SOCIOECONOMIC ASSESSMENT

COVID-19 PDNA Ecuador

MARCH – MAY 2020

Lenín

Toda una Vida

EL GOBIERNO DE TODOS

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In compliance with National Emergency Operations Committee (COE-N) Resolution of 20 May 2020 “Expand the decision of the national COE of 16 March 2020 and carry out a first evaluation of the effects and impacts of the health emergency on the country in the productive, security, social and infrastructure sectors for the months of March, April and May, integrating the Sectoral Cabinets and related entities in a joint effort; led by the Technical Planning Secretariat “Planifica Ecuador”; welcoming the recommendation presented by the National Risk and Emergency Management Service to use the Post Disaster Needs Assessment Methodology (PDNA) for the assessment.”

Acknowledgement and appreciation for the support in the preparation of this assessment to the technical teams of the Social; Economic and Productive; Natural Resources; Habitat and Infrastructure; and Security Sector Cabinets, as well as the World Bank, European Union, and United Nations cooperation organizations.

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PRESENTATION

On 20 May 2020, the National Emergency Operations Committee (COE) carried out a first assessment of the effects and impacts of the COVID-19 health emergency in the country. The Technical Planning Secretariat "Planifica Ecuador" led this process, and in coordination with the social; economic and productive; natural resources, habitat and infrastructure; and, security sector cabinets, carried out the evaluation for the period between March and May 2020 using the Post-Disaster Needs Assessment (PDNA[1]) methodology.

More than 100 officials from national government institutions were trained for this process, thanks to assistance provided by the United Nations, World Bank and European Union. This made it possible to collect and process the information required to quantify the effects and impacts of the pandemic, both in the economic and human spheres. In addition, participants reflected on the needs and mitigation strategies, which are also incorporated and presented in this report for consideration.

The main outcomes of the evaluation show the severe human impact of the COVID-19 crisis in the country tied to the implementation of sanitary and social distancing measures to contain the spread of the virus. This led to the total or partial shutdown of economic activities, affecting the economy and the daily life of Ecuadorians.

Commerce, industry, tourism, transport and health sectors were most heavily affected. Among the most worrying impacts is the loss of employment and household income, a situation that has reduced purchasing power and will affect food security if necessary measures are not taken in a timely manner. These effects could increase the number of families living in poverty and extreme poverty, generating more vulnerability and inequality. The evidence implies that the country must respond to greater challenges with creativity, co-responsibility and a sense of urgency.

This report seeks to guide the public policy priorities and decisions of the national government, decentralized autonomous governments and all state functions, as well as the private sector and civil society, to work together to contain the economic downturn and protect the most vulnerable populations through a plan that contains immediate actions to reduce vulnerability and increase capacities and resilience in the short and medium term.

I extend our gratitude to the teams of the institutions that worked on evaluating the effects of the pandemic; as well as the organizations that supported its implementation: the World Bank, European Union and United Nations for their successful and effective guidance, with the conviction that the country will benefit from the inputs provided through this report.

Katherine Argotti
Technical Secretary of Planifica Ecuador

1 The Post-disaster Needs Assessment (PDNA), developed by the United Nations, European Union and World Bank and adapted to the situation of the pandemic is a methodology to assess the full extent of a disaster's impact on a country.

Introduction

From the pandemic to the State of Emergency

On 31 December 2019, Chinese health authorities notify the World Health Organization (WHO) of an outbreak of pneumonia of unknown cause detected in Wuhan City, Hubei province. The notification is considered the starting point for public policy responses to the outbreak of the new disease. On 7 January 2020, the WHO reports that a new group 2b coronavirus from the SARS family had been identified, subsequently named SARS-Cov-2 and more commonly referred to as COVID-19. In the face of the rapid spread of the disease, the WHO declares a *Public Health Emergency of International Concern* (PHEIC) on 30 January 2020.

In February, the Ministry of Public Health (MPH) of Ecuador activates actions to contain and respond to COVID-19 with the accompaniment of the Pan American Health Organization (PAHO). On 29 February, the MPH confirms the first positive case in the country and begins to prepare technical reports and guidelines on the medical treatment of cases, epidemiological surveillance, strengthening diagnostic capacity, protection policies for health workers and risk communication to the community.

Patient zero arrives from Madrid and infects an estimated 177 people in the provinces of Guayas and Los Ríos before her death on 13 March.

On 11 March 2020, WHO declares COVID-19 a global pandemic and calls on countries to activate and expand response mechanisms. On the same day, the MPH issues Ministerial Agreement No. 00126-2020 declaring a *National Public Health Emergency* in the Ecuadorian National Health System (NHS) to "prevent possible massive transmission in the population." The following day, the National Emergency Operations Committee (COE-N) is activated, made up of the highest authorities in the country, as well as the Technical Working Groups of the COE.

On 16 March 2020, the President issues Executive Decree No. 1017 and declares a State of Emergency due to public calamity throughout the territory[1] "in order to control the public health emergency to guarantee the rights of people in the face of the imminent presence of COVID-19" in Ecuador. In general, the decreed measures[2] can be seen as sanitary measures since their purpose is to implement mandatory community quarantine "throughout the national territory to prevent the generation of new infections in the course of routine activities."

On 26 April, President Lenin Moreno announces the guidelines that will govern the deconfinement of the population Ecuador starting 4 May 2020, a provision that turned out to be very premature.

1 The Constitution establishes that the President may decree a State of Emergency throughout or in part of the territory in the event of aggression, armed conflict, serious internal commotion, public calamity or natural disaster. The Constitutional Court ruled on 19 March on the relevance of the declaration because the health scenario would represent a real catastrophic situation for Ecuador due to the number of fatalities from the pandemic worldwide and technical report forecasts for the country.

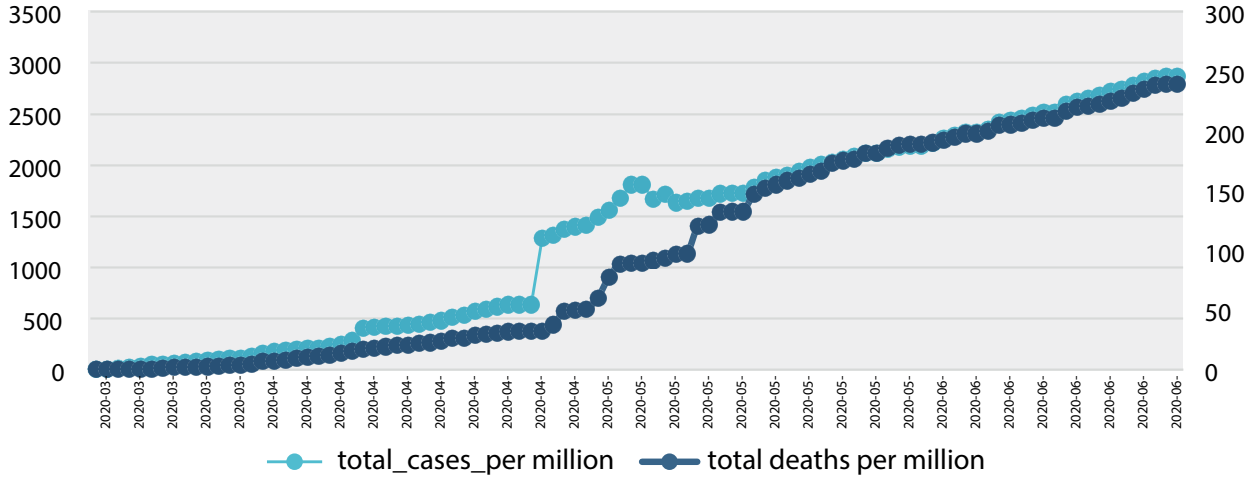
2 Among other measures, the decree provides: mandatory preventive isolation of people entering the country, prohibition of massive public events, closure of congregation spaces, suspension of classroom education, total suspension of workplace activities, daytime mobility restrictions and curfew for vehicles and people, suspension of national flights and interprovincial transportation, provision of public water, solid waste and garbage collection services. Subsequently, mandatory use of masks, social distancing (from May 4), pilot reopening projects and authorization for humanitarian flights are instituted. Op. Cit. (MHP, 2020a).

The evolution of the crisis and the collapse of the health system.

Ecuador was one of the first countries to face the pandemic in Latin America, and between March and May 2020, it experienced a rapid transition from a scenario without cases[3] (scenario 1) to a scenario of community transmission (scenario 4). It experienced high infection and fatality rates[4] compared to other countries of the region and became a focus of international attention. Preventing the massive spread of the disease in the population developed into a greater challenge.

As of 31 May, Ecuador reported a total of 39,098 coronavirus infections and 5,512 deaths, including 3,358 confirmed and 2,154 probable COVID-19 deaths. The aforementioned figures indicate rates of 2,216 infections and 190.3 deaths per million inhabitants and an average increase of 443 new cases per day (Graph 1). The information and registry system for infections, illnesses and deaths was inconsistent, of little use in managing the pandemic and required a thorough review.

Graph 1. COVID-19 infection and fatality rates in Ecuador, March– May 2020



Source: SNGRE, MSP, COE-N https://www.gestionderiesgos.gob.ec/informes-de-situacion-COVID-19-19-desde-el-13-de-marzo-del-2020/. Our World in Data-https://ourworldindata.org/coronavirus/country/ecuador?country=~ECU

The transmission of infections reaches a R0[5] [6] of between 2.7 and 3.3 new infections per patient. At the end of May, the disease was primarily located in the province of Guayas, especially in the cantons of Guayaquil, Samborondón and Daule, as well as in the neighbouring province of Santa Elena.

3 To differentiate the strategies, the WHO defined four transmission scenarios: 1. Countries without cases, 2. Countries with one or more imported or locally detected cases (sporadic cases), 3. Countries experiencing cases, clustered in time, geographic location, and/or by common exposure (cluster of cases), 4. Countries experiencing larger outbreaks of local transmission (community transmission) (WHO, 2020a)

4 Infection refers to a confirmed case of a person with the virus, even if they are asymptomatic; Lethality refers to the number of deaths in relation to those infected

5 The basic reproduction number (R0) is considered the average number of new cases generated by a base case, throughout an infectious process.

6 Figure obtained from the study by Ortiz et al. of 13 May 2020. Op. Cit. pp.3.

In Guayas, the infection rate reached 3,174.5 per million inhabitants (with 14,051 cases representing 46.6% of infections) and the fatality rate was 317.2 per million.

Santa Elena had the highest death rate in the country with 700.4 per million inhabitants and an infection rate of 1,921.8 per million inhabitants. By then, the figures showed that the Coastal region had surpassed the rates in the Andean, Amazon and Galapagos regions in the period of analysis (Table 1).

Table 1. COVID-19 infection and fatality rates in the regions and provinces of Ecuador, March – May 2020 (per million inhabitants)

Region and Province	Infections	Deaths	Infection rate per million inhabitants	Death rate per million inhabitants
Andean Region	*8,477*	*742*	*1,080.3*	*94.6*
Azuay	869	33	985.9	37.4
Bolívar	312	24	1,486.2	114.3
Cañar	331	30	1,176.3	106.6
Carchi	152	11	813.4	58.9
Cotopaxi	395	54	808.2	110.5
Chimborazo	398	109	759.5	208.0
Imbabura	203	14	426.2	29.4
Loja	357	21	685.0	40.3
Pichincha	3,940	304	1,220.5	94.2
Tungurahua	477	68	807.7	115.1
Santo Domingo de los Tsáchilas	1,043	74	2,274.4	161.4
Coastal Region	*20,522*	*2,578*	*2,366.0*	*29.2*
El Oro	1,094	183	1,528.5	255.7
Esmeraldas	852	80	1,323.7	124.3
Guayas	14,061	1,405	**3,174.5**	317.2
Los Ríos	1,509	195	1,637.1	211.6
Manabí	2,235	434	1,430.8	277.8
Santa Elena	771	281	1,921.8	700.4
Amazon Region	*1,067*	*37*	*1,115.3*	*38.7*
Morona Santiago	105	3	534.3	15.3
Napo	201	15	1,503.3	112.2
Pastaza	228	5	1,996.5	43.8
Zamora Chinchipe	186	5	1,544.6	41.5
Sucumbíos	110	5	477.2	21.7
Orellana	237	4	1,469.0	24.8
Insular Region	*76*	*1*	*2,300.1*	*30.3*
Galápagos	76	1	2,300.1	30.3

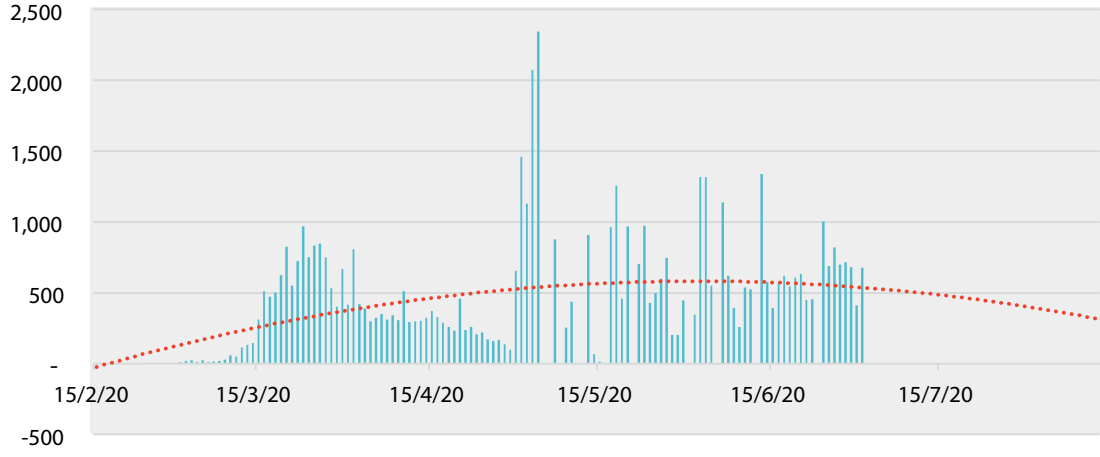
Source: SNGRE. Infographic 094 of 31 May 2020

As of 31 May, 40% of those infected with coronavirus in Ecuador were expected to recover at home, more than 50% had overcome the disease, 1.2% were hospitalized, 0.6% were in critical care and 8.6% had died (SNGRE-Infographic 094). Eighty percent of infections occurred in the working-age population (56.3% in the group aged 20-49 years, 24.2% in the group aged 50-64 years and 16.2% in people aged 65 years and older). Of those infected, 55% were men and 45% women. There was practically no infection among children and adolescents under the age of 19. Especially vulnerable groups included public health servants (9.3% to 10% of total infections), public forces and prison guards. In line with the country's ethnic distribution, 72% of the infected population was mestizo, 7% indigenous and approximately 1% Afro-Ecuadorian (MPH, 2020a) (Ortiz, E. et al., 13 May 2020).

The management of dead bodies became a traumatic problem because it was overwhelmed in its different stages, producing events such as identity confusion in morgues, congestion in the registration of deaths and other legal procedures, insufficient funeral services for coffins, transportation, burials, cremations, removal of dead bodies from homes, availability of cemeteries, among others.

Given that the pandemic generates a constantly evolving crisis and that the spread of the coronavirus had not abated by the end of the analysis period (from March to May), this evaluation does not cover either the subsequent evolution or its effects (Graph 2, medium term trend).

Graph 2. Potential growth and trend of new confirmed cases (SSP/WHO)[7]



Source: data estimates registered up to June by PAHO/WHO, Coronavirus diseases (COVID-19) Situation Reports (https://www.who.int/emergencies/diseases/novel-coronavirus-2019/situation-reports)

7 $y = -0{,}0522x2 + 4594{,}7x - 1E{+}08$; $R^2 = 0{,}1749$

The pandemic is more than a health crisis and requires a socioeconomic response

The rapid spread of COVID-19 took the medical community, scientists, authorities and the population by surprise. The number of infections and deaths continues to increase in more than 215 countries in the world[8]. The initial perception of the pandemic by governments, international entities[9] and the population as a sectoral health emergency rapidly changed, not only due to its lethality but also because the effects of prevention and mitigation measures primarily adopted to prevent and reduce transmission. This involved the partial or total shutdown, for weeks and even months, of a number of key economic and daily activities at a local and global level.

In May, the United Nations Secretary General alerted nations to the implications of the pandemic and called for structuring, among other measures, a large socio-economic response based on five pillars; insisting that actions during and after this crisis must have a strong focus on building more equitable, inclusive and sustainable economies and societies, more resistant to pandemics, climate change and other global challenges[10]. The pillars are:

1. Protecting existing health services and strengthening the capacity of health systems.
2. Helping people cope with adversity through social protection and basic services.
3. Protecting jobs, supporting small and medium-sized enterprises, as well as workers in the informal sector.
4. Guiding the necessary increase in fiscal and financial stimulus for macroeconomic policies to benefit the most vulnerable populations.
5. Promoting social cohesion and investing in community resilience and response systems.

Impact assessment

The total losses between March and May 2020 are **US$ 6,4 billion**, of which 82.4% corresponds to the private sector and 17.6% to the public sector. The productive sector registered 63.8% of the losses, a value that is more than three times the losses experienced in the health subsector and which reinforces the need to organize a comprehensive socioeconomic response to face the effects of the ongoing crisis. When the health emergency is over, the value of the losses will surely be greater.

8 For figures, visit the official portal of the World Health Organization (PAHO/WHO: https://www.who.int/emergencies/diseases/novel-coronavirus-2019/situation-reports/ or portals such as Worldometers, Johns Hopkins coronavirus resource center, Our World in data (Owid).

9 The Advisory Group on Science and Technology for DRR in LAC points out that the underlying factors, vulnerabilities, exposure conditions and impacts associated with the hazard of the pandemic go well beyond the health sector and make it an example of systemic risk, that is, when a hazard leads not only to negative effects in some parts of the system but also threatens the entire system. https://reliefweb.int/report/world/la-ciencia-y-la-tecnolog-en-rrd-en-el-contexto-del-covid-19

10 https://cuba.un.org/es/43896-una-nueva-normalidad-la-onu-lanza-hoja-de-ruta-para-respuesta-socioeconomica-la-covid19

Table 2. Summary of losses, March – May 2020 in US$ millions

Sector	Losses	%	Public sector	Private sector
SOCIAL	**1,299.31**	**20.2%**	**893.33**	**405.97**
Health	869.99	13.5%	793	76.98
Education	264.41	4.1%	17.69	246.71
Culture and sports	90.07	1.4%	7.79	82.28
Social protection	74.85	1.2%	74.85	
ECONOMIC AND PRODUCTIVE	**4,095.34**	**63.8%**		**4,095.34**
Agriculture	358.37	5.6%		358.37
Fishing	44.69	0.7%		44.69
Industry	550.23	8.6%		550.23
Commerce	1,978.34	30.8%		1,978.34
Services	578.73	9.0%		578.73
Tourism	584.98	9.1%		584.98
NATURAL RESOURCES, HABITAT AND INFRASTRUCTURE	**999.35**	**15.6%**	**251.72**	**747.62**
Transport	714.22	11.1%	48.62	665.59
Energy and communications	152.11	2.4%	77.89	74.22
Water and sanitation	78.09	1.2%	71.17	6.92
Environment	54.94	0.9%	54.04	0.89
SECURITY	**26.66**	**0.4%**	**26.66**	**0**
Security	19.11	0.3%	19.11	
Risk management	7.56	0.1%	7.56	
TOTAL	**6,420.68**	**100.0%**	**1,171.71**	**5,248.93**

Source: COVID-19 PDNA March-May, 2020

Preparing for reactivation

While transmission continues, the country begins to prepare for the reactivation of some sectors, and the COE-N has implement a traffic light[11] colour system to communicate the situation of each canton. The system empowers local governments, in conjunction with the local COE, to decide when to increase or decrease mobility restrictions and financial and commercial activities. The sanitary criteria that regulate the colour change are:

1. Evolution of infections and recovered cases.
2. Capacity of local health services in the face of the pandemic.
3. Organization and discipline of the population in following the regulatory and social distancing measures.

11 Resolution of the National COE issued on 28 April 2020 established that "social distancing" stage would begin starting 4 May 2020.

Within this operational framework, the municipal authorities analyse their indicators and define the colour in each canton. At the end of May 2020, of the 221 cantons in Ecuador, 183 were in red and 58 in yellow or green[12]; from there, successive changes of colour status occured. As of 29 June, there were 178 cantons in yellow, five in green and 38 in red (Cantonal traffic light report, COE-N, cutoff 29 June 2020). The cutoff to 3 August shows 195 cantons in yellow, 11 in green and 15 in red.

Despite the fact that the economic, social and human impact cannot be fully dimensioned, this assessment shows opportunities and risks, as well as a series of proposals to address the needs identified both for the continuity of the response and for the reactivation oriented towards recovery to avoid a widening of poverty gaps, inequity, food insecurity and guide the country towards resilience in the face of future hazards. Recovery should be framed within the development goals outlined in Ecuador's National Development Plan[13].

Given the evolution of the pandemic and the associated effects, the COE-N decided to accept the recommendation of the National Risk and Emergency Management Service (SNGR) to use, under the leadership of Planifica Ecuador, the Post-Disaster Needs Assessment (PDNA[14]) methodology adapted to the COVID-19 situation in the country. It is used to analyse the incidence of the pandemic and the country's response from March to May in four spheres (social, productive, infrastructure and security), including critical cross-cutting aspects such as employment and livelihoods, gender conditions, social protection, among others, and propose priority needs and strategies for the next 12 months.

The PDNA methodology is an international standard promoted under a tripartite agreement between the United Nations (UN), European Union (EU) and World Bank (WB) that is used globally by countries and cooperation entities as a common reference to articulate post-disaster actions with national actors.

In order to comply with the COE-N decision, UNDP acted as technical coordinator and advisor during this study. The UN, EU and WB supported the identification of the effects, impacts, recovery needs and their economic valuation, including their prioritization and recovery strategies, according to their specialization and experience. Planifica Ecuador, as the lead national government entity, coordinated this evaluation exercise together with the sectoral cabinets.

The pandemic aggravated Ecuador's already problematic economic and social context. Although the spread is concentrated in cities, (more than 50% of the infections confirmed by PCR test occur in eight of the 221 cities[15]), the impacts affect all areas of development.

Following the expiration of the *State of Emergency* decreed on 16 March[16], the President ordered a new State of Emergency on June 15, this time *"due to the presence of COVID-19 and the economic emergency resulting from the health emergency in Ecuador; in order, on the one hand, to continue to control the disease through the exceptional measures necessary to mitigate its massive transmission; and on the other hand, to establish emerging mechanisms to confront the economic recession and fiscal crisis, and generate the conditions for economic recovery of the Ecuadorian State."*

12 Source: https://srvportal.gestionderiesgos.gob.ec/portal/apps/webappviewer/index.html?id=5ecd2baea7024774b72765fb764d3690

13 The National Development Plan 2017-2021 (Toda Una Vida), was approved in session on 22 September 2017 through Resolution No. CNP-003-2017.

14 Last year Ecuador used this methodology to evaluate the effects of the national strike.

15 Infographic 131, with 07-07-20 cut off.

16 In Ecuador, States of Emergency last up to 90 days.

Methodology

Beginning in 2008, the EU, WB and UN Development Group agreed to develop guidelines that would serve governments and their partners in determining the socioeconomic impacts of disasters; reviewed and adapted this year to respond to and manage the recovery needs of pandemic. The methodology proposes:

- Assessing the socioeconomic impact of the pandemic on the population (including vulnerable groups), on the production of goods and services and on the exercise of government functions.
- Identifying priority needs of affected households and critical sectors of the economy in order to restore the production of and access to goods and services, while continuing to manage the risk of transmission.
- Identifying the policies and institutional mechanisms necessary for adequate recovery support, including measures to prevent and mitigate similar crises in the future.

The adaptation of the methodology considers the learning of the three entities in more than 70 assessment experiences since 2008 and the preparation of post-disaster recovery plans, and flexibly outlines a standardized approach adjusted to the context of each country to evaluate and plan the recovery from the pandemic. The methodology requires that the country assume leadership of the assessment, since it is responsible for directing the response to the pandemic and the recovery.

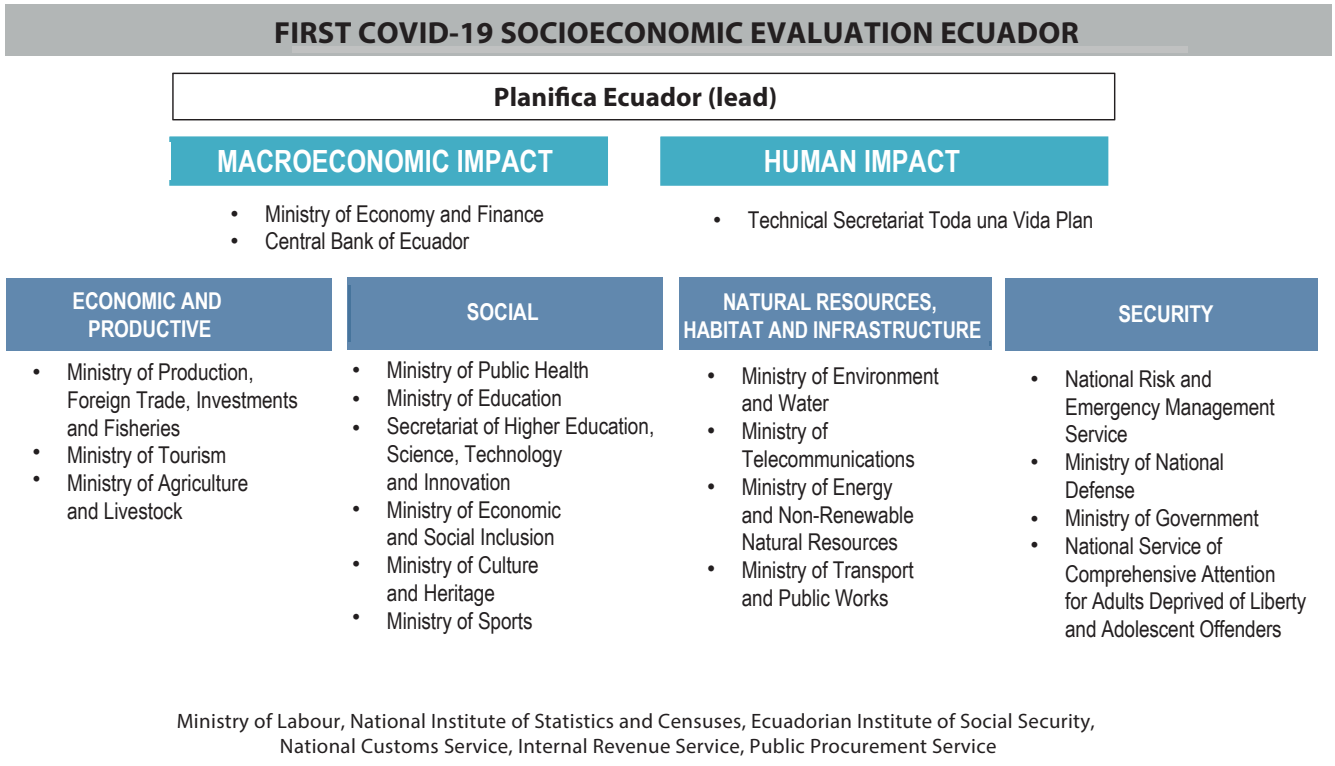
The information used in the assessments comes from official sources and is aligned with the National Accounts System. At the national level, both the general structure of the study and the structure of the data make it easier for the government to update information and monitor implementation. At the international level, the standardization of the methodology facilitates the comparability of processes and results, the transfer of learning and transparency in the analysis. The assessment has five steps:

1. *Establishing the baseline*. It presents the financial, economic, social, cultural and governmental conditions of the pre-pandemic period and compares them with the new situation. The information includes data from all the sectors under analysis and information on key development indicators, such as poverty, human development, food security, gender equity, territorial and cross-sectoral inequities, social exclusion, vulnerable groups and preparedness capacities to respond to this and other emergencies.
2. *Assessing the effects and estimating costs.* It estimates how the pandemic affected vulnerable sectors and groups, focusing on access to services (food, health, education, water and sanitation, social assistance, etc.), and subsidies and support from government and other sources. It includes qualitative and quantitative analyses of the effects on all sectors of the economy and on the incomes and livelihoods of vulnerable groups, considering losses in formal productive sectors (earnings, income, decreasing production costs), in the social sectors and in the households. Cross-sectoral issues are also analysed such as changes in employment and livelihoods, social protection and human rights, gender, environment and the exercise of government responsibilities, including government actions through its networks, assistance and security mechanisms and stimulus for businesses in response to the pandemic and its effects on the ground.
3. *Assessing the impact*. It uses the information about the effects and assesses the consequences of these effects on the economy and on households. The macroeconomic impact measures the impact on growth variables and fiscal, external and financial balances. Human impact focuses on changes in livelihoods and conditions, food security and nutrition, social inclusion and gender equality, with special attention to the recovery mechanisms of vulnerable groups.

4. *Estimating recovery needs.* The needs are configured by sector and cross-cutting aspects from the effects and impacts described in steps 2 and 3. They are stated as interventions or actions that respond directly to the crisis in the short, medium and long term. The recovery needs are focused on restoring the livelihoods of the most vulnerable groups and improving their access to education, health, social protection services, etc. This section is complemented by interventions to build back better and increase the resiliency of the provision of services and the production of goods to COVID-19 and improve preparedness for future pandemics.
5. *Developing the recovery strategy.* It recommends short-, medium- and long-term strategies and policies and proposes guidance on implementation arrangements and the accountability framework.

Dozens of technicians from more than 20 government agencies participated in the study, as well as consultants and experts from various United Nations agencies, the World Bank and the European Union, under the scheme shown in Figure 1. The information generated is presented in two volumes. Volume B is an extensive version of the chapters produced by the teams of the different departments or working groups, while Volume A is a synthesis of this information. In addition to the planned sectoral and cross-cutting components, an additional report on changes in food security was prepared, with support from WFP.

Figure 1. Socioeconomic assessment scheme of the effects of COVID-19



Human Impact

The objective of the human impact assessment is to evaluate the impacts of the crisis on: 1) living conditions related to the standard of living, access to health, education and social services; 2) livelihoods related to employment and income; 3) poverty and extreme poverty; 4) food security; 5) gender and social inclusion related to vulnerable groups; and finally 6) social protection.

Although the changes in the context announce more impacts, the main findings of the period evaluated show:

LIVING CONDITIONS	LIVELIHOODS
• 74,620 confirmed COVID-19 cases and 5,318 deaths. • 12.5 million health care services stopped. • 5.3 million students affected by connectivity gaps. • 19,750 children (Family Care Service for Early Childhood-SAFPI) affected. • 81,000 Higher Education students outside the system (11.1% total enrolled)	• 240,000 people disaffiliated with the Ecuadorian Institute of Social Security (IESS). ILO estimates 900,000 people affected by the drop in income and reduction of wages. • The informal sector affected (47% in 2019). • Drop in income, remittances and reduction of salaries: 97% of the micro-enterprises in the country affected.
POVERTY	**FOOD SECURITY**
• 2.1 million new poor, increasing poverty from 4.3 to 6.4 million people (37% of the population). • 800,000 were pushed into extreme poverty, increasing from 1.5 to 2.3 million (13% of the population). • The middle class is reduced by 12%.	• 2.3 million people, 13% population could face food insecurity. • Households in extreme poverty would have $149/ month, only 29% of the cost of the market basket. • Child malnutrition will continue to grow.
SOCIAL INCLUSION	**GENDER**
• More than 100,000 young people (18-29) lost their jobs (48% of the total). • Increased risk in the most vulnerable populations due to the care crisis. • 80% of people in situations of human mobility did not have a job or access to health care.	• The social security system registered the disaffiliation of 81,000 women. • Increase in gender-based violence. • 47 femicides in the period March-May according to civil society organizations compared to 37 in 2019.

1. The Impact on Living Conditions

Impact on Health and Access to Health Services

As of 31 May, there were 39,098 COVID-19 infections and 5,512 confirmed or probable related deaths in Ecuador. As of 11 August, the country had registered 86,607 confirmed cases and 9,492 confirmed or probable related deaths[1]. When disaggregating the number of people infected by province through the end of May, we find that more than two thirds of infections or 71.5% were registered in coastal provinces, 24.7% in the Andean region, 3.5% in the Amazon and 0.3% in the Galapagos Islands. Almost half of the infected cases were in Guayas (46.8%), followed by Pichincha with 13%. In addition, 68.8% of infections were concentrated in the 26 most urbanized and populated of the 221 municipalities (Guayaquil with 32.3%, Quito 12.2%, Santo Domingo

1 https://www.salud.gob.ec/wp-content/uploads/2020/08/INFOGRAFIA-NACIONALCOVI-19-COE-NACIONAL-08h00-11082020-1.pdf

de los Tsáchilas with 3.1 % and Cuenca 2.4%). In terms of fatalities, 79% of deaths were registered in coastal provinces (Guayas 42% and Manabí 13%), 20% in the Andean region (Pichincha 9%) and 1% in the Amazon.

Access to health services decreases mainly for the most vulnerable groups

The MPH and the IESS did not provide 12.5 million health prevention and promotion services, affecting above all sexual and reproductive health, maternal and child health, care of older persons, and prevention and treatment of gender-based violence (GBV), as well as sexually transmitted infections (STIs) and HIV (a total of 33%), mental health (MPH-IESS). In Guayas, health services decreased in some priority groups by 24.2%, followed by a 17.1% decline in Pichincha. Care for older persons decreased by 42%, family planning by 26.5% and 24% for people with disabilities. Women were particularly affected by the decline in health care services.

In the community transmission and confinement phase, the probability of infection in people with disabilities increased. Until 14 May, the National Council on Disability Equality (CONADIS) registered 409 deaths, 32% of which were women and 68% men. Of these, 45% occurred in Guayas, followed by Manabí (11%), Santa Elena (11%), El Oro (9%) and Pichincha (8%).

Table 3. Difference 2020 -2019 in the number of MPH health prevention and promotion interventions. Priority groups. Selected variables.

	Prenatal check-up 1st trimester	Violence against women	Elderly health care	Child checkups <5	Neonatal checkups	Family planning	Care for people with disabilities	HIV women	STIs women	Sexual violence against women
Total National	(11,770)	(3,917)	(187,451)	(5,014)	(231)	(118,206)	(106,782)	(6,699)	(4,021)	(1,547)

Source: MPH, 2020

The Impact on Access to Education

Before the pandemic, ethnic, gender and income differences already affected access and the quality of education in Ecuador: 96.5% of boys, girls and adolescents aged 5-14 years attend general basic education (ENEMDU, 2019). The rates are similar by area of residence and sex, but the highest attendance rates are found in cities and among individuals who self-identify as white. The net attendance rate at the Unified General Baccalaureate level is 72.1%, higher in urban areas than in rural areas (76.5% and 64.3%, respectively); 73.5% for men and 70.5% for women. The lowest levels of school attendance are found among indigenous people and Afro-Ecuadorians (59% and 53.1%, respectively), and among the cities, Guayaquil has the lowest attendance rate of adolescents aged 15-17 years at 74.8%.

Following the declaration of the State of Emergency, the national government decided to stop classroom education at all levels. The main direct effects included:

- 1,862,885 boys, girls and adolescents who were enrolled in the primary, lower secondary and high school education subsystem in the Andean region and starting the second semester in the 2019-2020 school period were directly affected.

- 19,299 boys and girls aged 3-4 years stopped attending Family Care Service for Early Childhood-SAFPI (sublevel 2 of Primary Education).
- Of the 733,000 students enrolled in technical and technological institutes, universities and polytechnic schools (UEP), 81,200 students interrupted their studies.
- 57,000 young people were affected by the termination of literacy and post-literacy programmes due to budget cuts.

Educational coverage and quality are affected by dependence on internet access. There is a significant connectivity gap in the country: on average, 48% in urban areas and 78% in rural areas (INEC, 2019), presenting a major challenge for some 5.3 million students at home.

The Impact on Access to Water

The main effects observed in water services included:

- Increase in household consumption due to confinement and prevention measures. In March 2020, Manabí and Pastaza had the highest demand for water (20% more than the demand in February).
- Significant risk of affecting the sustainability of services due to a decrease in collection, registering a 28% decrease in March. During the following months, suspension of water service for non-payment is prohibited.[2]
- Suspension of work on 34 of the 119 projects of the "Water and Sanitation for All Mission" programme, affecting 307,146 inhabitants.

Vulnerability

Vulnerability to infection is associated with two deprivation indicators related to access to water and overcrowding. The National Employment, Unemployment and Underemployment Survey (ENEMDU, as of December 2019) shows that at the national level:

- One third of rural households have access to water through the public network, electricity and sanitation. This is also the case for households where the head of household self-identifies as indigenous (34.2%) or Montubio (37.8%).
- 72.17% of homes are connected to the public water network (89.5% urban, 31.09% rural). The values by region for this indicator are: Amazon (44.9%), Coast (71.16%), Andean (75.9%) and Galapagos Islands (93.7%).
- On average, one in 10 homes suffers from overcrowding (10.35%). Households headed by males (11.2%), indigenous (16.0%), Afro-Ecuadorian (13.9%) and Montubia (14.2%) register higher rates than the national average. Urban and rural overcrowding are 5.5% and 9.4%, respectively, while rates in the Amazon (15.9%) and the Coast (13.5%) are higher than in the Andean region (6.4%).

2 Presidential Decree No. 1017 prohibits the interruption of services during the state of emergency and requires the immediate reconnection of previously disconnected users.

2. The Impact on Livelihoods

The acceleration of the crisis during the pandemic exacerbated the already existing imbalances in the country's labour market.

- At the end of 2019, the rate of full employment was 38.8%, underemployment 17.8% and unemployment 3.8%. The national average salary was $466.78. Women, indigenous people and rural inhabitants earned the lowest wages (ENEMDU, December 2019).
- Urban areas have more full employment but also more unemployment (48% and 4.9%, respectively), while rural areas have the highest rate of underemployment (77.7%).
- Full employment for men is 44.8% compared to 30.6% for women; unemployment is higher for women (4.6%) than for men (3.3%).
- With regard to ethnic self-identification, full employment is higher among whites (44.6%) and mestizos (43.7%), while the indigenous ethnic group has the lowest percentage of full employment (13.2%). Afro-Ecuadorians register the highest unemployment rate (8.9%), followed by mestizos (3.9%). The Montubios have the highest level of underemployment.
- The three million young people aged 18-29 years represent 25% of the working-age population. Of these, 21% live in poor households, 70% live in urban areas, 49% are women with an educational level between basic (21%) and high school (52%). For every 100 young people, 57 were employed, six were unemployed and 37 were inactive. The employed population works primarily in services (604,000), commerce (343,000) and the agricultural sector (497,000), with 835,000 in the formal and 734,000 in the informal sectors[3].
- Of the total number of employed, 44.7% are in the formal sector, 46.7% in the informal sector, 8.6% in domestic employment and in the unclassified category[4] (INEC, 2020). Four of 10 workers contribute to social security, including only 21% of young people aged 18-29 years (ILO, 2020).
- As of February 2020, approximately 3.3 million people were covered by social security; 94.4% of affiliated through the Compulsory General Insurance (SGO) and 5.6% through the Special Voluntary Regime. Sixty percent of contributors are from the private sector and 19% from the public sector. There is 7.1% coverage for unpaid work.

The IESS reports the disaffiliation of some 240,000 people between March and May 2020; 40.6% women and 59.4% men. Pichincha registers 97,000 disafilliations (42% women and 58% men).

Of the total disaffiliations, 190,276 are from the private sector (79.25%); 32,268 of voluntary affiliates (14.36%); 9,319 independent workers (freelance professionals, artists and interns); and 5,056 public officials (2.11%). In addition, 982 unpaid workers left the semi-contributory scheme, primarily women.

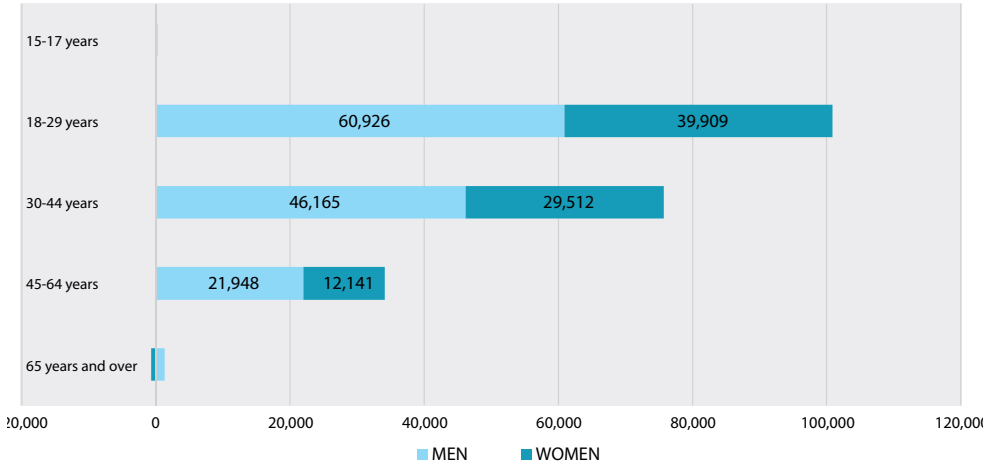
By sector, jobs lost in commerce totaled 34,787 (41.7% women); accommodation and food services 24,612 (47.9% women); construction 22,755 (6% women), and domestic work 6,543 (93.3% women).

3 (ILO, 2020)

4 In accordance with international guidelines, employment in the informal sector is operationally defined as the set of people who work in productive units of less than 100 workers that do not have a Individual Taxpayer Identification Number (ITIN, or RUC for its Spanish acronym) (INEC, 2015). For its part, employment in the formal sector is defined as people who work in establishments that have a RUC.

The most affected age group was the population aged 18-29 years, which lost 101,000 jobs, of which 40,000 are women. The IESS registered 19,000 losses in commerce, 12,000 in accommodation and food services and 10,000 in the manufacturing industry. The social confinement caused household consumption to focus mainly on food and medicine.

Graph 3. Loss of registered social security employment by age group and sex



The ENEMDU-Telefónica[5] survey for the period May to June 2020 offers important insight into labour market performance:

- The national unemployment rate was 13.3% (1 million people); the rate for women (15.7%) is four points higher than that for men.
- The rate of suitable employment was 16.7% (1.3 million people), 37.7% of women have suitable employment compared to 62.3% of men.
- The rate of other part-time employment was 25.2% (1.9 million people) with a higher rate in the rural sector (32.6% or 1.1 million people).
- The underemployment rate was 34.5% (2.6 million people), broken down into insufficient working hours (28.6%) and insufficient labour income (5.8%).

