Addressing the Social and Economic Impact of the COVID-19 Pandemic

Background

Coronavirus Disease (2019) COVID-19 now poses a more serious downside risk to the global economy. The World Health Organization (WHO) declared the COVID-19 outbreak a pandemic on March 11 to signify its severity and global coverage and urged countries to take 'urgent and aggressive action.' On March 13, Europe was declared the new epicenter of the virus, as its confirmed cases and deaths surpassed those of the rest of the world (except China). New cases in Europe even surpassed those of China at its peak. As of March 19, globally confirmed cases reached **218,823 and 8,810 deaths**. In the Philippines, there are now **217 total confirmed cases, 17 deaths, and 8 recoveries**.

As a result, several countries have taken a variety of measures from mass testing, travel/border restrictions, to lockdowns in a bid to contain the virus. Governments and central banks have likewise been adjusting the monetary and fiscal policy to mitigate the economic impact. This means that we are now in the second chapter of the crisis where the pandemic has translated into an economic crisis. In a way, the second chapter is inevitable since part of the response to address the pandemic is to slow down economic activity. If we are unsuccessful in navigating through this pandemic-induced economic crisis, then we enter the third chapter: social and political crisis.

Economic Impact

The hit to global growth is imminent, with a global recession possibly on the horizon.

Average global gross domestic product (GDP) forecasts are around 0.9 percent for 2020, with the latest forecasts from S&P and Capital Economics at 1.0 percent and -1.0 percent, respectively.¹ Bloomberg likewise presented four (4) scenarios for global growth — (1) China shock in which global GDP growth is at 2.9 percent; (2) more outbreaks with 2.3 percent global GDP growth; (3) widespread contagion with 1.2 percent global GDP growth; and (4) global pandemic with 0.1 percent global GDP growth. Scenario 2 also assumes that there will only be "mild" recessions in Japan and Euro Area.² Similarly, in a March 2 report, the Organisation for Economic Co-operation and Development (OECD) suggested a worst-case scenario of 1.5 percent global GDP growth for 2020. Global growth is seen to be primarily dragged down by direct effects from reduced demand and heightened uncertainty. They likewise estimated world trade to be significantly weaker, with a decline of 3.75 percent.³

¹ Forecasts were made on March 17 and 18, post-nationwide lockdown announcements from several countries.

² <u>https://www.bloomberg.com/news/articles/2020-03-13/how-much-coronavirus-could-hurt-gdp</u>

³ OECD Economic Outlook, Interim Report March 2020, March 2, 2020.

GLOBAL GROWTH FORECASTS	UPPER BOUND	LOWER BOUND	Latest Update
OECD	2.4	1.5	Mar 2
BLOOMBERG	2.3	0.1	Mar 13
llF		1.0	Mar 10
Rabo Bank		1.6	Mar 12
Moody's		2.1	Mar 6
S&P	1.5	1.0	Mar 17
Capital Economics		-1.0	Mar 18

Table 1. Global GDP growth forecasts

Risks remain tilted to the downside, with Capital Economics seeing a *longer downturn for the global economy* due to the following factors: (a) *direct virus-related disruption* that lasts longer than expected; (b) *risk of lengthier recession or even another financial crisis* as companies turn insolvent while central banks have limited monetary space, resulting in higher unemployment and a further downturn in consumer spending.⁴

There is a high level of uncertainty surrounding the current situation, given that there are still many unknowns concerning COVID-19. Related economic indicators also remain limited. The estimates presented here are therefore based on scenarios and certain assumptions. The estimated transitory impact also does not yet take into account potential gains from mitigating measures. The main purpose is to flag risk areas as a basis for discussing appropriate responses.

Impact on travel and tourism

- COVID-19 is expected to significantly affect the tourism sector. In 2018, international tourism contributed 1.5 percent of Philippine GDP.⁵ Chinese tourists ⁶ comprise the second largest number of foreign tourists to the Philippines, accounting for 22.0 percent (1.8 million arrivals) of total foreign arrivals in 2019, next only to Korea (24.0% share; 2.0 million arrivals). Chinese tourists spent around PHP110.8 billion, or over one-fourth of total tourism receipts in 2018. Meanwhile, Koreans spent PHP126.6 billion. With the Philippine government travel ban to and from China and its administrative regions and a partial ban to and from South Korea, the tourism sector is expected to be significantly affected.
- Following President Duterte's declaration of an enhanced community quarantine (ECQ) in Luzon on March 16,⁷ land, air, and sea travel were restricted as well. This includes the suspension of mass

⁴ Capital Economics. (18 March 2020). "Downturn now set to be deeper than the financial crisis."

⁵ in gross value added (GVA) terms

⁶ Includes Hong Kong and Macau, but excludes Taiwan.

