

GRAIN DE SEL

Inter-Réseaux Développement Rural Magazine • July-December 2019



Ghana:

an agricultural exception
in West Africa?

- > A thriving democracy
- > An El Dorado for agribusiness?
- > Leading export sectors



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Développement Rural

CONTENTS No. 78



Cover photo: Guy Murfitt

LEAD-IN

Editorial	3
Markers: Ghana and Ivory Coast: false twins?	4-5

ISSUES

Ghana: a political and agricultural history	6-7
Ghana's Agricultural and Economic Transformation: Past Performance and Future Prospects	8-9
How the Ghanaian cedi brought my company to its knees	10
Outlook for Ghana Beyond Aid	11

Driving regional integration: can Ghana overcome the Nigerian hurdle?	12-13
Land Use Planning and Agricultural Development in Rural Ghana	14
Ghana: pioneering "smart" input subsidy programmes	15-16
Ghana's input subsidy programs: Awaiting the verdict	17
Agroecology in Ghana, the sesame sector as an opportunity	18
ICTs sector: a driver for rural and agricultural development in Ghana?	19-20
Peasant organisations in Ghana: major players of sustainable development	21-22
Stories from Northern Ghana: women in agri-food processing	23-24

SUPPLY CHAINS

Ghana and Ivory Coast: long-term alliance to support cocoa growers?	25
The nexus between cocoa production and deforestation	26-27
When a firm, farmers and a bank join forces in the rubber sector	28-29
Rice: the challenge of self-sufficiency	30-31
Guinness Ghana's role in structuring the sorghum sector	32-33
Cotton: Ghana's subpar performance	34-35
The scourge of saiko: illegal fishing in Ghana	36-37
What's next for tilapia farming in Ghana?	38-39

CONCLUSION

Cross perspective: is Ghana a model or counter-model for West Africa?	40-42
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Members' corner	43
Portrait: Gladys Adusah Serwaa: rural women as agriculture workforce	44

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Is Ghana's agricultural development trajectory really so different from that of its neighbours?

For those of you familiar with the history of the African independence movements, Ghana was the third sub-Saharan country to gain its independence—in 1957, after Liberia (1847) and Sudan (1956)—following boycotts and civil disobedience driven by Kwame Nkrumah. Ghana has a distinct profile in West Africa, having been a pioneer in the Pan-Africanism movement and having helped spearhead the Tricontinental Conference, which voiced the first demands for a more equal multilateralism.

As an English-speaking country that has also been a member of the International Organisation of La Francophonie since 2006, Ghana differs from its neighbours in many ways. The country is often cited as a model for its political pluralism, democratic achievements and stability in an increasingly complex regional-security context. Its economy appears to be more liberal and oriented towards the private sector and agri-business. In terms of international development aid, the authorities are promoting a Ghana Beyond Aid policy and turning more to international loans and investment. Ghana's high food dependency, however, makes the country vulnerable to volatility in global agricultural prices. And food insecurity is still a challenge that needs to be overcome, with undernutrition affecting 5.5% of the population.

Those differences with Ghana's French-speaking neighbours—which Inter-réseaux's members are more familiar with—in and of themselves justify dedicating an issue of Grain de Sel to Ghana, ten years after having dedicated an issue to Nigeria. This issue is a continuation of the network's work on rural development, agriculture and food in Ghana, which led to the publication on 21 November 2019 of a special bulletin de veille on Ghana, available on Inter-réseaux's website. Several articles draw comparisons between Ghana and its neighbours, starting with Ivory Coast and its geographic similarities. Since independence, however, they have had opposite political and economic development trajectories.

The objective here is to examine the similarities with a neighbouring country, and the differences in the agricultural development trajectories of a model that sometimes appears to be completely at variance with the orientations of French-speaking countries in West Africa. This is also a bilingual issue, available in French and English.

Inter-réseaux decided to kick off 2020 by giving Grain de Sel a brand-new look, and our publications committee would love to hear your feedback.

François Doligez, president
Ninon Avezou, magazine manager

1. "Nigeria: a look at the Agricultural Giant of West Africa", Grain de sel, no. 51, 2010.

2. "Agricultural and Rural Development in Ghana" Thematic newsletter, november 2019 - <http://bit.ly/2SqX2Hd>

This issue is the result of a group effort over a period of several months involving several Inter-réseaux members and close partners. We would like to thank Patrick Delmas (RECA Niger), François Doligez (Iram), Jean-Luc François, Margareta Lelea (DISTL), Gilles Mersadier, Fanélie Meyer (SOS Faim Luxembourg), Gifty Narh (Corade), Lucien Rossignol, Anaëlle Tanqueray Cado (AFD) for their hard work alongside the IR technical team in order to put together this issue.

This is also the last issue coordinated by Ninon Avezou, whom Inter-réseaux would like to thank for his contribution to Grain de Sel.

Basic information on Ghana



Source: WB 2018

29.8
million

Ivory Coast
25
million



Source: WB 2018

130.8
inhabitants/km²

Ivory Coast
78.8
inhabitants/km²

Inflation rate

Ghana: 9.4% - Ivory Coast: 0.4%

Source: WB 2018

Source: WB 2018

GDP per capita

2,202.3
US dollars

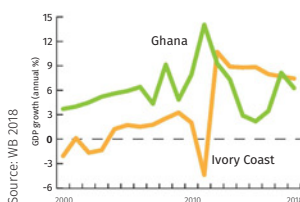
Ivory Coast
1,715.5
US dollars

Source: WB 2018

GDP: 65.5
billion USD

Ivory Coast
GDP: 43
billion USD

GDP growth



Source: UNDP 2018

140/193

Ivory Coast
170/193

Human Development Index



Source: WB 2018

238,540
Sq. km

Ivory Coast
322,460
Sq. km

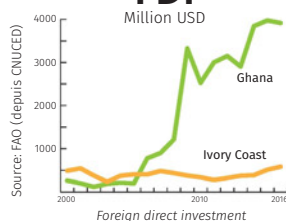


Source: WB 2010

71%
(Total, adults)

Ivory Coast
44%
(Total, adults)

FDI



Ghana and Ivory Coast: false twins?



From independence to today: political stability and agricultural transformation

<< Strategy of state-planned industrialisation >>

<< Liberalisation / Structural-adjustment plans >>

1957

Kwame N'Krumah presidency **1966**

1983

1985

Agriculture as a growth factor



Late 19th century >
indirect
British rule

Independence



"Farmers' Day" is a national holiday created by the government to acknowledge the important role that farmers and fishermen play in Ghana's economy.

Information on agriculture in Ghana

Geographic location

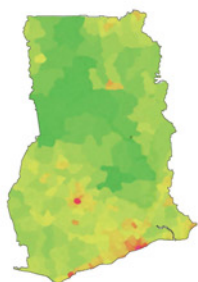


Main agroecology zones

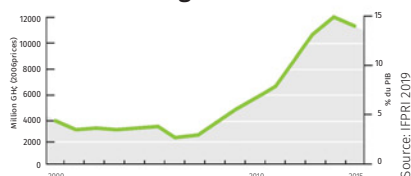
- Coastal savanna
- Guinean savanna
- Tropical forest
- Deciduous forest
- Sudanian savanna
- Transition zone

- capital city
- major cities

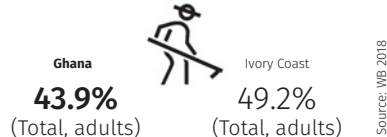
Population density



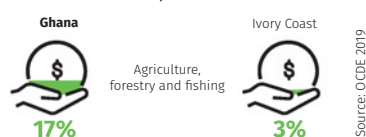
Proportion of budget allocated to agriculture



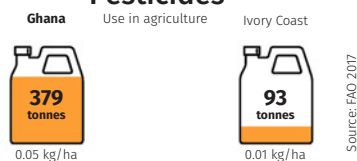
Percentage of population in rural areas



Percentage of ODA Official development assistance



Pesticides



Prevalence of under-nutrition



IMPORTANT ROLE OF EXPORT CROPS

Perennials

COCOA



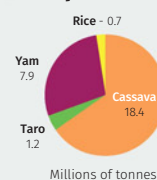
World's 2nd largest producer
Main export crop
10.2% of agricultural GDP
Livelihood for 800,000 families



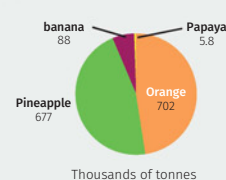
PALM OIL
102,175 tonnes of exported crude oil

Rubber, Cashew, Coconut, Coffee

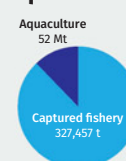
Staples



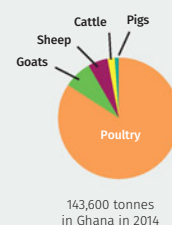
Fruit



Fishing Aquaculture



Livestock



<< Economic growth >>

1990

1992 Stability with Jerry John Rawlings > 2000 > Peaceful transfers of power, democratic model

2009

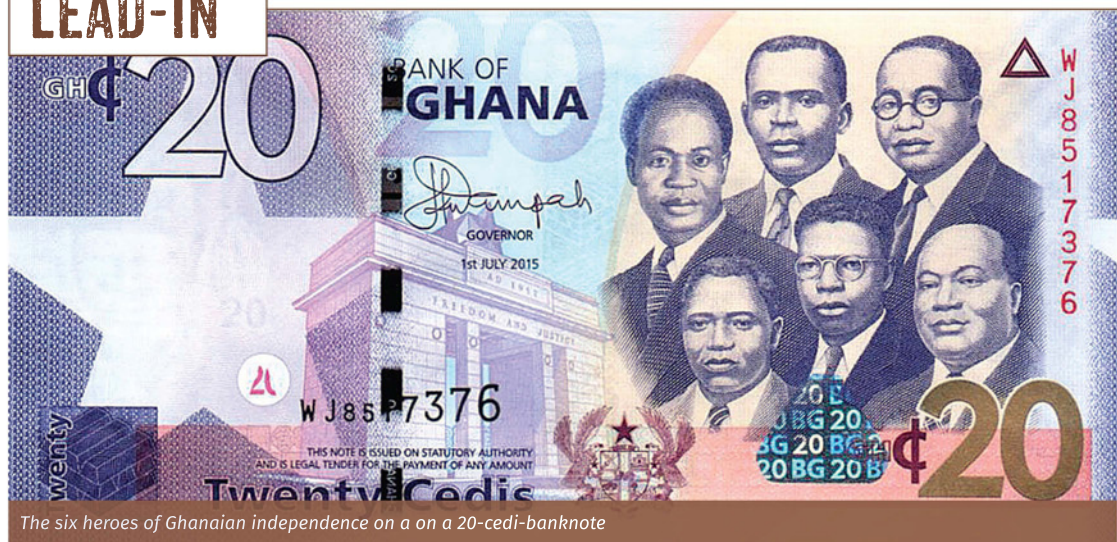
Agriculture integrated into the macroeconomy

2017 Nana Akufo-Addo presidency >

Presidential election > 2020

Land-use project

LEAD-IN



The six heroes of Ghanaian independence on a 20-cedi-banknote

Ghana: a political and agricultural history

Considered by many observers to be a “model” African nation, Ghana has established a peaceful and mature democracy while keeping its traditions alive. The country is using its current momentum to overcome the challenges of inclusive development, but remains burdened by inequality and food insecurity.

Timeline

1957: Independence

Turbulent post-independence period

- Kwame Nkrumah 1957 > 1966
- Joseph Arthur Ankrah 1966 > 1969
- Akwasi Afrifa 1969 > 1970
- Edward Akufo Addo 1970 > 1972
- Ignatius Kutu Acheampong 1972 > 1978
- Fred Akuffo 1978 > 1979

1979

Ghana's resurgence... and food insecurity

- Jerry Rawlings 1979 > 2001

2001

Mature democracy

- John Kufuor 2001 > 2008
- John Atta Mills 2008 > 2012
- John Dramani Mahama 2012 > 2016

2015

A liberal conservative in power

- Nana Akufo Addo 2016 > 2020
- 2020: Election présidentielle

In Ghana, a history professor can begin a lecture with a single banknote. The 1, 5, 10, 20 and 50 cedi notes all feature a photo showing a group of six people. The photo dates back to 1948. At the time, none of those individuals thought they would end up as heroes of the independence movement. Two of them went on to become head of state: Kwame Nkrumah (1957–1966) and Edward Akufo Addo (1970–1972), father of the current president. Two political groups took shape (one moderate, the other revolutionary), creating a lasting divide.

A turbulent post-independence period

Ghana was the first sub-Saharan country to free itself from the colonial yoke in 1957, and is now a prime example of a real democracy. The journey has been long and at times painful: 12 years of single-party rule, 23 years of a military regime, 28 years of a multiparty system. During that period, cacao (see p. 25), or “brown gold”, was the most profitable crop for small farmers. A popular highlife song from the 1950s says it all: If you want to send your child to school, it's cacao / If you want to build a house, it's cacao / If you want to get married, it's cacao / If you want to have a truck, it's cacao.

When President Nkrumah was overthrown in 1966, Ghana was a centrally planned economy on a path towards modernisation, with major projects such as the Akosombo Dam, the Port of Tema, the Volta Aluminium Company (Valco) plant, one hundred fifty public companies and three universities. The word *kalabule* also came into use at the time, referring to the nepotism and moral degradation which marked the subsequent military regime. Following that difficult period, the people of Ghana wanted someone who could save the country. That person was former military pilot, Jerry Rawlings.

Ghana's resurgence

Rawlings's era lasted twenty years, with continuous oscillation between authoritarian order and democratic rule of law. It was a period of contradictions, to say the least. The “moral revolution” and negotiations with the International Monetary Fund (IMF) occurred simultaneously. The economy was in poor shape. Factories were at a standstill. Shortages were prevalent in cities.

What made Ghana's resurgence unique was that Rawlings was able to maintain control over the economy and slow down the dismantling of public companies while also

attracting foreign capital. The government wanted to reduce the impact of the adjustment measures by offering state benefits to support the poor and promote jobs. It focused its attention more on rural communities than on cities, pursuing a well-drilling programme and expanding the electrical grid.

Chronic food insecurity

Food insecurity is a recurring problem in Ghana that neither Rawlings nor his predecessors were able to solve. The rate of undernourishment fell from 16% in 2000 to 6.5% in 2016, but the condition has not been completely eradicated. The problem persists mainly in the country's northern region. That region is rich in agroecological resources, but the agriculture practised there is mainly small-scale subsistence farming.

The importing of rice—the second most consumed cereal in Ghana, after corn (see p. 30)—started to undermine local production. At the market in Tamale, too many consumers preferred rice from Asia. In the 1970s, local production was not a priority. The Food for Peace programme, which provided food assistance in the form of rice, turned out to be a war machine, and the American taste for long-grain rice took over. So much changed in just one generation, but is it irreversible? According to the FAO, an additional 150,000 hectares would need to be cultivated in order to become self-sufficient.

A mature democracy

When former Oxford student John Kufuor—originally from Kumasi, the Ashanti capital—came to power, Ghana entered a new phase characterised by the democratic transfer of power. The World Bank's 2011–2013 Poverty-Reduction Programme established the idea that people in Ghana were poor. In 2000, 40% of Ghanaians were living below the poverty line, compared with 23% today. Ghana was also classed as an “excessively indebted” country, owing to unreliable management of its imports and borrowing outside the IMF. Creditors were stuck having to reschedule debts and accept write-offs. It was a particularly tough period.

John Kufuor, the reconciler, was able to turn things around. He launched a plan to reduce hunger and poverty. Ten years later, Ghana became the first sub-Saharan country to reduce by half the number of people suffering from hunger within its borders. He left power in 2008, having reached his term limit. His successor, John Atta Mills, had better governance and benefitted from the launch of oil drilling by Exxon off the coast of Takoradi. To avoid the dangers of the “resource curse”, Ghana decided to manage its oil windfall like

the Norwegian model by transferring oil revenue to a sovereign fund. After his death in 2012, John Atta Mills was succeeded by his vice-president, John Dramani Mahama, from Ghana's northern region.

Mahama's term was marred by poor management of public funds and plagued by lacklustre growth susceptible to fluctuations in the price of oil. Black gold did not lead to inclusive growth, as promised. Ghana's debt rose to 73% of gross national product. The country had no choice but to go back to the IMF in 2015 for a loan of nearly one billion dollars. Mahama lost the 2016 election to the current president, Nana Akufo-Addo, marking the third democratic transfer of power.

GHANA'S SENSE OF INITIATIVE HAS BECOME A SOURCE OF NATIONAL PRIDE

Ghana's multiparty system has worked remarkably well since the end of the Rawlings era. For Ghanaians, it is unthinkable that a head of state could change the term limit in the Constitution (another factor that makes Ghana stand out). At the same time, rulers of ethnic groups—particularly the Asantehene, king of the Ashanti people—still hold sway in rural areas throughout Ghana's central region, cocoa farms, mining lands, forest areas and major cities, such as Kumasi and Accra, where land has become an important factor in terms of power.

Since 2017: a liberal conservative in power

Ghana is still a lower-middle-income country. Its GDP per capita was \$1,600 in 2018, which is below the average for emerging countries (\$4,900). To maintain the country's current economic momentum and keep inequality in check, Nana Akufo-Addo's government is focusing on all sectors that create “opportunities for growth and prosperity” to provide funding for schools, hospitals and roads. The aim of the One District, One Factory policy is to help Ghana become an industrialised economy. Some fifty businesses were created in late 2019.

Ghana hopes to maintain its position as the world's second-biggest cocoa produ-

cer without neglecting family farming. The government launched a major programme in 2017 called Planting for Food and Jobs (2017–2020). The goal is to significantly boost yields by using digital-information resources (see p. 19) and by distributing improved seeds and fertilizers at subsidised prices through the market (see p. 15). Major irrigation projects have also been launched in each of the country's 275 districts.

Ghana's official development assistance was reduced by half between 2010 and 2018 (see p. 11). That reduction was decided voluntarily, revealing another factor that makes Ghana stand out: The Ghana Beyond Aid policy, announced in 2017, aims to reduce Ghana's dependence on international assistance and distance the country from external supervision so that it can focus on more innovative and sustainable solutions involving both the public and private sector.

Ghana's sense of initiative—with governance that respects individual rights and liberties according to the Freedom House, Mo Ibrahim and Economist Intelligence Unit indices—is a source of national pride. The country's crowning achievement was in July 2019, when it was announced that the secretariat of the African Continental Free Trade Area would be established in Accra (see p. 12–13), fulfilling the pan-Africanist vision that Nkrumah had outlined over 60 years earlier. Ghana will hold presidential and parliamentary elections in 2020—a great opportunity for the country to showcase its sound democratic health. ■

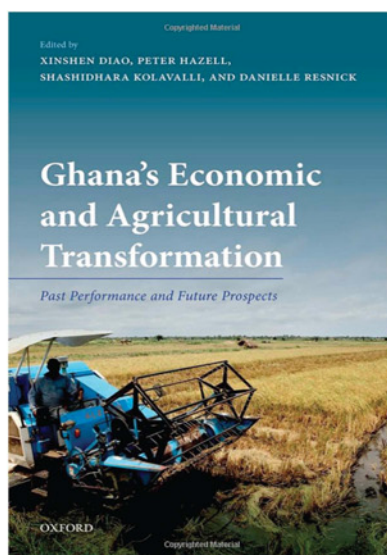
Pierre Jacquemot



Pierre Jacquemot is president of Groupe Initiatives, lecturer at Sciences Po-Paris and was the French ambassador to Ghana from 2004 to 2008.

Ghana's Agricultural and Economic Transformation: Past Performance and Future Prospects

Ghana's Agricultural and Economic Transformation: Past Performance and Future Prospects questions the development path of Africa and opportunities for agriculture using Ghana as a case study. This note gives an insight of the key findings of the book and points out some blind spots such as climate change impact.