The analysis of the impact on income considers three scenarios that differ only in terms of the percentage in the decrease of income of private workers (10.0%, 17.5% and 25.0%). The results show that the average monthly labour income could decrease from $466.78 in the pre-COVID-19 scenario to $406.90 (optimistic scenario) and $342.38 (pessimistic scenario). In the optimistic scenario, the average labour income is close to the unified basic salary for 2020 ($400).

In a June 2020 representative national survey, the World Bank presented a similar estimate disaggregated by quintile, registering losses in all quintiles and the greatest impact on the poorest households (40.0%), with no expectations of recovery to December 2019 income levels.

5 At the time of layout of this document, INEC presented the official employment statistics from the ENEMDU- Telefónica Survey May-June, 2020. As official data and the importance of the subject, its inclusion in this study was considered pertinent.

3. The Impact on Poverty

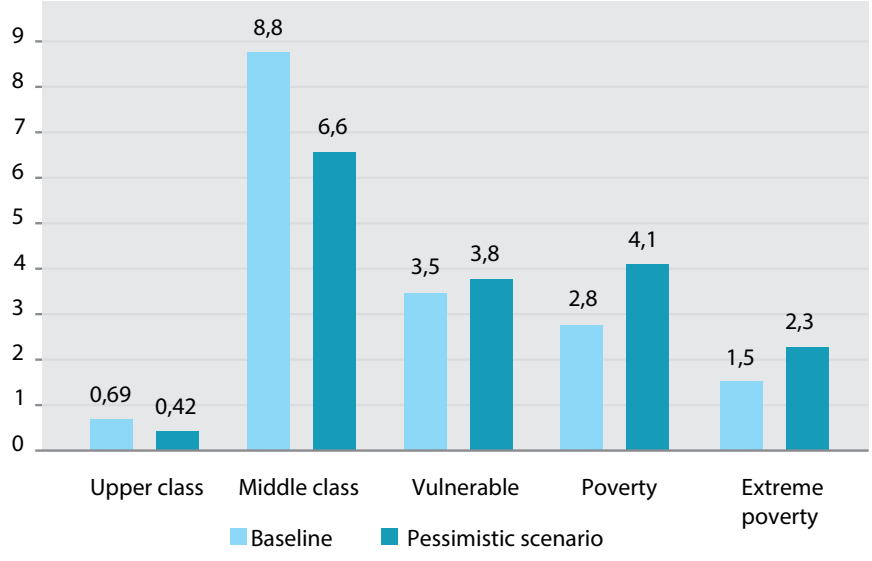
Income poverty

In December 2019, the incidence of poverty and extreme poverty by income was 25.0% and 8.8%, respectively. Income vulnerability was 20.3%[6]. The incidence of income poverty is higher in rural areas (41.8%), among indigenous people (58.1%), Afro-Ecuadorians (34.5%) and among the inhabitants of Guayaquil (11.2%); there is no increase in difference in the incidence of poverty between men and women.

The incidence of extreme poverty by income is higher in rural areas (18.7%) and among indigenous people (32.6%) and Afro-Ecuadorians (19.9%), with values much higher than the national average. The incidence for men was marginally higher than the national average (9.0%), while women had the same incidence in relation to the national indicator (8.8%).

Among the five autonomous cities, Quito and Machala have the highest incidence (2.8%) and Cuenca the lowest (0.6%). Guayaquil and Ambato have an incidence of extreme poverty due to almost equal income (1.4% and 1.1%, respectively). The phenomenon of extreme poverty due to income is very mild in the urban areas of these cities and is more concentrated in other provinces.

Graph 4. Potential impact on poverty by socioeconomic strata (per million inhabitants)



Poverty could be set back by a decade in three months: income poverty could reach the levels reported in 2007.

People living in poverty would increase from 4.3 million to 6.4 million.

People in extreme poverty increase from 1.5 million to 2.3 million.

Source: INEC-ENEMDU December 2019. Developed by: UNDP consultants

6 Those vulnerable due to income are those whose per capita household income is less than US$133 per month (equivalent to the 40th percentile of the per capita household income distribution.

The main impacts on the reduction of income could mean that:

- The middle class would be reduced by up to 12 percentage points, from 50.69% pre-COVID-19 to 45.81% in the optimistic scenario and 38.54% in the pessimistic scenario.
- Income poverty could increase by 11.9 percentage points, which is equal to the record for 2007 (36.75%). In population terms, the increase in incidence could increase from 4.3 million people (baseline) to 6.4 million, that is, around 2 million people could be pushed into poverty.
- Extreme income poverty could increase up to 13.10% in the pessimistic scenario. In population terms, it would increase from 1.54 million people (baseline) to 2.3 million, that is, 800,000 people would be pushed into extreme poverty.

Multidimensional Poverty

The same three simulations exercises that were applied for income poverty are proposed for multidimensional poverty. The results show that the multidimensional poverty rate would increase from 38.18% pre-COVID-19 to 39.39% in the pessimistic scenario; whereas, multidimensional extreme poverty would increase from 16.89% (baseline) to 18.16%.

The effects on multidimensional poverty, taking into account the assumptions contemplated for the scenarios, are quite different from the results of the income poverty simulations. The reason is that income poverty is a temporary measure linked to the labour market, and the external shock of COVID-19 is an externality that affects the labour market, therefore its impact occurs precisely in this type of measurement. On the other hand, multidimensional poverty is a structural measure of poverty that encompasses a greater conceptualization of the facets in which an individual or household can be poor, of one of which is the labour market.

4. The Impact on Food Security

The impact on food security is based on four indicators: availability, access, use and stability[7] and follows a chain of causality that begins with the health emergency and is exacerbated by the economic crisis, which has caused a high and accelerated loss of jobs, decrease in income in the formal and informal sectors and an increase in the number of people living in poverty and extreme poverty that ultimately resulted in increased food insecurity, understood as the inability of households to purchase at minimum the foods and beverages in the market basket. The estimated main effects of the pandemic on food security include:

- **Food supply:** up until May 2020, the agri-food system showed resilience, especially of small rural producers and family farming, which represent 85% of the total production units. The pandemic affected broiler poultry and pig farming as a result of a decline in sales to hotels, restaurants, and cafeterias due to the quarantine.
- **Physical access** was affected[8]. Only 14 wholesale markets operated normally, 5 were partially operational, 4 closed and 2 were temporarily out of supplies. Supermarkets continued to operate normally, while

7 The analysis on food security is carried out based on the food security section presented in the cross-cutting sector chapter.

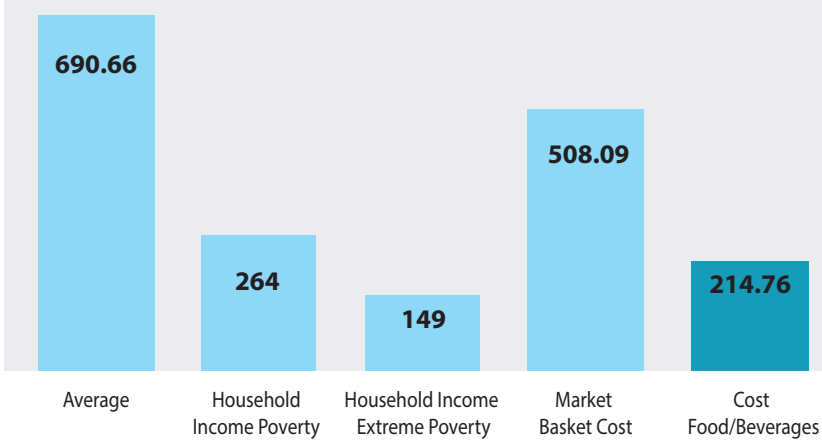
8 Report on the Monitoring of Wholesale and Provincial Markets and Supermarkets, MAG (May, 2020)

neighbourhood and fruit stores, as well as online stores with home delivery have been widely used channels to avoid agglomerations.

- The greatest negative effects are observed in **economic access**. As a consequence of the pandemic, people living in poverty will increase from 4.3 million in 2019 to 6.5 million in 2020, that is, 2.2 million more people living in poverty, while the population living in extreme poverty would increase from 1.54 million to 2.3 million people, that is, 800,000 people would enter extreme poverty. The crisis led to a decrease in purchasing power measured as income in relation to the cost of the market basket.

Graph 5. Household income in relation to the market basket (US$/month) 2020

- 2.3 million people (13% of the population) could face food insecurity
- The population in poverty would have $264/month, which does not cover the basket of goods and is barely enough to cover food and beverages ($215/month).
- Households in extreme poverty would have $149/month, just 29% of the cost of the basket of goods, a serious situation of food insecurity



It is estimated that the population living in poverty would have $264/month, which does not cover the market basket and would barely cover the cost of the food and beverage items ($215/month), leaving a balance of $49/month to cover the rest of a family's survival needs. Households living in extreme poverty will have a decrease in income equivalent to 22%, living on $149/month, just 29.3% of the cost of the market basket, leaving a deficit of $66/month for food and beverage items and placing these households in situations of serious food insecurity.

- With regard to **utilization**, in a scenario of economic and social crisis, a collateral impact on food security is the loss of quality of the diet, resulting from the loss of diversity due to lower purchasing power, as well as the increase in the consumption of carbohydrates as a preferential low-cost source of kilocalories to the detriment of animal proteins. This translates to lower energy consumption and quality for households in situations of poverty and extreme poverty.

  Although no data has been collected during the pandemic, chronic malnutrition was 27.2% for children under the age of 2 and 23% for children under the age of 5 in 2018, therefore a deterioration is foreseeable as a consequence of the crisis, which will be more acute in rural areas.

- Regarding **stability, increased vulnerabilities and risks**, stability in food availability has not been affected up until May. Dependence on cereal imports has had an impact on the weight of the item in the basic food supply, increasing from 22.88% in 2019 to 27.19% in 2020.

In the second half of 2020, which coincides with the summer planting season, the country's economic situation may contract productive credit for agriculture, affecting the future food supply. In the first half of 2021, it is likely that a lower supply could cause shortages and result in increased prices. If this is met with consumer demand that continues to be contracted by lower income, it will exacerbate vulnerability to and risks of food insecurity.

5. Social Inclusion: Vulnerability of Population Groups

Early Childhood, Childhood and Adolescence

- 1.3 million children live in households whose members are employed under self-employed or independent modalities, without contributory social protection coverage.
    - 9,299 children did not access primary education because of the unsustainability of the remote education modality due to lack of electronic devices and connectivity.
    - 593,000 infants under the age of 5 live in households with insufficient income, and 60% of vulnerable infants and adolescents live in rural areas (PUCE, 2020).
- Maternal mortality could increase by 50%, and an additional 2,282 children under the age of 5 could die if maternal and child interventions are reduced.
    - Increase in chronic malnutrition as a consequence of the crisis both due to a decrease in the amount of food and its diversity

Young people

- 57,000 young people without access to literacy and post-literacy programmes, 81,000 young people without access to higher education, 70% of young people without social protection (2019), 101,000 young people have left the IESS between March and May 2020.

People in situations of human mobility

- 108 Venezuelans and 34 Colombians were infected with COVID-19 (as of 25 June 2020).
- Reduction in employment of the migrant population (32% between January and June 2020), job loss and limited income. More than 60% of refugee and migrant households expressed being unable to work because of the confinement measures.
- Less than 30% of Colombian, Venezuelan and mixed households had access to a sufficient food supply.
- Increased difficulties in accessing the asylum system, immigration registration and regularization processes, as well as public health services.

People with disabilities and older persons

- 1,907 confirmed cases in the indigenous population: 821 Montubia, 493 Afro-Ecuadorians as of 12 July 2020, of which 156 indigenous, 182 Montubia, 28 Afro-Ecuadorian people have died.

- Widening of the urban-rural gap in terms of access to education with cultural relevance. Digital gaps are decisive in this context.
- Greater exposure to infection of indigenous people and rural populations who depend on agriculture and leave their territories to supply the cities.
- Impact on income generation/livelihoods: tertiary/informal sector/domestic service.
- Limited access to hygiene supplies and safe water for hand washing in rural and remote areas.

People with disabilities and older persons

- Within the study period, 409 people with disabilities died: 210 people with a confirmed COVID-19 diagnosis and 199 people with suspected COVID-19 (Conadis, 2020).
- High possibility of infection and health complications in people with disabilities (deficiencies inherent to the disability are added to comorbid conditions).
- Decrease in the care coverage in gerontology centres and care crisis.
- Suspension of disability qualification and requalification processes.

Women

Women's health risks related to essential services during the pandemic

- 60% of general health personnel and 81% of nurses are women.
- Between March and May 2020, essential sexual and reproductive health care services decreased between 45% and 60% year-on-year.

Risks of affecting the economic autonomy of women

- 50% of the women surveyed were not working (UN Women-Telefónica Survey, June 2020). Of the women in a dependent work relationship, 48% declared that they had been fired or suspended without notice of return, and 33.7% indicated that their working hours and salaries had been reduced. Some 81,000 women, especially young women, left the IESS.
- 33 of 100 businesswomen or self-employed women who were able to sustain their businesses have experienced reduced sales or income. (UN Women-Telefónica Survey, June 2020).
- For 76% of women, the burden of care has increased by by 20%, and 45% of women have reduced their hours of paid work or are not working (UN Women-Telefónica Survey, June 2020).

Increase in gender-based violence

- The confinement has considerably limited women's ability to report of acts of domestic violence and request help.

- 84.1% of cases of domestic violence were against girls, adolescent females and women and 15.9% against boys, adolescent males and men.
- There were 47 femicides registered in the country during the analysis period, a number much higher than the 17 femicides committed during the period 1 January - 2 March 2020[9].

6. Social Protection

Non-contributory social protection systems and mechanisms

In economic inclusion, conditional and unconditional cash transfers[10] are made in order to contribute to the development of the next generation (children) and break the cycle of poverty. Among the main non-contributory social protection system programmes are the Human Development Voucher (BDH), the Joaquín Gallegos Voucher, and the Toda Una Vida (Lifetime) pension, among others.

By February 2020, there were a little more than one million active beneficiaries (72.8% women); of which approximately 52% received the BDH and Variable Human Development Voucher (BDH-V). The BDH programme currently serves 535,000 poor and extremely poor family nuclei.

Compared to May 2019, the BDH for mother heads of household and the Mis Mejores Años (My Best Years) pension have increased their coverage year-on-year, but remains constant compared to the month preceding the pandemic (February 2020).

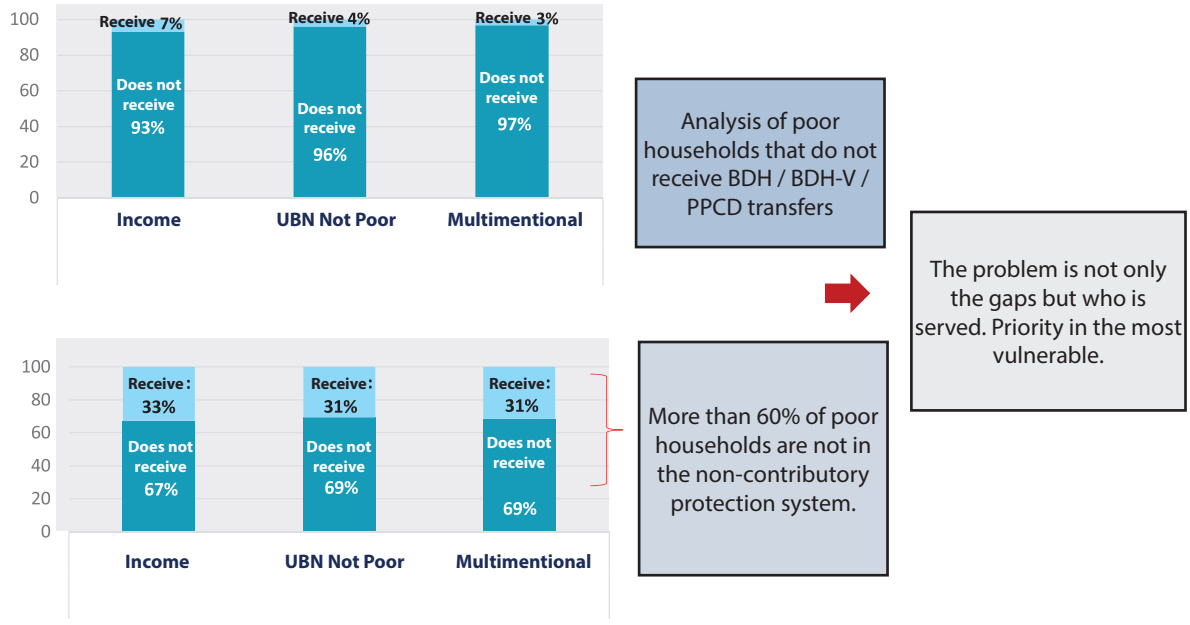
In response to the crisis associated with COVID-19, the Ministry of Economic and Social Inclusion (MIES) implemented the Family Protection Voucher (BPF) of $60 with a budget of $98.6 million for 822,000 people, 89.5% of which are women. The authorized beneficiaries of the BPF are concentrated in Guayas, Manabí and Pichincha. For the implementation of the programme, the rating instruments were adjusted, and the network of payment points was expanded from 3,500 to 10,588.

The MIES has a social inclusion programme and a set of care and attention services, which have been affected. In February 2020, the Child Development Centres served 85,488 boys and girls aged 1-3 years, decreasing by close to 10% to 77,014 users in May 2020. Likewise, in February 2020, there were 155,725 care services users that decreased by 11.5% to 17,937 in May 2020. The care services most affected are the Family Foster Care Centres and those for older persons.

9 http://www.fundacionaldea.org/noticias-aldea/39gd9x9btdt76zmtzgm7zlgmlkrjze

10 Cash deliveries to people or households that meet certain requirements.

Graph 6. Social protection gaps



ENEMDU, December 2019

Incidence of exclusion from contributory social protection

More than 90% of poor older persons do not receive a pension or retirement (increasing to 93% if considering recent poverty or income poverty). Social security exclusion of the employed population is 70% (increasing to 83% if considering recent and chronic poverty).

There is a coverage gap of nine percentage points between people suitably employed (38.8% of the population) and those affiliated with the contributory system (29.2%) (ENEMDU, December 2019). This difference is found mainly in the poor population, especially sensitive to crises such as COVID-19.

Reducing exclusion requires ensuring sustainability and financing to cover future pensioners. Between March and April, some 112,000 active members left the IESS. Based on this information, the Actuarial Directorate of Investigations and Statistics of the IESS estimated that by 2020, the workforce will decrease by 7% compared to 2019 and that the total payroll will fall by 17%. These estimates can change considerably given that 240,000 active members left between March and May 2020.

The IESS estimates that in a slow recovery scenario and following the assumption that the Government will comply with its commitment to match 40% of the pensions, the contributing population would reach pre-COVID-19 levels in 2030. In this scenario, the fund would present a negative balance and start to use its reserve in 2020, which would be exhausted in 2037. However, if the Government does not contribute 40% of pensions due to the reduction of fiscal space, the reserve would be depleted in 2023 (ILO, 2020, p. 5).

In addition to the effects related to the loss of years of financial sustainability of the IESS disability, old age and death regime, it would imply that older persons living on IESS pensions would enter into a situation of extreme vulnerability.

Incidence of exclusion from non-contributory social protection

The country was facing two structural problems prior to the pandemic:

- Cash transfer system coverage was less than the public policy target (coverage gaps).
- The type of identification census and the data collection date (2014) generates exclusion effects for the poorest households within the transfer programme[11].

Impact on economic inclusion

In the BDH, BDH-V and Pension for People with Disabilities (PPCD) programmes, the analysis suggests that the incidence of inclusion is not a significant problem and remains stable among the different poverty measures considered.

Before the pandemic, it is estimated that approxmiately 18% of family nuclei classified as poor according to the selection mechanism used were not covered by the transfer system. In quantitative terms, this implies that around 226,000 family nuclei classified as poor were not receiving transfers (BDH) prior to COVID-19.

As a result of the pandemic and its effects, the coverage gap will be more than 30%. With this change in poverty conditions, it is estimated that the coverage gap would increase to approximately 477,000 family nuclei, which represents approximately 10% of the number of households in the country[12] that should be covered by the programmes[13].

Recovery Needs

Food security

- Productive financing of a group of main 2020 summer cycle crops destined for the domestic market is approximately $294 million.
- Additional resources to those provided through the $60 Emergency Voucher to improve economic access to food for households in income poverty, especially those in extreme poverty.
- Strengthening food assistance programmes such as school meals and/or resource transfers to families in income poverty and extreme poverty for the procurement of food.

11 The incidence of inclusion and exclusion of social assistance initiatives from the ENEMDU to December 2019 does not include the Joaquín Gallegos Lara Voucher, since it responds to particularities and levels of vulnerability that cannot be adequately identified in the ENEMDU.

12 Estimate based on ENEMDU information from December 2019.

13 In this case, the programme rules are considered in the definition of the gap.

- Strengthening the School Feeding Programme (SFP), which by 2019 benefited 2.9 million students with a budget of $137 million, would require at least an additional $63 million for school meals (breakfast and lunch) and should be maintained for the school vacation months.
- Allocation of additional $405 million in funding to the Family Protection Voucher (BPF) to provide minimum food security to newly poor households.

Non-contributory social protection

- Preparation of the medium-term Social Protection Strategy, which includes a plan to protect and stabilize consumption and access to a set of education, health, nutrition and child development services, with a focus on households that are not currently part of the permanent transfer programmes[14] (BDH and BDH-V).
- Allocation of a $432 million fund for the expansion of coverage in the permanent transfer programmes (BDH and BDH-V) to complete 400,000 new active family nuclei .
- Development of new methodologies for child development and care programmes and incorporation of qualified technicians and professionals for the provision of service in a social distancing scenario, with an estimated budget of $39.2 million.

Contributory social protection

Payment of 40% of the contributions to the IESS by the central government to ensure the financial sustainability of the disability, old age and death regime and prevent older persons living on pensions from entering into a situation of extreme vulnerability.

14 The World Bank estimates that despite the use of new metrics for the identification of vulnerable households an exclusion error of approximately 50% of households still persists in decile 1.

Recovery Strategies

Table 4. Human impact strategies

Dimension	Strategy	Actions
Food security	Sustain the supply of the main foods for the domestic market	Creation of a National Storage System for a strategic grain reserve.
		Sanitary closure of the southern border.
		Continuity of logistics corridors and biosafety practices.
		Strengthening of food banks.
		Promotion of alternative marketing channels.
		Monitoring the food security status.
	Protection of employment and income from the agri-food sector	Reactivation of agricultural production and distribution.
		Sustainable agriculture and livestock promotion programme.
	Support poor and extremely poor households to cover the income deficit to cover the costs of food and beverages in the market basket.	Strengthening of food assistance programmes.
		Emergency food vouchers transfers.
	Strengthening governance for food security stability	Agri-food Emergency Table.
		Agroindustrial chain marketing agreements.
		Establishment of territorial agri-food pacts.

Dimension	Strategy	Actions
Social protection	Non-contributory social protection and social inclusion	School retention with an emphasis on vulnerable populations and territories.
		Ensuring coverage of primary network services in vulnerable territories and populations (healthy child control including immunizations, sexual and reproductive health, maternal and neonatal care, adolescent-friendly clinics.
		Have common and validated databases for the management of the strategy (social registry unit and SC data bases)
		Incorporating family nuclei from deciles 1, 2 and 3 in the BDH. Include an exit strategy (incorporation into economic inclusion programmes).
		Protection of the most vulnerable population groups, with care services.
		Providing access to training and job placement.
		Monitoring of child labour.
	Strengthen contributory social protection	Strengthening social protection systems together with the implementation of active economic recovery policies.
		More flexible affiliation policies that allow the extension of coverage and contain the decrease in active affiliates and the total payroll.
		Collective construction of actions that improve the IESS performance.
Employment	Reactivate and protect employment	Reduction of the gap and inequality in access to technology and connectivity to make telework viable.
		Protecting workers in the workplace.
		Stimulating economic reactivation and protect employment in the most vulnerable, excluded and informal sectors.
		Promotion and protection of youth employment.

Dimension	Strategy	Actions
Living standards and vulnerable groups	Adaptation of services for children, adolescents and other priority groups in health and education in the face of the new normality	Immediate and short-term action plan to resume health promotion and disease prevention services.
		Recovering educational services for early childhood (SAFPI) and young people (literacy and post-literacy).
		Adaptation and prevention of interruption of social care services in residential and foster care centres, with home care in close interaction with people in situations of extreme vulnerability.
		Internet access for urban and rural homes to maintain the quality of education for children, adolescents and young people of all educational levels.
		Ensuring the continuity and quality of water and sanitation services in all essential institutions and in remote and marginal areas.
		Design and implementation of a plan that ensures safety conditions for the eventual reopening of educational institutions at all levels.
	Access to connectivity, digital platforms and ICT	Provision of internet through the electrical system to reach all areas.
		Strengthening the telecommunications network.
Contributory social protection	Strengthen the financial sustainability of the social security system.	Ensuring access to digital ICT platforms and online payments.
		Ensuring central government payment of 40% of contributions to IEES.

It is urgent to link the recovery goals with sustainable development and social cohesion goals

UNDP warned that global human development (as a combined measure of education, health and living standards) could decline this year for the first time since the introduction of this concept in 1990 (UNDP, 2020).

Before the pandemic, the Human Development Report (UNDP 2019) highlighted the importance of reducing inequalities that occur (and sometimes accumulate) over the course of people's lives. Despite the progress made before the pandemic, especially in access to health and education services, many households continued to have unsatisfied basic needs, while new inequalities arose as a result of gaps in the quality of services and access to technologies, among others. With the arrival of the pandemic, ECLAC (2020) projects that the region's GINI index would increase between 1% and 8% from 2019 to 2020, and that Ecuador's could increase up to 6 percentage points from 0.473 in 2019.

The United Nations Socio-Economic Response Framework proposes five strategic pillars: a) protecting health systems and services; b) improving social protection and basic services; c) protecting jobs, small and medium-sized enterprises, and the informal sector workers; d) macroeconomic policies that benefit everyone; and e) promoting peace, good governance and trust to strengthen social cohesion.

There is no area of human life or society that has not been touched by the disease and the measures adopted to contain it. The setbacks that are foreseen for individual and collective well-being can dangerously affect the cohesion within countries and endanger the fulfillment of national and global goals.

The goals of the 2030 Agenda most at risk are: SDG 1: End poverty in all its forms everywhere, SDG 2: Zero hunger; SDG 3: Ensure healthy lives and promote well-being for all at all ages; SDG 4: Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all; SDG 5: Gender equality; SDG 8: Decent work and economic growth; and SDG 10: Reduced inequalities.

In cohesive societies, individual and collective efforts come together to achieve human development. Expressions of social cohesion (solidarity, recognition, shared values and goals) operate as links and bridges between different groups. Such expressions can be weakened in societies that are fragmented by wide socioeconomic and cultural gaps as in Ecuador.

In October 2019, Ecuador experienced moments of instability and protest that shook social cohesion. During the months of the pandemic, on the one hand, multiple citizen and community solidarity initiatives have been activated in support of vulnerable groups. On the other hand, there have been repeated and outrageous cases of corruption in different public entities, including in the health sector, severely impacting the response to the health emergency, the effectiveness of the government effort and public confidence.

The socioeconomic recovery strategies that are activated require mechanisms for dialogue, conflict resolution, promotion of transparency, monitoring and accountability in the use of resources, in order to avoid the weakening of the social fabric and generating distrust in democratic institutions.

The strengthening of democratic social cohesion results from reducing inequality gaps and improving social inclusion under conditions of equity, respect for diversity, the building of social ties based on trust and reciprocity, in the strengthening of the institutional framework and in appropriate governance schemes. Democratic social cohesion is inscribed in the challenges of the 2030 Agenda in the SDG 10 (reduced inequalities) and in the pledge to "leave no one behind" (UNDP, 2020).

It is necessary to undertake transformative and inclusive actions now and sustain the effort in the next 10 years to achieve the goals and avoid setbacks for the most vulnerable groups. Key to defining, implementing and managing recovery are SDG 16: Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels and SDG 17: Strengthen the means of implementation and revitalize the global partnership for sustainable development.

In Latin America and the Caribbean, "building back better requires transforming the development model of the region, which means developing comprehensive welfare systems that are accessible to all, creating fair taxation systems, promoting decent jobs, strengthening environmental sustainability and reinforcing social protection mechanisms; as well as strengthening democratic governance, human rights protection and the rule of law." (UN Secretary General, 2020).

Macroeconomic Impact

Introduction

Ensuring the best possible forecast of the impact of an ongoing disaster on economic activity requires permanent monitoring, particularly considering the high degree of uncertainty present in internal and external crises associated with COVID-19. The effect on foreign trade is still uncertain and will depend largely on the effectiveness of the public policy responses of the different countries to influence the dynamics of the pandemic and guide the socioeconomic recovery.

Entities such as the WTO[17], IDB[18] and ECLAC[19] expect a very strong contraction of international trade in 2020 due to a decline in global supply and demand, an impact of the negative effects of the crisis on economic activity. The WTO estimates that trade flows will be affected in all regions and that exports in Latin America and the Caribbean could decrease between 12.9% and 31.3%; while imports could contract by 22.3% and reach 43.8% in a pessimistic scenario. ECLAC foresees a 10.7% decline in the region's exports by 2020, mainly due to the reduction in commodity prices.

In this context, the Central Bank of Ecuador (BCE) and the Ministry of Finance (MEF) analysed, with the participation of a number of international organizations[20] and national institutions[21], the effects of the pandemic in March, April and May 2020 on the Ecuadorian economy.

The estimation process considers the value of net losses compiled from all the sectors evaluated and uses the Post-Disaster Needs Assessment (PDNA) methodology to calculate the macroeconomic impact and the Gross Domestic Product (GDP). The results are a first approximation, since the relationship between the economy and the pandemic in the different markets will require periodic review.

Because the Ecuadorian economy had suffered several negative events prior to COVID-19, the pandemic unleashed a process that led to the largest economic slowdown in recent years, simultaneously presenting a contraction in aggregate supply and demand.

Notable in the analysis of these negative economic shocks prior to the pandemic is the impact of the 7.8-magnitude earthquake registered in April 2016, which led to a decline in the economy until the third quarter of that year (Graph 7). The Organic Law of Citizen Solidarity and Co-responsibility was enacted to finance post-disaster rehabilitation and recovery through measures such as increasing the VAT from 12% to 14% for one year, the contribution of one-day salary and a 0.9% tax on individual assets greater than $1 million.

17 WTO, Trade set to plunge as COVID-19 pandemic upends global economy, https://www.wto.org/english/news_e/pres20_e/pr855_e.htm

18 IDB Blog, https://blogs.iadb.org/integracion-comercio/es/america-latina-contagio-comercial-coronavirus/

19 ECLAC, Latin America and the Caribbean and the COVID-19 pandemic: Economic and social effects, https://www.cepal.org/en/publications/45351-latin-america-and-caribbean-and-covid-19-pandemic-economic-and-social-effects

20 The World Bank provided technical support through technical meetings to discuss the results of the macroeconomic impact of COVID-19 on GDP, carried out by the Central Bank team.

21 It has worked jointly with: United Nations Development Programme (UNDP), World Bank (WB), International Labour Organization (ILO), Planifica Ecuador, Ministry of Production, Foreign Trade, Investments and Fisheries, Ministry of Labour, Ministry of Agriculture, Ministry of Tourism, Internal Revenue Service (SRI), Ministry of Finance, National Institute of Statistics and Census (INEC), among others.

The average annual growth rate from the fourth quarter of 2016 to the second quarter of 2019 was 1.56%. In the third quarter, an economic contraction was aggravated by demonstrations against the liberalization of fuel prices enacted in Executive Decree 883 that paralyzed the country for two weeks and led to a 1.02% annual drop in the last quarter of 2019 (Graph 7).

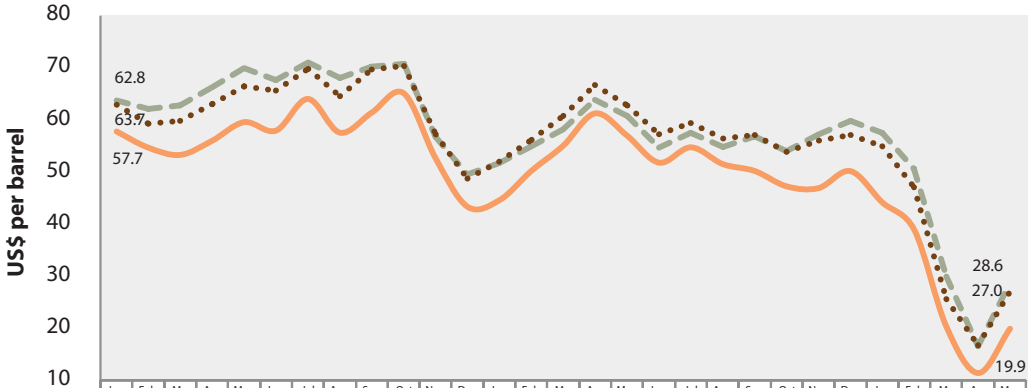
Graph 7. Annual GDP Variation rates (QoQ-4) 2007=100

Source: Central Bank of Ecuador

In January 2020, the Central Bank of Ecuador projected annual GDP growth of 0.7%, mainly explained by the favourable environment for banana, cocoa product, processed shrimp and fish exports, and by the dynamism of public and private investment and family spending. The presence of COVID-19 modified the scenario, and the State of Emergency led to the confinement of the population and the suspension of most productive activities.

The sustained fall in crude oil prices (Graph 8) aggravated the situation. In April 2020, the average price of Ecuadorian oil was $14.04 per barrel, a value well below the $51.3 considered in the 2020 Pro Forma Budget, a situation further complicated by the strong contraction in the demand due to the global economic slowdown, which affected fiscal savings and increased financing needs of the public sector.

Graph 8. Ecuador and WTI crude oil prices



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May
	2018												2019												2020				
WTI	63.70	62.15	62.76	66.32	69.89	67.70	71.03	67.99	70.20	70.75	56.75	49.52	51.63	54.98	58.16	63.87	60.73	54.68	57.51	54.84	56.86	53.98	57.25	59.81	57.56	50.60	29.89	16.52	28.61
CRUDE	62.87	59.30	59.85	63.06	66.48	65.60	69.76	64.48	69.69	70.32	57.21	48.70	52.00	56.19	60.78	66.76	62.78	57.27	59.43	56.40	57.10	53.89	56.02	57.14	54.91	47.06	25.58	16.72	27.00
NAPO CRUDE	57.74	54.66	53.27	55.99	59.56	57.94	64.02	57.54	61.38	65.11	52.63	43.32	44.57	50.20	55.03	61.24	56.97	51.78	54.73	51.51	50.18	47.23	46.89	50.16	44.14	38.89	20.39	11.41	19.91

Source: Central Bank of Ecuador

The performance of the economy was complicated by the damage to the Trans-Ecuadorian Pipeline (SOTE) and the Heavy Crude Pipeline (OCP) on 7 April 2020 due to the uncontrolled erosion of the Coca River in the east. Before the break, production reached 532,059 barrels per day (average from 1 - 6 April 2020) but decreased to 52,519 barrels per day during the repair (2 May 2020 production).

These events made it necessary to review the growth forecast and propose three scenarios, in which the contraction of productive activity measured through GDP could be reduced in a range of -7.3% to -9.6% compared to 2019.

Table 5. 2020 GDP forecasts - Variation rates (at 2007 prices)

	Baseline scenario (prelimary)	GDP forecast without COVID-19	GDP forecast (May 2020)
	2019	2020	2020
GDP (%)	0.05	0.7	-8.1 [-7.3 to -9.6]

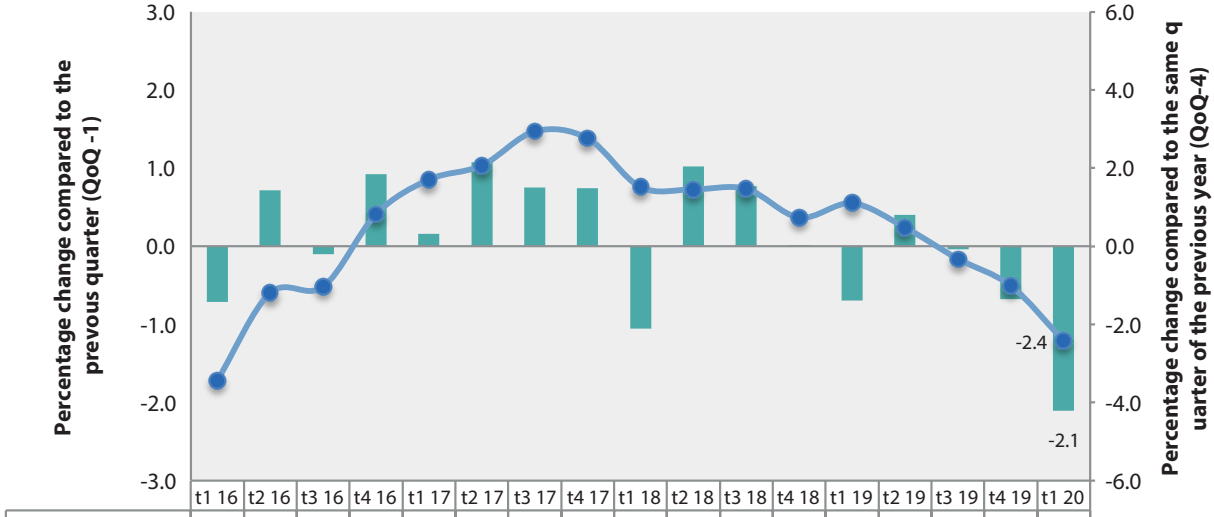
Source: Central Bank of Ecuador

COVID-19 Macroeconomic Assessment

a) Real sector and inflation

The Ecuadorian economy and macroeconomic aggregates were slowly expanding prior to March 2020. With the declaration of the health emergency, there was a 2.4% decline in the first quarter of 2020 (QoQ-4) and a rate of -2.1 % compared to the previous quarter (QoQ-1). The variation between Q1 2020 Q4 2019 is explained by the decrease in household final consumption expenditure by 2.3%, government expenditure by 1.5% and gross fixed capital formation by 4.9%.

Graph 9. Gross Domestic Product (GDP)
2007 constant prices, quarterly and annual variation rates



	t1 16	t2 16	t3 16	t4 16	t1 17	t2 17	t3 17	t4 17	t1 18	t2 18	t3 18	t4 18	t1 19	t2 19	t3 19	t4 19	t1 20
Var QoQ-1	-0.7	0.7	-0.1	0.9	0.2	1.1	0.8	0.7	-1.1	1.0	0.8	0.0	-0.7	0.4	0.0	-0.7	-2.1
Var QoQ-4	-3.4	-1.2	-1.0	0.8	1.7	2.1	2.9	2.8	1.5	1.5	1.5	0.7	1.1	0.5	-0.3	-1.0	-2.4

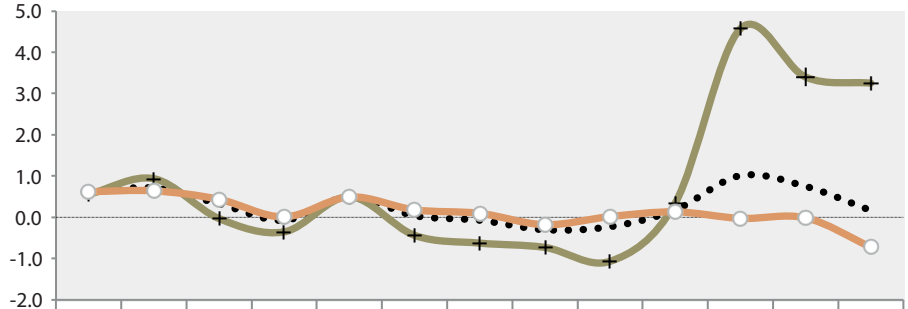
Source: Central Bank of Ecuador

Regarding variation in prices, Graph 10 shows that annual inflation[22] increased during the pandemic in March and April with a variation of 0.18% and 1.01%, respectively. The main increases were found in food and non-alcoholic beverages and health. The emergency disrupted marketing channels, making it difficult to maintain the regular supply of products to households. The variation in annual food price inflation reached 4.6% in April and remained high in June at 3.3%.

In May and June, although annual inflation was positive at 0.8% and 0.2%, monthly inflation was negative, as it was before the pandemic, at -0.3% and -0.6%, respectively (QoQ-1).

22 The results of the CPI for March, April, May and June 2020 are calculated on a basis of 70%, 64%, 80% and 90% of the actual prices raised from the reporting establishments; for prices that could not be collected as of 16 March 2020, the imputation process established in the CPI Methodology (Basis: 2014 = 100) was used, which is published on the INEC website: https://www.ecuadorencifras.gob.ec/indice-de-precios-al-consumidor/

Graph 10. Annual variation inflation (Percentages, 2019-2020)

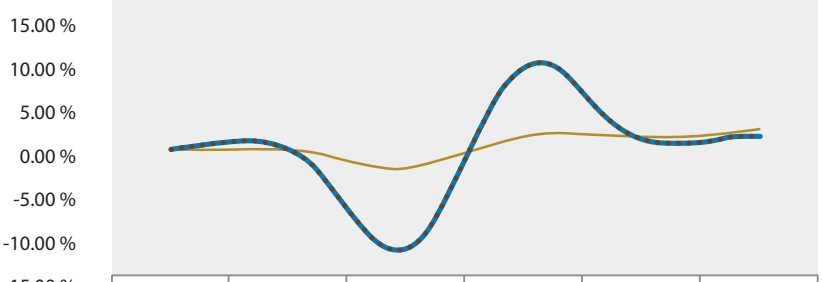


	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19	Nov-19	Dec-19	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20
General	0.61	0.71	0.33	-0.07	0.50	0.04	-0.07	-0.30	-0.23	0.18	1.01	0.75	0.17
Food	0.56	0.94	-0.03	-0.35	0.50	-0.44	-0.63	-0.73	-1.07	0.35	4.57	3.40	3.25
Without Food	0.63	0.64	0.44	0.01	0.49	0.18	0.10	-0.18	0.02	0.13	-0.03	-0.01	-0.72

Source: National Institute of Statistics and Census
Developed by: Central Bank of Ecuador

The Ministry of Finance, in its 2020 technical report, observed that the variation in GDP trends towards double-digits in the contraction scenario estimate. The consistency models, compatible with external programming, project contraction rates of -8.42% and -11.67% in a core scenario and -8.68% and -11.93% in a pessimistic scenario in 2020[23]. In a scenario with an increase of adverse external conditions, GDP could lose -1.8 additional percentage points. The estimated economic decline exceeds multinational organization forecasts at least until May of this year (ECLAC estimates a contraction of -6.5%, the IMF of -6.3% and the IDB of -6.1%).