⁷ Philippine Star. (16 March 2020). "Duterte places entire Luzon under 'enhanced' community quarantine." Retrieved from <u>https://www.philstar.com/headlines/2020/03/16/2001320/duterte-places-entire-luzon-under-enhanced-community-quarantine</u>.

transportation and all domestic flights. In line with the ECQ in Luzon, local airlines announced the cancellation of flights for a period of nearly one month.⁸

The National Economic and Development Authority (NEDA) estimates that the above restriction in passenger traffic from China and its administrative regions (i.e., Hong Kong and Macau) and parts of South Korea, a 10.0 percent drop in foreign tourists from other countries⁹ until June, and a 100 percent decline in foreign tourists and airline revenues for one month due to the ECQ in Luzon, will result in a loss of gross value added of PHP77.5 to PHP156.9 billion, equivalent to 0.4 to 0.8 percent¹⁰ of GDP in 2020. Likewise, the slowdown in economic activities may reduce employment by about 33,800 to 56,600.

Impact on exports

- China is the country's single largest trading partner, comprising a fifth of the Philippines' total trade.¹¹ In 2019, mainland China accounted for 14.0 percent of total exports and 23.0 percent of total imports. On the other hand, Hong Kong is the country's 4th largest trading partner, accounting for 8.0 percent of total trade. In 2019, Hong Kong accounted for 13.0 percent of total exports but only 3.0 percent of total imports.
- As of March 13,¹² China's vice industry minister Xin Guobin reported that work resumption rates outside of Hubei province were 60.0 percent for small and medium enterprises and 95.0 percent for larger firms. A Peking University economist has noted, however, that there are several firms only turning on their lights, without any actual production so as to qualify for restart-subsidies.¹³ However, a February 17-20, survey done by the American Chamber of Commerce in China¹⁴ found that only a third of firms surveyed expect a return to normal business operations by end of March 2020. Leading indicators such as coal consumption indicate that industrial activities remain subdued by about 40.0 percent, while congestion at Chinese ports remains elevated. China's official Manufacturing Purchasing Manager's Index (PMI) sank to 35.7 in February (a far cry from January's 50.0), signifying a contraction.¹⁵ The China International Capital Corporation Limited and Nomura has noted that the PMI data for March may see improvements, but activity data may be zero or negative as businesses will not be completely back.¹⁶

⁸ Rappler. (17 March 2020). "PAL, Cebu Pacific, AirAsia cancel flights during 'enhanced community quarantine' in Luzon." Retrieved from <u>https://www.rappler.com/business/254885-philippine-airlines-cebu-pacific-airasia-flight-cancelations-coronavirus-luzon-lockdown</u>.

⁹ The assumption of 100 percent decline in Chinese tourist arrivals is based on the Philippine government's total travel ban to non-Filipino citizens coming from China, Hong Kong, and Macau. The 10.0 percent decline in arrivals of other foreign tourists was assumed as governments worldwide discourage their citizens from unnecessary foreign travels, especially to countries with confirmed cases of COVID-19. ¹⁰ Using the NEDA Input Output Simulator.

¹⁰ Using the NEDA Input-Output Simulator.

¹¹ Philippines-China (including Hong Kong and Macau) trade amounted to US\$47.5 billion in 2019.

¹² Reuters. (13 March 2020). "Over 95% of larger Chinese firms outside Hubei resume work: official" Accessed on March 19, 2020: https://www.reuters.com/article/us-health-coronavirus-china-work/over-95-of-larger-chinese-firms-outside-hubei-resume-work-officialidUSKBN2100DH

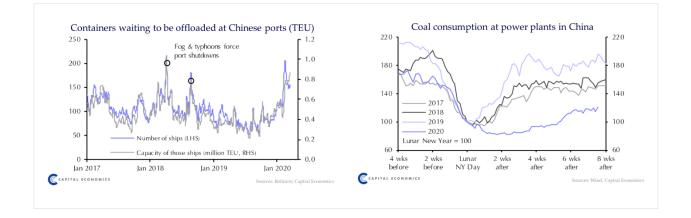
¹¹¹ <u>idUSKBN2100DH</u> ¹³ The New York Times. (12 March 2020). "Halting China's Economy Was Hard, Restarting it is Harder," Accessed on March 19, 2020: <u>https://www.nytimes.com/2020/03/12/business/china-coronavirus-economy.html?auth=login-google</u>

¹⁴ American Chamber of Commerce in China (27 February 2020). "AmCham China Flash Survey Report on the Impact of COVID-19", Accessed on March 4, 2020, <u>https://www.amchamchina.org/uploads/media/default/0001/12/2d4eedc6090762958f083af0865a94d68422f189.pdf</u>

¹⁵ Central News Network. (2 March 2020). "China's factories just had a historically terrible month because of the coronavirus." Accessed on March 4, 2020: https://edition.cnn.com/2020/03/01/economy/china-pmi-economy-coronavirus/index.html

¹⁶ Exchange Rates. (3 March 2020). "Coronavirus Outbreak Special: Impact On The Global Outlook And Financial Markets - Updated Foreign Exchange Rate & Economic Forecasts." Accessed on March 19, 2020: <u>https://www.exchangerates.org.uk/news/28768/2020-03-02-coronavirus-outbreak-latest-on-how-global-markets-have-been-impacted-latest-foreign-exchange-rate-economic-forecasts.html</u>

NOTE: This NEDA report is as of March 19, 2020; subject to revisions as new information and data come in.