Diao, Xinshen; Hazell, Peter B.R.; Kolavalli, Shashidhara; and Resnick, Danielle (Eds.). 2019. *Ghana's economic and agricultural transformation: Past performance and future prospects*. New York, NY: International Food Policy Research Institute (IFPRI) and Oxford University Press. <https://doi.org/10.2499/9780198845348>

Africa has witnessed rapid economic growth over the past two decades, outpaced only by Asia. However, unlike the experience of Asia and Latin America, this growth has not resulted in a migration of labor from agriculture to industry. Although the share of agriculture in Gross Domestic Product (GDP) has declined in most African countries, the share of industry has declined or remained flat in many cases. Most of the young workers migrating to the urban areas have ended up in low-wage and low-productivity jobs in the informal service sector. Using Ghana as a case study, the book *Ghana's Agricultural and Economic Transformation: Past Performance and Future Prospects* addresses the question of why African countries have developed in this manner. The book finds that economic growth in Ghana has not resulted in the expected shift from low-productivity traditional agriculture to high-productivity sectors like manufacturing. The main lesson drawn for other African countries is that to achieve the robust economic growth needed for rapid creation of decent jobs, they would need to promote the growth of high-productivity sectors such as modern agriculture, manufacturing and formal services.

Economic development without productivity gain

Ghana's overall economic development since Independence in 1957 has been based on the production and exports of a narrow range of unprocessed agricultural commodities and minerals, and in more recent times, oil. Ghana has made slow progress in transforming its economy into one reliant on the exports of high-value manufactured products and services.

Using statistical analysis, it is shown that the reason for the low gain in labor productivity

from structural change in Ghana is that so many workers have moved from agriculture to the services sector, where productivity is not much higher than in traditional agriculture. In fact in some cases it is even lower, meaning that the movement of workers from traditional agriculture to the low-productivity service sector actually detracts from the nation's average labor productivity. For example, from the period 1990 to 2010, the share of services in GDP increased from about 2% to about 50%, yet growth in value-added per worker declined from 6% to 3.1%.

A low investment in the agricultural sector

When it comes to political economy analysis of Ghana's stalled economic transformation, it is argued that the most promising possibilities for creating productive employment lie in agricultural intensification and the growth of modern industries such as agro-industries.

The agricultural sector has played an important role in Ghana's economic transformation to date. However, the sector has not reached its potential because growth has been achieved more through land expansion than the uptake of higher-yielding technologies. The agricultural sector has generally performed well, growing at an annual rate of 4.5% percent in real terms. However, agricultural exports have not been diversified beyond cocoa (p. 25) and there is growing dependence on imported food.

The agricultural transformation that has occurred in Ghana could be explained by increase in the production of not only cocoa but also increased production of roots and tubers, other crops and livestock. The growth of food staple crops has kept up with popu-

lation growth of 2.5% per year and growth in per capita income of 2.9% per year. Several options for future growth in the agricultural sector are identified, such as increased production of livestock, rice, poultry and other crops not only to reduce imports of these commodities but also to boost exports.

When it comes to the question of whether Ghana has invested enough resources in agriculture and how the patterns of investment in the sector have impacted agricultural productivity growth, it appears that public spending on agriculture has fallen short of 10% of total expenditure in most years since 1961. In recent times, the share has averaged only 2-3%, which is low even by African standards. Relatively little has also been spent on complementary investments in rural roads and other essential rural infrastructure.

Successful public interventions in commercial crops?

Public interventions in the cocoa subsector have been a success. This experience is a benchmark to evaluate interventions in three other value chains—pineapples, rice, and tomatoes. It is concluded that these crops have under-exploited opportunities due to the inability of farmers to produce sufficient amounts of sufficient quality to meet urban market, agro-processor, and export demands. In turn, this is due to a lack of better seed varieties, an absence of quality control through grading and pricing along value chains, inadequate post-harvest handling (especially transport, and cold storage and modern processing facilities).

Agricultural mechanization in Ghana is said to be vastly underutilised. Thus, the government could more effectively engage with the private sector to enhance the development of agricultural mechanization.

AGRICULTURE IS YET TO REACH ITS POTENTIAL

Key findings of Ghana's agricultural and economic transformation

The need to develop a broader range of high productivity industrial and agricultural activities is emphasized as a critical factor if Ghana is to succeed in sustaining or even accelerating its rate of growth of GDP per capita. A number of opportunities in the agricultural sector are identified. These include meeting a rapidly growing domestic demand for higher-value foods such as fruits, vegetables, and livestock products, and for processed and pre-cooked foods. There are also a number of import substitution opportunities such as rice, poultry, and tomatoes. Furthermore, there are opportunities for developing nontraditional agricultural exports to the West African regional market and beyond.

But what about climate change and ICT?

This is a well written book that makes practical recommendations for addressing numerous problems in Ghana's agricultural sector. It contains useful lessons that other African countries can learn. The conclusions and recommendations are based on solid analytical work. However, there are two notable significant omissions in the book.

First, since Ghana and most other African economies are dependent on agriculture for their income, mention should have been made of the risks posed by climate change and the actions that need to be taken to address these risks. The book talks about future prospects for agriculture. However, smallholder farmers are already being adversely impacted by climate change and one cannot talk about future prospects without a serious discussion of the climate threat. Second, in Part II of the book there is no discussion of the important issue of how technology and innovation can be leveraged to increase agricultural productivity and help farmers adapt to climate change. There are now over 40 million mobile phones in use in Ghana with a population of just over 30 million. Mobile and other digital technologies can be used to improve access to credit and provide affordable insurance products. ICT can also be used to provide market and climate information. ■

John Asafu-Adjaye



John Asafu-Adjaye is Senior Fellow and Head of Research at the African Center for Economic Transformation (ACET), in Accra, Ghana.



African Center for Economic Transformation (ACET)

How the Ghanaian cedi brought my company to its knees

Ghana has its own national currency, the Ghanaian cedi. But borrowing US dollars on the international market has exposed the country to foreign-exchange risk. Burkinabe entrepreneur Olivier Édouard Kabré experienced this first-hand, when he sought to pursue market opportunities in Ghana—and then had to back-pedal.

“No pity in business”, “time is money”, “cash and carry”—these are the mantras of business people in Ghana.

Many investors in West Africa have elected to domicile themselves in Ghana for economic and social reasons. The country offers political stability, rapid economic growth (see p. 6) and a good investment climate. Its history, culture and agroclimatic position have attracted large institutions such as the International Labour Organisation, and agri-food companies such as Nestlé and Unilever. In 2016, the OECD estimated that immigrants—mainly from Nigeria, but also Burkina Faso, Togo and Ivory Coast—made up roughly 3% of the population in Ghana.

Burkina Faso: a major partner

Ghana's cultural and socio-economic diversity has created new demand for agri-food products imported from neighbouring countries, Europe, and South Africa. Burkina Faso is Ghana's biggest trade partner for fruits, vegetables and corn. According to the Atlas of the Observatory of Economic Complexity, 94% of tomatoes consumed in Ghana are imported from Burkina Faso (market share of €1.2 million). Ghana imports a total of €4.7 million of agricultural products from Burkina Faso. Major hotel chains and supermarkets (Shoprite, Mariana Mall, Koala, MaxMart) import fruits and vegetables to meet market demand. But there is a shortage in the availability of high-quality products, owing to insufficient logistics and transport. Those hurdles generate large losses for a market of products with high added value. From Burkina Faso, Mr Jules Zongo and I saw a business opportunity in Ghana. Between 2012 and 2013, we used our own funds to launch a start-up, called La Saisonnière Ltd., to buy and distribute fresh and dried fruits and vegetables.

An uncertain monetary situation

In July 2007, Ghana revalued its currency for the third time since 1967. The new curren-

cy (the Ghanaian cedi, or GHS) was worth 10,000 old cedis, equal to USD 1.1 or roughly XOF 550. No more need to carry around plastic bags filled with paper money! For a long time, the Ghanaian cedi had been considered a weak currency compared with the CFA franc. Before 2007, XOF 1,000 was worth 19,000 old cedis. But the GHS quickly depreciated. It fell to XOF 300 by 2010, and to XOF 270 by the time we launched our business. In 2014, the currency dropped more than 35% against the CFA franc. In November 2019, one Ghanaian cedi was worth only XOF 107 (USD 0.18).

But inflation in August 2015 delivered the final blow and brought our young company to its knees.

In the space of two months, the cedi lost nearly 30% against the CFA franc. For every GHS 9,600 of goods delivered to supermarkets, the company was losing the equivalent of GHS 1,500 (XOF 255,000, or EUR 390) through currency exchange. Contract negotiation was no longer able to keep pace with the exchange rate.

A changing business

Retailers and business people in Burkina Faso are enthusiastic about the idea of doing business in Ghana (despite the language barrier) and supporting local production. But they are hesitant to do so, mainly because of the volatility of the cedi against the CFA franc. By understanding the market and the risks linked to exchange-rate fluctuations, entrepreneurs can better assess business opportunities between the two countries. ■

In 2015 the cedi loses 30% of its value in two months



Exchange rate of the Ghanaian cedi against the CFA franc over the last ten years

Source: XE.com Inc.
<https://www.xe.com/fr/currencycharts/?from=GHS&to=XOF&view=10Y>

Exposure to foreign-exchange risk

As a result of inflation and the cost of converting GHS into XOF, products from Burkina Faso became more and more expensive in Ghana.

At the start, 80% of our transactions were “cash and carry”, meaning we received immediate payment in full from fruit and vegetable sellers. Then, our collaboration with supermarkets, hotels and restaurants became contractual with payment periods of 30 to 60 days. The start-up survived July 2014, bolstered by rapid growth in product imports.

Olivier Édouard Kabré



Olivier Édouard Kabré is an applied-computer-science engineer with over 12 years of experience in market information systems and the development of agricultural value chains.

Outlook for Ghana Beyond Aid

Internal growth and economic independence: those are the ambitious objectives of the Ghana Beyond Aid (GhBA) policy, announced in 2017 by President Nana Addo Dankwa Akufo-Addo. It's a strong initiative that is creating a lot of hope while also raising questions as to its feasibility.

“We want to build a Ghana beyond aid, a Ghana that can harness its own resources.” Those were the words of Ghana's president, expressing his desire to help his country become independent of international financial aid. So far, the GhBA initiative has helped free the 2019 budget from the IMF programme and has led to the creation of a charter and strategy document, published in April 2019. GhBA encourages internal economic growth based on industrialisation at local level and collaboration between the public and private sectors, and is reawakening the desire for African sovereignty, which used to be incarnated by President Kwame Nkrumah.

Agriculture: one of four priority sectors

The “one department, one factory” programme aims to set up private processing factories throughout the country. The second pillar is directly in line with the first, and aims to develop and modernise agriculture. It includes two major programmes: “one village, one dam”, to develop irrigation by building several dozens of dams in the north; and “planting for food and jobs”, which aims to support agricultural producers and entrepreneurs through subsidies for seeds, fertilizers and agricultural technologies (see p. 15). The

objective of those two complementary pillars is to boost agricultural production and export processed products in order to reduce poverty and malnutrition. The third and fourth pillars aim to strengthen the educational system and clamp down on corruption.

Covering funding needs

Those programmes seek to reduce Ghana's double dependence on exports of raw materials with no added value and imports of certain food products, such as rice. Some analysts, however, fear that increasing exploitation of the country's natural resources—non-agricultural (hydrocarbon, gold, bauxite) and agricultural (cocoa, see p. 25)—will make Ghana more vulnerable to variations in global prices and environmental degradation, which, according to World Bank estimates, already costs Ghana 12 GDP points.

For Ghana, doing without external funding seems difficult over the short term. While the budget deficit of 3.9% in early 2019 improved, tax revenue is still relatively low: Ghana's tax-to-GDP ratio is only 15%, versus 19% on average in West Africa. According to the June 2019 edition of *Macrodev*—published by the French Development Agency (AFD)—, which was dedicated to Ghana, public debt nearly tripled between 2006 and 2016, from 26% to 74% of GDP. The publication noted, however, a change in the structure of that debt. The percentage of concessional loans from bilateral and multilateral funding agencies gradually decreased to 14.3% of public debt in 2018, versus 32% in Ivory Coast. Ghana has therefore turned to external debt denominated in foreign currency (financial markets), exposing itself to high exchange-rate risk at a time when the cedi is weak (p. 10). New external partners, such as China, are also increasingly present.

The need for external funding is all the more evident in the agricultural sector. Official development assistance makes up 17% of the agricultural budget, versus only 3% in Ivory Coast. Many agricultural programmes depend on external donors.

**MANY AGRICULTURAL
PROGRAMMES DEPEND
ON AID FROM EXTERNAL
DONORS**

Ghana Beyond Aid: hope on the horizon

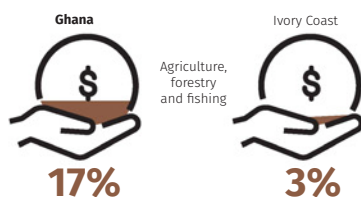
Structurally, the Ghanaian government has very little flexibility in its budget to fund GhBA's large-scale projects without assistance.

Michael Owusu, a Senior Officer at Ghana's Ministry of Food and Agriculture, says that GhBA offers hope for Africa, even though for now external funding is still necessary: “We will continue to need help and support, but with the good leadership and policies, we should eventually be able to hold up.” ■

Internal team

Percentage of official development assistance in the agriculture budget

Official development assistance for agriculture



Source: OCDE 2019

Driving regional integration: can Ghana overcome the Nigerian hurdle?

With a rounded combination of thriving democracy, stable economy, good legislation and attractive investment incentives, Ghana has managed to cement its position as a driver for regional economic integration. Yet, can Ghana provide a strong enough leadership to resolve the remaining challenges?

Ghana shows leadership in the area of regional economic integration in West Africa; the official inauguration of West Africa's first regional electronic commodity exchange platform, the "Ghana Commodity Exchange" (GCX), the inauguration of the state of the art "Terminal 3" at Kotoka International Airport and "Terminal 2" at Tema port are but a few examples of the many great initiatives that were undertaken by the country, in order to help build greater regional integration and enhance the free movement of goods and people in Ghana and across West Africa.

Ghana: a good destination for doing business in West Africa

With a rounded combination of thriving democracy (five peaceful election, of which three power hand-overs since 2000), growing economy, good legislation (new Company Act 2019), and attractive investment incentives (soon to receive an overhaul), Ghana has managed to cement its position as a favorite destination for doing business in West Africa. Even though Ghana has recently slipped from 114th to 118th position on the latest World Bank's "Doing Business" report, falling for the first time to third position in West Africa

behind Togo (97th) and Cote d'Ivoire (110th), it surpassed its West African competitors Nigeria (which peaked at close to \$9 billion back in 2011) and Côte d'Ivoire, at close to \$3 billion in terms of foreign direct investment flows for 2018.

And yet, the economy of Ghana is far from achieving its potential. Although the country has experienced a continuous devaluation of its currency through its modern history, which would have helped support its export goods to become more competitive on the international scene, the weakening currency (p. 10) could not catalyze industrialization in the country, because most of its export is in raw material, both mineral (Ghana is an oil-producing country since 2011) and non-mineral.

Ghana recently dislodged South Africa as the continent's top gold-producing country and is the second largest producer of cocoa, behind Cote d'Ivoire. And while these two countries alone supply 60% of the world's cocoa beans, they only receive a paltry 6% share from the global chocolate industry. This low level of industrialization, coupled with the fact that the country is a net food importer, increases the vulnerability of its economy to price volatility and external market shocks.

Little benefit from the regional commodity exchange

The coming into force of the African Continental Free Trade Agreement (AfCFTA) on 30 May 2019 has the potential to promote intra-African trade, by further liberalizing access to regional and continental originating goods and services. It will also accelerate regional integration efforts, as well as drive all relevant stakeholders; government agencies (ministries, port authorities etc.), organized private associations (chambers of commerce, women trade associations etc.), CSOs (Borderless Alliance, CUTS Africa etc.), development agencies (DfID, USAID, EU etc.), international financial institutions (Afrexim-bank, Ecobank etc.) and others, to seek out new alliances, partnerships and terms of engagement, in order to ensure that its implementations will meet the aspirations of its supporters, to the benefit of its governments, businesses and people.

On the other hand, the AfCFTA in itself cannot be the solution to all of Africa's problems. In order to address the perennial low intra-African trade, all hands need to be on deck to help grow Africa, move Africa and trade Africa, which also involve spending more on much-needed infrastructure, both hard (roads, ports, bridges etc.) and soft (governance, corruption, accountability etc.); creating market linkages across the Continent; and, most importantly, building a competitive local industrial base to enhance manufacturing and production, in order to enable African countries to compete on the international markets and to reap the benefit of value addition in their respective local economies.

In the case of Ghana, the regional commodity exchange will remain of little benefit if West African manufacturers and producers are prevented from freely moving these traded products across borders, whether in raw or processed form.



Inadequate infrastructure impedes the flow of trade across Africa, adding delay and increasing cost. This picture was recently taken at the Paga border between Ghana and Burkina Faso, following a heavy storm.

Wolfgang Zeller, AFRIGOS, 2019

Time-based performance of West Africa on “Doing Business” Reports, 2012-2020, compiled by author

Classification Doing Business of West Africa, 2012-2020**

Legend:

Improvement

Decline

Countries; DB12; DB13... West Africa

COUNTRY	DB12	DB13	DB14	DB15	DB16	DB17	DB18	DB19	DB20
MAURITIUS*	23	19	20	31	32	49	25	20	13
TOGO	162	156	157	152	150	154	156	137	97
COTE D'IVOIRE	167	177	167	145	142	142	139	122	110
GHANA	63	64	67	112	114	108	120	114	118
SENEGAL	154	166	178	156	153	147	140	141	123
NIGERIA	133	131	147	170	169	169	145	146	131
NIGER	173	176	176	164	160	150	144	143	132
CABO VERDE	119	122	121	124	126	129	127	131	137
MALI	146	151	155	142	143	n/a	143	145	148
BENIN	175	175	174	162	158	155	151	153	149
BURKINA FASO	150	153	154	149	143	146	148	151	151
THE GAMBIA	149	147	150	150	151	145	146	149	155
GUINEA	179	178	175	171	165	163	153	152	156
SIERRA LEONE	141	140	142	147	147	148	160	163	163
GUINEA-BISSAU	176	179	180	181	178	175	176	175	174
LIBERIA	151	149	144	180	179	174	172	174	175
ERITREA*	180	182	184	189	189	189	189	189	189

Source: World Bank, Doing Business reports, 2012-2020 (compiled by the author).
*African countries at the bottom and top of the rankings for illustrative purposes.
**Each report calculates data relative to the previous year.

The lack of regional enforcement

West Africa has a largely untapped potential when it comes to agriculture, but not every country will end self-sufficient; instead, the path towards food security requires an enabling environment to build local capacity to produce a smaller number of competitive products, complemented by an enabling environment that allows the import of non-available essentials from neighbouring countries.

Sadly, the regional economic communities are unable to enforce implementation of their regional regulations on a national level, due to the lack of regional enforcement or sanction mechanisms against countries that violate these laws, a situation that is compounded by the multiplicity of checkpoints along the corridors, rampant corruption, non-mutual recognition of legal documents and different interpretation of some of the regional texts, like in the case of the axle-weight limit. The current ongoing Nigerian border closure crisis and its spillover effect on legitimate intra-regional trade flows is a perfect embodiment of the inability of some countries to align their national interests with regional and continental ones.

Another example would be the road checkpoints; a recent fact-finding mission by the Ghana Shippers Authority revealed not less than 75 checkpoints, in one direction, along the Tema-Paga road corridor between Ghana and Burkina Faso. This figure was also veri-

fied by a separate fact-finding mission by a researcher from the “African Governance and Space” (AFRIGOS) project, a five-year continental corridor study conducted by the Centre of African Studies at the University of Edinburgh, who also counted no less than 320 rumble strips on the same stretch of road, leading to lengthy delays and higher cost of transportation and trade through that road corridor, in addition to significant harvest spoilage from the bad infrastructure.

GHANA HAS A KEY ROLE TO PLAY IN IMPLEMENTING THE AfCFTA AGREEMENT

Ghana: a leader to implement AfCFTA

It is time that West Africa steps up to the challenge of owning up to its problem, and to come up with African solutions to its African issues. The African Continental Free Trade Agreement is an opportunity to break away from the old colonial trade structure and create real economic growth and prosperity across the region, by harnessing its vast population and various resources towards

becoming more integrated and prosperous, to the benefit of its governments, businesses and people.

Ghana has a crucial role to play in leading the implementation of the AfCFTA agreement in West Africa, as a host of its Secretariat and in line with its historic role in leading regional and continental integration, but it must first come to terms with its challenges and provide a long lasting solution to some of the bottlenecks that are hindering it from unlocking the full potential of its economy. ■

Ziad Hamoui



Ziad Hamoui is the founding member and past President of Borderless Alliance in West Africa. He is currently the National President of Borderless Alliance local chapter in Ghana.

