Food Security Assessment

Timor-Leste

A Look at the Impact of Cyclone Seroja in Times of COVID-19

September 2021

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Highlights

- A total of 50,000 people affected by floods would need humanitarian support until the next harvest in May/June 2022. This represents 4 percent of the entire population.

- The Government food assistance '*Cesta Basica*' program provided the key source of food across all households and accounted for 5 to 10 percent for all food consumed.

- Despite the floods, the increase in rice production is likely to boast income levels for rice growers, but remittances, casual labour prospects are hampered by COVID-19 pandemic

- Nominal price of imported rice was observed to be much higher than the same time last year. However, a continued downward trajectory is projected for the next six months.

1.0 Background

1.1 Background and Purpose

Following the heavy rains across Timor-Leste in early April 2021 that resulted in flash floods and landslides in all the 13 municipalities, the Ministry of Agriculture and Fisheries (MAF) requested the assistance of World Food Programme (WFP) to carry out a Food Security Assessment. The key objective was to assess the impact of Cyclone Seroja, Fall Army Worm, and African Swine Fever (ASF) on food security in the face of COVID-19 pandemic.

Officially, the flooding affected close to 143,000 people with the capital Dili and other low-lying areas being the worst affected. Given the Covid-19 pandemic, the assessment could not physically field international team of experts as such in-country experts provided the assistance with remote technical orientation from the Regional Bureau.

1.2 Methodology

A three-day training with twelve-research assistants was conducted in the last week of April 2021. It included lectures, translations, respect for ethical rules, informed consent, and COVID-19 preventive measures. The tools composed of key informant checklists, focus group discussions and individual household questionnaires which included modules on food consumption, coping strategies, expenditure, food assistance and shocks.

However, the training coincided with increased number of COVID-19 infections, and some members of the team were found to be positive leading to postponement of the field mission. Unfortunately, the resumption of the field mission after three weeks led to more increased cases in the research team. As a result, to still get a broader picture of the food security situation, a switch to telephone interviews was made considering the rising number of COVID-19 cases and their related measures to contain it under the State of Emergency that was prevailing at the time that included travel restrictions, social distancing and municipal sanitary fences.

Telephone interviews were conducted in the last three weeks of June with final follow ups in early July. These interviews could only be made to key informants who willingly provided consent.

They included 12 Government food security focal points, and 12 nutrition focal points, 12 food retail traders, and 12 Non-governmental Organisations (NGOs) food security focal points, and 12 traders. The 11 field-based food security officers from NGOs were from Mercy Corps, CARE International, TOMAK, and Plan International.

The Key Informant tool had Seven modules included sources of income, changes in household expenditure, food sources, labour market, coping strategies, food assistance programs, nutrition, and food prices (Annex 1). Each module was administered to a subject specific expert within the municipality and took about eight to ten minutes to complete with uninterrupted call. Overall, 12 out of 13 municipalities were covered, except Manufahi due to network challenges.

Triangulation with secondary data from Secretariat of State for Civil Protection (CP), and programme information from NGOs implementing food assistance and nutrition programmes in the municipalities has also been used to get a much broader picture.

1.3 Limitations

One key limitation is that the mission could not collect face to face data at an individual household level as originally planned as well as focus group discussions due to travel restrictions, unavailability of household phone numbers, and the urgency of doing the assessment. To cover for this shortfall, plans are under-way to implement telephone household surveys to monitor household consumption and coping strategies on regular basis using Mobile Network Operators' (MNO) call centres. The livelihood coping strategy and Food Insecurity Experience Scale (FIES) modules have been included in the second version of the Social Economic Impact Assessment (SEIA II) which will provide a further layer on the current food security situation.

The use of telephone interviews also brought along network challenges which hampered full coverage of the study area even after several attempts leading to not be able to reach some key informants in Manufahi municipality.

Due to the intrinsic nature of telephone interviews, researchers are limited on the depth of the interviews as one is usually limited to around 20 minutes per slot to have meaningful conversation. Lastly, direct observations by researchers could not be done to ascertain some of the issues discussed.

2.0 Findings

2.1 Number of people affected

The number of people that will require food assistance support between now and the next harvest in May/June 2022 is estimated at approximately 50,000, about 4 percent of the entire population[1]. The estimate is based on triangulation of findings from the following:

- Primary information emanating from food security key focal points interviewed in the study.
- Secondary data from Civil Protection department on the number of people affected and supported

The capital Dili has the highest proportion at around 83 percent of the population that will require support while the municipality of Emera has the lowest percentage at 0.3 percent. Since the pandemic and associated measures to contain it remain a threat to various livelihood activities, the number of vulnerable populations may go up during the reference period once the ability to cope become under severe strain hence need for regular monitoring of the food security situation including household consumption and coping strategies patterns.

Table 1. Number of people in need of food assistance due to floods by municipality

[1] Population estimated at 1,344,000 by UNESA, May 2021

Municipality	People in need of assistance due to floods
Lautem	128
Baucau	153
Ermera	171
Covalima	226
Manufahi	230
Bobonaro	249
Aileu	281
Ainaro	489
Liquisa	1,041
Viqueque	1,081
Manatuto	2,072
Oecusse	2,550
Dili	41,330
Total	50,001

2.2 Impacts of 2020 and 2021 shocks contributing to reduced household resilience in 2021 and likely beyond!

In March 2020, the country went into its first lockdown as a preventing measure to the spread of Covid-19, no case had been detected at the time. By the end of the 2020, less than 30 cases were officially confirmed. However, as more and more cases were being detected in the first quarter of 2021, the Government instituted municipal health fences and other measures to curb the spread. These measures included the closure of all schools, restrictions on movement to only essential services.