With respect to our exports, among the most dependent on China as a market are mineral products (copper concentrates, chromium), veneer sheets, seaweeds, bananas, telecoms, chemicals, electronic data processing, and automotive electronics. These items together account for about 35.0 percent of our exports to China. The most significant among them are *electronic data processing*, *bananas*, and *copper metal*, as these three account for about 28.0 percent of exports to China. Based on partial customs data for February, total exports to China are down by about 55.0 percent.

	Commodity	Share of exports to China in total PH exports of commodity (%)	Share of commodity in total exports to China (%)
1	Chromium Ore	100.0	0.1
2	Veneer Sheets/Corestocks	73.5	0.0
3	Copper Metal	51.4	6.7
4	Seaweeds, Dried	34.4	0.1
5	Bananas	33.7	6.8
6	Telecommunication	27.6	1.8
7	Copper Concentrates	25.7	1.1
8	Chemicals	22.2	3.4
9	Electronic Data Processing	21.7	14.5
10	Automotive Electronics	18.4	0.3
	Total		34.7

 Table 2: Top Products with High Export Dependence on China (based on 2019 Value)

Source: NEDA computation based on Philippine Statistics Authority (PSA) data Note: * Identified by the Department of Trade and Industry There are no specific reports of factories or manufacturers within Hong Kong that have stopped operations partially or permanently. Business closures are limited to retail shops and service-oriented businesses. Therefore, among our **exports** that are the **most dependent on Hong Kong**, those that are more likely to be affected are those that are consumer-oriented such as *mangoes*, *shrimps and prawns*, and *travel goods*. However, the macroeconomic impact is likely to be limited given that the three items account for only 1.0 percent of our exports to Hong Kong. Based on partial customs data for February, total exports to Hong Kong are down by about 45.0 percent.

	Commodity	Share of exports to Hong Kong in total PH exports of commodity (%)	Share of commodity in total exports to Hong Kong
1	Gold	74.1	6.4
2	Mangoes	69.4	0.1
3	Components/Devices (Semiconductors)	24.3	74.4
4	Fish, Fresh, or Preserved, of which: Shrimps and Prawns	10.3	0.4
5	Travel Goods and Handbags	9.5	0.7
	Total		82.1%

Table 3: Top Products with High Export Dependence on Hong Kong (based on 2019 Value)

If the above-mentioned top 10 exports that are dependent on China, as well as the three consumer products dependent on Hong Kong declined for one month (February 2020) at rates similar to the contraction seen in partial customs data for February (ranging from 11% to 100%), this will result in a loss of gross value added of PHP4.9 to PHP9.8 billion, equivalent to 0.02 to 0.05 percent of GDP in 2020. This could result in an employment loss of 3,000 to 6,700.

Impact on remittances

- Cash remittances from overseas Filipinos (land-based and sea-based) amounted to USD30.1 billion in 2019, growing by more than four percent year-on-year (y-o-y). In January 2020, it reached USD2.6 billion, up 6.6 percent y-o-y.
- If 30.0 percent of overseas Filipino workers employed in tourism and tourism-related services lose their jobs (around 100,000 employees) as demand in the tourism sector plummets worldwide for five months, we expect to lose approximately PHP5.7 billion in foregone remittances.
- This scenario will result in a loss of gross value added of PHP3.9 to PHP8.5 billion, equivalent to 0.02 to 0.04 percent of GDP, and local employment loss of 1,700 to 4,500 persons.

Impact on consumption

Household consumption is expected to decelerate until June as consumer confidence dips due to health concerns and social distancing measures. In particular, a 5.0 to 10.0 percent decline¹⁷ in household consumption of non-essential commodities (i.e., alcoholic beverages and tobacco, clothing and footwear, furnishings, household equipment and routine household maintenance, recreation and culture, restaurants and hotels, and miscellaneous goods and services) could result in a loss of gross value added of PHP45 to PHP94 billion, equivalent to 0.2 to 0.5 percent of GDP, and reduce employment by 16,500 to 62,500.

Impact of Luzon-wide enhanced community quarantine

- In 2018, Luzon accounted for 73.0 percent of the country's real GDP, significantly larger than the share of Visayas (13.0%) or Mindanao (15.0%).
- Based on the guidelines for the enhanced community quarantine, private establishments that provide basic necessities will remain open. These include activities related to food, health services, banking services such as supermarkets, hospitals, pharmacies, food preparation and delivery services, manufacturing and processing plants of basic food products and medicines, water-refilling stations, banks, money transfer services, utilities, among others. Also included are business process outsourcing establishments and export-oriented industries. In light of this, the losses in these sectors are expected to be lower.
- On the other hand, other sectors are likely to bear more significant losses, such as in retail trade (with mall closures); in air transport (as airlines cancel flights and airports are closed); and in other manufacturing and service activities that are not part of the food and health-related supply chains.
- In view of the foregoing, NEDA estimates that the enhanced community quarantine over Luzon for one month could result in a loss of gross value added of PHP298 billion to PHP1.1 trillion, equivalent to 1.5 to 5.3 percent of GDP. This is expected to reduce employment by 61,000 to 1 million.