Borderless Alliance is an award-winning, regional, private sector-led, multi-stakeholder advocacy group that promotes economic integration in West Africa and tackles barriers to trade and transport in the region.

Land Use Planning and Agricultural Development in Rural Ghana

Ghana is experiencing rapid urbanisation and commercialisation of lands at the expense of agricultural development. This changing phenomenon requires appropriate land use planning that is currently associated with traditional authorities and local governments.

Ghana's population is expected to hit 40 million by 2035 with an annual growth rate of 2.2%. By 2019, nearly 56.1% of Ghana's population lived in urban areas. Urbanisation has serious effects on agricultural land use. In the very past, a visitor could easily get land from traditional owners to engage in crop production. Nowadays, rural agriculture land is hard to come by, due to urbanisation, commercialisation, industrialization, infrastructural development and poor land use planning by local governments and spatial planning authorities.

Towns which are very close to the main city of Accra such as Kasoa (Central region), Weija (Greater Accra), Dodowa (Greater Accra) and Aburi (Eastern Region) are rapidly becoming urban and reducing their agricultural lands. This calls for effective land use planning to accommodate human settlements and food security requirements.

Agricultural lands on pressure

Real Estate Development with an increase in housing demand and industrialization are putting pressure on rural agricultural lands. The introduction of "One District One Factory" (1D1F) in 2017, a policy that aims to ensure that at least each of the 260 Districts have a factory built, will put agricultural lands under pressure because building factories and

other infrastructure requires space. It is therefore imperative that industrialisation and agricultural development are integrated: agro-based factories such as the Ekumfi Pineapple Juice factory in the central region should be established to serve a dual purpose of food production and industrial use. Just as the Government Policy of "Planting for Food and Jobs" goal.

A challenge for local governments

Land use planning is the process of building healthy communities for effective socio-economic development of an area. In other words, it is the design of policies and activities that will increase the economic use of land to ensure sustainable development. The different demands for land (farming, industry, grazing, forestry, wildlife, tourism, housing and real estate, infrastructure and recreation) are enormous and require effective land use and spatial planning.

Ghana has 260 District Assemblies but much of their powers, finances and functions are centrally controlled. Land tenure system in Ghana is very complex. In Ghana, about 80% of the lands are customary-owned and traditional authorities decide who to allocate land to without controlling the purpose of use. District Assemblies in Ghana are recognised as the planning authority at the local level under Local Governance Act, 2016 (Act 936) and Land Use and Spatial Planning Act, 2016 (Act 925), they are to elaborate development plans and zoning of the districts to cater for land use and target which areas are suitable for farming, forestry, industry and markets. But they lack the power and political will to plan, approve and regulate land use at the local areas. Faced with the growing pressure of unregulated and unplanned urbanization and industrialization, local government has a challenge to design and plan spatial development in the country.

A call for proper planning of land use

The over commercialisation of land for urban development and industrial activities will have serious repercussions not only on rural agricultural development and food security but also on natural resources and the ecosystem as a whole (deforestation and diminishing biodiversity). Many lands will lose their value for productive activities if Local Government and Land Use and Spatial Planning Authority do not check land acquisition and use. It is therefore important that Traditional Authorities and Local Government collaborate in the allocation of lands: chiefs and landowners should not directly sell land without the land use and spatial plan of the local areas designed by local government. Land use planning must take into account areas that are not fertile for agricultural purpose and designate that for housing, infrastructure, transportation and factories. Land use and spatial planning should cater for urban agriculture. Since it is difficult to reverse urbanisation, it is imperative for local government to zone areas for urban agriculture. If urban agriculture is lost, food security will suffer, and ending hunger by 2030 would be a miracle. ■

Félix Amakye



Felix Amakye is a Lecturer at the Institute of Local Government Studies in Ghana.

Nicholas Awortwi



Nicholas Awortwi is the Director of Institute of Local Government Studies in Ghana.

**LOCAL GOVERNMENT HAS
A CHALLENGE TO DESIGN
AND PLAN SPATIAL
DEVELOPMENT**

Ghana: pioneering “smart” input subsidy programmes

In 2008, Ghana reintroduced its input subsidy programmes, which were designed as tools to help develop agricultural value chains. The programmes primarily aimed at enhancing small farmers access to farm inputs for food-crop production. Despite adjustments to improve the effectiveness of the subsidies, there are questions as to their impact.

Like most West African countries, Ghana has long been offering subsidy programmes for agricultural inputs. By helping small farmers gain access to high-quality inputs at affordable prices, the government wants to stimulate production and agricultural productivity.

Ten years of subsidised inputs

After the rise in global fertilizer prices and the 2006 Abuja Declaration (in which African Union member states committed to increasing fertilizer use sixfold by 2015), Ghana decided to reintroduce its subsidy programmes in 2008. That effort absorbed between 10% and 13% of the budget of the Ministry of Food and Agriculture (MoFA), and led to an increase in subsidised fertilizer from 43,200

tonnes in 2008 to 176,000 tonnes in 2011. Starting in 2013, corn, rice and soybean seeds were added to the initial list of priority crops (cereals, legumes, market-garden crops). Since 2016, the government has focused its efforts on modernising agriculture with two flagship programmes, Planting for Food and Jobs (PFJ) and One District One Factory, each of which had a budget of nearly USD 100 million in 2017. Farmers are supported with fertilizers enough to cultivate two hectares of land at 50% subsidy rates. This amount to fifteen (15) bags of 50 kg, two-thirds of which are NPK fertilizers for basal application and the rest is Urea fertilizer for top-dressing.

The subsidies included in the programmes are designed as tools to help develop agri-

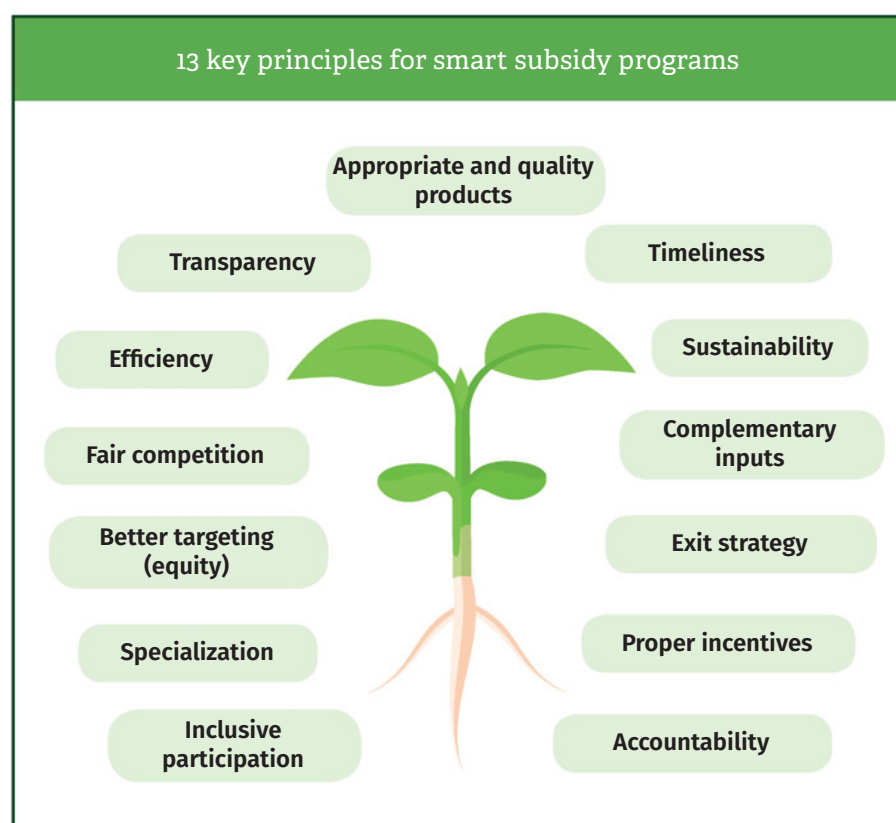
**800,000 JOBS
HAVE BEEN CREATED
SINCE THE LAUNCH OF PFJ**

cultural value chains. PFJ also provides effective extension services and funding for processing and marketing, and supports the development of e-agriculture.

A multifaceted impact

In 2018, the country experienced stabilisation in food prices, a drop in corn imports and an increase in food exports to neighbouring countries. Crop productivity picked up sharply, and corn in particular saw an 86% rise in productivity compared with 2016. Roughly 800,000 jobs have been created since the launch of PFJ, 90% of which have been in agricultural production with over 18,000 in the provision of inputs and over 12,000 in extension services.

But not everything is perfect. The large gap between the market price of fertilizer in Ghana and prices in neighbouring countries encourages smuggling. Smallholder farmers eligible for the programme have trouble paying for the non-subsidised portion of the fertilizers as they may lack financial resources at the time purchases are to be made. There are also delays in government payments to suppliers and in fertilizer distribution owing to administrative burdens. The combination of those programme-specific problems and external factors, such as armyworm invasions and insufficient availability of improved seeds, has also hurt production and limited profits for small farmers.



Source: IFDC, USAID West African Fertilizer Program (WAFP)

Better targeting of small farmers

By 2020, more than 1,200,000 small farmers will be enrolled in the subsidy programme for fertilizers and seeds. New crops, such as tubers, have been gradually introduced into PFJ, which now covers most food crops grown in the country.

Still, the search for the best way to target farmers continues. Several pilot projects have been carried out over the past three years to create a database for PFJ beneficiaries. The idea is to get a clearer picture of the different farms, inputs and services received, and to better assess the programme's impact on agricultural production and income. The roll-out of such a database would allow MoFA to consider transitioning, in the medium term, from the current supply-side subsidy to a demand-side subsidy based on the needs expressed by farmers. The government would save a lot of money, smuggling would be facilitated and the fertilizers and services provided to small farmers would be more personalised. The Ghana Fertilizer Expansion Programme, launched in 2019, sets out plans for a full transition to that model by 2022.

Adapting the different types of fertilizer

The Soil Research Institute has used soil mapping to develop new fertilization recommendations tailored to PFJ's priority crops, to the different agroecological zones and

to the soils in eight out of the 16 regions in the country. Six new "balanced-fertilizer" formulas containing primary nutrients and micronutrients (zinc or boron) were validated and included in PFJ's call for tenders for the 2019/2020 season. The goal is to encourage small farmers to more quickly adopt new technologies and crop-management techniques that can help them significantly boost increase their productivity and income. The government hopes to quickly reach a 30% rate of adoption for the use of fertilizers and improved seeds before reducing, or eliminating, its subsidy programme.

This proactive policy has encouraged certain fertilizer suppliers to invest in new fertilizer-blending units that can produce customized fertilizers. With five blending units in Greater Accra and the Tema Port, Ghana has the logistical and technical capacities to supply high-quality blended fertilizers to the entire domestic market—PFJ and the cocoa fertilizers distributed by COCOBOD together account for roughly 80% of the market. MoFA has new laboratories and controls the quality of fertilizers throughout the distribution chain, in compliance with regional regulations.

Improving the regulatory framework

The 2016 national law on fertilizers and gradual implementation of the thirteen guiding principles for smart subsidy programmes

developed by IFDC, will lead to more efficient and intelligent use of agricultural inputs. Those principles, which ECOWAS intends to enact as a regional directive, are gradually being applied by several West African countries, including Burkina Faso, Niger and Senegal. All of this will help improve agricultural production and food security, and ultimately reduce poverty in West Africa. ■

TO KNOW MORE:

Feed The Future, West Africa Fertilizer Subsidy Program Guide
<https://africafertilizer.org/fr/blog-post/west-africa-fertilizer-subsidy-program-guide/>

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Members of the project team: (left to right) Michael Owusu, Patrice Annequin, Seth Osei-Akoto, Kido Kouassi, Phred Gyasi

Patrice Annequin, IFDC

Ghana's input subsidy programs: Awaiting the verdict

Ghana's input subsidy programs are very ambitious in scale and scope, which justifies a thorough evaluation. On the ground of a IFPRI-led study, Kwaw Andam highlights here some of the questions raised such as the targeting and the long term effects of such a programme.

Successive governments in Ghana have pursued twin goals of reducing the costs faced by farmers for input purchase and introducing farmers to new agricultural technologies to boost productivity. The political will is undoubtedly in place for expanding these programs. The latest version, Planting for Food and Jobs (PFJ), is quite ambitious in scale and scope. After a pilot project launched in 2017 with 200,000 direct beneficiary farmers, PFJ has progressively expanded the lists of beneficiaries up to 500,000 in 2018, with an ultimate goal of reaching 1.2 million farmers by 2020. In terms of scope, the program has moved beyond the previous subsidy programs which focused on fertilizer, to include seed subsidies, and the set of crops of focus has expanded over time. While the programme started with an initial focus on three cereals (maize, rice, sorghum), three vegetables (tomato, onion, pepper), and soybean, by 2019 the crops covered included groundnut and cowpea, roots, tubers and other vegetables. PFJ now has now has a broad scope and a significant budget. The government plans to invest more than US\$650 million over the four years of implementation (2018-2021).

TARGETING OF BENEFICIARIES REMAINS PROBLEMATIC

A need for a deep evaluation

Given the scale and scope of PFJ and its expansion goals, a comprehensive impact assessment seems essential to inform policy

design, support efficient implementation, and establish a clear basis for measuring the results of this major policy intervention. While recent efforts have been made in collaboration with institutions such as IFPRI and AGRA to strengthen the monitoring and evaluation of the program, some of its expected outcomes and impacts remain questionable.

The thorny issue of targeting

Some estimates indicate that as much as US\$12 million worth of the subsidized fertilizer was moved abroad in the 2018-2019 planting season. While the exact volume is difficult to measure, the fact that the subsidy implementers had to take remedial actions (e.g. changing the bag sizes of subsidized fertilizer, labeling subsidized fertilizer, restricting sales in some districts close to the border) suggests that the volumes are not trivial. If moving fertilizer across the border is perceived to be more profitable than farming, it questions the capacity of the agricultural sector to achieve the productivity gains that would generate the tens of thousands jobs promised for the youth.

So then, are the right beneficiaries being reached? In this context, we can restrict it to farmers within the country's borders. Agricultural subsidy programs, especially the PFJ, are often presented as pro-poor. However, a recent study published by Houssou and co-authors in the *Journal of Development Studies* in 2019 suggests that in 2012 the subsidy programme in Ghana reached only 11 per cent of poor farmers nationwide, and benefits were leaked to 72 per cent of non-poor farmers. Without priority targeting, subsidies can prove to be a bitter failure. A pro-poor targeting approach in 2012 would have ensured that around 70% of poor farming household in Ghana's northern regions would be reached. According to the IFPRI study, such a targeting approach would entail measuring different dimensions of poverty, such as edu-



Truckload of subsidized fertilizer, Kumasi, May 2019. Photo credit: Kwaw Andam.

Kwaw Andam

cation, farming characteristics, and housing conditions through interviews and field visits. The recent pilot projects to generate data on Ghana's farmers is a step in the right direction in this regard.

Questioning the long-term impacts

Evaluation should also question the long-term impacts. What will be the lasting impacts of PFJ, for improving the use of agricultural technologies? For example, in the seed sector, the introduction of seed subsidies through PFJ was meant to increase farmers' use of improved varieties. However, private sector involvement in the seed production system is still low, and may even be adversely affected by PFJ, if the subsidy crowds out the private sector. Providing input subsidies also puts a strain on the public purse in an environment of constrained resources and risks of budget deficits. It is therefore essential, considering the issues raised above, to carry out a rigorous impact assessment of PFJ to improve it so that it helps achieve the PFJ goals. More broadly, agricultural policy in Ghana needs to move beyond the focus on input subsidies to consider the other priorities that are needed for improving agricultural productivity, including research and development of improved seed varieties and investments in agriculture-related infrastructure such as irrigation and rural roads. ■

Kwaw Andam



Before leading the IFPRI Nigeria team, Kwaw Andam worked as a research fellow in the IFPRI program in Ghana from 2014 to 2019.

Agroecology in Ghana, the sesame sector as an opportunity

Ghana's vision for agriculture is based on the use of hybrid seeds and the application of chemical fertilisers. In order to make agriculture sustainable, the National Coordinator for the Ghana National Sesame Business Farmers Association advocates for the implementation of agroecology in the sesame value chain.

Grain de Sel (GDS): Can you present the main challenges of agriculture in Ghana? What about the sesame sector?

Amoah Clifford (AC): In Ghana, the main challenges for agriculture are the low capacity of smallholders, the lack of agriculture infrastructure and the low access to market opportunities. Many farmers produce their commodities but lose a lot of income for the commodities sometimes end up rotting in the fields. Besides, the methods of production are not sustainable because of the country over reliance on chemical fertilisers due to low soil fertility. This leads to increased cost of production or land degradation.

THE ONLY WAY
WE CAN MAKE AGRICULTURE
SUSTAINABLE IS TO PROMOTE
AGROECOLOGY

As for the sesame sector, it is still at a very young stage with very limited information about production. It lacks support from government and also sesame cleaning plants. Sesame grows well in the Northern part of Ghana and some parts of Oti Region and Bono East. In 2013, the international development organisation SNV engaged some farmers to cultivate sesame as a cash crop. It yielded some good results and was scaled up to other parts of Northern Ghana. It became important to have a Sesame farmer association that would focus on sesame production and lead the development of its value chain to a stronger supply chain. That led to the birth of the Ghana National Sesame Business Farmers Association in 2015.

The Ghana National Sesame Business Farmers Association has been promoting the application of agroecology in sesame culti-

vation. We identified viable crops to rotate with sesame such as soghum, millet and Guinean corn. The farmers were also trained in conservation agriculture methods where crops residues add organic matter and improve the soil conditions. Farmers were encouraged to plant sesame and groundnut on the same field as well as cowpea and other leguminous crops.

GDS: What is Ghana's government agricultural policy regarding agroecology?

AC: The Government of Ghana (GoG) currently does not have a policy on agroecology. Its understanding of modernisation of agriculture is based on the use of hybrid seeds, the application of chemical fertilisers, pesticides and weedicides. In the 2019 budget statement, the GoG projected to spend 400 million Ghana cedis on 300,000mt of inorganic fertilizers and 200,000mt of organic fertilizers under this subsidy programme! It should be noted that gaps in the implementation of the programme lead to the smuggling of the fertilizers to other countries such as Burkina Faso and Togo (p 17).

Despite the general support to the intensification of the Ghanaian agriculture, some Agricultural Department levels and stakeholders still support interventions or field implementations on agroecology.

GDS: What have been the main impacts of the National fertilizer subsidy programme on your activities?

AC: The GoG has been making some efforts by promoting organic fertilizers under its subsidy programme. At the same time, the GoG and its agent's campaigns are geared towards encouraging farmers to use chemical fertilizers with the view of increasing crop yields and to improve farmers' incomes. Those fertilizers are highly subsidized and sold at very low prices to farmers. Thus, adoption of agroecology practices is slow as more people tend to use fertilizers even if farmers recognize the benefits of agroecology to their health and environment.

GDS: What is the Ghana National Sesame Business Farmers Association's role regarding agroecology?

AC: First we needed to generate evidence of the practical part of agroecology. The Association engaged with farmers in a bid to discourage use of chemical fertilizers. Alternative solutions are provided as climate smart farming practices such as planting short duration crops. We also sensitize them on the benefits of agroecology for the reduction of production cost. We also realised that there is a need to do advocacy. Our advocacy is rooted at the regional and district levels. We brought various departments to a common platform to discuss on the practical part of agroecology and its integration into their medium-term development plan. We meet annually and undertake farmer exchange and learning visits on the field. This has led to the setting up of agroecology demonstration field.

We think the only way we can make agriculture sustainable for the rural farmers is to promote agroecology! Thus, the Ghana National Sesame Business Farmers Association has been pushing the GoG to see sesame as an opportunity to include in its current agricultural policy. ■

Clifford Amoah Adagenera



Clifford Amoah Adagenera is the National Coordinator for the Ghana National Sesame Business Farmers Association.

The Ghana National Sesame Business Farmers Association is a farming systems-centred apex body. It operates a sesame agribusiness-focused strategy, and works as an advocacy-oriented structure.

