Food Security and COVID-19

Update on the situation in the Great South

January 2021

Catholic Relief Services - Madagascar and SARO
with Joanna Upton, Cornell University

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Overview

- MIRA - and rapid response to Covid-19
- Current food security & inter-annual comparisons
- Covid-19 Impacts
  - Self-reports of shocks
  - Impacts on lives / livelihoods
- Food & Livestock Price Trends
The MIRA platform allows rapid response / updating; hence, implemented rapidly when the economy was impacted by the Covid-19 pandemic.

- Communicated with teams in the South remotely to qualitatively assess likely impacts.
- Developed a survey module to assess the key suspected areas of impact.
- Includes: knowledge of disease prevention measures, sources of information, perceived options in the case of illness, availability of food goods and recent price changes, impacts on financial situation, other impacts of the response.
- Staff took due precautions, and also provided interviewees with sound information on the pandemic and how to prevent transmission.
The study population

- Sampling over 5 communes in the South, with stratification by livelihood zone:

<table>
<thead>
<tr>
<th></th>
<th>BELOHA</th>
<th>TSIHOMBE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Marolinta</td>
<td>Tranovaho</td>
</tr>
<tr>
<td>Total</td>
<td>167</td>
<td>70</td>
</tr>
<tr>
<td>Maritime</td>
<td>89</td>
<td>60</td>
</tr>
<tr>
<td>Riverine</td>
<td>27</td>
<td>0</td>
</tr>
<tr>
<td>Agricultural</td>
<td>51</td>
<td>10</td>
</tr>
</tbody>
</table>

- N.B. Households chosen from a limited census of those considered vulnerable, according the criteria provided by CRS; hence, the sample is not representative by district / commune

- *Tendencies* within households are all the same highly pertinent

- Relatively low attrition: on average 540 households interviewed each month, with 92% of households present for over half of all interviews
Food Security Trends over time
- Dietary Diversity

Note: situation improved in general from late 2018 onward, until the first quarter of 2020; moderate improvement again in 2021, but still at high levels of food insecurity
Food Security Trends over time
- Dietary Diversity

- A general trend of moderate improvement in recent months, in most locations
- Highest rates of food insecurity appear to be in Marovato (86 hhs in Sept 2021), better situation in Marolinta (167 hhs in Sept 2021)
Food Security Trends over time
- Dietary Diversity

Note: situation progressively better in 2019 than 2018; but challenges increasing again in 2020 (coincident with the shutdown); and 2021 remains worse than 2018-19
Notable again that the pattern for coping strategies is NOT the same as dietary diversity; levels have been generally lower (which is better) than previous years.

Change in end of 2021 (worse than previous years)

Note that some of these strategies are “relative to prior month”; hence, if nothing is changing (e.g., households have already reduced number of meals) this result may understate the degree of food insecurity.
Relative to dietary diversity, coping strategies are somewhat worsening in recent months; in particular eating less preferred foods and reducing quantities.
Food Security Trends over time - Coping Strategies, HHS

Coping Strategies over time (HHS)
Sept 2018 to Dec 2021

Proportion of Households

- No food available
- Go to bed hungry
- Go a day and night without food
Starting in June, 2020, HHS has been on average higher than over the same period in 2018-2019; now worse than the same period in 2019 (but a slight improvement on 2020).

The contrast with the rCSI may indicate that more households are resorting to more extreme measures.
Confirming the above; an increasing proportion of households have been suffering from these more extreme conditions since early 2020, peaking in early 2021.
Food security trends over time: consistency

Consistency of food security is a problem for all households; none are always food secure, and few are always food insecure, with variation across indicators [Note: indicators vary in severity and measure different dimensions of food insecurity]

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Always food secure</th>
<th>Food secure at least half of the time</th>
<th>Never food secure</th>
<th>Percentage of periods observed as food secure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Food Consumption Score (FCS)</td>
<td>0%</td>
<td>3%</td>
<td>3%</td>
<td>22%</td>
</tr>
<tr>
<td>Household Dietary Diversity Score (HDDS)</td>
<td>0%</td>
<td>0%</td>
<td>57%</td>
<td>2%</td>
</tr>
<tr>
<td>Household Hunger Scale (HHS)</td>
<td>0%</td>
<td>58%</td>
<td>1%</td>
<td>53%</td>
</tr>
<tr>
<td>Reduced Coping Strategies Index (rCSI)</td>
<td>0%</td>
<td>24%</td>
<td>4%</td>
<td>35%</td>
</tr>
</tbody>
</table>
Food Security Trends over time & Covid-19 impacts

- Given that future predictions are dominantly climate-based, important to assess the degree to which the economic shutdown was different...
  - Potentially engaging in strategies that will lead to longer-term consequences
  - Policy question, in terms of the impacts of economic / travel restrictions
  - Inform interpretation of other climate-based predictions
Households face diverse shocks at different times of the year.

