Situation Analysis
Impacts of COVID-19 on Agricultural Supply Systems

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Disclaimer: The analysis presented in this slide deck are the authors’ own and do not necessarily reflect the view of the authors’ institutions.
1. COVID-19 economic costs in terms of production, incomes, poverty
2. COVID-19 impacts, mainly indirect, on the agriculture sector
• National GDP fell by 38% during 5-week lockdown
  (US$18 bil. in lost GDP)

• Food system adversely affected by falling consumer & export demand
  (18% agri-food GDP decline, despite exemptions)

• National poverty rate increased by 15%-points during the lockdown
  (30 million more people temporarily living below the US$1.90-a-day poverty line)

Economic impacts during 5-week lockdown period

- Percentage decline in national GDP: 37.6%
- Percentage decline in agri-food system GDP: 18.3%
- Percentage point increase in national poverty rate: 15.4%
- Decline in national GDP in US$ billions: 18.1
- Increase in number of poor people in millions: 30.1

Source: Nigeria SAM Multiplier Results
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Analytical Approach: Economywide Modeling of Impacts
COVID-19 Cases & Policy Timeline

Federal government announces movement restrictions for Lagos, Abuja FCT, and Ogun; suspension of inter-state travel; and palliative measures including cash transfers and food rations.

1. Federal government announces 14% budget cut (20% capital & 25% recurrent spending)
2. Travel bans on 13 highly-infected countries
3. Lagos & Ogun states restrict large gatherings & close schools (8 other states close schools)

Expansion of laboratory testing, Intensified public health campaigns, and establishment of COVID-19 Presidential Task Force

First confirmed case in Nigeria

Federal government announces Kano lockdown extension, national curfew, gradual lockdown relaxation in Lagos, Abuja, and Ogun.

Further easing of restrictions on religious gatherings, curfews, and govt. announces that states will lead the next phase

Federal government extends movement restriction for two more weeks

Restrictions are broadened to include Kano State

Lagos, FCT, Ogun, Ekiti, Delta & Osun lockdowns extended two weeks

Raduna lockdown extended 30 days

Kwara lockdown extended two weeks

Borno & Taraba lockdowns

Kano lockdown extended for two more weeks

Land and air borders are closed for four weeks

Nigerian Center for Disease Control (NCDC) receives US$2.7 million funding boost

All schools closed
Economywide Multiplier Analysis

• Lockdown policies & shocks have **direct** impacts on the operation of certain sectors
  (e.g., closing businesses, restricting travel, etc.)

• But they also generate **indirect** impacts on other sectors involved in supply chains
  (i.e., input suppliers & downstream users)

• Multiplier analysis uses sector input-output data to measure direct & indirect impacts throughout & across supply chains
  (incl. impacts on GDP, jobs & household incomes)

• Nigeria model based on 2018 SAM & 2011 household survey data
  (results scaled to 2019 GDP & employment levels)
**Economywide Impacts**

GDP | Jobs
---|---
Incomes | Poverty

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**Direct impacts**

**Global Impact Channels** (Due to in other countries)

- Export demand
- Remittances & migration
- Foreign direct investments

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**Indirect impacts**

**Domestic Impact Channels** (Due to lockdowns in country)

- Agriculture
- Mining & crude oil
- Manufacturing
- Utilities (energy, water)
- Construction
- Whole & retail trade services
- Transportation, storage & cargo
- Hotels & food services
- Banking, finance & insurance
- Professional & business services
- Public administration & law enforcement
- Education services
- Health & social services
- Sports & entertainment
- Community & other services

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**Economywide Impacts**

GDP | Jobs
---|---
Incomes | Poverty
Findings:
Broad Picture of Economic Impacts of COVID-19
National GDP drops 38% during 5-weeks of state lockdowns
(most losses occur in the services sectors, but industry is also badly affected)
Assumes lockdowns are not expanded or reintroduced
(e.g., lockdowns in Kano or other states might last 8 weeks – see gradual easing scenarios)

Source: Nigeria SAM Multiplier Results
3 Measuring Impacts on Agriculture Sector
Impacts on the Agri-Food System

Food supply is exempt from most restrictions, but it is still indirectly affected by falling consumer incomes & other shocks.

(food services is directly affected by the closing of hotels, restaurants & bars, but this is a small component of the overall agri-food system)

Source: Nigeria SAM Multiplier Results
Sources of Agri-Food GDP Losses

**Domestic trade restrictions cause a large share of agri-food GDP losses**
(limiting construction & banning entertainment activities makes up another quarter)

**Contribution of lockdown restrictions & shocks to loss in agri-food GDP during lockdown** (sums to 100%)

- Closing non-essential wholesale/retail trade: 37.7%
- Closing hotels, bars and restaurants: 22.5%
- Closing non-essential manufacturing: 11.8%
- Limiting construction activities: 6.5%
- Transport/travel restrictions: 6.3%
- Falling foreign remittances: 4.5%
- Closing all schools in the country: 3.2%
- Reduced export demand: 2.5%
- Closing non-essential business services: 2.1%
- Banning sports & other entertainment: 2.1%
- Falling government revenues: 0.7%
- Domestic workers & other services: 0.1%

*Note that food is considered “essential” & so is not directly affected by this restriction.*

Closing food service providers is more important for the food system than for the overall economy.

Falling remittances are also more important for the food system because households spend a large share of their incomes on food.

Source: Nigeria SAM Multiplier Results
Change in GDP during the lockdown (%)

-14% Agriculture
-14% Crops
-28% Cereals
-48% Pulses & oilseeds
-5% Root crops
-15% Fruits & vegetables
-15% Sugarcane
-48% Beverage crops
-57% Traditional export...
-16% Livestock
-16% Meat & eggs
-16% Dairy
-25% Forestry
-9% Fishing

Root crops are the largest food group and agric. subsector in Nigeria, but home production accounts for a large share of domestic supply.

Export crops hurt by falling export demand & input supply disruptions (greater use of inputs than other crops).

Decline in investment spending & construction activities reduces demand for timber & wood products.

Source: Nigeria SAM Multiplier Results
Costs Likely to Persist Throughout 2020

• Economy is reopening as restrictions are eased

• But economic losses remain, even with a fast recovery
  (GDP may be 9-17% lower in 2020 compared to a no-COVID scenario)

• Average GDP & poverty rates for 2020 hide sharp mid-year deteriorations
  (many businesses & people will require government support to cope & recover)
Thank you

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