Fiscal impact

- Aggressive efforts to contain COVID-19, including the Luzon-wide quarantine, could by itself add pressure on the country's fiscal position. Even without additional spending, the estimated decline in GDP (2.1% to 6.6%) can increase the national government budget deficit to 4.4 5.4 percent of GDP in 2020, assuming the same revenue effort.
- Certain regulatory relief for affected sectors are also being implemented. The Bureau of Internal Revenue has extended the tax filing by one month, and this is expected to result in collection delay of about PHP145 billion. Further, the Civil Aviation Authority of the Philippines and the Manila International Airport Authority agreed to defer payment on parking and landing fees of local airlines in order to cushion the effect of COVID-19 on airlines.

¹⁷ Based also on the projection of some retailers in the country. Retrieved from https://www.philretailers.com/covid-19-hurts-ayalas-hotel-mallbusinesses/.

 The proposed fiscal stimulus by Congress under House Bill 6606 amounts to over PHP100 billion. On the other hand, given the likely delays in implementation of priority programs and projects, including infrastructure, national government agencies could re-prioritize and re-align their budget to address the more urgent challenge posed by COVID-19.

Summary of COVID-19's economic impact

In total, given the simultaneous adverse effects on the supply and the demand side of the economy, we expect a cumulative loss of PHP428.7 to PHP1,355.6 billion in gross value added (in current prices), equivalent to 2.1 to 6.6 percent of nominal GDP in 2020. Without mitigating measures, this would imply a reduction in the Philippine's real GDP growth to -0.6 to 4.3 percent in 2020. The government's swift and appropriate response remains crucial in the softening the blow of COVID-19, particularly on the most vulnerable members of our society.

Forgone GVA Impact on employment % of 2020 nominal GDP (in billion) (no. of persons) Via transport and tourism PHP77.5 - 156.9 0.4-0.8 33,800- 56,600 Exports PHP4.9-9.8 0.02-0.05 3,000- 6,700 1,700-4,500 Remittances PHP3.9-8.5 0.02-0.04 Consumption PHP45.1 - 93.6 0.2-0.5 16,500 - 62,500 Luzon-enhanced PHP298-1.086.9 1.5-5.3 61,000-1,000,000 community quarantine TOTAL PHP428.7 - 1,355.6 2.1-6.6 116,000-1,800,000

Table 4. COVID impact, by sector

- To reiterate, the estimates assume that the adverse impact will be felt until June, though the brunt will be felt during the one month ECQ. External trade, however, is expected to recover beginning March, though will still be affected by the ECQ.
- It also bears emphasizing that attaining the upper bound of 4.3 percent growth rate for 2020 is possible only if we are able to stem the impact of COVID-19 and the enhanced community quarantine to the rest of the economy. By extension, if the ECQ is extended beyond one month, or if the spread of COVID-19 is unabated even after the ECQ, then even the low-end of the estimate is still too high.

The next section discusses some suggestions to manage the COVID-19 crisis and the implementation of the ECQ.

Addressing the Social Impact

The COVID-19 crisis appears to involve a class dimension: at the onset, the upper- and middle-income classes are the ones directly infected, because they are the ones who travel or are acquainted with ones who have travelled. Currently, the impact on the lower-income classes is mainly through the response measures being undertaken.

The response measures going forward should be re-configured to delicately balance the health and economic objectives, particularly as the impact varies by economic class. Otherwise, the situation could deteriorate to a social and political crisis.

Previously, the NEDA has proposed a three-phased program of interventions. The same framework can be used, though slightly revised, to consider the implementation of the enhanced community quarantine. The funding requirements should then be determined in coordination with the relevant agencies, taking note that some measures will need to be undertaken right away (wherein some temporary solutions may be needed).

Intervention	Objective/s	Other problems or issues	Intervention Design Considerations
Early detection and diagnosis	To provide care or treatment at the early stages of the disease To isolate persons under monitoring (PUMs) and persons under investigation (PUIs) from the non-infected population	 Cost of testing might overburden the Philippine Health Insurance Corporation (PHIC) Cost of testing might crowd out PhilHealth funds for non-COVID-19 cases Usual sources of test kits will be constrained in the short term given huge global demand New sources of test kits may not be up to standards Adequate number of trained personnel to conduct tests across the country 	 PhilHealth to provide estimate of additional funds necessary Crowd-in other funds for testing kits Adequate number of testing kits (including reagents), thermal scanners Adequate personnel Testing kit facilities that are outside hospitals Proper distribution of resources or facilities across the country Adequate funding
Effective quarantine systems	To isolate PUMs and PUIs from the non-infected population	 Crowding out of facility for non-COVID-19 cases Indirect cost of quarantine, especially if PUM/PUI is the breadwinner Some private homes may not be suitable for quarantine 	 Establish health monitoring and referral systems

Phase 1a: Clinical/Medical Response

Intervention	Objective/s	Other problems or issues	Intervention Design Considerations
Effective management and treatment protocol	To provide care and/or treatment towards full recovery	 Indirect cost of care if PUM/PUI is the breadwinner Crowding out of facility for non-COVID-19 cases Crowding-out of equipment/personnel for non-COVID-19 cases 	• Sharing of treatment protocols with other countries
Research and epidemiological studies	To contribute to the body of knowledge on COVID-19 To improve health surveillance and health systems planning		 Adequate distribution of research personnel across the country Studies should be peer- reviewed
Ensure easy mobility of Human Resources for Health (HRH)		Absence of public transport	 Provide shuttle service of HRH Provide temporary sleeping quarters for HRH

The key to a successful medical response is widespread testing. This was the case of the dengue epidemic last year where the case recovery rate was higher than in the previous years, because of early diagnosis. A patient who is diagnosed earlier could be given care to prevent secondary infections. Moreover, early diagnosis will lead to early initiation of quarantine procedures and, therefore, limit or prevent the spread of the virus.

