



Emerging analysis and ideas

Dealing with Covid-19 in rural Africa

Lessons from previous crises

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June 2020

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Key messages

- How Covid-19 and responses to it will unfold in rural Africa is uncertain. Agricultural output may fall, as may household incomes. Food supply chains may be disrupted, leading to rising food insecurity. Rural livelihoods need to be sustained and food systems kept running.
- Effects may be moderate rather than severe: farming and food systems are used to coping with shocks. Impacts will be highly uneven between individuals and households. Those most affected will need support, for example through cash transfers.
- Other health crises show how difficult it is to get public responses right when so much is uncertain; how livelihoods tend to be sidelined in medical interventions; and how overreacting can make things worse. Management of crises thus needs to be adaptive, informed by timely evidence from the ground, with active engagement with local, affected communities.
- On a brighter note, recovery from previous crises has often been quick and strong, even when the measures taken have been quite modest.

About this note

The authors thank all those who took the time to be interviewed, and those who commented on earlier drafts of this note.

The review on which this note draws was produced with the support of UKAID through funding to the Agricultural Policy Research in Africa (APRA) Programme of the Future Agricultures Consortium (FAC) and the Supporting Pastoralism and Agriculture in Recurrent and Protracted Crises (SPARC) Programme.

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Questions and methods

What lessons can be drawn from previous crises to inform responses to Covid-19 in rural Africa? This note summarises insights from a study commissioned by DFID. It addresses two questions:

1. What might the consequences be of disease, and responses to it, on agriculture, rural livelihoods, food systems and food security?
2. What lessons on dealing with those consequences can be drawn from previous crises?

Most of the evidence comes from a review of seven viral health crises: HIV/AIDS; H5N1 (avian influenza); Severe Acute Respiratory Syndrome (SARS); H1N1 (swine flu); Ebola virus disease (EVD) in West Africa and the Democratic Republic of Congo; and Covid-19 in China. Two economic shocks were also considered: the 1997 Asian financial crisis and the 2007/2008 food price spike. Nine specialists, familiar with one or more of these crises, were interviewed.

Nine previous shocks

HIV/AIDS

Beginning in the 1980s, by 2005 the pandemic had infected more than 40 million people, including 26 million in sub-Saharan Africa, with strong infection rates in southern Africa. Some 28 million had died from the syndrome. Because those living with HIV/AIDS were mainly in their most active years, much labour was lost to sickness, caring for the ill, and eventually to death.

Effective response was slowed by the stigma that initially attached to those infected. Subsequently, transmission and disease from HIV/AIDS have been considerably reduced owing to measures to reduce transmission (such as condom use), and to anti-retroviral therapy (ART) to control viral loads and prevent the advance of the syndrome.

H5N1 avian influenza

H5N1 was first isolated from a farmed goose in Guangdong, China, in 1996; a similar strain led to outbreaks among poultry in Hong Kong a year later; and in 2003 the first human infections

were reported in Hong Kong, with other cases in Thailand and Vietnam in the next few years. Illness and death among humans were limited, and very few cases have been seen since 2010.

A key response was the mass culling of poultry in areas of infection, leading to major losses of income for largely uncompensated farmers. Tourism also suffered as visitors shunned affected countries. The approach to control was heavy-handed, while modelling of the epidemic did not sufficiently consider the local context.

Severe Acute Respiratory Syndrome (SARS)

The SARS coronavirus first infected humans in Guangdong Province in southern China in November 2002, with the coronavirus being identified in 2003. The epidemic that followed affected 26 countries and resulted in more than 8,000 cases in 2003, with almost 800 deaths, mostly in China. The economic cost of the virus was estimated at \$30 billion over a six-month period.

Initially the Chinese government tried to cover up and downplay the outbreak but, under intense domestic and international pressure, made a dramatic about-turn in April 2003. The ‘crusade against SARS’ that resulted saw strict controls on movement and quarantining. By late June 2003 the disease had been brought under control; by mid-August there were no known cases. Some economic losses were experienced, but they were modest.

H1N1 swine flu

In spring 2009, a routine test picked up a novel influenza A (H1N1) among patients with mild flu-like symptoms in North America. The virus was traced back to an industrial swine farm in Mexico, from where it was spread by farm workers to humans and pig herds across North America. It eventually spread to 208 countries and became the dominant strain of the 2009 flu season, resulting in the death of an estimated 151,000–575,000 people. The World Health Organization (WHO) declared the outbreak a global pandemic, the first for 40 years.