Many businesses, particularly those in urban and peri-urban areas have had to curtail hours, let staff go, or shut due to limited business and/or an inability to operate within the current context. Along with the mitigating measures came increased risk through the disruptions in the supply chain of essential food and non-food items.

Although it is not yet possible to fully account for the impact of the COVID-19 pandemic, farmers have already started to see reduced levels of income as they could no longer sell or it became difficult to sell in the commercial capital, Dili,

where profit margins are much higher. Agriculture provides the backbone of Timor-Leste's household economy, with 70% of households depending on subsistence agriculture for livelihoods. Recently, the Government and private sector has had to halt several infrastructure developments projects across various municipalities due to lockdowns leading to reduced or no income for casual workers and all associated businesses.

In September 2019, Timor-Leste, where pigs are kept by more than 70 percent of households, became the eleventh Asian country to report African Swine Fever (ASF). Some research indicates that while national pork consumption is low, pigs hold tremendous monetary value for smallholders within the economy of ceremonies. Pigs serve to buffer families against shocks and pressures, especially for health and education expenses. As of 2020, the African Swine Fever is known to have led to a death toll of almost 28 percent of the pig population.

In addition, the recent presence of Fall Army Worm which was confirmed around 2019 and has continued spread throughout 2020 and 2021 due to its highly migratory nature is another shock to the food security sector. FAW is now known to nearly contribute more than 15 percent of the maize losses.

All these shocks, Covid-19, African swine fever, fall army worm greatly reduced (and continue to reduce) household resilience at the time devastated floods occurred in April 2021.

2.3 Source of income

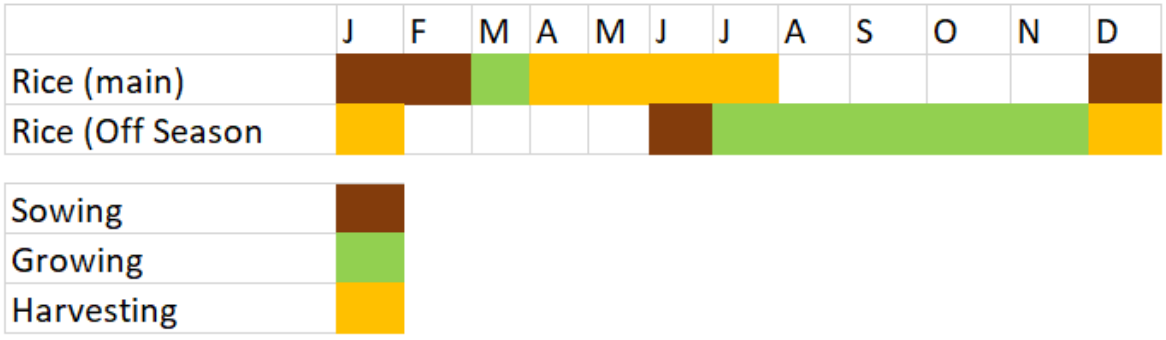
Among the key sources of income, sales from food crops, coffee, cash crops, and fish remain top sources in addition to remittances and casual labour for the majority of the population.

2.3.1 Food Crops

Subsistence agriculture provides almost 50 percent of total household income[2] in Timor-Leste. The study observed that sale of food crops was the top ranked source of income for both the current period and the same time last year. Mainly sale of rice followed by maize and some horticultural crops.

Despite the floods, overall rice production increased this year due to relatively good rainfall. More importantly, the Government led '*Cesta Basika*' program, where rice was being bought directly from the local farmers at relatively good prices, incentivised farmers to grow more. Estimates indicate a total production of 58,000 metric tonnes, which is 17 percent more than last year's production. As such the income from rice sales will likely increase in the coming months (see Agriculture seasonal calendar, Figure 1.) which will cushion the impact of the disasters for rice growing farmers. Especially with relatively good prices from institutional purchases from National Logistics Centre (NLC) and also if *Cesta Basika 2* materialises then good profit margins should be expected. This should benefit more the farming households in the main producing areas of Baucau, Bobonaro, Viqueque, Covalima and Manatuto Municipalities. The study found that only 20 to 30 percent of the locally produced rice is sold on the local market, while the remaining proportion is retained for own consumption.

Figure 1. Rice seasonal calendar



2.3.2 Cash crops

[2] Timor-Leste Economic Report-Towards Sustained Recovery, October 2020

Sale of cash crops was ranked the second most important source of income. Mainly coffee growing remains the key income source in the municipalities of Elmera, Ainaro, Viqueque, Liquiça, and Manatuto municipalities. The food security experts noted that flooding didn't affect much of the plantations and production is expected to increase this year on account of favourable weather and adequate rainfall. Seasonal harvests are expected in the second half of the year.

In a relatively normal year, coffee farmers would have had increased levels of income this year based on increased production. However, with the downturn in the global economy due to Covid-19, there is cause for concern for coffee farmers as it was observed that the price of coffee was decreasing before the pandemic as such income emanating from this cash crop is likely to dwindle compared to 12 months ago. At national level, coffee exports account for the bulk of merchandise exports in Timor-Leste, nearly 95 percent[3].