Graph 11. Estimated impact of COVID-19 on GDP (year-on-year growth)



	2018	2019	2020	2021	2022	2023
Baseline scenario	0.05%	0.15%	-2.11%	1.65%	1.51%	2.31%
Core scenario	0.05%	0.17%	-11.67%	9.87%	1.31%	1.60%
Strong adjustment scenario in millions	0.05%	0.17%	-11.93%	10.19%	1.31%	1.60%

Baseline estimates according to external and fiscal programming and economic growth assumptions.
Sources: MEF and BCE

23 The rates described respond to the two consistency models used: the Analysis of Exogenous Shock and Social Protection Model (MACEPES) and the Stock-Flow Consistent Model (SFCM). The estimated contractions are compatible with the core and pessimistic scenario of external programming, a WTI oil price of 30.08, contraction in remittances received and decrease in domestic sales. Crashes are incorporated within the framework of mobility restriction measures due to the state of emergency due to COVID-19.

In this context, the IDB and the IMF agree that the figures would be adjusted downwards based on the coordination of measures between countries. The region's growth figures are being revised downwards given the extremely fragile position of Latin America due to its weak fiscal scenarios and high dependence on Chinese international trade.

The contraction rates presented in the Ecuadorian economy are mainly explained by: i) a widespread contraction in the country's economic activity, affecting approximately 80% of the productive apparatus; ii) limited fiscal policies within the framework of consolidation measures; iii) a reduction in household consumption due to losses in labour income; and iv) a strong contraction in demand for the main Ecuadorian exports (oil, bananas and shrimp[24]).

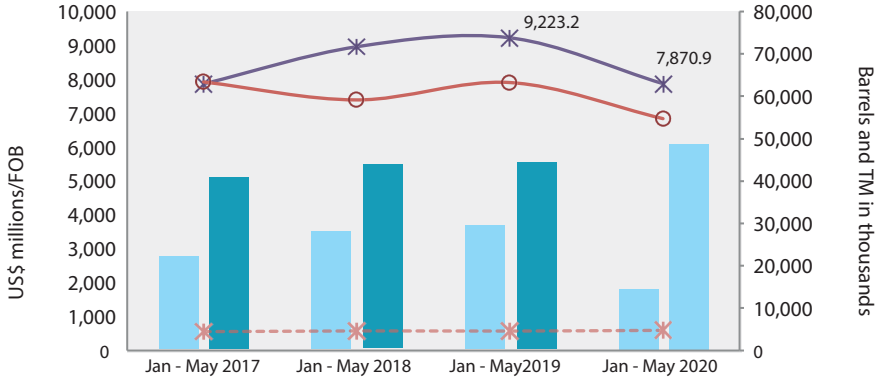
b) External sector

i. Exports

The FOB value of total exports ($7.8 billion) in the first five months of 2020 represents a drop of 14.7% compared to the same period in 2019, mainly due to the fall in crude oil prices and the suspension of oil exports resulting from the rupture of the pipelines, an event that is not related to the pandemic.

Non-oil exports[25] had a slightly favourable performance, with a 3.6% increase in volume (from 4,598 to 4,763 tons) between January and May 2020 and a 9.9% increase in value compared to the same period in 2019 (Graph 12).

Graph 12. Oil and Non-Oil Exports



	Jan - May 2017	Jan - May 2018	Jan - May2019	Jan - May 2020
Oil	2,771.7	3,520.4	3,707.1	1,811.0
Non Oil	5,094.0	5,440.3	5,516.1	6,059.8
Total Exports	7,865.7	8,960.7	9,223.2	7,870.9
Oil in Barrels (right axis)	63,392	59,136	63,233	54,712
Non Oil in TM (right axis)	4,413	4,630	4,598	4,763

Source: Central Bank of Ecuador

24 Information taken from Measuring the impact of COVID-19 with a view to reactivation, ECLAC No. 2, Special COVID-19 Report of 21 April 2020. IDB blog: Latin America has experienced sudden stops in the past. The coronavirus takes the challenge to a new level.

25 Exports of crude oil and derivatives are excluded

ii. Trade Balance[26]

Export and import levels could be substantially reduced in 2020 to $15.6 billion and $16.2 billion, respectively, ($14.2 billion in imports in the pessimistic scenario), corresponding to trade levels similar to those registered in 2016 and 2009[27].

The Ministry of Finance estimates that the trade deficit in 2020 will fluctuate between $347 million and $1.6 billion. The result depends both on the response of non-oil exports to the reconfiguration of the world trade environment, as well as the effects of the COVID-19 reponse on non-oil imports that were already showing a downward trend prior to the pandemic.

Table 6. Current account of the balance of payments (US$ millions)

	2019	Core scenario 2020	Pessimistic scenario 2020
Current account	**-79**	**-2,917**	**-496**
% GDP	**-0.07%**	**-2.71%**	**-0.51%**
Trade balance	**1,025**	**-347**	**1,614**
Trade balance (registered trade)	**820**	**-567**	**1,394**
Exports	22,323	15,643	15,643
Oil and derivatives	8,680	4,384	4,384
Non oil	13,644	11,260	11,260
Imports	21,503	16,210	14,250
Oil	4,149	2,541	2,541
Non oil	17,354	13,669	11,709
Trade balance (Unregistered trade, etc.)	**205**	**220**	**220**
Balance of services and primary income	**-3,843**	**-3,996**	**-3,836**
Services	-736	-574	-414
Primary income	-3,106	3,422	3,422
Secondary Income	**2,739**	**1,726**	**1,726**
Remittances received	3,235	2,264	2,264
Remittances targets	2,595	1,667	1,667

Source: BCE, MEF, MPCEI

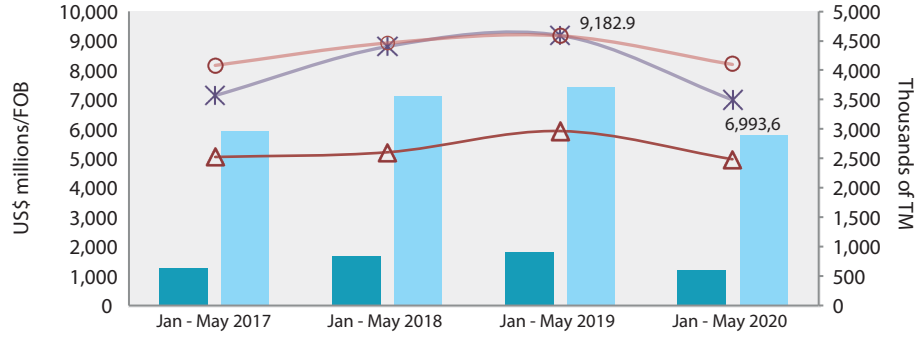
26 Technical Report No. 020- SCM-MEF-2020. Update of the current account scenario and impacts on the real sector for 2020.

27 In 2016, the year of the earthquake and with relatively low oil prices, total exports reached $16.8 billion ($11.3 billion non-oil) and imports $15.5 billion ($13 billion non-oil). In 2009, as an effect of the international financial crisis, total exports totaled $13.8 billion ($6.9 billion non-oil), and imports $14, billion ($11.7 billion for non-oil companies). In both years, a measure to safeguard the balance of payments was in force.

iii. Imports

In the period January to May 2020, the FOB value was $6.9 billion, or a 23.8% drop compared to the same period of the previous year. This was caused by a contraction of domestic productivity in the Ecuadorian economy and the decrease in family spending due to the increase in unemployment and decrease in overseas remittances.

Graph 13. Oil and Non-Oil Imports



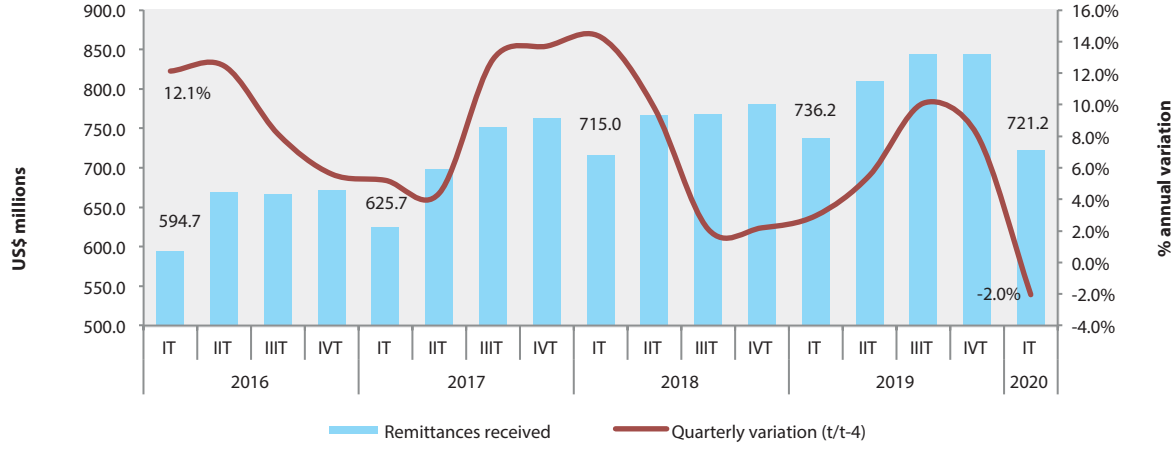
	Jan - May 2017	Jan - May 2018	Jan - May 2019	Jan - May 2020
Oil	1,261.8	1,683.2	1,807.9	1,180.4
No Oil	5,870.1	7,124.0	7,375.1	5,813.2
Total Exports	7,132.0	8,807.3	9,182.9	6,993.6
Oil in Barrels (right axis)	2,523	2,606	2,966	2,487
Non Oil in TM (right axis)	4,082	4,463	4,585	4,098

Source: Central Bank of Ecuador

iv. Remittances

Due to the global effects of the pandemic, the level of remittances from the United States, Spain and Italy decreased. In the first quarter of 2020, they totaled $721.2 million, 14.5% less than the fourth quarter of 2019 ($843.3 million) and 2.0% less than the first quarter of 2019 ($736.2 million).

Graph 14. Behaviour of the worker remittances received 2016 S1-2020 S1



Source: Central Bank of Ecuador

c) Non-financial public sector (NFPS)

Non-financial public sector revenues between March and May 2020 fell by 27.9% compared to the same period in 2019 (Table 6), partly due to the reduction in the dynamics of economic activity (which reduced tax collection). Non-oil revenue fell 15.9% for the period analysed, with the main drops registered in April and May 2020 and year-on-year reductions of 28.8% and 32.2%, respectively. For oil revenues, the fall in the price of crude oil led to a reduction of 59.1% in the period March to May 2020 compared to the same period in 2019.

Table 7. Non-financial public sector income, March - May 2019 and 2020

	US$ millions		Variation rate	Percent of GDP	
	2019	2020		2019	2020
	a	b	b/a		
TOTAL REVENUE	9,869.3	7,117.9	-27.9	9.2	7.4
Oil	2,134.9	873.3	-59.1	2.0	0.9
Non oil	6,963.8	5,859.6	-15.9	6.5	6.1
Tax revenue	4,259,8	3,206.8	-24.7	4.0	3.3
VAT	1,531.3	1,068.6	-30.2	1.4	1.1
SCT	219.2	145.4	-33.7	0.2	0.2
On income	1,759.7	1,389.3	-21.1	1.6	1.4
Tariffs	348.7	176.8	-49.3	0.3	0.2
Other taxes	400.9	426.8	6.4	0.4	0.4
Social security contributions	1,416.5	1,385.5	-2.2	1.3	1.4
Other	1,287.4	1,267.3	-1.6	1.2	1.3
Non-financial public company operating result	770.6	384.9	-50.0	0.7	0.4

Source: Central Bank of Ecuador

Total expenses have fallen by 13.2% in the period March to May 2020 compared to the same period in 2019. This decrease is mainly associated with a $787.5 million reduction in capital expenditures and a $417.5 million reduction in expenses related to wages and salaries, the purchase of goods and services, and imports of derivatives.

Table 8. Non-financial public spending, March – May 2019 - 2020

	US$ millions		Variation rate	Percent of GDP	
	2019	2020		2019	2020
	a	b	b/a		
TOTAL EXPENSES (1)	9,713.5	8,431.1	-13.2	9.0	8.7
Current expenditure	7,691.7	7,212.0	-6.2	7.2	7.5
Interest	790.7	745.7	-5.7	0.7	0.8
Wages and salaries	2,438.9	2,393.2	-1.9	2.3	2.5
Purchase of goods and services	1.192.9	960.1	-19.5	1.1	1.0
Social security benefits	1,447.3	1,430.1	-1.2	1.3	1.5
Other	1,822.0	1,682.9	-7.6	1.7	1.7
Capital expenditure and net lending	2,000.0	1,212.4	-39.4	1.9	1.3
National Treasury adjustment	21.9	6.6	-69.6	0.0	0.0

Source: Central Bank of Ecuador

Methodology for estimating the macroeconomic impact of COVID-19

To estimate the impact of COVID-19 on the Ecuadorian economy, the calculation methodology used in the macroeconomic forecast was applied. This process has one peculiarity: only the losses estimated under the PDNA concept are used.

Losses by branch of economic activity correspond to shocks that are accounted for in the macroeconomic impact. The tools used are the 2018 Product Input Matrix through the Leontief and Gosh model, as well as the Social Accounting Matrix.

The results produced by these matrices are then used to obtain the volume indices, which are then compared to the baseline scenario. The indicators are transferred to the variables that make up the Supply-Use Table to generate the new macroeconomic indicators.

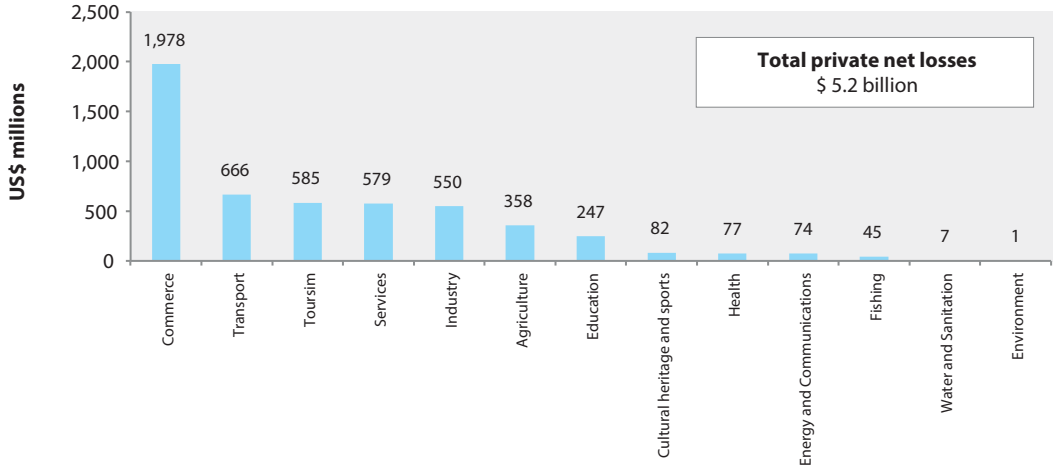
Results

Private sector losses were determined mainly based on information from IRS form 104[28] for March, April and May 2020.

In this sense, and compared to a baseline scenario without COVID-19, private net loss totaled $5.2 billion during the analysis period (Graph 9). The main PDNA sectors with losses are commerce ($1.9 billion), transportation ($666 million) and tourism ($585 million), among others.

28 Declaration of Value Added Tax.

Graph 15. Private losses due to COVID-19, PDNA sectors, March - May 2020



Source: Information from SRI processed by the COVID-19 PDNA Ecuador

On the other hand, in the response to COVID-19, the public sector prioritized and reallocated resources in the different sectors. Some $1.7 billion in allocations were made including $893.33 million to social sectors, $251.72 million to infrastructure and $26.66 million to security.

Total public and private sector losses, following the PDNA methodology, totaled $6.4 billion in March, April and May 2020.

Only private losses were considered in the macroeconomic impact evaluation since resources were reallocated in the public sector, that is, expenses were incurred to respond to the COVID-19 emergency. At the same time, the losses were reoriented and resources prioritized that were initially destined for other purposes within the same sector. Therefore, in the applied methodology, these effects do not impact the macroeconomic results since these resources were not lost but were redirected to other activities.

For the evaluation of the macroeconomic impact, the net losses of $5.2 million in the period from March to May 2020 are transferred from the ISIC Rev. 4[29] branch to the National Accounts Industry Classification (CICN).

Furthermore, since these net losses were found in monetary value and their equivalents in volume terms were unavailable, the production price indices by branch of economic activity estimated for the macroeconomic forecast exercise were used. In this way, the net losses were obtained in constant values. This loss vector constitutes the basis for conducting the simulation exercise in the Product Input Matrix.

29 International Standard Industrial Classification (ISIC), Revision 4 of the United Nations, which classifies economic activities in a series of categories and subcategories, each with an alphanumeric code. It should be noted that the public institutions participating in this study use the sales declarations through IRS form 104, which have the ISIC Rev. 4 classification and are later transferred to the National Accounts Industry Classification.

Given that the production price indices are built at the level of each CICN industry, when producer price indices are processed through econometric modeling, the GDP deflator is able to capture the associated effect of all prices in production.

The results of the processing of partial information on net losses are as follows:

Table 9. Macroeconomic indicators: partial impact of COVID-19, March – May 2020

Reduction in:	Variation rate
GDP	-3.8%
Employment	-4.1%
Production	-4.2%
Remuneration	-4.4%

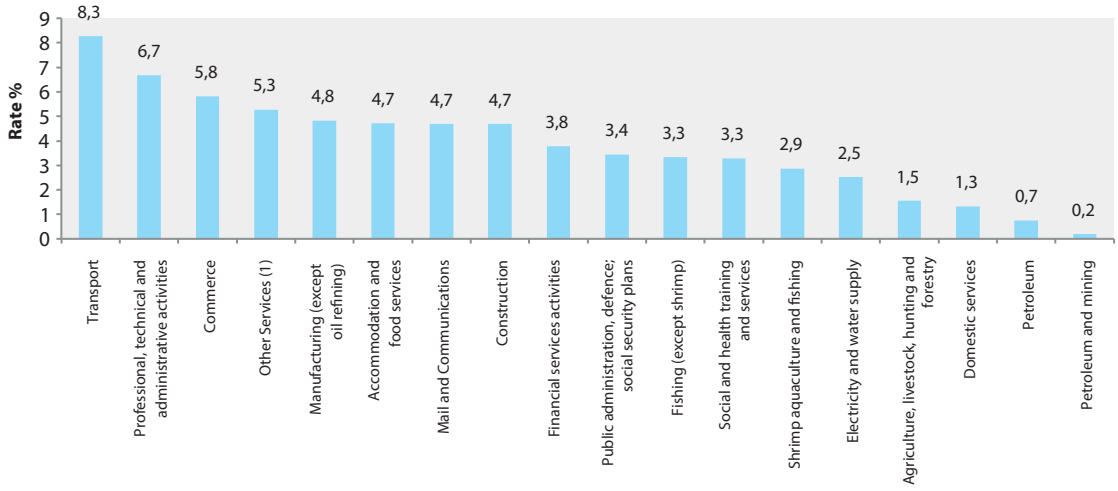
Source: Central Bank of Ecuador

According to Table 8, $5.2 billion in net losses led to a 3.8% drop in GDP due to the effects of COVID-19 in the period analysed. In the case of remuneration (including wages, salaries and social contributions), there was a decrease of 4.4% in real terms.

Given the partial nature (three months of analysis, exclusion of the public sector and other factors), this result underestimates the real impact of COVID-19. In addition, given the uncertainty of the evolution of the accumulated effects of the health crisis, and as long as the domestic and international markets linked to the Ecuadorian economy do not recover, the scenario of a 7.3% to 9.6% drop from 2019 levels should be considered in the context of macroeconomic evolution.

The following graph shows the sectors most affected by the effect on net losses in the period March to May, represented by the variation in Gross Value Added (GVA). The most affected industry is transportation with a drop of 8.3% in GVA, followed by a 6.7% decrease in professional, technical and administrative activities.

Graph 16. Relative variation of gross value added (GVA) by industry



Source: Central Bank of Ecuador

Conclusions[30]

The current account deficit could be in the range of -0.51% to -2.71 of GDP. Despite the serious repercussions of the pandemic on the Ecuadorian economy, there could be a slight surplus in the current account in a scenario of strong adjustment to non-oil imports (-30%) related to a contraction in economic activity of approximately -6.0% to -9.6%. There is a significant risk of a larger deficit if additional pipeline ruptures and problems in exporting crude oil to foreign markets are considered.

The possible decrease in international commodity prices due to the contraction of global demand would affect the value and volume of Ecuadorian exports. A contraction in demand for non-oil export products, associated with the expansion and duration of the pandemic, should not be ruled out.

The economic contraction could be in the range of -11.93% to -8.42%, compatible with relatively strong growth in poverty levels of up to 13.17%. This estimate reflects the current complexity of the Ecuadorian economy, with a widespread contraction of production levels, increase in unemployment, drop in household income, decrease in private consumption and a greater impact on vulnerable sectors of the population.

30 These should be understood as limited to the period of information in a context of an ongoing pandemic in the country and the world. Report Nº 20 of the MEF.

Needs and strategies

The results of the COVID-19 PDNA for the period March to May 2020 registered losses of $6.4 billion, close to 6% of the country's current nominal GDP for 2019. Preliminary needs focused on the social and productive sectors in the short-term total $2.7 billion. The strategies associated with these sectors should be the engine used to provide for the needs of the remaining sectors.

Table 10. Preliminary needs and losses by sector due to the effects of COVID-19, March – May 2020 (US$ millions)

Sector	Costs and losses	Preliminary needs
SOCIAL	**1,299.32**	**1,498.74**
Health	869.99	964.83
Education	264.41	38.45
Culture and sports	90.07	24.26
Social protection	74.85	471.20
PRODUCTIVE	**4,095.34**	**1,199.72**
Agricultural	358.37	59.00
Fishing	44.69	
Industry	550.23	
Commerce	1,978.34	657.72
Services	578.73	
Tourism	584.98	
INFRASTRUCTURE AND NATURAL RESOURCES	**999.36**	**31.83**
Transport	714.22	1.00
Energy and communications	152.11	-
Water and sanitation	78.09	28.30
Environment	54.94	2.53
SECURITY	**26.66**	**28.30**
Security	19.11	25.57
Risk management	7.56	2.73
Total in US$	**6,420.68**	**2,758.59**

The needs identified correspond to the short term, continuing actions to support and respond to the pandemic and its effects in the coming months (humanitarian response and reactivation) as it is still uncertain when the pandemic will end. The medium-term needs (adaptation to the new normality and recovery) will be greater

and should be quantified when the pandemic subsides or when treatment or a vaccine is available for the population.

The post-pandemic strategies, as a whole, should strengthen social, economic and environmental resilience, contributing to the country's human development goals (expanding social coverage, closing inequality gaps, avoiding setbacks in poverty reduction and ensuring food security) and the achievement of the Sustainable Development Goals (SDGs).

Humanitarian response actions to the effects of the pandemic have sought to protect health, prevent transmission and treat infected people by reprogramming budgets and assigning responsibilities to the health system institutions, facilitating the procurement of equipment and drugs, approving protocols and strengthening information management.

New legal framework

In the fourth month of the pandemic, the State approved a new legal framework (Organic Law for Humanitarian Support of 22 June 2020) aimed at *"mitigating adverse effects within the Ecuadorian territory; to promote the economic and productive recovery of Ecuador, with a special focus on human beings, family support and recovery business, popular and solidarity economies, and maintaining employment conditions."*

The law considers measures such as:

- Prohibiting increases in cost of basic services and the suspension of basic services including drinking water, electricity, telecommunications and Internet due to non-payment.
- Prohibiting the termination of health policies or suspension of coverage due to late payment.
- Providing productive credits for economic reactivation and protection of employment in the private sector.
- Reviewing interest rates for recovery for all credit segments during 2020 and 2021.
- Rescheduling of the collection of quotas by national, non-financial and financial sector entities, as well as the rescheduling of insurance fees.
- Adjustment of the working hours and reduction of current public spending and offices.

Early reactivation initiatives

The Ministry of Economy and Finance established the **Reactivate Ecuador Programme**, with a $1.15 billion fund for preferential credit to support micro, small and medium-sized enterprises in order to encourage the reactivation of production and protection of employment.

The National Finance Corporation (CFN) and the Bank of the Ecuadorian Institute of Social Security (BIESS) have the **"PYME exprés (Express SMEs)"** Programme for agile loans to SMEs to finance working capital. The fund includes $50 million in credit lines.

The Ministry of Economic and Social Inclusion (MIES) created the **Family Protection Voucher** to benefit some 950,000 families; 88% of beneficiaries are women. The voucher partially compensates for the reduction in non-labour household income.

Strategies to mitigate the human impact of the pandemic

General criteria

The PDNA team, in coordination with the Technical Secretariat of the *Todo una Vida Plan*, the Ministry of Economic and Social Inclusion (MIES) and other related ministries recommended:

- Reactivating, protecting and recovering employment, with an emphasis on the most vulnerable excluded sectors and informal workers, promoting youth employment and teleworking.
- Ensuring access to basic health services for women, early childhood and vulnerable groups, which includes access to drinking water and sanitation services.
- Extending and facilitating connectivity, digital literacy and the use of ICT in different areas for access to services (health and education), digital commerce and public processes to help the country on the path towards digital transformation.
- Developing initiatives to promote social cohesion and prevent social instability.
- Preventing the adoption of negative coping strategies by vulnerable populations such as sexual trafficking and exploitation, trafficking of minors, school dropout and child labour.
- Considering complementary actions to prevent and address child malnutrition and carrying out permanent monitoring of the nutritional status of boys and girls.
- Adapting the health and education service infrastructure and establishing health security protocols for children and adolescents, ensuring safe use for priority groups.

The recommended strategies to mitigate the human impact of the pandemic should be countercyclical or compensatory, including cash transfers, similar to the Family Protection Voucher. It is urgent to identify the families that have been pushed into poverty by the pandemic to ensure that they are included as beneficiaries.

Common inter-sectoral needs and strategies

In the workshops, technicians from the social, infrastructure, economic-productive and security sectors, carried out an exercise to determine viable strategies for the next 10 month, including:

- Promoting inter-sectoral and inter-institutional synergies developed through collaborative decisions and solutions based on coordination, cooperation and public-private dialogue, including neighbouring countries.
- Ensuring budget availability for the continuity of ongoing actions, reinforced based on the needs arising in health, education and food security spheres.
- Expanding the coverage and duration of contributory and non-contributory social protection measures.
- Recovering financial and investment capacity (in particular of infrastructure and service provision entities), to ensure the technical sustainability of basic services (water and energy) that have suffered a reduction in collection.
- Protecting and recovering employment, with an emphasis on the most vulnerable, excluded and informal sectors.

Environmental protection and the circular economy must be incorporated in these reactivation strategies for economic-productive recovery.

Priority needs and strategies in the four main lines of action of the Ecuadorian Government

The needs and cross-cutting strategies for the different sectors are presented below, proposed by government technicians and international consultants to generate synergies and economies of scale in their design and implementation. The proposal is structured according to the four lines of action of the Ecuadorian Government, presented by the president in the Report to the Nation[1] on 24 May: health, food, employment and dollarization.

Line of action 1. Health: control the pandemic and provide safe health services to the population

To control the current COVID-19 pandemic, the health system needs to continue proper case management, implementing surveillance, prevention, control and treatment measures. This requires the continuity of health services and ensuring the replenishment of the stock of supplies and medical devices.

To ensure the health and well-being of the population, an immediate and short-term action plan is needed to restore primary health services in order to reduce vulnerabilities and health risks, with an emphasis on sexual and reproductive health, maternal and child health, health of older persons, care and prevention of gender-based violence, attention to mental health, disability and people living with HIV and other chronic diseases.

In parallel, in order to protect health, it is necessary to resume the special care services (MIES), which existed prior to the pandemic, especially the Child Development Centres, the Gerontological Centres and care for people with disabilities.

1 https://www.comunicacion.gob.ec/el-presidente-moreno-anuncia-cuatro-ejes-de-accion-para-su-ultimo-ano-de-gobierno/

Main line of action 2. Food: ensure the supply, access to and consumption of food to avoid food insecurity, child malnutrition and increased poverty.

The distribution and access to food is strategic to support poor and extreme poor households in order to make up for the income deficit and cover the cost of the market basket.

In order to mitigate the impact on food security, measures are required to stop the loss of jobs and therefore of income, to avoid further closures of companies and businesses. Economic reactivation measures require a focus on job creation, for example, labour-intensive agricultural activities or temporary road repair or irrigation channel maintenance employment programmes.

This requires strengthening governance to ensure the stability of food security by guaranteeing the distribution and access to food for poor and extreme poor households, promoting the creation and strengthening of food banks and local production chains; and considering the delivery of additional food emergency vouchers for families living in extreme poverty to prevent malnutrition in children, pregnant women and lactating mothers.

Main line of action 3. Employment: Reactivate, protect and recover employment, with an emphasis on the most vulnerable, excluded and informal sectors, promoting youth employment, informality and teleworking.

The protection of private and public employment will be closely linked to the economic recovery actions and progressive discontent of the population. In this scenario, it will be essential to protect the health of workers through the adaptation of production processes and workspaces, as well as the development of biosafety protocols and supplies.

In order to protect employment in the private sector, it is necessary to expand and extend access to credit lines to cover fixed (payroll) and productive costs. In addition, incentives for employers and workers to join social security should be instituted as a measure to reduce informal employment and promote suitable employment.

To promote the generation and recovery of jobs, it is necessary to reactivate projects and works suspended due to the pandemic and confinement, as well as the contracting of public services such as education, health, culture, and early childhood and older person care.

Considering that the teleworking modality will continue during the pandemic, deconfinement and recovery, it will be strategic to reduce the gap and inequality in technological access and connectivity in all sectors of the economy, including the public sector. It is necessary to promote digital literacy and equip public servants, as well as continue the digitization and virtualization of essential processes.

Line of action 4, Dollarization: to preserve macroeconomic stability and avoid the breakdown of the productive apparatus, with special support for SMEs and MSMEs.

To preserve the macroeconomic stablity of the country, it is essential to:

Continue to renogotiate Ecuador's debt with bondholders and international financial institutions (IFIs), while mobilizing resources from new sources and financing mechanisms,

Apply fiscal policies to selectively increase public spending (financial assistance, direct transfers, credit lines, payroll subsidies, etc.),

Reduce the tax burden with a focus on micro, small and medium-sized enterprises (MSMEs) for the most affected sectors (agriculture, tourism, commerce).

Prioritization of needs and strategies by sector

The priority short-term strategies and needs of each government sector cabinet are presented below.

Needs and strategies of the social sector:

- Implementation and funding of the National Health Emergency Management Plan that includes health promotion and disease prevention services, as well the continuity, coverage and quality of the care services, with an emphasis on child development, older persons and people with disabilities.
- Expansion of the base and duration of social protection programmes for people living in poverty and extreme poverty through non-contributory economic transfers that mitigate the risk of food insecurity and increased child malnutrition in households.
- Design and implementation of a plan that ensures the safe reopening of educational institutions and right to education at all levels, facilitating connectivity for urban and rural homes to guarantee continuity of quality education for boys, girls, adolescents and young people, in addition to reestablishing the supply of educational services for early childhood (SAFPI) and young people (literacy and post-literacy).
- Safeguarding and conserving the tangible and intangible cultural heritage at risk, including the protection of the health, safety and well-being of indigenous peoples as part and essence of the national identity.

Needs and strategies of the economic-productive sector:

- The process of deconfinement and return to the new normality must consider the **restoration and safe reactivation of the productive sector** with biosafety measures, through the injection of capital, fiscal aid, reduction of tariffs and interest rates, new commercial agreements and the diversification of markets (national - international fairs).
- Actions to **extend connectivity and strengthen digital commerce** for the entire productive sector, facilitating access to online payment, for which it is necessary to consider providing training opportunities and technical assistance in order to ensure equity in access and use of these platforms and digital resources.
- Strengthening value chains for the recovery of the national market, engaging the population and producers in the "Together Ecuador" campaign to boost national consumption, promoting the circular economy that ensures social, environmental and economic sustainability in the long term.

Needs and strategies of the infrastructure sector:

- Strengthening of the telecommunications network to expand connectivity and access to digital platforms to facilitate teleworking in all sectors, as well as access to health services, education and digital commerce.
- Ensuring the sustainability and continuity of operations for the provision of electricity, water and sanitation and transport by guaranteeing the liquidity of these services, which should consider extraordinary allocations from the State to ensure the functioning of the services; promoting digital payment platforms that facilitate collection of service fees; and ensuring the continuity and quality of water and sanitation services in all essential institutions and in remote and marginal areas.
- Ensuring the maintenance of the strategic infrastructure for the country, facilitating the mobility of technical personnel and ensuring liquidity to ensure the procurement of supplies and equipment and execution of operation and maintenance tasks. The deterioration or loss of this critical infrastructure can exacerbate the impact of the pandemic and jeopardize response and recovery actions.

In the medium and long term, it is necessary to recover economic activity and move towards a resilient production structure[2].

In the long term, a national reflection is necessary on how to transform the productive fabric to move towards a greater formalization of the economy and a productive structure that is resilient to economic setbacks and the impact of health crises or products of adverse natural phenomena. For this, commercial diversification is key to avoid dependence on a few products and markets.

Finally, the impact of the pandemic should be considered as an opportunity to transform the production model towards green growth and a circular economy where digitization will play a leading role in all areas.

Conclusions and next steps

Considering that this evaluation, as well as the needs and strategies, are based on the first three months of the ongoing pandemic, its effects may increase in the coming months, and it would be desirable to update this first assessment on a regular basis.

This first socioeconomic assessment reveals the enormous human, social and economic impact that Ecuador has suffered and presents an important and immediate challenge to prevent a further slide.

Thus, the country has begun the dialogue with donors and IFIs to seek new support and reorient pre-pandemic programmes to meet the most pressing needs and establish an immediate action plan for socioeconomic recovery.

For this, the European Union has defined the approach of establishing COVID-19 working groups, which in the case of Ecuador is coordinated by the EU Delegation together with the Undersecretariat of Economy, Trade and International Cooperation of the Ministry of Foreign Affairs of Ecuador to support an inclusive process to identify needs to guide EU cooperation in the country.

3 European Union, OECDdev (2020) "Analysis note: Macroeconomic impact of COVID-19 in Ecuador: from the resistance phase to reactivation and recovery"

"A UN framework for the immediate socio-economic response to COVID-19"

In April, the UN presented the "UN Framework for the immediate socio-economic response to COVID-19"[3], which sets out the framework for the United Nations' urgent socioeconomic support to countries and societies in the face of COVID-19, putting in practice the UN Secretary-General's Shared Responsibility, Global Solidarity report on the same subject.

The five streams of work that constitute this package include:

1. **Health first:** ensuring that essential health services are still available and protecting health systems;
2. **Protecting people:** helping people cope with adversity, through social protection and basic services;
3. **Economic response and recovery:** protecting jobs, supporting small and medium-sized enterprises, and informal sector workers through economic response and recovery programmes;
4. **Macroeconomic response and multilateral collaboration:** guiding the necessary surge in fiscal and financial stimulus to make macroeconomic policies work for the most vulnerable and strengthening multilateral and regional responses; and
5. **Social cohesion and community resilience:** promoting social cohesion and investing in community-led resilience and response systems.

These five streams are connected by a strong environmental sustainability and gender equality imperative to build back better. For each of the streams defined by the UN, the UN in Ecuador has developed a series of proposals for immediate response.

Finally, a preliminary table is presented of the different sources of funding available and amounts to be mobilized from international cooperation and International Financial Institutions to support the socioeconomic recovery of Ecuador.

3 UN 2020 "A UN Framework for the Immediate Socio-economic Response to COVID-19"

Table 11. Preliminary support from donors and IFIs to Ecuador for the COVID-19 response

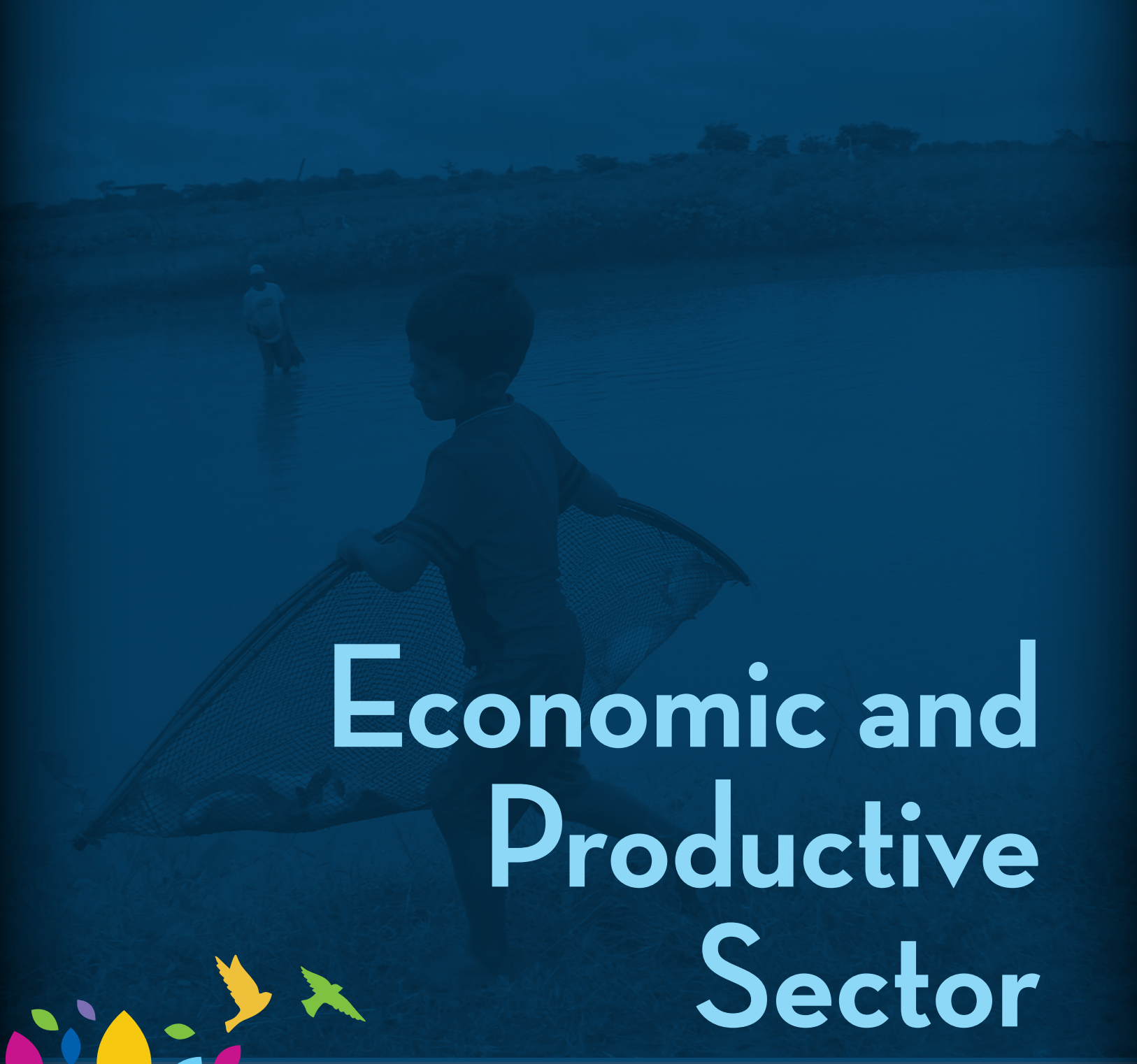
	US$ millions
Financing requirement	2,759.0
Funding identified	1,783.4
United Nations	67.7
Health First: Protecting Health Services and Systems during the Crisis	1.2
People: Social Protection and Basic Services	27.6
Economic Response and Recovery: Protecting Jobs, Small and Medium-Sized Enterprises, and Informal Sector Workers	17.2
Macroeconomic Response and Multilateral Collaboration	1.5
Social Cohesion and Community Resilience	20.2
European Union	10.6
Advance of 9 million euros of cooperation for economic recovery beyond COVID-19 (of the fixed tranches for 2020/21 of the 26 million euros support budget for Manabí and Esmeraldas)	7.8
Support for the circular economy in Ecuador (2020-2024)	2.8
World Bank	780.0
Sustainable and Inclusive Growth (P171190) - Programmatic Reform Support	500.0
COVID-19 Emergency Response Project (P173773)	20.0
Promoting Access to Finance for Productive Purposesfor MSMEs (P172899)	260.0
Inter-American Development Bank (IDB)	624.8
Global Credit Program for the Defense of the Productive Fabric and Employment (EC-L1269)	93.8
Support for the Health Service Delivery and Social Safety Net in the Context of the Coronavirus/ COVID-19 Pandemic (EC-L1270)	250.0
Big Data for Efficient Management Against COVID-19 (EC-T1453)	0.2
Support for the Transition of the Energy Matrix in Ecuador - II (EC-L1265) - Programmatic policy-based loan	280.0
Applying Innovation to Support the Inclusion and Well-Being of Children with Disabilities During and Beyond COVID-19 Through Technology-Based Strategy (EC-T1449)	0.8

Development Bank of Latin America (CAF)	300.4
COVID-19 crisis donation (to ensure the safety of people working in COVID-19 prevention, containment and care of patients)	0.4
Loan to strengthen the response capacity of the public health system to the pandemic	300.0
FINANCING GAP	975.6
Exceptional Financing	74.3
United Nations	74.3
Health First: Protecting Health Services and Systems during the Crisis	6.2
People: Social Protection and Basic Services	19.5
Economic Response and Recovery: Protecting Jobs, Small and Medium-Sized Enterprises, and Informal Sector Workers	21.7
Macroeconomic Response and Multilateral Collaboration	8.1
Social Cohesion and Community Resilience	18.8
Residual fund needs	901.2

ECLAC[4] proposes four lines of action to address the effects of COVID-19 with a view to reactivation with equality:

1. **A basic emergency** income as an instrument of social protection: consisting of a monetary transfer equivalent to the poverty line for six months for the entire population living in poverty in 2020.
2. An **anti-hunger grant:** which can be done through cash transfers, food baskets, food stamps or school feeding programmes.
3. Support for **businesses and jobs at risk:** through measures that boost companies' liquidity, preventing capacity destruction and support large companies in strategic sectors at risk.
4. Strengthening the role of **international financial institutions:** the international financial community broadens liquidity conditions to meet global financing needs through special low-cost and long-term lines of credit, debt relief and debt service in low-income and middle-income countries, as well as debt-for-action climate change adaptation swap.

