
(as share of total GDP)[3]

In 2012

48.8%

2008	2009	2010	2011	2012
49.4%	49.6%	45.6%	45.6%	48.8%

LABOUR FORCE EMPLOYED IN AGRICULTURE
(as share of total labour force)[4]

In 2013

75.7%

1998	2013
83.1%	75.7%

MDG1a: EXTREME POVERTY
(percentage of population living on less than $1.25 a day)[5]

Change since 1995

-49%

1995	2011
60.5%	30.7%

MDG1c: PREVALENCE OF UNDERNOURISHMENT
(percentage of population)[6]

Change since 1991

-41%

1991	2011
68.0%	40.2%

INTRODUCTION

Perhaps no country illustrates the opportunities that agricultural investment can unlock better than Ethiopia. Three decades after experiencing a devastating famine that captured the world's attention, the country has boosted cereal production and has emerged as a leader in agricultural innovation, with an agriculture growth rate of almost 7% on average since 2003. Agriculture currently accounts for almost half of its GDP and employs over 75% of the population, demonstrating how critical the sector is to the strength of its economy. The country's main food crops include five cereals – teff, wheat, maize, sorghum and barley – and its major export crop is coffee.

Demonstrating steadfast commitment to agriculture, Ethiopia has consistently met the Maputo target of spending at least 10% of its total budget on agriculture, with average spending of 15.2% since 2003.[7] In September 2008 CAADP was officially launched, and Ethiopia signed its CAADP compact one year later, on 28 September 2009. A year after that, the Ethiopian government finalised its investment plan and held a business meeting, the final stage of the CAADP process.[8] Sustained investments have enabled Ethiopia to significantly expand extension services to smallholder farmers and to achieve the MDG target of halving extreme poverty: it reduced the rate from 61% of the population in 1995 to 31% in 2011. Furthermore, Ethiopia has reduced the prevalence of undernourishment from 68% to 40% of the population over the past two decades.

Ethiopia's pathway to agricultural success, underpinned by specific public investments and policy interventions, offers an important paradigm for policy-makers to consider as they look to strengthen their own agriculture sectors, in terms of reducing poverty and catalysing agriculture-led economic growth.

ACCOUNTING FOR SUCCESS

Agriculture moved to the forefront of Ethiopia's economic growth strategy in the early 1990s. In contrast with other countries and regions, no single crop dominates the landscape here, owing to its geographic diversity. Following the end of the Derg regime and the overthrow of Mengistu in 1991, the transitional government set out a national economic strategy known as Agricultural Development Led Industrialisation (ADLI). ADLI set in motion a series of reforms aimed at generating a more supportive macroeconomic framework, liberalising markets for agricultural products and intensifying the production of food staples through the use of modern inputs, especially seed and fertiliser packages.[9] Notably under this strategy, the Participatory Demonstration and Training Extension System (PADETES) promoted seed/fertiliser/credit packages through a training and farmer visit approach. The National Agricultural Extension Intervention Programme (NAEIP) subsequently scaled up this approach, beginning in 1995. The significant expansion of Ethiopia's extension services empowered millions of smallholder farmers with information about modern inputs, enabling them to boost cereal output. Meanwhile, other interventions and innovations, such as the pioneering Ethiopian Commodity Exchange, improved the efficiency and transparency of markets for commodities such as coffee, sesame, beans and maize. Following a series of reforms and investments (outlined below), incomes have risen, poverty rates have fallen and broad-based economic growth is now possible.

The government has expanded extension services and training, which has increased fertiliser usage and thus production.

The NAEIP has dramatically expanded the size and reach of Ethiopia's extension services. Between 2003 and 2008, the number of public extension staff tripled from 15,000 to 47,500.[10] Farmer Training Centres were also established, each of which houses technical experts and offers demand-driven extension advice. Owing to these efforts, approximately nine million farmers had benefited from extension services by 2008. The public sector has largely funded these services, at a cost of $50 million annually or 2% of agricultural GDP, a figure that has outpaced most other developing countries.[11] Extension services provide farmers with information about using modern inputs, such as fertiliser, thereby improving yields and incomes.

The improvement of rural road networks has increased access to markets.

Beginning in 1991, a new Ethiopian government targeted public investment towards developing a robust road network, particularly in rural areas. At the time, the country

had roughly 4,100km of asphalt roads, 9,300km of gravel roads and 5,600km of rural roads. By 2000, the length of rural roads had nearly tripled to 15,500km, while those of gravel and asphalt roads had increased by 36.6% and 8% respectively. This expansion continued at a rapid rate, and by 2008 Ethiopia had approximately 24,000km of rural roads, four times the length that had existed in 1992.[12] Between 1997 (when the first Road Sector Development Programme was instituted) and 2009, a total of $5 billion was spent on road development, around half of which was funded by the government and half by donors.[13] The expansion of the road network paid important dividends for the agriculture sector, making it easier for households to access local market towns, which were in turn linked to urban centres. This made farm inputs cheaper and more accessible. Studies have shown that improvements in road quality have increased the likelihood of farmers purchasing crop inputs by as much as 34%.[14]

The government has established two innovative organisations to ensure that efficient distribution has complemented improvements in productivity.

Between 2001 and 2003, Ethiopia experienced successive catastrophes that proved, however, to be a pivotal point in its longstanding agricultural strategy. First, in 2001 maize prices collapsed due to a surplus of production, and the following year a drought further reduced yields. These events made it clear that boosting productivity alone, without accompanying improvements in markets and distribution, could prove counterproductive. This led to the adoption of two policy innovations: (1) the Ethiopian Commodity Exchange and (2) the Agricultural Transformation Agency.

1) **With the aim of "revolutionis[ing] the country's backward and inefficient marketing system", Prime Minister Meles Zenawi launched the Ethiopian Commodity Exchange (ECX) in spring 2008.** Typically, agricultural markets in Ethiopia were characterised by high transaction costs and excessive risk. Buyers and sellers tended to interact only with people they knew, and smallholder farmers had limited information about prices and markets. The ECX, by contrast, provides a marketplace where buyers and sellers can trade and be assured of quality, delivery and payment.[15] In 2012, trading volumes hit $1.4 billion, up from $1 billion in 2011.[16] The ECX has dramatically reduced inefficiencies in the market supply chain and has benefited smallholder farmers producing coffee and sesame seed. For example, after the ECX was established, coffee farmers received more than 65% of the commodity's final price on the market, up from 38% previously, as price transparency improved.[17] Of the exchange's members, 12% are farmers' cooperatives that represent 2.4 million smallholder farmers, a large share given the newness of the institution.[18] However, while most of the country's coffee exports flow through the ECX, the exchange has not led to the desired development of the cereal market, which means that farmers producing staple crops are not receiving the same benefits as coffee and sesame farmers.[19] Rwanda has already followed in Ethiopia's footsteps and has launched its own East Africa Exchange.[20] Representatives of many other countries, including Nigeria, Tanzania and Ghana, have visited the ECX, with an interest in establishing similar exchanges of their own.[21]

2) **In 2011, the government created the Agricultural Transformation Agency (ATA) in order to remove remaining bottlenecks across the country's agricultural value chains.** The ATA model was based on similar units established in Malaysia, South Korea and Taiwan during the 1950s and 1960s. The nascent organisation enjoys strong political commitment (the Prime Minister chairs the governing Transformation Council), robust financial support from the government and from donors, and well coordinated development projects. ATA undertakes applied policy analysis, with its structure effectively bridging the research and implementation realms. Partner research organisations conduct technical analyses of the problems plaguing the agriculture sector. ATA programme directors combine this with practical knowledge derived from field studies and interviews and enact policies accordingly. ATA focuses on issues with widespread implications for Ethiopian agriculture, including declining soil health.[22]

LASTING IMPACT

With these policies in place and investments under way, Ethiopia has experienced dramatic gains in agricultural productivity, income growth, poverty reduction and food security. Cereal production has risen since the early 1990s, due to an expansion of the area under cultivation and growth in yields (although experts question the accuracy of production statistics).[23] During the 1990s, the area dedicated to cereal production grew at an average rate of 5.8% per year. Between 2000 and 2008, cereal production also grew at a rapid pace (7% per year), with growth in yields accounting for more than half of these gains. In the three years from 2004 to 2007, cereal production grew by nearly 12%.[24] The example of Ethiopia also underscores the importance of complementary infrastructure improvements: domestic investment in rural road networks has seen high returns (up to four times) in terms of increased agricultural output per capita.[25]

Policy interventions and infrastructure investments have dramatically improved incomes and slashed poverty rates. A study of 15 Ethiopian villages found that, between 1994 and 2004, receiving at least one extension visit reduced headcount poverty by 9.8 percentage points and increased consumption growth by 7.1%.[26] Similarly, access to all-weather roads reduced headcount poverty by 6.9 percentage points and increased consumption growth by 16.3%.[27] Overall, extreme poverty was

ETHIOPIA'S CLIMATE-RESILIENT GREEN ECONOMY STRATEGY

Throughout Ethiopia's history, droughts have threatened the country's agricultural production and have even occasionally plunged it into famine. Eager to safeguard current and future economic growth, the then Prime Minister Meles Zenawi spearheaded the Climate-Resilient Green Economy (CRGE) strategy, which was finalised in 2011. The strategy, which aims to curb greenhouse gas emissions and enable the country to better cope with the impacts of climate change, enjoys widespread domestic political support. It also makes Ethiopia a leader, both within Africa and across the world, in proactively addressing climate change.

The agriculture sector is at the core of the CRGE strategy. Under a "business as usual" approach, if the country took no action, the sector would account for roughly 45% of its overall greenhouse gas emissions. In at least six regions, Ethiopia would also remain vulnerable to flooding, droughts and diseases stemming from climate change.[28] The CRGE will improve crop and livestock production practices to increase food yields, boost farmer incomes and achieve food security, while reducing emissions.[29] Together, the agriculture and forestry sectors account for 80% of the total potential reductions in emissions identified.[30]

The government has put in place strong institutional arrangements to realise the strategy's bold vision. The CRGE Ministerial Steering Committee (an initiative under the Prime Minister's Office), the Environmental Protection Authority and the Ministry of Finance and Economic Development oversee and coordinate the strategy, while CRGE units have been integrated into key line ministries to facilitate implementation.

The government has also established a funding mechanism to mobilise and disburse climate finance, known as the CRGE Facility. The Environmental Council and CRGE Ministerial Steering Committee guide this climate finance facility. The Ministry of Finance and Economic Development is responsible for its overall management, and the Environmental Protection Authority handles technical coordination.[31]

nearly halved while the ADLI policy was in place. Not all gains, however, can necessarily be attributed to the strategy.

Since the mid-1990s, on average, Ethiopian households have consumed more food while devoting a smaller share of their budgets to its purchase. Expenditures on food consumption declined from 60% of household budgets in 1995–96 to 56% in 2004–05 while per capita income rose by 16% over the same period, a trend that signals an improvement in food security.[32] However, despite the gains made in the sector, the scourge of poor nutrition still plagues the country, with 44% of children aged under five still inadequately nourished and continuing to suffer from stunting as a result. This figure is higher than in neighbouring Kenya (35%) and Uganda (34%).[33]

POLICY LESSONS

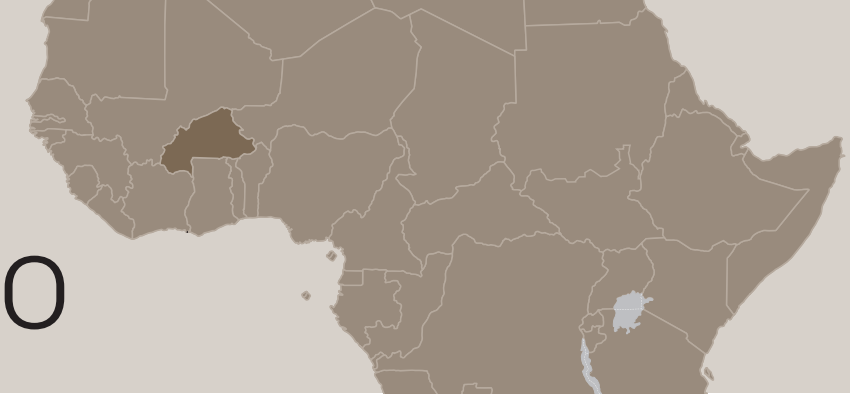
In recent decades, the Government of Ethiopia has not wavered in its commitment to invest in the agriculture sector and thus catalyse wider economic growth. This emphasis makes both economic and pragmatic sense, given the centrality of agriculture to the economy and the large proportion of the population who live in rural areas (83% in 2012).[34] A number of lessons emerge from an assessment of the successes and the shortcomings of Ethiopia's agricultural experience.