2.3.3 Livestock

Livestock, including cattle, pigs, and chickens, are an important asset for 75 percent of the population. In September 2019, Timor-Leste, where pigs are kept by more than 70 percent of households, became the eleventh Asian country to report African Swine Fever (ASF). Since then, Ministry of Agriculture notes that total pig deaths are around 28 percent[4]. Pigs hold tremendous monetary value for smallholders within the economy of ceremonies, and serve to buffer households against shocks and pressures, including for health and education expenses.

The Ministry of Agriculture officials noted that as farmers remained devastated with the outbreak of ASF, the flooding affected (lost or killed) over 40 percent of total livestock in Manatuto municipality alone[5]. Other affected municipalities were Baucau, Bobonaro and Oecusse.

The study observed that due to the *Cesta Basika* program , livestock farmers had a good ready market for their livestock and livestock products, more importantly

[3] Timor-Leste Economic Report 2020: *Towards Sustained Recovery*
[4] Census of Agriculture 2019 (pre-disaster) puts pig population at 450,000
[5] Census of Agriculture 2019 (pre-disaster) puts total livestock population at 2,700,000 (including poultry)

the prices being offered were relatively good. *For instance*, the price of piglet doubled from around US$ 25 in 2020 to around US$ 50 or more in 2021. However, traders observed that the number of customers to buy livestock and livestock products had decreased compared to 12 months ago as a result of restrictions on movement due to COVID-19. Looking ahead, livestock farmers now have a double burden due to relatively less customers and much less production, especially in the worst affected municipalities of Manatuto, Baucau, Bobonaro and Oecusse.

2.3.4 Fishing

Fishing, a nutritious source of animal protein, is still in the infancy stage despite the country being endowed with a favourable resource-base for tropical aquaculture.

The study found that the flooding destroyed some the fishponds and damaged nets in the municipality of Oecusse which will likely lead to lower income levels during the reference period, as fishermen must now dig deeper for the reconstruction costs and buying of new nets. At the same time, if COVID-19 restricts remain, then the relatively lucrative market in the capital, Dili, remains unattainable. Affected population in loss of income remains relatively small, as only 4 percent[6] of households are involved in fishing and/or aquaculture as an income source.

2.3.5 Remittances

Inward remittances have been on the increase in the last ten years and play a key role at both household level and national level in terms of livelihood. Before Covid-19, the key informants observed that beneficiary households tend to be financially much better than those that pursue employment opportunities in the domestic labour market. To put it in perspective, inward remittances received in Timor-Leste was more than US$ 40m in 2017. This accounts for the largest source of foreign revenue after oil and aid.

[6] Timor-Leste Agriculture Census 2019

On average, it was study noted that a migrant worker earns around US$ 2,000 per month and work mostly in the fish and agriculture sectors. A total of 18,000 individuals were living abroad as of 2015 and this number is likely to have increased until just before the pandemic. Formal and informal employment, businesses, marriages, accounted for nearly 65 percent of migration.

Inward remittances ranked highly as key income source for households in Dili, Lautem and Baucau municipalities, consequently, severely affected with the lockdowns and travel restricts in the United Kingdom, Australia, and South Korea- which are the major destinations for Timorese job seekers. The reduced level of income from this source leaves the flood affected households with limited options to get build back better.

For now, nearly a third of the world's borders remain closed and many of the remainder are open only to those who have been vaccinated or can afford tests, even these that travel it is rarely for employment migration. So often, less or no income opportunities means less food and selling of productive assets which are irreversible and may jeopardize future capacity to withstand shocks.

2.3.6 Casual Labour

Casual labour in both the agriculture and non-agriculture sector provides temporary relieve to gaps in the main income sources. Due to relatively low levels of mechanisation in the agriculture sector, casual labourers have been handy to fill the gap. The payment rates tend to be negotiated rather than fixed with the observed current rates ranging from US$4 to US$7 per day across the country. The government minimum wage is pegged around US$ 115 per month. It's observed that due to high levels of community cohesion, *social capital*, a certain proportion of the labour costs is paid through in-kind by sharing the actual harvests at the end of the season.

Looking ahead, there is relatively limited availability for agriculture causal labour (except for off-season rice which is relatively minimal) in the next three months until the sowing period in and around December.

Figure 2. Casual daily labour rates in agriculture and non-agriculture

The non-agriculture casual labour opportunities are particularly linked to government led projects.

The rates are relatively higher than in the agriculture sector, however, most projects have now been curtailed due to, *inter alia,* Covid-19 related measures. As such casual labour opportunities continue to significantly dwindle each passing month. In addition, the Census notes that about 43 percent of the internal migrants in the labour force remained in the same municipality of residence while 57 percent moved from one municipality to another. Only the capital, Dili was the net importer of internal migrant workers hence with continued sanitary fences, population outside Dili will continue to have limited opportunities for non-agriculture labour.

2.4 Source of Food

The key main sources of food are from own production, purchases from the market, gifts, or official food assistance. At the time of data collection, households that grow rice or maize (and those into horticulture) were observed to consume between 50 % to 80 % from own produced crops. Purchase from the market, ranged between 40 percent to 20 percent while official food assistance or gifts was around 5 to 10 percent.