4 ECLAC (2020) "COVID-19 Special Report: Addressing the growing impact of COVID-19 with a view to reactivation with equality: New projections"



Economic and Productive Sector

Industry, Commerce, Fishing and Aquaculture

Context

Fishing and aquaculture, the non-oil manufacturing industry and commerce represent 25% of the GVA of the total economy in 2019. For the period 2017 to 2019, the average annual growth rate of GVA was 4.5% for fishing and aquaculture, 0.35% for the non-oil manufacturing industry and 0.93% for commerce.

Exports represent 27% of total net sales for fisheries and agriculture, 17% of the non-oil manufacturing industry and 16% of commerce.

Table 12. Sector baseline, period March - May 2017, 2018 and 2019

Component	2017	2018	2019
Fishing and aquaculture			
Local net sales	718.91	800.22	858.83
Exports of goods	364.56	426.51	496.71
Exports of services	0.27	0.56	0.52
Manufacturing industry			
Local net sales	5,684.43	6,166.20	5,907.20
Exports of goods	1,075.54	1,132.09	1,060.94
Exports of services	23.88	18.93	17.57
Non-oil manufacturing industry			
Local net sales	5,650.75	6,125.23	5,870.73
Exports of goods	1,075.01	1,131.11	1,059.75
Exports of services	23.88	18.87	17.52
Commerce and related branches			
Local net sales	15,881.35	17,851.39	17,972.89
Exports of goods	2,514.80	2,548.62	3,251.33
Exports of services	27.21	24.32	29.71

Source: IRS. Form 104

Imports in the productive sectors represent 59% of total imports in the country. Ecuadorian industry requires raw materials and capital goods to produce the goods placed in national and international markets. According to the Central Bank of Ecuador, imports of capital goods fell by 25% and raw materials by 13% in the first four months of 2020.

According to the MPCEIP Consumer Trends Survey conducted on 1,384 consumers, the preferred payment method for food, clothing and footwear purchases is cash, followed by credit card.

Response measures

The measures were focused on the implementation of the presidential and COE-N provisions to guarantee the continuity of the sector's operations and sustain the production of food, drugs and supplies in the country. As of May, the biosecurity measures were still in place, while others are subject to the discretion of the authorities. Measures in the health emergency phase included:

- Changes in work modalities and implementation of biosafety practices.
- Flexibilization of administrative and financial processes.
- Reduction of tariffs for supplies destined for the health emergency, payment of foreign trade services by bank transfer, equipment of various port services with electronic means.
- Stable operation of strategic logistics corridors for heavy transport of essential products, drugs, priority consumer goods and products.

Construction was used as the pilot sector for the reopening process.[5] The learning in this sector and the traffic lights subsequently incorporated by the GADs in the decision-making process for the gradual reopening of the territories led to the integration of other economic sectors in Guayaquil and Cuenca, followed by Quito, Ambato and Durán. The automotive, wood, textile, metalworking and steel sectors also entered the reopening phase with specific protocols.

This phase included the reactivation of 160 automotive companies (over 25,000 jobs); 412 construction projects (over 25,000 jobs); 26 textile companies (over 2,000 jobs) and 16 lumber companies (over 500 workers). Commercial activities complied with the processes for the resumption of operations with yellow traffic light status and applied restrictive and adaptation measures, operating at 30% capacity.

Loss estimation methodology

IRS data was used to estimate the losses for the period March to May 2020, comparing the results to the same periods in 2017, 2018 and 2019. Losses are understood to be negative changes in economic flows or expenses as a consequence of the impact (cost increases to maintain pre-disaster conditions, loss of income, impact on governance and vulnerability). The assessment is applied separately to the non-oil manufacturing industry and to fisheries-aquaculture.

The qualitative aspects of the effects were developed using the results of a survey of businesses registered with the IRS and validated with the INEC business directory with the support of business associations. For artisanal fishing, associations were surveyed, and changes in consumption trends were identified.

5 Approved by resolution of the National COE on 25 April 2020

Effects of COVID-19 in the sector

The total losses in the sector reach $3.1 billion: $44.69 million in fishing and aquaculture, $550.23 million in the non-oil manufacturing industry, $1.9 billion in commerce and related branches and $578.73 million in services (Table 2). The greatest losses were registered in May, mainly in large companies (Table 12).

Table 13. Summary of losses in the fishing, industrial, commercial and service sectors

Components	Sector		Total (US$ millions)
	Public**	Private	
Fishing and aquaculture		**44.69**	**44.69**
Local net sales		2.53	28.53
Exports of goods		4.70	4.70
Exports of services		-0.32	-0.32
Artisanal fishing		11.78	11.78
Manufacturing industry*		**659.84**	**659.84**
Non-oil manufacturing industry		**550.23**	**550.23**
Local net sales		92.88	92.88
Exports of goods		277.66	277.66
Exports of services		179.69	179.69
Commerce and related branches		**1,978.34**	**1,978.34**
Local net sales		1,381.26	1,381.26
Exports of goods		362.24	362.24
Exports of services		0.05	0.05
Construction		161.36	161.36
Real Estate		73.43	73.43
Services		**578.73**	**578.73**
Scientific and technical activities		359.42	359.42
Household activities		1.73	1.73
Financial and insurance		33.19	33.19
Administrative and support services		123.30	123.30
Other service activities		61.09	61.09
TOTAL USD		**3,151.99**	**3,151.99**

Source: IRS. Form 104
* Reference value not considered within the total sum
** The Commerce, Industries and Fishing Sector are private investments, therefore the Public Sector does not register losses.

Table 14. Summary of effects by size 2020

Component	Losses (US$ millions)			Total (US$ millions)
	March	April	May	
Fishing and aquaculture				
Large	2.00	11.74	26.18	39.91
Medium	0.44	5.53	8.85	14.83
Small	0.55	2.09	2.62	5.26
Micro	0.41	1.05	1.55	3.01
Non-oil manufacturing industry				
Large	80.01	197.78	131.66	409.45
Medium	5.74	27.92	20.01	53.73
Small	7.42	15.37	12.03	34.82
Micro	16.24	22.07	13.92	52.23
Commerce (reference only)				
Large	366.62	928.10	505.13	1,799.86
Medium	27.02	94.67	68.15	189.84
Small	18.03	51.22	44.44	113.69
Micro	21.51	45.85	27.64	95.00

Source: IRS Form 104

a) Effects on the production and distribution of goods and services

Between March and May 2020, maritime, air and land traffic experienced difficulties in terms of both times and processes at the national and international levels. This decreased production in the economic sectors due to delays in the supply of supplies for the manufacturing of final products, which coupled with low demand, led to the closure of some companies regardless of size. Through the epidemiological traffic light system, cities began to reactivate suspended economic activities.

In order to better visualize the main effects in the sector, the MPCEIP applied the "Measurement Survey of the Impact of COVID-19 on the Productive Sector"[6] in 21 provinces for the period March to May 2020. People surveyed included owners (64%), managers (23%) and other representatives (13%); industry represented 30%, commerce 22%, fishing 7% and other sectors 41%.

6 The cut-off date for the survey was 3 July 2020.

The main findings are:

- For more than half of the companies, there was no variation in the price list of raw materials and supplies; between 33% and 38% reported a decrease in prices; and only between 3% and 15% reported increases, some of them significant.
- 57% of the companies experienced shortages of raw materials, transportation and personnel mainly.
- Reasons given for the difficulties in mobilizing products included shortages in raw materials, transportation, and personnel (40%), a decrease in transportation routes (21%), increase in freight prices (14%), among others (26%).
- 55% of the companies were able to continue to sell because they have their own premises and leveraged home delivery; 45% opted for direct sales through wholesale-retail markets, their own premises and intermediaries, among others.
- The main additional costs included home delivery supplies, rental or purchase of specialized equipment, purchase of biosecurity equipment or services.
- The main measures taken by companies in the face the crisis included reduction of expenses (68%), postponement of investments (8%), loans (6%), closure (3%), diversification of the business line, means of payment, purchase of biosafety supplies (15%).

b) Effects on the access of the population to goods and services

Around five million Ecuadorians do not have suitable employment and suffered a reduction in income during the emergency, which limited families to covering basic needs.

Most businesses closed their doors or modified their sales methods through digital platforms, social networks and direct home delivery. It is taking micro and small businesses a lot of time and resources to adapt to digital commerce.

Sixty percent of the population does not have Internet or a computer, which limits digital commerce; only 32% of the adult population has debit cards and savings accounts; and low financial inclusion also limits the acquisition of goods and services.

c) Effects on the governance of the sector

Public institutions channeled and coordinated donations from private producers to the general population. At the same time, there were numerous donations from citizen, rural producer, cooperation and private company initiatives (39%). Private companies made significant contributions, with an average value of $3,607.

MPCEIP coordinate $6.1 million in cooperation until April 2020: 46% in clothing, 45% in medical supplies, 5% in hygiene and pharmacy and 4% in food.

d) Effects on increased risks and vulnerabilities in the sector

The increase in unemployment in the different sectors reduced income and consequently the demand for goods and services; a situation that is difficult to reverse while the pandemic is ongoing.

The health emergency has not only generated a liquidity crisis for companies but also the need to reinvent business models. The problems in the procurement of supplies and the payment of suppliers have led to closures and bankruptcy risks for many businesses.

The following vulnerability-related findings are highlighted:

- Due to the particularity of their operations, 59% of the companies surveyed were unable to telework, and 30% indicated that they had staff infected.
- Only 54% of the companies decided to retain their workers, 44% opted to lay off staff, 2% increased their payroll, and 1% extended working hours.
- 50% of the companies reduced their working hours, 24% suspended their working hours, 8% chose to take vacations, and 18% applied other measures.
- To recover working hours, 39% of companies decided to extend their working day and 61% to take other measures.
- Only 38% of the companies paid their salaries with their own capital or loans, 45% agreed to the method of payment, and 7% used other mechanisms.

Needs for recovery, reactivation and continuity of the response

The main concerns that companies face in the coming months are the high probability of infection, loss of customer portfolio and sales, lack of debt payment options, delays in payment, loss of business profitability, problems in the supply chain and sourcing.

Given this, the following needs have been prioritized to reactivate and provide continuity to operations:

- Retention and protection of human resources.
- Financial and tax mechanisms.
- Promotion and diversification of national production and the market (circular economy).

Recovery strategy

Table 15. Summary of strategies

Need	Strategy	Estimated cost (US$ millions)
Retention and protection of human resources (medium and long term)	Apply biosecurity measures in the work place and in households.	
	Implement a certification scheme for compliance with biosafety protocols.	0.50
	Implement a job retention programme.	
Financial and tax mechanisms for the continuity of operations (short term)	Establish incentives linked to employability conditions.	
	Design financial products to improve the liquidity of companies: soft loans, Seed Capital and Risk Fund, among others.	1,156.00
	Increase the flexibility of taxes during the reactivation stage.	
Promotion and diversification of national production and the market (medium and long term)	Approve the Entrepreneurship and Innovation Law.	
	Ease tariff policy to facilitate access to supplies and raw materials during the reactivation stage.	
	Promote digital commerce and digitization of SMEs.	
	Promote associativity and cooperativism.	
	Promote national consumption and diversify internal and external markets.	
	Implement a sectoral competitiveness plan.	60.00
	Improve productive chains in industry and commerce.	
	Improve productivity and innovation.	
	Improve the competitiveness of aquaculture and fisheries sector.	12.00
Total		**1,228.50**

Tourism

Context

Before the COVID-19 pandemic, the tourism sector was growing in Ecuador and in the world. The World Tourism Organization (UNWTO) estimated growth between 3% and 4% worldwide in 2020, with growth also expected in Ecuador. In 2019, the tourism sector generated nearly $2.3 billion (2.24% of Ecuador's GDP that year), including $956 million from March to May, as shown in table 15.

Table 16. Net Sales Estimate 2019 (US$ millions)

Components	Net sales			Total (US$ millions)
	March	April	May	
Accommodation	22.52	22.36	22.56	67.44
Food and beverage service	107.42	108.22	114.86	330.50
Transportation service (passengers)	133.39	137.42	133.36	404.17
Travel agency and operator services	49.57	51.99	52.93	154.48
Total	**312.90**	**319.99**	**323.71**	**956.59**

Source: Internal Revenue Service (IRS) and Central Bank of Ecuador, 2019

According to information from the Ministry of Tourism's "Registry of Tourist Establishments", there were a total of 24,257 registered establishments until December 2019, more than 98% of which are MIPYMES.

Table 17. Number of tourism establishments

Size of the establishment	N° establecimientos	Participation
Micro	21,525	88.74%
Small	2,628	10.83%
Medium	95	0.39%
Large	9	0.04%
Total	**24,257**	**100%**

Source: Ministry of Tourism, 2019

Response measures

The quarantine decreed on 16 March reduced the mobility and gathering of people to a minimum, thus paralyzing tourism throughout the country. It included the following measures:

- Mandatory 14-day quarantine for travelers from China (Guangdong and Hubei), South Korea, Spain, France, Italy and Iran, United States (Declaration of the State of Emergency).
- Mandatory preventive quarantine for all Ecuadorian or foreign travelers upon entering the territory (Interministerial Agreements No. 001 and No. 002 signed by the Minister of Government and Minister of Foreign Affairs and Human Mobility).
- Closure of border crossings (14 March 2020).
- Total suspension, starting at 12 a.m. on 17 March 2020, of commercial passenger flights from international destinations to Ecuador (Interministerial Agreement No. 003).
- Mandatory 14-day quarantine and presentation of a negative COVID-19 test from an accredited laboratory within a maximum of 48 hours before entering the Galapagos Islands starting 17 March. Restriction of visitor access to the Galapagos National Park and Marine Reserve (Resolution No. CGREG-ST-2020-0465-R).

For its part, the Ministry of Tourism issued five protocols for the management of suspected COVID-19 cases in tourism businesses, three protocols for the reactivation of the sector (tourist transport, travel agencies, mountain guides) and a guide for tourist establishments in rural areas, along with the implementation of a virtual assistance channel for tourism businesses.

Loss estimation methodology

Information was collected from Internal Revenue Service (IRS) sales records, Central Bank of Ecuador (BCE) supply-use tables and Ministry of Tourism (MINTUR) supply-use tables. The monetary impact in the tourism sector was calculated using the sales registered in 2019 and 2020.

Effects of COVID-19 in the sector

Between March and May 2020, net sales in the main branches of the tourism sector decreased by 62.85%. The net impact would reach $584.98 million, of which 36% corresponds to food and beverage service and 34% to passenger transport.

Table 18. Summary of losses in the tourism sector

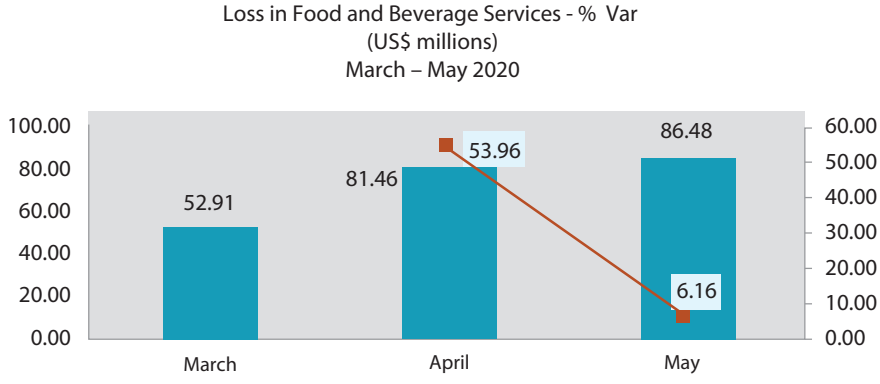
Areas	Sector		Total (US$ millions)
	Public	Private	
Accommodation		51.54	51.54
Food and beverage service		211.09	211.09
Transportation service (passengers)		199.76	199.76
Travel agency and operator services		122.59	122.59
Total		**584.98**	**584.98**

Source: Internal Revenue Service (IRS) and Central Bank of Ecuador, 2020

a) Effects on the production of goods and services

Net sales in the **hotel sector** decreased by **79.21%** between March and May 2020 compared to the previous year, which is equivalent to a net loss of **$51.54 million**. In the **food and beverage service**; net sales decreased by 66.75% with an accumulated net loss of **$211.09 million.**

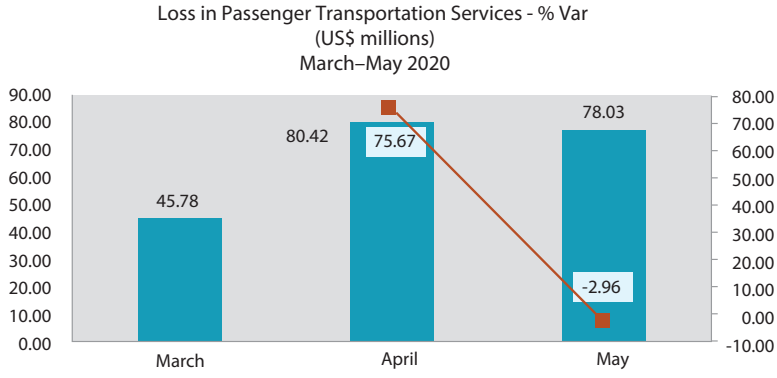
Graph 17. Net losses in the food and beverage service sector



Source: Internal Revenue Service (IRS) and Central Bank of Ecuador, 2020

Travel **agency and operator services** registered losses of $122.59 million with a 79.51% drop in net sales. In the **transportation service sector**, losses totalled $US199.76 million with a 50.57% drop in net sales.

Graph 18. Net losses in the transport service sector



Source: Internal Revenue Service (IRS) and Central Bank of Ecuador, 2020

b) Effects on the access of the population to goods and services

The health emergency changed the economic outlook and eliminated the conditions necessary for the sector to operate. The closure of airports and borders in many countries affected the demand of visitors and residents, who reordered their priorities and were forced to cancel reservations. Foreign exchange income from tourism fell, affecting the entire business chain and the corresponding tax revenues.

In addition, residents reduced their consumption due to social isolation measures, which led to the total or partial shutdown of activities of establishments linked to the tourism sector.

c) Effects on the governance of the sector

With the closure of tourist activity in the country, the Ministry of Tourism provided accommodations to returning Ecuadorian citizens in quarantine hotels for compliance with the Mandatory Preventive Isolation measure at an expense of $20,596.95.

d) Effects on increased risks and vulnerabilities in the sector

The country faces an economic crisis, and the collective well-being and the contraction of consumption poses a dilemma for tourist activity. The recovery of the sector will be gradual. Some businesses will return before others, while still others will have to adapt and reinvent themselves.

Needs for recovery, reactivation and continuity of the response

- **Financing lines for tourist establishments.** There are a total of 24,257 registered establishments, 98% of which are MSMEs. These have been the most affected by the crisis and would require financing to prevent the total closure of operations.
- **Human protection.** It is necessary to develop a communication strategy for tourists about the implementation of security measures in destinations, with a focus on domestic tourism that prepares the country to receive international visitors in the future.

- **Economic response and recovery.** The economic recovery focuses on the gradual reactivation of domestic tourism through the end of the year; segmented into niches, seasons and accessible destinations that have implemented appropriate biosecurity measures.

Recovery strategy

New business models that optimize cost and prioritize efficient service delivery will likely emerge in the tourism sector and therefore generate new variables of competitiveness. Structuring a package that integrates promotion, training and the quality of the destination will be essential for the reactivation of the sector.

Table 19. Summary of recovery strategies

Need	Strategy	Estimated cost (US$ mililons)
Lines of financing for tourist establishments	• Articulate public funds to make loans more flexible for tourism MSMEs. • Continue virtual technical assistance services for specialized financial linkages in the tourism industry.	483.00
Protecting people and biosafety practices	• Implement biosafety protocols with a focus on the food and beverage and accommodation sectors. • Encourage the implementation of waste management programmes and sanitary certifications in tourist establishments. • Train tourist providers in the application of biosafety protocols, and the optimization and reduction of capacity. • Promote the use of service digitization tools, e-payment buttons, online payment and automation.	N/A

	• Strengthen local tourism in the Magical Towns of Ecuador. • Focus on and prioritize destinations that are not massive, with an emphasis on nature and open spaces (rural tourism, adventure tourism and similar). • Prioritize domestic demand as it has the fastest recovery. • Promote synergies with other sectors such as the MAAE for certification of sustainable destinations.	N/A
Economic response and recovery	• Present Destination Ecuador to the international tourism industry with the support of the Ecuadorian trade offices and embassies overseas. • Organize national and international virtual fairs with the support and participation of the national tourism industry. • Design incentives for the national tourism industry and specific incentives for Ecuadorian and foreign tourists. • Obtain differentiated prices with airlines and the tourism chain (reactivation rates). • Design special packages with differentiated and innovative tours for families, couples, young people, senior citizens, depending on the potential of each destination.	N/A

Note: The cost estimate in terms of recovery needs is still partial.

Agricultural, Livestock and Forestry

Context

The real Gross Value Added (GVA) of the agricultural sector in 2019 ($5.54 million) is 8% of the National GDP, 0.1% higher than in 2018 ($5.54 million). In 2019, the sector exported US$6.66 million (49% of non-oil exports), and imports ($2.86 million) were 16% of total non-oil imports (ECB, 2019).

Ecuador provides 82.37% of the domestic food supply, which implies a low dependence on food imports. With the exception of flower and broccoli crops, the Andean region produces mainly for domestic consumption and the Coast for export. Six items make up 80% of exports: bananas (46%), roses, flowers and buds (13%), raw and roasted cocoa (10%), raw and processed wood (7%), broccoli (2%) and crude and refined palm oil (2%). The cultivation areas (from highest to lowest) of cocoa, rice, dry hard corn, oil palm, banana, plantain, sugar cane, dry soft corn and coffee cover more than 80% of the transitory and permanent crop surface (INEC and MAG, 2019).

The socioeconomic variables reveal pre-existing structural gaps and challenges such as employment, poverty, access and use of technology, among others.

Table 20. Socioeconomic variables

Agricultural employment (people)	**2,226,437**
Agricultural employment rate of national employment	28.6%
Rural suitable employment rate	38.8%
Rural underemployment rate	17.8%
Other rural non-full employment rate	28.0%
Rural unpaid employment rate	10.9%
Rural unemployment rate	3.8%
Rural income poverty rate	41.8%
Extreme poverty rate by rural income	18.7%

Sources: BCE, INEC, MAG, AGROCALIDAD

The Ministry of Agriculture and Livestock prepares the National Agricultural Plan 2020-2030 with the support of FAO to face the new challenges and structural problems of Ecuadorian agriculture, which includes the following strategic actions:

- Rural poverty reduction
- Closing the urban-rural inequality gap
- Job creation

- Containment of depopulation
- Improving nutrition
- Currency generation, and
- Resilience to the impacts of climate change

Response measures

The response measures sought to reduce the risk of infection and provide continuity to the operations and production of goods and services in the sector.

- Approval of protocols, guides and standards to respond to the health emergency.
- Procurement of equipment from international cooperation.
- Establishment of vehicle disinfection points, medical checks, room and board for transporters and producers.
- Activation of *biosecure logistics corridors, direct marketing fairs, Ecuador farm shops* (in 21 provinces), *De la mata a la mesa* (From the farm to the table) fairs, delivery of family baskets and other food supply actions.
- Activation of a process to monitor exports, sales, formal jobs, movement of livestock and supply in wholesale markets.
- Implementation of two tax issue initiatives and an agricultural credit policy to provide continuity to producers and the agro-export sector.

Loss estimation methodology

The information is compiled from the Agricultural Public Information System of the Agency for Phytosanitary and Animal Health Regulation and Control; vice ministries, undersecretaries, coordination offices and district directorates of the Ministry of Agriculture and Livestock; National Institute of Statistics and Censuses; Central bank of Ecuador; National Customs Service of Ecuador; and Internal Revenue Service. The exercises were based on regression models, econometric models, interannual variation rates; production assumptions were applied such as sowing planning and harvest distribution for each of the crops. The criteria used for the configuration of the models are found in Volume B of this evaluation.

Effects of COVID-19 in the sector

Although activities related to the production and transportation of food were excluded from the mobility restriction established in the State of Emergency, the stoppage of multiple activities did affect the sector, especially in terms of commercialization in certain cities. The accumulated losses between March and May are estimated at $358.37 million.

Table 21. Summary of losses in the agricultural, livestock and forestry sectors

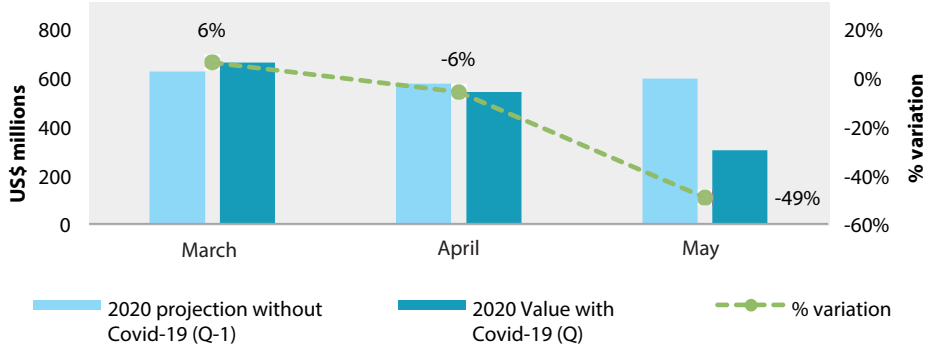
Components	Sector		Total (US$ millions)
	Public	Private	
A. Agriculture		**292.81**	**292.81**
1. Production			
0.1. Agricultural and agroindustrial sector exports			
Banana exports		117.80	117.80
Flower exports		82.16	82.16
Cacao exports		62.49	62.49
Broccoli exports		1.61	1.61
Other product exports		30.92	30.92
0.2. Production of food for household consumption		1.05	1.05
B. Livestock		**30.71**	**30.71**
1. Production			
Eggs		5.12	5.12
Milk		0.28	0.28
Chicken meat		35.35	35.35
Beef		0.61	0.61
Pork meat		1.37	1.37
C. Net sales losses according to the IRS		**34.85**	**34.85**
Net losses according to sales reduction in the commercial sector		34.85	34.85
TOTAL US$		**358.37**	**358.37**

Source: MAG - INEC – IRS, 2020

a) Effects on the production and distribution of goods and services

The closure of borders affected exports, with losses estimated at $291.76 million. Banana exports were the most affected with $117.8 million in losses, followed by flowers ($82.16 million) and cocoa ($62.49 million). Exports for March were 6% higher than the projected value and 6% and 49% lower in April and May, respectively (Figure 1).

Graph 20. Exports (projected and observed)in March, April and May 2020

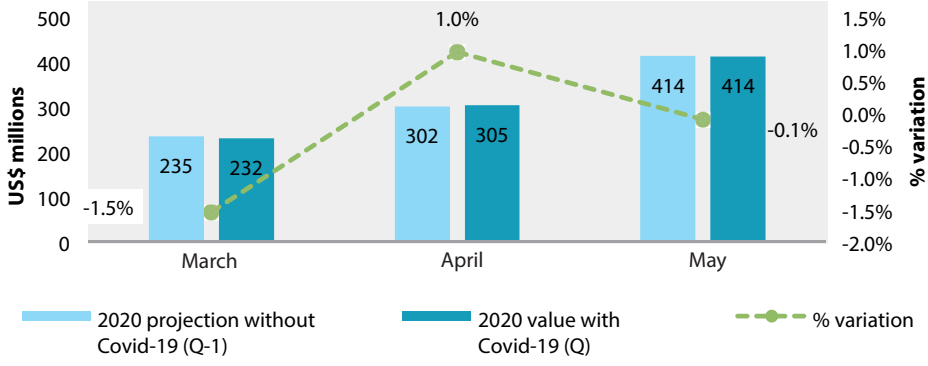


Source: BCE - SENAE

Losses in agricultural products for household consumption are estimated at $1.05 million and $30.71 million for livestock products. Compared to 2019, a decrease of $34.9 million in sales is observed.

In the **livestock** sector, there was a decrease in the movement of cattle to slaughter (and a temporary closure of the fairs) although prices remained above projections. The movement of pigs (435,000) was 14% lower than in 2019. Approximately 5.1 million birds were sent to slaughter centres from January to May 2020 (13% more than in 2019), generating a loss of $35.35 million due to oversupply.

Graph 21. Food production for household consumption (projected and observed) in March, April and May 2020



Source: MAG – INEC

b) Effects on the access of the population to goods and services

At the beginning of the emergency, changes in the mobility conditions of buyers stimulated purchases at higher volumes, which contributed to the reduction of supply in some markets and generated an increase in the prices of some agricultural products, especially fruits and vegetables from the Andean region. The decrease of supply in markets was mainly due to logistical problems in the transfer of products from the field to the main cities because of a fear of infection.

As the emergency progressed, direct sales fairs from producers to consumers were held in small cities with distancing measures, and alternative marketing channels were established (online sales and home deliveries). For their part, the large supermarket chains continued to function normally.

c) Effects on the governance of the sector

The health emergency affected the fulfillment of Ministry of Agriculture and Livestock (MAG) goals:

- Of the 35 services it offers (certifications, registrations, authorizations, licenses, degrees, legalization processes, etc.), 54% were carried out in person. Before the emergency, four new procedures went **online**.
- **Land adjudication** processes fell from 6,217 (March 17 to 31 May 2019) to 2,525 in the same period in 2020, while the entry of properties in the Land Registry Geodatabase (GDB) through the teleworking modality increased from 300 in 2019 to 3,500 between March and May 2020.
- The **Peasant Family Farming** component, which had 255 Alternative Marketing Channels before the emergency, was disactivated. The Agrotienda strategy was immediately activated, which managed to commercialize approximately 36,045 baskets in 21 provinces, establishing a direct connection producer and consumer.
- The Undersecretary of Technical Parcel Irrigation halted the construction of 26 works and training and technical assistance to producers. The delivery of **technology packages** in different crops was temporarily suspended.
- The vehicle restriction and the curfew caused a decrease in forest use, with April lowering the lowest use.

The main operational difficulties are:

- Speculation in the purchase price of agricultural products.
- Limited communication with merchants due to lack of technological infrastructure in the rural sector, and limitations in the use of technology by most producers.
- Limitations on the mobility of production, territorial separation and lack of commercial connectivity due to the discretionary interpretation of the safe-conduct in the GAD.
- Lack of knowledge of biosecurity measures for the handling and transport of products.

d) Effects on increased risks and vulnerabilties in the the sector

The high concentration of people in formal and informal markets and fairs, and of workers in field activities and processing centres, increases the risk of infection.

The effects of the crisis are impacting previously sown crops, therefore managing the next production cycle is key for domestic consumption and exports.

The pandemic accelerated the deterioration of income poverty indicators and increased the rural-urban gap. Among the effects of these changes are: producers with fewer economic resources, high risk of exposure and precarious health service, decrease in the availability of food at home, decrease in schooling due to fear of infection and lack of resources.

The recovery of the supply of domestic market products does not seem to be a problem, but the demand for summer harvests could be reduced due to the increase in unemployment and poverty. The demand for rice and potatoes is expected to continue, while the demand for animal protein is expected to decline.

Although a reduction in overall employment will not be felt in agriculture, fewer salaried workers will be hired in export chains. Rural-urban migration will generate surplus labour, which would lower wages.

Needs for recovery, reactivation and continuity of the response

The principle needs identified for the initial phase are:

- Productive and commercial activation
- Promotion of production
- Credit policy
- Monitoring and evaluation
- Coordination and governance

Recovery strategy

Taking into account the identified needs, the MAG has defined two intervention phases:

a) Mitigation of impacts and survival of the productive apparatus;

b) Reactivation of the growth trend on a solid basis of competitiveness, inclusion and sustainability (PNA, 2020).

The main strategies identified are:

Table 22. Summary of strategies

Needs	Strategy	US$ millions
Productive and commercial activation	• Apply biosecurity protocols. • Analyse the priority items with INIAP. • Establish partnerships/agreements with supermarket chains, stores, delivery baskets, restaurants, hotels, etc. • Continue the De la mata a la mesa (From the farm to the table) fairs and local peasant fairs. • Implement the Agrotienda Ecuador Online Platform for the sale and payment of Family and Peasant Agriculture food baskets. • Develop virtual business roundtables. • Promote sustainable production chains and equitable trade. • Promote biosecure food banks and logistics corridors. • Strengthen artisanal laboratories or bio-inputs modules. • Grant flexible financing for main national consumption items.	
Promotion of production	• Encourage the development of innovative products. • Implement technical irrigation studies for individual producers and organizations. • Have prioritized seeds to improve the yield and sustainability of the offer. • Resume the PROAMAZONIA and Sustainable Livestock programme. • Create new productive clusters. • Regulate prices in the market.	
Credit policy	• Legal and procedural reforms to provide continuity to production. • Grant credits at preferential rates and terms. • Drawback for agro-exporters.	
Monitoring and evaluation	• Monitor the effects of the pandemic (biosecurity), production processes and the market. • Create performance scenarios for the national market and exports. • Monitor socioeconomic variables of the rural population. • Assess the bottlenecks identified. • Include the monitoring results in information systems used for the preparation and monitoring of national and local planning instruments.	
Coordination and governance	• Coordinate productive development strategies with the cantonal and provincial GAD and COE. • Generate partnerships with governmental and non-governmental actors in the sector. • Create an Agri-Food Emergency Committee, International Cooperation Board Ad Hoc Advisory Council.	
TOTAL		**59**

Note: the cost estimate of the recovery needs is partial.

Social Sector

Health

Context

In Ecuador, the health sector is made up of five subsystems: four public[7] and one private. The public systems each have their own law of creation and operation. The Ministry of Health exercises the steering role for the sector and the national health authority. Public subsystem service provision is articulated through the *Comprehensive Public Health Network* (RPIS).

In 2012, the *Comprehensive Health Care Model* was established, a model that seeks to ensure the continuity of patient care at different levels of complexity, and includes: health promotion, disease prevention, health recovery and rehabilitation, and palliative care, pain management and accompaniment in good death.

In 2018, there were 4,165 establishments, 80% from the public sector (59% MPH, 19% IESS and 2% ISSFA and ISSPOL) and 20% from the private sector. Eight-nine percent of public sector facilities do not have in-patient care, while the private sector has more hospital centres (64%) with 39% of the beds (INEC-RAS, 2018).

The public subsystems have a designated budget of $5.49 billion in 2020, representing 5.11% of GDP. The ratio of medical personnel to population is 23 per 10,000 inhabitants, a minimum standard defined by PAHO; the ratio nurses to population is 15 per 10,000 inhabitants. The shortage of hospital and Intensive Care Unit beds at the beginning of the emergency, (1,183 available between public and private, equal to 7 beds per 100,000 inhabitants) was evident during the pandemic.

The Constitution of the Republic guarantees the right to health and permanent, timely and inclusive access to comprehensive health promotion and care services through economic, social, cultural, educational and environmental policies.

Despite progress achieved, 2018 data revealed a 8.1% gap in the effective access to health services, that families invest in health up to 39% of the value of the sector budget, and 2.4% of the Ecuadorian population has been pushed below the poverty line by catastrophic health expenditures (WHO, 2020) (OECD/WB, 2020).

The State of Emergency facilitated the adoption of measures to respond to the Health Emergency through personal, family and community prevention and care, reprogramming of budgets, assignment of responsibilities to the institutions of the system, procurement of equipment and drugs, approval of protocols, organization of human effort, information management and other key aspects.

The loss of life, temporary collapse of services, reduction of budgetary capacity and recurrence of corruption practices in the sector merge with an increase in poverty, loss of employment and disruptions in the performance of the economy to configure a scenario of vulnerability for the sector as infections continue to occur. Faced with this situation, the State needs to prolong its response effort to COVID-19 and must also resume its regular programmes and goals to avoid and diffuse other crisis cycles.

7 Ministry of Public Health (MHP), Ecuadorian Institute of Social Security (IESS), Institute of Social Security of the Armed Forces (ISSFA), Institute of Social Security of the National Police (ISSPOL).

Response measures

The Ministry of Public Health registers 43 regulatory instruments[8] issued in the response to COVID-19 between January and July 2020: 22 up until May 31 and 21 between June and July. The first instrument issued was the Inter-Institutional Protocol to address Public Health Emergencies of International Concern (PHEIC) on 27 January. There were no regulatory instruments issued in February, followed by 11 instruments issued in March; 8 in April; 3 in May; and 21 in June and July. This includes Ministerial Agreement No. 00126-2020 signed on 11 March, which declares the State of Health Emergency in the National Health System.

Some of the aspects regulated in March include: Prevention and control guidelines for SARS CoV-2/COVID-19 cases, Protocol for home isolation for suspected cases of COVID-19, Operational response guidelines for COVID-19 in people deprived of liberty, Protocol for telemental health services for COVID-19, Guidelines for the pre-hospital care service-ESPII SARS CoV-2, Protocol for the prevention of psychosocial risks related to COVID-19, Handling and final disposal of dead bodies with a history and presumption of COVID-19, Recommendations for the management of newborns with suspected or confirmed COVID-19. In April, the following were issued, among others: Regulation on PCR rapid tests/reagents for detection of COVID-19, Regulation for the development of health research during the COVID-19 emergency. In May, the criteria for the selection of infrastructure for the implementation of centres for mandatory preventive isolation for people in vulnerable situations were issued, and in June the Protocol for the management of older adults in public and private residential gerontological centres.

Loss estimation methodology

Using the PDNA methodology, losses estimated in the public and private sectors were organized according to five components: 1. Production and distribution of health goods and services, 2. Resources, infrastructure and physical assets of the health sector, 3. Access of the population to health goods and services, 4. Governance of the health sector, and 5. Increased risks and vulnerabilities of the health sector.

For this purpose, 17 items were selected to identify the losses, (10 of which are concentrated in the first component). Various criteria and tools were used according to their relevance to the particularity of the items.

In some cases, the opportunity cost was calculated for the unanticipated use of resources, in others inter-annual comparisons, cost-effectiveness assessments or estimates were made based on reference averages, mainly from data from the Ministry of Health and the IESS.

Public losses in the production and distribution of health goods and services component represent 81% of total losses in the sector and 89.4% of losses in the public sector. For illustration, the calculation method is presented in two items of component 1:

1. *Curative resources for COVID-19 services*. The loss is made up of both the cost of the services provided to treat coronavirus ($122.9 million) and the value of the regular services provided for other causes ($162.3 million). The estimate is based on the opportunity cost using the value of a standard care per patient ($271.76).

8 https://www.salud.gob.ec/documentos-normativos-covid-19-ecuador/

2. *Preventive and promotional resources for COVID-19 services.* Due to their low cost, preventive and promotion health activities are very cost-effective in the face of eventual payment of highly complex curative interventions in hospitals. The loss estimate considers only the value of the services that were stopped in the period in 2020, comparing them with those carried out in the same period of 2019.
3. *Differential value between the cost of normal and COVID-19 care.* The average care of a COVID-19 service requires different resources than a standard service. The value for the care of a coronavirus patient was obtained from the average spent by the IESS from March to May 2020 ($499), which is $227.24 higher than the estimated value per standard patient[9]($271.76).
4. *Deceased professionals (human capital lossed).* The quality of the health service depends directly on its human capital. The cost of hiring other health professionals to fill the places of the deceased, with 7 to 15 years of professional training and specialization, was estimated.
5. *Investments in infrastructure and provision of hospital beds and intermediate and intensive care,* some temporary and others permanent. These investments involved additional values not available in the regular budget. Expenditures were established according to the records for these items.

Evolution of the crisis in the sector

In the reference period, there are 39,098 infections and 5,512 deaths, including 3,358 confirmed and 2,154 probable COVID-19 deaths. The infection and fatality rates per million inhabitants are 2,216 and 190.3, respectively. The average increase is 443 new cases per day. Of those infected, 40% recover at home, more than 50% have overcome the disease, 1.2% are hospitalized, 0.6% are in intensive care and 8.6% have died (SNGRE, Infographic 094). The spread of infections reached an R0[10] [11] between 2.7 and 3.28 per patient.

At the end of May in Guayas, the infection rate was 3,174.5 per million inhabitants (with 14,051 cases representing 46.6% of infections) and the fatality rate was 317.2 per million. In Santa Elena the death rate was 1,921.8 per million inhabitants, and the death rate (the highest in the country) was 700.4 per million. The majority of infections occurred in the group aged 20-49 years (56.3%), followed by 24.2% in the group aged 50-64 years and 16.2% in people aged 65 years and older. There was practically no infection among children and adolescents under the age of 19. Of those infected, 55% were men and 45% women. Especially vulnerable groups were public servants, particulary health personnel (9.3%-10% of total infections), followed by the public forces and prison guards. Seventy-two percent of the infected population was mestizo, 7% indigenous and approximately 1% Afro-Ecuadorian (MPH, 2020a) (Ortiz, E. et al, 13 May 2020).

Compared to the same period in 2019, between March and May 2020, the number of patients treated in MPH facilities decreased by 38.4% and by 41.5% in IESS facilities.

9 For purposes of establishing a general average cost, a standard or regular patient is defined as one who was not treated for COVID-19, but for any other cause or pathology.

10 The basic reproduction number R0 is considered as the average number of new cases generated by a given case (base) throughout an infectious process.

11 Figure obtained from the study by Ortiz et al of 13 May 2020. Op. Cit. pg.3.

The health system in Guayas and diagnostic support services such as laboratories and imaging were saturated. The delayed PCR tests have been processed since 8 April[12]. In addition, 17 private laboratories were accredited and authorized to process samples for the same purpose and 33 laboratories for sample taking only. By 31 May, there was a rate of 4.05 PCR tests per 1,000 inhabitants.

At the beginning, two hospitals were assigned to excusively treat COVID-19 patients. These were supported by 26 additional hospitals, while another 133 hospitals provided other services to the population. Given the magnitude of cases, the system collapsed. The gradual allocation did not work, and other public and private establishments were incorporated in all the provinces. The Decentralized Autonomous Governments (GAD) participated in the management of the epidemic by enabling spaces and beds for isolation and care prior to intermediate or intensive care, given their limitations of jurisdiction.

At the national level, the official death toll produced disagreements between government spokespeople, the Ecuadorian civil registry, public hospitals, the media, municipalities and the population. The provinces of Guayas and Santa Elena were not prepared to handle dead bodies, and the system was overwhelmed. The dismissal of bereaved persons and acts of corruption generated a great deal of discomfort.

The measurement and assessment of the *disease burden* between March and May, (5,512 deaths across age groups and 39,098 cases of morbidity) adds another perspective by establishing the loss of 172,000 disability adjusted life years (DALY) with an estimated value of nearly $5.2 billion, close to the value of the country's GDP per capita ($6.2 billion). Translated into GDP values, the loss of life attributed to the coronavirus (deaths in the three months of analysis due to non-established causes are not included in the calculation) is equivalent to almost the total production that each Ecuadorian would generate in 2020.

Weaknesses in information management and the need for additional measures to guarantee that resources allocated to supplies, medical devices, drugs and infrastructure must be corrected to ensure good performance and credibility of the system, improve collaboration within and outside the sector and for social cohesion, which are essential for governance and the continuous fight against corruption.