Early efforts to contain the outbreak were hampered by poor surveillance and a lack of international coordination. The complex origins of the virus led to confusion about whether it was an animal or public health emergency, with mutual misunderstanding between the World Organisation for Animal Health (OIE), the Food and Agriculture Organisation (FAO) and WHO. It was widely, but falsely, believed that the virus could be contracted by consuming pork, and extensive public information had to be provided to calm consumer concerns.

Ebola virus disease (EVD), West Africa

An outbreak of EVD in Guinea in 2013 spread to Liberia and Sierra Leone in 2014. It was progressively brought under control from late 2014, with the last cases in late 2015. By then over 11,000 people had died from the disease.

Initial responses were poorly coordinated, especially between medical and humanitarian agencies. Restrictions on movement in affected areas were severe, resulting in significant disruption to farming and other, informal, activity. Measures were implemented in a top-down way, with poor communication to those affected. Compliance was low, and measures were ineffective. The disease was brought under control when people at risk and their leaders were

fully engaged, and locally appropriate controls applied. International support to the epidemic response was late; most arrived when EVD was already past its peak.

Although rural livelihoods were hit hard during the outbreak, both the informal sector and agricultural production recovered within a season, despite very limited, and largely insignificant, support.

Ebola virus disease, DRC

In early 2018, EVD broke out in Eastern DRC (North Kivu and Ituri), leading to around 3,500 cases and 2,300 deaths by March 2020. First responses repeated most of the mistakes made in West Africa only a few years earlier: there was little or no consultation with local people or appreciation of local culture or livelihoods, fomenting distrust of the government and international responders. This in turn meant that responses were ineffective.

When lessons from West Africa, of working with the cultural grain, were absorbed, a more effective approach was developed with local communities, so that infections began to decline from September 2019. Beyond limiting the spread of disease, the new approach incorporated livelihood considerations, including safety nets for quarantined and affected households. Economic activity continued, albeit subject to disease control measures.

Covid-19, China

Following the outbreak in Wuhan in late 2019, China brought in a strict travel blockade and quarantine across urban and rural areas on 23 January 2020, significantly affecting rural livelihoods. The lockdown came during the Lunar New Year, a time when migrant workers return home. Unable to go back to their jobs, and without formal employment rights, people's incomes dried up. Meanwhile, rural residents working on farms and in non-farm businesses were unable to work beyond the village gate. After a month of restrictions, the Chinese economy had lost around \$100 billion in rural migrant worker wages alone.

A key concern of the government from the outset was to maintain agricultural production and distribution, ensure food availability and prevent price spikes. Policies – from setting up frictionless Green Channels on the country's road network that allow food and farm inputs to pass unhindered to lower taxes and cheap credit for farmers – appear to have been effective. Nonetheless, the easing of lockdown restrictions from April onwards was a huge relief for China's rural residents, and for its mobile army of migrant workers.

1997 Asian financial crisis

From late 1997 a financial crisis broke over Southeast and East Asia. Private investors, within and outside the region, fearful that a credit bubble was about to burst, took capital out of the region, converting as much domestic currency into dollars as possible. Domestic currencies depreciated and central banks began to run out of foreign reserves.

Initial government responses, encouraged by the International Monetary Fund (IMF), further deflated economies, leading to business failures and loss of jobs and incomes. Subsequently, governments sought to inject capital and protect the unemployed. Within a few years economies had recovered strongly, exporting vigorously given the advantage of depreciated currencies.

2007/2008 food price spike

Between September 2007 and April 2008, the price of maize and wheat on world markets roughly doubled, while that of rice tripled. For poor and vulnerable people, the spike spelled hardship as prices of cereals in many parts of the developing world rose sharply.

The causes of the spike were debated. Some saw the price rises as symptoms of a broken and unjust food system that would never again be the same; the era of low prices for staples, which had seen a long-term trend of falling real prices for at least 60 years, was over. Others, however, saw the spike as the result of an unusual combination of low stocks, harvest failures, an unprecedented rise in the conversion of maize to ethanol in the US and bans on cereal exports.