1) **Bundle fertiliser, seeds and extension services to boost farmer productivity.** Research in Ethiopia has shown that using "bundles" of improved seeds,[35] fertiliser and better farming practices has doubled maize yields on farmer demonstration plots.[36] Yet in practice only extension services and fertiliser have been made readily available to smallholder farmers. While fertilisers are used on nearly 40% of land cultivated with cereals, improved seeds are used on less than 5%.[37] Fertiliser use alone, without accompanying use of improved seeds or knowledge and training, has limited results for many of the crops that Ethiopian farmers cultivate, including teff. Moreover, most extension agents in the country offer a standard prescription for fertiliser (diammonium phosphate (DAP) and urea) regardless of soil or crop type. This leads to overuse of land and exacerbates soil degradation. For this reason, in order to maximise yields and thus farmers' incomes, fertiliser should be bundled along with extension services and improved seeds.[38] Extension agents should also tailor fertiliser recommendations based on soil quality.

2) **Focus on building efficient markets alongside increasing production.** During the 1990s, Ethiopia focused largely on bolstering agricultural productivity, but this approach has its limitations. In 2000 and 2001, the country experienced consecutive bumper harvests. Within a year, prices had collapsed, farmers could not sell their grain and the country later had to appeal for emergency food aid for 14 million people at risk of starvation.[39] Increased production has to be aligned with the structural creation of markets that ensure efficient distribution.

3) **Expand rural road networks.** Complementary investments in infrastructure, particularly rural trunk and feeder roads, play an important role in boosting agricultural growth, as the example of Ethiopia shows. Improved roads reduce transportation costs as well as develop and integrate markets, which enables downstream actors in the value chain to benefit from such investments. Farms are better linked to traders, processors and marketers. Furthermore, farmers can consequently purchase farm inputs more cheaply and more easily, and food prices decline for all consumers.

4) **Collect and validate agricultural production data.** The statistics on Ethiopia's agricultural performance appear impressive. Between 2004 and 2009, cereal yields grew by 6% a year, a pace that outstrips even India, China and Vietnam during their agricultural revolutions.[40] Yet researchers have had difficulty in verifying these figures and clearly accounting for the source of this growth – whether it be greater fertiliser use, expansion of extension services, an increase in the area under cultivation or other factors. An assessment of the validity of agricultural production data and evaluation of programmes, such as the system of extension services, would therefore have huge implications for policy formulation.[41]



BURKINA FASO

KEY STATISTICS

GOVERNMENT EXPENDITURE ON AGRICULTURE
(as share of total government expenditure)[1]

Average since Maputo (2003–10)

16.9%

2008	2009	2010
13.8%	8.7%	10.8%

AGRICULTURAL GDP GROWTH[2]

Average since Maputo (2003–11)

3.4%

2008	2009	2010	2011
19.8%	-9.3%	10.7%	-4.8%

AGRICULTURAL GDP
(as share of total GDP)[3]

In 2011

33.8%

2008	2009	2010	2011
40.2%	35.6%	35.4%	33.8%

LABOUR FORCE EMPLOYED IN AGRICULTURE
(as share of total labour force)[4]

In 2013

92.0%

1998	2013
92.3%	92.0%

MDG1a: EXTREME POVERTY
(percentage of population living on less than $1.25 a day)[5]

Change since 1994

-37%

1994	2009
71.2%	44.6%

MDG1c: PREVALENCE OF UNDERNOURISHMENT
(percentage of population)[6]

Change since 1991

+13%

1991	2011
22.9%	25.9%

INTRODUCTION

Burkina Faso – a poor, landlocked country of nearly 18 million people – has made remarkable progress in poverty reduction and food security, thanks in large part to agricultural investments and reforms. Between 1994 and 2009, extreme poverty decreased by nearly 40%; however, the percentage of the population that is undernourished has remained stubbornly constant. Agriculture accounts for a third of GDP and 92% of employment, making the sector an integral component of economic growth and opportunity. The country's main export crops include cotton, cashew nuts and sesame, while its primary food crops are sorghum, maize and millet.[7]

It is estimated that the cotton sector provides incomes for 1.5–2 million Burkinabé,[8] most of whom are small-scale producers.[9] Just two decades ago, Burkina Faso's cotton sector was faltering; consistent underperformance and market inefficiencies prompted the government to initiate a consultative reform process. Since then, cotton production has tripled, hundreds of thousands of jobs have been created, incomes have risen sharply and food security has improved. Government investment in the sector over the period 2003–10 averaged almost 17% of total expenditure, much higher than some of the country's wealthier neighbours, and exceeded the Maputo commitment of 10%. Much of this spending has been directed at supporting the cotton sector. The reforms and investments have been the main driver of a decade of growth and poverty reduction in rural communities, providing evidence that mechanisms to improve African agriculture are available.

ACCOUNTING FOR SUCCESS

Burkina Faso's current president, Blaise Compaoré, and his party, le Congrès pour la Démocratie et le Progrès (CDP), came to power in 1987 through a coup d'état that overthrew the then president, Thomas Sankara.[10] Compaoré sought to reverse Sankara's revolutionary, quasi-Marxist policies and to attract financing and structural adjustment loans from the World Bank and the IMF.[11] This desire made his administration open to policy reform, and between 1987 and 1991 it was considered by the World Bank to have made a "large improvement" in its macroeconomic policies.[12]

Burkina Faso's incremental approach to reform of its cotton sector, though not as aggressive as market reforms elsewhere, led to an important set of changes in the production and marketing of the commodity. Its cotton sector, like those of many other West African countries, was designed as a commodity chain model with a single parastatal company, Société Burkinabé des Fibres Textiles (SOFITEX), purchasing all the cotton lint from small producers in exchange for providing inputs, credit and extension services. Over time, however, the centralised system began to crumble (SOFITEX was rife with mismanagement and corruption) and, as prices paid to producers declined, farmers' groups accumulated large amounts of debt and credit to smallholders was tightened.[13] External forces made matters worse, including volatile international cotton prices, issues with quality and disagreements over grading and classification. In the early 1990s, production fell by 40% and calls for reform were made by the Burkinabé government, the French development agency Agence Française de Développement (AFD) and the World Bank.[14] The resulting reforms allowed an incremental approach to economic liberalisation of the sector, which helped to ensure prosperity while increasing growth. Key policy reforms included the following.

The government oversaw gradual privatisation of key agriculture services.

To address public mismanagement and inefficient delivery of services – and unlike other African countries that implemented wholesale privatisation of key agriculture services – the government allowed gradual privatisation of the inputs, transport and marketing sectors.[15] President Compaoré's administration and SOFITEX, with support from AFD, adopted a hybrid, consensus-building solution that gradually privatised the cotton sector by allowing new firms to provide services where the government had no comparative advantage and allowed new buyers to enter the market through demarcated zones.[16]

The success of this approach hinged on satisfying each stakeholder as far as possible and aligning incentives. The government retained strong state control over the sector and Compaoré was able to avoid a rapid privatisation process.[17] For its part, the World Bank was satisfied with the increased levels of privatisation and assumed gains in efficiency. While SOFITEX retained sole authority on providing input credits, other private companies were permitted to provide inputs and transport services at lower cost to farmers. Two new cotton companies were given exclusive rights to purchase and sell cotton from small producers in pre-defined regions.[18] Lowering barriers to entry for new market players encouraged an increase in Burkina Faso's processing and ginning capacity – a move that pleased both producer organisations and the World Bank.

New institutions were established to better coordinate the value chain.

To improve market coordination among the various actors in the cotton value chain, a new inter-professional association, "Accord Inter-professionnel", was created to increase cooperation between farmers, banks, research institutions and government.[19] Additionally, a price-setting mechanism combined with a smoothing fund was established to address price volatility.

The government permitted cotton farmers to form grassroots groups and supported the establishment of a national farmers' union.

This increased incentives for cotton production and improved repayment rates for inputs provided. Traditionally, farmers had been organised into mandatory groups to make it easier for the state to provide inputs.[20] This previous model forced cotton farmers to be organised along with non-cotton farmers, with the state deducting the cost of inputs from total cotton sales. This essentially taxed cotton production over other crops, thus disincentivising farmers to produce cotton. Additionally, the lack of cohesion of these groups ultimately led to poor repayment rates for the inputs received. The Burkinabé government addressed both of these issues by organising cotton farmers together and allowing them to select their own groups, which tended to exclude less productive farmers; these new groups were termed Groupements de Producteurs de Coton (GPCs). As a result, repayment rates of credit for inputs increased dramatically, from 50–60% to over 90%. The increase in repayment rates was also in no small part associated with relatively high farm-gate prices paid to farmers. During the period of reform, farm-gate prices in Burkina Faso were consistently higher than international prices.[21] In addition, a national farmers' union was formed and took a 30% equity stake in SOFITEX.[22] Thousands of farmers joined GPCs and eventually formed an umbrella organisation, Union Nationale des Producteurs de Coton du Burkina (UNPCB), which represented farmers on policy issues.

LASTING IMPACT

In the decade that followed (1996–2006), these reforms led to dramatic growth in cotton production. Burkina Faso tripled its production, while neighbours such as Mali and Benin made little or no progress. In 2006, Burkina Faso was Africa's leading cotton producer and in 2007 it was the continent's largest cotton exporter.[23] In a counterfactual analysis, researchers estimated that two-thirds of production growth could be linked to policy reforms.

While sector-wide growth is important, broad-based growth is necessary to see real improvements for rural households. Studies show that the number of households growing cotton doubled in the period after the reforms were introduced and that cotton-related activities created 235,000 jobs, directly and indirectly benefiting 1.8 million people.[24] Growth in labour demand absorbed returning migrants from Côte d'Ivoire (thus preventing potential unrest) and the reforms enabled migrants to create their own GPCs and join regional unions.[25] Between 1995 and 2003, it was estimated that farmers' incomes rose by between 19% and 43% and national poverty rates fell from 62% to 47% (although not all poverty reduction gains could be attributed to the reforms).

In some cases, food production can compete with cash crops for arable land; however, in the case of Burkina Faso, intercropping strategies involving cotton and other food crops actually increased food production during the reform period. The land area under cotton production grew significantly, but 10–20% of that land was intercropped with cereals, resulting in a 15% increase in land area under cereal production between 1994 and 2007. Average growth rates in maize production increased by 10% during the cotton reform period and sorghum production also increased significantly.[26]

The absence of adverse effects on food production was due partly to the autonomous nature of the GPCs and the guaranteed availability of credit for cereal inputs. Studies found that 40–45% of farmers were food-secure before the reforms and that this percentage grew to 70% after the reforms. With incentives to increase cotton production, better prices paid to farmers and gains in efficiency from privatisation, researchers have estimated that Burkina Faso's reforms have resulted in a 5% increase in national food security.

POLICY LESSONS

Most of Burkina Faso's population work in some way within agriculture, and the sector is critical for the country's development. Political commitment to agricultural investment has been demonstrated through examples such as the cotton sector reforms, public agricultural expenditure and strong sectoral growth. Burkina Faso's experience provides the following lessons for policy-makers.