ICTs sector: a driver for rural and agricultural development in Ghana?

In 2017, Ghana was ranked first in West Africa in terms of Information Communication Technology. When it comes to the cocoa sector, ICTs appear as a solution to improve earnings to farmers, to reduce child labour and to prevent deforestation.

A robust regulatory framework is critical for revolutionising the Information and communication technologies (ICTs) markets to have the potential to contribute to rapid socio-economic development in Africa. In Ghana, the two key policies driving ICT developments are the ICT for Accelerated Development (ICT4AD) Policy and the National Telecom Policy (NTP). The legal regime continues to see some rigorous developments with recent news laws adopted to support the implementation of the ICT policies and improve the regulation of the sector (at least 5 for the only year 2008). Since 1994, the introduction of key policies and programs has jumpstarted a tremendous transformation of the country's Information and Communication Technology (ICT) landscape. In 2015, ICTs alone contributed 2.2% to total GDP and was expected to grow exponentially. By 2017 Ghana was ranked first in West Africa in the International Telecommunication Union (ITU) Global ICT for Development Index. This transformation came about as a result of the liberalization of the telecommunications sector.

Some key developments characterize the sector as a high growth in mobile penetration which currently stands at 139% with 41 million mobile lines in 2018, 126% in Côte d'Ivoire (against 83% for Burkina Faso); the deployment of mobile money interoperability and digital addressing systems, an increasing availability of, and falling prices for international bandwidth; growth of entrepreneurship among youth through accelerators and incubators; and donors and government policies promoting private sector and human skills development.

Driving towards the 4th industrial revolution

In Ghana, agriculture serves as a potent driver of national economic development (p. 8-9). However, lack of access to informa-

GHANA DRIVE TOWARDS A DIGITAL ECONOMY TO POWER ITS 4TH INDUSTRIAL REVOLUTION

tion is hampering agricultural productivity, resilience to Climate Change and farmers fair income generation of an ever-increasing population. New technologies are then delivering more services that are essential to people, from allowing remote diagnosis of illness to helping farmers increase crop yields and gain better prices for inputs.

As Ghana drives towards a digital economy to power its 4th industrial revolution, the dependence on advances in ICTs has become more

than necessity, particularly in agriculture. An entrepreneurial ecosystem is fueling young people to start businesses looking into smart innovations to digitize agriculture. However, Ghana has a lot to learn from tech start-up ecosystems in Kenya, Nigeria, South Africa, Egypt and Morocco where 50% of Africa's tech hubs are concentrated. Many tech start-ups in Ghana are disrupting products & service delivery in agricultural sector using mobile platforms to provide farmers and agricultural firms with up-to-date information.

Farmerline: Helping cocoa farmers attain a living wage

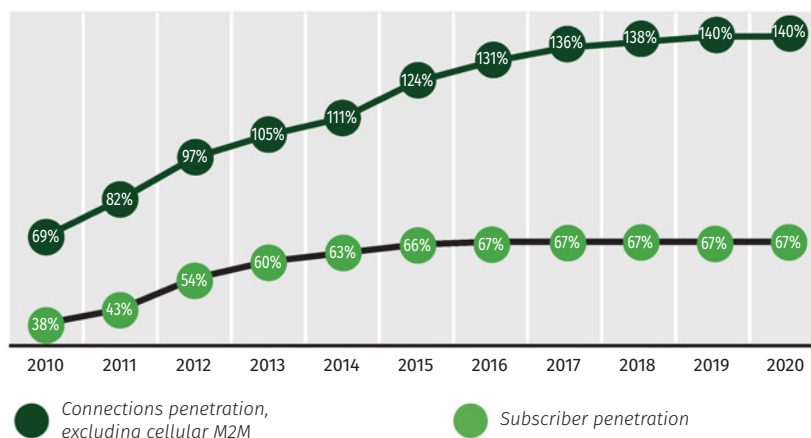
One of the companies which has sprung forth from this moment is Farmerline, a Ghana based agritech-company. Officially launched in 2013, Farmerline has built a software platform currently supporting over 340,000 farmers across 24 countries offering digital solution for farmer profiling, mapping, certification, traceability, messaging and digital payments. It is used by over 71 organizations to provide farmers with resources to increase productivity and profit.

Farmerline works mainly with cocoa farmers. The most pressing issues to address in the journey towards creating a sustainable cocoa industry is (i) helping farmers attain a sustainable living wage (ii) child labour reduction and (iii) reduction of land abuse. ICTs can help on the three.

ICT: a provider of information and resources

The constitution of the Cocoa Industry has for the most part recognized that helping cocoa farmers attain a living wage is a matter of complexity. It has therefore employed

Figure 1: Mobile Subscriber and connections penetration in Ghana



Source: GSMA Intelligence, 2017

a multi-faceted solution, including steering farmers toward diversification and increases in yield, providing training on the use of agrochemicals and rejuvenation, facilitating access to inputs at better prices and credit terms.

ICT offers cost effective channels to deliver information and resources to assist farmers. E-Extension Services allows farmers access agronomic information in voice / SMS or smart application. Farmerline also provides farmers with input credits. This project is only at its genesis, but it is the bloom of a much-needed credit system for farmers in the industry.

ICT and reduction of child labour: the CLMRS

In 2001, members of the Cocoa Industry signed an agreement - the Harkin Engel framework - to work toward ending child Labour in the

cocoa industry by 2005. The signatories were unsuccessful and have re-engineered deadlines and goals, presently aiming for a 70% reduction in child Labour on cocoa farms by 2020. The cocoa industry facilitates this goal through A Child Labour Monitoring and Remediation System (CLMRS).

The Cocoa Barometer defines CLMRS as "a community-based instrument to identify and remediate child labour. [...] A local liaison regularly visits every family and speaks to both parents and children. When child labour is spotted or self-declared by the child, this is flagged in a central database, analysed, and suitable remediation is then implemented." A farmer who does not engage in child labour - alongside other markers - he/she becomes qualified to command premium prices per bag of cocoa.

Farmerline's software makes use of a certification feature, alongside trained field agents to assist companies and organizations in fulfilling this pillar of sustainability and in doing so help farmers to get the premium companies commit to pay.



Farmerline in a cocoa plantation

Farmerline

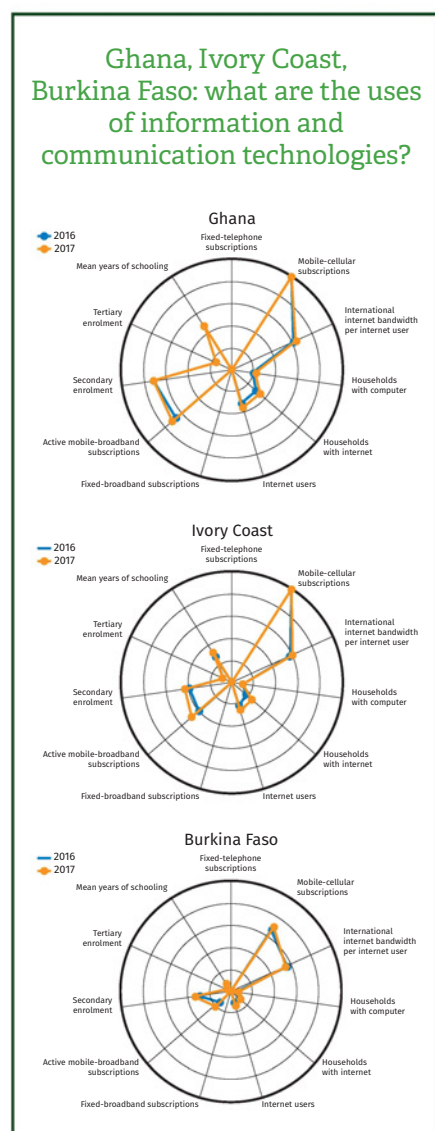
network connectivity in rural areas has much to be desired and for applications requiring internet, this present greater challenge.

A multifaceted approach with various stakeholders

With technological advances, especially in mobiles, the delivery of economic and social benefits will become even more evident. They will empower farmers to be more resilient, increase crop yields, provide safe, swift and secure financial services.

The efforts require a multifaceted approach with various stakeholders playing their expected roles. Government's role is a key enabler for ICTs to take a right role in socio-economic development through forward thinking policy directives, creating political and economic stability needed for investments into infrastructure and skills.

There are many lessons to learn from sister countries on what has worked and not, as such the opportunity for countries like Burkina Faso, Togo, Benin, Niger and others who are now adopting ICTs into their mainstream development agenda to leapfrog and advance much more quickly and better than their peers who took the lead. ■



Preventing Land Abuse & Encouraging Restoration of forest

The quest for increasing farmers' revenue has often resulted in the use of protected forest areas being used for farming, or farmers allowing use of their land for mining and other detrimental activities (p. 26). For instance, The cocoa sector has identified a number of ways to help curb this specific issue, chief of them being helping farmers to increase crop yield per acre. All of these solutions require the use of ICTs platforms to ensure effective implementation. Through mapping technology land restoration efforts are provided with visibility of land to be restored.

Remaining challenges of ICTs for rural development

Before realising the potential of mobile to support socio-economic development, the key challenge is to connect farmers with an appropriate message and quality information: and so to produce this knowledge and to adapt it to the ICT. Many of these require collaboration between the public and private sectors. As start-ups and tech entrepreneurs are looking to build viable businesses the challenge of working with bureaucratic institutions often frustrates or even kills such innovative businesses whose survival very much requires favorable environment for partnership and collaboration. It is worth it: it could help to improve a new kind of training and agricultural education. The second is the infrastructure and business module required to ensure sustainable delivery of services that impacts farmers productivity and income. For example, the quality of mobile

Worlali Senyo



Worlali Senyo leads the Partnership Development Unit at Farmerline, a Ghanaian social enterprise creating lasting profits for small-scale farmers everywhere by leveraging advances in mobile phones, machine learning & remote sensing to empower a network of field agents to deliver quality and affordable farm inputs bundled with intensive training to farmers in remote areas.

Peasant organisations in Ghana: major players of sustainable development

From “Nnoboaa”, a traditional form of cooperation in Ghana to the current Peasant Organisations (PO), the paper facilitate the understanding of the history, role and importance of peasant farming in Ghana as well as the challenges it is confronted with. It is illustrated by a focus on Rice POs in the Kesena-Nakana District.

Establishing farmer organisations – especially those of smallholders – and strengthening their capacity, has been a major focus of the Government of Ghana (GoG) since gaining political independence in 1957. Agriculture has historically been the dominant sector of Ghana's economy, but its contribution to GDP has been oscillating in recent years (18.7% in 2017, 18.3% in 2016). The sector is still suffering from low productivity due to a number of internal factors including land tenure arrangements, market access, capital and technology as well as external factors such as investor speculations, climate change impacts and falling international market prices of Ghana's export products (MoFA, 2015).

“Nnoboaa”: a traditional form of cooperation and a model

Collective activities conducted as a form of reciprocal labour exchange and mutual aid by farmers in Ghana are based on customary arrangements linked to social, ethnic and familial relations. This form of arrangement is called “nnoboaa” among the Akan speaking communities in Southern Ghana. “Nnoboaa” is not only voluntary and informal; it is also temporary with the group dissolving on completion of the task. In the late 1920s, the British colonial administration introduced formal farmer organizations in the form of cooperatives to improve the quality and marketing of cocoa and to provide loan facilities to farmers. They were viewed as key instruments for agricultural and rural development. So the Department of Cooperatives (DoC) was established in 1944 to oversee cooperative development in the country. Early success stimulated a rapid expansion of cooperatives first in the cocoa sector. The model expanded to other crops to become prominent immediately after independence in 1957. Cooperatives were then responsible for the marketing of about 40% of the total cocoa produced in the country. In the 1990s, smallholder rice farmers also began organising themselves in

associations to share communal labour and to participate in social events. These actions have helped to promote strong bonds among smallholder rice farmers and made rice production more efficient and productive.

However, after the 1966 military coup, the new government feared the cooperative movement was becoming an economic and political force in rural areas and therefore ordered it to be disbanded. The DoC was dissolved. The global pressure for structural reforms and market liberalisation during the late 1980's put an end to state controlled cooperatives. Since then, subsequent governments adopted a liberal approach and allowed other types of rural and farmers' self-help organisations, commonly referred to as Farmer-Based Organisations (FBOs) or Peasant Organisations (POs) to be formed for promoting income-generating activities. These days, cooperatives and FBOs are the two main forms of smallholder farmer associations in Ghana. In the 1970s, GoG adopted the traditional practice of mutual assistance in farming, the “nnoboaa” system, as a model for rural development and this accelerated the formation of POs in the country.

Farmer Based Organisations: vehicles for providing collective services

POs in Ghana are made up of farmers with similar problems and similar needs. They share local resources such as land, labour, water and access to markets for the benefits of their members. Their activities can be in the form of agitating for decreases in fertilizer prices, marketing crops, negotiating for better access to credit and improving transportation for produce. They try to empower themselves and as Van der Ploeg (2008) observed, they try to empower themselves by actively constructing barriers to ensure the autonomy of their members and mitigate dependency, poverty and marginalization in this globalised world.

Many international development organisations also support FBOs because they are vehicles for providing an array of collective services to their members on a non-profit or cost basis. FBOs constitute one of the key actors in agricultural value chain support services in Ghana. In this way, they are considered to be an important means for achieving agri-business development objectives and rural development in the country; they are solicited by private sector enterprises to enhance value chain development of their farming activities. Similarly, NGOs are encouraging FBOs to improve rural service delivery, economic growth, and poverty reduction among farmers. They also prefer to deal with peasants through FBOs. The number of FBOs in Ghana is estimated to be around 10,000, including those registered and unregistered, and those registered as cooperative societies. The number continues to increase rapidly.

Peasant associations connected to national and regional networks

POs are controlled by farmers sometimes helped by specialized employees. They are usually associated with specific value chains and are emerging as networks of local NGOs. The Ghanaian national umbrella PO is known as the ‘Peasant Farmers Association of Ghana’ (PFAG). It was formed in 2005 by a group of small-scale farmers but has evolved to become the apex farmer-based non-governmental organization. It aims at advocating for change of policies that perpetuate the poverty of rural farmers and other issues that affect their livelihoods. It currently has a membership of 1,527 registered member and 39,156 individual registered small-scale farmers in over 70 Districts in all the regions of the country. Its vision is a Life of Dignity for the Peasant Farmer. It advocates for pro-poor trade and agricultural policies at national and international levels, serves as a platform for farmers to build and strengthen their capacity in policy advocacy, and provides technical business and entrepreneurial training for the peasant farmers. PFAG is a member of the West African sub-regional federation known as “Réseau des Organisations Paysannes et de Producteurs de l'Afrique de l'Ouest (ROPPOA)”.

POs in defense of sustainable development

POs in Ghana have undeniable strengths to contribute to the sustainable development

of the country. The significance of peasant farmers in Ghana is reflected by the fact that about 80% of the country's total agricultural production is attributed to them. Most farm holdings are less than 2 hectares in size. POs in Ghana have a long history and have played and continue to play extensive and leading roles in the struggle for political independence in the country. They often mobilise their members to fight against detrimental government economic policies and development programmes.

Peasant organisations' response to land grabbing

The performance of POs in Ghana, and in West Africa in general, is hampered by a multiplicity of national challenges: access to land, land grabbing and limited irrigation. Land grabbing by foreign private companies has become a significant concern of peasant farmers in Ghana and across Africa. Peasant movements declared in a global Conference organised by La Via Campesina in Spain in 2017 that: "Almost everywhere in Africa the elite and corporations are undertaking efforts to capture and control people's basic means of production,

such as land, mineral resources, seeds and water. These resources are increasingly being privatized due to the myriad of investment agreements and policies driven by new institutional approaches, imposed on the continent by western powers and Bretton Woods institutions" (Monjane, B., 2017).

In Ghana, land grabbing by foreign investors continues to escalate, especially in Brong Ahafo Region and the Upper West Region. This phenomenon is causing local communities many problems such as the displacement of inhabitants, non-payment of compensation, lack of access to water resources, land degradation and infringement of poor farmers' access to land, especially female smallholder farmers. Female farmers are hardest hit due to traditional norms and customs which limit their access to and ownership of land; they mainly rely on family to access land. Caritas, the charitable organization of the Catholic wing of the Ghana Catholic Bishop's Conference, recently called on the government of Ghana to immediately take measures to stop the spate of land grabbing in the country. Unfavourable international market prices are

also limiting smallholder farmers' ability to expand their production frontiers, thereby reducing their incomes and livelihoods. Cocoa, rice and cashew farmers in Ghana are suffering from continuous declining international market prices.

Rice POs in the Kasena Nankana District have to a large extent succeeded in negotiating with land owners and community chiefs to get access to lands which are then allocated to their members according to agreed criteria and conditions. For instance, Donkor and Owusu (2014) and Dinye (2013) indicated that about 18.4 percent of the 2,334 hectares of irrigable land managed by the Irrigation Company of the Upper Region (ICOUR) is leased to farmers while the remaining 81.6 percent of the land is put under the management of Village Committees which are made up of selected beneficiary farmers.

Transform POs into viable sustainable development players

To ensure the transformation of POs into viable sustainable development players, GoG, private sector development agents, business enterprises, civil society organisations and the general public should contribute more meaningfully to ensure sustainable rural development policies via institutionalised mechanisms which effectively involve POs; appropriate legislation and regulatory frameworks; capacity building assistance and financial services; knowledge; information and technologies. ■

Rice Peasant Organisations in the Kessena-Nakana District

With a population of about 118,441, the Kessena-Nakana District (KND) is highly dependent on rice which constitutes the highest share (54.8%) of cereal production in the district. KND also accounts for 4.5% of the regional rice production in the country which is an important food and cash crop in Ghana.

Farmers in rice production have been organising themselves to participate in meetings, communal labour and social events since ancient times. Recognising that rice production is a difficult venture, farmers have organised themselves for the purpose of "rotational weeding". Farmers develop strong bonds that help to break complex tasks into easier and manageable pieces. At the same time, NGOs in KND have therefore taken steps to assist informal POs in the district to formalize themselves.

Rice PO members benefit from more than just rotational weeding. In KND, rice POs strongly collaborate with Irrigation Company of the Upper Region (ICOUR) which liaises with various financial institutions in the district to provide soft loans to farmers. Rice POs are recognised by the district Farmer-Based-Organisations (FBOs) board which recommends POs to investors. Thus they have better access to smart farming methods such as tractors, hired labour, etc. POs also help their members to acquire lands. For instance, about 18.4 percent

of the 2,334 hectares of irrigable land is managed and equitably leased to farmers by the ICOUR, the remaining 81.6% of the land is put under the care of the Village Committee made up of selected beneficiary farmers. Farmers, male and female, belonging to POs have no difficulties acquiring land for cultivation; they own about 72.2 percent of farmlands. Apart from helping farming activities, POs serve as a source of motivation for farmers to diversify into other livelihood strategies including petty trading, carpentry, teaching, sanitation, grass cutter rearing and mushroom cultivation. They finally serve as a safety net for members through group support and individual solidarity.

Difficulties exist. Achieving rice POs' objectives has been marred by contestations as different people with different opinions make-up these groups. During POs members' meetings, farmers barely accept each other's opinions with respect to allocation of resources; land, finance, farm inputs like fertilizers and use of farm machinery. Membership is open to all farmers, including local ethnic groups, migrants, females, males, and young and older farmers. Within the rice POs, members sometimes form factions depending on individual interest, ethnic affiliation or community, which often led to grudges, confrontations and rebellion against the leadership.

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TO KNOW MORE:

This article is a summary of the longer original version of the article that you can read on our website.

Stories from Northern Ghana: women in agri-food processing

In Northern Ghana, parboiling rice is one of the most common processing activities women undertake. In focus group discussions, women express themselves about their hopes and difficulties while women's small-scale agri-food enterprises are often de-valued in the push for a "modernization-oriented development".

Women in rural areas of northern Ghana engage in a variety of activities to make up their livelihoods. In addition to their farming and household responsibilities, they also generate income through small-scale agri-food processing. Along with small-scale trading, these processing activities contribute to rural women's micro-entrepreneurship both formal and informal. According to the Global Entrepreneurship Monitor, Sub-Saharan African women have some of the highest rates of entrepreneurship in the world. Using data from their 2015 Women's Report on Total Early Stage Entrepreneurship, women are more likely than men in Ghana to be starting a business (27% versus 24% out of the total population). However, the rate of business closure is twice as high for women as for men in Ghana.

