

Ghana's farmers aren't all seeing the fruits of a Green Revolution

Global businesses, donors and governments have each pursued a <u>Green Revolution agenda</u> in Africa, Asia and South America since the 1960s. Its aim was, in theory, to produce more food, reducing food insecurity and poverty. This was done via improved seed varieties, chemical fertilisers and other agrochemicals.



Ghana's Green Revolution has not been as successful as portrayed. Wikimedia Commons/Flickr, CC BY-SA

However, rates of hunger continued to increase alongside the uptake of these <u>agricultural technologies</u>. They have also been <u>criticised</u> for the carbon they produce and the amount of water they use.

Despite the failings of the first Green Revolution, a second wave emerged in the early 21st century, this time primarily targeting the <u>African continent</u>. National policies across a number of African countries have supported this agenda. In Ghana, for example, the government worked with <u>donor organisations and the private sector</u> to extend the Green Revolution throughout its major food-producing areas.

The Brong Ahafo region, now divided into Bono, Bono East and Ahafo regions, is one such area. This <u>zone</u> is often referred to as the "food basket" of Ghana. It <u>leads</u> the production of maize and other major staple crops. It is also a favoured location for experiments with agricultural modernisation, because its ecological conditions suit food crop cultivation.

We designed a <u>study</u> to analyse drivers of this second Green Revolution in the Brong Ahafo region. It included key champions of this agricultural transformation agenda. We also aimed to assess its impacts at the local level and on different categories of farmers.

Our study found that international donors and philanthropic organisations were central in driving Green Revolution technologies in this region. Despite the hopes – and hype – pinned on this second Green Revolution, it has failed to address the needs of poor farmers. It hasn't reduced poverty. Rather, it has increased farm input costs, farmer indebtedness and inequalities among farmers.

Given these outcomes, there is an urgent need to re-imagine agricultural transformation. It is farmers – not donors and philanthropists - who are best placed to lead a socially just and environmentally responsible farming future in Ghana.

Drivers of farming technologies

A <u>dominant view</u> among government and industry stakeholders is that the current Green Revolution is vital to make smallholder farming more productive. They call for access to farm inputs and innovations, financial and agricultural services and support, and access to markets.

Our study found many actors in farming communities also shared this view. For instance, representatives from donor organisations such as the Alliance for the Green Revolution in Africa (AGRA) and the United States Agency for International Development (USAID) championed the uptake of external inputs for increasing agricultural production.

Similarly, agricultural extension officers and representatives from local NGOs encouraged farmers to adopt these technologies. Pressure also came from commercial providers of "improved" seeds, chemical fertilisers and other agrochemicals.

Through the uptake of these commercial inputs, farmers have become integrated within global agro-input chains. This is unlike the first Green Revolution, when farm inputs were most commonly freely exchanged among farmers.

Our study shows that farmers in the Brong Ahafo region are reluctantly adopting these inputs. They are being told that doing so will help them adapt to <u>changing ecological</u> conditions – including shortened rainfall periods and diminished soil fertility. Such claims are not necessarily matched by farmers' experiences.

Different outcomes

The first Green Revolution has been widely <u>criticised</u> on the basis of its adverse social and environmental impacts at the local level. Our study of the second Green Revolution in the Brong Ahafo region demonstrates similar trends. These practices of farming have increased the costs of production and put farmers further in debt. Poor and landless migrant farmers are hit hardest.

Although new technologies may have increased yields, they have also raised costs of production – and there are no assured markets for produce. The region has no structured market systems that can ensure farmers generate an income from crops. With bargaining power skewed in favour of buyers, the prices of produce often disadvantage farmers – especially when farm produce is abundant.

But the outcomes are not the same for all farmers.

Commercial farmers who are able to produce in large quantities are often linked to markets through contract buyers who purchase direct from their farms. Their financial and social capital puts these large scale farmers in the best position to

benefit from any Green Revolution interventions. Poor and small scale farmers are unable to reap the same rewards.

The high costs of production – through dependence on costly off-farm inputs – and lack of access to ready markets are driving farmers away from food crops and towards <u>cash crops for export</u>. Such conditions have already threatened local food systems and will continue to do so.

Read more: Why Ghana's smallholders aren't excited by the latest 'Green Revolution'

Way forward

Champions of the second Green Revolution in Africa – including national governments, donors and philanthropists – promise its technologies are the answer for feeding the world, even in an era of climate constraint. Yet the reality on the ground – as borne out in our study with farmers in the Brong Ahafo region in Ghana – tells a different story.

Faced with the challenges of land shortages and changing ecological conditions, alongside insecure and unfair markets, technological interventions alone will not ensure a socially just and environmentally responsible food system.

The many diverse challenges facing farmers in Ghana – and many other parts of Africa – must be met by taking local approaches. These consider the lived experiences and expertise of farmers themselves and are supported by national agricultural policies and planning. Farmers need space to shape their own livelihoods and to innovate in response to changing ecological conditions.

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