Phase 1b: Public Health Response

The interventions under this phase will require utmost cooperation from the public. Thus, it is important to generate public support for the public health measures. It is important to be clear on why the measures are being undertaken, but that help will be given to those who need it the most. Even then, there should be contingencies for possible panicked response.

Needless to say, the guidelines on how to enforce the ECQ, as well as how to distribute the assistance needed by the poor and vulnerable should be clear, including the assignment of responsibilities. Moreover, the health and safety of frontliners — health workers and personnel manning the checkpoints and distributing relief goods, should be assured (i.e., provided with appropriate PPE, given hazard pay, prioritized in testing for COVID-19 together with their families).

Intervention	Objective/s	Other problems or issues	Intervention Design Considerations
Travel ban	To limit or prevent introduction of imported cases	 Decline in revenues of travel and tourism sectors Closure of some travel and tourism-related businesses Reduction in employment and income for those working in travel- and tourism-related sectors Strained diplomatic relationship with countries included in the travel ban 	 Regulatory relief; provision of emergency funds/loans Amelioration funds for displaced works
Promote proper hygiene and strong immune system	To reduce the reproductive rate of the virus, R ₀ (roughly the average number of persons that a positive case can infect), and Case Fatality Ratio	 Increased business cost 	 Massive information campaign Media campaign (including influencers) and programs to encourage exercise, adequate sleep, healthy diet Provision of hygiene products in public areas Require proper and regular disinfection of public areas (including mass transport)
Ban on crowded gatherings	To reduce R₀	 Decline in revenues of Meetings, Incentives, Conferencing, Exhibitions (MICE) sectors Closure of some MICE- related businesses Reduction in employment and income for those working in MICE-related sectors 	 Regulatory relief; provision of emergency funds/loans Amelioration funds for displaced works Temporary suspension of required payments for utilizes, rental, etc.
School closures	To reduce R₀	 Diminished quality of learning outcomes No venue for supplementary feeding Decline in revenues of schools Closure of some school- related businesses Reduction in employment and income for those working om school-related sectors 	 Delivery of food packs for the beneficiaries Regulatory relief; provision of emergency funds/loans Amelioration funds for displaced works

Intervention	Objective/s	Other problems or issues	Intervention Design Considerations
Work suspension	To reduce R₀	 Decline in revenues of sectors included in the ban Closure of some businesses included in the ban Reduction in employment and income for those working in included sectors No income for those in the "no work-no pay" sectors Supply-chain disruptions 	 Regulatory relief; provision of emergency funds/loans Temporary suspension of business-related payments Amelioration funds for displaced works Food and cash assistance for the most in need Establish cargo handling protocols Ensure unhampered transport of food, medical supplies, and other essential goods Suspend toll operations at major highways Monitor inventory of food, medical supplies, and other essential goods
Flexible work arrangements in non-essential sectors		Philippine Economic Zone Authority and economic zone (ecozone) companies have limited flexibility on work location	Temporary suspension of workplace regulation for ecozone locators
Work continuance in essential sectors		 Public transport is not available Need to ensure social-distancing 	 Identify essential sectors Establish system of identifying workers in essential sectors Companies in essential sectors to provide shuttle service to employees
Enforce rule of law			 Clear guidelines on enforcement of enhanced community quarantine Provide system to identify essential personnel, transport, etc.

The Amelioration Fund of the Department of Labor and Employment is worth PHP1.5 billion, which can cover 300,000 workers. The Unconditional Cash Transfer has an appropriation of PHP36 billion under the 2020 General Appropriations Act, which covers 10 million individuals.

Phase 1c: Short-term augmentation of health systems capacity

While ECQ is underway, efforts to augment health systems capacity need to be accelerated. It is important that when the ECQ is lifted, the health systems should be better equipped to handle the potential surge.