1) **Pursue an incremental and consultative approach to market reforms.** The Burkinabé government, with pressure from the World Bank, had to devise a creative and consensus-driven solution to implement reforms. Neither party had full control over the reform agenda. By the time that negotiations began, farmers' groups were politically organised and were able to amplify their policy priorities (e.g. changing the way they were organised), making it crucial to consider all stakeholder interests in order to increase the likelihood of sustainable reform.

2) **Support effective self-organisation among farmers.** In giving farmers more autonomy in the way they organised themselves and creating a credible farmers' union, the Compaoré administration enabled the cotton sector to reverse an unwelcome trend of declining production. Farmers react positively to production incentives, and governments that foster friendly production environments will be rewarded.

3) **Foster an enabling environment for increased investment and better market coordination along value chains.** By introducing private input suppliers and transport providers into the market, the government recognised situations where private actors had clear cost advantages over public provision. Partial liberalisation of the cotton sector enabled additional buyers to enter the market and thus increase the available ginning and processing capacity. Additionally, the creation of the professional association Accord Inter-professionel established communication channels to address bottlenecks in the value chain. Commodity value chains depend on the competency of each "link", and thus increasing cooperation and coordination between actors must be emphasised.

4) **Ensure that reforms are dynamic and continue to evolve over time.** The wrinkle in Burkina Faso's successful policy reforms is an apparent reversal of progress in recent years. Cotton farmers claim that research and extension services are being scaled back, access to credit is tightening, payments are delayed and, notably, that the leadership of the national farmers' union has changed only marginally since it was formed. Interviews with farmers reveal that they feel increasingly isolated from national unions.[27] Reform processes are not static, one-off interventions, and must be periodically evaluated to ensure progress.

STAPLE CROPS LIKE CASSAVA AND YAMS, AS WELL AS CASH CROPS LIKE TOMATOES AND PEPPERS, ARE ON SALE AT A STREET MARKET IN KUMASI, GHANA. AS GHANAIAN FARMERS ARE BETTER ABLE TO CULTIVATE STAPLES, THEY CAN ALSO TURN TO CASH CROPS FOR ADDITIONAL INCOME.

PHOTO: BILL & MELINDA GATES FOUNDATION

RENEWING MAPUTO'S PROMISE

Through the Maputo Declaration, AU leaders adopted CAADP as the agricultural programme of the New Partnership for Africa's Development (NEPAD) – a common programme to be implemented by member states to systematically eliminate hunger and reduce poverty through agriculture. As an entirely African-led and African-owned programme, CAADP addresses policy and capacity issues across the whole of the continent's agriculture sector. It prioritises four "pillars" in order to achieve the Maputo commitments: (1) extending the area under sustainable land management; (2) improving rural infrastructure and trade-related capacities for market access; (3) increasing food supply and reducing hunger; and (4) encouraging agricultural research and dissemination and adoption of technology. CAADP is premised on country ownership, with plans leveraging the resources, leadership and input of Africans, to help achieve the 6% growth rate in agriculture and contribute to broader economic growth and development.

TEN YEARS OF PROGRESS?

A decade has passed since African heads of state committed to the Maputo targets, and overall progress has been decidedly mixed. While Burkina Faso, Ethiopia and Ghana demonstrate the power of an agricultural transformation agenda, other countries are lagging behind. Many African economies have been growing at an accelerated rate since 2000 and, although agricultural investments on the whole have increased, they have not kept pace with the growth in total expenditures, so agriculture as a share of total African expenditure has actually decreased since Maputo (although this varies widely between countries and regions).[3]

According to the latest standardised and comparable statistics from IFPRI's Regional Strategic Analysis and Knowledge Support System (ReSAKSS),[4] only eight countries (Burkina Faso, Ethiopia, Guinea, Malawi, Mali, Niger, Senegal and Zimbabwe) have consistently met the 10% target and only three others (Ghana, Madagascar and Zambia) have come close. Further, only seven countries (Angola, Equatorial Guinea, Ethiopia, Mali, Mozambique, Nigeria and Sierra Leone) have achieved average growth rates of at least 6% across the period.

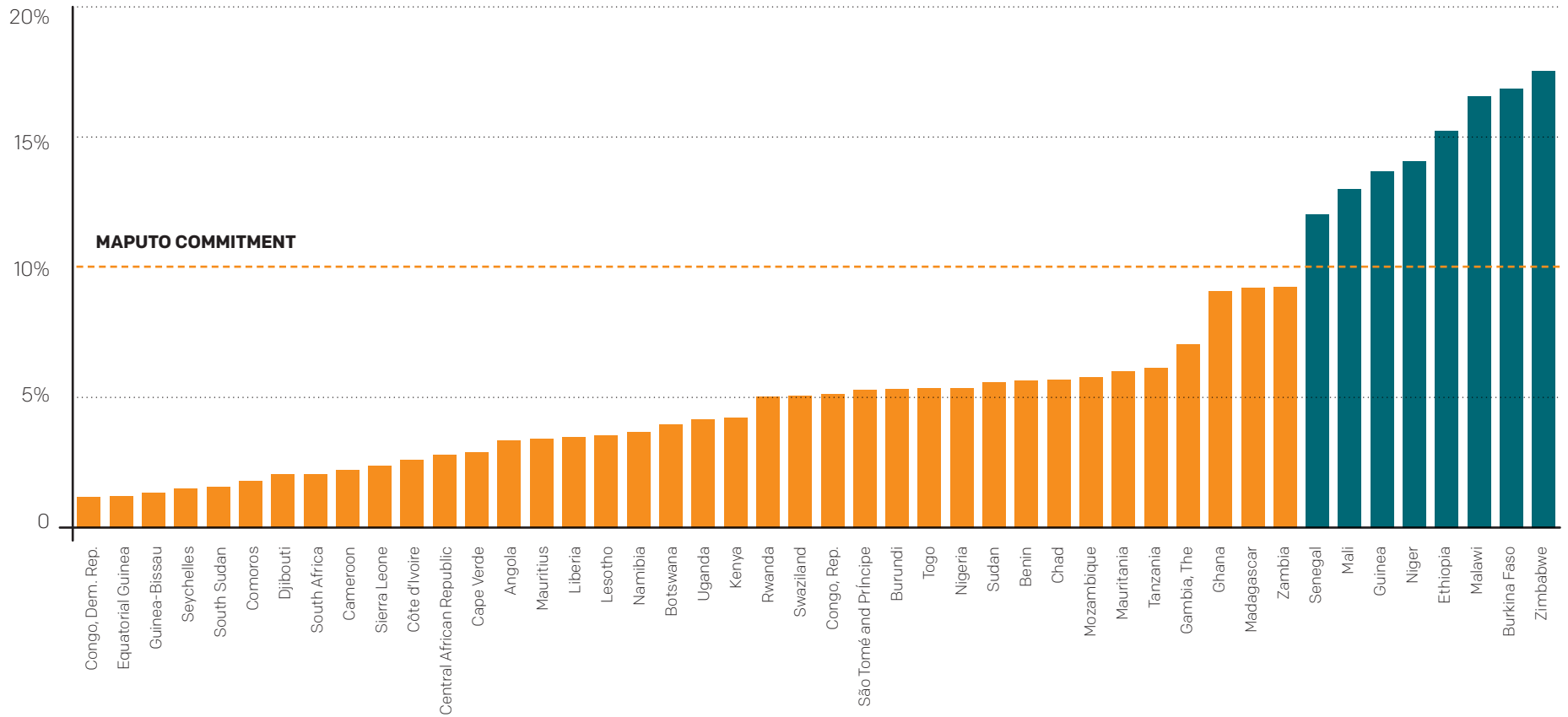
While data is not available for all countries, the aggregate "Maputo deficit" (i.e. the difference between the target and the amount of public resources actually spent on agriculture) for sub-Saharan countries that have not met the 10% figure was roughly $25 billion in 2010 alone (see Table 1 in Appendix 2 for a breakdown). This is an enormous sum that should be devoted to financing costly public goods such as infrastructure, scientific research and irrigation – all of which support agricultural growth and development.

As a supporting entity, CAADP guides countries through a robust process by first developing a country compact, then creating an investment plan reviewed by an independent party, and ultimately convening a business meeting that investors can attend. Encouragingly, 43 countries have begun the CAADP process of developing national agriculture investment plans[5] and, thus far, 38 countries have completed CAADP compacts, which lay the foundation for developing a national agricultural investment plan. Of these countries, at least 28 have completed the process by developing fully costed and vetted investment plans, which provide a road map for the resource allocations required to achieve comprehensive agricultural development.[6] Several countries have used the process to demonstrate political commitment to agriculture and to meet significant financing gaps in plan budgets: Ethiopia, Kenya, Liberia, Malawi, Niger and Rwanda all have at least 60% of their plans financed.[7] In efforts to close financing gaps in their investment plans, Ethiopia and Kenya have used domestic resources to leverage additional resources from development partners – equivalent to about 30% of their CAADP investment plans.[8]

While the primary responsibility for funding plans lies with country governments, external financing, including both private investment and development assistance, plays an important role in filling funding gaps. Donor resources have gained

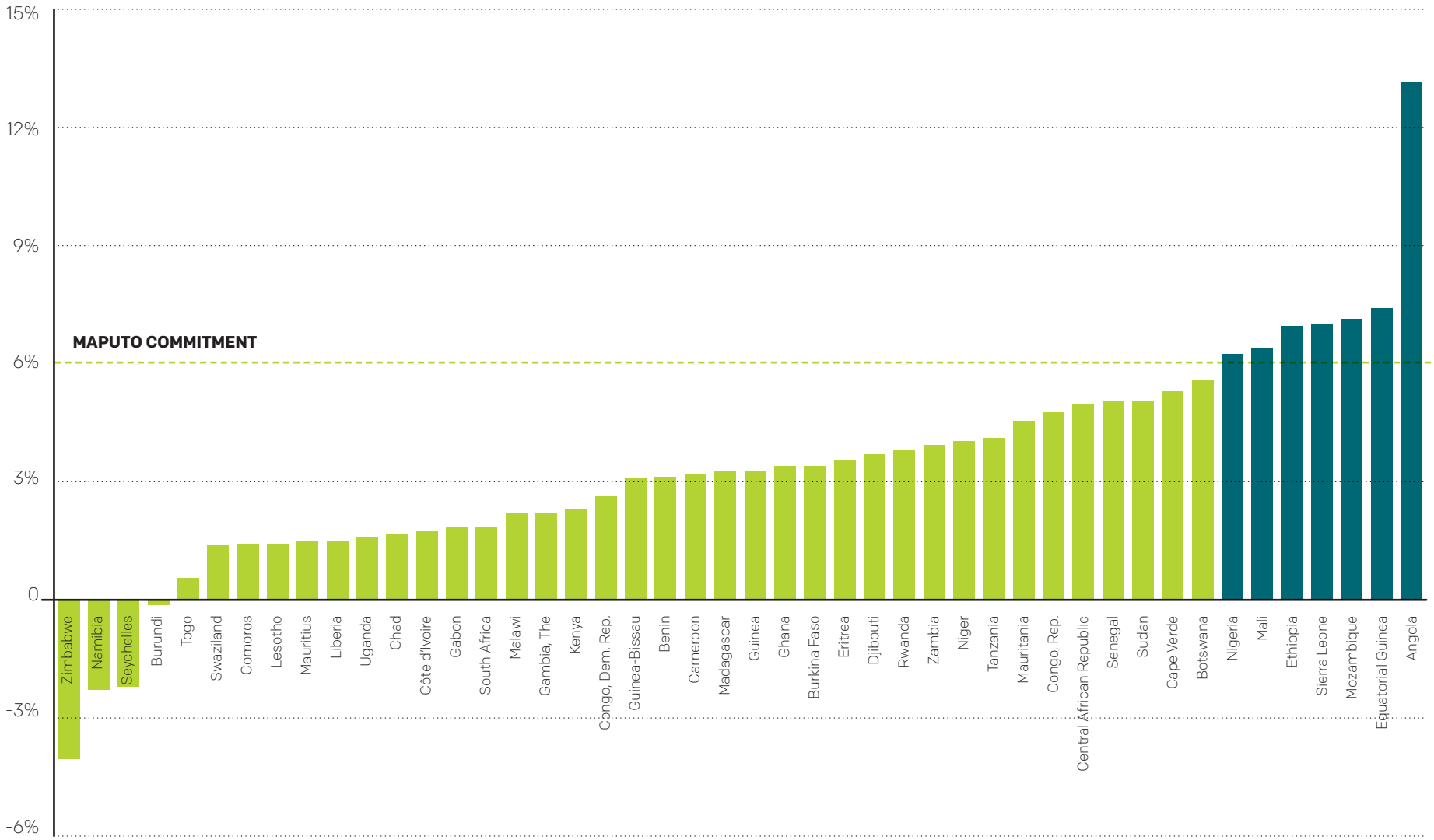
prominence in recent years through commitments made at the L'Aquila G8 meeting, which mobilised over $22 billion – with nearly $7 billion as "new money" – between 2009 and 2012.[9] Based on the L'Aquila framework of helping countries to develop tailored food security strategies and providing resources to fund those plans, the Global Agriculture and Food Security Program (GAFSP) was born. Through GAFSP, donor resources are aggregated into a global vertical fund and awarded to countries with robust agricultural investment plans (e.g. CAADP compacts). See the box on page 32 for more information.