In 2018, through the *UPGRADE* Plus project funded by the German Federal Office for Agriculture and Food (BLE), 27 women's groups including 523 women participants from areas

surrounding Tamale (Central Gonja, Savelugu, Nanton, and Tolon Districts) were involved in focus group discussions structured using a participative group story method to visually trace back the activities of each group over the years since its creation and then collectively envision the groups' future direction. The processing activity that the women shared the most experience with in this region was rice, seconded by shea butter.

Parboiling rice: a "go-to activity"

Rice is sought after for making Ghanaian dishes such as the famous jollof rice and it is grown in the northern region of the country. Parboiling involves soaking raw rice in water, boiling and then drying it with the effect of making de-husking easier. Moreover parboiled rice has a longer shelf life because the process assists with reducing insect infestation and inhibits cracking. It also cooks more quickly. According to the United Kingdom Department for International Development (DFID), there are an estimated 100,000 women involved in parboiling rice in Ghana

at the home-level. In the northern region, parboiling rice is one of the "go-to" income generating activities for women.

RICE VALUE CHAINS ARE BEING TRANSFORMED WITH LITTLE ACKNOWLEDGEMENT OF THE GENDERED IMPACTS

Women buy rice from men in their communities or from the nearest market. In multiple groups interviewed, they estimated that 2-3 bags could be processed in one week. They explained that, "We do not store some as we do not have enough capital. We sell as we process." In one women's group, they explained that, "We get benefits from the rice processing. If you mill it and it is good, you will get good market for it. After calculating your income and expenditure, if you make profit, you can support your child in school and also have some to save in your money box."

When taking loans from their women's group, many of the women described that their first impulse for income generation was to buy paddy rice: "it happens that we told one another that we should form a group, so that we can be meeting and contribute a small amount of money... because we were seven and then gave it to one person to solve her needs. Then we said now that the days have passed, we have to increase the contribution ... Then one of us can go and buy a bag of rice and get a small price from it".



Boiling rice using fuelwood

M. Lelou, 2018 (et K. Schaller)



Spreading rice for more even sun-drying

M. Lelea, 2018 (et K. Schaller)

To perform in challenging conditions

Women perform this work in the face of challenging conditions. As one women's group described, *"Our biggest challenge has to do with our road and lack of a mill. We have to go to other communities to mill. Lorries are not running here to ease our movement. We rely on tricycle motorcycles."* One woman emphatically added that, *"Because we lack a mill, it moves us backwards"*. The mills on the market in Ghana are not affordable at the small-scale. Cost-effective mills are needed to save women time and energy.

In another group, they explained that, *"This is why we are doing it small small. We also do not have reliable water supply. Then fuelwood to aid us in the processing."*

Many of the women's groups lamented their dissatisfaction with the market and the challenge that they face to find reliable buyers. One woman retold that, *"Sometimes we process and there is no market"*. As they do not have somebody specific to sell to, they may go to the local market and wait but not find a buyer or just sell it without a profit in order to avoid carrying the rice back home. Getting their rice to the market incurs costs and then when they get there, the buyer determines the price. Although local consumption of rice is increasing, this does not translate into demand for rice parboiled at the small-scale by rural women. The work that women do is undervalued and so when they are displaced, it goes largely unnoticed.

Rice value chains are being transformed with little acknowledgement of the gendered impacts.

Demand for rice is high in Ghana (p. 30). In the Northern Region, one of the largest rice processing facilities in all of West Africa has been built and celebrated as a successful example of modernization of agro-food processing. Further this branded rice is a "Made in Ghana" competitor whilst the majority of rice consumed in Ghana is imported. With promises to create employment for 1 million over the next five years, the link in the value chain that has been emphasized has been connecting small-scale farmers to this processing facility. Development actors including international NGOs have been involved with facilitating the involvement of small-scale rice farmers to this rice processing facility as many large-scale enterprises do not want to deal with the heterogeneity of sourcing from so many smallholders. However, income from rice farming tends to be channeled through male household heads, while income from parboiling rice stays in the hands of women.

Seeking new livelihood opportunities for rural women

Considering these changing market dynamics in the rice sector, new approaches are needed to keep money from agro-food processing in the hands of women. For example, exploring opportunities for processing underutilized species can provide income, increase availability of nutritious foods, and support agro-biodiversity.

An underutilized species that women process mostly for home consumption is from the African Locust Bean tree (*Parkia biglobosa*). Although there are more and more women who are interested in processing it for sale in the local market, the availability of the locust bean pods is declining because the wild trees are often not replaced after they are cut down. It is an important part of the Dagomba women's identity as it is exchanged among women at important events. Locust bean, locally known as Dawadawa, has an edible fruit pulp and the bean is used as a tea and as a savory condiment for flavoring stews. Roselle, air yam and many other underutilized species could be explored for further added-value possibilities.

As investments are made for modernizing agriculture in Ghana, it is imperative that interventions do not displace women's ability to gain income. Women's voices need to be heard in planning processes and that their needs need to be considered within rural development. It is unknown how much longer parboiling rice will be a "go to" activity for women, so initiatives to build capacity for women to create other types of businesses will be needed. Local innovation funds, peer-to-peer trainings and network building are some of the approaches that can be embedded within broader initiatives for creating more justice within agri-food systems. ■

Margareta Amy Lelea, Ph.D.



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Ghana and Ivory Coast: long-term alliance to support cocoa growers?

The cocoa sector and cocoa growers face challenges such as overproduction and falling prices on the global market. The world's top cocoa producers, Ghana and Ivory Coast, are used to competing with one another. But now they are teaming up to address these issues. Will the alliance last?

Grain de Sel (GDS): Why did Ghana and Ivory Coast recently introduce a tax increasing the price of cocoa by 400 dollars per tonne?

François Ruf (FR): The price of cocoa is determined on the global market: supply and demand are anticipated by actors over 6 to 12 months. Today we're seeing overproduction, so prices are low. Ghana and Ivory Coast account for roughly two-thirds of global production. To counteract falling cocoa prices, they decided to team up against the major players in the industry. That momentous decision puts them in a position of power.

What's surprising is that they didn't do this earlier. In 1988, the then Ivorian president Houphouët-Boigny tried to take on the chocolate industry in order to keep production in the country. He didn't succeed though, as Ivory Coast accounted for only 30% of the world's cocoa supply back then. Today the two countries carry enough weight that the industry can no longer ignore them. With the surcharge of 400 dollars per tonne added to the market price, the governments set a floor price of XOF 825 per kilogram for growers (who were hoping for XOF 1,000).

GDS: Can those policies be effective and boost income for producers? What are the pitfalls?

FR: The supposed 400 dollars is not yet fully paid to producers... But both countries are in an election period, and the media is talking about it: Producers can hope to get closer to XOF 1,000 in 2020, unless the currency depreciates or is devalued. Ghana has always played on that variable.

Historically, price increases have always benefitted regulators and industry authorities, such as Conseil Café-Cacao in Ivory Coast and Cocobod in Ghana. Boosting remuneration for producers was a primary objective. Cocoa is an important financial driver for the coun-

GHANA AND IVORY COAST
ACCOUNT FOR 2/3 OF WORLD
COCOA PRODUCTION

tries: In 2019, growers were paid roughly 60% of the export price, intermediaries 20% and the government nearly 20%.

The critical factor will be whether Ghana and Ivory Coast can keep up their alliance over the long term. Ivory Coast officially wants to stabilise production, whereas Ghana is trying to boost production to over one million tonnes. Policy-wise, they do not appear to be on the same page. But thanks to a system for counting cocoa beans based on a national sample of cocoa trees, large companies in the industry can assess production a few months in advance. If production increases, they will perhaps agree to pay the 400 dollars, but on the basis of falling global prices! So the strategy of Ghana and Ivory Coast makes sense, but it's not invulnerable.

GDS: With the suspension of sales for the 2020-2021 harvest, will buyers start turning to other cocoa-producing countries?

FR: Of course they will. Buyers will certainly start looking to other cocoa-producing countries in order to prepare a counterattack! Even without the industry's intervention, cocoa production has shifted geographically multiple times in the past. Focus is now on Ecuador and Peru, where cocoa production is booming, and on central Africa. Indonesian cocoa, which has been on the decline with lower cocoa prices than in Ivory Coast, could also increase in value.



Cocoa pods

farmerline

But cocoa production can't be manipulated like that! Take Vietnam, for example, where the company Mars wanted to replicate booming coffee and cocoa production. It was a total failure because climate conditions were inadequate in many regions and available land was scarce. No major company in the industry will be able to ignore Ivory Coast or Ghana over the next few decades.

GDS: With the presidential elections scheduled for 2020, do the bodies in charge of regulating cocoa prices have free rein?

FR: Those regulatory and tax-collection bodies are a state within the state, but they are close with those in power and cannot carry out independent policies. For the time being, Ghana and Ivory Coast have coordinated their prices. But if a disagreement arises, the price set for producers in Ghana could increase before the price for Ivorians, or vice versa. Fluctuations in the exchange rate between the CFA franc and the cedi create differences in value and lead to smuggling. Over the past 50 years, any time the difference in the price paid to producers in both countries exceeds ten euro cents (current value), tens of thousands of tonnes are smuggled from one country to the other.

Economic and monetary policy in both countries will need to be harmonised over the long term! To do so, even if the incumbent leaders remain in power, the 2020 elections will be important. ■

François Ruf



François Ruf is a researcher and economics expert at CIRAD (French Agricultural Research Centre for International Development). He specialises in cocoa and family farming in connection with cocoa.

TO KNOW MORE:

Read the Abidjan Declaration "La côte d'Ivoire et le Ghana ensemble pour faire face aux défis de l'économie cacaoyère" of 26 March 2018:
<http://www.gouv.ci/doc/1522158093Declaration-d-Abidjan-Cote-d-Ivoire-Ghana.pdf>

*Floor price: Lowest price at which something can be bought or sold

The nexus between cocoa production and deforestation

In Ghana, cocoa contributes substantially to the agricultural foreign earnings and plays a major role in providing income for millions of farmers and households. But its production has environmental impacts, like deforestation. Creating a policy environment that supports sustainable practices in agriculture to leverage the cocoa forests for biodiversity conservation is essential.

The Ministry of Environment, Science and Technology of Ghana estimated in its National Biodiversity Strategy Action Plan (2002) that the country loses about 4% of its GDP every year through biological diversity loss. Yet the potential value of agricultural systems for conserving biodiversity has long been ignored even if the maintenance of biological diversity is strongly determined by agricultural and forestland uses outside formally protected areas. In West Africa, increasing the area under cocoa production poses a threat to areas of high biodiversity. But a carefully planned interface of agriculture and forestry has the potential to conserve forestlands and improve cocoa suitability. In West and Central Africa, recent developments suggest a potential for productivity gains in cocoa farming systems through sustainable agricultural intensification practices such as cocoa agroforestry and Integrated soil fertility management (ISFM).

Cocoa, an extensive production system

Cocoa is one of the most extensive production systems in the agrarian landscape. It covers about 1,4 million ha of arable land in Ghana; 2,17 million ha in Côte d'Ivoire; 700,000 ha in Nigeria and 427,000 ha in Cameroon. Reported average yield recorded in these countries ranges between 200-700 kg per ha as against a potential yield of about 2,000 kg and more reported on well managed research stations.

This huge yield gap (see graph) has been attributed to aging cocoa trees (over 30 years tree stock), low quality cocoa planting materials, inadequate soil fertility management, prevalence of diseases and pests, old average age of farmers (over 45 years) coupled with an overall lack of knowledge on good agricultural practices. Consequently, decades of shifting cultivation into forest areas have contributed immensely to deforestation and biodiversity loss in the Upper Guinean rainforest. Today less than 20% of it remains in West Africa.

This forest loss has been the price of 73% of the global production of cocoa coupled with indiscriminate surface mining and increasing urbanization in this sub-region.

The Ghanaian tragedy of deforestation

In Ghana, from 1980 to 2010, about half of the forest area was lost, reducing from 8.8 million ha in 1980 to 4.9 million ha in 2010. And the trend continues: primary forest loss was high in 2016 and 2018 and the World Resource Institute report indicates a 60% change in forest loss in 2017-2018 in Ghana. A recent analysis of satellite images in Krokosua Hills, Sui River and Tano Offin - three forest reserves classified Hotspot Intervention Areas (HIAs) under the Ghana Cocoa Forest REDD+ Program - shows extensive deforestation rate of 3.5%, 3.7% and 1.1% respectively from 2010 to 2019. This can be explained by extensification of cocoa cultivation, population explosion, illegal logging and extraction of wood for do-

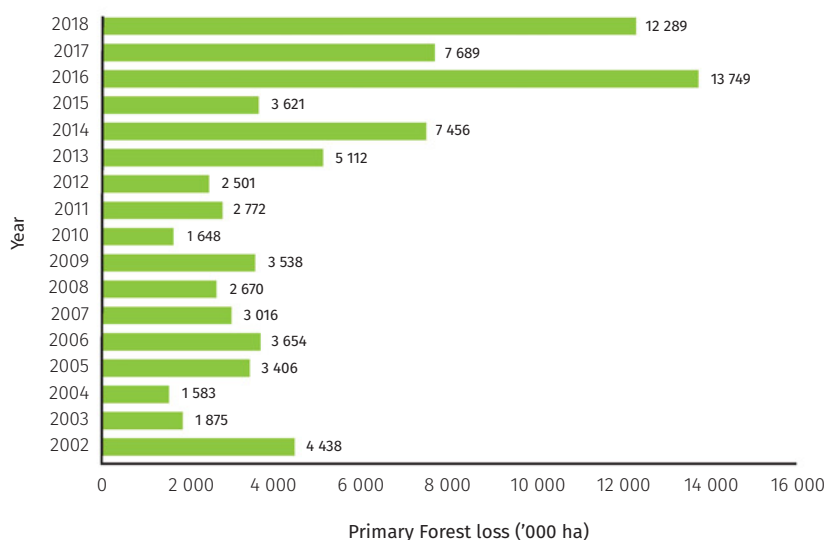
mestic use, and mineral exploitation leading to deforestation.

In order to conserve the remaining forest remnants while addressing social and economic demands for development and food security, a new paradigm of growth is to be developed for the cocoa sector. According to a study by Asare et al. published in 2018, Ghana distributed through the Cocoa Hi-Tech and CODAPEC 110 million improved hybrid cocoa seedlings, 2.4 million 50-kg bags of granular fertilizer and 1.6 million litres of foliar fertilizer, 1,500 tons of fungicides and 1.7 million litres of insecticides between 2014 to 2016. The sustainability of this growth is questioned and policy reforms are expected.

Improve yields to protect the forest

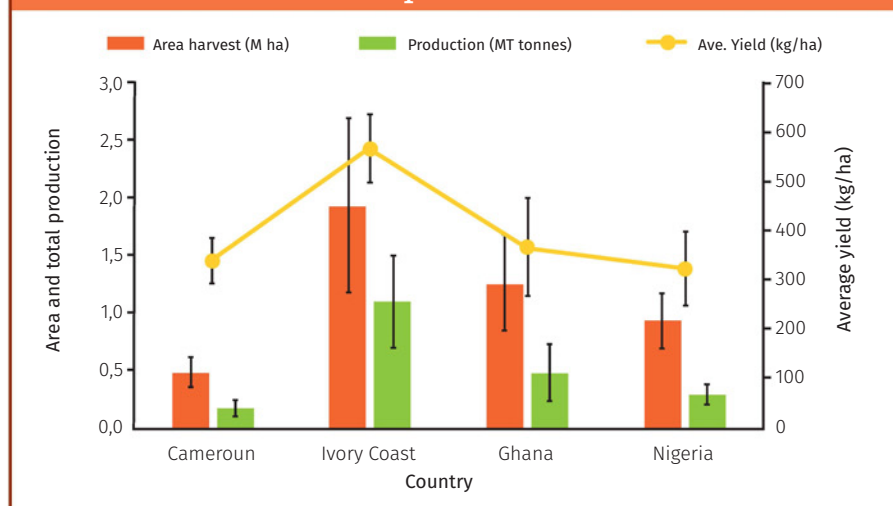
This tragedy of deforestation calls for an enlightened debate on the enactment of favourable agricultural and forestry policies.

Primary forest and tree cover Loss in Ghana for 2002 to 2018



Source: www.rainforests.mongabay.com

Area under production and yields of cocoa for the years 1980–2017



Source: FAOSTAT, 2018

In Ghana the Timber Resource Management Act, 2002 (Act 617) stipulates that “No timber rights shall be granted in respect of land with private forest plantation and land with any timber grown or owned by any individual or group of individuals”. This Act, even though a strong motivation for timber trees on farms, has done very little to encourage farmers to maintain trees on farms due to its low publicity and weak enforcement.

IN GHANA ABOUT HALF OF THE FOREST AREA WAS LOST BETWEEN 1980 AND 2010

Despite the government’s grants for planting materials and inputs, productivity has not improved to the expected level. Therefore, there is a need for a comprehensive approach that packages good agricultural practices and cocoa farm rehabilitation in an integrated, diversified, gender-equitable, profitable, non-predatory and sedentary cocoa farming systems. Sustainable cocoa farms means rational application of recommended pesticides and organic and inorganic fertilizers, use of improved planting materials sourced from a certified vendor, recommended pruning and weeding regimes, and planting at the recommended planting distances. This, when properly maintained through good agricultural practices could realistically improve the yield gap up to 1,200–2,000 kg/ha.

An innovative incentive mechanism that rewards farmers for their environmental stewardship should be found to assure farmers embark on good agricultural practices. The goal is to slow environmental degradation, improve long term yields and returns and so as the livelihood of farmers.

Diversify cocoa system

A good understanding of cocoa nutrition through a carefully planned integrated soil fertility management agenda can contribute to yield improvement. This coupled with a plant diversification system can help buffer forests from encroachment. In a diversified cocoa system, mixtures of plant species with different growth requirements and production potentials can reduce inter-specific competition and increase yields per unit area in terms of different produce as compared to mono-specific stands. In addition, these systems can serve as buffer between protected areas and other land uses. Plant diversification in the form of cocoa agroforests involves a portfolio of strategies designed to reduce exposure to product and income risks by combining a variety of activities (production, marketing, product transformation, input supply etc.). It allows consistent performance under a wide range of agronomic, environmental and economic conditions.

Socio-economic assessments of the opportunity costs of alternative farming systems to cocoa agroforestry in fragmented forest landscapes was done in Ghana by Asare et al. in 2014. They highlighted the financial importance of diversify cocoa systems in the country. The results showed that while cocoa agroforests can serve as corridors and extensions of forests, timber trees planted within

cocoa agroforests settings can help offset the yield losses in cocoa shade-yield relationships compared to full sun-production systems with an internal rate of return of 51.3% compared to 45% in a cocoa monoculture system. The condition is that farmers are paid premium for environmental and ecosystem services in addition to the on-farm benefits of cocoa agroforestry. This, according to the authors, can lead to widespread adoption of this farming system.

Food for thought

It is important to reconcile conservation goals with existing policies, extension messages, and on-the-ground practices of agricultural production in order to ensure up to scale impact. The policy terrain of conservation landscapes has a major effect on agroforestry’s potential to contribute to conservation. The implementation of REDD+ by the Ghana Cocoa Board and Forestry Commission, the environmental certification for cocoa by Rainforest Alliance and UTZ, the Cocoa and Forest Initiative (CFI) by the chocolate industry partners under the World Cocoa Foundation (WCF) and the Sustainable Trade Initiative (IDH) make the use of innovative technologies like cocoa agroforestry around protected forest areas feasible and attractive to scores of farmers and policy makers in countries like Ghana. The major challenge is how to harmonize the multiple mandates, rules, practices and needs of the wide range of actors living and working within the landscape. ■

Docteur Richard Asare



Richard Asare is a cocoa agroforester. He coordinates the Global Cocoa Soils Program and the CGIAR’s program on Climate Change, Agriculture and Food Security (CAAFS) that looks at mainstreaming climate smart agriculture in cocoa systems in Ghana.

When a firm, farmers and a bank join forces in the rubber sector

While rubber is not an important sector in terms of volume in Ghana, it is a good example of private firm's involvement in agriculture. Representative of two major players of a contractual scheme, a leader of the producers association and a staff of the agribusiness firm, explain the tripartite model set up to structure the rubber value chain.