Major efforts were made to increase cereal harvests, protect consumers and provide more information on markets. Subsequently, cereal harvests rose well ahead of population growth. By 2014 prices had largely returned to their former levels in real terms and were generally stable.

Potential impact of Covid-19 in rural Africa

Overall economic impacts of Covid-19

For the economies of emerging and developing countries, the disease, and measures to control it, will very probably lead to large losses of output and contractions in gross domestic product (GDP) – by almost 1% in 2020, according to the IMF (17 April 2020), or for Africa by 2.6% (UNECA, 2020). The size and duration of economic losses are uncertain, and depend on how the disease develops and the measures taken to control its transmission (Box 1). Lockdowns to prevent transmission take a heavy toll on urban economies, closing down most services, including tourism, and much informal activity.

How Covid-19 might impact rural areas of Africa still, at end-May, remains to be seen. On the one hand, the distance from urban centres of infection and dispersed rural populations may slow transmission. The relative youth of rural populations may mean that few infections progress to serious disease and death. On the other, returning migrants from urban areas may facilitate transmission. Because some of the rural population are already in poor health, have immune systems compromised by HIV or are malnourished, Covid-19 may lead to more serious disease and deaths. Curative health facilities, moreover, are generally lacking in rural areas.

The effects on agriculture and rural economies from disease alone may be modest: labour may be lost to sickness and caring, but for most infections illness may last no longer than two weeks. Farming is already adapted to such contingencies: illness in farming households is common, and labour needed during peak seasons is typically replaced by extended family, collective self-help and hired labour.

Of greater concern are restrictions on movement and gatherings. These can lead to rural markets closing, less public transport, disrupting marketing of crops, reducing demand for farm surpluses and increasing food prices in urban areas.

Rural populations will also be affected by impacts in the urban economy. Layoffs of workers in cities may see migrants returning home to their villages, spreading the disease. The flow of remittances may also be affected which, in some villages, contribute significantly to rural incomes. The closure of urban restaurants and food markets and the loss of urban incomes may reduce demand for agricultural produce, especially high-value and perishable produce. Restrictions on international travel may mean less capacity to carry export crops as air freight, while increased vigilance at borders may impede agricultural trade.

Box 1 Uncertainties and debates on economic impacts of Covid-19 in the developing world

For economies as a whole, worst-case scenarios are alarming. For example, UNECA (2020) estimates that 3.3 million people may die from the disease in Africa, with economies on the continent contracting by 2.6%. Sumner et al. (2020) foresee a worst-case scenario of as many as 580 million people pushed into poverty around the world.

Others argue that the disease changes few fundamentals, so that if capital, labour and networks that sustain enterprise and trade survive the disease, economies may rebound quickly when restrictions are lifted (Baldwin, 2020; Portes 2020).

In rural areas, some are concerned that the disease and related restrictions on movement may exacerbate existing threats, such as droughts, locusts and conflict, leading to serious loss of crops and livestock, increasing vulnerability and rural poverty, threatening food supplies and adding considerably to food insecurity.

However, agriculture and the rural economy are loose-coupled systems, where farmers and business operators are accustomed to coping with shocks of all kinds. Mild disease and moderate restrictions on movement and gatherings, while unwelcome, may therefore have only modest impacts.

Consequences for agriculture, rural livelihoods, food systems and food security

Five main changes are possible:

Agricultural output may fall, owing mainly to reduced demand for high-value perishables and export crops, especially air-freighted exports. For other crops, effects may be small as long as disruptions to rural markets and supply chains are not severe. If farm inputs or the finance that pays for them are interrupted, farms that depend significantly on external inputs – not the case for many smallholder farms – may experience further declines.

Women may face additional work in caring for the sick, on top of their often already heavy workloads. Their daughters may be taken out of school to help them.

Rural household incomes will fall, particularly for households that rely on high-value perishables and air-freighted export crops, on rural non-farm business and employment, and on remittances from migrants in urban areas.

Some supply chain businesses – transporters, processors, traders – will not be able to operate to capacity if they deal with produce for which demand has fallen, or transport is disrupted, or they are closed down by disease controls. At worst businesses will go bust, although some, probably small and informal, enterprises may survive with few capital costs and overheads and if they can switch labour to other activities.

