Situational overview and summary of the impacts
A situational update from the Emergency Controller’s Office in PNG confirms that there are now 62 confirmed COVID-19 cases in PNG as of 26 July 2020. There were 46 new cases detected from 19 to 26 July, all from the National Capital District. Currently, there are 51 active cases while 11 persons have recovered. A total of 10,000 COVID-19 tests have been conducted so far. The 17th case was a female from Central Province who had underlying illness of stage 4 breast cancer. She passed away as a result of multiple organ failure. It is believed that her illness and death may have been complicated by COVID-19.1,2

Table 1. COVID-19 cases in PNG

<table>
<thead>
<tr>
<th>Province</th>
<th>New</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>National Capital District</td>
<td>23</td>
<td>55</td>
</tr>
<tr>
<td>Eastern Highlands</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>East New Britain</td>
<td>-</td>
<td>2</td>
</tr>
<tr>
<td>Morobe</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>Western</td>
<td>-</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>23</td>
<td>62</td>
</tr>
</tbody>
</table>

National Pandemic Measures: There are now 11 National Pandemic Measures that came into effect as of 27 July, 2020 after the 23 new COVID-19 cases. From the previous measures, there were no modifications to measure no. 2, 4-8. For measure no. 9, changes include the closure of nightclubs; hand hygiene and other hygiene measures are to be practiced at venues operates for the sales and consumption of alcohol; mandatory wearing of masks or face covering for all the sports event spectators; lifted restriction for licensed gambling venues. Measures No. 10 and No.11 are additional measures.

Table 2. National Pandemic Measures

<table>
<thead>
<tr>
<th>Measure Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. 1</td>
<td>Revocation of All Previous Measures prior to 23 July</td>
</tr>
<tr>
<td>No. 2</td>
<td>International Travel Measures</td>
</tr>
<tr>
<td>No. 3</td>
<td>Domestic Travel Measures</td>
</tr>
<tr>
<td>No. 4</td>
<td>Provincial Coordination Measures</td>
</tr>
<tr>
<td>No. 5</td>
<td>Burial of Deceased Persons Measure</td>
</tr>
<tr>
<td>No. 6</td>
<td>Customs Duties Measures</td>
</tr>
<tr>
<td>No. 7</td>
<td>COVID-19 Testing Measures</td>
</tr>
<tr>
<td>No. 8</td>
<td>Surveillance and Testing Measures</td>
</tr>
<tr>
<td>No. 9</td>
<td>Business and Social Measures</td>
</tr>
<tr>
<td>No. 10</td>
<td>Mandatory Mask Wearing - National Capital District</td>
</tr>
<tr>
<td>No. 11</td>
<td>Public Transport – National Capital District and Central Province</td>
</tr>
</tbody>
</table>

Highlighted general impacts in ARoB: The urban and rural population of Bougainville were greatly affected but in different ways due to main market closures and travel restrictions. The urban population experienced severe food supply shortage as the Buka and Arawa main markets were closed. Thus, the demand for fresh food in urban areas was high. The supply of fresh food in supermarkets and minimarts were low and there was a ban on tucker shops and canteens. The number of roadside markets in peri-urban and rural areas

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increased. As a result, this helped support food supply to urban residents. Roadside markets were allowed by the ARoB State of Emergency (SoE) Controller but only outside of town areas.

- The rural population did not experience food shortage as most of them rely on their food gardens and fish (for people in the coastal areas) for food consumption and had excess or surplus food available from their inability to sell their fresh produce and fish at the main markets. The rural population mainly experienced lack of cash and decreased cash flow due to their inability to trade their goods for money at the main markets.

- Both the Buka, Arawa and Buin Markets are now open. Arawa Market is operating normally with trading days of Mondays, Tuesdays, Thursdays and Fridays, while the Buka Market which opened in early July have been allocated limited marketing days of only four (Mondays, Wednesdays, Fridays and Saturdays). Buin Market is only open on Thursdays and Saturdays. Also, COVID-19 measures have greatly affected business firms, resulting in huge income losses for companies. Some businesses had to lay off their staff, scale down operations, and some even closed their shops.

The supply of vegetables and fish was greatly affected. The loss of income due to employee lay-offs in the urban areas also affected the working-class population’s ability to purchase food from markets (roadside markets) and shops. It was expressed that mostly high income earners were able to purchase foods to sustain themselves. Urban residents had to forego fresh food from markets from their diet and depend more on processed foods from the shops.