Grain de Sel (GDS): Can you present the rubber sector in Ghana?

Simon Tetteh – ST (GREL): Rubber production in Africa extends from Guinea Conakry to Gabon. But with a little more than 5% of the world production, Africa is still a minor producer compared to Asia. Ivory Coast ranks the 9th in world and 1st in Africa with an annual output of 312,029 tons, followed by Nigeria at 151,104 tons. In Ghana, the annual output for 2018 stood at 47,241 tons and is estimated to reach 100,000 tons by 2025.

The first industrial plantation of rubber in Ghana was set up in the 1950s. In 1968, GREL was created as a joint venture between the Government of Ghana (GoG) and the American-based Firestone Tyre Company. The first established a rubber plantation, the latter settled a tyre factory. In 1981, Firestone withdrew and GREL became a State company until its privatization in 1997. Today, the State still holds 25% of the shares. Facing aging plantations and a declining production, GREL established in 1992 the Rubber Outgrower Purchases Unit to buy rubber from external producers. GREL was providing technical assistance and inputs. In 1995 the first outgrower scheme-the Rubber Outgrowers' Plantation Project-was launched.

In 2018, GREL plantation stands at 18,000 hectares (ha) with an output of 17,193 tons. The Outgrower Plantation covers a total of 45,600 ha with an output of 30,356 tons, the majority of the plantations being in their immature stage.

Isaac Bosomtwe – IB (ROAA): Despite difficulties in accessing land, the hectares planted have been increasing over the years. In 2014, 6 697 ha of rubber were planted, in 2015, 7 054 hectares, in 2016, 8 930 ha and 14 833 ha in 2018. The price of rubber fluctuates depending on the world market price (the reference price is the Singapore Commodity Market, SICOM), the local exchange rate and the percentage of Dry Rubber Content (DRC). The World rubber price and the exchange rate are beyond anyone's control. The processor determines the DRC.

GDS: The rubber industry has been structured over a tripartite agreement. Can you explain it?

ST (GREL): The tripartite agreement includes the technical operator (GREL); the organized farmer group (the Rubber Outgrowers Agents Association - ROAA); and the financial operator, the Agricultural Development Bank of Ghana (ADB). Every player has some obligations.

IB (ROAA): ROAA represents 8,000 to 9,000 farmers. Some are self-financed Outgrowers who are planting on their own. ROAA is structured at national, regional and district level. According to the contract, farmers participating in the outgrower scheme with GREL need to prove tenure rights on the land (at least four hectares), to deliver the rubber twice a month to GREL; to repay the loan to ADB with interests and to pay in full for the planting materials to GREL, etc.

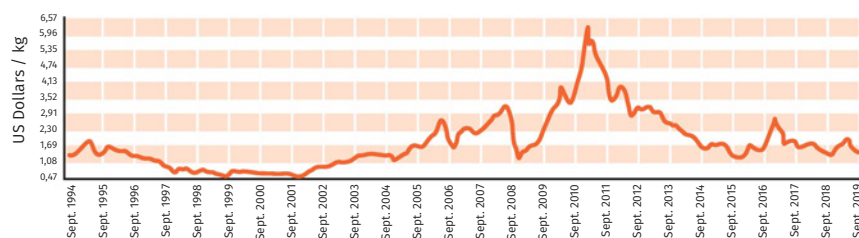
In view of the financial demand from the tappers, each farmer sends his product at least once a month. The frequency is not fixed and also depends on the distance of the farm to the processor.

ST (GREL): The agreement has involved 8,012 farmers with a total planted surface of about 30,155 ha from 1995 to 2016. In addition, 1200 farmers are self-financed outgrowers. To date, 5,500 farmers under the project are in production equivalent to 26,800 ha. GREL provides inputs to farmers (high quality seedlings, fertilizers, chemicals and tools) and offers technical assistance. GREL also purchases the rubber cuplumps of farmers at the prevailing SICOM monthly average price.

IB (ROAA): The two financial institutions (the ADB and the National Investment Bank) provide long-term loans to outgrowers and offer financial training to farmers.

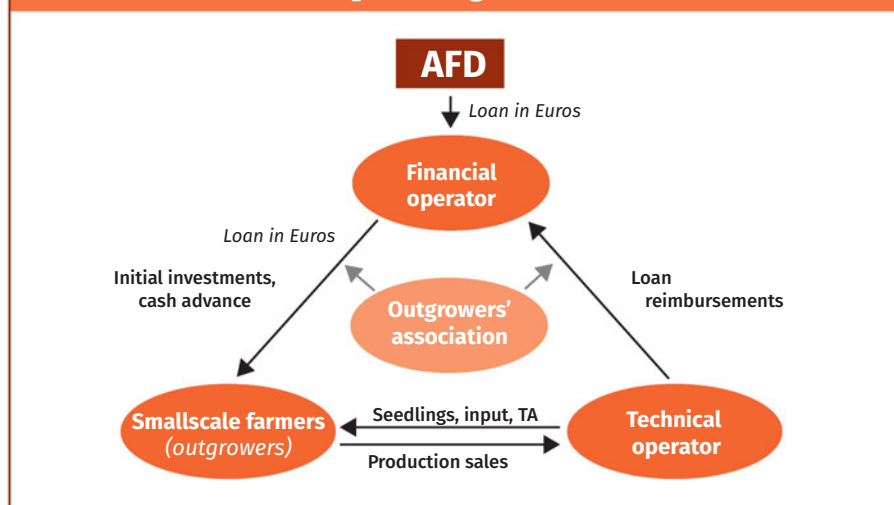
ST (GREL): And GREL is supposed to help the financial institution to recover their loans through an upfront 25% deduction from farmers' proceeds on behalf of the Banks towards the repayment of the loan. The last phases of the agreement are in EURO. Indeed, the real interest in foreign exchange paid on farmers loans is generally expensive for Phase I, II & III, as interest in Ghana Cedis is high with a devaluation lower than the interest. This fluctuates from one year to the other, but in

SICOM Price of DRC* per Kg in USD since 1994 (\$ US / kg)



*dry rubber content

Tripartite agreement



the long term it is better to take fewer risks and move to a foreign exchange denominated loan provided the rate is attractive.

THE TRIPARTITE AGREEMENT IS A WIN-WIN SITUATION

GDS: What are the main benefits and challenges of the tripartite agreement for every player?

IB (ROAA): The tripartite agreement has contributed to reducing poverty for the producer. Rubber ensures them an income eleven months a year unlike other tree crops which are seasonal. This agreement has also helped securing a market for producers: without a guarantee of purchase of their production, the producers would not have invested in rubber. But even if GREL is under obligation to purchase the produce from farmers whether it has money or not, it takes a strong peasant power to make it work.

ST (GREL): The main aim of the project is to alleviate poverty and promote sustainable economic growth through the cultivation of rubber plantations. A rubber farmer is getting not less than 15,000 Ghana cedis (GHS) per annum with a monthly net income of 1,300 GHS per an average of 4 ha, while in Ghana today the minimum wage is only 265 Ghana cedis! But of course, there are also some challenges. Just like any other commodity, rubber price fluctuates. Notwithstanding, prices paid to

farmers are competitive and remunerative to guarantee sustainability.

The greatest difficulty is loan repayment. Over 2000 farmers in their bid to evade loan repayment prefer to sell to side buyers-not mandated by the agreement as buyers. Most farmers have the belief that, just like the cocoa industry, every loan that was given would eventually become a bad debt.

IB (ROAA): This situation is a concern for both the ADB and NIB because their loans are not repaid. The producers in default are also breaching the tripartite agreement which stipulates GREL as the only buyer.

GDS: Producers start paying the loan once they are in production, and they keep delivering rubber until the loan is refund. From how long are the producers able to live from their own production?

IB (ROAA): In the tripartite agreement, 25% of your product is dedicated to loan repayment and 2,5% of the Free on-Board price to the extension services provided by GREL. The tenor of the loan shall be up to 15 years effective from the 1st day of disbursement. There is also a moratorium period of up to 7 years on principal. Within 8 years of production, the farmers are supposed to have finished paying the loan. Then, the farmer is not bound by any tripartite agreement and he can decide to sell his product to any buyer.

GDS: According to some analyses, such a scheme enables agro-business companies to dominate agriculture, at the expense of producers. What do you think?

IB (ROAA): No, it does not. But sometimes the perception is that GREL, because it has the

monopoly, is cheating the farmers on price. Currently, GREL is the only legitimate buyer and ought to pay the price. With the coming into force of the Tree Crop Authority which will be a regulator, this perception will be eroded.

ST (GREL): The producers are mainly small scale or artisanal in nature and have limited access to capital, technical assistance and are unable to participate in a competitive marketing opportunities. The tendency of agro-businesses to dominate the industry will always exist but, with strong institutional regulations, agro-business and the producers both stand the chance to benefit from each other. In a structured project like the tripartite agreement on rubber, I think it's a win-win situation.

IB (ROAA): Yes, the rubber industry is going to peak, because a lot of individuals are also planting rubber and see its potential. This shows that there's hope. ■

Simon Tetteh



Simon Tetteh is the Project Director for the Rubber Outgrower Unit of Ghana Rubber Estates Limited (GREL).

Isaac Bosomtwe



Isaac Bosomtwe is Chairman for the Rubber Outgrowers and Agents Association (ROAA).

* An outgrower is a farmer who is supported through a project under a contract agreement which encompasses technical, commercial and financial terms.

Rice: the challenge of self-sufficiency

Ghana is willing to increase its domestic production of rice to meet the growing demand and achieve its self-sufficiency. But the preference for imported rice and a weak ECOWAS Common External tariff hinders the development of the sector.

The rice production in Ghana between 2018-2019 was forecast at 510,000 metric tons (USDA 2018), representing a strong growth. This growth is consistent with the country's rice production strategy. However, the potentiality of production has not been fully tapped and there is a huge scope for development of the sector.

Urbanized Ghanaians consume more and more rice

In Ghana, rice is now the second most important cereal after corn. A lot of Ghanaians, whose income levels have improved with the economic development of the country, have switched from the traditional maize to rice as staple food. Approximately 67% of the Ghana's population (non-poor segment) is now consuming rice on regular basis. This change of habit combined with the population growth (2.4% per year according to the World Bank data), explain the drastic increase of rice consumption in Ghana. While in 2014 rice consumption was about 831,000 metric tons, during the 2018-2019 period, it has been projected at 1.12 Million metric tons (35kg/year per capita).

48% of this demand of rice in Ghana is catered by local Ghana rice. The remaining 52% is imported especially for urban consumers who account for 55% of the total population and 76% of the total imported rice consumption.

Imported rice is usually preferred for its constant quality

About 80% of rice is produced in the Northern, Upper East and Volta regions which are therefore considered as the major rice growing zones in Ghana. With the existing natural resources, Ghana has the potential to reach the self-sustainability in rice production.

But urban consumers prefer imported rice for its reasonable pricing and quality. Its physical appearance, its taste and aroma but also the fact that there is less debris and stones at-

tract more urban consumers. And cities have a well-established distribution network for imported rice including four types of outlets which include small retail rice shops, itinerant traders, medium range rice retail shops and supermarkets. Accra and Kumasi are the main retail markets and comprise 60% retail sales of imported rice.

**THE CET IS SO SMALL
THAT WEST AFRICA
AND GHANA HAVE RAPIDLY
BECOME A FREE ZONE**

In contrast, rural markets predominantly deal with local rice. 70% of it is sold unbranded and promotional efforts are not seen to popularize local rice. But the main issue is that local rice has not matched the consistency levels of the imported rice. Local rice has to overcome several challenges: the high cost of cultivation and low productivity, losses in standing crops, post-harvest losses, transport difficulties and frequent interruption of power supply in rice mills. The supply chains of local rice are still semi organized, informal in nature and fragmented. The volatility of US Dollar versus the Ghana Cedi exchange rate is also contributing to the increase in prices of local rice in Ghana (p. 10). All these issues hinder Ghana's potential to become self-sufficient but also to benefit from the growing demand for rice across the ECOWAS region.

Rice import a high yield market

Since West African import markets are not organized, rice traders can use their relative weight to their advantage. The African rice

market is easy to predict, as it is dependent on the population, stock levels and rainfall. But it is a high-risk market. Traders want to go for forward-buy to minimize their risks. The competition is such that the most astute traders load their ships and select two optional countries as landing locations. The rest is all about opportunities resulting from trends and trend reversals. African importers buy the cargo on board once they get the green light from their banks, and often through a third party. The number of the parameters used by the trader right to the floating vessel (trends in chartering of vessels, global and local rice prices, fuel prices, etc.) makes rice trade a very risky and high-yield market. The tariffs are low making it easy for traders to import rather than support domestic production.

The issue of low custom duties

Since October 2013, the Economic Community of West African States (ECOWAS) in order to create a customs union, adopted the final structure of the ECOWAS Common External Tariff. This CET, which will be entitled to superiority on the West African Economic and Monetary Union (WAEMU) CET, established a fifth band of 35% which entered into force on January, 2015.

Many stakeholders expected a better protection for rice by the new CET by classifying it into the fifth tariff band because it was ranked as first strategic product in the region. But the final structure of the ECOWAS CET has classed rice in the categories of 5%, 10% and 20% depending on the types of imported rice and classified the milled rice in 10% band like WAEMU. The CET is so small that West Africa and Ghana have rapidly become a free zone for many imported food products including rice.

Yet, the dependency on rice imports is a risky strategy for food security and food sovereignty. It also seriously compromises the

effort of governments to increase domestic rice production which should be protected against world price fluctuations and unfair trading.

The dual challenge of the Common External Tariff

To ensure a sustainable growth of the rice sector and meet the objective of food sovereignty advocated by the Comprehensive Africa Agriculture Development Program (CAADP), it is essential to know if the current

level of ECOWAS CET will allow achieving this goal and reducing poverty in West Africa. ROPPA is currently lobbying for an increase of ECOWAS import tariff to 35% but in contrary to their viewpoint, the CET should not improve only the producer's welfare but also the consumers' welfare. This is the dual challenge facing policy makers who must not only ensure better income for producers but also a better welfare to consumers. This means ensuring a better quality for local rice for it to match the imported one. ■



About 80% of rice is produced in the Northern, Upper East and Volta regions

Evans Sackey Teye

Evans Sackey Teye



Evans Sackey Teye is an Agriculture Development Specialist with a five-year work experience with the Ghana Rice Inter-professional body.

Guinness Ghana's role in structuring the sorghum sector

This article presents a development model for a food-production sector in Ghana. Players in the private sector, such as Guinness Ghana, appear to be playing a big role in structuring the value chain for sorghum. What questions does this situation raise?

Sorghum is the second most produced grain in northern Ghana, after corn. Production statistics are not very reliable, but the total land area sown is estimated at roughly 250,000 hectares, for production of 300,000 tonnes. Varieties include red sorghum (mainly for local beer production) and white sorghum (mainly for human consumption). The role of the sorghum sector in Ghana is comparable to its role in other West African countries with similar agroecological conditions. Sorghum is a staple food in many rural communities. It is mainly grown for household consumption (food and beer) and, to a lesser extent, for sale.

involved in supplying inputs. Consequently, after 15 years of developing the system, GGBL is still not able to reach its supply objectives.

GGBL has, however, provided its biggest aggregators with the equipment needed to test for aflatoxins. The high costs of the tests themselves are still borne by the aggregators. The purchase order guarantees a stable market for the aggregator, with a reliable buyer and a predetermined price, which is supposed to make it easier to borrow from banks.

In reality, though, the banks see the agricultural sector as being very risky and often consider purchase orders to be insufficient. Aggregators' working capital must therefore be self-funded, and any lack of resources limits and delays their ability to purchase goods from farmers at harvest time. Aggregators are the key to the whole system, but their role is highly variable depending on their technical and financial capacities. Certain aggregators also supply inputs and can provide technical advice to farmers. GGBL's aggregators generally have means of transport (trucks), storage infrastructure and post-harvest cleaning facilities.

Nucleus farmers as intermediaries

Nucleus farmers are the link between aggregators and farmers. They are in direct contact with farmers, sometimes with the added layer of "lead farmer" at village or community level. Nucleus farmers are generally large-scale farmers that have one or more tractors. They often provide mechanisation services to farmers, such as ploughing and threshing. Those services are most often paid in cash. Threshing is paid in kind, with a percentage of the production (roughly 10%) withheld for the service. Nucleus farmers may offer smaller farmers full or partial credit for inputs, depending on the degree of trust between them and depending on the nucleus farmer's ability to pre-finance the credit. It is crucial for a nucleus farmer to possess one or more tractors and to be able to provide ploughing

Guinness Ghana and the sorghum sector in Ghana

Guinness Ghana Breweries Limited (GGBL) is one of the biggest beer producers in Ghana, and, for over 15 years, has wanted to be able to produce a portion of its raw materials in Ghana. To that end, GGBL developed a sorghum supply system with small farmers through a contract-farming scheme (see p. 28-29). White-sorghum varieties are used, and are preferred over red sorghum because they lack tannins. GGBL's sorghum needs are estimated to be at least 20,000 tonnes per year, but the company has not yet been able to reach that objective. It is difficult to estimate the proportion of GGBL's needs relative to the quantity of white sorghum sold in Ghana without relevant data.

Aggregators: the key to the system

GGBL is the ultimate buyer of the sorghum. The company enters into annual supply contracts with sellers, or "aggregators", in the form of purchase orders that stipulate the quantity, variety, price and quality standards. The price includes delivery to the facility in Kumasi, where the goods are received and tested for aflatoxins. GGBL is only marginally involved in production and collection. The company does not pay the aggregators in advance (even though their biggest problem is a lack of working capital), nor is it directly



Spike of white sorghum, variety preferred by Guinness Ghana

shutterstock

services (most often disk-ploughing), as most smaller farmers do not have other means of preparing their fields.

Unlike similar agroecological areas in French-speaking countries, the use of draught animals in farming is very limited in northern Ghana. Cotton companies were the first to begin developing the use of animal traction on a large scale in the FCFA zone, and the cotton industry has historically played a relatively minor role in Ghana (see p. 34-35).

Standard model: weak role for farmer organisations

Farmers in Ghana are often divided into two main categories: subsistence farmers and commercial farmers. This approach differs from the old approach of the cotton industries in French-speaking Africa, where all farmers were considered to be on an equal footing.

The idea behind agricultural advisory schemes is that an initial group of farmers acquire

THE SYSTEM GUARANTEES A HIGHER PRICE FOR FARMERS

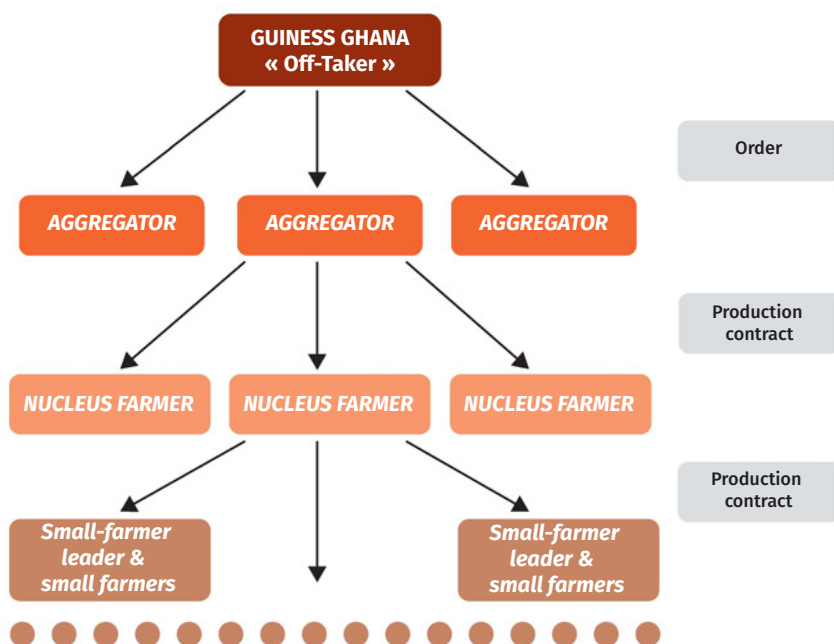
“commercial” status by integrating into the market. In this approach, the biggest commercial farmers (pilot farmers serving as models) can create a network of “outgrowers” to whom they provide a minimum level of technical advice and services (mechanisation, inputs), and for whom they organise the marketing of surplus sold, in conjunction with the nucleus farmers and aggregators.