Food insecurity may rise, mainly due to lower household incomes and possibly higher agricultural prices. If markets are closed some households may lose access to food, or have to buy from more distant centres in rural areas, or supermarkets in urban areas, at higher cost. Some households, especially those on low incomes, may switch to less nutritious food.

Such impacts will be highly uneven. Socially, infections and disease hit some hard, while others remain untouched. Economically, some households have resources to cope with a loss of labour and less income, while others do not. Geographically, impacts will vary by farming system: the type of crops and livestock produced, dependence on labour and purchased inputs, and the supply chains that link them to markets.

Lessons from previous crises and their relevance to responding to the effects of Covid-19

Shocks, by their very nature, are unexpected. The challenges involved are novel; every pandemic has its own characteristics of transmission and disease. Decisions have to be made when much is uncertain about the disease and how to control it, and about its economic and social effects.

It is not surprising, then, that **three mistakes are commonly made in early reactions**. First, early responses can be misconceived: at best ineffective, at worst counter-productive: for example, pretending that HIV could only infect drug users and homosexuals, covering up the outbreak of SARS, deflating Asian economies when the financial crisis of 1997 broke, ignoring rural communities and imposing impossible restrictions on them when Ebola struck in the Mano River countries and later in DRC – all of these were counter-productive. Only when such policies were either abandoned or supplanted by more effective measures was the tide turned.

Second, when epidemics hit, medical responses get priority, humanitarian relief comes next, while considerations of livelihoods tend to lag behind. Informal economic activity tends to get very little attention at all, yet this includes much smallholder farming, trading and the interactions of rural and urban economies. This is particularly costly since most people vulnerable to crises – those on low incomes, who lack assets, who may have precarious health – work informally.

Third, decision-making is not helped when some people, above all those in government, overreact to shocks. Feedback loops that exacerbate the initial problem can be strong. Two examples often arise. One is fear of disease leading to myths about its origins and causes, so people neither report disease nor cooperate with medical responses. The other is fear that food will not be available in markets, leading to panic buying and hoarding – by individuals, companies and state agencies – that drives up prices, fuelling further overreactions.

Public agencies can only do so much to respond to crises. Faced by visible distress and often fearing that further impacts will be worse, governments, aid partners and NGOs feel they have to react comprehensively. In reality, however, their options are limited. It is hard to respond to crises without administrative structures, procedures and staff in place. Experience defines both

the range of options most likely to be considered, and those that can reasonably be implemented within the short to medium term. This applies especially to interventions in the field, for example safety nets.

Experience also offers some silver linings. First, recovery can be faster and stronger than expected. Medical controls or treatments for pandemics can rapidly end them. Recovery from previous epidemics has been largely complete within one year, and economies have largely recovered from crises within five years of the initial shock.

Recovery did not depend, either, on profound reforms to economies or societies. In part this may be because the shocks were not primarily the consequence of deep-seated malaise, but were caused by specific perturbations: for example, the emergence of potent viruses, the volatility of international capital markets (in the Asian currency crisis), and a combination of low stocks, demands for biofuels, harvest failures and export bans leading to a spike in food prices. Much productive capital survived these crises, allowing recovery.

Public measures to support recovery were often straightforward and well-known: injections of capital, through bank credit, small business grants, community funds, micro-finance, distribution of farm inputs; social safety nets to allow coping without loss of productive capital; redoubled commitment to the provision of public goods and services in rural areas, etc.

These succeeded partly because it was not just governments, aid partners and NGOs that responded, but also those most affected by the shock – rural people themselves. Indeed, in crisis after crisis, what made the difference for most individuals and households was their ability to cope – or not – drawing on the means of the household, extended family, friends, local community organisations and the local economy.

What's needed to deal with Covid-19 in rural Africa?

In terms of **what to do**, three priorities stand out.

One, **sustain rural livelihoods** as far as possible. Allow rural markets to operate with modest restrictions and precautions. Ensure that farmers can produce, which may mean guaranteeing supplies of fertiliser, seed and fuel, and in some cases allowing seasonal labour to move for harvests and the like. Remittances will probably fall, but for those still flowing, facilitate transmission from urban to rural areas.

Two, **maintain food systems**. Set up green channels for agricultural inputs, processing and marketing: minimise restrictions, and give activity and transport priority. Find ways to keep enterprises in food supply chains running, or if they have to close or operate at reduced capacity, provide bridging loans so they can resume operating when the crisis passes.