Summary of effects

Direct damages and losses in the period March to May 2020 are estimated at $870 million and are organized into five segments or components as shown in the following table.

12 On 6 April, by commodatum agreement, a multinational pharmaceutical company provided COVID-19 molecular test sequencer equipment, which is installed in the Guayaquil plant in the national reference laboratory (INSPI) and adds 1,400 daily tests to the 400 that were carried out.

Table 23. Summary of losses in the health sector

Component	Sector		Total (US$ millions)
	Public	Private	
Production and distribution of health goods and services	**707.89**	**16.80**	**724.69**
Curative resources for COVID-19 services	285.20		285.20
Preventive and promotion resources for COVID-19 services	317.20		317.20
Pre-hospital resources for COVID -19 services	2.70		2.70
Private network referrals	11.30		11.30
Differential value between cost of normal and COVID-19 care (use of additional resources to a standard service)	56.20		56.20
Laboratory value	4.30		4.30
Management of dead bodies	3.47		3.47
Donations of supplies, money, in-kind aid and services for health care and promotion and disease prevention	25.30	7.70	33.00
Personal protection supplies and equipment	2.22		2.22
Health services		9.10	9.10
Health sector resources, infrastructure and physical assets	**83.37**		**83.37**
Deceased professionals (human capital lossed) and compensation to relatives.	61.50		61.50
Investments in infrastructure and provision of beds	18.90		18.90
Increased capacity in reference laboratories	0.79		0.79
Planned investments (pre-hospital) that will not be implemented	0.99		0,99
Technology updates	1.19		1.19
Access of the population to health goods and services		**59.80**	**59.80**
Resources allocated by the population for the procurement of devices, equipment and materials for prevention, compensation for health care and death of family members		59.80	59.80
Governance of the health sector	**1.60**		**1.60**
Changes in sectoral employment	1.60		1.60
Increase in vulnerability and risks in the health sector	**0.15**	**0.38**	**0.53**
Reemergence due to vector diseases (malaria, dengue, etc.)	0.15	0.38	0.53
TOTAL US$	**793.00**	**76.98**	**869.99**

a) Effects on the production and distribution of goods and services

The pandemic altered the operation and budget of the sector as a result of the increase in the number of pre-hospital, emergency, primary and hospital care services for COVID-19, with the use of laboratories, imaging and drugs; the drastic reduction of regular patient care in the public network; the substantial reduction of health promotion and disease prevention programmes; the referral of patients from the public network to the complementary private network; and the increase in the number of COVID-19 deaths. Losses were identified in the following areas:

1. Curative resources for COVID-19 services.
2. Preventive and promotion resources for COVID-19 services.
3. Pre-hospital resources for COVID-19 services.
4. Referrals made to the Complementary Private Network by the MPH and the IESS.
5. Differential value between the cost of normal and COVID-19 care.
6. Laboratory value.
7. Hospital management of COVID-19 deaths.
8. Donations.
9. Personal protection equipment and supplies.
10. Losses in the private sector due to unrealized health services.

b) Effects on resources, infrastructure and physical assets

The pandemic does not imply destruction of physical assets, but it does entail irreparable damage to other resources in the health sector.

1. Deceased professionals (human capital lossed).
2. Investments in infrastructure and provision of beds.
3. Investments in reference laboratories.
4. Planned investments that will not be implemented in the pre-hospital setting.
5. Technology updates.

c) Effects on the access of the population to goods and services for personal protection

In this area, fundamental value is assigned to the resources allocated by the population for drugs and COVID-19 tests; and to pay for expenses connected with the deaths of family members.

d) Effects on the governance of the sector

Loss due to death or decrease in employment, high turnover and other aspects related to changes in employment in the sector were estimated.

e) Effects on increased risk and vulnerabilities in the sector

The displacement or weakening of prevention and promotion prevents timely correction of risk situations. This displacement has occurred in maternal health, prenatal check-ups, contraception and family planning consultations, HIV detection and treatment and related check-ups of healthy newborns and children. Among the foreseeable effects are child malnutrition and unhealthy growth of minors, as well as mental health problems (violence and depression) that contribute to configuring societies with a high tolerance for conflictive relationships and subsequently affects the development of the country in all areas. Finally, the risk of vector diseases (malaria, dengue and others) also increases as a consequence of decreased prevention efforts.

Needs for recovery, reactivation and continuity of the response

The needs were defined and assessed taking into account the five categories of effects established in the PDNA methodology (UN, 2017) (UN, 2020b) and the 10 pillars established by the WHO[13] to address the COVID-19 pandemic (WHO, 2020a) (WHO, 2020d) (MPH, 2020a), which were incorporated into the MPH's Preparedness and Response Plan. The prioritized needs are:

- Appropriate case management.
- Expedited processes to ensure supplies and resources for the health system.
- Maintaining health services.
- Recovery of capital resources in the sector.
- Investments in reference laboratories.
- Investments in beds.
- Technology updates.
- Improved governance and social processes.
- Rapid redistribution of workforce capacity, including reassignments and task sharing.
- Reduction of future risks and vulnerabilities.

Recovery strategy

The resources necessary for the proposed strategies total $964.8 million, of which 98% is allocated to the production and distribution of health goods and services for the provision of appropriate care.

13 The pillars are: 1. Country-level coordination, planning and monitoring, 2. Risk communication and community engagement, 3. Surveillance, rapid-response teams and case investigation, 4. Points of entry, international travel and transport, 5 National laboratories, 6. Infection prevention and control, 7. Case management, 8. Operational support and logistics, 9. Maintaining of essential health services and systems. See: : https://covid-19-response.org/pillar/1

Table 24. Summary of strategies

Need	Strategy	Estimated cost (US$ millions)
Appropriate case management	Establish mechanisms for rapid case detection and rapid contact tracing (detailed data).	0.03
	Implement improved infection prevention and control practices in communities and health facilities in preparation for COVID-19 care to prevent transmission to staff, patients, visitors and the community.	7.68
	Prepare health services to attend to the eventual increase in suspected COVID-19 cases.	441.83
	Map and improve the capacity and performance of pre-hospital, outpatient, emergency and hospital services, as well as diagnostic support and drug management and the provision of personal protective equipment.	162.30
Expedited processes to ensure supplies and resources for the health system	Perform an immediate budget reprogramming accounting for the sacrifice carried out during the months of the pandemic.	0.00
	Replenish the stock of supplies, drugs and medical devices, including modern contraceptive methods.	2.20
	Improve internal coordination of the Comprehensive Public Health Network (RPIS) and referral criteria and controls	0.00
Maintaining health services	Map, strengthen and monitor health promotion and disease prevention programmes and activities, with special emphasis on priority groups.	317.20
	Optimize the operation of national telecare mechanisms implemented to respond to the psychosocial needs of the population.	3.15
	Implement containment and discharge mechanisms for established and functioning health teams.	0.16
	Strengthen capacities of health teams to detect and manage mental health conditions associated with emergency situations.	0.07
Recovery of capital resources in the sector	Establish a worktable with the universities to establish a plan with roles, values and commitments to ensure the human resources required by the sector.	0.00
Investments in reference laboratories	Generate the national capacity to carry out RT-PCR diagnosis through the CNI/INSPI in the national territory.	6.82

Investments in beds	Assess public health provider, infrastructure, equipment and furnishing needs and establish a master plan until 2030.	0.00
Technology updates	Strengthen and maintain information and communication technologies (ICTs), networks and staff, and prepare for new demands in various sectors and levels (preparedness and response activities).	0.77
Improved governance and social processes	Generate an immediate action plan to strengthen governance functions in health priorities.	0.00
	Engage national authorities and key partners to sustainably develop a national plan for the continuity of the response to COVID-19.	0.02
	Assign financing for timely payment of wages, overtime, sick leave and risk incentives, including for temporary hires.	12.00
Redistribution of the workforce and tasks	Initiate immediate training and support for critical work, including diagnosis, triage and preventive clinical management of essential infections.	0.60
Reduction of risks and vulnerabilities	Generate an immediate and short-term action plan to reduce vulnerabilities and health risks with strong insertion in the community.	0.00
TOTAL US$		**964.83**

Education[14]

This report provides an account of the National Education System, which includes early, general basic and high school education and higher education. The government institutions were responsible for the collection, processing and analysis of the information, as well as the reflection on the results, findings, needs and strategies.

Effects of COVID-19 in the education sector

Between March and May 2020, losses of $264.40 million are estimated for the entire Ecuadorian educational system, 93.3% of which correspond to the private sector.

Table 25. Summary of losses in the education sector

Components	Sector		Total (US$ millions)
	Public	Private	
Early, general basic and high school education bachillerato	16.82	100.67	117.49
Higher education*	0.87	**	0.87
Total private early, general basic, high school and higher education (IRS)		146.04	146.04
Total	**17.69**	**246.71**	**264.40**

*The higher education report includes an amount of $66.14 that corresponds to a reduction in the budget of the Higher Education Institutions (HEIs); budget reductions are not considered losses according to the PDNA methodology.
** After the closing of the consolidated loss report, information was processed from a survey conducted by SENESCYT and CES to private HEIs, which reported losses in the amount of $57.98 million. The consolidated loss table includes the amount of $146.04 million, which corresponds to the total net losses reported by the IRS and which are attributable to the entire private education sector.

BASIC EDUCATION AND HIGH SCHOOL SUBSECTOR

Context

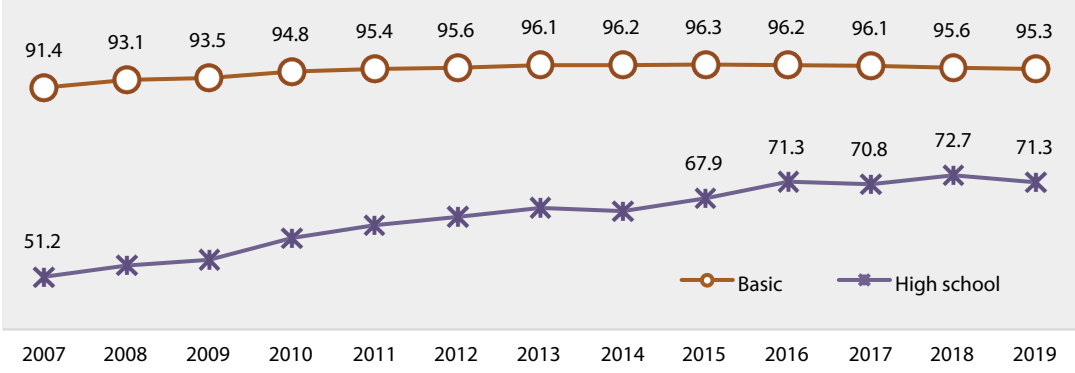
Some 53.3% of households in Ecuador (4.7 million) have at least one member under the age of 18 years[15] who needs education services. Ecuador has 4,337,414 students enrolled in the Andean and Coastal region school systems(MINEDUC, cutoff as of 31 May, 2020).

Basic education coverage (from early education to grade 10) is almost universal, with slight setbacks in the last four years. In the three years of the high school cycle, the situation improved since 2008 and has sustained rates close to 70% for the last four years.

14 Under this heading, the evaluation presents the early education through high school subsector governed by the Ministry of Education, as well the higher education subsector governed by SENESCYT.

15 Source: ENEMDU 2019, INEC.

Graph 22. Net national attendance rate



Source: MINEDUC, 2019

Public education covers 75% of the demand, with an annual investment of $857[16] per student. Access and investment are unequal both in terms of space criteria (urban and rural areas) and social vulnerability (poor, indigenous communities, people of African descent, women). In some rural areas, the educational lag is very high: in the Eloy Alfaro canton, with a majority of people of African descent, the lag in high school reaches 48%; in bilingual education, the lag reaches 11.3% (22.3% in the Coastal region and 10.2% in the Andean region). Some 268,000 minors are outside the educational system. The greatest exclusion in education affects minors where the head of the household self-identified as Montubio, reaching 11% or double the national average[17].

Within social vulnerability, poverty operates as a key constraint for access to education. In December 2019, income poverty[18] was 25.0%, two points higher than the previous year; urban poverty 17.2% and rural 41.8%, also two points higher that the previous year. The national multidimensional poverty rate as of December 2019 was 38.1% (INEC); child labour rates grew from 8.6% in 2013 to 12% in 2017, in parallel to the country's economic slowdown.

Venezuelan migration generates additional pressure on school demand in the public sector (increasing from 10,730 students in 2018-2019 to 45,348 in 2019-2020), and it is estimated that there are some some 30,000 Venezuelans between the ages of 5 and 17 years outside the educational system.

Sixteen percent of rural households have internet access, with a 46.6% average access in the city and 11.7% in poor households. In poor households, 73.4% have a television; 15.1% have a computer, laptop or tablet; and 82% have a cell phone. Having television at home does not guarantee access during class hours. In addition, there are a large number of homes without Internet, television or radio, which require other means.

16 Source: MEF - Financial Administration System Registry - E-Sigef, own development.

17 Situation of children and adolescents in Ecuador, 2019, pg. 120.

18 Income poor is someone whose per capita family income is below the poverty line.

Loss estimation methodology

The exercise on early, basic and secondary education covers: 1) the description of the situation and the first response to the emergency, 2) the effects of emergency management, 3) the additional costs to respond and adapt to the emergency and 4) a proposal for reactivation and recovery. The information comes from the Ministry of Education.

Response measures

The *Technical Table 5* (MTT5 of the COE-N) led by the Ministry of Education coordinated the response with the participation of the Education Cluster of the International Cooperation System.

On 3 April, MINEDUC ordered the suspension of all classes in the national territory (Agreement 2020-00020-M). On 7 May, the decision was made to resume classes in the Coastal region system (Agreement 2020-0028-A) and finish the school year in the Andean-Amazonía system.

The response was organized along three lines: 1) infection prevention actions; 2) psychosocial support and protection; and 3) educational continuity with the "Let's Learn Together at Home" plan.

Between March and May, the following actions are highlighted:

- Modification of educational work (teleworking) and calendars.
- Reduction of wages and working hours.
- Adaptation of the curriculum (emergency education curriculum). This curriculum is the basis of the virtual platform for e-learning and radio education.
- Virtual training for 125,000 teachers for continuity of educational processes.
- Development of a multiplatform for at home and distance learning. Includes educational material in Spanish, Kichwa and Waorani, content, educational guides, learning cards, among others.
- Improved connectivity and access to virtual media. The online portal "Covid-19 Educational Plan" (resources2.educacion.gob.ec) and the "My Online Classroom" platform were developed. 5,436 connectivity plans were donated to teachers, UDAIs and DECEs.
- In coordination with the Ministry of Social and Economic Inclusion, the food from the School Feeding Programme was partially distributed.

Effects of COVID-19 in the subsector

Between March and May 2020, losses of $263.54 million are estimated in the subsector, 93.6% of which corresponds to the private sector.

Table 26. Summary of losses in the primary and secondary education subsector

Components	Sector		Total (US$ millions)
	Public	Private	
Additional costs*	3.45		3.45
Receipt of in-kind or service donations	13.37	100.67	114.05
Net loss of education		146.04	146.04
Total US$	**16.82**	**246.71**	**263.54**

* Purchase of supplies, printing of guides, services and pedagogical activities.

a) Effects on the production and distribution of goods and services

In the period March to May 2020, 114 people linked to the subsector died, including students, teachers and professionals from the Student Counseling Departments.

The health emergency required approximately 4.5 million minors to switch to the distance learning modality (53% of the country's households). This modality drastically alters the teacher-student-household interaction.

Learning at home requires an extra effort from parents, and the quality of support for children is highly dependent on the level of education of the people at home. Some families have incurred the costs of connectivity, technological devices and private teachers. For many teachers, the challenge has been to learn new teaching modalities and to invest additional time in preparing virtual classes and materials.

b) Effects on the access of the population to goods and services

Four out of 10 children have access to Internet and the exclusive availability of a computer or tablet. The educational offer of the Ministry decreased in early childhood family care service (SAFPI), especially in the Coastal region (from 9,660 boys and girls in 2019-2020 to 676 in the 2020-2021 cycle) due to the separation of teachers.

Access to programmes such as school meals, textbooks and uniforms has been difficult in the public system. The budgetary restrictions have led to the re-prioritization of resources and the reduction of coverage in some programmes for those students who have not completed their baccalaureate.

A total of 203 teachers were removed (*in-service training of mentors*), affecting the teaching process of 4,000 teachers through the application of learning strategies for reading, writing and the improvement of the classroom climate for more than 60,000 students in the first four grades of basic education.

In the 2020-2021 cycle, two private educational institutions have closed, and 31 are in the process of closing due to the difficulties in collecting school fees. A total of 80,697 students have gone from private to state institutions on the Coast, 15,254 from public/religious (*fiscomisonal*) to state, 5,852 from municipal to state, accumulating 101,803 additional students in the public system, with the consequent increase in the need for teachers, texts, food, among others, and additional complications for the safe return to classes to maintain distance in the classroom and cover the costs of water, sanitation and hygiene.

c) Effects on the governance of the sector

The reprogramming of resources towards health has reduced the availability for the education system (and other systems). Dismissal of support staff, lower wages, late payments, increased workload, outbreaks of corruption affect the motivation of teachers and can compromise the achievement of goals in the sector.

The virtual modality has modified the priorities in the use of teachers' time. The new modality requires: i) teachers to prioritize the preparation of classes and materials, monitoring of students and their own virtual media training; ii) school managers to use their time to manage new administrative and coordination tools; iii) technical and administrative MINEDUC staff to prioritize the design and dissemination of the emergency curriculum and training to optimize multi-platform use.

From another point of view, the subsector is experiencing an atypical situation that can generate very important learning for the innovation of educational practices and their management.

d) Effects on the increase in risks and vulnerabilities in the sector

The crisis increases exclusion and lag, which in many cases leads to the abandonment of complete basic education and high school. International evidence indicates that the longer education is interrupted, the more likely it is that the most vulnerable population will drop out of education.

One of the groups most affected by the suspension of classroom teaching are households with limited access to the Internet and information technologies, which on average have more than two school-age children who demand the use of the same resource at the same time. Depending on the conditions in the home, this can lead to frustration and family violence.

Needs for recovery, reactivation and continuity of the response

The needs identified for the next 8 to 12 months are:

1. Guarantee access to education for the population, especially for the most vulnerable.
2. Ensure the implementation and proper use of the multi-platform learning and other tools.
3. Apply an emergency curriculum.
4. Establish a monitoring system for the intersectoral plan for the safe use of physical learning spaces at the territorial and national level.

These needs are closely related to three of the five pillars of the UN framework for the immediate socio-economic response to COVID-19: health first, protecting people, and economic response and recovery.

Recovery strategy

Educational management plan with an emergency educational model.

Table 27. Summary of the primary and secondary education subsector strategies

Need	Strategy	Estimated cost (US$ million)
Guarantee access to education, permanence in the system and the rights of people	• Design a flexible model for the closure and reopening of educational institutions • Strengthen the distance education model • Deepen the work on educational inclusion, equality and non-discrimination • Recover the SAFPI programme • Increase psychosocial support and social protection staff • Update risk management plans in educational units • Develop protocols for educational institutions on social distancing measures and hygiene practices, and train staff for their implementation • Increase the provision of drinking water, hand washing stations and gender-segregated toilets, including provisions for the management of menstrual hygiene • Recover teacher salaries, return to 8-hour work day	
Ensure proper implementation and use of tools and multi-platform learning	• Provide materials and connectivity to students and teachers (access to online platforms and physical educational resources) • Expand TV and radio education programmes. • Distribute educational resources (texts, online resources, school supplies) to improve access and continuity of education • Recover teachers in training as mentors	
Apply the emergency curriculum	• Expand the number of teachers taking into account the new standards for the provision of educational services • Offer vocational education and technical degrees for adolescents lagging behind or dropping out of school • Design a pedagogical model for the "home schooling" modality • Recover the coverage of extraordinary education programmes for the population with special educational needs • Generate studies and programmes with the support of universities to improve the quality of education	
Establish a monitoring system for the intersectoral plan	• Form a Technical Advisory Committee • Have specific strategies and plans to prevent and punish acts of corruption within the education system • Design and monitor compliance with the conditions for return to the classroom modality	

Note: the costs associated with the recovery needs have not been estimated and are therefore not reflected in the final table of sector needs.

HIGHER EDUCATION

Context

The institutional offer in 2020 includes 294 public, co-financed and self-financed higher education institutions (HEIs), 20.4% of which are Universities and Polytechnic Schools (UEPs) and 79.6% are institutes. At this educational level, there are approximately 733,000 students enrolled; 57% in public entities and 43% in private; 84% in UEPs and 16% in technical-technological institutes (ITTs). UEPs account for 92% and ITTs for 8% of the 2020 budget allocation of nearly $1.4 billion.

Table 28. Institutional information in the higher education subsector

Components	UEPs	ITTs
Characterization (number)		
Public HEIs	33	103
Co-financed HEIs	8	122
Self-financed HEIs	19	9
Public IES students	366,676	49,118
Co-financed HEI students	165,944	63,404*
Self-financed HEI students	83,097	4.678*
HEI students	33,107	in process**
HEI administrative staff	27,958	In process**
Average expenditures (US$ millions)		
Public HEIs March 2018-2019	83.60	4.48
Public HEIs April 2018-2019	82.35	4.48
Public HEIs May 2018-2019	84.65	4.17
Investment (US$ millions)		
Public HEI budget	101.13	5.81

Source: SENESCYT, CES. Developed by: UNESCO
* Estimated distribution ** Data collection in process

Access to public higher education is administered by SENESCYT. For the first semester of 2018, there were 89,389 slots for 205,420 applicants, with an unsatisfied gap of more than 56%. The offer varies between one academic period and the next depending on the capacities of each HEI.

Up until the first academic semester of 2020, applicants could choose from five degrees on the SENESCYT electronic platform. The platform assigns slots based on the highest qualifications on the Ser Bachiller[19] exam,

19 The Ser Bachiller exam contributes 30% of the graduation scoring and the grade used to assign slots in pubic HEIs.

which also incorporate affirmative action policies in the rating[20]. If the applicant accepts the slot, they cannot modify or postpone it. If not accepted, the slot is assigned to the next highest-scoring applicant. On average, applicants did not accept 20% of the slots.

Loss estimation methodology

Information from the CES, SENESCYT, MEF and IRS was used to quantify the impact of COVID-19 in the sector. The data associated with the public spending of the public universities, polytechnic schools and institutes generated by the Ministry of Finance was used. Additionally, information from the IRS was used to measure the impact of the pandemic on the turnover in private education institutions.

Response measures

The response was oriented towards two main areas: reduction of infection risk and migration to the virtual modality. At the subsystem level, SENESCYT ordered the suspension of classes, accepting the health emergency measures. In each UEP, the respective authorities organized the change over to the virtual modality, which included adjustments and improvements to their platforms and technological tools, training of teachers, adjustments of academic calendars and in the distribution of the workload, in line with the budget reduction ordered by the national government.

Effects of COVID-19 in the higher education subsector

The adaptation of HEIs to the new modality and to the situation of the pandemic have implied the financing of unscheduled actions in the amount of approximately $0.87 million for technological infrastructure, medical supplies and other acquisitions and adjustments.

Table 29. Summary of losses in the higher education subsector

Components	Sector		Total (US$ millions)
	Public	Private	
Impact on service provision (budget)*	68.14		68.14
Additional costs in the provision of services	0.87		0.87
Total US$	**0.87**	**0.00**	**0.87**

* Reference value, not considered in the sum of losses in the subsector.

20 They consider socioeconomic condition, rurality, territoriality, conditions of vulnerability, belonging to a town or a nationality.

a) Effects on the production and distribution of goods and services

Between March and May 2020, the effects of COVID-19 have not resulted in the closure of any HEIs. The pandemic significantly affects the availability of fiscal resources and the payment capacity of households, so it is likely that the income of HEIs will decline at the beginning of the following semester.

The pandemic forced an accelerated migration of educational services to the virtual modality without sufficient time to adapt curricular content, adopt adequate pedagogies, train teachers; and at times lacking sufficient technological resources to maintain quality.

In various methodological and educational management aspects, this semester is a learning and test experience.

b) Effects on the access of the population to goods and services

The change in modality implied restricted access for a significant proportion of the population, especially in more economically vulnerable groups. It is estimated that 20% of students in the ITTs and 9.37% in the UEPs had restricted access because they did not have devices and internet connectivity. This would imply an interruption in studies for some 81,200 students (11.07% of the enrolled student body).

The effects of the pandemic on the economy would also reduce the enrollment rate in HEIs and increase both the migration of students from private to public HEIs, as well as the student dropout rate.

c) Effects on the governance of the sector

Budget cuts during the emergency also affected the HEIs. In May 2020, there was a $50 million cut in salaries and legal benefits compared to the average for previous years, as well as a decrease in allocations for research activities. The impact in the period analysed has been quantified at more than $60 million; 84% corresponds to May 2020. The UEPs rejected the budget cut, arguing that it violated articles 165, 348, and 357 of the Constitution.

In an adverse fiscal framework, the government eliminated the Insitute for the Promotion of Human Capital, which was in charge of managing scholarships and educational credits, and transferred these functions to SENESCYT. The delay in the process of transferring functions may compromise this benefit.

d) Effects on increased risks and vulnerabilities

In the short term, the two main risks include the financial sustainability of the system and the stability of workers in the sector. The quantification of long-term effects is a premature exercise due to the state of evolution, the global condition of the crisis and the lack of precedents.

Financial sustainability: regardless of the type of HEI, the crisis threatens its sustainability. In public schools, the current paralysis added to the previous economic crisis means that there are fewer resources to finance the system, which could even affect the provision of free public higher education. Between January and May

2020, tax collection (the main source of financing for public HEIs) decreased by 17.9% compared to the same period in 2019 (MEF).

Employment: economic restrictions and the reduced demand for higher education affect the stability of both teaching and administrative staff, especially when not all the contracting modalities in the sector guarantee job stability, and not all teachers have tenure (at the end of 2018, 50% of UEP teachers were tenured, CES).

Needs for recovery, reactivation and continuity of the response

Six main needs have been identified:

1. Permanence of demand and access, especially for groups whose access and permanence are more compromised due to social and economic gaps and vulnerabilities.
2. Sustainability of the system, which implies the improvement and implementation of regulatory frameworks that ensure the financial flow for the continuity of access.
3. Strengthening the virtual and classroom modalities for higher education. The return to the classroom requires adaptation of the spaces to the density of students and to the new sanitary and biosafety protocols.
4. Academic mobility. Good use of the opportunities associated with academic mobility can permit full use of system resources, reduce operating costs and maintain the quality of teaching.
5. Promotion of research. One of the main academic gains has been the strengthening of research capacity in UEPs. The impairment of this function threatens the resolution of problems and the improvement of society.
6. Continuous improvement of quality. Changes and restrictions experienced by the system can affect the quality of processes and results. It is essential to apply monitoring, evaluation and institutional learning to the new modalities.

Recovery strategy

Table 30. Summary of higher education strategies

Needs	Strategies to meet the need	Estimated cost (US$ millions)
Access and permanence	Universalize vocational orientation programmes and support mechanisms to improve application criteria.	0.4
	Reactivate scholarship and financial aid mechanisms, reviewing affirmative action policies that democratize access and permanence in Higher Education.	N/A
	Optimize the slot allocation system for access to higher education.	N/A
	Apply academic support strategies to improve passing rates and graduation rates.	13.42
Sustainability of the system	Prioritize public policy to safeguard the financial sustainability of public higher education.	N/D
	Provide access to short-term financing for private education for its post-crisis stabilization.	N/D
	Guarantee job stability for teachers and administrative staff of public and private HEIs.	N/A
	Adjust the remuneration scales to the national reality and needs of the system, guaranteeing the sustainability of the system and decent working conditions.	N/A
Strengthening the provision of higher education	Technological infrastructure for the provision of higher education in virtual or blended modality.	N/A
	Train teachers on non-classroom teaching methodologies.	11.17
	Adapt methodologies and curricula to different forms of education (classroom, virtual, blended).	13.41
	Review the relevance of the career offer based on the needs of the country's labour market.	0.06

Academic mobility	Increase the flexibility of administrative processes that protect the right to academic mobility (transfer of IES and degrees).	N/A
	Ratify and comply with the Regional Convention on the Recognition of Studies, Titles and Degrees in Higher Education in Latin America and the Caribbean.	N/A
	Encourage the creation of joint degrees between different HEIs.	N/A
	Promote the management of national and international strategic alliances for academic mobility.	N/A
Promotion of Research	Guarantee the permanence and procurement of funds assigned to university research.	N/A
	Strengthen the regulatory framework that prioritizes lines of research relevant to the national reality.	N/A
	Strengthen the link between the higher education system and the productive sectors.	N/A
Continuous quality improvement	Expand monitoring and evaluation of the virtual modality.	N/A
	Open an inter-institutional line of research on evaluation and learning processes in the UEPs.	N/A
	Focus training on continuous improvement.	N/A

Note: The quantification of the cost of the needs is partial

Culture

Context

While the national economy was working to overcome a set of structural challenges, an unprecedented crisis caused by the COVID-19 health emergency occurred, the magnitude of which led to a series of fiscal restrictions and an uncertain scope of action for the management of public projects. The emergency seriously affects the income and the development of the creative processes of cultural workers, especially those working in the informal sector.

According to the Integrated Culture Information System (SIIC), 140,000 cultural workers had suitable employment, and 150,000 were informally employed in 2019. In both groups, working a second job is common in the cultural labour market. According to the Measurement Survey of Labour Conditions of Arts and Cultural Workers[21], which is a representative instrument for analysing the employment structure, 68.66% of those surveyed reported having at least one job; 50.99% had another job linked to the sector and 33.66% had a second job outside the sector. A total of 59% of workers do not have social protection, and informality is estimated at 52%[22].

Until June 2020, approximately 14,000 artists and managers were registered through the platform of the Unique Registry of Artists and Cultural Managers (RUAC) of the Ministry of Culture and Heritage. It is estimated that there are 41,000 productive units related to cultural activity. According to the ENEMDU, the economically active population of the sector is made up of approxmately 314,000 jobs linked to artistic and cultural activities (53% men and 47% women), of which 44.3% have suitable employment, 49.6% have unsuitable employment, 4% are unemployed and 2.1% are in the "unclassified" category. There are structural differences in terms of gender equity, reflected in the gaps in job quality: 53% of economically active males and 33% of economically active females had full-time employment in 2019.

Response measures

Between the declaration of the Emergency Decree and 15 May, the Ministry of Culture and Heritage organized at least 28 subsector worktables to build the Comprehensive Contingency Plan for Arts and Culture, which includes various measures for the maintenance of workers in the sector.

The Comprehensive Contingency Plan for Arts and Culture includes: a) delivery of a $60 bonus for three months to 5,500 artists and managers in situations of extreme vulnerability ($1 million budget); b) line for the promotion of the creation and circulation of cultural and artistic content to generate income for at least 2,500 cultural workers ($1 million budget); c) other calls such as the Institute of Cinema and Audiovisual Creation ($100,000); d) line for the promotion for artisans, patrons of heritage and community cultural management processes ($250,000); e) preferential credits for BanEcuador cultural workers; f) implementation of biosecurity protocols for cultural activities and services.

21 It was carried out from 1 April to 11 May 2020, with 2,508 responses. Non-probabilistic convenience sampling was used to estimate the results.

22 Informality is inferred from information from the National Employment, Unemployment and Underemployment Survey (ENEMDU, 2019).

Several protocols were developed for work activities related to art and culture, (the COE-N has activated eight protocols[23] for artistic work), including that of 5 May for the mother's day concerts, which featured the participation of 558 groups of artists and a total of 3,906 presentations, contracted by some 4,000 families.

Methodology

The information on the sector comes from the Comprehensive Culture Information System of the Ministry of Culture and Heritage (SIIC), the Ecuadorian Cultural Heritage Information System (SIPCE) and the Survey on Income and Conditions of Cultural Workers of the University of the Arts-Guayaquil. The aggregated macroeconomic information comes from the Central Bank of Ecuador (BCE), the Internal Revenue System (SRI), and the National Institute of Statistics and Census (INEC). A primary information survey was carried out in the Social Memory and Cultural Heritage Subsystem to collect information from qualified sources or sources responsible for the management of cultural heritage and institutes of social memory.

Effects of COVID-19 in the sector

Between March and June 2020, sales in the sector fell by more than 50% ($73.04 million) compared to the same period the previous year, accentuating the downward trend since 2014. If the decline continues through the end of the year, cultural GDP could be set back by more than a decade.

Losses in the heritage area are concentrated in the Intangible Cultural Heritage dimension ($9.70 million), which represents 11% of total losses in the sector and affects community economic chains that operate as a mechanism of economic redistribution in the territory. According to the SIIC, the category "museums and management of historical spaces" suffered a loss of $0.38 million during the last 15 days of March, April and May 2020. Activities in the *Cultural Industries* dimension represent almost 84% of total losses and correspond to private sales and exports.

The cuts to cultural activities of the GADs and of the House of Ecuadorian Culture and its provincial centres have not been included in this study.

Table 31. Summary of losses in the culture sector

Components	Sector		Total (US$ millions)
	Public	Private	
Cultural heritage	0.37	7.63	8.00
Insitutes of social memory	0.09	1.61	1.70
Cultural industries		73.04	73.04
Governance	4.31		4.31
TOTAL US$	**4.77**	**82.28**	**87.05**

Source: Ministry of Culture and Heritage, National Institute of Cultural Heritage, Internal Revenue Service, other official sources of the NFPS, 2020

23 https://www.culturaypatrimonio.gob.ec/protocolos-de-bioseguridad-para-la-reactivacion-de-las-actividades-y-servicios-culturales/

a) Effects on the production and distribution of goods and services

Due to the emergency, cultural centres, museums, cinemas, libraries were closed; access to heritage and archaeological sites was restricted; and collective rituals and practices were suspended.

According to the SIIC, the losses calculated from the shutdown of activities in the artistic and cultural sectors from mid-March to May 2020 totaled $87.05 million. According to the IRS, between January and May 2020, the decrease in sales in the cultural goods and services industry ranged between -44% (music production and publishing) and -62% (books and publications).

Table 32. Sales and losses by cultural industry, January - May (US$ millions)

Year	Performing Arts	Visual and plastic arts	Audiovisual	Design	Books and publications	Museums	Production and music publishing
2016	21.71	3.60	120.59	174.44	82.13	0.56	30.44
2017	23.58	3.21	131.70	186.82	85.13	0.67	23.02
2018	25.22	3.41	114.22	163.52	91.79	0.67	21.19
2019	29.94	3.61	138.71	166.12	85.92	0.72	18.55
2020	13.56	1.49	70.03	76.71	32.71	0.34	10.34
Variation 19-20	-55%	-59%	-50%	-54%	-62%	-53%	-44%
Loss in sales*	13.7	1.7	62.0	76.0	46.3	0.4	6.6
Net losses*	5.7	0.7	26.0	31.9	19.4	0.1	2.8

Source: IRS, 2020
* Estimates from 14 March 2020 and 31 May 2020

b) Effects on Cultural Heritage

In relation to the material part of cultural heritage, the findings of the PDNA in Ecuador coincide with findings worldwide, namely that restrictions placed on preservation and conservation activities has generated damage to the surfaces of the materials, mainly associated with the accumulation of dust and elements of organic origin. Intangible heritage, in its great diversity of practices, has suffered effects that are difficult to measure. This summary presents the data available on craft practices. The sector report (Volume B) deepens the analysis of the effects on various heritage practices and knowledge, in particular in terms of transmission.

- **Immovable Cultural Heritage** presents, for the most part, moderate damage to the infrastructure. The damages are attributable to the suspension of routine preservation and conservation actions.
- **Archaeological Sites** presents, for the most part, moderate damage to the infrastructure, mainly associated with the suspension of preservation and conservation measures.
- **Intangible Cultural Heritage.** Ritual practices, festive events and social uses were interrupted. It is the area with the greatest impact, since it is usually practiced in group settings and is dependent on the ability to move and gather freely.

c) Institutions of Social Memory

The institutions of social memory (historical archives, libraries and museums) had to close physical access to citizens, although the reserves of cultural and patrimonial assets were reopened for monitoring and conservation tasks. In private museums, income decreased by more than 50% compared to the same period the previous year (between $300,000 and $400,000), with only a 19% decrease in users of due to the implementation of online services.

d) Effects on the access of the population to goods and services

Although the public (spectators) and practitioners have been left without access to sites, rites, festivities and shows (artistic dimension), telematic and digital consumption has experienced an interesting increase, especially in certain industries such as music or audiovisual creation. However, this mechanism does not guarantee access to the comprehensive nature of cultural activities and practices (due to the very nature of many of these lived practices) or by the majority of the population (digital gap).

One particularity of the phenomenon during the emergency has been the proliferation of free artistic content. On the one hand, the amount of content demonstrates the importance and centrality of the arts for individual and collective well-being, and on the other, it can threaten artist labour rights since it conceals the capture of value by broadcasting platforms. This highlights the need for statistical instruments to characterize new settings for cultural participation.

e) Effects on the governance of the sector

The effects of the pandemic on the governance of the sector materialize, among other ways, in budget reductions linked to current expenses. Public institutions have made a notable effort to maintain and even increase the amounts available to the sector itself through promotion instruments.

The increase in development funds has been achieved through flows from the Arts, Culture and Innovation Development Fund. From 2008 to 2016, the Ministry has provided a total of $15 million for the development of cultural projects and festivals. In 2020, the Ministry plans to deliver $3 million, that is, $1.7 million more than in the period 2008-2016[24].

The public institutional fabric of the national cultural system is made up of the Ministry of Culture and Heritage (the governing body), the National Institute of Cultural Heritage (INPC), the Institute for the Promotion of Innovation Creativity (IFCI), the House of Ecuadorian Culture (CCE) and its provincial centres, the Insitutions of Social Memory - Decentralized Operating Entities and the GADs that have jurisdiction over heritage management at the local level, in addition to other public, private and community institutions.

The reduction of $3.10 million represents a third of the budget and corresponds mainly to current expenses. Likewise, the Institute for the Promotion of the Arts, Innovation and Creativity (IFAIC) and the Institute of Cinema and Audiovisual Creation (ICCA) merged to become the new Institute for Creativity and Innovation (IFCI).

24 Until 2016, the average annual delivery was $1,696,289.86. During 2020, the delivery of $3,435,000.00 is planned, which means $1,728,710.14 more than in the period 2008-2016 and more than half a million more than in the period 2017-2019.

f) Effects of increased risks and vulnerabilities in the sector

According to the 2019 SIIC, 51.60% of cultural employment is not suitable (92.44% of this group received a maximum income of $394). Labour informality, which has been a historical constant in the sector, hinders its resilience in crisis situations. A total 72.41% of those surveyed maintain that the impact of the emergency on their income is definitive; 20.37% consider it to be temporary; and 7.22% perceived a minimal impact[25]. An average loss of earnings of $1,315.54 is estimated with a median of $600 per worker during the period from 17 March to 30 April 2020[26].

On the oher hand, the vulnerabilities of the services associated with archaeological sites and immovable cultural heritage increase due to the restrictions placed on routine and planned maintenance and conservation activities. In addition, damage due to degradation in the short term can weaken structures and make them more vulnerable to damage from environmental or anthropogenic effects.

In the area of intangible cultural heritage, the interruption of practices for several months generates new vulnerabilities and puts their vitality at risk, since the forms of transmission of knowledge have been interrupted by social isolation. The death of bearers of knowledge from COVID-19 constitutes an invaluable social and cultural loss for the communities.

Needs for the continuity of response, reactivation and recovery

- Conservation of tangible heritage and safeguarding of intangible heritage.
- Enhancement of and connection of audiences with the institutions of social memory.
- Promotion of the production of goods and services in the sector.
- Reduction of labour informality and implementation of specific social protection mechanisms.
- Strengthening the public cultural institutional fabric.

Recovery strategies

Table 33. Summary of strategies

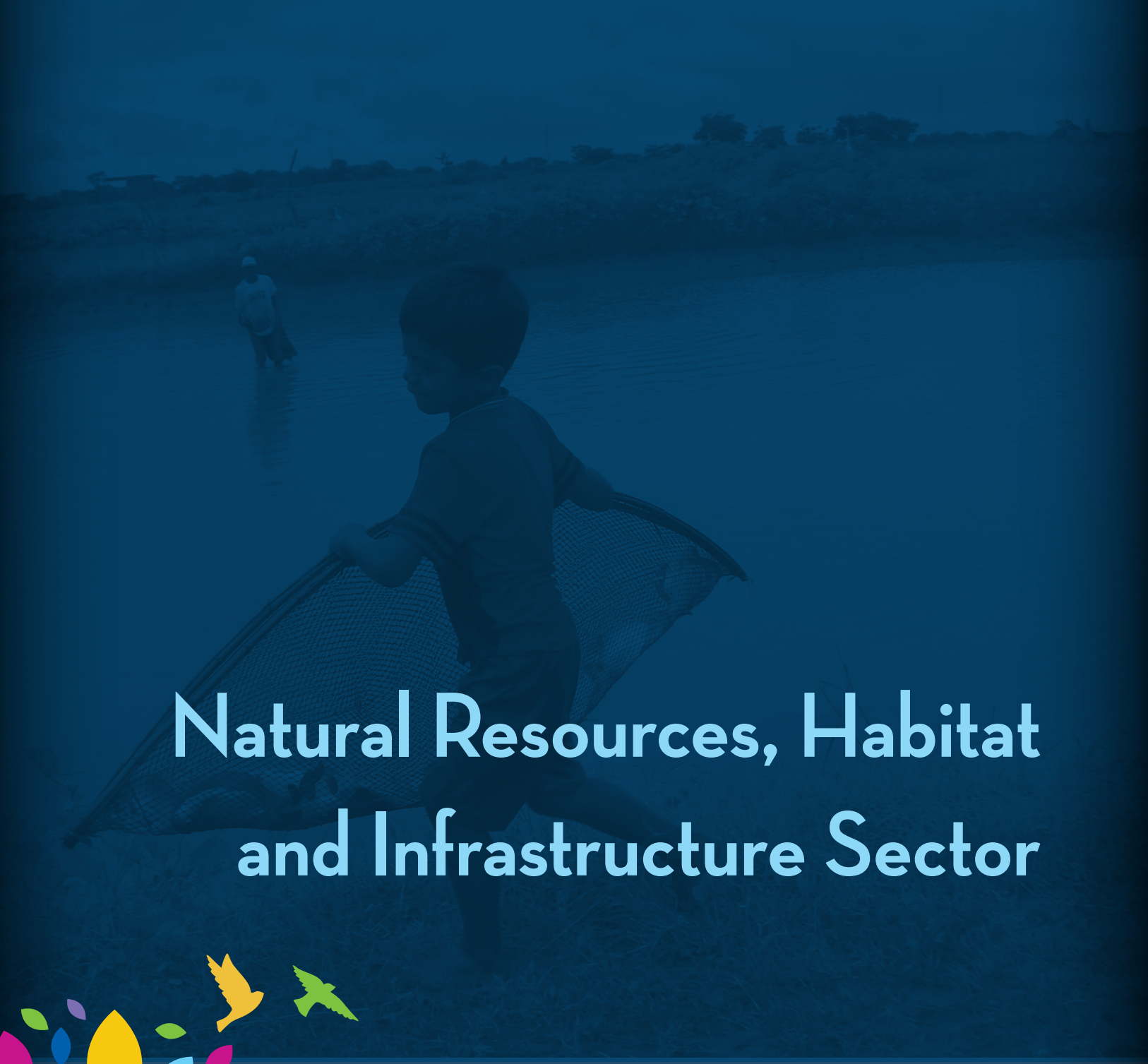
Needs	Strategy	Estimated costs (US$ millions)
Conservation and safeguarding of tangible and intangible heritage	Hire specialized services to facilitate the preservation of tangible cultural heritage and guarantee its preservation in the medium and long term.	7.61
	Protect the lives of bearers of knowledge, and nationalities, strengthening cooperation with other State portfolios to continue informing communities about biosafety measures and strengthening the generation of responses with local and cultural relevance. Promote the safeguarding of intangible cultural heritage and its role in strengthening the resilience of communities.	

