Initial Assessment of the Impact of COVID-19 on Sustainable Forest Management

Latin American and Caribbean States

Ivan Tomaselli

Background Paper prepared for the United Nations Forum on Forests Secretariat

In order to have a broad overview of the impacts of COVID-19 on forests, forest sector, and forest dependent people, and to assess the potential of forests to diminish the adverse impacts of the pandemic, the United Nations Forum on Forests (UNFF), at its fifteenth session, requested the UNFF Secretariat, in consultation with other members of the Collaborative Partnership on Forests (CPF) and with input from members of the Forum, to compile an initial assessment of the impact of the COVID-19 pandemic on: (i) sustainable forest management (SFM), (ii) the forest sector, forest-dependent people, indigenous peoples and local communities, (iii) forest financing and international cooperation, and to present this assessment to the Forum at its sixteenth session in April 2021. To initiate this assessment and collect information, the UNFF Secretariat commissioned five assessments to be conducted on a regional basis.

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United Nations Forum on Forests Secretariat

CONSULTING
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Initial Assessment of the Impact of COVID-19 on Sustainable Forest Management and the Forest Sector

Latin America and the Caribbean Region

FINAL REPORT

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List of Symbols

%	percentage
Ha	hectares
m³	cubic meters
Nº	number
p.p.	Percentage points
R$	Brazilian currency Reais
USD	United States dollar

List of Acronyms

ABIMCI	Brazilian Association of the Mechanically Processed Wood Industry (*Associação Brasileira da Indústria de Madeira Processada Mecanicamente*)
ACTO	Amazon Cooperation Treaty Organization
ADEX	Exporters Association of Peru (*Asociación de Exportadores de Peru*)
AFoA	Argentine Forestry Association (*Asociación Forestal Argentina*)
AIDESEP	Inter-Ethnic Association for the Development of the Peruvian Amazon
AIMA	Ecuadorian Association of Wood Industry (Asociación Ecuatoriana de Industriales de la Madera)
BCC	Central Bank of Chile (*Banco Central de Chile*)
BCP	Central Bank of Peru (*Banco Central de Peru*)
BNDES	National Bank for Economic and Social Development (*Banco Nacional de Desenvolvimento Econômico e Social*)
CCEE	Câmara de Comercialização de Energia Elétrica (*Electric Power Commercialization Chamber*)
CCMSS	Mexican Civil Council for Sustainable Forestry (Consejo Civil Mexicano para la Silvicultura Sostenible)
CCS	Santiago Chamber of Commerce (*Cámara de Comércio de Santiago*)
CFB	Forestry Chamber of Bolivia (*Cámara Forestal de Bolivia*)
CIIR	Center for Intercultural and Indigenous Studies (*Centro de Estudios Interculturales y Indígenas*)
CIMI	Missionary Indigenistic Council (*Conselho Indigenista Missionário*)
CMN	National Monetary Council (*Conselho Monetário Nacional*)
COICA	Coordination of the Indigenous Organizations of the Amazon Basin (*Coordinadora de las Organizaciones Indígenas de la Cuenca Amazónica*)
COMAFORS	Sustainable Forest Management Corporation (*Corporación de Manejo Forestal Sustentable*)

CONAFOR	National Forestry Commission of Mexico (Comisión Nacional Forestal de Mexico)
CONAQ	Coordination of the Indigenous Organizations of the Amazon Basin (*Coordenação Nacional de Articulação das Comunidades Negras Rurais Quilombolas*)
CONCANACO	Confederation of National Chambers of Commerce, Services and Tourism (*Confederación de Cámaras Nacionales de Comercio, Servicios y Turismo*)
CORMA	Chilean Wood Corporation (*Corporación Chilena de la Madera*)
CPF	Collaborative Partnership on Forests
DCIF	Directorate of Forest Commerce and Industry (*Dirección de Comercio e Industria Forestal*)
DGEEF	General Directorate of Education and Forestry Extension (*Directoría General de Educación y Extensión Forestal*)
DSEI	Special Indigenous Health Districts (*Distrito Sanitário Especial Indígena*)
EAP	Economically Active Population
ECLAC	Economic Commission for Latin America and the Caribbean
EPE	Energy Research Company (*Empresa de Pesquisa Energética*)
ESA	Environmental and Social Assessment
FAO	Food and Agriculture Organization of the United Nations
FCPF	Forest Carbon Partnership Facility
FDI	Foreign Direct Investment
FEDEMADERAS	National Federation of Wood Industry (*Federación Nacional de Industriales de la Madera*)
FENATIMAP	National Federation of Wood Industry Workers (*Federación Nacional de Trabajadores de la Industria de la Madera*)
FFPOs	Forest and Farm Producer Organizations
FILAC	Fund for the Development of Indigenous Peoples of Latin America and the Caribbean (*Fondo para el Desarrollo de los Pueblos Indígenas de América Latina y El Caribe*)
FND	National Financial for Development
FNBF	National Forum of Forest Based Activities (*Fórum Nacional das Atividades de Base Florestal*)
FNO	Northern Constitutional Fund *(Fundo Constitucional de Financiamento do Norte)*
FOB	Free On Board
FOGAPE	Guarantee Fund for Small Entrepreneurs *(Fondos de Garantía para el Pequeño Empresario)*
FUNAI	National Indian Foundation (*Fundação Nacional do Índio*)
GDP	Gross Domestic Product
GFCF	Gross Fixed Capital Formation
IBCE	Bolivian Institute of Foreign Trade (*Instituto Boliviano de Comercio Exterior*)