FIGURE 1: Public Agricultural Expenditure for Select African Countries, Average 2003–10[1]



Source: IFPRI/ReSAKSS

FIGURE 2: Average Agricultural Growth for Select African Countries, 2003–12[2]



Sources: IFPRI/ReSAKSS and World Bank (2013)

THE GLOBAL AGRICULTURE AND FOOD SECURITY PROGRAM (GAFSP)

GAFSP was launched in 2010 at the request of G20 donors to establish a multilateral fund to support national agriculture investment plans, much like the plans developed through CAADP. Donors,[10] which include a number of G20 countries, are represented by a Steering Committee that accepts proposals for the public sector window from countries that are eligible for loans from the World Bank's International Development Association (IDA), and that have vetted and costed agriculture investment plans. The Steering Committee then selects recipients for funding based on the country's need, the strength of its proposal and its readiness to implement the plan.

GAFSP's strengths are its close alignment with country priorities and its ability to provide uninterrupted cycles of financing, a challenge that is faced in many traditional donor-recipient relationships. There are no other multilateral funds that directly finance national agricultural investment plans. According to GAFSP, "Unlike many other funds, which have a narrow thematic target, GAFSP can reflect country priorities more effectively and realize impact of higher incomes and reduced hunger." The fund focuses investments in line with five major themes: 1) raising agricultural productivity and resilience; 2) linking farmers to markets; 3) improving non-farm rural livelihoods; 4) reducing risk and vulnerability; and 5) technical assistance, institutional building and capacity development.

To date, over $900 million in public financing has been awarded to 25 countries, of which 15 in sub-Saharan Africa have received a total of $563 million.[11] So far, progress has been impressive. Investments are expected to create $140 million in additional household income each year across the 25 countries. In Rwanda, for example, a $50 million award to the Land Husbandry, Water Harvesting and Hillside Irrigation Project (LWH) has enabled 17,000 farmers to triple their crop yields and double their incomes.

While GAFSP has supported many countries, needs still far outstrip the funds available. There is no official estimate of the total funding gap for CAADP plans, but a significant number of countries have completed investment plans and are now in need of additional financing to fill existing gaps. For its part, GAFSP needs to raise $720 million in order to fully leverage the matching pledge made by the United States in October 2012 – the US will match $1 for every $2 pledged by other donors, up to a total of $475 million. Without new commitments, GAFSP will not have resources available to distribute new awards. The replenishment drive is under way, however, and GAFSP is looking for additional commitments over the course of 2014 in order to recapitalise the fund to $1.4 billion.[12]

FIGURE 3: GAFSP Awards to Sub-Saharan Africa, 2010–13[13]

COUNTRY	AWARD AMOUNT ($ MILLIONS)
Burkina Faso	37.1
Burundi	30.0
Ethiopia	51.5
The Gambia	28.0
Liberia	46.5
Mali	37.2
Malawi	39.6
Niger	33.0
Rwanda	50.0
Senegal	40.0
Sierra Leone	50.0
Tanzania	22.9
Togo	39.0
Uganda	27.6
Zambia	31.1
Total	**563.5**

FIGURE 4: GAFSP Donor Pledges to Public Financing[14]

DONOR	FINANCIAL YEAR	AMOUNT CONTRIBUTED ($ MILLIONS)
Australia	FY10/11/12	98.4
Canada	FY10/13	201.5
Bill & Melinda Gates Foundation	FY10/13	60.0
Ireland	FY10	0.6
Korea	FY11	53.9
Spain	FY11	94.2
United Kingdom	FY13	20.1
United States	FY10/11/12/13	442.2
Total		**972.8**

CHALLENGES AND OPPORTUNITIES

The Maputo Declaration placed agriculture back on the political agenda and created CAADP (the Secretariat and the process) to serve as a mechanism for stakeholders to mobilise around and support. CAADP has wide support as a notably African institution, and is a focal point for engaging domestic and international investors in agriculture. While progress has been made, many lessons have also been learned during the first decade since Maputo, including the need to measure the quality of agricultural spending, standardise what counts as resources for agriculture, recognise other linkages in the value chain and establish an effective accountability framework.

Quality, not just quantity

While targets are important for stimulating investment, a single target for overall agriculture spending across all countries fails to fully account for the quality, composition and effectiveness of spending given the unique situations faced in each country. Different types of expenditure can have different effects on agriculture. For example, in Malawi and Zambia – countries that respectively have met and nearly met the 10% target – the agriculture budget is dominated by input subsidy programmes, the effects of which are short-term and which target the symptoms of weak agricultural productivity rather than the causes.[15] Malawi spends nearly 70% of its agriculture budget on its Farm Input Subsidy Programme (FISP), and the impact of this on maize production has been fiercely debated, with many independent estimates of crop production being far lower than government estimates.[16] FISP leaves few resources to spare for public goods such as irrigation, feeder roads and R&D, many of which go unfinanced. This lack of resources is detrimental to addressing other problems that farmers face, including storing crops and transporting them to market after the harvest, combating pests and diseases and hedging against the vagaries of the weather.

One issue in particular, post-harvest loss, demonstrates the inability of many smallholders to safely store their crops and get them to markets. Across the continent, post-harvest loss for all crops amounts to an estimated $48 billion per year, yet many CAADP compacts lack clear strategies to address this problem.[17] The "gender gap" in agricultural productivity is another issue that needs more attention from policy-makers. Since CAADP was launched a decade ago, research by the UN Food and Agriculture Organization (FAO) has found that if women had the same access to productive resources as men, they could increase yields on their farms by 20–30%. CAADP investment plans should be augmented to address both post-harvest management and the gender gap in productivity.

Measuring what counts

Additionally, there is much debate as to what actually counts as public expenditure on agriculture. The IMF, FAO and the AU all have differing methods for measuring domestic agriculture investments, each of which has its own limitations.[18] The Classification of the Function of Government (COFOG) measure, used by the IMF, is criticised for being too narrow by failing to include important activities that support agriculture, such as agricultural R&D, rural feeder roads crucial to market access and "multi-purpose development projects" that may include power generation and irrigation, which are likely to enhance production. Other sources of agricultural support – such as Nigeria's reinvestment of import duties – are not counted either.[19] On the other hand, FAO's definition is criticised for being too broad as it includes all rural development expenditure, including education and health care.

To further complicate matters, recent changes at the national level in what counts as public agricultural expenditure have distorted trends over time. In Ghana, researchers found that domestic spending associated with the Millennium Challenge Account and feeder roads was included from 2009 onwards but not before then, meaning that expenditures in previous years were likely to have been underestimated.[20] Moreover, there were data gaps for some large expenditures in cocoa and debt servicing in 2000 and 2001, which also underestimated public agricultural expenditure.

Linking to markets and engaging the private sector

While the Maputo Declaration acknowledged the importance of downstream value chain activities such as agro-processing and marketing, subsequent country activities have been limited to increasing primary agriculture production. An opportunity was missed to build and develop an advanced agricultural industry characterised by greater production and processing activity and to link those activities to farmers. Ethiopia and Ghana, as illustrated earlier, have learned this lesson and are working to improve overall agricultural performance and inclusivity. To correct this problem, the CAADP Secretariat is encouraging governments to include strategies and measures to expand agro-processing, add value to primary

commodities and strengthen linkages in the value chain. This provides more opportunities for entrepreneurship and private sector participation.

Additionally, the CAADP Secretariat is interested in attracting more private sector financing, in the wake of the global financial crisis and diminishing donor funding. Some investment plans have been criticised for treating the private sector as a "junior partner" or hardly acknowledging it at all. Other criticisms include the negotiation of special dispensations for foreign direct investment (FDI) initiatives that have included policy and regulatory concessions for foreign companies but have excluded domestic investors and worsened the investment climate. Moving forward, the CAADP Secretariat will encourage member states to enhance investment plans by bringing the private sector to the fore. Part of this approach includes implementing measures to include CAADP "Level 2" results (see Figure 5): i.e. create a more predictable and enabling policy environment to attract investors, increase intra-regional trade and invest in rural infrastructure such as power generation and feeder roads.

However, these efforts are not without controversy: a number of civil society and farmers' organisations have spoken out against attracting large-scale foreign private sector investment that could result in "land grabs", the displacement of peasant farmers and their communities, and environmental and land degradation. Acknowledging these risks, the 2012 "Sustaining CAADP Momentum" report – a reflective agenda chronicling key lessons learned from CAADP's experience to date – promotes transparent administration of land and private investment that results in "inclusive and broad-based growth"[22] and that provides employment opportunities and social protection for vulnerable groups, including youth and women.