In case of the main staple crop, rice, much as the production has been above average it is only sufficient to last for about 4 months-a common trend in the last

ten years. The gap must be supplemented by imports. At household level, it entails reliance on the market for the great part of the consumption period. As such food price developments *vis-à-vis* income levels will determine household food access outcomes during the reference period.

Households that heavily depend on livestock (including fishing) for their livelihood still consume between 20 percent to 40 percent from own production. Purchase from the market remains significant, ranging between 40 percent to 70 percent. Food aid or gifts remains the same, at around 5 to 8 percent. The food sources are not expected to change in the next 6 months for this group.

Households depended on petty trading and other businesses was found to heavily depend on the domestic market as a food source accounting for 45 to 75 percent. Own produced at around at 20 to 50 percent and around 5 percent from official food assistance.

Those that depend on remittances have less than 15 percent on consumption from own produced crop, markets dominate at around 80 to 90 percent and official food assistance at around 5 percent.

Compared to the previous season, the official food assistance 'Cesta Basica' remains the key addition to the current food sources across all households and accounts for 5 to 10 percent all food consumed at the time of data collection. It was a blanket distribution worth US$ 50 per individual provided through Voucher or In-kind.

In conclusion, markets will remain a key source of food for most of the households in the coming months as such any significant imbalance in the key fundamentals such as limited supplies, increase prices or reduced income levels will have a significant effect on the food security situation.

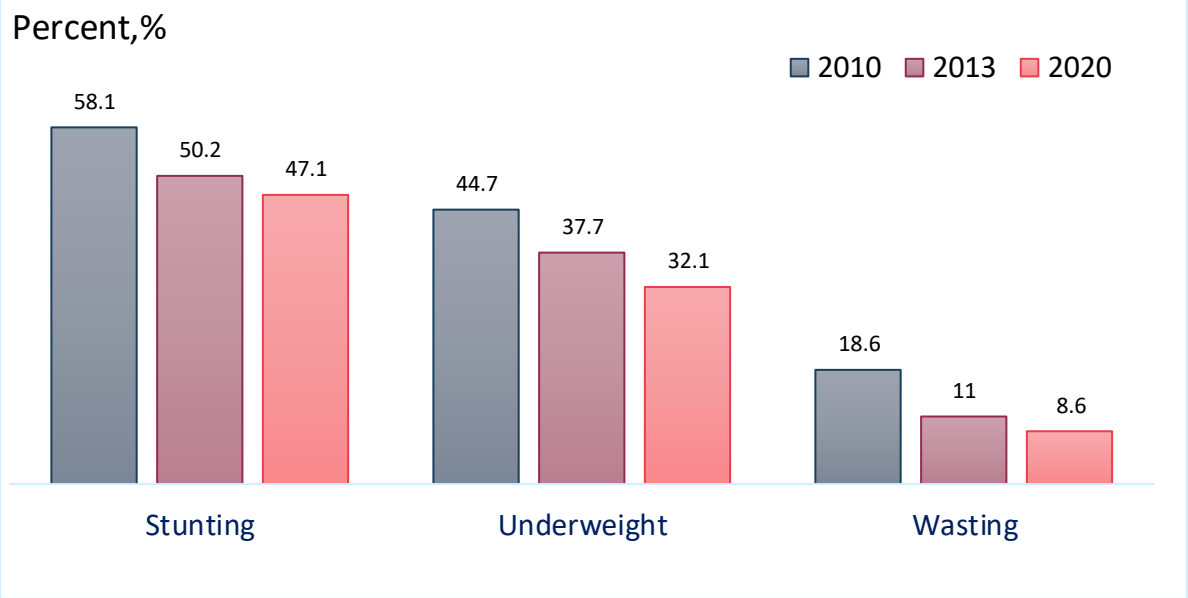
2.5 Nutrition

Malnutrition rates remain very high in Timor-Leste as compared to global, regional numbers and by World Health Organisation thresholds.

On a positive note, great strides have made in the last decade with significant reduction in stunting, underweight and wasting levels for the under-fives (figure

3). The challenge remains in maintaining and sustaining such a trajectory, due to in part to the pandemic, impact of the floods, and relatively limited domestic budgetary support.

Figure 3. Trends in the prevalence of malnutrition



The impact of the flooding, in terms of damages, on the health utilisation was relatively minimal in other municipalities, except the capital, Dili, where a several areas were flooded and lacked clean water. The study found that mobile clinics were set up to ease these challenges as well as to support with the health screening and counselling for mothers or caregivers and their under-five children, pregnant and breastfeeding mothers.

The field-based nutrition officers observed a general decrease in health seeking behaviour based on reduced numbers of under-five children accessing the health facilities. Anecdotal information point to fears of being tested for COVID-19 if they visit the health facility, especially in Baucau, Covalima, Ermera, Liquica and Oecusse municipalities.

Triangulating the information with the data from the Health Management Information System (HMIS) shows that the number of under-five children that

accessed the health facility decreased from 66 percent in the first quarter of 2021 to 58 percent in the second quarter of 2021, as at end of June 2021.

Secondly, public health officials also observed reduced monthly outreach programmes under the Integrated health program at community level (SISca)[7] in the second quarter of 2021 compared to the previous period due to floods and COVID-19 measures including the state of emergency imposed in several municipalities. In addition, there were reported supply chain bottlenecks on health supplies from the main centre in Dili to some municipalities, especially in Bobonaro.