IBGE	Brazilian Institute of Geography and Statistics (*Instituto Brasileiro de Geografia e Estatística*)
IDB	Inter-American Development Bank
IFE	Emergency Family Income (*Ingreso Familiar de Emergencia*)
IFM	International Monetary Fund
IFSA	International Forestry Students' Association
IHUCSO	Institute of Humanities and Social Sciences of the Litoral (*Instituto de Humanidades y Ciencias Sociales del Litoral*)
ILO	International Labor Organization
INDEC	National Institute of Statistics and Censuses of the Argentine Republic (*Instituto Nacional de Estadística y Censos de Argentina*)
INE	National Statistics Institute (*Instituto Nacional de Estadística*)
INEC	National Institute of Censuses and Statistics (*Instituto Nacional de Estadística y Censos*)
INEI	National Institute of Statistics and Informatics (*Instituto Nacional de Estadística e Informática*)
INISEFOR	Forest Research and Services Institute (*Instituto de Investigaciones y Servicios Forestales*)
INFONA	National Forest Institute (*Instituto Forestal Nacional del Paraguay*)
INFOR	Forestry Institute (*Instituto Forestal*)
INTA	National Institute of Agricultural Technology (*Instituto Nacional de Tecnología Agropecuaria*)
IP	Indigenous Peoples
IPCA	Broad National Consumer Price Index (Índice Nacional de Preços ao Consumidor Amplo)
ITTO	International Tropical Timber Organization
JPRMF	Monetary and Financial Policy and Regulation Council
LAC	Latin America and Caribbean
MADES	Ministry of Environment and Sustainable Development (*Ministerio del Ambiente y Desarrollo Sostenible de Paraguay*)
MS	Management Solutions
MAPA	Ministry of Agriculture, Livestock and Supply (*Ministério da Agricultura, Pecuária e Abastecimento*)
MDF	Medium Density Fiberboard
ME	Ministry of Economy (*Ministério da Economia*)
MEF	Ministry of Economy and Finance (*Ministerio de la Economía y Finanzas*)
MP	Provisional Measure (*Medida Provisória*)
MSMEs	Micro, Small and Medium Enterprises

MTSS	Ministry of Labour and Social Security (*Ministerio de Trabajo y Seguridad Social*)
OIT	International Labor Organization (*Organización Internacional del Trabajo*)
ONF	National Forestry Office (*Oficina Nacional Forestal*)
OSH	Occupational Safety and Health
OTCA	Amazon Cooperation Treaty Organization (*Organização do Tratado de Cooperação Amazônica*)
PAHO	Pan American Health Organization
PRONAF	National Program for Strengthening Family Farming (*Programa Nacional de Fortalecimento da Agricultura Familiar*)
PRONAMP	National Support Program for the Medium Rural Producer *(Programa Nacional de Apoio às Microempresas e Empresas de Pequeno Porte)*
REPAM	Rede Eclesial Pan-Amazônica
SDGs	Sustainable Development Goals
SMEs	Small and Medium-sized Enterprises
SENAD	National Anti-drug Secretariat (*Secretaría Nacional Antidrogas*)
SESAI	Secretariat for Indigenous Health (*Secretaria de Saúde Indígena*)
SERFOR	National Forest and Wildlife Service (*Servicio Nacional Forestal y de Fauna Silvestre*)
SFB	Brazilian Forest Service (*Serviço Florestal Brasileiro*)
SNIF	National Forest Information System (*Sistema Nacional de Informações Florestais*)
STP	Technical Secretariat for Economic and Social Development Planning (*Secretaría Técnica de Planificación del Desarrollo Económico y Social*)
T-MEC	Treaty between Mexico, the United States and Canada (Tratado entre México, Estados Unidos y Canadá)
UK	United Kingdom
UNA	National University of Costa Rica (*Universidad Nacional*)
UNFF	United Nations Forum on Forests
UNPD	United Nations Development Program
USA	United States of America
USAID	United States Agency for International Development

EXECUTIVE SUMMARY

The COVID-19 pandemic has created an enormous disruption to human lives, livelihoods and economic systems worldwide. The on-going pandemic has caused a massive public health crisis and short-term economic contraction, resulted in loss of livelihoods, extreme poverty, income inequality and food insecurity, especially in some of the most vulnerable segments of society.