Intervention	Objective/s	Other problems or issues	Intervention Design Considerations
Makeshift outpatient consultation facilities (MOCF) with specimen harvesting capability	To limit or prevent spread of COVID-19	 Residents in the area where MOCF will be put up may be endangered Residents may not allow the MOCF to be put up in their community Human Resources for Health (HRH) to man the MOCF will be taken away from hospitals 	 Construct MOCF; secure official development assistance (ODA) from the World Bank (WB) Set up health surveillance systems Establish quick referral protocols Ensure adequate number of ambulance facilities and stretchers
Increase supply of personal protective equipment (PPE)	To protect frontliners against infection To limit or prevent spread of COVID-19	 Usual sources of PPEs will be overwhelmed by huge demand New sources of PPEs may not be up to standard 	 Secure ODA from WB to increase access to other sources Provide financing to existing manufacturers of PPEs Provide capacity building and financing to new manufacturers
Increase number of remote quarantine facilities (RQF), including modular isolation wards or rooms	To limit or prevent spread of COVID-19 to non-COVID-19 cases	 Residents in the area where RQF will be put up may be endangered Residents in the area may not allow the RQF to be put up HRH to man the RQF will be taken away from hospitals Protocol for transfer of patients from MOCF to POE 	 Construct new facilities Set up health surveillance systems Establish quick referral protocols Ensure adequate number of ambulance facilities and stretchers
Increase supply of needed hospital equipment and paraphernalia (mechanical ventilator, N95, antivirals, antibiotics; see Annex 2 for suggested list; Department of Health [DOH] to supply more details).	To reduce R ₀	 RQF Usual sources of PPEs will be overwhelmed by huge demand New sources of PPEs may not be up to standard 	 Provide financing to existing manufacturers of needed equipment Tap additional international sources of needed equipment

At this point, it may be useful to engage a wider portion of the population in the supply of the essentials to fight COVID-19. Existing business may be encouraged to reconfigure their product offerings to include these essentials. Below are some suggestions:

Specific Industry	Alternative Production/Activity	Remarks
Manufacturing		
Soap and detergents, cleaning and polishing preparations, perfumes and toilet preparations	Prioritize and increase production of essential supplies (i.e., alcohol, soap, and disinfectant)	Domestic perfume companies such as <i>Bench</i> , <i>Aficionado</i> , <i>Johnson & Johnson</i> , among others can be tapped for production of alcohol and disinfectants. Since perfumes are mostly alcohol based, they may be able to shift production easily. Perfume containers can be used as alcohol containers as well. P&G, Universal Robina/JG Summit, Colgate-
		Palmolive to consider focusing or concentrating on the production of basic necessities and highly needed goods such as alcohols, soap, and disinfectants.
Manufacture of plastic	Producers of grocery bags, and cellophane can easily shift production to essential supplies such as PPE	Plastic manufacturing companies may consider shifting to production of head covers, goggles, and overall PPE. There is a need to check if their machines can accommodate shifting of production. For those already producing laboratory goggles, suggest increased production.
	Makers of materials used in tarpaulins and <i>trapal</i> may be encouraged to produce tents, specifically for check points/testing facilities	This can also be used to produce more plastic containers for dextrose.
	Manufacture of monobloc chairs and other hard plastics can shift production to disposal bins.	Not only medical frontliners are at risk. Persons in-charge of waste disposal are also at risk.
Rubber and rubber products	Makers of rubber slippers, rubber soles can be encouraged to produce rubber footwear, rubber gloves, and even those used as rubber hose for dextrose.	Aside from medical personnel and frontline workers, government also need to provide protective gears to people community work, such as waste disposal.
Textile and wearing apparel	Can be encouraged to manufacture fabric/cloth face masks that comply with the right specification/production standards.	Government (national and local) can buy these protective gears for the frontline medical workers and personnel in charge in check points to limit the personnel's exposure to the virus.
		Fabric/cloth face masks may be cheaper than disposable ones as these can be re-used when washed. The government may promote the use of fabric/cloth masks over disposable masks.
		Tap the Department of Science and Technology (DOST) for the design and identifying appropriate materials for the masks & PPE and the Technical Education and Skills Development Authority to prioritize trainings on skills needed for the making

Specific Industry	Alternative Production/Activity	Remarks
Chemical products	Manufacture of pesticides and other agro-chemical products may be directed to produce disinfectants	of reusable masks as well as health and sanitation wearables such as PPE among others. These can be used by local government units (LGUs), national government agencies, and private establishments that are conducting disinfections in their office premises and other public places.
	Pharmaceuticals, medicinal chemical, and botanical products	Can be encouraged to produce more vitamins and drugs designed to boost immune system, which are already in the market.
Paper & paper products	Shift to the production of more boxes	This can be used in packing essential materials and relief goods for distribution.
Electrical Equipment	Promote the use of RxBox – an electronic medical device currently used by DOST on a limited scale. This has features that enable health care physicians or doctors to provide medical services to their patients (e.g.,, consultation, medical advice, monitoring of patients, follow-ups) even when the doctors and patients are not meeting physically.	RxBox is already being used in some areas. However, its use is not yet widespread throughout the country. To reduce the spread of virus from patients infected with COVID-19 to their health care providers (e.g.,, doctors and nurses), physical or face-to-face contact should be avoided as much as possible. Thus, the use of RxBox may be recommended.
Non-electrical equipment	Equipment used as pesticide spray in farms (knapsack style) can be converted into disinfectant sprays	This can be distributed to LGUs and barangays, national government offices, and private establishments.
	Heavy duty misting and fogging machines can be converted into disinfectant machines or can be a used in the design of decontamination kiosks.	Mechanical and civil engineering associations can be consulted to come up with a practical and feasible designs that can be built quickly.
Construction		
Public construction	Prioritize quarantine facilities, sterile facilities for outpatient consultation, disinfection facilities, and disposal facilities.	This can be implemented at the LGU level within a quarantined area to employ workers within the vicinity. Engineering experts need to be consulted to come up with practical and feasible designs that can be built quickly. Aside from having these facilities constructed in every city/municipality, the national government can be in charge of identifying strategic areas where such facilities can be installed, such as terminals, ports/airports, MRT/LRT stations and in other areas as necessary.
Services		
Public Bus Transport	Can be used to transport frontliners (health workers, police, barangay officials). In the private sector, buses can be used to transport security guards and employees of firms that were allowed to operate such as	In addition to government vehicles, encourage road transport associations to participate or volunteer in this activity, so they will still have income during this ECQ. Firms providing essential goods and services can utilize these public utility buses to provide transport to their own workers so as not to hamper manufacturing