At the time of data collection, the common diseases reported by the public health officials included pneumonia, dengue, anaemia and Acute pulmonary. The preliminary results showed that the incidents of diseases were observed to be almost the same as 12 months ago. However, concerns were raised that with reduced numbers seeking health care, it may be premature to conclude on the proportion and magnitude of these disease incidents.

2.6 Food Assistance programs

Considering the impacts of COVID-19 on Timorese economy and its people, the Government approved the Economic Recovery Plan which aimed at adopting concrete and short-term measure to mitigate the effects of the pandemic. *Cesta Basika* was one of measures to mitigate the adverse effects of the pandemic by ensuring that families consume the necessary nutrients for their well-being and to support farmers by directly purchasing from them. It was blanket distribution and the value of the total products inside the basket was US$50 per individual, delivered through Voucher or In-kind, and aimed to satisfy the needs of the person who receive it for two months.

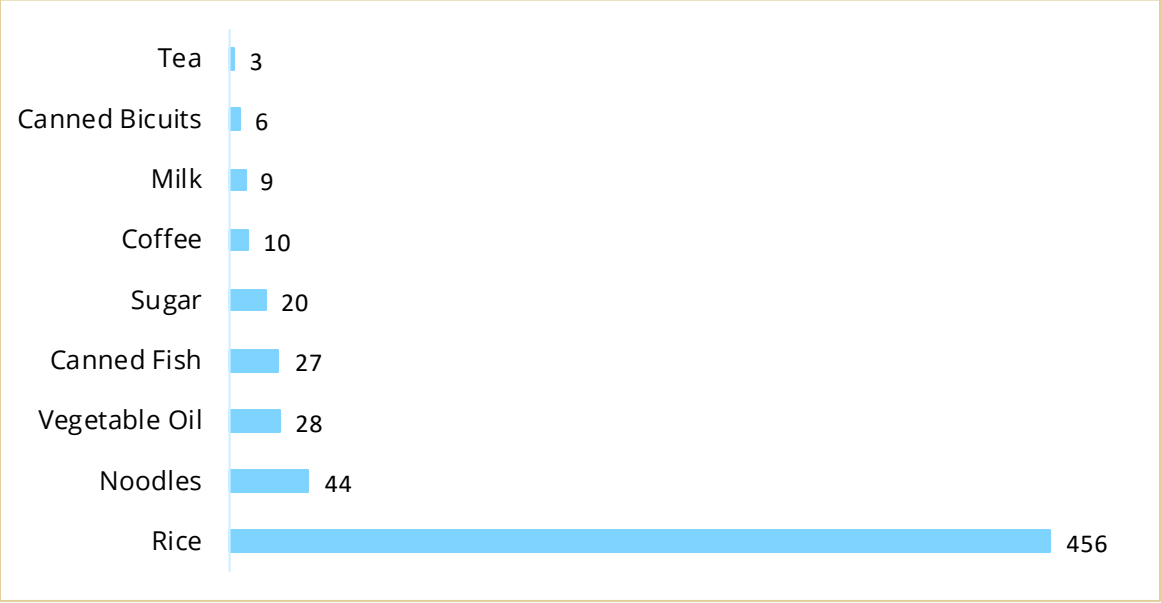
The study found at *Cesta Basika* accounted for a significant proportion as a food source, 5 to 10 percent, for most of the households at the time of data collection. In addition, the study observed that the program continued despite the prevailing COVID-19 context, manifested itself in a second aggressive wave

[7] Servisu Integrado Sude Cumminita (SISCa)

during the floods, which helped to prevent households from moving towards more drastic negative coping strategies.

As the lead in humanitarian response, the Secretariat of State for Civil protection provided various food supplies to flood affected population as depicted in figure 4. The support, in-kind and financial, came from Government as well as humanitarian actors, including the United Nations and Non-governmental Organisations. Rice comprised the biggest component of the ration where a total of 456 metric tonnes were distributed, followed by noodles, vegetable oil and canned fish by the end of June 2021.

Figure 4. Distribution of various food items by Civil Protection in metric tonnes



At the time of data collection, humanitarian actors had started, and were sourcing additional funding, to respond to early recovery needs of the most vulnerable affected population based on the 2021 Timor-Leste Flood Response Plan with an initial outlook for 9 months.

2.7 Expenditure

The study also aimed to understand the general change in terms of direction of household expenditures resulting from the shocks.

The module looked at expenditure changes in food, health, education, transport, and agriculture inputs.

As articulated under income sources section, the COVID-19 preventive measures meant less opportunities to earn income for a majority of households. As such it was observed that household had a relatively reduced expenditure on food compared to same time last year. With *Cesta Basika*, it meant households were cushioned against the impact, however, based on the program it means this lasted for only two months. The expenditure on food in the upcoming months, is likely to depend on, *inter alia*, whether the humanitarian response plan will be fully funded, food price dynamics, and whether Government comes up with another Cesta Basika.

Public health services are generally provided free in Timor-Leste as such the expenditure levels were noted to have remained the same compared to a year ago and projected to be subdued in coming few months. However, it was observed that some households were found to seek health care services at the private clinics due to fears of being tested for COVID-19 at the public facilities. These are likely to have spent a little bit more in the current period compared to 12 months ago. The case of Baucau, Covalima, Ermera, Liquica and Oecusse municipalities.