Forests provide for economic functioning and human well-being, and their roles in providing income, livelihoods are important especially for rural communities, indigenous peoples, small farms holders, and other forest-dependent communities. Therefore, it is mportant to assess the impacts of COVID-19 on forests and forest-dependent people.

The UNFF Secretariat has decided to conduct a global assessment of the impacts of COVID-19 pandemic on the forestry sector and propose recommendations for mitigating measures. It deliberated to carry out a regional assessment in each of five UN regions, namely: Africa, Asia-Pacific, Eastern Europe, Latin American and the Caribbean, and Western Europe.

This report provides an initial assessment of the impact of COVID-19 pandemic on sustainable forest management and the forest sector in the Latin America and Caribbean Region. The analysis is LAC region as a whole, with a focus on the countries with the highest concentration of forest-related activities, such as Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Ecuador, Guatemala, Mexico, Panama, Paraguay, Peru and Uruguay.

The approach used to carry out the study consisted of a literature review and contact with relevant stakeholders by application of a questionnaire to obtain targeted information, including governments, private sector, civil society, indigenous people and local communities, forestry associations, academia and other organizations. Survey questionnaires were sent by email to about 110 people of relevant stakeholders mentioned-above; of which 23 people responded to the questionnaire, representing 21% of contacted people. It is noteworthy that information was collected from a limited number of respondents. From a total of 16 LAC countries considered major forest producing countries (UNFF list of focal points), 10 LAC countries responded to the questionnaire, representing 63% of the countries.

This report covers a general regional assessment of the macro economic impacts of the pandemic, and impacts on the forest sector of the LAC Region and selected countries. Additionally, emerging opportunities, and potential responses and measures were identified to overcome the COVID-19 pandemic effects.

Overview of main macro economic Impacts

The COVID-19 pandemic has affected most countries around the world and has pushed global activity into a recession. The COVID-19 prevention measures in countries like Argentina, Brazil, Chile, Peru and Mexico lasted throughout the 2nd quarter, the annual gross domestic product (GDP) growth plunged in the analyzed countries. The GDP during the second quarter of 2020, activity in LAC region as a whole shrunk as a result of the pandemic. All the analyzed countries registered significant contractions in the GDP growth rates in relation to the same quarter of 2019. The falls in Mexico (-8.6%), Peru (-9.4%) and Argentina (-19.1%) are highlighted, the latter standing out as the country most affected in terms of GDP. In the case of Chile was slightly lower, the fall in the 2nd quarter of the year was -14.1%. Regarding international trade, all analyzed countries showed that the trade balance registered a surplus. As to inflation, in Argentina it continued to increase. While in Brazil, Chile, Mexico and Peru there were small fluctuations, inflation target maintained in the range defined by the Central Banks. In terms of Electricity consumption, the demand for electricity in the second quarter decreased in most LAC countries (Argentina, -11.5%, Mexico, -9.0%), but lower impacts in Brazil, Chile and Peru. Generally, lower demand in the non-residential and increase in demand from households.

Key findings of the impacts of COVID-19 on the forest sector

i. Forest Sector and Sustainable Forest Management

The forest sector is seen as more resilient and expectation is great as to the central role forests will play in social and economic. The COVID-19 pandemic might lead to an increase in deforestation, forest degradation and associated biodiversity loss, decrease food supply especially in some areas and put more pressure on forest resources. There is a risk that stimulus programs prioritize quick financial returns and employment. Production and trade disruptions affect entire value-chains. Impacts will be more critical on day laborers or part-time workers and small, informal business operators, micro, small and medium enterprises. The situation is particularly problematic in developing countries. Restrictions on movement impact the transport of forest products from production sites to market centers, affecting the income of producers and sellers, which also affects consumers in some urban areas.

ii. Livelihoods of Forest-dependent People, Indigenous Peoples and Local Communities

Forests are the source of livelihoods for millions of people throughout the world, including local and traditional communities, indigenous and tribal peoples. The pandemic has aggravated the vulnerability of these people. They are the most vulnerable, suffer more from poorer health than the rest of the population, often have limited access to health care. Information on preventing and mitigating the pandemic is not always available and lockdown measures have affected with direct consequences for their nutrition and food security. COVID-19 has meant reduced access to markets and trading opportunities, impacting specially women who rely on selling forest products in cities that are currently off-limits. In Latin America, the spread of COVID-19 has also deepened the vulnerability of millions of small producers and agricultural workers, intensifying uncertainty for this large part of the population.

iii. Forest Industries and Domestic / International Demand for Forest Products and Services