25 Measurement Survey of the Labour Conditions of Arts and Culture Workers

26 Idem.

Promotion of the production of goods and services in the sector	Continue the implementation of the nine security protocols already developed (and add new protocols), evaluating their application and making adjustments with the participation of the communities and cultural agents involved.	
	Strengthen digital capacities (for artistic creation, management, circulation) in coordination with other sectors. Promote, together with other sectors, such as the Tourism and Environment portfolio, the role of the digital environment in the enhancement of tangible and intangible heritage.	
	Maintain credit lines with immediate access to cover fixed costs (payroll, services, suppliers).	
	Promote intersectoral partnerships for the simultaneous recovery of traditional and non-traditional production chains.	
Social protection and reduction of labour informality	Apply emergency resource transfer mechanisms for people in situations of vulnerability.	3.19
	Strengthen opportunities for dialogue with local cultural management structures, associations and unions for the formulation of the recovery plan for the sector.	0.04
	Establish specific social protection programmes for cultural workers.	
	Maintain the previous adaptations to the promotion lines in order to continue promoting emerging projects in the context of the pandemic.	1.11
Strengthening the public cultural institutional fabric	Adapt the cultural policies of the central government and local governments to the "new reality".	
	Improve the information systems on the sector (consolidation of the SIIC) with a focus on generating data on the gender gaps, peoples and nationalities.	
	Strengthen learning systems related to culture at all levels of education for the formation of audiences and the construction of an active citizenship.	
	Articulate education projects for the arts with the territorial and community dimension.	

Note: The detailed needs and strategies correspond to immediate actions; the costing of the needs is preliminary.



Natural Resources, Habitat and Infrastructure Sector

Water and Sanitation

Context

Since 2016, the country has implemented a National Water and Sanitation Strategy (ENAS) that includes the main challenges and goals of the sector for the decade. In 2017, the Interinstitutional Committee for Safe Water and Sanitation for All was created, made up of SENPLADES, SENAGUA, MAE, MPH, MEF, ARCA, ARCSA, EPA and BDE (Executive Decree 199 of October 2017). This committee carries out the Water and Sanitation for All Mission with a projected investment of $2 billion by 2021, of which some $425 million has been approved.

According to the ENEMDU data from December 2019, a quarter of the population lacks access to safe drinking water; 60% of households do not have access to proper waste management; 12% of the population lacks basic sanitation service; and some 350,000 people practice open defecation. Twenty percent of households do not have handwashing facilities, and the differences between urban and rural areas are significant.

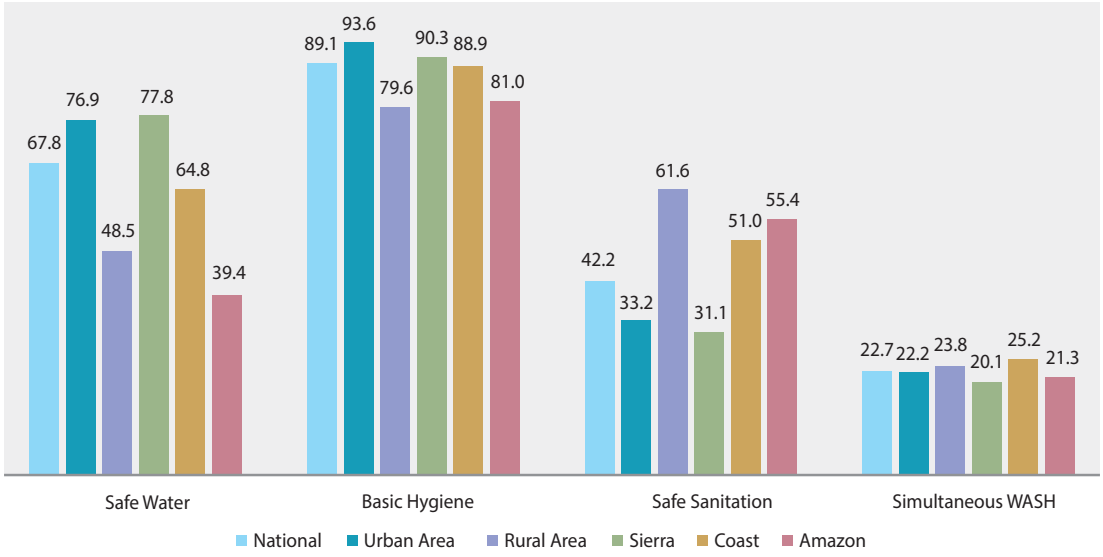
Table 34. Baseline of the water, sanitation and hygiene sector

Quality of service 2016		Water		Sanitation		Hygiene	
		2019	2016	2019	2016	2019	
Safely managed		70.1%	67.8%	41.8%	42.2%		
Basic	**Basic 1**	3.5%	1.9%*	44.2%	48.5%**	85.5%	89.1%**
	Basic 2	18.3%	21.5%**				
Limited		0.0%	0.0%	10.4%	6.1%*	12.7%	7.6%*
Not improved		6.1%	6.7%	1.8%	1.0%*		
Without service		2.0%	2.1%	1.8%	2.1%	1.9%	3.3%**

Source: INEC, ENEMDU 2016 and ENEMDU, 2019
*Statistically significant reduction, comparing 2019 with 2016
**Statistically significant increase, comparing 2019 with 2016

A total of 22.7% of the population has simultaneous access to water, sanitation and hygiene. Seventy-three out of 100 people receive quality water from the source (free of E. coli bacteria) and only nine of these users contribute to water pollution. On the other hand, 27 of every 100 people receive contaminated water from the source, and only four of them contribute to improving water quality.

Graph 23. Access to WASH services in Ecuador



Source: ENEMDU, 2019

Response measures

On 12 March 2020, Technical Working Group 1 of the COE-N was activated for the coordination and implementation of the following measures:

- Development of the survey "Water management during the sanitary emergency (COVID-19)" in response to the emergency.
- Moratorium on the interruption of services during the emergency and immediate reconnection of previously disconnected users.
- Provision of drinking water through tankers in areas without public network coverage.
- Deferral and freezing of the amounts invoiced.
- Campaigns for the proper use of water and sanitation services, and hygiene promotion.
- Distribution of basic products for family hygiene and domestic water treatment to prioritized municipalities.
- Supply of chlorine and disinfectants to urban and rural water systems and independent chlorination systems in hospitals and health facilities.
- Water quality controls in 35 hospitals and 208 public water service providers.
- Development of a national baseline to evaluate the level of water, sanitation and hygiene service in all educational facilities.
- Protocol for the protection of operating personnel in the drinking water and sanitation systems.
- Contingency plans for the supply of drinking water and sanitation.

Loss estimation methodology

The evaluation is based on the following sources of information:

- Coverage data for water and sanitation services provided by INEC and sectoral analysis presented in the ENAS.
- Results of the workshop "Analysis of bottlenecks in the water, sanitation and hygiene sector" for the diagnosis and identification of priorities in the rural sector (Puembo, November 2019).
- Findings from Technical Working Group 1 on initiatives implemented to ensure the continuity of drinking water and basic sanitation services in the context of the pandemic.
- Results of the survey "Water management during the health emergency (COVID-19)" carried out with 170 public providers and 343 community providers.
- Resolution 2020-0364 that provides actions to prevent the interruption of services.

Effects of COVID-19 in the sector

Losses in the sector are estimated at $78.08 million, 91% of which correspond to the public sector and are associated with reduced revenues (billing and collection).

Table 35. Summary of losses in the water and sanitation sector

Components	Sector		Total (US$ millions)
	Public	Private	
Billing for the provision of household water and sanitation services	**4.49**		**4.49**
Reduction in billing March 2020	1.51		1.51
Reduction in billing April 2020 (proxy)	1.46		1.46
Reduction in billing May 2020 (proxy)	1.51		1.51
Collection for household water supply and sanitation services (GAD-M)	**63.08**		**63.08**
Reduction in billing March 2020	20.01		20.01
Reduction in billing April 2020	21.01		21.01
Reduction in billing May 2020	22.06		22.06
Community household water provider systems	**3.60**		**3.60**
Reduction in billing March 2020	1.14		1.14
Reduction in billing April 2020 (proxy)	1.20		1.20
Reduction in billing May 2020 (proxy)	1.26		1.26

Additional costs for tanker rentals		**6.48**	**6.48**
GAD-M that require tankers		6.48	6.48
Additional costs for cooperation support to the water and sanitation sector		**0.44**	**0.44**
Investment made in support of cooperation in the water and sanitation sector		0.44	0.44
TOTAL	**71.17**	**6.92**	**78.08**

a) Effects on the production of goods and services

Between February and March 2020, the decrease in volumes and values generated by sector services was met with an increase in the number of unpaid invoices, which will affect the financial capacity and the continuity of operations. The uncollected value is 28% ($16.40 million) of the invoiced amount.

It is estimated that the impact on collection in the 221 municipalities (GAD-M), based on the past due portfolio in March, would be $22.06 million for the month of May (proxy). Added to this figure is the impact on community providers, estimated at $1.26 million (proxy).

Table 36. Volumes and amounts by water service (millions)

Description	Unit	February 2020	March 2020	Variation	% of affection
Distributed volume	m^3	64.96	64.18	↓0.78	↓ 1.2%
Volume invoiced	m^3	49.11	46.53	↓ 2.57	↓5.2%
Amount invoiced	US$	84.11	82.50	↓ 1.61	↓1.9%
Amount collected	US$	58.67	42.27	↓16.40	↓28.0%

Source: ARCA-AME Survey on water management during the health emergency (COVID-19), 2020

b) Effects on the access of the population to goods and services

- The productive sector suspended its regular operations during the emergency resulting in a substantial decrease in the demand for water for its activities.
- Household consumers increased their water consumption due to confinement and the application of preventive measures that involve frequent hand washing.
- The government decided to introduce a moratorium on the interruption of service for the duration of the emergency and to reconnect previously disconnected users.

c) Effects on the governance of the sector

Between March and May 2020, 34 of the 119 projects established in the framework of the *Water and Sanitation for All* (MAST) programme were interrupted, affecting 307,146 inhabitants.

The non-payment of consumption bills affects the financial sustainability and the continuity of the operations of the public and community service providers. In April 2020, five GAD-M interrupted service, and 55 did not reconnect service.

Table 37. GAD-M that did not guarantee continuity of services

Continuity of service	April 2020	May 2020	% of affectation
Reconnection of service (GAD-M that did not reconnect service)	55	0	34%
Interruption of service (GAD-M that interrupted service service)	5	0	0%

Source: ARCA-AME Survey on Water Management during the health emergency (COVID-19), 2020

d) Effects on the increase of risks and vulnerabilities in the sector

The drinking water and sanitation infrastructure has not suffered damage during the emergency, but the sector does not have contingency plans in place to address the drop in collection, and the ability to ensure supplies, maintenance and repairs is at risk. No specific measures have been identified to meet the water, sanitation and hygiene needs of the most vulnerable populations.

Needs for recovery, reactivation and continuity of the response

The following priority needs have been identified:

- Continuity in the production and quality of WASH services.
- Collection of amounts due for service.
- Prevention and control of infections.
- Monitoring of the *Water and Sanitation for All Mission* projects.

Recovery strategy

Table 38. Summary of strategies

Need	Strategy	Estimated cost (US$ million)
Continuity in the production and quality of WASH services	• Supply chlorine to 63 GAD-M and water for tankers to 40 GAD-M.	28.7
	• Provide basic sanitation solutions to homes not connected to the sewage system.	
	• Promote synergies between service providers and other institutions to enable the implementation of electronic collection mechanisms.	
	• Ensure that urban, rural and community service providers (both formal and informal) receive financial support, supplies (including personal protective equipment), and technical assistance for the continuity of the service.	
Collection of amounts due for service	• Promote synergies between service providers and other institutions to enable the implementation of electronic collection mechanisms.	
	• Ensure that urban, rural and community service providers (both formal and informal) receive financial support, supplies (including personal protective equipment), and technical assistance for the continuity of the service.	
Prevention and control of infections	• Continue with the socialization and implementation of the protocol for the protection operating personnel in the drinking water and sanitation systems. • Identify and train community leaders to promote hand washing and other biosecurity practices. • Ensure the opening, availability and free access to public toilets. • Promote infection protection and control measures (IPC), with special attention to schools and vulnerable groups.	
Monitoring of the Mission Water and Sanitation for All projects	• Coordinate the traffic light changes of each of the GADs and the reactivation of the works with BDE. • Coordinate the prioritization of all committed projects with MF and BDE.	

Note: the cost of the needs has been partially calculated, based on the $2.87 million needed per month for a group of prioritized GADs during an estimated time in which they can recover their revenue.

Transport

Context

The Ministry of Transport and Public Works (MTOP), as the governing body of transport in the country, is responsible for issuing the guidelines for land, air, maritime and river transport.

Between March and June 2019, international air traffic registered 726,491 arrivals and 738,217 departures; maritime transport registered 3,335,088 MT in imports (373,546 TEUs[27]) and 4,064,242 MT in exports (380,727 TEUs); and traffic at the land borders registered 17,099 tractors and 817 trucks. During the first two months of 2020, the domestic transport sector reported 2% growth and the international sector 10%. Approximately 90% of the population uses public and commercial land transport.

Response measures

With the declaration of the state of emergency, free transit was suspended with the exception of public transport; transport for essential health, risk and emergency workers; police and military security transport; and vehicles determined by the COE- N.

The MTOP restricted circulation according to the last digit of the vehicle license plate numbers and established the safe-conduct mechanism to authorize the circulation of vehicles of specific branches of production and services. The GADs suspended the urban intracantonal public transport service. The cantons of Cuenca, Ibarra and Cayambe established bike paths as a transportation alternative.

At the beginning of the emergency, the Binational Centres for Attention on the Northern and Southern Borders were enabled for entering and exiting the Ecuadorian territory. Subsequently, only the Rumichaca and Huaquillas national border centres (CENAF) were authorized, and the San Miguel centre was restricted to the fulfillment of activities linked to the hydrocarbon industry.

The protocols for the regulation of the transport sector are detailed in the following table.

27 One TEU represents the cargo capacity of a standard 20-foot container.

Table 39. Summary of protocols issued for the response in the transport sector

Type of transport	Protocol
Land	• Issuance and control of safe-conduct. • Cleaning and disinfection of public transport units. • Transportation for completion of mandatory preventive isolation. • Operation of the CEBAF and CENAF Border Attention Centres in response to the COVID-19 emergency declaration. • International transport of goods by road across the northern border. • Strategic logistics corridors. • During implementation of the traffic light system: reactivation and operation of interprovincial and intraprovincial public transport; school and institutional transport service; light and mixed cargo transport service; conventional and executive taxi transport service; tourist land transport. • Sustainable Urban Mobility Guide.
Martime	• Cleaning and disinfection of maritime transport units. • Disinfection of containers. • Arrival and docking of international vessels. • Shipyards and related services of Ecuador.
Air	• Entry into the country, during the validity of the state of emergency, of children and adolescents who are outside the country without their parents or legal guardians, pregnant women, people with disabilities and older adults. • Guidelines for the reactivation of international and domestic flights. • Entry into the country by air, stay and egress procedures for mandatory preventive isolation.

Loss estimation methodology

The information comes from the respective land, maritime and air transport institutions including the National Transit Agency, the Ecuadorian Transit Commission, Ecuador Railways Public Company in Liquidation, Decentralized Autonomous Governments, the General Directorate of Civil Aviation, Port Authorities and Oil terminal Superintendents at the national level.

The calculation of effects was based on the estimates of the average income for each category of analysis, according to data and values from 2018, 2019 and the first two months of 2020, differentiating between State institutional and private sector services. Air transport included ticket sales, and air cargo accounted for the reduction of export spaces and the increase in imports of goods to attend to the pandemic. For tolls, the collection from previous years was compared with the number of vehicles registered on concessioned and delegated roads during the emergency.

Effects of COVID-19 in the sector

Between March and May 2020, losses in the transport sector are estimated at $714.22 million, 90% of which correspond to the private sector. The greatest losses are concentrated in land and air transport.

Table 40. Estimate of losses in the transport sector

Components	Sector		Total (US$ millions)
	Public	Private	
Tolls	**16.85**	**16.60**	**33.45**
Concessioned roads			
Rumichaca- Riobamba (PANAVIAL)		13.59	13.59
Rio Siete - Huaquillas (CONSUR)		0.79	0.79
Chongón - Santa Elena (CVIALCO)		2.22	2.22
Delegated roads			
Alóag - Unión Toachi (GAD Pichincha)	1.42		1.42
Unión Toachi - Santo Domingo (GAD Santo Domingo)	1.58		1.58
Vías Guayas Oriental (CONSEGUA)	5.28		5.28
Vías Guayas Norte (CONORTE)	8.11		8.11
Manta - Portoviejo (Manabí Vial EP)	0.45		0.45
Air transport	**15.87**	**98.21**	**114.09**
Cargo airlines		54.16	54.16
Airports (taxes)	4.89	44.05	48.94
DGAC income (taxes)	10.98		10.98
Maritime transport	**0.04**	**4.26**	**4.30**
Suspension SPTMF services	0.04		0.04
Suspension of YILPORT cruise ships		0.08	0.08
Suspension of TPM cruise ships*		0.75	0.75
Suspension of YILPORT cargo ships		0.04	0.04
Suspension of CONTECON cargo ships		3.30	3.30
Increase in CONTECON biosecurity provisions		0.09	0.09
Land transport	**15.87**	**546.52**	**562.39**
Insitutional services			
Ministry of Transport and Public Works	0.82	0.00	0.82
Ecuador Transit Commission	15.05	0.00	15.05
Commercial transportation services			
Heavy load		546.52	546.52
International commercial transport service			
International freight (reference only)		2,102.58	2,102.58
TOTAL US$	**48.62**	**665.59**	**714.22**

Source: Undersecretary of Land Transportation, Undersecretary of Air Transportation, Undersecretary of Ports, National Transit Agency, Ecuadorian Transit Commission, General Directorate of Civil Aviation and Port Authorities of Esmeraldas, Manta, Guayaquil and Puerto Bolívar. Note: International merchandise (international billing for reference only) is not added to the total.

a) Effect on the production and distribution of goods and services

From 20 March to 25 May 2020, the suspension of all toll operations led to $33.45 million in economic losses, with repercussions on the planned maintenance, expansion and rehabilitation works. The suspension of commercial transportation service generated losses of $562.39 million.

The shutdown of passenger air transport service resulted in losses of $114.09 million. The cancellation of cruises and the reduction of maritime cargo transport generated losses of $4.30 million.

b) Effects on the access of the population to goods and services

During the social isolation phase, mobility was restricted to transport by private vehicle (based on the last digit of license plate numbers), by bicycle or on foot for essential activities such obtaining food, medicine and fuel, among other household necessities.

The cantonal traffic lights were introduced on 13 April 2020, which allowed for the progressive reactivation of the different productive sectors including public and commercial transport service. Between March and May 2020, there were a number of humanitarian flights.

National ports operated continuously throughout the emergency and reported an 8% increase in cargo movement.

c) Effects on the governance of the sector

Information for the private sector was provided on the state of roads, ports and airports, and sector entities disseminated protocols to the public through their own communication channels without incurring additional expenses for this purpose. Local road closures to prevent access of potential virus carriers to rural populations were not significant. Other municipal initiatives that were not consulted with the COE-N were duly deactivated.

d) Effects on the increase of the risks and vulnerabilities

The paralysis of public and commercial transport service has led to the indebtedness of private sector providers, since their operating costs exceed their income. At the beginning of the reactivation, they operated at less than 50% capacity.

Although toll stations resumed operations, collection is low because the number of vehicles is still limited, which puts the financing of the planned investments for the execution of works at risk including the expansion of the Tenguel-Río Siete-El Guabo Corridor and the rehabilitation of the Chongón-Santa Elena-Progreso-Playas Corridor.

In the case of air transport, the shutdown of the service led to the closure of TAME EP, which already had accumulated economic losses over the past five years. In addition, the LATAM and AVIANCA groups submitted their application to file for Chapter 11 of the United States bankruptcy code, and other international airlines have announced a reduction in the frequency of flights to Ecuador. This reduces connectivity and increases job loss in the country. Airlines may currently operate a maximum of 30% of their authorized routes.

The paralysis of transport breaks the value chain of various sectors such as tourism, agriculture and other productive subsectors.

Public transportation, including taxi service, has been seriously affected. In the case of Quito, for example, smaller carriers demand fare increases and require physical distancing measures that limit capacity to 30%.

The main impact is the increase in unemployment rates and unsuitable employment.

Needs for recovery, reactivation and continuity of the response

The priority needs established for the sector include:

- Reactivation of transport services.
- Sustainability of first-rate road corridors.
- Comprehensive transport information and management systems

Recovery strategy

Table 41. Summary of strategies

Need	Strategy	Estimated cost (US$ millions)
Reactivation of transport services	Implement regulations and protocols to minimize infections.	
	Manage financial resources for credit lines with national and international institutions (easily accessible credit, preferential interest rates, higher amounts and longer terms).	
	Use digital media and mobile applications to limit personal contact and avoid time loss in the delivery of the port dispatch.	
	Strengthen commercial relations with exporters to boost maritime cargo transport.	
	Reactivate customer service offices to carry out in-person and/or virtual procedures.	
	Implement incentive policies for airlines.	0.50

Sustainability of first-rate road corridors	Review concession and delegation contracts.	
	Modify the toll rates managed by the public sector to finance investments in infrastructure.	
	Socialize the modifications of toll rates (supported by a communications campaign).	
Comprehensive transport information and management systems	Contract a consultancy for toll interoperability.	0.47
	Contract and implement a consultancy for the Integrated System of Land Transportation Records of Ecuador (SIRTTE).	0.75
	Contract a consultancy for the Integrated System of Ports.	0.10

Note: the cost estimate for the recovery needs is partial.

Energy and Communications

Context

In 2019, the electric power service in Ecuador provided coverage to 97.33% of the territory, and the generation capacity was 7,383 MW (70.7% hydraulic, 27.4% thermal and 2% wind and photovoltaic). The National Interconnected System had approximately 6,200 km of lines and 67 substations at different voltage levels (500 - 230 - 138 - 69 kV). The island province of Galapagos is not part of the National Interconnected System for geographic reasons.

There were 5,273,721 residential, commercial and industrial customers, 2,587,342 served by the Electricity Corporation of Ecuador (CNEL EP). The Coastal region consumed 58% of the total energy invoiced, the Andean region 36.4%, the Amazon 5.2% and the insular region 0.3%. At the national level, the group with the highest level of consumption was residential at 37.4%.

Electricity production in 2019 was 27,104 GWh (90% hydroelectric and renewable and 10% liquid fuels and gas), and the peak power demand was 3,953 MW. The growth in the demand in 2019, compared to 2018, was 4.5% and 4.8% for energy and power, respectively.

In the first half of 2020, production was 12,726 GWh (92% hydroelectric, wind and solar, and 8% other sources), and 870.9 GWh was exported to Colombia and Peru, equivalent to 6.8% of production.

Response measures

- *Protecting the health of personnel and facilities.* Protocols, procurement of supplies and personal protective equipment, permanent disinfection of facilities and transportation used by operators for institutional movement, health coordination for the transfer of infected patients, mandatory quarantine of infected patients.
- *Continuity of the service.* Telecommuting for activities that are not related to essential operation and maintenance; preferential attention to lines and networks that serve hospitals and health facilities; changes in employee work days, hours and shifts; use of remote communication technology (video conference, video meeting, video call, social networks); continuous remote supervision of the operation of the 67 substations of the system.
- *Economic measures. Increase the dignity tariff* subsidy for 1.46 million clients and collection of the values invoiced in March and April, starting in June, over a period of 12 months without interest or surcharges; deferral of the collection of consumption bills in March and April for small businesses (459,810 clients), the artisan industry (31,320 clients) and households.
- *Internal and inter-institutional coordination.* Permanent presence in Technical Working Group 3 of the COE-N for the coordination of emergency care; permanent contact with the leaders of each business unit and the distributors to analyse compliance with the protocols and the response measures implemented.

Methodology

Information from CELEC EP was used to compare generation and transmission during the period March to May 2020 to the same period in 2019; data provided by ARCONEL was used to measure distribution; and CENACE data was used for historical energy losses and commercial demand. The allocation of the revenue of the distributors was based on an estimate of energy sales, third-party income, subsidies, etc., using the estimates and projections of the electricity distribution companies and CNEL EP Business Units.

Effects of COVID-19 in the sector

Net losses in the sector are estimated at $152.11 million. Of these losses, 58.5% ($89.06 million) is concentrated in electric power, particularly due to the decrease in commercial demand from companies, and 39.3% ($59.81 million) in communications.

Table 42. Summary of losses in the energy and communications sector

Components	Sector		Total (US$ millions)
	Public	Private	
A. Electric power	**74.65**	**14.41**	**89.06**
Power generation			
Decrease in commercial demand of companies	74.65		74.65
Power distribution			
Decrease in demand in the period		1,20	13.20
Additional costs			
Technical and operational costs		0.94	0.94
Management of operating personnal		0.27	0.27
B. Hydrocarbons	**3.23**		**3.23**
Additional costs	3.23		3.23
C. Communications		**59.81**	**59.81**
Net sales losses		59.81	59.81
Input provision costs	**0.01**		**0.01**
Total US$	**77.89**	**74.22**	**152.11**

a) Effects on the production and distribution of goods and services

Between March and May 2020, consumption fell by 15% on average. The estimated production in the second semester (considering a 10% increase due to economic reactivation plus natural growth in the sector) could be 13,200 GWh, with an annual total of 25,200 GWh, 7% lower than in 2019. This decrease mainly affects CELEC EP (owner of 85% of the assets), and the National Electricity Corporation CNEL EP, which distributes 65% of consumption.

Table 43. Differential in net power generation 2019 vs 2020

Month	GWh		2020 vs 2019	Differential
	2019	2020		
March	2,129.0	1,939.2	-189.8	-8.9%
April	2,031.4	1,760.9	-270.6	-13.3%
May	2,081.5	1,911.3	-170.1	-8.2%
Total	**6,241.9**	**5,611.4**	**-630.5**	**-10.1%**

Source: CELEC EP, 2020

Between March and May 2019, $167.23 million in energy sales was invoiced and collected. For the same period in 2020, $154.04 million was invoiced and collected, or $13.20 million less than in 2019.

Table 44. Differential in billing for the sale and transmission of electricity

Month	US$ millions		2020 vs 2019	Differential
	2019	2020		
March	57.55	53.65	-3.90	-6.8%
April	54.32	49.49	-4.83	-8.9%
May	55.36	50.90	-4.46	-8.1%
Total	**167.23**	**154.04**	**-13.20**	**-7.9%**

Source: CELEC EP, 2020

The expected revenue for the period March to May 2020 was $2.05 million, with $1.87 million invoiced and $1.45 million collected, or 29% less than expected. The past due portfolio increased by 31%, comparing the accumulated values as of December 2019 ($452.53 million) and May 2020 ($593.64 million). Losses in emergency management during the period reached $9.84 million.

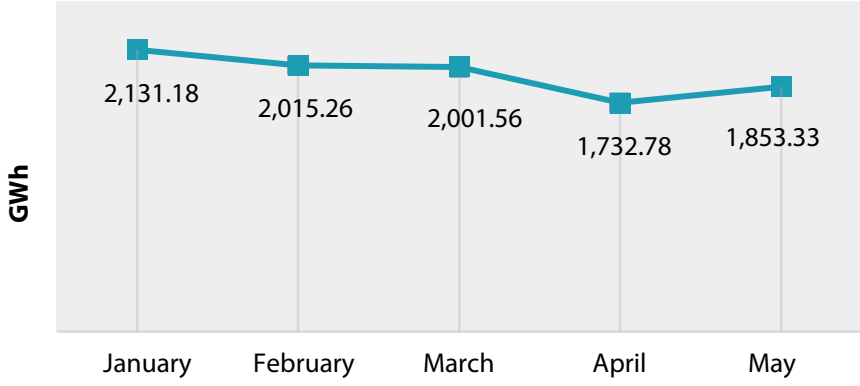
The reduction of administrative and operating personnel affected 235 people (123 women and 112 men). In CNEL EP, there were 200 confirmed cases of COVID-19 including five deaths. In the distribution companies,

there were 72 confirmed cases and 16 deaths. Of the 8,557 people employed in the distributors, 4,538 worked remotely.

b) Effects on the access of the population to goods and services

Power distribution companies implemented the guidelines established by the national government for: teleworking, modification of working groups and hours of operating personnel, electrical retrofitting, deferral of collection, among others, in order to ensure electric service to the entire country. The demand for electricity began to decrease following the emergency declaration because the industrial sector and commercial activities did not function at full capacity.

Graph 24. Commercial demand January – May 2020



Source: CELEC EP, 2020

c) Effects on the governance of the sector

The variation of the past due portfolio as of May 2020 is 31%, with a tendency towards growth because the payment of services is frozen for public entity budgets (public entities carry out the payment exercise, whose execution and disbursement has not been approved by the Ministry of Economy and Finance); The amounts payable for the obligations of the sector also continue to grow due to failure to pay its commitments in a timely manner. Additionally, the negotiation of credit operations with the IDB and CAF is suspended.

The reduction of budget availability impedes work on urgent projects and the goals of the sector and increases the need for financing alternatives in the short term.

d) Effects on the increase of risks and vulnerabilities in the sector

The vulnerability to infection continues. The sector has a very large national presence, and its employees are permanently exposed to this threat, which requires continued compliance with and monitoring of protection protocols.

Among the economic changes that may compromise the operation and development of the sector are: the suspension of the execution of the works established in the 2020 Business Plan; the decrease in the resources available due to the accumulation of losses and expenses; and the deferral of the collection of consumption bills from March to May; in addition to the impact on public perception of the sector due to the number of billing disputes during the emergency (invoicing was based on estimates and not on meter readings.).

Needs for recovery, reactivation and continuity of the response

1. Reduction of the risks for infection among personnel.
2. Liquidity for the continuity of operations.
3. Emergency response and fulfillment of goals affected by the emergency.

Recovery strategies

Table 45. Summary of strategies

Need	Strategy	Total (US$ millions)
Reduction of the risks for infection among personnel	• Apply biosafety and occupational health protocols. • Supervise/Monitor the health conditions of personnel.	
Liquidity for the continuity of operations	• Increase exports of electricity to Colombia (from 300 MW to 460 MW) and to Peru. • Take advantage of and strengthen national engineering capacities to reduce imports of goods and services. • Establish payment channels and keep citizens informed to improve billing and collection rates, taking the municipal traffic lights into account. • Reschedule payments to providers (public or private).	
Emergency response and fulfillment of goals	• Resolve the regressive erosion of the Coca River. • Modernize old lines and substations to improve the availability and reliability indicators of the National Transmission System. • Explore and define initiatives under the public-private partnership modality. • Confirm a $100 million loan from CAF for energy transmission projects. • Confirm the IDB loan for the 500 kV Ecuador-Peru interconnection project. • Obtain from the Ministry of Finance the resources to fulfill the commitments acquired until 2022 with multilateral organizations. • Obtain from the Ministry of Finance payment for the consumption bills of public entities. • Resume work on suspended investment activities and projects. • Reschedule investment and expansion projects for the next fiscal year.	

Note: The cost of recovery needs has not been included by the sector.

Environment

Context

The National System of Protected Areas (SNAP) includes 59 areas that cover 14% of the continental, marine and insular territory; 31 include territories of 18 indigenous nationalities. In 2019, there were approximately 1.8 million visitors, excluding visitors to the Galapagos National Park (271,238) and the Yasuní National Park (11,213)[1].

With the support of international cooperation, it has been possible to establish emblematic programmes such as the Socio Bosque Programme that, together with REDD+[2], supports conservation through annual per-hectare payments to individual partners, communities, and indigenous peoples and nationalities in return for maintaining native vegetation cover. A total of 1,642,029 hectares have been conserved, benefiting 179,140 people. Immediately prior to the emergency, the country had a very small number of managers at the national level, which implies a critical management challenge (11 environmental managers for waste incineration, five managers with autoclaves and 12 transport managers).

Response measures

Visits to exhibition spaces, itinerant museums and the library system were suspended. The length of the suspension depends on the evolution of the risk of infection. Museums such as the National Institute of Biodiversity (INABIO) have strengthened the use of social networks and virtual platforms for the promotion of services.

To ensure proper monitoring and management of natural resources, strategies have been proposed and a series of alternatives developed in the short and medium term to avoid the paralysis of activities planned for this year; and without excessive variations to original execution times.

Methodology

The estimation of losses was based on information provided by the specialists from each area of the environmental sector. The secondary information comes from previous analyses of these environmental subsectors:

1) Management of the natural heritage of coastal terrestrial and marine areas that include areas under some type of protection.
2) Environmental quality control.
3) Climate change mitigation and adaptation actions.

Meetings were held with the internal teams to review the estimation of losses and to agree on the needs and strategies for the continued response and reactivation.

1 http://areasprotegidas.ambiente.gob.ec/es/reporte-de-visitas#

2 Reducing emissions from deforestation and forest degradation

Effects of COVID-19 in the sector

In the cross-cutting environmental sector, it is estimated that the total net losses are $54.94 million, with 98% of which correspond to the public sector due to the reduction in income from the operation of the Galapagos National Park and the Yasuní National Park, suspension of forestry programmes and increase in waste management expenses, among others.

Table 46. Summary of losses in the environmental sector

Components	Sector		Total (US$ millions)
	Public	Private	
Income reduction in terms of increased expenses	**54.02**		**54.02**
Galapagos entrance fee	4.18		4.18
ABG income*	0.12		0.12
Projection of income from tourist activities in the Yasuní National Park	2.66		2.66
Cost of waste management	46.89		46.89
Reduction of income due to the approval of forest management programmes	0.18		0.18
Biosecurity	**0.03**	**0.89**	**0.92**
Donations, resources destined to respond to the health emergency		0.89	0.89
Monitoring and cleaning of the sea floor	0.03		0.03
Total US$	**54.04**	**0.89**	**54.94**

* Agency for the Regulation and Control of Biosafety and Quarantine for Galapagos

a) Effects on the production and distribution of goods and services

The closure of the Protected Areas reduced the impact of tourists on the natural systems but affected the revenue stream in the Galapagos National Park and Yasuní National Park (access to the other protected areas is free). This reduction in the income of the parks may affect their sustainability in the medium and long term. In addition, it may also affect the implementation of some local programmes in Galapagos that rely on these funds.

On average, visitors to the Protected Areas System in the period in 2020 decreased by 87% compared to 2019; the revenue stream decreased by 86% in the Galapagos National Park and by 99% in the Yasuni National Park.

Table 47. Number of visitors to protected areas

AREA	2019			2020		
	March	April	May	March	April	May
Protected areas*	199,470	146,925	166,482	46,323	32	0
Galapagos National Park	26,176	24,744	23,191	11,359	0	0
Yasuní National Park	1,252	1,188	1,269	259	0	0

Source: Ministry of the Environment and Water, 2020
* Excludes the Galapagos National Park and Yasuní National Park

The execution activities linked to climate change programmes and projects were affected by 24% on average, since they had to be reprogrammed, affecting some 117,677 beneficiaries.

There are two effects on solid waste disposal: an increase in the volume of waste generated and an increase in collection costs. Generation increased between 15% and 20% nationwide, while the current average cost per ton collected ($117.40) increased by $19.56 mainly due to the additional operating costs of the implementation of biosafety protocols for the collection and final disposal of solid waste; costs that are assumed by each municipality.

One of the positive aspects of quarantine is the reduction of pollutants in the air. Data from the Metropolitan District of Quito is presented below, showing an improvement in air quality.

Table 48. Air quality index in the Metropolitan District of Quito

Contaminant	Dec-19 to Feb-20	Mar-20 to May-20
CO, 8-hour average maximum concentration, mg / m3	8	7
PM10, 24 hour average, µg / m3	51	31
O3, maximum 8-hour averaging concentration, µg / m3	54	49
SO2, 24 hour average, µg / m3	5	3
NO2, maximum concentration in 1 hour, µg / m3	26	14
Suspended particles	35	34

Source: Ministry of the Environment and Water, 2020

The decrease in visitors also reduced wildlife trafficking. In the case of Galapagos, the decrease in cargo, passengers, luggage and means of transportation reduced the risk of entry of exotic species to the islands. The following graph shows the difference between the projected and actual values for the period March to May 2020.

Table 49. Difference between projected and actual values (US$ millions)

Component	March - May		Variation
	Projected	Real	
Admission fee	4.85	0.67	**4.18**
ABG revenue	0.19	0.07	**0.12**
Revenue from tourist activities in Yasuní National Park	2.69	0.03	**2.66**
Waste management cost*	123.37	170.25	**46.89**
Reduced income from forestry programmes	0.29	0.11	**0.18**

* National Institute of Statistics and Census MAAE/PNGIDS

b) Effects on the access of the populations to goods and services

One of the main effects of quarantine on the population's access to sector services is the inability to carry out various procedures.

In the case of the Socio Bosque Programme, it has not been possible to streamline and complete the processes to access the incentives granted to collective partners for the conservation of natural ecosystems. In addition, the financing foreseen in this programme is unconditional and therefore depends on the management of the fiscal budget, which at present has been reduced due to the priorities arising from the pandemic.

Another example is the loss of income for the Agency for the Regulation and Control of Biosafety and Quarantine for Galapagos (ABG) for services provided in the territory. The ABG is primarily self-managing, supported by the inspection of organic cargo, in addition to fumigation, operating permits for poultry farms, permits for fumigation companies and farm supply outlets, among others.

A third example is the suspension of inspections by technicians in the territory, which affects the reduction of permits and streamlining of procedures in general.

c) Effects on governance

The technical outputs have had to be reprogrammed due to the health emergency. Additionally, the Annual Operating Plan has been reprogrammed in the different units, postponing overall execution deadlines.

The delay in activities in the territory led to a decrease in contact with the different local authorities for the coordination of activities in the different intervention areas of the MAAE.

d) Effects on the increase of risks and vulnerability

The partial shutdown affected the monitoring, control and follow-up of the effects produced by the different socioeconomic activities on water and the environment as it has not been possible to measure or verify the evolution of the processes or the impact of human activity in the field during the pandemic.

Needs for recovery, reactivation and continuity of the response

- Increase the control, protection, conservation and restoration of the native flora and fauna of the Archipelago.
- Biosecurity equipment for museums and exhibition spaces and protective clothing for all personnel in the territory.
- Generation of protocols for labour reinsertion of grassroots recyclers.
- Ensure the sustainability of the tour operators of the Yasuní National Park through unperceived economic resources.
- Monitoring mechanisms to enable the payment of incentives.
- Rezoning and addenda for areas affected by changes to the structure of the Areas Under Conservation.
- Financial sustainability for Areas Under Conservation

Recovery strategies

Table 50. Summary of strategies

Need	Strategy	Estimated (US$ millions)
Increase the control, protection, conservation and restoration of native flora and fauna of the Archipelago	Develop a plan for the control, protection, conservation and restoration of native and endemic flora and fauna.	2.50
Biosecurity equipment for museums and exhibition spaces and protective clothing for all personnel in the territory.	Manage resources to implement biosafety protocols for opening museums and exhibition spaces.	0.00
	Manage resources for the implementation of biosafety protocols in facilities.	N/A
	Procurement of protective clothing through budget reprogramming and international cooperation.	N/A
Generation of protocols for labour reinsertion of grassroots recyclers	Training, monitoring and control by the GAD-M (compliance with protocols).	N/A

Ensure the sustainability of Yasuní National Park tour operators through unperceived economic resources	Manage cooperation resources for the provision of biosecurity measures to tourists.	0.03
	Promote local tourism through the dissemination of destination options and tourist packages.	
	Prioritize areas of tourist interest, promoting projects focused on the conservation of biodiversity through community tourism including activities such as bird watching, release of charapa turtles, among others.	
Monitoring mechanisms to enable payment of incentives in the Socio Bosque Programme	Modify the monitoring activities in the Socio Bosque Operational Manual.	N/A
	Manage funds for the acquisition of equipment to carry out and increase capacity for on-site monitoring.	
Rezoning and addenda of areas affected by changes to the structure of the Areas Under Conservation	Establish the effects on the structures of the Areas Under Conservation and sign addenda to prevent the reduction of the area under conservation in the Socio Bosque Programme.	N/A
Financial sustainability for Areas Under Conservation	Manage funds with private companies for the conservation of highly vulnerable ecosystems.	N/A
	Raise awareness for the conservation of fragile ecosystems.	

Note: The cost estimate for the needs is partial.

Security Sector

Context

The objective of risk management in Ecuador is to minimize the condition of vulnerability, and the way to do this is through subsidiary management, whereby each entity is responsible for managing risks in its area of responsibility[3]. The Constitution establishes risk management within the development scheme as one of the areas of the National System of Inclusion and Social Equity, at the same level as education, health, habitat and housing, science and technology, among others.

The Risk Management Secretariat was responsible for risk management until 2018, when the President transformed the Secretariat into the National Service for Risk and Emergency Management (SNGRE) and created the *National Service Committee for Risk and Emergency Management* as the governing body responsible for the leadership, regulation, planning and coordination of the Decentralized National Risk Management System[4].

Ecuador has different mechanisms and regulations for the management of adverse events including crises, emergencies, disasters and catastrophes. The first two categories correspond to adverse events whose prevention, mitigation, response or recovery management can be carried out with the institutional capacities available in the affected places or entities. For the management of events that exceed these capacities, such as certain disasters or catastrophes, the Constitution grants the central government exclusive competence with or without the declaration of a state of emergency.