At the time of data collection, the schools were closed as part of the prevention measures to COVID-19. It was observed that the use of online classes as an alternative approach during this period was non-existent for majority of the learners except for a few in elite private schools in the capital Dili. As such it was noted that expenditures on education were non-existent, however, the likely catch-up classes in the coming months are likely to bring extra costs for households with school going children.

Like expenditure on education, costs related to transportation and fuel were minimal compared to previous 12 months as flooding happened during the State of Emergency (SOE). Home confinement and municipal sanitary fences, typical measures under State of Emergency, meant travelling within and outside the municipalities was limited to only essential services.

In terms of Agriculture inputs, it was observed that most farmers were provided with free seeds from Ministry of Agriculture and fisheries as was the case a year

ago. The support targeted the off-season rice growing (see figure 1 on seasonal calendar) and for horticultural crops.

2.8 Coping strategies

In response to reduced food access, households will tend to engage in multiple ways with some utilizing severe strategies that affect their well-being while others engage in strategies that reduce future coping capacity.

The study found that borrowing money from friends or neighbours, reducing number of meals, selling dry wood are typical livelihood strategies that tend to be used in time of stress or crisis. While increased consumption of root crops, instead of the preferred rice staple, tend to be a key consumption based coping strategy. However, at the time of data collection, these strategies were not yet being used by majority of households. It was also noted that for desperate situations, local authorities will tend to ask Government for support which may come through the Ministry of Social Solidarity and Inclusion or from local NGOs based in the locality.

Concerns were noted that any limited opportunities to earn income due to COVID-19 preventive measures are likely to lead to desperate measures for several households in the coming months. If livelihood/humanitarian related support is not provided in the coming months, then more severe coping strategies may be employed which will be a threat to a population that has already high levels of acute and chronic malnutrition.

2.9 Food Access and price projections

In terms of food access, the study found that most households were consuming three meals a day while some vulnerable households could manage only two meals.

In addition, the traders observed that the prices of imported rice was higher this year compared to last year. At the time of data collection, this was in line with international rice prices measured by the FAO ALL Rice Price Index (2014-2016).

To ease the burden on prices, it was observed that Government made use of the policy instruments under its disposal during the flood period through direct market intervention through provision of subsided imported rice to traders by

National Logistics Centre (NLC) at the same time ensuring control over the trader's profit margins through price inspections by ALFAESA.

Looking ahead, a rice price analysis has been used as a measure of food access between now and the next main harvest in May/June 2022.

2.9.1Imported rice

In the last six months, imported rice has remained above the two-year average and above last year's levels, however, it has been on downward trajectory (Figure 5). This is reflective of the price on the international market, where the FAO ALL Rice Index (2014-2016) continued to decrease since March reaching 101.2 points in July 2021. This may signal a good moment to import as the curve is on a downward course for a country needs imports to cover for the gap in domestic production.

Using the Grand Seasonal Index (GSI) method and based on the current price trend, the national-level nominal imported price is projected for the reference period, September 2021 through May 2022. The step-by-step GSI method is outlined as follows:

- A twelve-month centred moving average is used to compute the seasonal index for rice grain for the period September 2018 to July 2021.
- Then, for each month, an average seasonal index is calculated and adjusted so that they add to 1,200—to represent a 12-month period—to get the Grand Seasonality Index.

As such, the GSI depicts the average seasonal indices for the analysis period and shows the seasonality of prices within the agricultural season. In general, if the index is above the value of 100 for a given month, this indicates that prices are likely to be increasing during that month. This is typically the case around October-November, and from February to May following the lean season. In general, the GSI tends to dip below 100 during the post-harvest months.

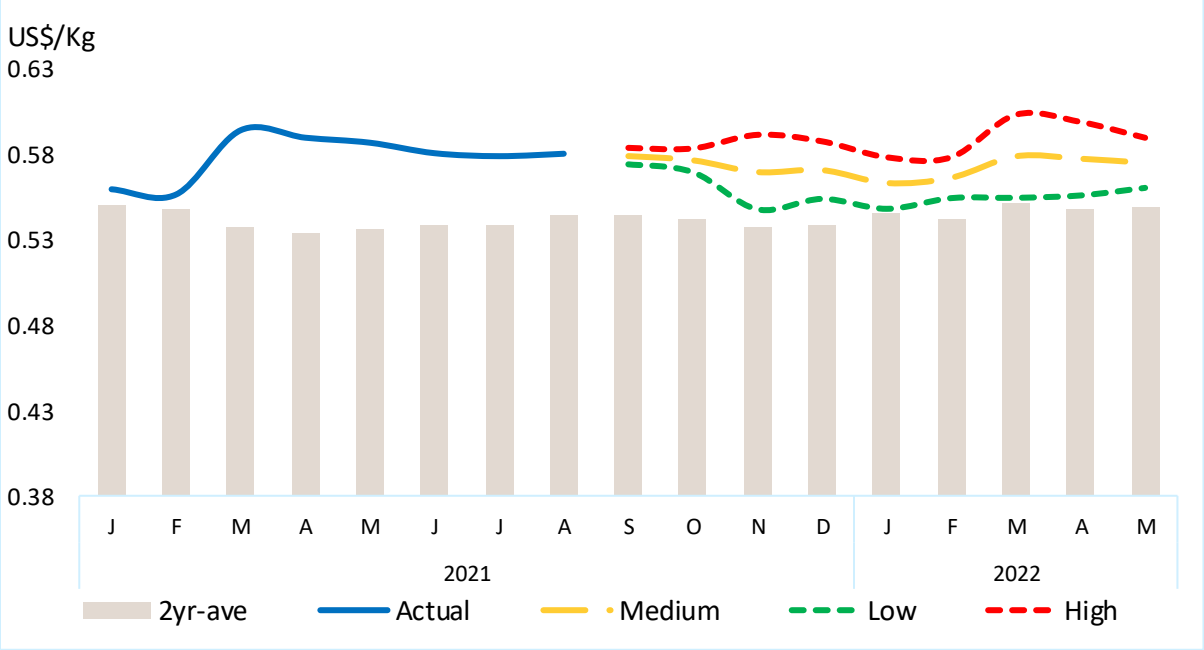
The current forecast has three price scenarios: low, medium, and high. The scenarios can be interpreted in relation to the situation on the ground that leads to price changes at different levels. These include:

- The *green dotted line* represents very high market supply that is likely linked to the low scenario case.
- The *yellow dotted line* represents the most-likely scenario based on the current price levels, and relatively good supply of imported rice. More

importantly, global rice supply remains at all time high, estimated at 519.1 million tonnes.

- The *red dotted line* illustrates the highest price levels that may be possible during periods of low supply. This would be possible when there are relatively little or no market interventions and price controls through the use policy instruments under the mandate of National Logistics Centre and Ministry of Tourism, Commerce and Industry (MTCI) or other factors that would severely deplete the current supply in a relatedly short time.

Figure 5. Imported rice trends and projections



The results of the forecast show that, during the peak of the lean season, *ceteris paribus*, the maximum price level for imported rice at national level is likely to be around US$ 0.60 to per kilogram.

2.8.2 Local rice

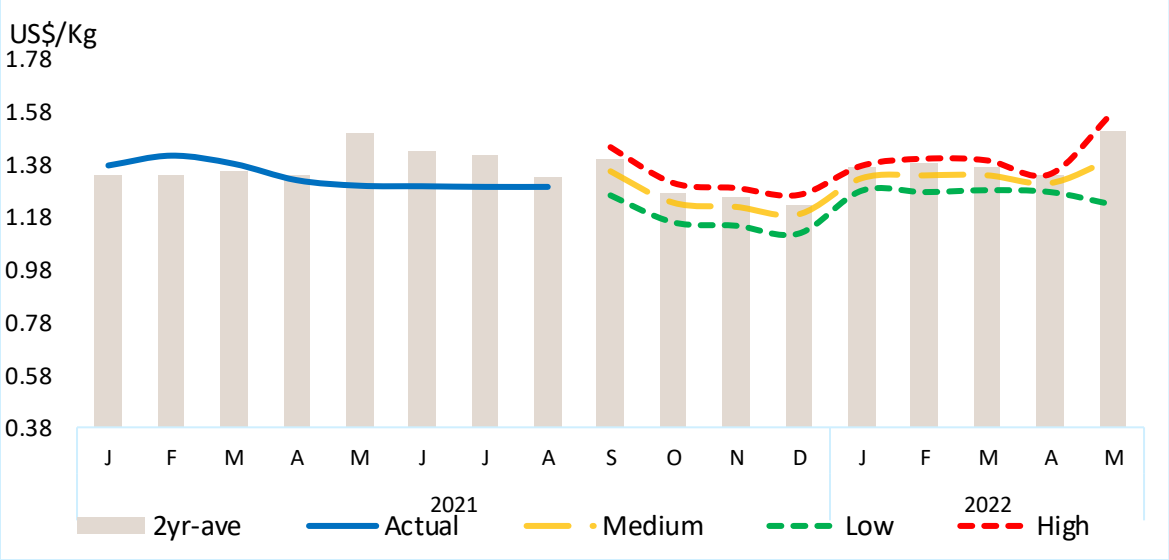
Since end-March 2021, local rice grain prices have reverted to a downward trend and below two-year average and below last year's levels. On the back of relatively above average production, a further weaking or stable grain prices are expected in the short run.

Similarly, using the Grand Seasonal Index (GSI) method and based on the current price trend, the national-level nominal local price is projected for the months of September 2021 through May 2022.

The current local rice forecast has three price scenarios: low, medium, and high. The scenarios can be interpreted in relation to the situation on the ground that leads to price changes at different levels. These include:

- The *green dotted line* represents very high market supply that is likely linked to the low scenario case. This is unlikely, as the local production does not meet domestic requirement.
- The *yellow dotted line* represents the most-likely scenario based on the current price levels and relatively good current supply of local rice. Notwithstanding the floods, current production is 17 percent higher than last year.
- The *red dotted line* illustrates the highest price levels that may be possible during periods of relatively low supply. This would be possible when there are relatively little or no price controls using policy instruments under the mandate of Ministry of Tourism, Commerce and Industry (MTCI) or other factors or programmes that would severely deplete or mop up supply in a relatedly short time.

Figure 6. Local rice trends and projections



The results of the forecast show that, during the peak of the lean season, *ceteris paribus*, the maximum price level for imported rice at national level is likely to be around US$ 1.60 to per kilogram.

In conclusion, as more households become market dependant during the reference period, it will remain key to monitor any price developments and related supplies for policy intervention to ensure food access.