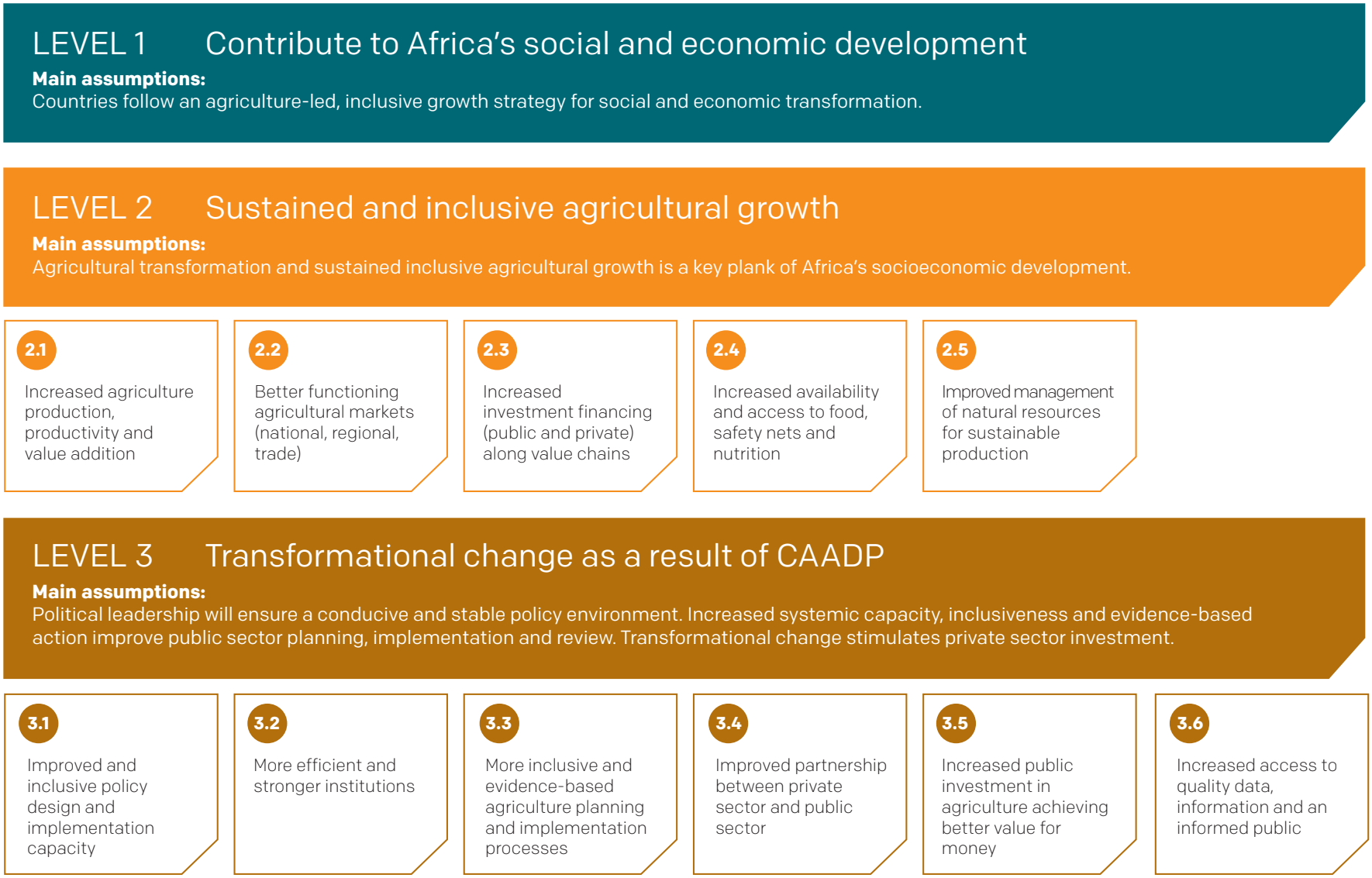
Planning for results

A decade of experience from creating and implementing the CAADP process has revealed areas for improvement within the process itself, including the need to establish a more robust results framework as an accountability mechanism. The early days of CAADP focused on developing tailored country strategies and building political will. Now, CAADP has recognised the need to develop baselines in order to track country progress.[23] With this in mind, the CAADP Secretariat, leaders and AU member states have agreed that the next round of CAADP implementation must demonstrate results and impact to further solidify the relationship between investment and growth.[24]

The CAADP Secretariat has developed a results framework that categorises three different levels for measuring results (see Figure 5). Level 3 is where CAADP has identified it can make the greatest impact, by strengthening institutions, promoting evidence-based policy and improving public sector planning, implementation and review. These steps are crucial to rebuilding the connections between citizens and states in remote rural areas, where livelihoods are tied to agriculture. Providing farmers and rural communities with transparent information about the investments promised to them, and relative government service delivery, will greatly improve accountability and delivery.

Following multiple rounds of feedback and discussion at CAADP Partnership Platforms and other meetings, this results framework is expected to be endorsed by all member states at the AU Summit in June 2014.[25] Member states will receive technical and policy support from the CAADP Secretariat at the national level and will also receive regional- and continental-level political support from NEPAD and the African Union Commission (AUC). Moreover, member states recognise the uncertainty of donor funding in the current economic climate and are interested in utilising growing domestic resources for reinvestment in agriculture, in addition to leveraging private sector investment.

FIGURE 5: CAADP 2013–23 Results Framework



Note: CAADP adds value to Level 3 activities by providing tools, processes, capacity building and peer review mechanisms.

NEXT STEPS FOR CAADP

As the process for extending and enhancing the Maputo Declaration unfolds ahead of the AU Summit in June 2014, it is important to recognise the limitations already discussed, along with recent CAADP reforms, to further unlock the potential of agriculture in Africa. In 2012, NEPAD presented a draft report on the Sustaining CAADP Momentum process at the 2013 CAADP Partnership Platform.[26] The report identified three categories of action to enhance the second round of CAADP:

1) activities that should continue (such as the focus on agriculture as a priority, increased strategic investments to agriculture);
2) activities that should be discontinued (such as an over-reliance on food imports, the public sector crowding out the private sector, low political prioritisation of agriculture, land dispossession, over-reliance on donors); and
3) new activities (such as a better focus on closing the gender gap, improving the enabling environment for the private sector, incentivising entrepreneurship by African agribusiness, promoting value addition, promoting transparency and accountability at all levels).

The following section of this report presents policy recommendations that draw on these CAADP reforms, along with the views of civil society and farmers' organisations. AU member states and the CAADP Secretariat should be aligned in their approach to improve the quality of agricultural spending, define what counts as agricultural investment, implement a robust results framework and include the private sector in plans to bolster value chains and increase inclusive and responsible agribusiness growth. Heads of state and their cabinets should recommit to an "enhanced CAADP framework" by making public statements of support to the original Maputo commitments, improving national agriculture investment plans and pledging to support the CAADP results framework at the concluding AU Summit in June 2014.

However, there is no magic bullet or blueprint, and each country, region and locale will require a context-specific approach and tailored delivery mechanisms. Inspiration can be derived from the experiences of Burkina Faso, Ethiopia and Ghana, whose policy reforms and delivery mechanisms have taken their agriculture sectors to the next level. Policy-makers should view the policy priorities outlined in the following section as a menu of options, drawn from a consensus of African leaders, civil society, development partners, the private sector and, most importantly, smallholder farmers.

MEN WORK AT A WORLD FOOD PROGRAMME (WFP) STORAGE FACILITY IN KAGOROGORO VILLAGE, RWANDA.

PHOTO: BILL & MELINDA GATES FOUNDATION

POLICY RECOMMENDATIONS FOR AFRICA'S AGRICULTURAL TRANSFORMATION

This section gathers together policy recommendations that have been informed through broad and extensive consultation with CAADP, African civil society organisations (CSOs), farmer cooperatives and organisations representing the views of smallholder farmers, and committed development partners. Which recommendations individual countries adopt will depend, of course, on their own contexts and their specific goals for the agricultural sector.

As the 2014 African Union Year of Agriculture and Food Security unfolds, momentum is building across the continent to seize this opportunity for accelerating growth and transformation. Progress within the agriculture sector is vital to national economic transformation and the eradication of extreme poverty, as envisioned in the Millennium Development Goals. A decade of experience in implementing the original Maputo Declaration has provided valuable lessons for the agriculture sector. While persistent challenges remain, new approaches and innovations have presented fresh possibilities. To accelerate the pace of progress, this transformational agenda will need to be built upon key lessons drawn from the successes and shortcomings of the past decade and will need to marshal continent-wide political will to review and revitalise the Maputo commitments for the next decade of success.

As of December 2013, 38 countries had developed CAADP compacts, pledging to improve national agriculture through defined investment plans, and at least 28 countries had launched fully costed and technically reviewed plans to accelerate agricultural development.[1] A few leading countries have shown how strategic investments in agriculture can lead to broader growth, but many lessons have also been learned during the first decade of Maputo, including the need to measure the quality of spending, standardise what counts as agricultural spending, recognise other linkages in the value chain and establish an effective accountability framework to enable citizens, smallholder farmers and national policy-makers to better track resources and results.

At the AU summit in July 2014, all heads of member states will have the chance to recommit to invest in agriculture and to make key policy commitments for the next ten years of African agriculture. Thus far, CAADP has conducted a number of consultations to develop recommendations for an "enhanced" CAADP framework, to build on the strengths of the original commitments while addressing the shortfalls. These consultations have resulted in recommendations for the second round of CAADP, contained in the "Sustaining CAADP Momentum" report.[2] Likewise, across Africa, civil society, farmers' organisations, development partners and the private sector are weighing in with their own recommendations and blueprints for success. The following list of policy recommendations has been drawn from evidence and ideas put forward by these organisations, and is presented for consideration by African leaders as part of an enhanced CAADP framework.[3]

The policy recommendations aim to strengthen previous Maputo commitments on public investment in the agriculture sector and also to address critical issues largely overlooked by the 2003 agreement, including the persistent gender gap in African agriculture, the huge loss of revenue caused by poor post-harvest management, limited opportunities for monitoring and evaluating progress and the enormous promise of intra-regional trade. Any final agreement reached among leaders should increase effective public investment in agriculture through transparent, high-quality country plans that will not only improve growth in the sector but ensure that growth is inclusive and improves the lives of smallholder farmers.

TEN POLICY RECOMMENDATIONS
FOR ACHIEVING AGRICULTURAL DEVELOPMENT

1) Make time-bound commitments to meet the Maputo pledge of spending at least 10% of national budgets on effective agriculture investments, through transparent and accountable budgets.
2) Eliminate the gender gap in agriculture.
3) Strengthen land governance and security of tenure rights.
4) Reduce barriers to intra-regional trade.
5) Increase R&D investment to at least 1% of agricultural GDP and bolster extension services.
6) Integrate sustainability and climate resilience into national agriculture plans.
7) Prioritise the reduction of post-harvest loss in national agriculture plans.
8) Design nutrition goals into agriculture sector strategies.
9) Foster an enabling environment for smallholder integration and responsible private sector investment.
10) Accelerate implementation of agriculture plans and ensure pro-poor results for smallholder farmers.

1 Make time-bound commitments to meet the Maputo pledge of spending at least 10% of national budgets on effective agriculture investments, through transparent and accountable budgets.[4]

QUANTITY OF DEVELOPMENT FINANCE

In order for the agriculture sector to further contribute to GDP and economic transformation, it requires increased and sustained public investment by African governments to improve the productivity and competitiveness of smallholder farmers. The examples of countries such as Ghana, Burkina Faso, Ethiopia and Zambia show how increased investment can lead to improved agricultural outcomes – nevertheless, most African countries have not met their Maputo targets. To boost their potential, Africa's smallholders need more training, infrastructure, financial services and affordable inputs, and better access to markets. As CAADP has stated, without robust public investment farmers in Africa will simply not be able to benefit from these basic building blocks for a thriving agriculture sector. For this reason, it emphasises, "Africa needs to continue to focus on increasing the volume and quality of public investment in rural infrastructure."[5] The Maputo pledge of at least 10% of national budgets represents a basic level of investment for a sector that employs the vast majority of the population in many African countries. It is critical to prioritise domestic investment in the sector and then turn to FDI to fill remaining gaps.

QUALITY, TRANSPARENCY AND ACCOUNTABILITY OF DEVELOPMENT FINANCE

It is not only the amount of spending on agriculture that is important to the sector's development, but also the effectiveness of that spending. Different types of expenditure in diverse agro-ecological regions and geographic locations vary in their impacts on development goals.[6] Public spending needs to take into account the diversity of farmers, agro-ecological conditions, local needs and production systems. In particular, priority should be given to effective services and public goods – including extension services, irrigation, R&D, road networks (including trunk and feeder road systems), financial services, cell phone networks and inputs – for smallholder farmers, including and especially women. Many of these complementary investments may come from ministries and sectors beyond agriculture, highlighting the need for coordination. For instance, Ethiopia has demonstrated the power of investing in rural roads and expanding access to extension officers: it is estimated that, in certain villages, access to all-weather roads has reduced poverty by 7% and those that have received at least one visit from an extension officer have seen poverty reduced by nearly 10%.[7] Ghana increased its spending on rural feeder roads five-fold between 2002 and 2007 and the investment has paid off – researchers estimate a return on public investment in feeder roads of 8.8 times in terms of agricultural productivity.