Coincidence of drought and Covid-19 shut-down confounds ability to identify cause of food security trends (i.e. a Covid-19 effect).
Shock Experience over time

- Note: not a conclusive pattern in reported health shocks related to the pandemic; though spikes in reported health in Feb-March 2020 and again Oct 2020 - January 2021.
Shock Experience over time - health shocks & Covid-19 symptoms

- General pattern of illnesses declining since 2018 (with some exceptions);
- In November, 2020, roughly 2% of households reported the presence of someone with a cough; all other health shocks reported by fewer than 2%
- Specific reports of Covid-19 symptoms (cough, fever) still at about 2% of households
Food Security Trends over time - cactus consumption

Noted and progressive increase in proportion of households relying on red cactus fruit (confirmed by team reports); similar to 2018, seasonal pattern of increase from May-Sept
Food Security Trends - other strategies

- Lower rates of piece work are ambiguous in terms of welfare; seeking piece work can be a coping strategy, but not doing it likely means jobs aren’t available
  - Consistent with reports during the shut-down period (note arrow)
  - Resurgence of work availability April-May 2021? To investigate further

Engaged in Piece Work, Madagascar
2021 relative to 2019-20

Proportion of households

Month

Jan Feb Mar Apr May June Jul Aug Sept Oct Nov Dec

Engaged in piecework, 2019  2020  2021
Sales of a “large asset” (typically, cooking supplies) have been reported locally as well.

Attn that in some cases lower rates may look lower than they should in part because stocks are already depleted.
The Great South & Covid-19: Aspects of Life Affected

- Persistent reports that travel is challenging due to pandemic
- Little market access issues reported since 2020
The Great South & Covid-19: Vaccines reception

Vaccine - receipt and willingness

Proportion of Hhs reporting

<table>
<thead>
<tr>
<th>Month</th>
<th>Someone in HH received</th>
<th>Willing to receive, if haven't</th>
</tr>
</thead>
<tbody>
<tr>
<td>June</td>
<td>0.1</td>
<td></td>
</tr>
<tr>
<td>July</td>
<td>0.2</td>
<td></td>
</tr>
<tr>
<td>Aug</td>
<td>0.3</td>
<td></td>
</tr>
<tr>
<td>Sept</td>
<td>0.4</td>
<td></td>
</tr>
<tr>
<td>Oct</td>
<td>0.5</td>
<td></td>
</tr>
<tr>
<td>Nov</td>
<td>0.4</td>
<td></td>
</tr>
<tr>
<td>Dec</td>
<td>0.3</td>
<td></td>
</tr>
</tbody>
</table>
Financial Impacts related to pandemic
5 communes, since April 2020

- Income decreased
- Expenditure increased
- None
The Great South & Covid-19: Food Prices - Markets

The graph on the right presents average percentage changes in price from one month to the next (hence points below the horizontal line indicate a decrease in price).
Price increases in late 2020 for local rice were the most alarming; but the price has generally stayed high since (with less fluctuation than usual)
Prices were abnormally low in mid-2020 (note arrow); they seemed to normalize, but then were elevated for the last half of 2021.
The Great South & Covid-19: Food & Livestock Prices - Summary

- Food availability declined, and prices increased, starting in April 2020 - then stabilized some in July-August, but began to rise in October and have remained higher than typical years
  - Both the April increases and the rise in October are outside of typical ranges
  - Imported rice was most affected
  - These patterns track drops in dietary diversity and increases in coping strategies over the same period

- At the same time, livestock prices have followed the inverse pattern; being lower than usual starting in April, rising back up somewhat in the summer, and then dropping again
  - This raises serious concern, as households sell small livestock to afford food, so are pinched on both sides
  - These trends are consistent with reports of excessive sales of small assets, as households are likely to sell cooking pots and other items when distressed
The Great South & Covid-19: Summary / Next Steps

- Over-all, very challenging years in the Great South
  - And strong evidence that it was made worse by the lockdown
  - Households doubling down on coping strategies, with potential long term consequences
Thank you
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