3.0 Recommendations

- Expand current social protection schemes to include new crisis affected areas
- Review transfer value and duration of the social protection programme
- Regularly monitor the food security situation
- Regularly monitor the market functionality and prices
- Conduct a feasibility study to conduct remote monitoring (mVAM)

References

Timor-Leste Agriculture Census 2019.

Timor-Leste Population Census 2015

Timor-Leste National Aquaculture Development Strategy

Food and Nutrition Survey Draft Report, 2020

World Bank Group, 2020, Timor-Leste Economic Report, Towards Sustained Recovery, October 2020

World Bank Group, 2021, Timor-Leste Economic Report, Charting a New Path, May 2021

Acronyms

ASF	African Swine Fever
CFSAM	Crop and Food Security Assessment Mission
FIES	Food Insecurity Experience Scale
GSI	Grand Seasonal Index
MAF	Ministry of Agriculture and Fisheries
MSSI	Ministry of Social Solidarity and Inclusion
MNO	Mobile Network Operators
NLC	National Logistics Centre
NGOs	Non-governmental Organisations
SISCa	Servisu Integrado Sude Cumminita;
SEIAII	Social Economic Impact Assessment (SEIA II)
WFP	World Food Programme
WHO	World Health Organisation

Checklist

Municipality Name: _____Postal Admin _____ Suco/Village ……..Date: _____

Name of Key Informant/ (Government Official/Trader/NGO officicial/Village head/……..

1. Food security status and trends/

1.1 Sources of household income in this area

Income activity	Rank by importance/	Current situation compared with one (1) year ago**?**	Future (6-month) outlook?
Sales of food crops			
Sales of cash crops			
Livestock/			
Fishing/			
Petty trading			
Casual wage labour			
Remittances			
Other			

1.2 Labour market conditions (I*f casual wage labour ranked 1-4 in 1.1 above*)

	Current situation compared with one (1) year ago?	Future (6-month) outlook?
Daily wage rate for agricultural labour (Male + Female)		
Daily wage rate for non-agricultural labour (Male + Female)		
Where are most labourers coming from?		
Are labourers migrating out of the area to find work?		

1.3 Changes in household expenditure patterns

Type of expenditure/	Current situation compared with one (1) year ago?	Future (6-month) outlook?
Food		
Education		
Health		
Fuel		
Transport		
Agricultural inputs		
Other		

1.4 Changes in main food sources

List the three main livelihood groups in this village *(from 1.1 above)*	What are their main food sources this year? *Use proportional piling*				Total Percentage	Current situation compared with one (1) year ago**?**
	Production	Markets	Mutual support/gifts/	Official food assistance/aid		
(1)					=100%	
(2)					=100%	
(3)					=100%	

1.5. Household food access, vulnerable groups, and coping strategies**.**

Number of family meals per day**/**	Current	3 months ago	Previous year
What have been the recent challenges affecting households' food access and consumption in this area**?**			
Which groups have been most vulnerable? *Demographic factors, livelihood groups, gender, specific social groups, etc.*			

In times of stress or crisis or emergency what are the common coping strategies that households use? (probe for livelihood and consumption based)	
Which coping strategies are households currently using to cope? (Probe for livelihood and consumption-based strategies)/	
What are possible consequences and outlook for the next 6 to 12 months**?**	

1.6 Food Security Assistance/

Type of Assistance	In the last 6 months	Planned in the next 6 months
Food Assistance and type of modality (cash, in-kind or voucher)/		
Who provided the assistance		
Modality preference and why (Cash, in-kind or voucher)		
Selection criteria & mechanisms; strengths & weaknesses		
Estimated number need of aid (households**)**	Estimated number without income or access a functioning market:	Estimated number actually receiving aid:

1.7. Health and nutrition issues [Info. from health/nutrition professionals and community discussions/observations]/Issu Saude no Nutrisaun CHC Level

	Current situation	Changes compared with 3 months ago	Changes compared with the previous year
Nutritional status of children (Look out for increased admission rates	Sources:		
Major diseases/sickness in the past 3 to 6 months	Sources:		
Water supply options & sanitation conditions (sanitation coverage)	Sources:		
Access to and quality of health care	Sources:		

2. Market status and trends

[Collected from traders, retailers, and wholesalers & observations at local/nearby markets]

2.1 Current market conditions/

	Current situation compared with one (1) year ago?	Future (6-month) outlook?
Range & quantities of food items available		
Origin of market supplies/		
Markets to which agricultural items from this area are sent / exported/		
Distance to nearest market for food & agric inputs (hours walk) and transportation cost (microlet/motor-bike etc)		

2.2 Market prices and activity **Presu Merkadu no Actividade**

Cheapest rice (USD/kg)* **Price they sell at*	Retailer **r**#1	Retailer #2	Wholesaler #1	Wholesaler #2
	Current:**.....** Last year	Current: Last year	Current: Last year	Current:. Last year
Current situation compared with one (1) year ago?				
Any price anomalies for other agricultural products? Eg. Maize, beans, cassava**/** Perceived underlying reasons & 6-month outlook?				
Number of customers over past month is higher, lower or the same level compared to one year ago?				
Volume of sales over past month is higher, lower or the same level compared to one year ago?				

2.3 Traders' expectations

	Current (2021/2022) marketing season compared with last year (2020/2021)?
Level of local / domestic production *Rice and/or other crops*	
Expected level of marketable local / domestic production/	
Expected price trends over next marketing season (2020-2021)	
Expected level of private imports	
Trader's own plans	