African leaders should redouble their efforts to engage their citizens in designing and delivering their visions for agriculture. This requires ensuring that citizens and smallholder farmers are involved in developing country-owned agriculture strategies and supporting an enabling environment for civil society to flourish. It also requires that African governments publicly document all components of their agriculture spending by posting easy-to-understand budgets online, down to the local district administrative level where smallholder farmers need services to be delivered. This should enable farmers, stakeholders, taxpayers and citizens at large to track the impact of investments. Greater clarity should be developed as to what precisely counts as an investment in agriculture, versus other development priorities, so that there is greater consistency across countries' accounting processes. CAADP should continue to work with important stakeholders (e.g. FAO, ministers of finance and agriculture) to address areas of disagreement and to develop a standardised method for calculating agriculture spending.

2 Eliminate the gender gap in agriculture by improving women's access to factors of production.[8]

Women make a substantial contribution to Africa's agriculture sector and constitute at least half of its agricultural labour force, yet they have lower agricultural productivity on average compared with men, with significant implications for the welfare of their households. They have limited access to productive inputs, including land, labour, extension services and fertiliser. Redressing this gender gap will improve productivity and equity, bolster growth, reduce poverty and yield benefits for the next generation of African women and men. According to FAO, if women had the same access to productive resources as men, they would produce 20–30% more, and total agricultural output could increase by 2.5–4%.

African leaders must revisit national agriculture plans and incorporate interventions aimed at narrowing the gender gap in agriculture, including implementing joint land

titling, providing women with grants and vouchers for fertiliser purchase, introducing high-value cash crops into women's cropping systems and better tailoring extension services for women farmers. They must also pilot additional interventions designed to address factors underlying the gender gap, including labour supply, that are often ignored. This may entail providing child care at the community level which would enable women to devote a greater proportion of their time to productive farm work rather than to household responsibilities.

3 Strengthen smallholder land rights through improved resources for land governance and adoption and implementation of the AU Framework and Guidelines on Land Policy in Africa.[9]

Weak land governance – the manner in which land rights are defined and administered – leaves the rural poor, particularly women, vulnerable. Only 10% of rural land in sub-Saharan Africa is registered. The remaining land is undocumented and informally registered, and is thus vulnerable to expropriation.[10] Strengthening land governance and securing tenure rights are foundational to achieving many development objectives, including fostering sustainability, achieving gender equality and encouraging agricultural investment and growth. National leaders must therefore improve tenure security over communal lands and individual plots, particularly for the poor and vulnerable.

First, this can be accomplished by defining boundaries (aided by technological advances), formalising customary communal and individual rights, where appropriate, and formalising communal groups so that they can enter into agreements and resolve conflicts over land use.

Second, leaders must strengthen the capacity, efficiency and transparency of land administration systems. Increased resources can be devoted to computerising systems, upgrading surveying and mapping systems, and training staff on modern land administration systems.[11]

Third, leaders should adopt regional and global principles, including the AU Framework and Guidelines on Land Policy in Africa and the UN's Voluntary Guidelines on the Responsible Governance of Tenure of Land, and work with partners in the UN's Committee on World Food Security to develop, shape and implement the Principles for Responsible Agricultural Investment (PRAI). These measures (1) legally empower smallholder farmers to effectively participate in land consultations; (2) enumerate the conditions of responsible private investment; and (3) commit national governments to hold the private sector accountable for responsible investment. Once they have been adopted, national leaders will be able to better balance smallholder farmers' access to land and increasing private sector interest in large-scale land acquisitions.

Overall, while private investment, of both domestic and international origin, is important to bringing capital and often technical capacity to transform the agricultural sector, it is essential that all investments are transparent, accountable and responsible. In recent years, egregious "land grabs" and displacements of peasants have caused tremendous harm, and must be stopped. Grow Africa is an African initiative to encourage responsible investment, and has supported the New Alliance initiative of the G8. This initiative must be monitored to ensure that it abides by the highest standards of transparency and accountability to foster responsible, poverty-reducing investment and does not lead to profiteering at the expense of Africa's vulnerable rural communities.

4 Reduce barriers to intra-regional trade and fast-track implementation of regional trade agreements.[12]

Currently, just 5% of imported cereals in Africa are produced by African farmers.[13] This statistic indicates the hugely untapped potential of intra-regional trade to increase economic opportunities for African farmers and to help enable the continent ultimately to feed itself. Strengthening and expanding regional or bilateral trade agreements could harness the substantial activity of local and regional markets. Domestic agricultural markets in Africa are valued at $50 billion per year, compared

with $16.6 billion for traditional agricultural export markets.[14] Although most market activity is local and regional, intra-regional trade remains comparatively small at an estimated $2 billion of activity per year.[15]

One of the major barriers to intra-regional trade is poor trade policies: for example, tariffs in sub-Saharan Africa are 50% higher than in comparable countries in Asia.[16] Other obstacles include non-tariff barriers, weak infrastructure and geographical constraints.[17] Research shows that it costs less to ship goods to Uganda from the United States than from Uganda's neighbours.[18] In order to turn the tide on intra-regional trade, African governments need to adopt mechanisms that increase trust and cooperation between countries. Taking a regional approach, African leaders should move beyond nationalism and find opportunities to align incentives. Given that many countries in Africa are small both geographically and economically, improving marketing channels through public infrastructure is typically in the interests of all countries concerned.

It is estimated that a 10% reduction in transportation costs would yield a 25% increase in trade.[19] African governments should fast-track the implementation of regional trade agreements under the Southern African Development Community (SADC), the Economic Community of West African States (ECOWAS), the Intergovernmental Authority on Development (IGAD) and the East African Community (EAC). These agreements have clear objectives to improve regional infrastructure through cost-sharing schemes that allow investments to reach economies of scale and increase economic specialisation.[20]

5 Increase investment in research and development to at least 1% of agricultural GDP, bolster extension services and endorse the Science Agenda for Agriculture in Africa.[21]

To foster greater innovation and locally appropriate scientific advances, AU leaders pledged in Cairo in 2006 to allocate 1% of agricultural GDP to agricultural R&D. Yet most of the 33 countries that have data available have failed to meet this commitment (see Table 3 in Appendix 2 for a breakdown). Budget transparency and availability are further constraints that prevent accurate analysis of R&D spending.

Studies show that returns on agricultural R&D and extension in Africa are high, including for poverty reduction.[22] Public research is an especially important complement to private research. Private research investments typically target widely grown crops such as maize, wheat and rice and focus on high-input systems with sufficient water and fertiliser. Public research is focused on more diverse African staples such as sorghum, tubers and millet. For marginal lands, this pro-poor focus can fill important gaps in serving the needs of millions of smallholder farmers. Spending on agricultural R&D has followed a similar pattern of under-investment to the low levels of public agricultural expenditure in the 1980s and 1990s,[23] and just eight countries have exceeded the 1% target.[24] According to the Alliance for a Green Revolution in Africa (AGRA), on average Africa has just 70 agricultural researchers for every million people, compared with 550 in Latin America and 2,640 in North America.[25] A further challenge is getting the best technology into the hands of farmers, with the proper support and advice. Fiscal crises and structural adjustment programmes have hollowed out public resources for extension and training, while service delivery has suffered since the 1980s. Inadequate capacity for staff and technical training prevents gains in research from reaching their potential.

However, some African countries are prioritising research and extension and are realising impressive results. Ghana has paid farmers to replace disease-ridden cocoa trees with new, higher-yielding varieties developed by its public research system, and has nearly doubled productivity.[26] Ethiopia has undertaken an aggressive strategy by establishing farmer training centres in every administrative district – all 18,000 of them – and posting three extension officers in each one. In addition to prioritising R&D and advisory services, African leaders should also endorse the Science Agenda for Agriculture in Africa, commissioned by AUC/NEPAD and led by the Forum for Agricultural Research in Africa (FARA), which calls for increased collaboration on science and technology, including sharing of facilities, staff and information.

6 Integrate sustainability and climate resilience into national agriculture plans.[27]

Land degradation, including declining soil fertility, threatens African agriculture and poverty reduction efforts. Land degradation affects 65% of the continent's land, and roughly 6 million hectares of productive land are lost each year.[28] These challenges are exacerbated by additional threats such as rapid population growth and extreme weather events. The World Bank asserts that if global temperatures rise, by 2040 rainfall patterns in sub-Saharan Africa will shift, heat extremes will occur more frequently and dry, arid regions will expand. Consequently, African farmers are expected to see lower crop yields, lose arable land (40–80% of the croplands used to grow maize, millet and sorghum by some estimates) and have less food available for consumption.[29] These trends may be further compounded by a population boom, with the continent's overall population expected to quadruple within just 90 years.[30] Yet across many African countries, sustainability and climate-resilient agriculture have yet to be fully integrated into national agriculture plans. Given the enormous environmental and demographic challenges facing the sector, it is time for leaders to explicitly commit to sustainably increasing agricultural production and developing the sector's capacity to withstand weather shocks.

Governments should incorporate sustainability and climate resilience into their agriculture sector strategies and develop recommendations for achieving these twin goals. These plans should emphasise a range of approaches, including the development of drought-tolerant crops, robust extension services, weather information and early warning systems, agroforestry, improved crop diversity, rainwater harvesting, integrated soil fertility management and conservation agriculture, where appropriate. Ethiopia has already embarked on this process by developing its Climate-Resilient Green Economy (CRGE) strategy, which was finalised in 2011. The strategy aims to curb greenhouse gas emissions and enable the country to better cope with the impacts of climate change, which affect the agriculture sector in at least six of its regions. CAADP can aid in this effort by identifying and disseminating guiding principles for implementing and scaling up these practices within CAADP countries. Lastly, the AU and its member states should help develop and commit to a sustainable agricultural productivity target as part of the post-2015 development agenda.

7 Prioritise the reduction of post-harvest loss in national agriculture plans.

Over the past decade, African agriculture plans have under-prioritised an important challenge facing smallholder farmers: the problem of post-harvest loss. A comprehensive approach to improving agricultural productivity and increasing the food supply must take into account the dramatic levels of waste that occur across the entire food chain. Post-harvest loss of grains alone accounts for 10–20% of waste in Africa.[31] FAO and the African Development Bank estimate that quantitative post-harvest loss of cereal grains, roots and tuber crops, fruits and vegetables, meat, milk and fish tops $48 billion each year. This loss contributes to high food prices by removing part of the food supply from the market. It also has negative repercussions for the environment: land, water, fertiliser and energy are used to produce and transport food that no one consumes. Despite the magnitude of the challenge, however, only 5% of investment in agricultural research focuses on post-harvest issues while 95% of funds focus on increasing crop production.[32]

The challenge of post-harvest loss is a complex one that manifests itself differently in each context. Given its complexity and diversity, it is critical to have relevant standardised data available for policy-making. Advances in information and communication technology (ICT) can be leveraged to collect this data. Better integrating smallholder farmers into markets will further boost incentives for them to measure and address this loss. Armed with this information, the public and private sectors can then deploy the appropriate policy solutions, including constructing storage facilities, developing crop varieties resistant to damage from insects and fungi, and using more efficient mechanised threshers. These measures, combined with wider infrastructure improvements, will help to stem unnecessary post-harvest loss. Additionally, CAADP plans should be amended to include a clear strategy for addressing this issue.