LAC countries governments did not impose restrictions on the operation of the forestry industry. Measures of social distancing and others, which reduced production capacity. The operation was partially affected by short periods of restrictions imposed by some government.

iv. Labor Market and Employment

Besides timber production, processing and trade of wood products, forests generate employment involving a range of non-wood products, and services such as ecotourism, which is quite important for some countries. With closed borders and limitation on movement of persons, some services, ecotourism in particular was severely affected, and a strong reduction on employment and revenues was faced in some countries, affecting especially local populations. The forest sector in LAC region is characterized by a high degree of informality. Despite the potential of the forest sector to promote growth and employment, the persistent decent work deficits have been worsened by the pandemic. In sawmills, wood processing factories and in other forest-related activities, where operations have continued, it is often difficult to maintain physical distancing between workers, and adequate hygiene measures may not be readily available. In some cases, reduced on-site forest control/monitoring due to logistics, physical distancing measures has led to opportunistic illegal loggers taking advantage of the situation. Peru, Costa Rica, Chile and Mexico are the countries that lost the highest percentage of jobs between March and July 2020 due to the COVID-19 pandemic.

v. Forest Financing and Investment

The COVID-19 pandemic forced countries to take several mitigating measures, measures that have impacted all components of the Foreign Direct Investment (FDI). The financial markets were affected by the increase in uncertainties and the paralysis of economic activity. Several countries of the LAC region created specific credit lines and established other alternatives to support companies and the society in the mitigation of the COVID-19 impact.

vi. Institutional Capacity

Institutional capacity of agencies in LAC region involved in monitoring, control, capacity building and other activities related to forest management were also affected by the pandemic. Forestry and environmental agencies involved in monitoring and supporting forest-related activities were only partially operating, and restricted to office with reduced work hours in response to COVID-19. In Mexico, the pandemic caused a decrease in personnel, causing a slower pace of forest management, increased cost of management, eased illegal operations, diminished interest in incorporating forest areas into forest management, increased production costs, loss of competitiveness. In Paraguay, during the pandemic, there were reduction and relaxation of governmental forest control, so that illegal activities increased.

vii. International and Regional Cooperation

In the context of the COVID-19 pandemic, international cooperation for development has been an essential tool to seek innovative mechanisms that allow finding solutions to common challenges. In view of the short period since the early stages of the impact of COVID-19 in the region began, few initiatives involving international and regional cooperation were identified. In October 2020, the Government of the United States has allocated a fund to help Peru in its emergency response to face COVID-19. The European Union, its Member States and its financial institutions have joined forces as “Team Europe” to lead the global response to the pandemic. Team Europe has been working to mitigate the impacts of COVID-19 in its partner countries, including LAC countries (*e.g.* Argentina, Paraguay).

Emerging opportunities

Most of the LAC countries have created programs to mitigate the economic and social impact of the pandemic. In spite of uneven impacts identified among the analyzed countries, the emerging opportunities involving the forest sector over the COVID-19 pandemic period are as follows:

The forest sector proved to be resilient: harvesting cycle are longer than other commodities and products can be stored and last over longer periods, among other differences. That helped to mitigate impacts and facilitated adapting to the "new normal";

The forest sector provided essential products: In practically all countries (except some countries e.g. Mexico), the forest sector was considered as a provider of essential goods and services. The forest industry produces pulp and paper, sanitary/hygiene products including toilet paper, towels, tissues and other essential products to overcome a health crisis. The forest industry also made available paper and cardboard for packaging and delivery of products to support the increased reliance on e-commerce and delivery services during lockdowns;

Increase in national funding and international cooperation: During the COVID-19 pandemic, most countries made available several forms of incentives to mitigate the social and economic impact. Some international agencies also made available funding to mitigate the effects of the pandemic and promote investments. This has also favored the forest sector, and financing was available to maintain forest management operations, reforestation and industrial development.

The forest sector contributed to mitigate social impacts: Even under the impact of a pandemic, the forest sector, especially the forest industry, continued to generate employment. In most countries, the forest sector maintained their forest and industrial operations, keeping most of their working force. This helped to mitigate social impacts, especially in rural areas. Nevertheless, some countries such as Mexico community forestry enterprises faced limitation to maintain their workforce and commercial operations. In many countries, private forest sector helped to mitigate the impact providing essential goods and services.

The forest continued to be sustainably managed: In spite of some limitations, sustainable forest management continued over a long pandemic period. Forest management, for timber and non-timber production, is a long-cycle activity and even if interrupted for a short period no significant impact is expected. In some countries, forest industry faced restrictions resulting from reduction of staff and/ or work hours of official agencies. As result, issuance of legal documents was affected, and this favored illegal operations, compromising sustainable forest management. Protected areas, including national parks and other areas were closed during the period, and continued to be managed during the COVID-19 pandemic, based on existing management plans. Nevertheless, in some countries, this generated a strong impact on ecotourism activities, and affected local communities involved in providing services.