Within this institutional framework, the President assigned the *National Committee for Emergency Operations* (COE-N) various responsibilities for the management of the current states of emergency. Decisions at the presidential level were also made to respond to the disaster associated with the 2016 earthquake.

Friendly governments, international entities, UNDP and the organizations that make up the Humanitarian Country Team (HCT) have answered government calls for solidarity in the presence of a disaster or emergency. Since 2015 and in close collaboration, UNDP, WB, EU and several central government entities (risk management, planning, INEC and others) have been carrying out exercises to develop preparedness planning methods and tools for the post-disaster response and the assessment of the effects and impacts of disasters, including the identification of needs and recovery strategies. The most recent of these assessment exercises was carried out in response to the protests of October 2019, with support from the World Bank.

Response measures

On 12 March, the Minister of Health declared a state of health emergency[5], and the President immediately ordered the activation of the COE-N, chaired by the Vice President of the Republic. The COE-N works through plenary sessions with the assistance of the highest authorities from various sectors and is supported by technical working groups (TWGs) and working groups (WGs).

3 Constitution of the Republic of 2008, articles 389 and 390.

4 Decree 534 of 3 October 2018.

5 Agreement 126-2020. RO 160 of 12 March, supplement.

The TWGs and WGs activated in the framework of the declared health emergency are:

TWG-1 Safe Water, Sanitation and Waste Management
WG-2 Health and Pre-Hospital Care
TWG-3 Essential Basic Services
WG-4 Temporary Accommodation and Humanitarian Assistance
TWG-5 Education in Emergency
TWG-6 Livelihoods and Productivity
TWG-8 International Cooperation
WG-1 Logistics
WG-2 Security and Control

On 16 March, the President decreed a State of Emergency[6] in the country, ordered the mobilization of all entities of the Central and Institutional Public Administration to mitigate the effects of COVID-19 throughout the national territory, and granted the COE-N essential functions[7] for the management of the situation, as shown in the following provisions:

- SUSPENDS the exercise of the right to freedom of movement and the right to freedom of association and assembly. *The National Emergency Operations Committee* will establish the timetables and mechanisms for restricting each of these rights, and the emergency operations committees of the corresponding decentralized level will activate and coordinate with the relevant institutions the appropriate means of executing these suspensions (Art. 3).
- DECLARES a curfew: as of 17 March 2020, it is prohibited to circulate on roads and public spaces throughout the country under the terms established by the National Emergency Operations Committee (Art. 5).
- SUSPENDS activities at workplace premises between 17 and 24 March 2020 for all workers and employees in the public and private sectors. The National Emergency Operations Committee, once the state of the situation has been evaluated, may extend suspension of workplace activities (Art. 6, literal a).
- DETERMINES that the scope of the restrictions on the exercise of the right to freedom of association and assembly will be applied to those high-risk population groups within the epidemiological cordon as determined by the National Health Authority; on the population at large, which must remain in mandatory community quarantine according to the terms established by the National Emergency Operations Committee, and vis-a-vis all large events and mass gatherings (Art. 9).

In accordance with the evolution of infections, the provincial and municipal Emergency Operations Committees, with their respective work tables and groups, were also activated. Resolutions, protocols, infographics, status reports and other relevant information are available on the website: www.gestionderiesgos.gob.ec

6 The declaration of the state of emergency is a constitutional power granted to the President. The maximum period of a state of emergency is 90 days. Since 16 March, the country declared two continuous states of emergency for different reasons.

7 Article 2 et seq. of DE No. 1017. Until June, the COE-N was chaired by the Vice President of the Republic; then by the Minister of Government.

Table 51. Emergency Operations Committees activated during the emergency

Description	Period March to May 2020			
	Committees activated	Technical Working Groups and Working Groups	Participating entities	Activation level
National COE	1	9	44	Level 4: Disaster
Provincial COE	24	9	36	Level 4: Disaster
Municipal COE	221	8	19	Level 4: Disaster
Total	**246**	**26**	**99**	

For the first time, a hundred percent of COEs have been activated in the country. During the period March to May 2020, 171 regulatory documents were prepared, and 785 meetings were held. TWG-7 and WG-3 were not activated[8] because they were not directly related to the priorities of the emergency.

The ministries of the Sectoral Security Cabinet (and their attached entities) participated very actively in the COE-N as coordinating institutions and in the TWGs and WGs.

Relevant milestones

- On 4 March 2020, the Ministry of National Defence (MDN) receives the COVID-19 situation report issued by the SNGRE. That same day, the Chief of Operational Staff of the Joint Command of the Armed Forces orders the initiation of operational planning and alerts the Land, Naval, Air Forces and Operational Commands to plan, prepare and be ready to conduct operations in support of the SNGRE.
- On 11 March, the Ministry of Public Health (MPH) declares a health emergency due to COVID-19, and on 13 March, the President orders the activation of the National Emergency Operations Committee (COE-N) chaired by the Vice President.
- On 13 March, the Armed Forces activate the Prevention Phase of the Contingency Plan followed by the Initial Containment Phase on 16 March.
- On 16 March, the President decrees the State of Emergency (DE No. 1017).
- On 19 March, the Colombian Military Forces and the Ecuadorian Armed Forces implement the Plan Espejo (Mirror Plan) to comply with the restrictions on the mobility of people and vehicles and the control of unauthorized border crossings between the two nations[9].
- On 23 March, the President creates the GUAYAS Special Security Zone (ZES-G) throughout the province (DE No. 1019). On 15 May, the Special Security Zone and the Joint Task Force in the Guayas province (DE No. 1052) are deactivated.

8 TWG-7 Essential infrastructure and housing and WG-3 Search and rescue.

9 On 4 April 2020, the armed forces of Peru deployed armored, mechanized and personnel transport vehicles to control unauthorized crossings at the Ecuador border, assuming that the spread of COVID-19 from Ecuador to Peru could be alarming.

- On 24 March, the COE-N orders the National Service of Legal Medicine and Forensic Sciences, the National Police and the Armed Forces to provide full support for the application of the Protocol for the Handling and Final Disposal of Dead Bodies with Confirmed or Presumed COVID-19.
- On 20 May, the COE-N decides to carry out a first assessment of the effects and impacts of the emergency.
- The Sectoral Security Cabinet[10] (GSS) was activated with its full members, dependent and attached entities, with the advice of the the United Nations, World Bank, European Union and Planifica Ecuador technical team and consultant.

Principales acciones de respuesta

The **MDN** coordinates the *Logistics Working Group*, with the participation of the Integrated Security System ECU 911 (SIS ECU 911). The main actions carried out by the MDN and ECU 911 in the period March to May 2020 include:

- Deployment of troops to carry out eight missions in the national territory[11], with numbers varying from 15,633 on 16 March and 35,161 on 29 April to 30,933 on 16 June 2020.
- Visual support with 4,780 cameras for monitoring and tracking the movement of people.
- Transfer of 10,528 people arriving on humanitarian flights to different locations in the country.
- Coordination of 329 humanitarian flights for Ecuadorians and foreign residents.

On 13 March 2020, the **SNAI** declared the emergency for the National Social Rehabilitation System due to the health emergency, and on 16 March applied the *Guidelines for the prevention of COVID-19 (Coronavirus) for the National System of Social Rehabilitation and Adolescent Offenders*, which includes inter-institutional coordination with the Ministry of Public Health and the National Police, among others, and specific measures related to the prevention and mitigation of the spread of COVID-19 in the centres, such as rules for admission, suspension of visits and other provisions. This document has been updated three times.

The **SNGRE** provides technical assistance to the *Technical Working Groups and Working Groups* of the COE and coordinates the Temporary Accommodation and Humanitarian Assistance Group. Among the main actions developed in the period are:

- Participation in the delivery of the Family Protection Voucher and the Human Development Voucher.
- Transfer of 1,168 passengers — who arrived from overseas and fulfilled their Mandatory Preventive Isolation - to their cities of origin with the help of the National Government.
- Delivery of 1,058,351 food kits to vulnerable families.
- Activation of 27 shelters for people living on the streets or in condition of human mobility, benefiting 838 people.

10 The full members of the Sectoral Security Cabinet are: Ministry of National Defence (MDN), which presides over the entity, Ministry of Government (MDG), Centre for Strategic Intelligence (CIE), National Risk and Emergency Management Service (SNGRE), National Service for Comprehensive Attention to Adults Deprived of Liberty and Adolescent Offenders (SNAI) (DE No. 1012, 9 March 2020).

11 The controls implemented on the roads and highways by the security forces during the state of emergency affected the production, processing, and commercialization chains of criminal structures linked to drug trafficking that operate in the country. The main effect appears to impact the departments of Nariño and Putumayo in Colombia.

- 142,646 goods delivered to equip temporary isolation facilities, hospital extensions and shelters.
- Attention to 491 domestic violence calls placed to ECU 911 and 1800 DELITO .

From 12 March to 31 May, **ECU 911** received 2,783,375 calls at the national level and responded to 971,311 emergencies, including 5,544 related to clandestine parties, 41,618 to alcohol consumption, 52,874 to scandals, 21,732 to domestic violence, 22,768 to alerts by ESPII2 code and 31,852 to agglomerations.

The **Ministry of Government (MDG)** coordinates the Security and Control Working Group, in which SNAI and ECU 911 participate. The main actions of the MDG in the period are:

- Implementation of 52,704 control operations between the police authorities and stations.
- Closure of 466 establishments for non-compliance with COE-N provisions.
- Implementation of 10,354 operations to control products subject to health registration in pharmacies.
- Response to 29,352 reports of mass gatherings or agglomerations of people.

The National Service of Legal Medicine and Forensic Sciences **(SNMLCF)** assisted throughout the process in coordination with the National Coordination of Criminalistics, Legal Medicine and Forensic Sciences of the National Police; participating in TWG-2 of the COE-N for the development and revision of different technical instruments and in the decision-making processes. By provision, it received the dead bodies with confirmed or presumed COVID-19 from the temporary collection centres of the different health facilities in Guayaquil to initiate the Forensic Anthropology and Forensic Genetics identification processes. The Director General of the SNMLCF declared a 60-day emergency situation for the service on 25 March 2020, which allowed for the procurement of emergency goods and services.

Methodology

On 2 June, the institutions of the Security Cabinet, Planifica Ecuador and the PDNA consulting team agreed on how to move forward with the preparation of the matrix and the report of the sectoral chapter.

The main sources of information consulted were COE-N files, the institutional website and institutional information related to planning, budget management and the portfolio of services including:

- Information from the COE-N, Technical Work Groups and Working Groups.
- Activation of the Provincial and Municipal COE.
- Estimates of the number of participants, meetings and regulatory documents prepared.
- Portfolio of services with the number of requirements met.
- Budgetary notes for the amounts executed in March-May 2019 and March-May 2020.
- Matrix of goods delivered during the health emergency.
- 2020 budget modifications to respond to the health emergency.

Effects on the security sector

Ecuadorian Law defines states of emergency as "the response to serious threats of natural or man-made origin that affect public and state security." When the *state of emergency*[12] includes the declaration of national mobilization, it is implemented through the Armed Forces and implies a forced order to provide individual or collective services, whether by nationals or foreigners, by natural or legal persons. The same law regulates the declaration of a *special security zone*. Additionally, the *curfew* implies a total prohibition on circulation during designated times. The state of emergency decreed by the pandemic included the declaration of *national mobilization, curfew* and special security zone, placing the Armed Forces and the National Police in charge of maintaining citizen security and public order.

Table 52. Summary of losses in the sector

Components	Sector		Total (US$ millions)
	Public	Private	
Security	**19.11**		**19.11**
MINISTRY OF NATIONAL DEFENCE	12.84		12.84
NATIONAL SERVICE OF COMPREHENSIVE ATTENTION TO ADULTS DEPRIVED OF LIBERTY AND ADOLESCENTS OFFENDERS (SNAI)	0.61		0.61
MINISTRY OF GOVERNMENT	5.32		5.32
NATIONAL SERVICE OF LEGAL MEDICINE AND FORENSIC SCIENCES (SNMLCF)	0.34		0.34
Risk and Emergency Management	**7.56**		**7.56**
NATIONAL RISK AND EMERGENCY MANAGEMENT SERVICE (SNGRE)	3.91		3.91
INTEGRATED SECURITY SERVICE ECU 911	3.65		3.65
TOTAL	26.66		26.66

12 Law on Public and State Security, Articles 28 to 41.

Table 53. Summary of impacts on the security sector

Components	Sector		Total (US$ millions)
	Public	Private	
Ministry of National Defence	**12.84**		**1.84**
Command and control	1.80		1.80
Surveillance and control of border crossings and Border Security Zones	5.39		5.39
Surveillance and control of State security zones	0.79		0.79
Support to other State institutions (National Police, Ministry of Public Security, ECU 911, MIES)	2.86		2.86
Operations support (air, intelligence, logistics)	3.24		3.24
Difference from planned budget	-1.23		-1.23
SNAI	**0.61**		**0.61**
Increase in the allocation of petty cash values	0.01		0.01
Additional cost for cleaning supplies	0.11		0.11
Additional cost for protective equipment	0.54		0.54
Additional cost for fuel	0.01		0.01
Difference from planned budget	-0.056		-0.056
SNGRE	**3.91**		**3.91**
Delivery of goods for equipment of temporary isolation facilities and hospital extensions	2.68		2.68
Maintenance of Vacuum Truck vehicles due to COVID-19 health emergency	0.00		0.00
Purchase of protective clothing and cleaning materials for Zonal Coordinations 4 and 7	0.00		0.00
Personal protective equipment for central plant employees	0.00		0.00
Procurement of personal protective equipment for the Zonal Coordinations	0.03		0.03
Response actions for the health emergency (for implementation)	1.19		1.19
ECU 911 Integrated Security Service	**3.65**		**3.65**
Contracting the COVID-19 detection test service	0.00		
Purchase of protective clothing and cleaning supplies	0.01		
Personal protective equipment for SIS ECU 911 employees	0.03		
Personal expenses	0.03		
Call service cost	3.57		

Ministry of Government	**5.32**		**5.32**
National Health Directorate (DNS)	0.49		0.49
National Financial Directorate (DNF)	3.34		3.34
Judicial police	0.10		0.10
General Revenue Directorate (DGI)	1.37		1.37
DNE	0.02		0.02
National Service of Legal Medicine	**0.34**		**0.34**
Improvement of physical spaces	0.00		0.00
Purchase of personal protective equipment	0.21		0.21
Increase in fuel costs	0.01		0.01
Increase in land, sea or air transportation costs	0.02		0.02
Use of supplies in stock that need replacement	0.04		0.04
Disinfection and sanitization of work environments	0.04		0.04
Supplies for technical management during the emergency	0.03		0.03
Total sector	**26.66**		**26.66**

a) Effects on the production and distribution of goods and services

The general objective of the sector during the state of emergency is to ensure public and state security under the command of the COE-N. To this end, the institutions of the sector have had to reprogramme their resources to respond to the priorities arising from the emergency situation. In general, public order has been preserved throughout the territory as indicated in the reports of the different sectoral cabinets.

In general, the reallocation of resources prevents the institutions in the sector from carrying out various essential operational activities foreseen in the 2020 work plan.

The reallocated **Armed Forces** resources were used for items such as:

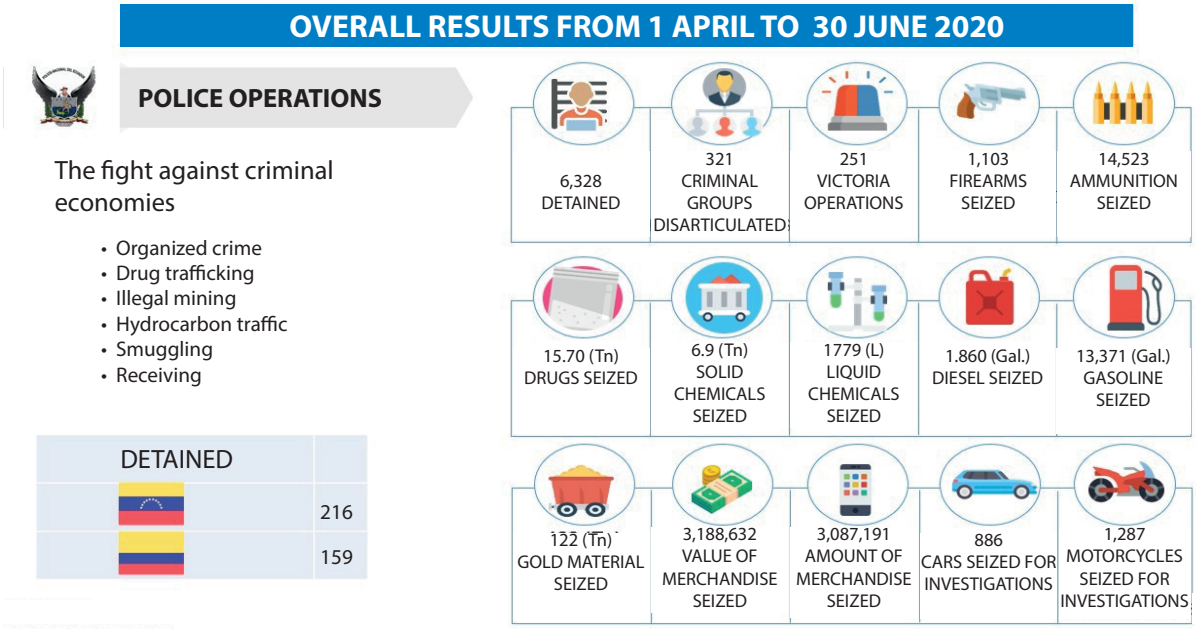
- Biosafety and health security equipment for general and front line military personnel.
- Food rations for continuity in the fulfillment of the assigned operations.
- Control and security of the population, in support of the National Police.
- Transport of personnel, goods, equipment, materials, supplies, among others for the population and State Institutions.
- Non-programmed materials and maintenance of vehicles and equipment.

In the **SNAI**, administrative staff assumed an additional workload, which increased overtime expenses. Some of the changes were:

- Under normal conditions, the system transfers an average of 806 persons deprived of liberty; this figure was reduced to 294 transfers due to the fact that only urgent transfers were carried out.
- Issuance of certificates for penitentiary privileges, management of presidential pardons, revocation of preventive detention or completion of the socio-educational measure by adolescent offenders.
- Activation of labour in several prison rehabilitation centres for the manufacture of coffins, (453 coffins at the national level), which were donated to the entities responsible for the collection of dead bodies.

Police action between April and June is reflected in the following graph. Despite confinement, common and organized crime continued to operate, and women, children and adolescents continue to be the main victims of violence.

Figure 2. Overall results



Source: Ministry of Government.

The **SNGRE** delivered various goods that were part of the humanitarian assistance stock that is used in the response to volcanic hazards, floods, earthquakes, structural fires and landslides, among others. It also provided goods to the temporary isolation facilities and hospital extensions for suspected and confirmed cases of COVID-19. In addition, resources have been obtained for vehicle maintenance, the purchase of protective clothing and cleaning materials for the zonal coordinations, individual protection equipment for employees of the central plant and zonal risk management coordinations.

From 12 March to 31 May 2020, **ECU 911** registered 124,514 more emergencies compared to the same period in 2019.

In the **SNMLCF**, the provision of specialised services decreased from 40,062 in March and April 2019 to 15,132

during the same period in 2020.

b) Effects on the access of the population to goods and services

The **Armed Forces** acted to maintain order to ensure access of the population to goods and services under the restrictions of the state of emergency. Some of the services provided include:

- Protection in detention centres, convoy security, medical air transport, protection of quarantined areas.
- Transport of dead bodies from hospitals and clinics, burial of dead bodies, delivery of death certificates.
- Delivery of donations received from friendly countries to the population, Galapagos air bridge, air transport for military personnel and the national police, air cargo transport.
- Provision of humanitarian aid to the interior by air transport; transport of kits and health supplies.
- Implementaton of mobility restrictions, arrest and sanctioning of citizens, citation and/or retention of vehicles, closure of business premises.

SNAI ensured food and basic needs in the different centres at the national level. Family and conjugal visits were suspended to prevent infection. Health services were coordinated in the centres with personnel from the Ministry of Public Health. Until 2 July 2020, there were 13 deaths from COVID-19 and 459 positive cases in 10 provinces (data to be validated by the MPH).

The main challenges during the emergency include: difficulty in accessing the public health network and services, slowness of judicial operators in granting prison privileges and changing regimes (this influences the increase in overcrowding in the centres).

The **SNGRE** estimates a quarterly operating cost of $30.38 million to attend to the confirmed cases (39,098) and suspected cases (50,462) of COVID-19 as of 31 May. The 5% reduction of the institutional budget and the budget reallocations affected the population's access to SNGRE services, including:

- Education and communication campaigns, monitoring of dangerous events, prevention and self-care measures, disaster preparedness and response operations, training of volunteers.
- Underfunding of the stock of goods for humanitatian aid in emergency and disaster situations (resources were allocated for equipping the temporary isolation facilities and hospital extensions).

It is not possible to compare the management of adverse events during the period March to May in 2019 and 2020 for different reasons. For this reason, some data is mentioned for reference purposes to illustrate effects that will be seen in the future:

- The demand for technical assistance for community risk management committees decreased by 69% and for the formation and strengthening of networks of citizen participation for risk management by 67%.
- The demand for technical accompaniment for simulations and drills fell by 80%.
- The demand for participation by civil protection volunteers decreased by 94%.

Of the 22 services provided by the SNGR, 86% have been operational during the health emergency in the period March to May 2020. The other 14% correspond to: preparation of contingency plans for holidays, generation of hazard maps and support for the inclusion of the risk management variable in the Territorial and Development Plans (PDOT).

During the highest peaks of the pandemic, **ECU 911** experienced high call volumes, which affected the population's access to care services. Between 12 March and 31 May 2020, the percentage of call queuing was over 32% in six centres (Samborondón had 47%), between 20% and 26% in three centres and less than 12% in seven centres. In the same period, there were 5,544 emergencies related to clandestine and house parties, 41,618 to alcohol consumption, 52,874 to scandals, 21,732 to domestic violence (psychological, sexual or physical), 22,768 to alerts by ESPII code, 31,852 to agglomerations (since 16 March).

The **SNMLCF** is responsible for the delivery of dead bodies as part of the forensic pathology analysis[13]. Together with the National Coordination of Criminalistics, Legal Medicine and Forensic Sciences of the National Policy, it performed 1,504 autopsies during the emergency (717 in March, 345 in April, 442 in May). In addition, the same entities provided for the burial of 34 bodies with confirmed COVID-19 in the city of Guayaquil (August 2020).

c) Effects on the governance of the sector

Given the experience in Guayaquil, new waves of infection could present a risk for governance due to a deficit of ambulance units needed for emergency care in health care faciltiies; the difficulties in providing other services for the management of dead bodies; and acts of corruption in the procurement of goods and services.

The **Armed Forces** operated at full capacity during the pandemic, employing an average of 31,000 troops per day in order to contribute to the requirements of the COE-N in the surveillance and control of the national territory and in support of different State institutions. In order to do so, development and training activities were suspended, as well as licenses and permits for all military personnel.

Between March and May 2020, 556 public servants from the **SNGRE** collaborated in the response to the COVID-19 health emergency at the national level, working in person and remotely.

ECU 911 implemented contingency plans to reinforce operational personnel, take extreme biosecurity measures, create care protocols (alerts related to the handling of dead bodies), connect calls between local and zonal operational centres (with the Quito, Samborondón, Cuenca, Portoviejo, Machala, Ambato and Ibarra centres providing the most support to operational management) in order to ensure the continuity of the service.

d) Effects on the increase of risks and vulnerabilities iin the sector

The use of the means, equipment, materials and supplies for routine institutional missions during the state of emergency (which may continue for the duration of the pandemic) has weakened the ability of security sector entities to execute, sustain and improve the offer of the goods and services to which they are legally bound.

13 The forensic genetics staff is responsible for obtaining samples for DNA analysis from dead bodies, identifying and storing genetic profiles identied and comparing them with profiles of relatives.

This is particularly visible in the case of defence, risk management and the maintenance of citizen security.

The increase of some social vulnerabilities (poverty, unemployment, informality, among others) in a pre-electoral environment may affect social cohesion and security, which makes it that much more urgent to replenish the resources of the security sector institutions for the fulfillment of their obligations. This need responds not only to institutional interests but also to the general duty of the State to prevent and combat risks and threats to public security and ensure an adequate and peaceful environment for the exercise of rights and development.

Poverty and violence, in all their forms, have negative effects on societies, affect the ability to prosper, cause trauma and undermine social inclusion. The human development crisis triggered by the pandemic jeopardizes the fight for gender equality. In this scenario and due to other social and economic factors, the Ministry of Government and the National Police face several challenges in the sphere of citizen security, such as:

- Domestic violence, abuse and sexual abuse.
- Social unrest, looting and riots.
- Adaptation of organized crime.
- Increase in forms of trafficking, begging and cases of labour exploitation.
- Increase in cases of usury.
- Assaults on delivery employees.
- Increase in crimes committed through the Internet.
- Increase of smuggling in border areas.

It is urgent to overcome the vulnerabilities of the **SNMLCF**. It could not comply with the *General Guidelines for Collective Burials of Dead Bodies with Confirmed or Presumed COVID-19* because the number of deaths, especially in Guayaquil, exceeded the operational capacity of the intervening institutions. It faced procurement challenges related to the high demand and the low willingness of suppliers to work with the Government due to the delays in the accreditation of payments. There is a probability that personnel working in the removal of dead bodies will be exposed to psychosocial risks.

Needs for recovery, reactivation and continuity of the response

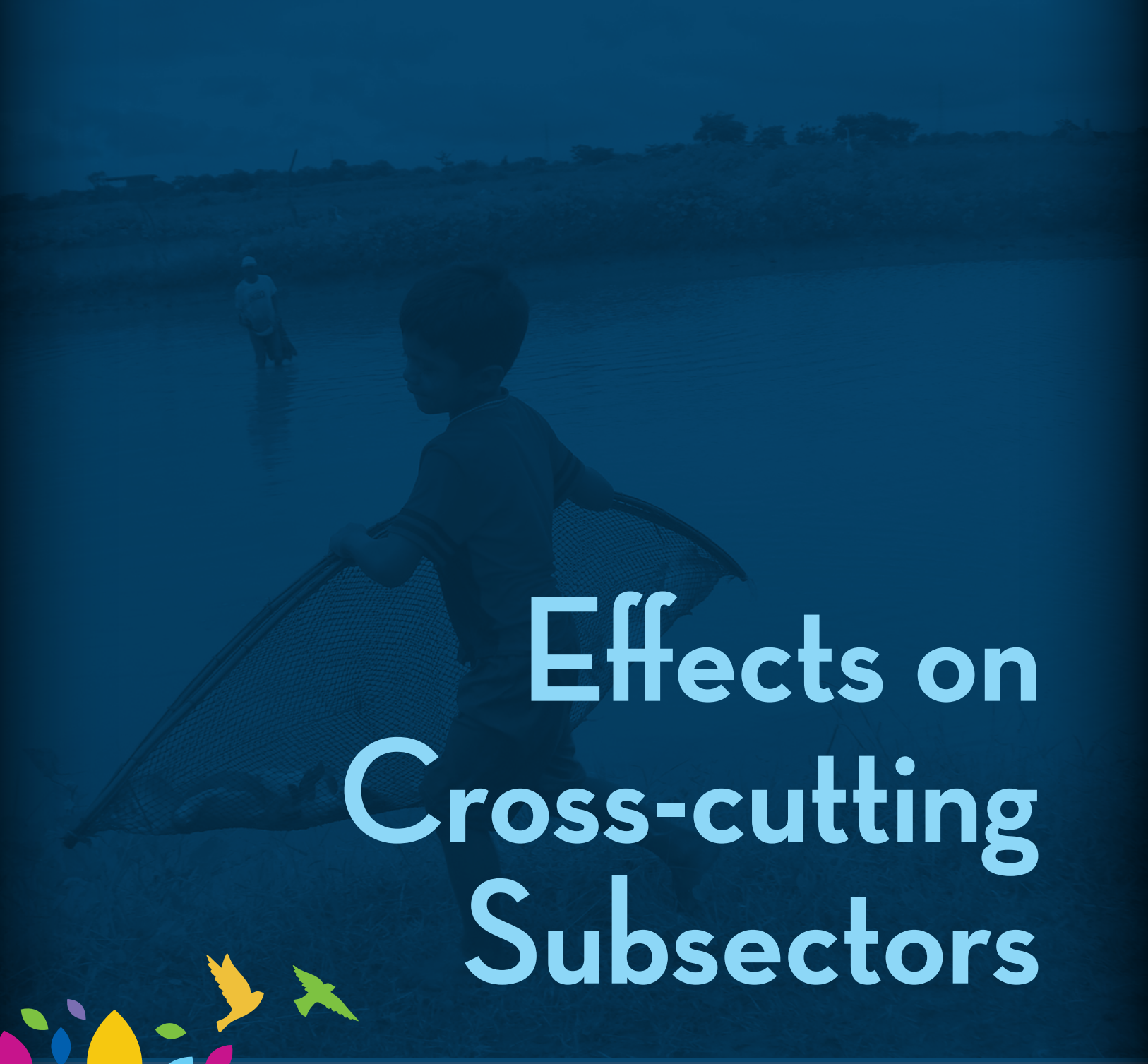
The main common needs in the sector are:

- Replenishment of stocks used during the emergency.
- Reprogramming of budgetary expenditures planned for 2020.
- Obtaining disbursements for the readjusted budget.
- Additional contributions for the continued response to the emergency.

Recovery strategy

Table 54. Summary of strategies

Institution	Strategy	Estimated cost (US$ millions)
Ministry of Defence	• Carry out the final assessment of the COVID-19 health emergency to establish total costs and expenses to be recovered. • Manage the reprogramming of resources before the Ministry of Economy and Finance.	12.84
SNAI	• Update the guidelines for the prevention of COVID-19 in the National System of Social Rehabilitation and Adolescent Offenders. • Adjust planning, budget and supplies to the needs identified for the health emergency. • Manage the reprogramming of resources before the Ministry of Economy and Finance.	0.62
SNGRE	• Carry out the final assessment of the COVID-19 health emergency to establish total costs and expenses to be recovered. • Manage the reprogramming of resources before the Ministry of Economy and Finance for the refinancing of 29 planned activities for the year 2020 and the replacement of 30 items of humanitarian assistance goods. • Implement an emergency fund to respond to crises in Ecuador, which will provide the necessary resources for the response to short, medium and long-term needs.	1.59
SIS ECU 911	• Implement the DISTANCIA2 platform to prevent the risk of infection through the application of video analytics to measure social and physical distancing in places where agglomerations of citizens are registered.	1.14
Ministry of Government	• Develop emotional support programmes to the reduce stress levels of employees. • Continue with cooperation processes with community spaces (national level) and homologous institutions for the identification of transnational crime.	11.85
SNMLCF	• Implement protocols and specialized instruments for expert technical management with a biosafety approach to epidemiological disasters. • Provide employees with biosafety equipment. • Continue with the identification of dead bodies in Guayaquil and initiate identification processes in other centres and technical offices in the country. • Obtain spaces in cemeteries to continue the burial processes. • Ensure the provision of psychosocial support for personnel working in the removal and transfer of dead bodies at the national level.	0.26



Effects on Cross-cutting Subsectors

Employment and Livelihoods

Context

In Ecuador and throughout the world, the crisis caused by COVID-19 has significantly impacted the economy and the labour market, both in supply and in demand; affecting economic and labour prospects related to the quantity, quality and accessibility of work and employment and whose future will depend on the actions taken to mitigate these effects in the short, medium and long term.

According to INEC records (ENEMDU, 2019), there were 7,787,896 people employed overall (formal and informal) as of December 2019; 47 of every 100 jobs were informal. In the informal sector, men held 57% of jobs, 43% of people had a primary level of education and 33% were aged 45-64 years. Approximately one third of informal employment was concentrated in two coastal provinces: 23% in Guayas and 8% in Manabí.

Some 57.6% of total employment was concentrated in the sectors of agriculture, livestock, hunting and forestry; trade and vehicle repair; and manufacturing industries, followed by a combined 17.9% in construction, transportation and storage, and accommodation and services activities. Of these six key sectors, only manufacturing and industry is included in the list of sectors with the best average per capita incomes. The highest averages are found in the extraterritorial organizations and public administration sector and the defence and security sector, while the agriculture, livestock, hunting and forestry sector has the lowest monthly average of $286. Women earn 15% less than men overall and 43% less in the agriculture, livestock, hunting and forestry sector.

In 2019, more than 311,000 people were unemployed, more than 2.2 million were employment part time and more than 1.4 million were underemployed; 77.6% of people with unsuitable employment lived in rural areas. Although total employment increased by 0.74% between 2018 and 2019, suitable employment decreased by 3.55%, other part-time employment decreased by 1.94%; unemployment increased by 5.08% and underemployment by 8.86% (ENEMDU, 2019). Of every hundred jobs, 92 are generated by the private sector, and eight are generated by the public sector.

Response measures

The response to the COVID-19 crisis in the work environment strengthened the teleworking modality, promoted infection prevention measures and issued guidelines for reactivation. The operational measures include:

Table 55. Response measures in the employment and livelihoods sector

Purpose	Measure
Labour protection	• Guidelines for the implementation of telework (Agreement MDT-2020-076). • Guidelines for the modification of the workday (Agreements MDT-2020-077 and MDT-2020-080). • Reform of the instructions for the fulfillment of employer obligations (Agreement MDT-2020-081).
Economic and labour reactivation	• Guidelines for the progressive return to work, private sector (Agreement MDT-2020-093). • Guidelines and general plan for the progressive return to work, private sector (COE- N 04-28-2020). • Guidelines for action for the prevention and control of COVID-19 in the physical workplace. • Guidelines for the return to the physical workplace in the public service (Agreement MDT-2020-094). • Guidelines to establish the special differentiated workday in the public sector (Agreement MDT-2020-117).

Source: Ministry of Labour and COE-N, 2019

Loss estimation methodology

Two main indicators are used to express losses in the employment and livelihoods sector: "lost work days" and "loss of personal income". To estimate the two indicators, annualized data from the Survey of National Employment, Unemployment and Underemployment 2019, data from the Internal Revenue Service and information from the Ecuadorian Social Security Institute (IESS) were used. The estimate was carried out by the ILO and UNDP using the PDNA Guidelines Volume B methodology established by the United Nations, the World Bank and the European Union in 2014 and which has since been applied in more than 10 countries. Administrative records of the Ministry of Labour and administrative data from the IESS were used to strengthen and complement the estimates of the PDNA methodology, which allowed an in-depth analysis of the changes in formal employment in March, April and May 2020.

Effects of COVID-19 in the sector

Based on PDNA methodology, estimates reveal that up to 949,700 jobs (or 212,679,000 work days) have been temporarily lost as a result of the pandemic in Ecuador; 359,378 of which were informal jobs. This is equivalent to approximately 12% of the economically active population of Ecuador[14]. As a result, affected workers have lost approximately $3.5 billion of personal income or $584 per worker. The sectors that have been most affected are accommodation and food services, which includes tourism (34%), followed by manufacturing (29.4%), education (21.6%) and arts, entertainment and recreation (21.2%). The sectors of agriculture, health and public services (electricity, gas and steam) have been the least affected, which reflects their critical importance for the functioning of the economy and the Ecuadorian society.

14 At the time of the writing of this report, the INEC published technical bulletin No. 01-2020 of the ENEMDU telephone survey that notes an increase in unemployment to 13.3% of the economically active population in May and June 2020. Although the reference period of the ENEMDU survey only coincides with the PDNA in the month of May, the official statistics of the INEC are an important confirmation of the trends in the labour market established by the present analysis of the employment and livehoods sector.

Triangulation of effects with administrative data

To complement the aforementioned PDNA analysis, a wide range of administrative data was analysed to determine the geographic and gender dimensions of the losses in formal employment.

The declaration the health emergency paralysed the activities of approximately 70% of the productive and commercial apparatus and directly affected the labour variables. The number of teleworkers grew from 13,019 in February to 338,057 in March and dropped to 24,273 in May. Between March and May[15], the registration of labour settlement proceedings increased by nearly four fold.

Table 56. Effects on labour indicators in Ecuador

Indicator	March 2020	April 2020	May 2020
Employment registered with social security	3,285,641	3,183,342	3,095,677
Labour settlement proceedings registered	23,111	47,778	84,247
Red Socio Empleo placements[16]	2,529	2,168	1,333
Number of teleworkers registered	338,057	42,184	24,273

Source: INEC and MDT (2020)

From March to May, 155,136 labour settlement proceedings were registered at the national level: 56,338 in Pichincha, 36,585 in Guayas, 13,694 in Azuay, 7,431 in Manabí and 5,057 in Tungurahua. The settlement proceedings "due to unforeseeable circumstances or force majeure" registered the most drastic increase with 9,422 proceedings in May, 5,592 proceedings in April and 278 proceedings in March 2020. The greatest numbers were registered in trade, vehicle repair, agriculture, manufacturing industries, construction, and professional and scientific activities.

Social security

Between February and May, social security affiliations decreased by 232,661, which corresponds to an average income loss of approximately $282.02 million; 67.11% for men and 32.89% for women. The salary ranges presenting the greatest losses in average income are found in the lower-middle income population ($486.76 to $937.50), totaling an approximate loss of $45 million.

In the short and medium term, the changes associated with COVID-19 profoundly altered the labour market and will deepen structural inequalities and job segmentation in Ecuador. The majority of workers who lost their jobs and who were already in the informal sector will become inactive given the extremely limited job search options during lockdown.

To compensate for the loss of income, many households will resort to negative coping strategies such as liquidating savings and assets, going into debt and, in the worst-case scenario, reducing their food intake.

15 Data for the month of May not available from the INEC.

16 Job portal for candidates and companies.

Effects on governance

Employment and livelihoods is not an independent sector of the economy. On the contrary, it is the labour support of all sectors and the main generator of the consumption capacity for the set of goods and services that circulate in society. If households lose their ability to sustain their way of life (or if that ability is critically affected), social cohesion weakens, and one of the basic preconditions of governance disappears.

The employment crisis triggered by COVID-19 may represent the greatest challenge that Ecuador has faced in decades. The need to protect employment, to invest in sustaining the reactivation of MSMEs, to improve the quality of management at different levels of government and probity in public procurement has become highly relevant.

Effects on the increase of risks and vulnerabilities in the sector

According to the ENEMDU (December 2019), women are the most vulnerable group in terms of total employment and suitable employment and present nearly half the values registered for men. By educational level, the most vulnerable group is those with only a secondary education, representing a total of 81,762 unemployed. By age range, the population aged 15-24 years is the most vulnerable with a total of 116,960 unemployed.

At the provincial level, Pichincha is the most vulnerable province with a total of 100,512 unemployed. By ethnicity, the mestizo population is the most vulnerable with a total of 237,558 unemployed. In addition, 92.5% of total employment and 81.9 % of suitable employment is found in the private sector, 7.5% of total employment and 18.1% of suitable employment is registered in the public sector.

Social vulnerability has reached critical levels.

Needs for recovery, reactivation and continuity of the response

The critical points identified in the Ecuadorian labour environment, both within the most affected sectors and at the institutional level are:

- Protection of health in the workplace.
- Protection of employment.
- Protection of workers.
- Improvement of social cohesion.

Given that the highest rate of unemployment is found among the the young population in Ecuador, it is necessary to strengthen government and regional initiatives that support efforts to connect people, regardless of their age, to a formal job.

Some of the elements exposed in this analysis are also included in the chapter on human impact, which is represented by the aggregate of indicators from various cross-cutting areas, including gender, employment and livelihoods, among others.

Recovery strategy

Within the area of competence of the Ministry of Labour, the strategies identified are aligned with four of the five pillars of the United Nations socioeconomic response:

a) health; b) economic response and recovery (employment); c) protecting people; d) social cohesion, which are consistent with the four pillars prioritized by the National Government for its last year in office.

Table 57. Summary of recovery strategies

Needs	Strategies to respond to the need	Estimated cost (US$ million)
Protection of health in the workplace (short term)	• Maintain remote work where possible, based on the evolution of infections. • Allocate technological and communication resources to facilitate remote work. • Expand the right to paid sick leave. • Develop health and hygiene protocols in the workplace, and campaigns to promote greater understanding and implementation. • Ensure the population's access to health services.	
Protection of both private and public employment (medium term)	• Apply fiscal policies to selectively increase public spending (financial support, direct transfers, credit lines, payroll subsidies, etc.). • Reduce the tax burden with a focus on micro, small, and medium-sized enterprises (MSMEs) for the most affected sectors (agriculture, tourism, commerce). • Apply public policies for intensive employment, focused on entrepreneurship, labour reconversion, priority groups, child labour and youth employment, formal employment and a platform to link labour supply and demand (Red Socio Empleo job bank) • Provide incentives for social security affiliation to reduce informal employment and encourage suitable employment. • Make working hours more flexible by reducing working hours to achieve job retention. • Strengthen unemployment or social assistance benefits to maintain stable income, consumption and aggregate demand.	
Protection of workers (medium term)	• Strengthen labour inspections at the national level to prevent violations of workers' rights. • Generate legal regulations to prevent dismissal on the grounds of ill health.	
Social cohesion (long term)	• Strengthen tripartite social dialogue (government, employers and workers) in search of consensus to meet the needs of the economy.	

Note: Recovery needs have not been costed and therefore do not appear in the consolidated summary of needs.

Gender

Context

Over the past 10 years, there has been little change in the indicators of inequality between men and women. The stagnation and regression of the regulations and legislation that protect women's rights only contribute to prolonging this situation.

Some 35% of working age women have no income of their own and are financially dependent on other members of the household. At the national level, 85% of women dedicate more than 20 hours a week to care work; over three times more than men, and in households living in poverty, women do four times more unpaid care work than men (ENEMDU, 2018). One of the results of gender inequality in this area is *time poverty*[1] in women, which negatively impacts their quality of life. In 2018, 70% of women were time poor compared to 30% of men.

In addition, 32% of working age women are affiliated to the contributory social security system; 42% of employed women in the economically active population are in the formal sector compared to 48% of men; 39% of older women are affiliated to contributory social security compared to 60% of men; and 33% receive a non-contributory pension.

The participation rate of women in the labour market (EAP) is 53.4% compared to 77.7% of men; the gap is greater for women living in poverty and aged 30-45 years. The highest employment rates are in commerce, services and agriculture. Most of the people employed tourism and personal services are women (69% and 63%, respectively).

