





for



COVID-19 and the Sorghum Value Chain in Ghana

Gideon E. ONUMAH (NRI, UK)
Ricardo VILLANI (Institute of Life Sciences,
Sant'Anna School of Advanced Studies —
Pisa, Italy)

Covid-19: new challenge or new opportunity to enhance sustainability of agricultural and fisheries value chains in EU partner countries?

Disruptions in the VC and pathways

□ BACKGROUND:

- For agro-climatic reasons, sorghum grain produced mainly in Northern Ghana, mainly by smallholder farmers (SHFs)
- The Sorghum VC consists of 3 sub-chains (SC)
 - SC1 (rural) and SC2 (urban) are both informal and supply sorghum grain to households for food or to brew pito (a traditional beer with low or 0% alcohol content)
 - SC3: New SC that supplies quality grains to industrial brewery (6.5% of output). SHFs in SC3 obtain higher
 yield as they receive inputs credit channelled through aggregators; market is usually assured and price is
 fixed

☐ DISRUPTIONS IN VC:

- SC1 and SC2 not affected. But offtake in SC3 fell by about 40% because of:
 - Steep fall in demand for non-essential consumer goods (e.g. beer)
 - Low volume of grain affected but high impact on value added in chain
- Social effects: e.g. delayed payments affected SHFs' income flows; created problems in repaying inputs credit and uptake of inputs for next planting
- Environmental effects: potentially negative as detailed in next slide

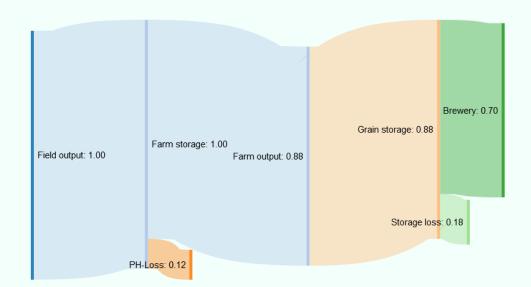
Solutions undertaken and effectiveness

□ SOLUTIONS BUT NOT SPECIFIC FOR THE SORGHUM VC – include:

Awareness creation and production of Personal Protection Equipment as an alternative economic activity

FURTHER DETAILS ON ENVIRONMENTAL IMPACT:

Negative environmental impacts in several segments of the chain e.g. from cultivation (less efficient ratio of output to land area cultivated due to limited use of inputs); to storage (increased postharvest losses due to lack of support to invest in postharvest grain handling). Inefficiency associated with upstream phases have negative environmental effects on the final product (litre of beer)



Hypothetical Sankey diagram of the beer VC in Ghana during COVID-19 crisis.

New challenge or new opportunity

☐ CHALLENGES:

- Delay in paying for grains produced by SHFs in SC3 is the most critical challenge. Its impacts go beyond
 the current season in terms of capacity to take up inputs
- Storage for committed grains arranged but lack of finance against the stocks this is an old challenge which needs to be addressed

□ OPPORTUNITY CREATED:

- Traditional pito brewing has been resilient in the face of COVID challenges.
- An opportunity has therefore emerged to invest in reducing its negative environmental impacts

Concluding remarks: lesson learned

- 1. Promote inventory finance systems which makes it possible to avoid the delays in payments affecting SHFs in SC3
- This will minimise short-term cashflow problems for the households and avoid defaulting in repaying inputs loans which affects their future capacity to take up inputs
- 2. Improve efficiency and reduce adverse environmental impacts in SC2 by:
- Investing in higher-yielding "red" sorghum varieties preferred by the pito brewers
- Promoting technologies which reduce quantity of firewood used in pito brewing, thereby reducing emissions and also hazards experienced by the predominantly women brewers