Potencial responses and measures

The potential responses and measures aiming to achieve the “new normal” in a post-pandemic period in the LAC region includes:

- **Macro-Economic Measures:** Preserving fiscal balance, adopting at the same time monetary and financial measures to support families and corporations is essential for the economic activity gradually returns to normal. Some countries of other regions have already been designing public policies in that direction, such as Australia, Germany, Japan and others. These initiatives can be applied by LAC counties.
- **Create a Dedicated Global/ Regional Information System**: In the short to medium-term, a detailed and consistent global information system is necessary to assess economic, social and environmental impacts; based on that define measures/ actions, develop and implement recovery strategies for the forest sector and support sustainable development, considering the possible emergence of a new pandemic perspective;
- **Revise National Crisis Supporting program**: In general, the programs had contribute to mitigate the social and economic impact of COVID 19 pandemic, but Governments need to revise to ensure a sustainable transition to the “new normal”. The economic reactivation program should be directed especially to small and medium-sized forest owners/ companies;
- **Enhance International Cooperation**: The international cooperation may have a critical role in providing technical assistance and financing the forest-related activities. In the medium to long-term, international cooperation should be strengthened by sharing good practices, involving the private sector, developing competitive wood processing, facilitating trade, enhancing investments, promoting sustainable production and consumption of forest products, and reporting the impacts of pandemic crisis and the effectiveness of government responses;
- **Provide Support to indigenous people and local community:** Lack of information on the pandemic resulted and late reaction from the indigenous people and other communities located in remote areas. To allow a quicker reaction it would be advisable to prepare protocols for the setup of early alerts, especially on health crisis such as the pandemic. This involves the establishment and management of information systems. Additionally, propose a contingency plans for the protection of health in highly vulnerable indigenous people and in initial contact.

1 – INTRODUCTION

1.1 – BACKGROUND

The COVID-19 pandemic has created an enormous disruption to human lives, livelihoods and economic systems worldwide. The on-going pandemic has precipitated a massive public health crisis and short-term economic contraction, shuttered countless businesses, big and small, thrown tens of millions out of work, disrupted global supply chains, severely strained fiscal capacity and safety nets, and continues to test global solidarity and multilateralism at a time when they are needed to address its impacts.

The pandemic has created turmoil in global economies, leading to the sudden loss of livelihoods, extreme poverty, and income inequality and food insecurity, especially in some of the most vulnerable segments of society.

Due to the broad range of vital services that forests provide for economic functioning and human wellbeing, as well as their roles in providing income, livelihoods, and well-being of people, especially rural communities, indigenous peoples, small farms holders, and other forest-dependent communities, it is important to assess the impacts of COVID-19 on forests and forest-dependent people. Since the outbreak of COVID-19, there have been reports of indigenous communities in Africa, Asia and Latin America, who are turning to forests for food, medicines, fuel and shelter, and the importance to isolate themselves from the risk of COVID-19 infection.

The UNFF Secretariat has decided to compile a global assessment of the impacts of COVID-19 on areas identified in the UNFF15 resolution assessments, considering a regional assessment to be carried out in each of five UN regions, namely: Africa, Asia-Pacific, Eastern Europe, Latin American and the Caribbean, and Western Europe. The results of these assessments will be discussed at a UNFF global expert group meeting, with participation of experts from Members of the Forum, the Collaborative Partnership on Forests (CPF) member organizations, regional partners and major group representatives in January 2021. The key findings of these assessments and the outcome of an expert group meeting will be incorporated in the official documents for consideration at UNFF16 in April 2021.

In order to carry out an initial assessment of the impact of COVID-19 pandemic on sustainable forest management and the forest sector in the Latin America and Caribbean Region the UNFF Secretariat hired Dr. Ivan Tomaselli. This document is the Final Report containing the results of the initial assessment prepared by the consultant. It covers a general regional assessment of the macro economic impacts of the pandemic, and impacts on the forest sector of the LAC Region and selected countries. Additionally, it was identified emerging opportunities, and potential responses and measures to overcome the COVID-19 pandemic effects.

1.2 – OBJECTIVES

In view of the above, and based on the Terms of Reference made available by the UNFF Secretariat, the main objective of the work is:

- *To conduct an assessment of the impact of the COVID-19 pandemic on the forestry sector in Latin America and the Caribbean and propose recommendations for mitigating measures.*

1.3 – METHODOLOGICAL APPROACH

1.3.1 Geographic Coverage

The study covered the Latin America and the Caribbean region. The analysis is LAC as a whole, with a focus on the countries with the highest concentration of forest-related activities, such as Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Ecuador, Guatemala, Mexico, Panama, Paraguay, Peru and Uruguay.