GGBL’s system has few constraints. The main benefit for farmers is the guarantee of a price

that is generally higher than the market price at harvest time. The example of Guinness Ghana’s role in the sorghum sector is common for most sectors (especially corn), but often with a simplified system (one or two fewer levels) and a variable degree of intensification.

With few exceptions, farmer organisations have a weak presence and play a weak role. This is characteristic of the agricultural sector in Ghana. For historical reasons (see p. 6-7), the development of farmer organisations has never been a priority of the agricultural sector’s development policy. ■

Guinness Ghana’s sorghum supply system: the standard model in Ghana



Total of roughly 10,000 farmers

Lucien Rossignol



Lucien Rossignol is an agricultural economist with over twenty years of experience in rural-development projects in Africa. He spent four years in northern Ghana working on projects to promote agricultural sectors.

Abu Huudu



Abu Huudu is regional director of the Regional Department of Agriculture for the upper-west region in Wa, Ghana

Cotton: Ghana's subpar performance

In Ghana, cotton is referred to as the “cocoa of the north”. And yet the cotton sector’s performance has been anything but successful. By examining the recent history of the sector in Ghana and comparing it with Burkina Faso, this article review aims to provide a few keys for understanding the country’s subpar performance.

This article review is based on two articles available online:

“The state of Cotton Production in Northern Ghana”,
by Benjamin K. Asinyo, Charles Frimpong,
Emmanuel Amankwah,
Kwame Nkrumah University of
Science and Technology,
International Journal
of Fiber and Textile Research, 2015;

“Stakeholder perceptions of the impact of reforms on the performance and sustainability of the cotton sector in Ghana and Burkina Faso: a tale of two countries”
By Bofo Yaw Agyeman and al.
Cogent Food & Agriculture, 2018.

These two articles examine the recent history of the cotton sector in Ghana, comparing it with the cotton sector in Burkina Faso. Both countries introduced “reforms” in the 1990s and 2000s. Without betraying the authors, we can say that both articles conclude that Ghana has suffered from policy failure. Despite strong commitment from private companies with solid references and partners, the government lacked willpower in its support of the sector. The reforms of the ‘80s caused the sector to collapse in Ghana and Nigeria, while giving a boost to the sector in other countries in the region.

In 2015, Ghanaian university lecturers B. Asinyo, C. Frimpong and E. Amankwah visited two of the country’s three cotton-growing regions and met with managers from companies operating there. From 2015 to 2016, Bofo Yaw Agyeman and his seven co-authors—from Ghanaian and Japanese universities, the Economic Commission for Africa, and Burkina Faso’s Ministry of Agriculture—asked stakeholders from the cotton sector in Ghana and Burkina Faso how they thought the reforms affected six different areas: (i) input-credit systems, (ii) cotton-price determination and profit distribution, (iii) extension services, (iv) research and development, (v) regulatory systems and (vi) food security. They asked three questions: (i) What reforms were introduced in the two countries? (ii) How do stakeholders perceive their impact? (iii) Do those perceptions agree with the sector’s productivity? They received answers from representatives of cotton companies, farmers, researchers, civil servants and NGOs. In Ghana, cotton (also referred to as “cocoa of the north”) is grown in rainfed agricultural systems in the northern regions of the country (Upper East, Upper West, Northern, and part of Brong Ahafo). In the ‘70s and ‘80s, the textile industry employed 25,000 people (27% of jobs in the manufacturing sector). In

1968, the Cotton Development Board (CDB) was created by the government, with private companies taking over soon after. The CDB ran into difficulties when global cotton prices fell, and it was replaced in 1985 by the Ghana Cotton Company Ltd. The latter entity provided seeds, fertilizers, pesticides, tractors and extension services to farmers. In 1986, private companies appeared on the scene, and by 2000 there were 16 of them. But by 2005, only five remained. “Zoning” was found to be indispensable, but was not always complied with. Certain companies were incapable of fulfilling their obligations with regard to farmers in the zone attributed to them. Farmers receiving fertilizer and seeds on credit from one company would sell the cotton to another. The boom in production (less than 1,000t in 1985–86, 25,000t in 1996–97 and 38,000t in 1999) was thanks to government intervention in support of textile companies, but by 2010 production had fallen to 2,500t. In 2009, the government said that the revival of the sector would be a key factor in the fight against poverty in the north, especially as global prices were favourable. Zones were attributed to three international companies active in Ghana’s cocoa industry: OLAM, Armajaro and Wenco in the Upper West, North Central and Southern Central regions, respectively. But it wasn’t enough to help the sector take off again.

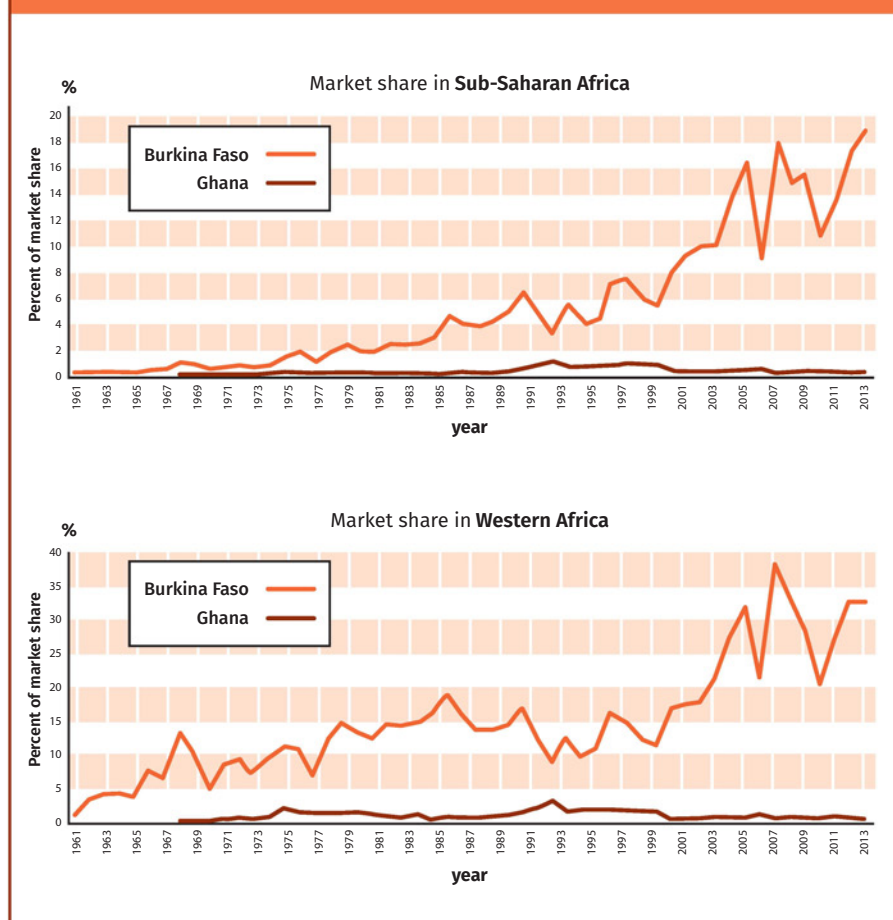
“GHANA HAS LACKED STRONG GOVERNMENT INTERVENTION TO ORGANISE THE SECTOR”

Asinyo et al. take stock of all the factors which, in their opinion, explain Ghana’s failure, such as: theft, exposure of the national textile industry to international competition, lack of credit, lack of R&D, dependence on Burkina Faso for seeds, the climate in the northern part of the country, the absence of farmer organisations and the “lack of regulation” (although they do not specify what should have been regulated or how it could have been done).



Cotton lint

Market share of cotton production in Ghana and Burkina Faso



Sources: FAOSTAT (2016), ICAC (2016) from Bofo Yaw Agyeman and al.(2018)

Agyeman et al. are more explicit in this regard by making a comparison with Burkina Faso. A major focus of their study is to reveal the insight of stakeholders from the sector in both countries on the advantages, disadvantages and errors in implementing the reforms in both countries. The opinions collected are in line with analyses by independent observers.

Regarding input-credit systems, opinion on the effects of the reforms is negative in Ghana (price, inadequacy, funding) and mixed in Burkina Faso (good supply chain, government subsidy, but cost of Bt seeds). Likewise, opinion on profit distribution and prices paid to farmers is negative in Ghana (low prices, floor price not respected, lack of transparency in determining prices, absence of consultation), whereas in Burkina Faso stakeholders see delays in paying farmers as a negative point, but the guaranteed price and its determination as a positive point. Opinion is divided when it comes to exten-

sion services and R&D: negative in Ghana because of poor extension services and lack of research; positive in Burkina Faso because of improvement in the quality of training and agronomic research. Lastly, with respect to institutional and regulatory systems, stakeholders from the sector in Ghana were disappointed with the failure of zoning, lack of cooperatives and politicisation in the choice of companies, whereas stakeholders in Burkina Faso appreciated the existence of an interprofessional association (bringing together farmers and large companies) and the government's commitment.

These two articles ultimately show that Ghana has lacked strong government intervention to organise the sector through four "obligations" that are in no way inconsistent with free enterprise:

- (i) Authorising only a limited number of financially and technically sound companies (three was a good choice) that

integrate the ginning of seed cotton and the trituration of seeds;

- (ii) Attributing a collection zone to them that is big enough to ensure profitability (and impose heavy financial penalties for non-compliance with zoning);
- (iii) Obliging them to base their relationships with farmers (whether individual farmers or groups) on compliance with specific contracts for provision of inputs (price, quality), extension services and the purchase of seed cotton (price, payment period);
- (iv) Ensuring the proper functioning, without interference, of a governance body for the sector comprising representatives of companies and farmers' unions, mainly in charge of determining sale prices for inputs and purchase prices for seed cotton on a uniform national basis (based on global prices and sales, and including government aid in the calculation).

By analogy with what is happening in the countries neighbouring Ghana, an interprofessional association for cotton would no doubt quickly address other economic issues (funding farming seasons, inter-annual smoothing fund, inputs), agronomic issues (genetics, fertilisation, pest control, transitioning to environmentally friendly practices) and a common commercial strategy for cotton produced in Ghana (fibre length, fibre cleanliness, fair trade and organic). That would be very desirable for small farmers in northern Ghana. ■

Jean-Luc François



Jean-Luc François is a former head of the Agriculture, Rural Development and Fisheries Division biodiversity at the Agence Française de Développement (2009-2018). He is retired from the French Ministry of Agriculture.

The scourge of saiko: illegal fishing in Ghana

Ghana is known as a fishing nation but its marine fisheries are in steep decline with heavy consequences on food security and livelihood.

Illegal fishing practices related mainly to Chinese operators worsen the situation.

Steve Trent and the EJF plead for an effective enforcement of the law by the Ghanaian government.

Grain de Sel (GDS): Can you present the fishery sector in Ghana and its contribution to food security?

Steve Trent (ST): Ghana's marine fisheries are in steep decline. Decades of over-exploitation by both the small-scale canoe and industrial fleets have pushed the populations of some key species, such as sardinella, to the brink of collapse. Other important species (sea breams, groupers, snappers and octopus), are considered severely overfished. The status of small pelagic stocks (sardinellas, anchovy and mackerel) is of particular concern because of their role in food security and livelihood provision.

Ghana has one of the largest small-scale fishing fleets in West Africa. The artisanal sector employs around 80% of fishers in the country, with over 11,500 canoes and 107,500 fishermen operating along the coast. The mainstay of Ghana's fishing communities is the small pelagic fishery. This includes the *Sardinella aurita* (Round Sardinella), *Sardinella maderensis* (Flat Sardinella), *Engraulis encrasicolus* (European Anchovy) and *Scomber colias* (Atlantic Chub Mackerel).

Ghana's fisheries are a primary source of income for 186 coastal villages, providing livelihoods for around 10% of the population, and food security for the nation.

Sardinella populations have crashed in recent years, from peak landings of around 140,000 metric tonnes in the early 1990s, to annual landings of around 20,000 tonnes between 2011 and 2016.

GDS: Can you tell us about the phenomenon of illegal "saiko" fishing?

ST: "Saiko" is a severely destructive form of illegal fishing, where industrial trawlers target

the staple catch of Ghanaian canoe fishers and sell this fish back to local communities for a profit. The catches are transferred by the trawlers in frozen blocks to specially adapted "saiko" canoes out at sea.

In 2017, approximately 100,000 tonnes of fish were landed through saiko. This means just 40% of trawler catches were landed legally and reported to the government that year. When these illegal and unreported catches are taken into account, estimated landings of the 75 or so trawlers fishing in Ghana were similar in magnitude to the landings of the entire artisanal fishing sector.

**SARDINELLA POPULATIONS
HAVE CRASHED
IN RECENT YEARS**

The trawlers themselves are run almost exclusively by Chinese operators, who use Ghanaian 'front' companies to bypass laws forbidding foreign ownership or control of industrial trawl vessels flying Ghana's flag. The Environmental Justice Foundation (EJF) has revealed that over 90% of industrial trawlers licensed in Ghana are linked to Chinese ownership.

These industrial boats are able to catch vast quantities of small pelagic fish such as sardinella – the main catch of the local canoe fi-

shers and a crucial part of the Ghanaian diet. Unless ambitious action is taken, scientists estimate that these stocks could collapse as early as next year. In a recent assessment, FAO recommended the complete closure of the sardinella fishery shared between Ivory Coast, Ghana, Togo and Benin to allow fish populations to recover.

In addition, much of the saiko catch is juvenile fish – over 60% of fish analysed from October 2018 - April 2019, EJF's report found. Harvesting at this early stage can severely impact the capacity of Ghana's fish stocks to replenish.

The saiko catches in 2017 were worth US\$ 40.6 - 50.7 million when sold at sea, and US\$ 52.7 - 81.1 million when sold at the landing site, the report estimates.

GDS: What are the economic, social and environmental consequences of illegal fishing in Ghana?

ST: Illegal fishing, and especially saiko, threatens Ghanaian fisheries and with them, food security and livelihoods.

The implications of the imminent collapse of Ghana's small pelagic fishery cannot be over-stated. 186 coastal villages rely on fisheries as their primary source of income, with limited alternative sources of livelihood or employment. The past 10-15 years have seen the average annual income per artisanal canoe drop by as much as 40%. Should the resource disappear, mass migration and social upheaval can be considered a very real prospect.

The specially built 'saiko canoes' that take the fish from the trawlers back to ports carry 450 times the average catch of the fishing canoes. Around 83 saiko canoes were



Artisanal fishing employs for 80% of the country's fishermen.



Environmental Justice Foundation

in operation in 2017, landing an estimated 100,000 tonnes of fish that year. While canoe fishing offers direct employment for around 60 fishers for every 100 tonnes of fish, saiko means only 1.5 jobs per 100 tonnes – 40 times fewer.

GDS: What kind of measures, such as penalties for perpetrators, is the Ghanaian government undertaking to tackle the issue?

What should be done to secure sustainable fisheries in the country?

ST: The transshipment of fish from trawlers to canoes at sea is illegal under Ghanaian law, attracting a fine of between US\$ 100,000 and US\$ 2 million. The minimum fine increases to US\$1 million where these catches involve juvenile fish or the use of prohibited fishing gears.

Recently a trawler was fined the full US\$ 1 million after being caught with at least 13.9 tonnes of 'small pelagic' fish on board, the majority juveniles, along with illegal nets. However, this is the first time that the full fine has been imposed on an industrial trawl vessel, and since the Act came into force other perpetrators have paid lower sums despite the law.

Since this fine was imposed, landings by saiko canoes have continued at the major saiko port of Elmina in Ghana's Central Region. Operators continue to act with impunity, despite saiko being illegal under Ghana's fisheries laws and its devastating impacts on coastal communities. Since the beginning of October 2019, between 5 and 10 saiko canoes have landed fish daily at Elmina, carrying up to 44 tonnes of fish in a single trip.

What is needed now is the immediate, effective and transparent enforcement of the law by the Ghanaian government. Cases must be prosecuted transparently through the court process, the minimum fine in the legislation must be imposed and the outcomes of cases published on the Ministry's website. Strong penalties must be applied to create a deterrent and prove that this government means to end saiko fishing for good. ■

Steve Trent

Contact: **Daisy Brickhill**



Steve Trent is the executive director of the Environmental Justice Foundation (EJF), a UK-based organisation working internationally to address threats to environmental security and their associated human rights abuses.

TO KNOW MORE:

Report, China's hidden fleet in West Africa, A spotlight on illegal practices within Ghana's industrial trawl sector, Environmental Justice Foundation, 2018.



Floating cages for fattening tilapias in Lake Volta

Guillaume CACOT

What's next for tilapia farming in Ghana?

For many, Ghana had succeeded in terms of developing its fish-farming industry. International capital was invested in tilapia cage farming, taking advantage of the favourable conditions of Lake Volta. But despite the authorities' goodwill, the market has been saturated by insufficiently integrated production. Other challenges (such as disease) are also offsetting the advantages offered by this resource.

The start of cage farming

Fish plays a major role in the food security of communities in coastal countries along the Gulf of Guinea. It is often the leading source of animal protein, because it is so accessible. While artisanal fishing in Ghana remains buoyant, over-exploitation of fish resources and population growth have led to higher fish imports (175,000t in 2012 vs 195,000t in 2017). The situation is worrying, and alternatives are being sought.

Between 2004 and 2012, pond fish farming was pushed to the background by a large cage-farming operation in Lake Volta. A few large international operators were attracted by the excellent conditions for tilapia (or *Oreochromis niloticus*): depth, high temperature and good chemico-physical properties. Many other smaller operators followed suit. In 2011 the Israeli company Ranaan set up a fish-food factory, and the sector took off: annual production of 50,000 tonnes (see Table 1), whereas for many operators tilapia

production in the lake never exceeded 25,000 tonnes. That growth was a success for West Africa, and particularly for funding agencies, who saw the positive impact of the public-private partnership.

Positioning of the product

Cage-grown fish come in different sizes, each corresponding to a specific price: especially popular on the market are "regular size" (250g to 300g) and "economy" (150g to 250g). At the start, the price of \$3/kg for regular size was very favourable. Restaurant owners and fish merchants liked this fresh fish of the desired size, which met the expectations of more affluent consumers. The FOB (without freight charges or other taxes) price for imported basic-consumption fish in 2017 was \$0.8/kg (Ghana Fisheries Commission, 2018). Dried and smoked fish from Lake Volta is also bought from the boat at a lower price compared with fresh fish. Cage-raised fish therefore makes up only a small portion of the 600,000 tonnes (or 750,000, depending

on the source) of fish consumed annually in Ghana. Since 2009, large quantities of farmed Chinese tilapia have been imported at less than \$1.5/kg by wholesaler warehouses despite bans. Luckily, farmed fish has a better reputation in terms of flavour and freshness.

Production of fish larvae

Most large farms on the lake produce their fish larvae, male larvae—males grow faster—hormonally sex-reversed as is often the case throughout the world (young larvae are treated with a masculinising hormone to prevent the development of ovaries). Ghana authorises only the raising of fish present within its borders, and carries out its own genetic-selection programme. For this type of industry, having strains selected for their speed of growth reduces the need for working capital by bringing the fish to market faster. The Water Research Institute is in charge of selection and is proposing its eighth improved strain. Genetic studies, however, have reportedly shown that those strains have a few non-Ghanaian tilapia genes.

Food

Food needs to have a high protein content, and it needs to float. The industrial technology used to produce is highly specialised. The food conversion ratio (FCR: ratio of the weight of food distributed to the weight gain of fish) is lower than for other animals. Over the course of one growing cycle for cage-farmed tilapia, from the larva stage and including deaths, the FCR

fluctuates between 1.4 and 1.6. If the food is duty-free, it is most often over \$1.2/kg, which is higher than the prices for commonly consumed fish. On-site production of food by Ranaan is an advantage, but the raw materials are expensive and the country has seen an increase in its deficit for cereals and soy.