The roadside markets in the outskirts of town areas were allowed to operate by the ARoB SOE Controller. This resulted in increased number of roadside markets as all fresh producers who sell their produce in town markets had to now sell at the roadside markets. Urban residents had to go out of town to these markets to buy fresh produce.

These markets mainly supported fresh produce supply to the urban population during the lockdown and even after since the main markets were still closed. The Buka Town Market opened on Wednesday 08 July 2020, with

- The Coco Pod Borer is still present in Bougainville. However, farmers still continue to produce cocoa. Also, the Coconut Rhinoceros Beetle has been identified in the Region. It has not yet been established if it is the Guam strand that is causing an outbreak in the Solomon Islands. The ASF and FAW are emerging threats in the Region. NAQIA has conducted ASF and FAW awareness to its clients and plans to conduct media awareness on TV and radio in Bougainville.

**Impact on food Supply:** Overall, the impact and pressure on food security and local supply experienced by urban, peri-urban and village dwellers varied depending on their location. During the lockdown period of 14 days and after, the urban population, especially the cash-for-food dependent population, were the ones greatly affected from the lack of fresh food supply (vegetables, fruits, nuts, fish and other garden foods), due to the closure of the main markets, such as the Buka Town Market.

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new opening days of Mondays, Wednesdays, Fridays and Saturdays, only four days a week. There also was seen to be a rise in mobile markets. In Buin, the normal two days (Thursdays and Saturday) of marketing is allowed.

During the lockdown, shops in urban areas were scheduled to operate only from 10 am to 2 pm (four hours) per day. This affected urban residents from procuring foods from shops due to limited shopping time, and greatly affected the working population who finish work after 2PM from purchasing food from shops.

Most of the rural population did not experience shortage of food supply as they relied heavily on their food crop gardens, fish and small livestock such as poultry for food consumption. However, the rural population who depend on the sales of their fresh produce and fish for income were severely affected by the closure of main markets and travel restrictions. Most fresh producers and fish sellers experienced total loss of income as they were unable sell their products, thus, for those who depend on processed food sold in stores had to change their diet to mostly garden foods. This resulted in the high excess of food, low access to cash and decreased cash flow in the rural areas. Great difficulty to sell fresh produce was experienced by the inland and highland population.

As a result, these people were not able to generate cash to purchase protein, hence, triggering the barter trade system with fishers, who also were unable to procure vegetables and fruits due to loss of income from affected fish sales, around the coastal areas and islands. Some people from Buka were exchanging sweet potatoes for fish with the Karola people and Hulia people of northern Buka Island. Also, fish supply increased in rural areas, as fishers were unable to sell their fish at urban centers.

There were also some reports of rural sellers being stranded in urban areas because they did not manage to sell their produce to pay for PMV fare back to their villages. The urban populations’ inability to buy fresh produce from rural farmers/producers, due to their loss of income from loss of employment, also affected the food sales of the rural people. Furthermore, the imposed measure on social distancing of passengers on public motor-vehicle transportation had also impacted the movement of people in rural areas to urban centers to do business.

Most rural farmers’ produce were spoilt and they were unable to sell them. Perishable vegetables such as green vegetables went to waste. Sweet potato sellers expressed that it took them one week to sell their sweet potatoes which they usually sell in just a few days. Also, peanut sellers had most of their harvest gone to waste.

From observation, in response to food shortage in urban areas, many families resorted to do vegetable gardening for food consumption, resulting in increased number of gardens. There was also an increase in rice fields cultivated and inland fish cage farming.

**Food safety and trade:** COVID-19 measures have greatly affected business firms, resulting in huge revenue losses. Some businesses had to lay-off their employees, scale down operations, and some even closed their businesses. The opening hours of supermarkets and small local shops that were scheduled to operate between 10am and 2pm had greatly affected their sales of goods, including food stuff. It was a concern that some measures put in place at the subnational level, such as reducing trading hours, were not proper for the public and shop operators. As a result, business operators illegally traded due to demand and ended up being charged a fine by local authorities.

Local authorities identified some urban shops and supermarkets selling a lot expired food items (canned items and frozen goods) and some shops were repackaging meats to sell. Authorities had to remove the expired items from these shops. Also, there were concerns that some shops were not properly freezing their frozen food goods. The ban on international border crossing greatly affected Solomon Islanders from islands near Bougainville who cross over to Bougainville to sell their fish and other items such as necklaces in markets in areas of the Region such as Buin, to generate income and purchase basic goods, including food, before returning.
Solomon Islanders have long term relationships and traditional ties with Bougainville people. However, there have been reports that in some areas, the local authorities have not prevented them from coming into Bougainville through the South Bougainville area. There have also been reports of people crossing to New Ireland Province from Nissan Island, and Tasman Island to the Solomon Islands. The ban also affected movement of traders from Buin to Solomon Islands.