1.3.2 Sources of Information

Information was gathered from primary and secondary sources.

i) Primary:

Contacts provided by UNFF in order to obtain general information about COVID-19 in the forestry sector, they are:

- UNFF Regional Focal Points
- UNFF Major Group
- UNFF Regional Entities

Contact with relevant stakeholders via application of a questionnaire to obtain targeted information, including:

- Private sector;
- Government;
- Civil society;
- Indigenous people and local communities;
- Forestry associations;
- Academia / researchers;
- Organizations (international, intergovernmental, regional / sub-regional);
- Collaborative Partnership on Forests (CPF) members operating in the region.

ii) Secondary:

It consisted of literature review, including existing published studies and reports, news, policy briefs, other relevant publications publicly available and Internet.

1.3.3 Approach used to carry out the study

As for primary data and information gathering, a questionnaire was prepared by the Consultant, which was sent to the UNFF focal points provided by the UNFF secretariat, followed by consultation with specific stakeholders suggested by focal points to enrich findings from the literature review. In addition to stakeholders indicated by focal points, the Consultant identified other relevant stakeholders in the selected countries.

Survey questionnaires were sent by email. A questionnaire accompanied by the introduction letter of the Consultant provided by UNFF Secretariat was sent to about 110 people of relevant stakeholders mentioned-above, including governmental organizations/institutions, civil society, the private sector, and others. Of which 25 people responded to the questionnaire.

It is important to point out that:

– Information was collected from a limited number of respondents. From a total of 16 LAC countries considered major forest producing countries (UNFF list of focal points), 10 South

American countries responded to the questionnaire. Since the responses came from major countries with the relevance in analyzing the forest sector, they reflect the reality of the situation as respondents include governments, trade associations, civil society and indigenous group, among others;

- The quality of collected responses to open-ended questions varied greatly ranging from general statements to detailed responses;
- All collected answers relevant to the forest sector are reported in this document.

As for literature review, it is noteworthy that not all countries analyzed have the same database. Therefore, the contents of information differ among the countries because each country provides information varying in the level of detail. Moreover, the period of analysis varied according to the data availability, ranging from the second to third quarter.

After gathering secondary information, the Consultant prepared a first draft report, which as submitted to UNFF Secretariat. Then, a second Draft Analytical Report has been prepared to be presented at the Regional Workshop (virtual) organized by UNFF held on January 19-21, 2021. After the virtual Regional Workshop, the Consultant consolidated the information collected, and inputs from the Regional Workshop were incorporated into the final analysis of results.

2 – OVERVIEW OF THE MAIN MACRO ECONOMIC REGIONAL IMPACTS

This section provides an overview of the COVID-19 pandemic impact on the macroeconomic indicators of the LAC region, covering selected countries. According to the projections of the International Monetary Fund (IFM), LAC will be one of the regions of the world most economically affected by the pandemic, where Gross Domestic Product (GDP) is expected to contract 9.40%, recovering at a rate of 3.70% in 2021, being one of the weakest recoveries among emerging markets. All IMF projections had to be revised in June 2020, as COVID-19's impact was greater than initially expected (MS, 2020).

The pandemic and the measures taken to contain it have caused an unprecedented collapse in economic activity in the LAC region and worldwide. Global demand, industrial production, international trade (Exports/Imports) and capital flows have changed, thus weighing down on the LAC economy. In addition to these aspects, other indicators such as gross domestic product (GDP), inflation and electric energy consumption are examined.

Below is an overview of the impact of COVID-19 on the main macroeconomic indicators of some countries considered the most economically relevant in Latin America.

- **ARGENTINA**

- Gross Domestic Product (GDP)

The Argentine economy experienced the biggest collapse in its history in the second quarter of 2020 because of the stricter quarantine to contain the COVID-19 pandemic and due to a very low level of accumulated years of recession and instability (LA NACION, 2020)

The Argentine economy recorded -19.1% in the second quarter of 2020 compared to the same quarter of 2019, amid COVID-19 confinement. The magnitude of the collapse seen between April and June 2020 is historical. There is no quarterly record with a greater drop in the statistical series dating back to 1981 and even exceeding the historical 16.3% drop of the first quarter of 2002, at the peak of the severe political, economic and social crisis that broke out in Argentina in late 2001 (LA NACION, 2020).

- Industrial Production

In October 2020, the manufacturing Industrial Production Index (Manufacturing IPI) shows a -2.9% drop compared to the same month in 2019. The accumulated January-October 2020 shows a -9.9% decrease compared to the same period of 2019 (INDEC, 2020a).