Three, **protect those most affected**. Scale up existing safety nets to reach more people, and if necessary increase payments. Where such nets do not exist, institute emergency cash transfers. Target broadly to prevent exclusion errors: worry less about inclusion errors. Prioritise rural women when extending safety nets or increasing payments. If rural girls are withdrawn from school, encourage them to return after the crisis, for example with cash bonuses.

In terms of **how to do it**, there are four key lessons. One, manage responses adaptively. Take prompt action but be prepared to revise responses in the light of incoming information. Engaging with communities – which needs time and resources if it is not to be mere co-opting – not only provides critical information, but can also generate practical responses that work locally, which outsiders may not see.

Two, to allow adaptive management, **invest in understanding what is happening**. Rapid data gathering and analysis is needed (Box 2). Make sure that livelihoods are covered, especially informal livelihoods. Existing data on livelihoods and household economies can help predict and project the impacts of shocks, including Covid-19, where real-time data is lacking.

Three, responses to previous crises have been under-evaluated: knowledge of what works and how is vested largely in the heads of those who responded. Hence, **find and employ those with experience of previous crises**. Include specialists from across the board: avoid privileging the views of any group of specialists.

Four, **consider feasible options, recognising capacity limits**. Feasible responses may seem insufficient to deal with the crisis. They may be modest rather than radical. As stated, however, experience shows that they can make a difference, if only because, in part, those most affected are often making great efforts to resolve the difficulties they face. External support to them, even if limited, can help.

Box 2 Information needed to assess impacts on food and nutrition security

Gather information on changes affecting populations believed to be vulnerable to food insecurity, for example urban groups in informal settlements; rural households that lack land or labour, or live in areas of poor natural resources or in remote locations; disabled and chronically sick; displaced.

Priority information includes:

- Changes to livelihoods: impacts of disease, controls on movement and gatherings and economic activity.
- For agriculture, access to and cost of inputs, labour, freedom to move to fields or pasture. Ability to sell surpluses and changes to prices paid.
- Food and agricultural supply chains. Disruptions to markets, transport, trading, processing, wholesaling, retailing, exporting and other businesses in the chain.
- Markets for staple foods and other necessities: availability of goods, changes in prices.
- Experiences of food insecurity: difficulties in finding food in markets or paying for it; fear of infection when buying food.

Information may be collected promptly and at low cost through:

- Quantitative monitoring, similar to that already done for market information and food security early warning systems. Use historical records to control for seasonality.
- Qualitative interviews, by mobile phone, of households sampled to reflect vulnerable groups, farmers from diverse farming systems and trusted informants in food chains, capturing the range of traders, processors, transporters, wholesalers and exporters. Surveys can be repeated to track changes.

Collecting, collating and analysing data, then preparing it for decision-makers, requires staff. Teams can be formed building on and working with existing groups that gather data in ministries, local government, chambers of commerce, NGOs, FEWSNET in some countries, FAO or WFP in others, etc. Additional temporary staff for increased activity during the crisis may be seconded from the civil service or contracted from local think tanks or market research agencies.

Because new ways of analysing data to generate predictions will be needed, both methods and data should be made open access, so that other researchers can examine, analyse and interpret the information and provide peer review. Such crowdsourcing of analysis can help guard against errors and omissions

References

Baldwin, R. (2020) ‘Keeping the lights on: economic medicine for a medical shock’. Blog. Vox CEPR Policy Portal, 13 March. (<https://voxeu.org/article/how-should-we-think-about-containing-covid-19-economic-crisis>).

IMF (2020) *World economic outlook*. (<https://www.imf.org/en/Publications/WEO/Issues/2020/04/14/weo-april-2020>).

Portes, J. (2020) ‘The false choice between national wealth and national health’. Blog. Byline Times, 13 April. (<https://bylinetimes.com/2020/04/13/pandemonics-the-false-choice-between-national-wealth-and-national-health/>).

Wiggins, S. et al. (2020) *Policy interventions to mitigate negative effects on poverty, agriculture and food security from disease outbreaks and other crises*. Rapid Evidence Review. London: ODI (www.future-agricultures.org/publications/rapid-evidence-review-policy-interventions-to-mitigate-negative-effects-on-poverty-agriculture-and-food-security-from-disease-outbreaks-and-other-crises/).



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