Some 64.2% of women are in unsuitable employment, 66% in unprotected work, 33.7% self-employed and 70% in unstable jobs. Women are overrepresented among the employers of small and micro-enterprises, but they hold less than 10% of managerial-level positions in other companies. Sixty percent of women are self-employed, and the gender gaps in access to credit and banking are 20% and 16%, respectively (ENEMDU, 2019).

In rural areas, women have 37% less schooling than in urban areas. Illiteracy remains higher among indigenous women and five times the national average. The incidence of digital illiteracy in women in rural areas is five times that of men in urban areas and 30% more than men in rural areas.

In 2019, there were 78% more births to girls aged 10-14 years than in 2010, and six girls aged 10-14 years gave birth every day in 2018 on average. Although contraceptive knowledge exceeds 80% in adolescents, less than 40% access contraceptive methods, and 56.3% of women aged 12-24 years did not use contraception in their first sexual relationship (ENSANUT, 2018). The coverage for childcare services is 30% and less than 10% for people with disabilities and older adults.

1 Time poverty occurs when the time allocated to paid and unpaid work exceeds a certain threshold such as the poverty line. The sexual division of labour determines the allocation of time for women, making them more prone to falling into time poverty due to the over-accumulation of domestic tasks and paid work. https://www.entaciónrencifras.gob.ec/documentos/web- inec / Libraries / Libros / 1.% 20Pobreza_de_ tiempo_3112017_CP.pdf

The provinces with the highest rates of gender-based violence are Azuay (79.2%), Morona Santiago (78.9%), Napo (77.7%), Cañar (74.9%) and Imbabura (73.6%). A higher proportion of Afro-Ecuadorian women reported being victims of violence (71.8%); 42.8% of women have experienced intimate partner violence; and 20.3% have experienced violence in the family environment (INEC, 2019).

There were 67 femicides registered in 2019; and 19 in the period March to May 2020 (INEC, 2020). The number of femicides grew 32.4% between 2015 and 2019. Gender-based violence increases and intensifies at the borders with the Venezuelan immigrant population, the prevalence of gender-based violence against refugee women is 15% higher than among Ecuadorian women (UNHCR, 2017).

Effects of COVID-19 on the situation of women and gender gaps

Care work

Family responsibility for the prevention of infection, the education of children in the face of school closures and daily household chores increase the work burden of women. It is estimated that the constant presence of the partner in the home, either due to unemployment or work at home, increases the work of women by 20%.

If under regular conditions the probability of women's participation in the labour market is reduced by 35% due to the time dedicated to care work, the effect under pandemic conditions may imply exiting the labour market in the months following the economic shock, or underemployment in hours or wages.

Health

Women make up 60% of the general health staff and 81% of nursing staff. As health workers, they are on the front lines of the response, risking significant effects on their physical and emotional health. Health workers represent 4.6% of the female workforce.

Between January and May 2020, some 81,000 women have left the social security system, a similar percentage to that of men (7%), which does not alter the pre-pandemic gender gap. The percentage of women leaving is higher for the group aged 18-28 years (11%).

Another effect of the crisis is the deterioration of access to reproductive health services and to pre- and post-natal care. Attention to essential sexual and reproductive health services has been reduced between 45% and 60% in the period March to May 2020, compared to the previous year.

Security and economic autonomy

Unstable, informal and unprotected jobs have been the most affected by the crisis, and micro, small and medium-sized companies are most at risk. The services most impacted are personal services, education, public administration, tourism and informal commerce. According to ENEMDU data from December 2019, these are the types of work and services in which women's employment is concentrated.

A statistically representative national survey of 1,050 women carried out by UN Women in collaboration with Telefónica[2] shows that between March and May 2020:

- Close to half of the surveyed population is currently unemployed, either due to dismissal, separation, business suspension, inability to telecommute.
- Eight out of 100 reported having been separated, fired or suspended without notice of return; 32.7% reported a reduction in working hours; and 57.4% reported a reduction in salary.
- 67% of self-employed or entrepreneurial women were mainly affected by the inability to open their businesses; 33% of women who were able to continue their businesses reported reduced sales or income.
- 76% of women indicated that they work more than before the crisis. This effect is general and almost the same across territories. It is greater among low-income women and young people.

Migrant women who worked in public spaces or mobile jobs were more affected. A rapid analysis developed by the Working Group for the Migrant and Refugee Population in April 2020, based on 1,200 surveys of people in a situation of human mobility from Colombia and Venezuela, shows that 80% of families have lost their livelihoods, approximately 18% have been fired or removed from their jobs, and 50% suffer from lack of food and fear increased discrimination and xenophobia.

More women have exited the labour market as a consequence of the crisis[3]; the participation rate fell approximately six points and unemployment tripled, especially in the young and urban segment. The gaps in underemployment and salaried income are reduced, presenting a downward convergence. Fifteen percent of women are in suitable jobs, and 29% are underemployed. The self-employed population runs the risk of falling into poverty or extreme working poverty, with a greater impact on women and in rural areas. Income gaps in the self-employment segment are widening, reducing women's income to 25% of the pre-pandemic values.

Gender-based violence (GBV)

Restrictions on mobility and the socioeconomic effects of the pandemic increase the vulnerability of women due to the increased stress of domestic work and care tasks in the face of various forms of gender-based violence (domestic, intrafamily, femicide, sexual, among others).

A monthly average of 1,858 cases have been brought before the judiciary in 2020, less than half the average registered in 2019 (4,744). In 79% of flagrant cases that were admitted, protection measures were granted to the victim (Judiciary Council, 2020). According to the Human Rights Secretariat (SDH), 35,194 domestic violence and gender violence calls were registered between March and June, 20% less than the number of calls during the same period of the previous year (44,084).

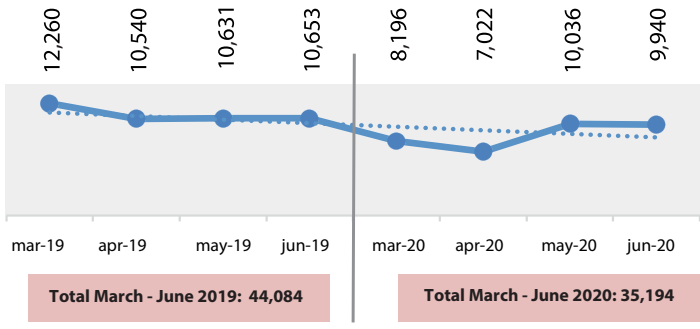
The pronounced reduction of complaints and calls for help under conditions of greater stress are not explained by a temporary reduction in gender-based violence but by the constant and close presence of the aggressor, which limits the intention to report violence and seek help. Eleven femicides have occurred during

2 The survey is valid nationally and for the coastal and mountain regions, with a margin of error of 3.3%.

3 ENEMDU-Telefónica Employment Survey 2020

confinement (Vistazo, 2020), and according to the State Attorney General's Office, there were 186 cases of sexual violence between 16 March and 4 April 2020.

Graph 25. Number of domestic violence calls during the period March – June



Source: ECU 911 Integrated Security Service

Recovery needs

- Women's access to care services.
- Protection of work and family responsibilities.
- Financial and productive inclusion.
- Recovery of jobs, access to social security and livelihoods.
- Access to care services for gender-based violence.

Recovery strategy

The strategies are aligned with the pillars of the United Nations socioeconomic response and consistent with the goals of the National Government for its last year in office. Note that estimates of the cost of implementing these recovery strategies have not been made and therefore do not appear in the final sector summary.

It should also be noted that several of the elements identified in this analysis have been incorporated into the chapter on the human impact analysis.

Social protection

1. Strengthen non-contributory programmes for women, mothers and caregivers.
2. Improve care and coverage of gender-based violence care services.
3. Strengthen and improve the coverage and construction of care systems.

Economic recovery and work

1. Promote the protection of female workers with family and telework responsibilities.
2. Implement a productive inclusion and livelihoods programme for women in vulnerable situations.
3. Ensure labour protection and compliance with rights for paid domestic workers.
4. Promote with private and public companies the social protection and livelihoods of women in situations of human mobility.

Macro and multilateral response

1. Ensure equitable and progressive financing for recovery.
2. Promote impact investments and the leveraging of resources to close gaps and for gender equality in crisis response actions.

Food Security

Introduction

This report is produced as technical support to the Ministry of Agriculture and Livestock to strengthen the post-pandemic recovery and livelihoods strategy supported by WFP[4]. According to the FAO, there is food security when "all people at all times have both physical and economic access to sufficient safe and nutritious food to meet their dietary needs and preferences for an active and healthy life."

Four dimensions are recognized in food security: availability, access, utilization and stability. Within each, a set of indicators has been selected for this report, depending on the relevance and availability of the information for the preparation of the baseline and measurement of the effects on the situation (Committee on World Food Security, 2011).

Table 58. Food security indicators

Dimensions		Indicators
Availability		• Value of agricultural production
		• Supply of basic foods (Number of wholesale and provincial markets with normal operation)
Access	**Physical**	• Supply of markets
	Economic	• Average monthly inflation in food and beverages
		• Purchasing power (cost-market basket ratio)
		• Number of households in a situation of food insecurity
Utilization		• Sufficiency of the nutritional supply available per capita
Stability		• Variability of food production per capita
		• Proportion of the dependence on imported cereals in the supply of staple foods

The concept of vulnerability makes it possible to carry out an advanced assessment of the exposure and sensitivity of the community and households to factors that threaten their food security, considering their capacity to face the situation.

4 WFP's priority is to end hunger, achieve food security, improve nutrition and promote sustainable agriculture. (Agenda 2030, SDG 2. Zero Hunger).

Context

The fall in the price of oil since the end of 2014, combined with other factors, led to an economic decline (-0.2% of GDP in 2019, BCE). *Food availability* for national consumption followed the same pattern.

The *value of agricultural production decreased* in 2019 by 0.5% compared to 2018, and the area and production of rice, yellow corn and potatoes[5] decreased between 2017 and 2018, followed by slight growth in 2019. Among the food product exports, bananas and cocoa showed an upward trend, while the decline in coffee and palm oil persisted due to phytosanitary problems and the drop in international prices. In 2020, prior to the declaration of the emergency, banana and plantain exports grew by 31% in January and cocoa by 40.9% in February.

The *supply of basic foods* (rice, yellow corn and potatoes, plus wheat imports) grew at a rate of 1.9% in 2019 ($4,150,226) compared to 2018[6]. As this behaviour coincided with the growth of population, per capita availability of food remained stable.

In terms of the *physical access* to food, the country has 30 fully operational markets (11 wholesalers and 19 provincial) distributed throughout the national territory; appropriate in size to the population they serve and ensuring fluid distribution of food. *Economic access* was also stable with annual inflation of -0.07% in 2019; -0.26% in the period March to May 2019; and increasing to 1.04% in October as a result of social protests. From January to February 2020, the rate was 0.5% on average.

Regarding *purchasing power* for food, the suitable employment rate in December 2019 was 38.8% (INEC[7]). The average total monthly household income level ($893.45 in 2019) allowed households with suitable employment to cover the basic food and market baskets. The income of poor households was enough to cover the minimum diet but to the detriment of housing, clothing, health, education and transportation; while in extremely poor households, the cost of the food and beverage items of the market basket is 9.1% higher than their income, or a deficit of $19, configuring a clear situation of food insecurity.

In the dimension of *food utilization* there is, on the one hand, chronic child malnutrition, which according to ENSANUT increased from 24% in 2012 to 27% in 2018 among children under the age of 2; and on the other, overweight and obesity in approximately 63% of adults due to the high consumption of sugar, fat and junk food, combined with a sedentary lifestyle. The WFP reports 22,671 deaths per year from diseases related to overweight and obesity.

Although the average supply exceeds 2,141 Kcal (the essential minimum), the richest 20% of the population consumes 10% more than the calories required, and the poorest 20% of the population consumes 12% less[8]. This inequality gap is exacerbated between territories, considering that rural poverty was 2.4 times higher than urban poverty as of December 2019. According to the WFP, only five out of 10 households in the country

5 Analysis of the Situation of Impacts of Covid-19 in Ecuadorian Agriculture. N. Barrionuevo FIDA-RIMISP (2020).

6 These foods together make up 48% of daily energy consumption

7 National Survey of Employment, Unemployment and Underemployment-ENEMDU INEC (2020).

8 Food security in Ecuador from a food access approach. C. Calero. FLACSO (2011).

have affordable access to a nutritious diet[9].

In terms of *stability*, the indicator of variability of food production per capita[10] was 0.24 MT/person/year in 2019, practically unchanged with respect to 2018. Dependence on cereal (wheat) imports in the supply of food staples increased from 27.68% in 2018 to 31.21% in 2019, both due to the low production of national wheat and the increase in its use in the production of animal feed, partially replacing yellow corn.

Overall, the availability of food in the country for 2019 had been recovering from previous years. Physical access was normal, and variability in the stability in food provision did not increase, even in the dependence on wheat imports. Despite the fact that the nutritional supply per capita available exceeds 2,141 Kcal/person, the problem is that 1,083,685 households living in poverty can only cover the cost of the food and beverage items in the market basket, while families living in extreme poverty find themselves in situations of food insecurity, unable to cover even the cost of the basic food basket, placing them in situations of food insecurity,

Effects of COVID-19 on food security

There are no known impacts on *infrastructure and physical assets*. Except for cases of temporary road closures in rural areas due to fear of infection and misunderstandings in the management of safe-conducts in the GAD, the circulation of vehicles and the transport of food operated within the restrictions established by the COE-N.

a) Effects on the production and distribution of goods and services

The 2020 winter cycle plantings were carried out from December 2019 to February 2020, which meant that the food supply until May 2020 remained largely unaffected by the pandemic. This also demonstrates that under normal sowing conditions the agri-food system is basically resilient, above all due to the sowing of small producers and family farming, which represent 85% of the total production units. In general, the actors of the economic chain have been able to sustain the productive, marketing, processing and distribution activities without registering significant food shortages.

The good prices of the winter rice and yellow corn harvests will stimulate plantings on the coast in the second semester (if the southern border remains closed to the entry of rice), while urban-rural migration in search of employment and health security can increase the abandonment of tuber and cereal crops in the Andean region.

Losses in *value of agricultural production* are estimated at $358.37 million, representing a 4.3% drop in agricultural GDP, mainly due to losses in the export sector ($291.76 million) in bananas, flowers, cocoa, broccoli and other items, as well as agricultural and livestock products for the domestic market ($66.61 million).

The *distribution of food* to the cities was initially affected by transport logistics, which was later resolved by the issuance of safe-conduct and the establishment of biosecure logistics corridors.

The quarantine led to the shutdown of the activities of the HORECAS, a highly relevant distribution channel for the entire agricultural supply, particularly for poultry, beef and pork, sausages, potatoes; distribution was

9 Fill the nutrient gap Ecuador, WFP-MSP-MIES (2018).

10 Considers the supply of basic foods (rice, yellow corn, potatoes and wheat) for the population.

fully shutdown between March and April and was partially restored in May with the opening of restaurants and cafeterias.

b) Effects on the access of the population to goods and services

At the beginning of the emergency, the wholesale markets of Quito and Guayaquil, the most populated cities, were partly operational, while several markets were closed to prevent the spread of infections in the Sierra Norte, Centro and Sur. The only shortage situation was registered in Lago Agrio. Direct sales fairs from producers to consumers were held in small cities with distancing measures and alternative marketing channels (online sales and home deliveries).

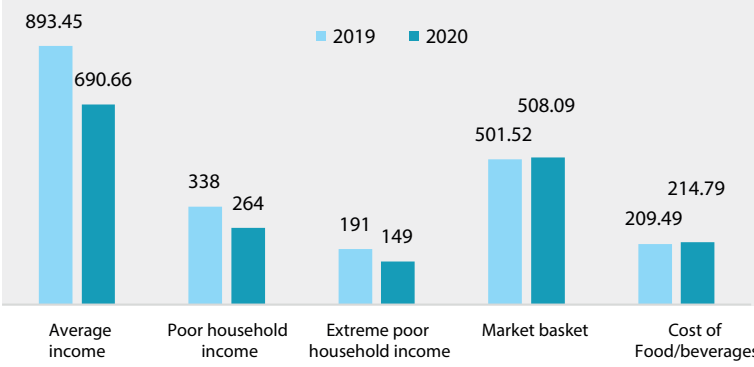
Supermarkets have been fully operational. Four of the five main chains, with penetration in large cities and intermediate cities, have maintained normal supply and the other partial supply. They have applied biosecurity measures and adapted hours to the curfew. Between 42% and 49% of people shopped in neighborhood stores and fruit stores, 38% in supermarkets and the rest at bakeries, markets, warehouses and/or online.

Although food security has not been severely affected in terms of availability or distribution and only partially in physical access, greater negative effects are observed in economic access, especially in households living in poverty and extreme poverty, both due to the loss of income and the increase in food prices. Between March and May 2020, the average monthly inflation for food and non-alcoholic beverages was 5.8 times higher than during same period in 2019.

Considering the loss of jobs in the public and private sectors, the decrease in salaries and the economic impact estimates generated by the IMF and the Central Bank of Ecuador, the number of people living in poverty as a consequence of the pandemic will increase from 4,323,904 in 2019 to 6,494,697 in 2020. Income poverty would increase to 37.09% and extreme poverty to 12.94%. A total of 1,627,444 households will be in a situation of poverty. Of these, 567,889 will be in a situation of extreme poverty and therefore without the capacity to purchase the market basket.

If an average reduction (22%) in income between 2019 and 2020 is applied to *households living in poverty* due to the decrease in salaries from formal employment or informal sales, this segment would have an income of $264/month, which does not cover the cost of the market basket. In this same scenario, *households living in extreme poverty* (567,889) would have an income of $149/month. The variations are illustrated in Figure 1.

Graph 26. Household income in relation to the market basket (US$/month) 2020



Source: Average Income (UNDP), Household Income, consultant estimate, Market Basket Cost (INEC)

Faced with a reduction of purchasing power, families increase consumption of carbohydrates (6.61%) and decrease consumption of proteins (0.15%) and fats (4.24%), since animal protein costs two to three times more than carbohydrates.

Better-informed and higher-income consumers interested in a healthier diet are likely to increase their consumption of fresh fruits and vegetables for vitamins, antioxidants and nutraceutical properties to strengthen the immune system, but lower income household will tend to consume less protein and more carbohydrates.

c) Effects on the governance of the sector

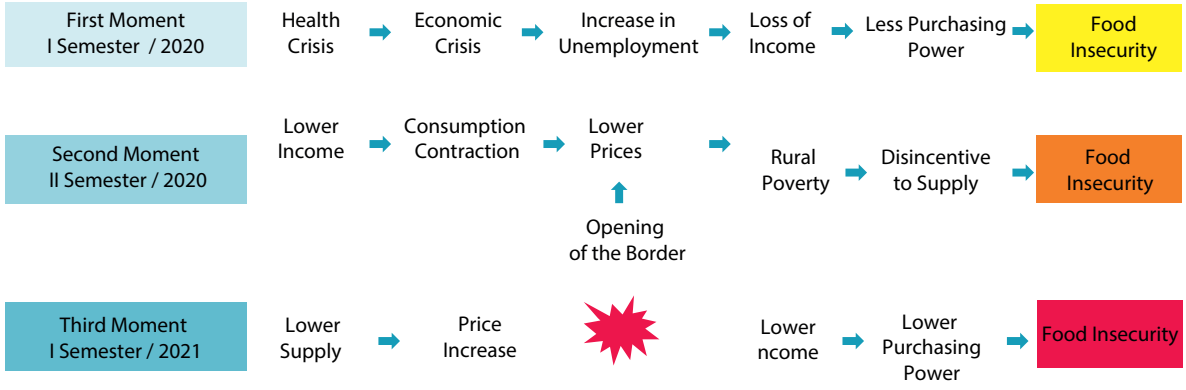
The effects on *governance* and decision-making have been positive. The national government and local governments have coordinated the implementation of biosecure logistics corridors and organized direct marketing fairs between producers and consumers. There were significant initiatives by various farmer producer organizations, local governments and civil society organizations for the distribution of food to low-income sectors.

d) Effects on the increase of risks and vulnerabilities in the sector

The chain of effects has not affected the stability of food availability in the first half of the year, although the evolution of supply and demand anticipated in the second semester would have consequences on consumer demand, increasing risks and vulnerabilities for food stability. Added to this, is the increased dependence on imported cereals (wheat and oats), which increases the weight of these inputs in basic food supply to 34.79% in 2020.

The logic of the probable evolution of the effects of the crisis on food security can be seen in the following diagram.

Figure 3. Effects of COVID-19 on food security



Developed by: Barrionuevo, N (2020).

The high and accelerated loss of jobs, the decrease in income in the formal and informal sectors and the increase of people living in poverty and extreme poverty ultimately lead to an increase in food insecurity, understood as the inability of households to procure the basic food and beverages in the market basket.

Due to the structural inequality between urban and rural areas (rural poverty is around 2.5 times higher than urban poverty and 1.67 times higher than the national average), the impact on food security will be felt more strongly in the countryside.

Given this dynamic in the growth of poverty, the quality of diet and food security of the rural food producers, who are among the poorest populations, will paradoxically be the most affected. Although there is no data available for the pandemic, it is foreseeable that chronic childhood malnutrition for children under the age of 2 will increase more sharply in the rural sector. The pandemic exacerbated the crisis in the poorest segment.

Needs for continuity of the response, reactivation and recovery

- Reactivation of production, distribution and access.
- Strengthening governance for food security stability.
- Information for risk reduction and resilience building.

Strategies

The objectives of the strategies are:

- Sustain the supply of basic foods in the Ecuadorian diet in the domestic market.
- Contribute to the protection of employment and income from the agri-food sector with mitigation and/or reactivation measures.
- Support households living in poverty and extreme poverty to cover the income deficit and the costs of food and beverages in the market basket.

Table 59. Summary of strategies

Need	Strategy	Estimated Cost (US$ millions)
Reactivation of production, distribution and access	Grant productive credit for the next planting cycle for rice, corn, potatoes and other basic products.	294.87*
	Maintain the sanitary closure of the southern border for the duration of the pandemic.	
	Continue with logistics corridors and biosafety practices (with multimedia dissemination and inter-institutional coordination).	
	Strengthen food banks.	
	Promote alternative marketing channels.	
	Strengthen food assistance programmes (school breakfast, conversion of EAP resources into direct transfers to families, food exchanges, etc.).	63.00
	Grant an extra voucher (or other compensatory mechanism) for food emergencies to families in extreme poverty.	405.00
	Develop programmes for the intensive use of labour in agricultural activities, repairing roads, maintaining irrigation channels, among others.	
Strengthening of governance for the stability of food safety	Establish Agri-Food Safety Working Groups as part of the national COE and the territorial COE	
	Encourage supermarket chains to have constant stocks of basic foodstuffs in their warehouses; a minium one-month supply.	
	Establish agri-food pacts and commercialization agreements for agribusiness chains.	
Information for risk reduction and resilience building	Monitor the status of food safety as part of the MAG Information System (situation room).	
	Implement territorial programmes to promote sustainable agriculture and livestock, with agroecological practices and climate change adaptation measures.	

Note: the estimated cost of the needs is still partial.
* Approximate value for financing 80% of the total cost of the summer cycle of rice, yellow corn and potatoes.

ACRONYMS

ABG	Agency for the Regulation and Control of Biosafety and Quarantine for Galapagos
AME	Association of Municipalities of Ecuador
ARCA	Water Regulation and Control Agency
ARCSA	Agency for Health Regulation, Control and Surveillance
AUC	Areas Under Conservation
BCE	Central Bank of Ecuador
BDE	Development Bank of Ecuador
BDH	Human Development Voucher
BDH-V	Variable Human Development Voucher
BGU	General Unified Baccalaureate
BJGL	Joaquín Gallegos Lara Voucher
BPF	Family Protection Voucher
CAF	Development Bank of Latin America (formerly the Andean Development Corporation)
CCE	House of Ecuadorian Culture
CCRA	Circles of Care, Recreation and Learning
CDH	Human Development Credit
CDI	Child Development Centres
CELEC-EP	Electric Corporation of Ecuador
CHE	Council for Higher Education
CICN	National Accounts Industry Classification
CIE	Centre for Strategic Intelligence
CNEL-EP	National Electric Corporation
CNH	Growing Up with Our Children (Creciendo con Nuestros Hijos) programme
COE	Emergency Operations Committee
COE-N	National Emergency Operations Committee
CONADIS	National Council on Disability Equality
CONAVE	National Corporation of Poultry Farmers
COVID-19	Coronavirus Disease 2019
CPI	Consumer Price Index
CRAI	Reference and Reception Centres
CRP	C-reactive protein
DALY	Disability Adjusted Life Year

DECE	Student Counselling Department
DTM	Displacement Tracking Matrix
EAP	Economically Active Population
ECLAC	Economic Commission for Latin America and the Caribbean
ECU 911	Integrated Security Service
EGB	Basic General Education
ENAS	National Water and Sanitation Strategy
ENEMDU	Survey of National Employment, Unemployment and Underemployment
ENSANUT	National Health and Nutrition Survey
EPA-EP	Public Water Company
EU	European Union
FAO	Food and Agriculture Organization
FLACSO	Latin American Faculty of Social Sciences
FOB	Free On Board
GAD	Decentralized Autonomous Government
GAD-M	Decentralized Autonomous Municipal Government
GAD-P	Decentralized Provincial Autonomous Government
GBV	Gender-based violence
GDP	Gross Domestic Product
GVA	Gross Value Added
HEI	Higher Education Institutions
ICCA	Institute of Cinema and Audiovisual Creation
IDB	Interamerican Development Bank
IESS	Ecuadorian Institute of Social Security
IFAIC	Institute for the Promotion of Arts, Innovation and Creativity
ILO	International Labour Organization
IMF	International Monetary Fund
INABIO	National Institute of Biodiversity
INEC	National Institute of Statistics and Census
INPC	National Institute of Cultural Heritage
IOM	International Organization for Migration
IFAIC	Institute for the Promotion of Arts, Innovation and Creativities of Ecuador
ISIC	International Standard Industrial Classification
ISSFA	Social Security Institute of the Armed Forces
ISSPOL	Social Security Institute of the National Police

IRS	Internal Revenue Service
ITT	Technical and Technological Institutes
LDLE	Labour and Business Dynamics Laboratory
MAAE	Ministry of the Environment and Water of Ecuador
MAG	Ministry of Agriculture and Livestock
MAST	Water and Sanitation for All Mission
MCYP	Ministry of Culture and Heritage
MDN	Ministry of National Defence
MDG	Ministry of Government
MDT	Ministry of Labour
MIES	Ministry of Economic and Social Inclusion
MINEDUC	Ministry of Education
MINTEL	Ministry of Telecommunications and the Information Society
MPCEIP	Ministry of Production, Foreign Trade, Investments and Fisheries
MPH	Ministry of Public Health
MSMEs	Micro, small and medium enterprises
NFPS	Non-Financial Public Sector
NHS	National Health System
OECD	Organisation for Economic Co-operation and Development
OSE	Social Observatory of Ecuador
PHEIC	Public Health Emergency of International Concern
WHO	World Health Organization
PAHO	Pan American Health Organization
PDNA	Post-Disaster Needs Assessment
PNGIDS	National Programme for Comprehensive Solid Waste Management
PPCD	Pension for People with Disabilities
PSB	Socio Bosque Programme
PUCE	Pontifical Catholic University of Ecuador
REDD+	Reducing Emissions from Deforestation and Forest Degradation Mechanism
RPIS	Comprehensive Public Health Network
RUAC	Unique Registry of Artists and Cultural Managers
SAFPI	Early Childhood Family Care Service
SARS-Cov2	Severe Acute Respiratory Syndrome Coronavirus 2
SCT	Special Consumption Tax
SDGs	Sustainable Development Goals

SDH	Human Rights Secretariat
SFP	School Feeding Programme
SENAE	National Customs Service of Ecuador
SENAGUA	Water Secretariat
SENESCYT	Secretariat of Higher Education, Science, Technology and Innovation
SENPLADES	Technical Secretariat Planifica Ecuador (formerly National Secretariat of Planning and Development)
SGO	Mandatory General Insurance
SIIC	Integrated Culture Information System
SIPSE	Ecuadorian Cultural Heritage Information System
SNAI	National Service of Comprehensive Attention for Adults Deprived of Liberty and Adolescent Offenders
SNAP	National System of Protected Areas
SNGRE	National Risk and Emergency Management Service
SNMLCF	National Service of Legal Medicine and Forensic Sciences
SPI	Comprehensive Protection Services
SSP-WHO	Sanitation Safety Planning – World Health Organization
TEU	Twenty-foot Equivalent Unit
UDAI	District Inclusion Support Unit
UEP	Universities and Polytechnic Schools
UBN	Unsatisfied Basic Needs
UN	United Nations
UNDP	United Nations Development Programme
UNHCR	United Nations High Commissioner for Refugees
VAT	Value Added Tax
WB	World Bank
WFP	World Food Programme

	Institución Líder Gobierno	Nombre de persona responsable de capítulo de gobierno	Nombre de persona líder de acompañamiento técnico	Otros miembros del equipo
Económico y Productivo				
Agricultura, Ganadería y Silvicultura	Ministerio de Agricultura y Ganadería (MAG)	Adriano Molina, MAG	Osmar Velasco, BM c Nury Bermúdez, PNUD	Johanna Morales, MAG Víctor Lema, MAG Ricardo Sánchez, MAG Héctor Gaethe, MAG Freddy Llive, MAG Daniela García, MAG Dagguin Aguilar, MAG Raúl Belduma, MAG Karina Albuja, MAG Sebastián Moreno, MAG William Muyulema, MAG Marlon Acosta, MAG Jorge Coronel, MAG Osmar Velasco, BM c Ricardo Zapata, PNUD c Xavier Arcos, ONUDI María Cristina Fuentes, Cancillería José López, Min. Finanzas
Comercio, Industrias y Pesca	Ministerio de Producción Comercio Exterior Inversiones y Pesca (MPCEIP)	Roberto Simbaña, MPCEIP	Osmar Velasco, BM c	Henry Calva, MPCEIP Geovanna Espín, MPCEIP Diana Yánez, MPCEIP Stefanie Zambrano, MPCEIP Elena Bayas, MPCEIP Rodrigo López, MEF Ricardo Zapata, PNUD c Juan Monteros, PNUD Carla Gómez, PNUD Sara Luaces, PNUD Roberto Jiménez, MPCEIP Geovanna Espín, MPCEIP Carla Gómez, PNUD Luis Naranjo, Cámara de Comercio
Turismo	Ministerio de Turismo (MINTUR)	Víctor Andrade, MINTUR	Osmar Velasco, BM c	Víctor Andrade, MINTUR Rita Betancourt, MINTUR Nury Bermúdez, PNUD Ricardo Zapata, PNUD c
Social				
Educación	Ministerio de Educación (MINEDUC)	Patricia Carrillo, MINEDUC Fanny Yanza, MINEDUC	Ana Volohonen, UNICEF Reinaldo Cervantes, UNICEF Letizia Sozzi, UNICEF Carolina Portaluppi, PNUD c	Isabel Maldonado, MINEDUC Cristina Fabara, MINEDUC Erika Solis, MINEDUC Marco Ortiz, MINEDUC Sandra Prado, MINEDUC Santiago Carpio, MINEDUC Ana González, UNESCO María Brown, UNESCO Nicolás Reyes, UNESCO Carolina Portaluppi, PNUD c Osmar Velasco, BM c

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Educación Superior	Secretaría de Educación Superior, Ciencia, Tecnología e Innovación (SENESCYT)	Carlos Ortega, SENESCYT Catalina Vélez, CES	Franz Sáenz, UNESCO c Carolina Portaluppi, PNUD c	José Vallejo, CES Verónica Flores, CES Dolores Maza, SENESCYT Erika Sofía Villagómez, SENESCYT Luis Fernando Cuji, SENESCYT Héctor Valente, Vicepresidencia Fransec Pedro, UNESCO Nicolás Reyes, UNESCO Saadia Sánchez, UNESCO María Brown, UNESCO
Salud	Ministerio de Salud Pública (MSP)	Natalia Romero, MSP Santiago Tarapues, MSP	Ruth Lucio, PNUD c Sonia Quezada, OPS Gustavo Giler, OPS Roddy Camino, OPS Marcia Elena Álvarez, UNFPA	Santiago Tarapués, MSP Jacqueline Lozano, MSP Wilson Quito, MSP Pablo Segovia, MSP Natalia Romero, MSP Cecília Paredes. MSP Denisse Calle, MSP Darío Medranda, MSP Rafael Velasteguí, MSP Fausto Patiño, MSP César Calderón, MSP Eduardo Puente, MSP Andrea Garzón, MSP Carolina Jaramillo, MSP Alexandra Harnisth, IESS Boris Cano, IESS Carlos Torres, IESS Fernando Pauta, IESS Janeth Castillo, IESS Julio Yunda, IESS Gabriela Chico, IESS Héctor Valente, Vicepresidencia Vanessa Carrera, UNFPA Diego Herdoíza, OIT c Carolina Portaluppi, PNUD c Ricardo Zapata, PNUD c Pablo Salinas, PNUD
Cultura	Ministerio de Cultura y Patrimonio (MCP)	Angélica Arias, MCP	Pablo Cardoso, UNESCO c Ana González, UNESCO	Daniel Gallegos, MCP Galo Rodríguez, MCP Mercedes Cárdenas, MCP Catalina Tello, MCP Jonathan Cárdenas, MCP Héctor Valente, Vicepresidencia Henry Chávez, Investigador Carla Salas, Investigador Carolina Portaluppi, PNUD c Ricadrdo Zapata, PNUD c Ósmar Velasco, BM c

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Recursos Naturales, Hábitat e Infraestructura				
Agua y Saneamiento	Ministerio del Ambiente y Agua del Ecuador (MAAE)	Nathalia Arévalo, MAAE	Koen Vancraesysnest, UNICEF Claudio Osorio, UE c	Jaime Ortiz, MAAE Nathaly Balseca, MAAE Nury Bermúdez, PNUD Ricardo Zapata, PNUD c
Transporte	Ministerio de Transporte y Obras Públicas (MTOP)	Jessica Alomía, MTOP	Osmar Velasco, BM c	Nury Bermúdez, PNUD Dennys Cajias, MTOP Alexandra Muñoz, MTOP
Energía	Ministerio de Energía y Recursos Naturales no Renovables (MERNNR)	Jose Medina, MERNNR	Osmar Velasco, BM c	Nury Bermúdez, PNUD Ricardo Zapata, PNUD c Hernando Merchán, MERNNR Pablo Valdivieso, CELEC Mayra Villarreal, MERNNR Marcelo Espin, CELEC Luis Gómez, CELEC Fabricio López,MERNNR Javier Goyes, MERNNR
Ambiente	Ministerio del Ambiente y Agua del Ecuador (MAAE)	Nathalia Arévalo, MAAE		Martín Espinosa, ABG Karol Fierro, INABIO María Belén Montenegro, INABIO María José Galarza, MAAE Guillermo Elías Cabezas, MAAE Sandra Reinoso, MAAE Milton Ordoñez, MAAE Luis Flores, MAAE Andrea Andrade, MAAE Pamela Proaño, MAAE Pablo Caza, MAAE Paul Melo, MAAE Alfredo Briones, MAAE José Yánez, MAAE

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Seguridad				
Seguridad	Ministerio de Defensa Nacional (MDN)	Fabiola González, Ministerio de Defensa Nacional (MDN)	Nury Bermúdez, PNUD Ricardo Zapata, PNUD c Osmar Velasco, BM c	Alexandra Ron, MIDENA John Game, Min. Gobierno Edmundo Moncayo, SNAI Barbarita Donoso, SNAI Michelle Maldonado, SNAI Francisco Drouet, MDN Sandra Ramos, MDN Carlos Cano, MDN José Fiallo, MDN Rafael Velasco, MDN Erik Guevara, MDN Edison León, MDN Juan Flores, MDN Roy Garzón, MDN Miguel Barros, MDN Rebeca Torres, MDN Jorge Solano, MDN Edmundo Moncayo, SNAI Paúl Crespo, SNAI Michelle Maldonado, SNAI Alex Anchundia, SNGRE Diego Vallejo, SNGRE Oswaldo Chalá, SNGRE Christian Betancourt, SNGRE Marco Garnica, ECU 911 Bolívar Tello, ECU 911 Mónica Donoso, ECU 911 Carlos López, ECU 911 Andrea Aguirre, ECU 911 Elisa Bravo, ECU 911 Lilian Quinche, ECU 911 María Eugenia Castro, MDG María Fernanda Revelo, MDG Gabriela Díaz, SNMLCF Rocío Gavilanes, SNMLCF
Gestión de Riesgos	Servicio de Gestión de Riesgos y Emergencias y ECU 911	Secretaría Nacional de Gestión de Riesgos	Nury Bermúdez, PNUD Ricardo Zapata, PNUD c Osmar Velasco, BM c	Christian Betancourt, SNGRE

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Empleo	Ministerio del Trabajo (MDT)	Ittalia Vatuone, MDT Rosa Elena Guerrero, MDT	Diego Herdoíza, OIT c Julian Sweitzer, PNUD c	Daniel Cárdenas, MT Diego Andrade, MT Ittalia Vatuone, MT Fabián Vallejo, OIT Pablo Casalí, OIT Julio Gamero, OIT María Dolores Almeida, PNUD c Alison Vásconez, ONU Mujeres Andrés Gutiérrez, OIM Nataly Garzón, INEC Darío Vélez, INEC Sebastián Carvajal, INEC Grace Atiencia, IESS Carlos Torres, IESS
Género			Alison Vásconez, ONU mujeres Loly Valladares, UNFPA	Cecilia Mena, SDH María Eugenia Castro, MDG Michael Revelo Arellano, MDG Tatiana Garzón, MDG Judith Alexandra Andrade, CIG Karla Pérez, CONADIS Alejandra Peña, PNUD
Seguridad Alimentaria	Ministerio de Agricultura y Ganadería (MAG)	Víctor Lema, MAG	Ney Barrionuevo, PMA c Alejandra Peña, PNUD	Osmar Velasco, BM c Ricardo Zapata, PNUD c Alejandra Peña, PNUD Luis Fernández, PMA Carmen Galarza, PMA Jhoanna Flores, FAO Kelvin Cueva, FAO Karine Strebelle, PMA
Impactos				
Impacto Macroeconómico	Banco Central del Ecuador (BCE)	Salomé Velasco, BCE	Alex Agosti, WB c	Ricardo Zapata PNUD c Osmar Velasco, BM c Iván Gachet, BM c Rodrigo López, MEF Daniel Falconí, MEF Carlos Andrade, BCE Katiuska Yánez, BCE Eduardo Cabezas, BCE Emanuel Yaselga, BCE Geomara Garrido, BCE

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Impacto Humano	Secretaría Técnica del Plan Toda una Vida (STPTV), Ministerio de Inclusión Económica y Social	María José Enríquez, Secretaría Técnica del Plan Toda una Vida	Mónica Trujillo, PNUD c Ma Dolores Almeida, PNUD c Carolina Portaluppi, PNUD c Alejandra Peña, PNUD Diego Martínez, STPTV SNU c	Alba Jalón, MIES Daniela Oleas, MIES Andrés Pancho, MIES Estefanía Pérez, MIES Gabriela Vinocunga, MIES Jesahel Angulo, MIES Patricia Sánchez, MIES Santiago Apunte, MIES Mayra García, MIES Eugenia Càceres, STPTV María José Enríquez, STPTV Verónica Alomoto, STPTV Wendy Almeida, STPTV Sebastián Burgos, PNUD c Alison Vásconez, ONU Mujeres Sergio Olivieri, BM Chiara Masi-Netto, OIM Andrés Gutiérrez, OIM Jean-Laurent Martin, ACNUR Paola Onofa, DDHH – OCR Carmen Galarza, PMA Víctor Lema, MAG Luis Fernández, PMA Carmen Galarza, PMA Ney Barrionuevo, PMA c Johanna Flores, FAO Roddy Camino, OPS Anna Volhonen, UNICEF Letizia Sozzi, UNICEF Alexandra Escobar, UNICEF Ana González, UNESCO Fabián Vallejo, OIT Pablo Casalí, OIT Julio Gamero, OIT Vanessa Carrera, UNFPA
Coordinación				
Coordinación General	Secretaría Técnica de Planificación "Planifica Ecuador"	Santiago Albuja, Planifica Ecuador Carlos Andrés Yépez, Planifica Ecuador Cristian Calle, Planifica Ecuador Eduardo Mendoza, Planifica Ecuador Guadalupe Recalde, Planifica Ecuador	Nury Bermúdez, PNUD Ricardo Zapata, PNUD c Osmar Velasco, BM c Claudio Osorio, UE c Jeannette Fernández, PNUD	Sofía Barragán, Planifica Ecuador Marlon Girón, Planifica Ecuador Carlos López, Planifica Ecuador Joselyn Corrales, Planifica Ecuador Vladimir Pozo, Planifica Ecuador
Económico - Productivo	Gabinete Económico - Productivo	Daniela Almeida, Ministerio de Economía y Finanzas	Ricardo Zapata, PNUD c Osmar Velasco, BM c	Henry Calva, MPCEIP Roberto Simbaña, MPCEIP

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Social	Gabinete Social	María José Enríquez, Secretaría Técnica del Plan Toda una Vida	Carolina Portaluppi, PNUD c Alejandra Peña, PNUD	María José Enríquez, STPTV Verónica Alomoto, STPTV Pablo Ormaza, STPTV Wendy Almeida, STPTV Eugenia Cáceres, STPTV Verónica Ochoa, STPTV
Infraestructura y Recursos Naturales	Gabinete de Recursos Naturales, Hábitat e Infraestructura	Boris Dávalos, Ministerio de Energía y Recursos Naturales no Renovables	Nury Bermúdez, PNUD Ricardo Zapata, PNUD c Osmar Velasco, BM C	Jaqueline Silva, Vicepresidencia Ana Paulina Mantilla, Min. Energía
Seguridad	Gabinete de Seguridad	Fabiola González, Ministerio de Defensa Nacional (MIDENA)	Nury Bermúdez, PNUD Ricardo Zapata, PNUD c Osmar Velasco, BM c	Alexandra Ron, MIDENA Edmundo Moncayo, SNAI Barbarita Donoso, SNAI Michelle Maldonado, SNAI Christian Betancourt, SNGRE John Game, Min. Gobierno
Estructura Reporte Diagramación				
	Secretaría Técnica de Planificación "Planifica Ecuador"	Escritor del Informe Diseño y diagramación	Emilio Ochoa, PNUD c Mauricio Guerrón, PNUD c	Isabel Morán, PNUD c Santiago Albuja, Planifica Ecuador Sofía Barragán, Planifica Ecuador Marlon Girón, Planifica Ecuador Carlos López, Planifica Ecuador Joselyn Corrales, Planifica Ecuador Vladimir Pozo, Planifica Ecuador Cristian Calle, Planifica Ecuador