Specific Industry	Alternative Production/Activity	Remarks
	supermarkets and food preparation for delivery)	of essential goods and delivery of services. Government/LGUs can assist in providing these transport vehicles by arranging for and even subsidizing public utility vehicles (PUVs/e-PUVs). Protective measures mandated by the Department of Transportation for public vehicles should be strictly followed. Signage showing their participation in the activity should be visible. LGUs should facilitate the entry of public utility buses carrying frontliners, i.e., have fast lanes for entry of these vehicles. Government can partially subsidize the cost of those in the private sector, particularly the micro, small, and medium enterprises.
Public Jeepney Transport	Can be utilized to deliver food for the frontline workers and also relief goods provided by LGUs	LGUs may use a portion of their Quick Response Fund and/or calamity fund to procure the services of jeepney operators/owners. This will not only ensure uninterrupted distribution of food, relief goods, and essential supplies, this arrangement will also compensate for the loss/reduction of income of jeepney drivers.
	frontliners. This may be done free of ch	utilize MRT and LRT to facilitate the movement of harge. Further, LGUs and hospitals may coordinate ations by shuttles/jeepneys to their respective
Telecommunication	Aggressive information dissemination	Coordinate with telecommunication companies (telcos) for emergency text blasts to raise awareness on COVID-19 and methods to avoid infection. Telcos to boost services for DOH, hospitals and health services, including health surveillance systems
Wholesale and retail	Delivery of critical food and non-food supplies	Angkas/Grab drivers may be utilized to deliver food items and other essentials in the LGUs or provide delivery service to food establishments and pharmacies. Health checks will be provided for the drivers and social distancing will be observed during delivery.
Advertising services	Enjoin advertising agencies to craft COVID-19-related information materials	Advertising agencies may be tapped by the DOH to help in the production of information materials and infographics as well as information dissemination in social media.
Hotel Services	Hotels can be used as additional quarantine facility should COVID statistics rise	Government to shoulder costs of patient stay in hotels; maybe have tax holidays as incentive for hotels that will volunteer.

Phase 2: Rebuild consumer and business confidence.

Once the enhanced community quarantine is lifted, there may still be reduced economic activity as the public becomes hesitant to engage. The best way to address this problem is to assure the public of the adequacy of our improved health systems.

Intervention	Objective/s	Other problems or issues	Intervention Design Considerations
Assure public of adequacy of health systems	To expand health systems capacity To communicate to the public the improved health systems capacity		 Reconfigure Health Facilities Enhancement Program to include provisions for infectious diseases Increase HRH Improve health surveillance systems Strengthen UHC including PhilHealth
Implement staggered working and business hours	To maintain appropriate social distancing even beyond the ECQ	Increased business cost given the need to pay for overtime Increased business cost given the need to operate the utilities for an extended period per day	
Address balance sheet problems of business sector			 Provide emergency loans to business Provide emergency production assistance to farmers, fisherfolk, micro, small, and medium enterprises
Address balance sheet problems of consumers			 Provide emergency loans to consumers

Phase 3: Resume a new normal state of economic activity that is more prepared for the next (hopefully not forthcoming) pandemic.

- Redefine the new normal state of economic activity
- Recalibrate development plans and work programs to conform to the new normal
- Implement the new normal

NEDA should begin preparations for Phase 3 by conducting various scenario and foresight planning exercises. This should involve multiple stakeholders, including experts and development partners. After this is the need to engage the whole-of-government in crafting the policies and programs, activities, and projects (PAPs) that are relevant under the new normal scenario. The more important phase is communicating these to the public and building a constituency for the new policies and PAPs.