In September 2020 the use of installed capacity in the industry presented a level of 60.8%, higher than that registered in September 2019 (57.7%). The sectors that presented, in September 2020, levels of installed capacity use above the general level were non-metallic mineral products (77.8%), paper and cardboard (71.2%), chemical substances and products (69, 8%), basic metallurgy (68.7%), food products and beverages (64.7%) and tobacco (64.1%) (INDEC, 2020b).

The production of food and beverages registered, in September 2020, a level of utilization of installed capacity of 64.7%, higher than that registered in September 2019 (61.6%), which is mainly related to the higher levels of processing dairy and meat products (INDEC, 2020b).

- International Trade

In October 2020, Argentina exports reached USD 4.6 billion and imports USD 4.0 billion. Trade (exports plus imports) decreased 13.9%, compared to the same period of 2019(USD 8.6 billion). The trade balance registered a surplus of USD 612 million.

October 2020 exports decreased 21.6% in relation to the same month of 2019 (USD -1.3 billion). Quantities fell 23.5% but prices increased (+2.4%). Exports of all items shrunk on a year on year basis. Imports in October 2020 were 2.8% lower compared to the same month of 2019 (USD -117 million). Quantities shrunk by 5.8% and prices increased 3.2%. In terms of seasonal adjustments, imports fell 1.8%, compared to September 2020, while the trend-cycle showed a positive variation of 3.3% (INDEC, 2020c).

- Inflation

The annual variation rate of the CPI (Consumer Price Index) in Argentina in October 2020 was 37.2%, 6 tenths higher than the previous month. The accumulated inflation in 2020 is 26.9% (EXPANSIÓN, 2020a).

- Electricity consumption

The demand for electricity in April 2020 decreased by 11.5%, compared to the same period in 2019, which reflected the lower activity of industrial and commercial sectors in the last 20 years in this period due to COVID-19 preventive measures. Industrial demand is estimated to represent almost 60% of the total energy consumption in Argentina (INFOBAE, 2020a).

- **BRAZIL**

- Gross Domestic Product (GDP)

The GDP retraction in the 2nd quarter of 2020 was -9.7% compared to the 1st quarter of 2020, with seasonal adjustment, below the market average (-9.2%). On the supply side, in the seasonally adjusted margin, the strong contraction was in industry (-12.3%) and services (-9.7%). As for demand side, household consumption and gross fixed capital formation (GFCF) fell, -12.5% and -15.4%, respectively. The forecasts of market analysts have continuously improved since June, due to the more positive results of retail and industry activity indicators (ME, 2020).

- Industrial Production

Industrial production showed a general recovery in the quarter ended in August, after reduction in the quarter ended in May. Industrial production indicators show an unequal recovery among regions and sectors, considering data from the last quarter analysis. In most regions of the country, in August, the level of industrial production returned to the levels of the pre-pandemic period.

Table 1 – Brazilian industrial production

Region	Quarter (Mar-May)	Quarter (Jun-Aug)
Brazil	-18.2%	+14.7%
North	-21.4%	+23%
Northeast	- 23.8%	+17.9%
Midwest	-0.6%	+3.1%
Southeast	-14.2%	+11.7%
South	-22.5%	+18.1%

Source: BCB (2020)

Agriculture production is an important activity for the national economy. There were basically no impacts of the COVID-19 pandemic in Brazilian agriculture production and along 2020 grain production (see below) increased 4.4% (BCB, 2020).

Table 2 – Brazilian grain production

Region	Production (MM tonnes)		
	2019	2020	Variation (%)
Brazil	241.5	252	4.4
North	9.8	10.8	9.6
Northeast	19.2	22.3	16.4
Midwest	111.5	119.7	7.3
Southeast	23.7	25.6	8
South	77.2	73.6	-4.7

Source: BCB (2020)

- International Trade

Brazilian exports decreased between January-September 2020 (USD 156.5 billion) when compared to the same period in 2019 (USD 169.6 billion). Imports also declined from USD 133 billion in 2019 to USD 114.3 billion in 2020. The trade balance registered an increase in the surplus in the first nine months of 2020. All regions showed improvement in the trade balance along 2020, except for the Southeast (BCB, 2020).

Table 3 – Brazilian international trade

Region	Exports (USD billion)		Imports (USD billion)		Balance (USD billion)	
	2019	2020	2019	2020	2019	2020
Brazil	169.6	156.5	133.6	114.3	36	42.2
North	16.1	17.4	9.7	8.7	6.4	8.8
Northeast	12.5	11.4	15.2	10.4	-2.7	1
Midwest	22.5	25.4	6.6	6.1	15.9	19.3
Southeast	83.9	70.3	72.5	65.2	11.5	5.1
South	33.3	29.7	29.6	24	3.7	5.7
Others*	1.3	2.3	0.1	0	1.2	2.3

* It refers to operations not classified at regional level.
Source: BCB (2020)

- Inflation (IPCA)

Inflation, as measured by the variation in the Broad Consumer Price Index (IPCA), was higher than expected in the third quarter 2020, with the continued rise in food prices. This was as a result of the depreciation of the Brazilian currency Real, increase of prices of some commodities in the international market, the change in consumption habits and the Government cash transfer programs to mitigate socio impacts of the pandemic. The IPCA, the main inflation indicator in Brazil, went from -0.43% in the 2nd quarter to 1.24% in the 3rd quarter of 2020 (BCB, 2020).