**Social protection, food demand and support in Bougainville:** Some families had to withdraw their children from school as they experienced loss of income and could not afford tuition and study expenses for their children.

The closure of main markets and other markets in urban areas, and the half capacity restriction of PMV transport had a major impact on the movement of the public.

There were reports of police officers harassing market vendors, especially women, and confiscating their produce, with some incidence of women market vendors fighting with police officers. Some of the women vendors are still traumatized from the harassment and physical abuse they received.

Some students were afraid to go to school because of police harassment, and the attendance of teachers in schools was affected. Parents were given the option to withdraw their children from school. Elementary schools and the Callan Services for special needs people had to close.

It was observed that people were afraid to seek medical attention at hospitals and clinics when sick, as they feared contracting COVID-19. There was an observed rise in gender based violence on women, and prostitution.

There were reports of positive impacts of COVID-19 measures. This included an observed rise in sanitation and hygiene practices among the people, such as routinely washing hands with soap. People were seen to be spending more time with their families and children. This was seen among women market vendors.

Generally, it was observed that people and shops in Bougainville were not complying with the COVID-19 emergency orders. There were reports of people in Central and South Bougainville doing illegal marketing, selling fish, fresh produce and other foods. It was observed that the non-compliance from the public was partly due to the ineffective dissemination of information on COVID-19 emergency orders and awareness by the ABG and its relevant authorities. This resulted in the majority of people being ill-informed about the measures put in place on market bans and travel restrictions.

The demand for food was high in urban areas but not in rural areas as they relied on their food gardens and had surplus food available due to their inability to sell their produce because of the closure of main markets. This in turn resulted in low food supply to urban areas.

The ABG Disaster Office allocated K3.3 million for COVID-19 health awareness. From this fund, each of the 33 ARoB constituencies have received K50,000 to conduct health awareness in their respective constituencies.

The Bougainville Government also provided subsidized freight shipping assistance through its economic stimulus package for farmers and fresh producers to transport their goods from Bougainville to Rabaul.

There were a few organizations providing food supply assistance. The E-didiman Fresh Program, an agritech local NGO, helped local Bougainville farmers sell their produce and goods on-line and directly to buyers and consumers. These enhanced market opportunities for local producers to supply their produce to local business houses and hotels in Buka and also to consumers in both Bougainville and Port Moresby. ACIAR in Bougainville supplied cabbage seeds to people in rural areas to grow for food and cash. Furthermore, the Bougainville Women’s Federation assisted in providing food supplies to people in the atolls who suffer from severe food shortage.

In response to police officers harassing women market vendors, the Bougainville Women’s Federation spoke up against this actions from the police, resulting in the
decrease in number of incidence of women being harassed. The lockdown prevented the ARoB Department of Primary Industry and Marine Resources (DPIMR), Bougainville Women’s Federation and other organizations/groups from going out to provide assistance and conduct awareness on COVID-19 in the rural areas.

It was reported that there was no support from business houses in relation to food supply assistance to any local communities.

Impact of COVID-19 measures on Buka Market vendors: With the new schedule for Buka Market trading days on Mondays, Wednesdays, Fridays and Saturdays, from 9AM to 3PM, most vendors (mostly women) expressed concerns of generating less income due to reduced sales. Most vendors at the market experienced total loss of income when the market closed.

With the market re-opening for business, most vendors have been coming from villages in and nearby Buka Island, such as people from the Selau Constituency. The usual vendors who come from further areas in the Bougainville Island, such as Tinputz Rural LLG, have turned up in much fewer numbers.

In general, there was not a large price increase for fresh produce items sold at the market such as pak choy, aibika, round cabbage, pawpaw, watermelon, taro, banana, tapiok, yam, tomato, eggplant, capsicum, peanuts, coconut and others, with the average selling price of K2, which prior to market closure was below K1 to K1.50 range. However, there was a decrease in the supply and variety of these produce.

A cooked food section for the market is currently under construction and once opened will allow for vendors to sell cooked food. There are no sales of small livestock at the market.

The usual gate fee of K5 per vendor to access the market remained unchanged.

During the market closure, some vendors had to sell their fresh produce at roadside markets at lower prices. Most times they were not able to sell all produce so they took home leftovers for household consumption.