Costs and advantages

This production system is highly sensitive to food costs (60% to 70% of total production costs) and to drops in market price. At national level, the method of effects indicates that the gross proceeds of this farming operation, when imported food is used, breaks down as follows: national intermediate consumption (less than 15%), purchase of imported goods (roughly 42%), salaries (3%), with the rest being used to pay off interest and generate profit. The food factory that was set up in the country is improving the share of added value even though its capital is not Ghanaian. The high added value generated in the distribution circuits—particularly fish merchants and restaurant owners—must not be omitted.

General degradation of the sector and its environment

As of 2016, farms managed by Chinese entities began appearing as good relations were established between both countries. Their production was said to represent a quarter of all cage farming. Most of those farms are set up outside regulatory frameworks, use their strains and will increase competition while putting pressure on sales prices, which are currently around \$2/kg. That reinforces the need for cash and reduces profitability. A health crisis in 2016–17 hurt small farms even more. People are having to start using antibiotics and vaccines, which increases production costs by roughly 0.10 cents, not to mention the additional need for larvae to counteract the disease. In 2019, the infectious spleen and kidney necrosis virus led to a mortality rate of over 90% during the larva stages, and often 30% during the production cycles. Production has fallen significantly,

and the food factory's sales are three times lower, even though the stats do not show it. The impacts of those epidemics on the natural tilapia population in Lake Volta (over 50% of captures estimated between 20,000 and 40,000t/year) are not known.

In Ghana, the fish produced is a source of pride and has become widespread in the streets of Accra and Koumassi. The high capital intensity means that a large share of the added value is concentrated in the hands of few individuals, and the benefits for the national economy are not the profits generated. Economies of scale make this growth not very inclusive: according to the World Bank, the ten biggest farms accounted for 80% of production in 2019. But that path was focused on to the detriment of others, such as more artisanal approaches capable of producing more fish in systems that are better integrated and more agroecological, that make better use of local resources and that are less dependent on imports.

The leader of the cage-farming industry at the Sarnissa site in 2014 expressed similar ideas: “Now, let’s imagine Africa’s potential! I have known operators who have almost no costs aside from labour and time (at village level) and who have profit margins above \$2/kg. That’s on a small scale, of course, but imagine hundreds of those small operators teaming up to form an efficient distribution chain.” The latest report by the Directorate of Fisheries indicates a reorientation towards forms of continental fish farming that are potentially better integrated. ■

Marc Oswald



Marc Oswald is a member of the research unit ADI-SUD (agro-development and innovation in the South) in F 49000 Angers and director of teaching and research. He is also a member of APDRA, an accredited organisation that supports fish farming in the South and that raises awareness in the North about issues relating to fish farming.

The author would like to thank everyone who took the time to respond or provide information on this subject, many of whom preferred to remain anonymous. I would especially like to thank Ghana’s director of fisheries, Lionel Awity, as well as Olivier Mikolasek, Augustin Pallière, Christophe François, Delphine Lethimonnier, Gustavo Saldarriaga and the students from ISTOM’s agricultural development and funding programme.

Table 1: data on *Oreochromis niloticus* fish-farm production in Ghana and worldwide

Year	2007	2010	2015	2017
Ghana (1,000t)	3.5	9.4	43.3	53.2
Worldwide (1,000t)	1,863	2,502	3,828	4,130

Source: FAO

TO KNOW MORE:

1 - Kassam, L. (2014). Aquaculture and food security, poverty alleviation and nutrition in Ghana: Case study prepared for the Aquaculture for Food Security, Poverty Alleviation and Nutrition project. WorldFish, Penang, Malaysia. Project Report: 2014–68.

2 - Marc Oswald, Olivier Mikolasek, “Le secteur piscicole en Afrique subsaharienne: des outils de financement adaptés aux enjeux ?”, Techniques Financières et Développement 2016/3 (no. 124), p. 81–95.

Cross perspective: is Ghana a model or counter-model for West Africa?

Ghana is of particular importance in West Africa because of its population, economic weight and agricultural sector, which is an engine of economic growth and driven by export crops. Often set up as a democratic and liberal model, is it an exception in West Africa? Why?

Grain de Sel (GDS): When it comes to rural and agricultural development, what makes Ghana an exception among other West African countries (WAF)?

Michael Owusu (MO): Ghana has a very strong local governance policies system especially in the area of agriculture that aims to developing the rural economy. Since majority of the people in the rural areas are engaged in agriculture, there are policies and programmes to support the rural population.

Manson Nwafor (MN): Ghana is really an exception regarding the socio-economical results it got! It organized itself to achieve the Sustainable Development Goals on food and nutrition security on time. They did a lot of

social interventions to complement the agricultural policies and they were able to put in place infrastructure to improve market access for producers.

King David (KG): Yes and in that sense, the government's flagship programme Planting for Food and Jobs (PFJ) is what makes Ghana exceptional. It created employment especially for the youth in the rural areas and it boosted food security and nutrition. Other programmes like Planting for Export and Rural Development (PERD) targeting tree crops and Rearing for Food and Jobs (RFJ) really helped too. Plus farmer-based organisations and international apex bodies are actually monitoring those flagship programmes.

GDS: According to you, is there a legacy of the British rule on Ghana's development?

MO: The governance system and other well structured bodies are some of the legacies of the colonial system on the country...

Anaëlle Tanqueray Cado (ATC): The legacy of British rule can be seen in some of the specificities of Ghana's land-management system. The structuring of agricultural supply chains in Ghana also differs markedly compared with neighbouring countries: less developed structuring of smallholders, importance of agro-industrial entities in the organisation of supply chains, fewer interprofessional associations.

MN: For me, there is no legacy: we cannot explain our development by what happened sixty years ago. On the contrary, we have to reverse what happened!

KD: Rather we could speak about the legacy this government will leave: it invests in youth and has implemented free senior high schools, for example. About 1.3 million people are now in the senior high schools! The government is also willing to tackle the national health issue with a free insurance system.

GDS: What is Ghana's position in the sub-regional economy?

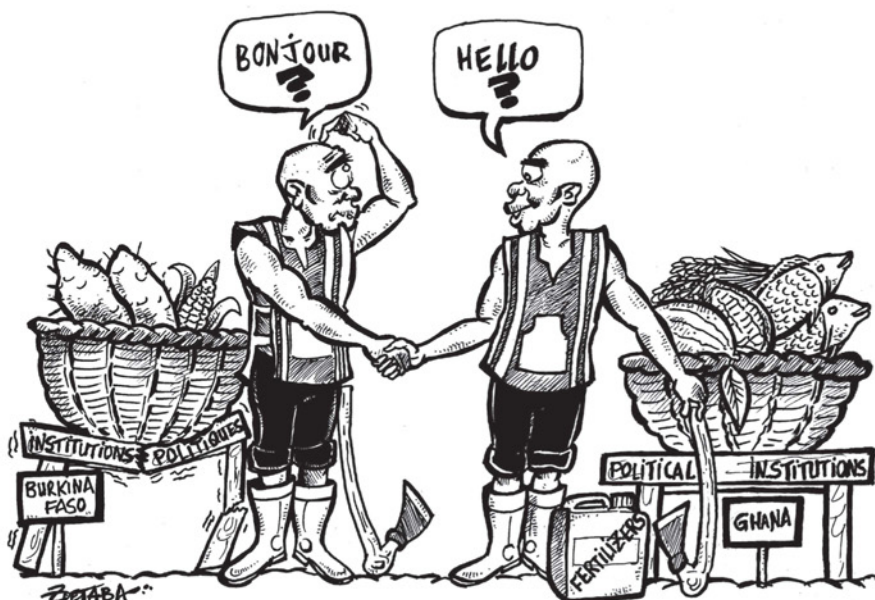
KD: Nigeria is the giant of Africa, Ghana being the second economy in ECOWAS.

MO: Ghana is not the leader in the sub-region but it is a very important country when it comes to politics, economy and providing leadership rules on the continent. This stands out with the decision of making Accra the headquarters of the African Continental Free Trade Area (AfCFTA).

MN: Nigeria is probably 3 to 4 times the size of Ghana's agricultural sector. But in terms of growth and per capita income, Ghana's has ranked first since year 2000 and has had the second lowest poverty rate in West Africa since then. And at the end of the day, the most important thing is food and nutrition security, and Ghana is leading in that direction.

GDS: In 2019, the country has been the first recipient of FDI, ahead of Nigeria. How do you explain this dynamic?

MN: This is due to the business environment and to the stability of the country. Investors are looking for more predictability.



MO: Yes, investors want to be assured that they can get their money back. And the government has put in place some pro-investment policies such as tax holidays. In the agricultural sector, a firm like OCP, leader in the fertilizers industry wish to build manufacture plants: what the Moroccans see in Ghana is a stable country prepared for investments.

GDS: How are agricultural policies structured?

Are they consistent, in your opinion?

KD: Under the different flagship programmes, the government acts on different aspects of the sector: inputs access thanks to the input subsidy programme, extension services through the recruitment of over 2500 extension officers, market access and marketing, etc.

MO: Indeed... In the agricultural sector, the central government's goal is to alleviate poverty of smallholder farmers who represent most of the people engaged in agriculture. Moreover, the country has a strong local government system. This balance between the central and local level is working quite well. On the sub-regional level, our agricultural policies are aligned with the ECOWAS policies and the African Union to facilitate regional trade among the countries.

MN: I agree. If you look at it from 2009, when the Comprehensive Africa Agriculture Development Programme (CAADP) took off in West Africa, you can see that Ghana makes clear efforts to align with it despite some little deviation from time to time with the changes in government.

GDS: What does the agricultural sector represent for the government?

NW: The budget going to agriculture on relative terms has been going down since 2014. One reason for this may be that the agricultural sector is one of the first sector to suffer from budget constraints because results are less visible for politicians than a road construction for example. It should be noted that the expenditure trends may be seen as different when the expenditure monitored includes those of public corporations such as the Ghana Cocoa board. However, the Africa wide (African Union) standard definition of agriculture expenditure for all African countries excludes those of expenditures of public corporations.

MO: Actually for the last 2 years, Ghana has been able to achieve the Malabo declaration by investing 10,2 % of its resources in agriculture. The current government decided to invest more in agriculture: the budget allocated to the PFJ, the PFE and the RFJ amounts to 750,000,000 GHC! This government recognized the importance of the agricultural

sector for the economy. It contributes to an average 20% of the GDP and employs over 40% of the economically active population of Ghana. To have an impact within a short time in the country, you must invest in agriculture! And the government has two issues to tackle: creating jobs for the youth and reducing imports.

KD: The government should also ensure that as much or even more attention is paid to agriculture rather than to the oil sector.

ATC: Agriculture is seen as a high-potential sector for creating jobs, boosting the economy and reducing rural poverty. Agricultural yields are still low, and the government is looking to intensify agriculture in Ghana. The land-development potential, particularly in terms of managing agricultural water, has scarcely been exploited so far even though the Ghanaian government and other entities consider it to be essential.

TO HAVE AN IMPACT
WITHIN A SHORT TIME
IN THE COUNTRY,
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IN AGRICULTURE

KD: I would like to add that development partners like the International Fund for Agricultural Development, the European Commission and international NGOs are contributing to improve the capacity of the farmers too.

GDS: Ghana's (agricultural) economy is mainly export-led: what are the pros and cons of such a model, especially for family farms?

KD: The PFJ programme's final goal is food security for the country whereas the PFE programme aims at boosting international trade. Its focus is on cocoa and palm oil but also on other tree and fruit crops like coconut, cashew, mango, papaya...

MN: The biggest chunk (45%) of Ghana's GDP is services, which are hardly exported. Cocoa accounts for about 14 % of the GDP of agriculture. So 86 % of the agricultural production and income come from other crops... Regarding family farms, what really helped them is the complementary policies between agriculture and other social sectors.

MO: We are not benefitting so much from the export of rural commodities except for foreign revenues for the State. The foreign exchange earned from cocoa, timber, oil is used to import sugar, rice, poultry or even chocolate. And our trade balance remains negative which leads to the weakening our currency. The priority must be to add value to the commodities we produce. This is the idea of the "One District One Factory" policy. Most of the factories created will be agro-processing companies. The focus is also on producing more of the commodities we import like rice and poultry. In that sense, the current policy of the Ministry is producing good results since the domestic production has increased substantially in 2019. Adding value to our products and increasing the domestic production will in the long run be beneficial to farms families and the local economy.

GDS: Despite strong economic growth, the country remains marked by high social inequalities. How do you explain this paradox?

Can we talk about a Ghanaian success story?

MO: Our economic growth is driven by oil and oil represents only 1 or 2% of the labor force compared to 40% for the agricultural sector. So even though the country's economy has improved in general, it is not benefitting the larger population.

MN: The poverty level in the North is more than double the poverty level in the South. What needs to happen now is internal growth that involves more of the Northern households.

ATC: Yes. That's why Agence Française de Développement wants to team up with its partners to support a project for small-scale irrigation infrastructure in the North.

KD: I think that tackling the issue of the road network especially for transporting foodstuffs produced in the rural area in Ghana into the city is part of the solution. That is a major problem.

GDS: Cocoa and fishing are two important sectors. Both of them threaten natural resources (forest and fish stocks) or are dependent on them. What are the solutions?

MO: Ghana's and Ivory Coast's move to influence the cocoa price (p. 25) is one step ahead to add value to our production. But there is also a need to diversify our economy. Adding value to the cocoa sector and diversifying the economy would be a mean to put less pressure on forests. As for the fishing sector, obviously, what we get from the sea will not be enough to meet our needs. So there must be the right policies by the government to encourage aquaculture (p 38-39).

CONCLUSION

KD: I think that the government is not giving so much attention to that sector and funding has become a bit of a problem. But the government is encouraging the private sector to go into aquaculture. Concerning the forest, agroforestry is more and more encouraged especially for the youth. About 65,000 youth all over the country are planting trees all over...

ATC: Indeed agroforestry initiatives are taken by the Cocobod and some NGOs. Agroforestry is relevant: it maintains soil fertility on the long run and reduce the need for new fertile land and so deforestation. However most of the Ghanaian cocoa remains produced under full sun. This should change progressively thanks to some governmental initiatives such as the REDD+ program.

GDS: *To what extent can Ghana inspire the agricultural development model of WAF countries? And vice versa?*

MN: In terms of rural results, I think Ghana remains a good example. It managed to achieve serious reductions in the poverty rate. It has shown that rural social interventions were able to do what the growth process cannot.

KD: I hear other countries are coming here to learn about Ghana's strategy and see how they can adapt it to their country. In our case, our Federation which represents about

RURAL SOCIAL INTERVENTIONS WERE ABLE TO DO WHAT THE GROWTH PROCESS CANNOT

256 farmer-based organisations relate to the West African network, the ROPPA but also to SACAU which is the Southern Africa Confederation of the farmers and also to the East Africa Farmers Association.

ATC: Indeed, Ghana could learn from other agricultural model where farmers based organisations are given the possibility to be fairly represented among the other stakeholders of the value chains. Integration of environmental impacts and management of livestock mobility are also improving in neighbouring countries, and Ghana is looking at what is being done on those issues to learn from them.

MO: Yes, we also travel to improve our programmes. For instance, we have been to Nigeria to learn about their subsidy programme and we are supposed to go to Kenya to understand the Kenyan agricultural platform, especially for people in the fertiliser sector. They can discuss their issues and influence the government's decision. And finally, if we are able to enforce the "Ghana beyond aid" doctrine, it could be a great source of inspiration for the continent. ■

Manson Nwafor



Manson Nwafor is a Policy Analyst at the International Institute of Tropical Agriculture (IITA) and at the Directorate of Agriculture and Rural Development for the ECOWAS.

King David Amoah



King David Amoah is the President of the Farmers Organisation Network of Ghana (FONG) and the Executive Director of the Ecumenical Association for Sustainable Agriculture and Rural Development (Ecasard).

Michael Owusu



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Anaëlle Tanquerey-Cado



Anaëlle Tanquerey-Cado is a Project Officer – Agriculture & Environment at Agence Française de Développement



Cocoa is a very important crop in the country. Ghana is the 2nd largest producer in the world.

Pixabay - David Greenwood-Haight

Although Ghana, an English-speaking country in West Africa, is not a typical area of focus for Inter-réseaux, we decided to take an in-depth look at the country in this edition of the magazine. This issue was put together in close collaboration with our members, some of whom are directly active in Ghana.



Agronomes et Vétérinaires Sans Frontières (AVSF) is an NGO that has been working in Ghana since 2016, particularly to carry out sub-regional projects on the sustainability of supply chains (Equité): www.avsf.org



Fondation pour l'Agriculture et la Ruralité dans le Monde (FARM) seeks to inform decision-makers and actors working to promote development in Ghana, particularly in the Tamale region, where it pre-finances inputs needed to grow soy: www.fondation-farm.org



Réseau des Organisations Paysannes et de Producteurs d'Afrique de l'Ouest (ROPPA), through Farmers Organisation Network in Ghana (FONG), works with small-farmer organisations in Ghana: <http://www.roppa-afrique.org>



SNV has been present in Ghana since 1992. With their national partners, they contribute to economic, institutional, social and environmental development and poverty reduction in line with the policy priorities of the Government of Ghana and the sustainable development goals (SDGs). www.snv.org



Focus on the HortiFresh programme supported by SNV

SNV supports the Hortifresh project which mission is to establish "a sustainable and internationally competitive fruit and vegetable sector that contributes to inclusive economic growth, food and nutrition security" in Ghana and Ivory Coast. It aims to reach 15,000 farmers, increase their productivity by 20% until 2021 and contribute to food and nutrition security.

A competitive and innovative high-value fruit and vegetable sector

HortiFresh West Africa supports the fruits and vegetables sector through activities

and funds (cluster funds, youth funds and commercial loans) that contribute to increasing the value of exports, both to the EU and to regional markets. It improves quality and value-added in the domestic market through technical assistance in agronomy and business management and is also aiming at reducing imports.

A conducive business climate

The project aims at improving the business climate for SMEs and international companies active in these two sectors of West Africa. It particularly focuses on the existing platforms of the Export Taskforce in Ghana

and the activities of Ghana Green Label. It also promotes high level public-private dialogue in order to create a competitive enabling environment.

Inclusive and sustainable growth of the fruit and vegetable sector

HortiFresh will create opportunities for women and youth to engage in the horticulture sector.

PORTRAIT



Gladys Adusah Serwaa: rural women as agriculture workforce

My name is Gladys Adusah Serwaa, a Ghanaian by birth, and the eldest child among five siblings, from Techiman in the Bono Region of Ghana. I am a 61 year-old farmer who is into cassava, maize, and cashew production. I also possess a Bachelor of Education and a Master's degree in Democratic Governance, Law and Development with 13 years of working experience as a teacher and 14 years in the development sector.

Currently, I am a national women's leader for the *Ecumenical Association for Sustai-*

nable Agriculture and Rural Development (ECASARD) and the Farmers Organisation Network In Ghana (FONG) in the middle zone of Ghana.

My involvement with rural agricultural development in Ghana has to do with an annual programme that I organize every September to award and recognize the hard work of the rural women. It is a personal initiative which is supported by ECASARD and FONG. The rural women's day celebration brings together stakeholders, women groups, farmer groups, faith base groups, community base groups

etc. It is a day where these rural women in agriculture showcase their produce in a form of exhibition. I am also involved in capacity building, advocacy workshops, lobbying for funds/support for rural women base groups in agriculture.

My perception on agricultural development in Ghana is that the policies enforcement does not get to the rural areas to benefit the women who are into production, processing, packaging, and marketing. Rural women are the majority in agriculture workforce in Ghana but their efforts are not appreciated. For example, getting standard weight and measuring scales in all the markets throughout Ghana is a real issue. Another challenge is also getting aflatoxin policy in Ghana to help rural women produce and consume aflatoxin free maize in the country as this will raise income as well as standard of living for the rural women. ■

GRAIN DE SEL Get involved!

The Grain de Sel magazine has been published since 1996 to help fulfil Inter-Réseaux Développement Rural's mission to share information and promote discussion and exchange. As a technical and scientific publication for the general public, the magazine seeks to promote a better understanding of the issues and challenges relating to agricultural development in Africa. Inter-Réseaux is made up of a variety of actors in Africa and Europe who are committed to addressing these issues, and each half-yearly issue is produced collectively. Grain de Sel aims to give a voice to a wide range of local actors (producer organisations, NGOs, researchers, leaders, etc.) to ensure that different points of view are heard. We are always open to receiving new contributions. Don't hesitate to write us at: inter-reseaux@inter-reseaux.org

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