8 Design nutrition goals into agriculture sector strategies, and build an evidence base of nutrition-sensitive approaches in agriculture.[33]

Chronic undernutrition remains a major challenge to health and development in Africa, with stubbornly high malnutrition rates showing little improvement over the past three decades. Globally, 3.1 million children die every year due to malnutrition. An additional 165 million children, who manage to survive malnutrition in their early years, experience stunted growth and impaired cognitive development, undermining their future productivity and therefore income. Despite dramatic reductions in child mortality and extreme poverty, stunting rates in Africa today are nearly as high as they were two decades ago, exceeding 40%.[34]

Until recently, many African agriculture programmes have not been designed, targeted, implemented or evaluated with improved nutrition outcomes in mind. The agriculture sector holds enormous potential to improve nutrition outcomes. For instance, the bio-fortification of the orange sweet potato has provided significant amounts of Vitamin A to malnourished women and children in Uganda. Yet guidance on how to leverage agriculture programmes towards improved nutrition outcomes has been lacking. For this reason, African governments should better integrate nutrition goals into agriculture sector plans and begin measuring progress. This can be accomplished through increased collaboration with their ministries of health and other relevant ministries around nutrition goals. Countries should also support rigorous impact evaluations and studies to build a richer evidence base of what works with nutrition-sensitive approaches in agriculture. CAADP can then identify and disseminate guiding principles for implementing and scaling up these practices within CAADP countries.

9 Foster an enabling environment for smallholder integration and responsible private sector investment.[35]

Primary commodity production has dominated African agriculture for decades, but there is a renewed understanding that expanding activities further downstream in the value chain (i.e. processing, distribution, marketing) holds untapped benefits for rural communities and for national economies.[36] Creating incentives for processing companies to enter the market can create well-paying entrepreneurship and employment opportunities for youth and women, as well as access to new markets for farmers to sell their crops. For example, the Development Bank of Ethiopia (DBE), a parastatal company, provides concessional lending with the requirement that investors invest in crop processing and that projects are focused on "priority areas", which include export goods, grain production for domestic markets and job creation.[37] As has been witnessed in Ghana and Burkina Faso, policy reforms that have introduced new players – in both these cases marketing companies – have expanded the market, incentivised farmers as private sector actors to increase production and created off-farm jobs. Ethiopia's commodity exchange, meanwhile, has enabled coffee farmers to receive more than 65% of the commodity's final price on the market, up from 38%, as price transparency has improved.[38]

Other schemes, including outgrowing relationships and contract farming, can provide opportunities for farmers to gain access to high-quality inputs through credit, receive more favourable prices through better information and further develop rural economies. In most cases, these schemes are naturally sustainable since they can be run without substantial aid from development institutions. For example, Ghana's promotion of public-private partnerships focuses on helping smallholder farmers to commercialise by linking them to cocoa, cotton and cashew export markets, among others.

In order to realise the benefits of increased coordination and activity along the value chain, adequate public investment must be made in hard infrastructure, and farmers need reliable access to new markets. Thus African leaders must ensure that public agricultural investment is directed towards important public goods beyond the Ministry of Agriculture budget, such as rural road network improvement, power generation and irrigation schemes that reach smallholder farmers.

10 Accelerate implementation of agriculture plans and ensure pro-poor results for smallholder farmers.

Agricultural development represents a long journey that requires sustained political commitment to policy reform, implementation and achieving results. Ethiopia's Agricultural Transformation Agency (ATA) offers African leaders a successful model for facilitating this process and removing bottlenecks from agricultural value chains in their own countries. The ATA model was based on similar units established in Malaysia, South Korea and Taiwan during the 1950s and 1960s. ATA undertakes applied policy analysis, with its structure effectively bridging the research and implementation realms. Partner research organisations conduct technical analyses of the problems plaguing the agriculture sector. ATA programme directors combine this with practical knowledge derived from field studies and interviews and enact policies accordingly. CAADP is encouraged to continue expanding the repository of technical experts who can provide guidance and assistance to countries aiming to implement the recommendations presented here.

Furthermore, African leaders are encouraged to strengthen implementation through the adoption of the Results Framework and the creation of a CAADP food security and agriculture index, or a similar mechanism, to measure and monitor all the development finance from all sources that goes into agriculture, the implementation of these programmes, the services delivered and the outcomes achieved by the enhanced CAADP framework at the national and sub-national levels.

To ensure that the implementation of plans and reforms serves the interests of poor and vulnerable smallholder farmers, plans should emphasise the importance of risk management – through livestock ownership, which has attendant benefits for household nutrition, and the prioritisation of traditional crops that most poor households consume. Leaders should also deepen their commitment to engaging farmers, businesses, civil society and other non-state actors in the design, implementation and monitoring of agriculture plans. Through increased participation, governments can better serve their populations, improve results and make the sector more dynamic and more sustainable.

FARMERS IN ETHIOPIA USING TRADITIONAL IRRIGATION TECHNIQUES.

PHOTO: PETTERIK WIGGERS / IWMI

APPENDIX 1: GLOBAL SUCCESS STORIES

CHINA: SUPPORTING SMALL STAPLE CROP FARMERS TO BOOST PRODUCTIVITY

In China, a "state-led, market-driven, farmer-based" model of agriculture has provided a foundation for economic development and poverty reduction.[1] Between 1980 and 2010, the Chinese government allocated on average 8.7% of its total annual expenditure to agriculture, representing a cumulative total of $1,387 billion (2005 $ PPP) over a 30-year period.[2] Agricultural GDP increased at an average annual rate of 4.5% between 1978 and 2009, and grain output grew faster than the country's population, enabling it to feed 20% of the world's population using just 11% of the arable land.[3] Growth resulted primarily from improvements in staple crop productivity, driven by a number of key policies from the 1950s onwards, including land reforms that redistributed land to peasants in the 1950s and in the 1970s/1980s abolished collectivisation and moved towards private leasing under the "Household Responsibility System"; the establishment of agricultural universities and research institutes; the wide adoption of inputs and technologies among smallholder farmers; the expansion of irrigation; and, since the 1980s, a series of gradual market reforms that have relaxed state control.[4]

Because China's steady agricultural growth has been achieved through the increased productivity of small farms growing food crops such as rice and wheat, it has driven an astonishing reduction in extreme poverty, from 60% of the population in extreme poverty in 1990 to 12% in 2009.[5] The poverty elasticity of China's agricultural growth during the 1990s was -2.7 (i.e. for every 1% of agricultural growth, there was a 2.7% reduction in poverty), and it is estimated that the contribution of agricultural growth to poverty reduction over the 30-year period from 1978 to 2008 was four times that of all manufacturing services combined.[6]

VIETNAM: UNLEASHING ENTREPRENEURISM AND COMMERCE THROUGH STEADY MARKET LIBERALISATION

Vietnam has achieved phenomenal social and economic progress through a clear and sustained focus on agricultural development. In the early 1980s, it was one of the poorest countries in the world, food production per capita was declining and famine was prevalent. The Doi Moi package of policy reforms that began in earnest in 1988 saw the country progress from a stagnant, centrally planned economy to vibrant "market socialism", under which it has become one of the world's largest exporters of rice, coffee and other products.[7] In the two decades from 1990 to 2010, Vietnam invested a total of $47 billion (2005 $ PPP) in agriculture, representing an average of just under 7% of total annual government expenditure.[8] At the centre of the Doi Moi reforms was a profound shift from collectivised agriculture to an essentially free-market system, achieved through a gradual sequence of policy changes including steady privatisation of land throughout the late 1980s and early 1990s.[9] These reforms created a boom in staple food production (especially in rice, with yields increasing by 53% between 1990 and 2006), which dramatically improved national food security and then led to thriving commercial exports.[10] The reforms also generated powerful incentives for entrepreneurism and private investment in agriculture, and created opportunities for farmers to participate in higher-value, commercial activities. The resulting agricultural growth – peaking at 4.9% a year between 1996 and 2000 – caused extreme poverty to plummet (from 64% in 1993 to 17% in 2008) and, in raising household incomes, became a driver for increased demand in other parts of the economy, such as construction and services.[11]

BRAZIL: INNOVATING AND MODERNISING THROUGH EXTENSIVE PUBLIC INVESTMENT IN R&D

Brazil's story is equally impressive: in less than 30 years the country has turned itself from a food importer into one of the world's greatest breadbaskets, and has overtaken others to become the world's top exporter of beef, poultry, tropical fruits, sugarcane, ethanol and tobacco, as well as the second largest exporter of soybeans.[12] The government's expenditure on agriculture jumped during the 1990s; between 1990 and 1994 it averaged $4.8 billion (2005 $ PPP) per year, but since 1995 it has averaged $9.0 billion (2005 $ PPP) annually.[13]

Brazil's agricultural production has more than tripled since 1996, with annual agricultural growth averaging 3.4% between 1996 and 2012, driven mostly by leaps in productivity resulting from the extraordinary work of Embrapa, the Brazilian Agricultural Research Corporation.[14] This public company, established by the government in 1973, has revolutionised Brazilian farming by developing tropical varieties of crops previously grown only in temperate climates, such as soybeans and corn, and by breeding a new high-yield variety of grass brought from Africa to turn large swathes of savannah into green pasture. Embrapa has also pioneered new approaches, such as sustainable "no till" agriculture (now used for 50% of grain

farming).[15] Indeed, a high proportion of Brazil's public expenditure on agriculture is devoted to R&D. For public investment in agricultural R&D, it ranks third in the developing world (after China and India).[16] In 2006 alone, it spent around $1.3 billion (2005 $ PPP) on R&D, of which 57% was allocated to Embrapa.[17] For every $1 Embrapa invested in research on crop improvement for rice, beans and soybeans between the late 1970s and the 1990s, the country received $16 worth of benefits.[18] Brazil today therefore boasts some of the most advanced farming practices in the world, and it is estimated that over 90% of its increased agricultural output has been due to improved total factor productivity.[19]

APPENDIX 2: AFRICAN AGRICULTURE DATA TABLES

TABLE 1: African Public Expenditure on Agriculture, by Country (Billions 2005 $ PPP)[1]

COUNTRY	2003	2004	2005	2006	2007	2008	2009	2010
Algeria	2.464	2.691	2.792	3.031	1.876	5.003	3.956	4.028
Angola	0.167	0.301	1.286	1.507	1.096	0.797	1.456	2.013
Benin	0.114	0.107	0.143	0.158	0.158	0.184	0.126	0.079
Botswana	0.370	0.288	0.432	0.282	0.272	0.401	0.336	0.325
Burkina Faso	0.807	0.586	0.386	0.766	0.648	0.483	0.367	0.524
Burundi	0.010	0.024	0.031	0.068	0.050	0.066	0.099	0.154
Cameroon	0.205	0.160	0.128	0.139	0.123	0.104	0.096	0.084
Cape Verde	–	–	–	–	–	0.017	0.021	0.027
Central African Rep.	0.014	0.014	0.016	0.016	0.017	0.006	0.012	0.014
Chad	0.028	0.026	0.024	0.021	0.037	0.037	0.045	0.045
Congo, Dem. Rep.	0.051	0.033	0.050	0.062	0.065	0.071	0.068	0.071
Congo, Rep.	0.032	0.035	0.025	0.035	0.162	0.205	0.411	0.541
Côte d'Ivoire	0.211	0.171	0.135	0.144	0.112	0.141	0.210	0.182
Djibouti	0.004	0.011	0.011	0.016	0.010	0.012	0.016	0.020
Egypt	3.945	3.616	3.456	3.161	3.119	2.850	2.628	2.447
Equatorial Guinea	0.113	0.099	0.071	0.064	0.066	0.035	0.084	0.069
Ethiopia	0.517	0.493	1.831	2.466	2.251	2.352	2.159	3.167
Gambia, The	0.014	0.013	0.013	0.012	0.015	0.016	0.017	0.017
Ghana	0.379	0.710	0.792	0.622	0.719	0.805	0.730	0.866
Guinea-Bissau	0.002	0.003	0.002	0.003	0.002	0.002	0.002	0.002
Kenya	0.371	0.426	0.414	0.502	0.600	0.441	0.574	0.750
Lesotho	0.043	0.059	0.052	0.044	0.051	0.056	0.059	0.063
Liberia	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