ANNEX 1. Selected Socioeconomic Indicators for NCR and Major Island Groups

Table 1.	Gross	Regional	Domestic	Product
THORE TO	01000	11051011011		1100000

Region	2018		2018	
	(in current prices)		(at constant prices)	
	Levels Share to GDP		Levels	Share to GDP
PHILIPPINES	17,426,201,969		9,206,888,993	
NCR	6,534,797,200	37%	3,312,006,887	36%
Rest of Luzon	5,995,073,353	34%	3,406,733,645	37%
Visayas	2,250,154,210	13%	1,151,659,840	13%
Mindanao	2,646,177,207	15%	1,336,488,621	15%

Table 2. Projected Mid-Year Population: July 2020

Degion/Major Island Crown	Popula	tion*
Region/Major Island Group	Level	% Share
PHILIPPINES	108,771,978	100
NCR	13,804,656	12.7
Rest of Luzon	48,415,998	44.5
Visayas	20,604,282	18.9
Mindanao	25,947,042	23.9

*Updated Projected Mid-Year Population Based on 2015 Population Census

	FY 2019		2020 Q1		
Region/Major Island Employm		ment			
	Level	Level % share Level % share			
PHILIPPINES	42,427	100	42,653	100	
NCR	5,357	12.6	5,544	13.0	
Rest of Luzon	18,802	44.3	18,959	44.4	
Visayas	8,189	19.3	8,154	19.1	
Mindanao	10,079	23.8	9,996	23.4	

Table 3. Total Employment and Employment Share: FY 2019 and 2020 First Quarter

Source: Labor Force Survey, PSA Note: in thousands except rates

 Table 4. Magnitude of Poor Population among individuals and families: FY 2018 (in thousands)
 Frequencies

Region/Major	Magnitude of Poor Population		Magnitude of Poor Families		
Island Group			Level	% share	
PHILIPPINES	17,595	100	2,986	100	
NCR	309	1.8	48	1.6	
Rest of Luzon	5,291	30.1	886	29.7	
Visayas	4,053	23.0	715	23.9	
Mindanao	7,943	45.1	1,336	44.7	

Source: 2018 Family Income and Expenditure Survey (FIES), PSA Note: in thousands except rates

Region	Poverty Incidence	Subsistence Incidence
PHILIPPINES	16.6	5.2
NCR	2.3	0.4
CAR	12.2	3.4
Region I - Ilocos	9.7	1.8
Region II - Cagayan Valley	16.1	4.1
Region III - Central Luzon	6.9	1.5
Region IV-A - CALABARZON	7.1	1.5
Region IV-B - MIMAROPA	15.1	4.4
Region V - Bicol	26.8	7.0
Region VI - Western Visayas	16.4	4.2
Region VII - Central Visayas	17.5	4.8
Region VIII - Eastern Visayas	30.9	10.0
Region IX - Zamboanga Peninsula	32.7	12.4
Region X - Northern Mindanao	23.0	6.0
Region XI - Davao	18.9	5.6
Region XII - SOCCSKSARGEN	28.2	11.4
Region XIII - Caraga	30.5	10.2
ARMM	61.3	29.6

Table 5. Poverty Incidence and Subsistence Incidence among population by Region: FY 2018

Source: 2018 Family Income and Expenditure Survey (FIES), PSA

Table 6. Number and Share of Short-term Workers and UCT Beneficiaries

Region/Major	Jan 2 Short-term		FY 2019 UCT Beneficiaries ^b		
Island Group	Level			% Share	
PHILIPPINES	8,179,150	100.0	10,000,000	100.0	
NCR	595,698	7.3	425,215	4.3	
Rest of Luzon	3,648,902	44.6	3,287,357	32.9	
Visayas	2,015,980	24.6	2,431,803	24.3	
Mindanao	1,918,570	23.5	3,855,625	38.6	

a/ Excluding those working in the government b/ 2019 target households

	PUJs		Тах	(i	UV E	xpress	TN	VS
Region	Units	Share to Total	Units	Share to Total	Units	Share to Total	Units	Share to Total
PHILIPPINES	178,192		53,340		22,358		3,676	
NCR	54,318	30%	32,712	61%	11,707	52%	3,645	99%
Rest of Luzon	78,779	44%	3,466	6%	5,137	23%	0	0%
Visayas	24,436	14%	8,677	16%	3,468	16%	31	1%
Mindanao	20,659	12%	8,485	16%	2,046	9%	0	0%

Table 7. Public Utility Vehicles, March 2018

ANNEX 2

Medical equipment needed for treatment of COVID-19 patients¹⁸

Equipment	Estimated unit cost (PHP '000)
Ventilators	1,500
PCR machine	5,000
Cardiac monitor	250
Central monitor	150
Defibrillator	500
Heavy duty suction machines	250
Infusion pump	80
Biosafety cabinet	1,000
Pulse oximeters	2
ECG machines	100
Extracorporeal Membrane Oxygenation	8,000
Portable chest X-ray machine	TBD

Budget request¹⁹ of the Research Institute for Tropical Medicine to address the current COVID-19 crisis:

ITEMS	REQUIRED COST
Medical and Laboratory supplies	112,545,996.44
Personnel Augmentation	7,942,861.50
Biosafety Supplies	349,178.50
Engineering Controls	425,950.00
IT Requirements	909,000.00
Medical and Laboratory equipment	90,971,000.00
Data management equipment	146,000.00
Patient and responder accommodation	1,338,989.60
Infection Control supplies	21,305,402.32
Administrative and logistical management	1,617,000.00
Drugs and Medicines	45,392,358.00
TOTAL	282,943,736.36

 ¹⁸ Note that the list is incomplete and needs to be validated by the Department of Health.
 ¹⁹ Draft details available upon request.