As alternatives to income generation during the market closure period, market vendors turned to copra and cocoa production. One vendor, with her family, went into providing public transportation (water taxi) as an alternative as she was unable to sell all her produce.

Most vendors did not experience food shortage nor insecurity in their households during the lockdown period as they relied on their food gardens and surplus or unsold fresh produce for food consumption.

The cash-for-food dependent vendors relocated to their respective rural villages prior to the lockdown and SOE, so they had no issue with food shortages, however, a few did because they planted new food crops which were not ready to harvest during the lockdown.

Vendors’ reliance on processed foods decreased due to income loss, resulting in positive dietary changes.

The Buka Market has at its entrance installed hand-washing basins, with soap and hand sanitizers. Market officials, located at the entrance, make sure that anyone who enters the market washes or sanitizes his/her hands. Social distancing was practiced at the Market with vendors sitting further (1.5 metres) apart. Due to social distancing, it appears that not all vendors who come to the market would have spaces available to them.
Table 3. ARoB market schedules

<table>
<thead>
<tr>
<th>Region</th>
<th>Market Name</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>North Bougainville</td>
<td>Buka Market</td>
<td>Open four days a week: Mon, Wed, Fri, Sat</td>
</tr>
<tr>
<td>Central Bougainville</td>
<td>Arawa Market</td>
<td>Open four days a week: Mon, Tue, Thur, Fri</td>
</tr>
<tr>
<td>South Bougainville</td>
<td>Buin Market</td>
<td>Open two days a week: Thur, Sat</td>
</tr>
</tbody>
</table>

Small livestock and fish farmers in Buka: Poultry farmers’ production was affected due to the disruption of chicken feed supply during the lock-down period. This was mainly due to delays in shipment of stock feed supplies into Buka Town, by Agmark and Jomik Hardware. Also, transport restrictions prevented some farmers from going into town to purchase the feed.

There were reports of thieving, during the lock-down, of farmers’ small livestock, especially from poultry farmers. There were also reports of fish cage farming sprouting in inland areas and integrated rice-fish farming, potentially as a protein source.

Cocoa and copra in Buka: There were no bans on the production and sale of cocoa and copra. However, transport and shipping restrictions imposed at the provincial and national level impacted their operations.

A local copra mill exporting company, Sankamap Limited, had to purchase a truck during the lockdown to enable access to copra farmers in rural and remote areas. This enabled the company to sustain its exporting operations during lockdown and also after the lockdown since copra producers in rural areas were unable to transport their copra to sell to the company due to transport restrictions. The company accumulated 3-month stock of copra for sales as result.

Prices of copra did not change much. The price range remained at K70-K90 per tonne.

Social protection measures: E-didiman in collaboration with the Bougainville Youth in Agriculture Association (BYIAA) continue to facilitate market linkages between producers who are sellers and buyers, mostly the urban population in Buka and in Port Moresby as well.

EMERGING BIOSECURITY ISSUES

NAQIA in Buka received ASF awareness posters from their head office. The Authority has carried out ASF and FAW awareness to its clients but no field training has been conducted to the clients as yet.

NAQIA Buka have been provided the ASF risk communication package done by PHAMA Plus and they plan on using it in TV clips and radio jingles for awareness.

The Cocoa Pod Borer is present in the Region, however, farmers are still producing cocoa despite its presence.

Another pest identified in Bougainville is the Coconut Rhinoceros Beetle. It has not yet been established if it is the Guam strand that is causing an outbreak in the Solomon Islands.

NAQIA continues to clear exports, mainly cocoa and copra, from business houses in the Region, which include Sankamap Limited, Pristine Copra Mill and CPL among others, in Buka and Kieta Wharf. All imports are cleared in Rabaul and Lae ports before arriving in Buka and Kieta.

The ASF Risk Communication Training has been planned for to commence in 3rd August 2020 for the upper Highlands infected provinces. The training will be communicated in two parts: risk communication and communication strategy. ARoB participants will be trained in Kokopo in 5 weeks times.

Acknowledgements: DFAT, AHC, NARI, FPDA, DAL, NAQIA, KIK, PHAMA Plus,; ABG Chief Secretary’s Office, ARoB Emergency Control Centre, PDC Bougainville, CARE International Buka, ARoB Department of Primary Industry Marine Resources, Department of Economic Development, Department for Community Governance, Department of Health, Bougainville Women’s Federation, Women’ Peace and Security, NAQIA ARoB, Buka Town Authority, Sankamap Export Ltd, Agmark Buka, Bougainville Youth in Agriculture Association, E-Didiman systems.