COUNTRY	2003	2004	2005	2006	2007	2008	2009	2010
Madagascar	0.199	0.215	0.303	0.348	0.528	0.703	0.940	1.244
Malawi	0.139	0.131	0.305	0.338	0.299	0.724	0.698	0.994
Mali	0.003	0.004	0.004	0.004	0.004	0.004	0.004	0.004
Mauritania	0.103	0.113	0.099	0.103	0.110	0.128	0.152	0.141
Mauritius	0.096	0.119	0.086	0.079	0.092	0.106	0.143	0.153
Morocco	0.864	0.787	0.771	0.759	0.724	0.671	0.648	0.631
Mozambique	0.160	0.197	0.247	0.219	0.235	0.250	0.313	0.351
Namibia	0.127	0.129	0.140	0.114	0.118	0.108	0.107	0.110
Niger	0.148	0.200	0.189	0.207	0.328	0.425	0.332	0.306
Nigeria	1.011	1.608	1.955	1.772	1.712	1.562	2.079	2.176
Rwanda	0.038	0.051	0.071	0.099	0.129	0.148	0.193	0.226
São Tomé & Príncipe	0.005	0.003	0.003	0.004	0.006	0.006	0.007	0.007
Senegal	0.328	0.440	0.514	0.533	0.615	0.742	0.767	0.817
Seychelles	0.009	0.008	0.009	0.014	0.018	0.004	0.006	0.009
Sierra Leone	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
South Africa	1.862	1.949	2.214	2.655	2.873	2.888	2.644	2.609
Swaziland	0.073	0.080	0.120	0.160	0.318	0.127	0.195	0.473
Tanzania	0.432	0.336	0.371	0.637	0.773	0.989	1.188	1.477
Togo	0.027	0.030	0.039	0.038	0.032	0.086	0.055	0.107
Tunisia	1.359	1.232	1.098	1.139	1.093	1.085	1.171	1.137
Uganda	0.283	0.146	0.245	0.261	0.290	0.188	0.229	0.290
Zambia	0.164	0.173	0.280	0.250	0.514	0.434	0.323	0.388
Africa	**17.295**	**17.819**	**21.154**	**22.851**	**22.262**	**25.445**	**25.646**	**29.112**

Source: S. Benin, and B. Yu. 2013. "Complying with the Maputo Declaration Target: Trends in public agricultural expenditures and implications for pursuit of optimal allocation of public agricultural spending. ReSAKSS Annual Trends and Outlook Report 2012". International Food Policy Research Institute (IFPRI). Washington, DC.

TABLE 2: Percentage of African Public Expenditure on Agriculture, by Country[2]

COUNTRY	2003	2004	2005	2006	2007	2008	2009	2010
Algeria	3.6	3.8	4.2	4.2	2.2	5.2	3.6	3.7
Angola	0.6	2.2	6.5	5.3	3.6	2.3	2.8	3.5
Benin	5.5	5.3	6.4	7.5	6.3	7.3	4.0	3.0
Botswana	4.5	3.7	5.9	4.1	3.5	4.3	3.0	2.8
Burkina Faso	32.7	20.5	12.1	20.4	15.8	13.8	8.7	10.8
Burundi	1.5	3.1	3.5	6.5	4.3	5.8	7.7	10.3
Cameroon	3.6	2.9	2.2	2.4	2.0	1.7	1.5	1.3
Cape Verde	–	–	–	–	–	2.6	2.8	3.3
Central African Rep.	4.3	4.3	2.8	2.6	2.6	1.3	2.2	2.3
Chad	5.7	4.7	3.9	7.8	5.5	5.7	5.9	6.2
Comoros	–	–	1.8	–	–	–	–	–
Congo, Dem. Rep.	1.9	1.0	0.9	1.2	1.2	1.1	1.0	1.1
Congo, Rep.	1.2	1.1	0.9	1.3	5.4	7.4	10.1	13.7
Côte d'Ivoire	3.6	2.9	2.3	2.5	1.8	2.2	3.1	2.5
Djibouti	0.7	2.2	2.0	2.8	1.6	1.9	2.3	2.8
Egypt	5.1	4.5	4.2	3.0	3.0	2.2	1.8	1.8
Equatorial Guinea	1.3	1.4	1.5	1.6	1.7	0.8	0.8	0.5
Ethiopia	5.0	5.0	15.9	20.3	18.0	18.9	17.5	21.2
Gambia, The	6.9	6.7	6.9	5.7	7.3	7.4	7.6	7.8
Ghana	5.7	8.8	9.6	10.3	9.9	10.2	9.0	9.1
Guinea	–	21.4	10.5	12.7	9.3	14.5	–	–
Guinea-Bissau	1.9	1.8	1.2	1.5	1.2	1.1	1.0	0.9
Kenya	4.3	4.1	4.4	4.5	4.9	3.2	3.9	4.6
Lesotho	3.6	5.1	4.1	3.1	3.3	3.2	3.0	2.9
Liberia	1.7	1.5	1.3	4.0	5.5	8.6	2.3	2.9
Madagascar	8.7	7.2	14.0	11.7	7.7	7.9	8.1	8.3

COUNTRY	2003	2004	2005	2006	2007	2008	2009	2010
Malawi	7.2	6.8	12.6	17.1	14.4	22.4	23.2	28.9
Mali	14.0	15.1	15.5	12.1	13.4	12.7	10.2	11.1
Mauritania	5.3	6.8	5.9	5.8	5.9	6.0	6.1	6.3
Mauritius	3.4	4.0	2.9	2.6	3.2	3.5	4.0	3.8
Morocco	3.2	2.7	2.2	2.2	2.0	1.7	1.6	1.4
Mozambique	5.4	6.5	6.7	5.7	5.2	5.4	5.8	5.5
Namibia	4.1	4.2	4.5	3.6	3.5	3.3	3.2	3.0
Niger	11.2	14.2	11.9	12.5	17.4	18.9	13.9	12.7
Nigeria	3.4	5.7	6.1	6.9	5.2	4.5	5.3	5.7
Rwanda	2.9	3.6	4.5	5.1	5.5	5.6	6.4	6.6
São Tomé & Príncipe	5.4	3.1	4.0	4.4	5.9	6.2	6.5	6.9
Senegal	9.4	10.9	12.0	10.7	11.6	13.9	13.9	13.9
Seychelles	1.8	1.2	1.5	1.8	2.5	0.7	1.0	1.4
Sierra Leone	4.1	2.4	2.1	2.1	2.5	2.2	2.0	1.7
South Africa	2.0	1.9	2.1	2.3	2.4	2.2	1.8	1.8
South Sudan	–	–	–	–	–	1.4	1.9	1.4
Sudan	3.1	5.4	5.9	6.5	7.0	–	–	–
Swaziland	5.0	5.4	5.1	5.9	8.2	2.7	2.9	5.3
Tanzania	6.8	5.7	4.7	5.8	5.8	6.9	6.7	6.8
Togo	3.9	4.1	4.2	3.7	3.4	9.6	4.8	9.1
Tunisia	8.9	7.6	6.6	6.6	6.0	5.4	5.7	5.5
Uganda	4.9	3.1	4.7	4.7	5.0	3.2	3.8	3.9
Zambia	6.1	6.1	7.2	9.3	13.2	12.5	9.3	10.2
Zimbabwe	10.4	11.7	4.0	17.3	18.8	22.0	25.8	30.2
Africa	**3.9**	**4.0**	**4.4**	**4.4**	**4.0**	**4.0**	**3.6**	**3.9**

Source: S. Benin and B. Yu. 2013. "Complying with the Maputo Declaration Target".

TABLE 3: African Public Expenditure on Agricultural R&D, as a Percentage of Agricultural GDP, by Country[3]

COUNTRY	2003	2004	2005	2006	2007	2008
Benin	0.5	0.5	0.5	0.6	0.5	0.7
Botswana	3.5	4.7	5.3	6.4	5.3	4.3
Burkina Faso	0.6	0.7	0.5	0.4	0.4	0.4
Burundi	0.7	0.7	1.0	1.3	1.5	1.8
Congo, Rep.	0.6	0.6	0.8	0.8	0.7	0.9
Côte d'Ivoire	0.6	0.6	0.6	0.6	0.6	0.5
Eritrea	1.7	1.3	0.5	0.6	0.5	0.5
Ethiopia	0.6	0.5	0.4	0.4	0.3	0.3
Gabon	0.1	0.2	0.4	0.3	0.2	0.2
Gambia, The	0.5	0.7	0.7	0.7	0.6	0.5
Ghana	0.6	0.6	0.6	0.7	0.8	0.9
Guinea	0.3	0.2	0.3	0.2	0.2	0.2
Kenya	1.1	1.1	1.2	1.4	1.4	1.3
Madagascar	0.3	0.3	0.3	0.3	0.3	0.3
Malawi	1.0	1.0	1.1	1.1	1.2	1.2
Mali	0.6	1.0	0.7	0.6	0.7	0.6
Mauritania	1.3	1.3	0.9	1.7	2.1	1.2
Mauritius	4.3	4.2	4.2	3.7	3.8	3.9
Morocco	1.0	1.1	1.2	1.3	1.5	1.6
Mozambique	0.6	0.6	0.7	0.5	0.4	0.4
Namibia	2.6	2.2	2.7	2.0	1.6	2.0
Niger	0.2	0.2	0.2	0.2	0.2	0.3
Nigeria	0.3	0.4	0.3	0.4	0.4	0.4
Rwanda	0.7	0.7	0.6	0.6	0.6	0.5
Senegal	1.1	1.1	1.0	0.8	0.8	0.9
Sierra Leone	0.4	0.3	0.3	0.3	0.3	0.3
South Africa	2.2	2.5	3.1	2.9	2.1	2.0
Sudan	0.2	0.3	0.3	0.3	0.3	0.3
Tanzania	0.4	0.3	0.2	0.3	0.4	0.5
Togo	0.4	0.4	0.5	0.4	0.4	0.5
Tunisia	1.1	1.1	1.2	1.2	1.3	1.4
Uganda	1.3	1.4	1.1	1.0	1.1	1.2
Zambia	0.4	0.3	0.3	0.3	0.3	0.3

Methodology Note

In order to hold African governments accountable to their own commitments to public spending – such as the Maputo Declaration – accurate, timely, and comparable budgetary data must exist. Currently, the only publicly available data that meets most of this criteria comes from IFPRI's Regional Strategic Analysis and Knowledge Support System (ReSAKSS). ReSAKSS provides reliable and accurate data on budget expenditures that is standardized and comparable across countries. Where ReSAKSS' data falls short is in its timeliness – the most recent public agriculture expenditure data is from four years ago (2010). More recent figures come directly from governments themselves, either through comprehensive ministerial disaggregation or simplified citizen's budgets. However, these figures measure allocations – not expenditures – which may greatly vary with actual spending. Moreover, these figures are not standardized or comparable across countries given the difference in what different governments consider public agricultural expenditure. This lack of standardization fails to recognize African governments who are working hard to prioritize agriculture, as their efforts are not counted due to poor data tracking. To truly measure progress, accurate, timely, and comparable budgetary data is a fundamental requirement – one that African governments should prioritize.

A GOVERNMENT EXTENSION WORKER IN TANZANIA WORKS CLOSELY WITH VILLAGERS TO ENSURE IMPLEMENTATION OF BEST CROP RAISING PRACTICES.

PHOTO: BILL & MELINDA GATES FOUNDATION

ENDNOTES

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RENEWING MAPUTO'S PROMISE

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3. Organisations include Agency for Cooperation and Research in Development (ACORD), ActionAid International, African Fertilizer and Agribusiness Partnership (AFAP), Alliance for a Green Revolution in Africa (AGRA), Catholic Relief Services (CRS), Eastern and Southern Africa Farmers' Forum (ESAFF), Food, Agriculture and Natural Resources Policy Analysis Network (FANRPAN), New Partnership for Africa's Development Planning and Coordinating Agency (NEPAD Agency), Oxfam International, Pan African Agribusiness and Agroindustry Consortium, and Southern African Confederation of Agricultural Unions (SACAU).

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