The COVID-19 pandemic influenced inflation and relative prices in Brazil since March. On the one hand, social distancing, rising unemployment and a contraction in activity lowered the prices of several services. On the other hand, exchange rate depreciation, increase in international commodities prices, income transfer programs and increased spending on food at home put pressure on food prices (BCB, 2020).

- Electricity Consumption

Electricity consumption in Brazil in October 2020 totaled 42,426 GWh, representing a 3.5% increase in relation to the same month in 2019, after a decline faced in the early months of the pandemic. For the fourth consecutive month, household has the highest consumption share (+9.3%), followed by the industrial consumption (+4.9%) (EPE, 2020).

For September and mid-October, data from the CCEE (Chamber for Trade of Electrical Energy) of energy consumption by the manufacturing industry indicate a steady industrial activity recovery, although at a more moderate pace. The consumption of industrial electric energy released by CCEE remains above the levels of 2019 in September and mid-October; this reinforces the steadiness of the recovery of economic activity (BCB, 2020).

- **CHILE**

- Gross Domestic Product (GDP)

The Chilean economy dropped -9.1% in the third quarter 2020 compared to the same period in 2019, a smaller contraction compared to the second quarter of 2020 (-14.5%). The most affected activities were personal services, construction, transportation, restaurants and hotels and business services

The GDP increase along the third quarter evidenced a recovery of economic activity in line with the gradual lifting of sanitary control measures (quarantines or lockdown), economic measures to support vulnerable families and withdrawal of part of the pension funds, most of which was directly injected into the local economy.

According to the Central Bank of Chile, the reduction in the economic activity was determined by low domestic demand, mainly due to lower spending on services, with which household consumption decreased by - 8.8%. This effect was partially offset by net exports.

Agricultural and forestry production along the third quarter fell -3.2%, a smaller reduction compared to the previous quarter. The decrease in forestry was widespread, showing a lower production of logs for the sawmill industry, in particular pine, and logs for pulp production (BCC, 2020a).

- Industrial Production

In the third quarter 2020, the manufacturing industry fell -4.0% in line with lower demand. The performance of the manufacturing activity resulted from the drop in fuel production and, to a lesser extent, from the reduction in the production of beverages and tobacco and non-metallic minerals and basic metals (BCC, 2020a).

- International Trade

In the third quarter of 2020, Chilean exports totaled USD 17.2 billion, increasing +0.9% in relation to the same period of the previous year. On the other hand, total imports reached USD 14.8 billion in the 3rd quarter of 2020, down 17.3% compared to the same period in 2019 (BCC, 2020b).

- Inflation

The annual Chile's Consumer Price Index (CPI) in November 2020 was 2.7%, a bit lower than the previous month. The monthly variation of the CPI has been -0.1%, so that the accumulated inflation in 2020 is 2.6% (DATOSMACRO, 2020).

- Electricity Consumption

Electricity generation dropped, due to lower non-residential demand, consistent with the decrease in economic activity, which was partially offset by higher demand from households. Meanwhile, there was an increase in the use of lower cost inputs, mitigating the drop in value added of generation (BCC, 2020a).

- **MEXICO**

- Gross Domestic Product (GDP)

After years of gradual growth, Mexico's gross domestic product (GDP) began to contract in late 2019. The GDP suffered the worst drop in its history during the 2nd quarter of 2020 due to the health emergency caused by the COVID-19 pandemic.

From April to June 2020, the total goods and services produced in Mexico reached 15.1 billion Mexican pesos, which represented a reduction of -18.7% compared to the value registered in the same quarter 2019. While in the third quarter it recovered 12.1% in relation to the previous three months, although in the annual comparison it presented a fall of -8.6% (STATISTA, 2020).

- Industrial Production

The COVID-19 crisis caused Mexico's industrial production to fall -3.3% in October 2020 compared to the same month of 2019 due to the drop of all sectors production. The numbers are the result of declines in civil construction (-10.1%), electricity generation and transmission, water and gas (-4.2%), industry (-1.3%) and mining (-1.1%).

When analyzing the first 10 months of 2020, industrial activity decreased -11.3%, due to the decrease in civil construction (-18.7%), processing industry (-11.9%), electricity generation (- 5.1%) and mining (-0.8%) (FORBES Mexico, 2020).

- International Trade

Mexico's exports performed sligtly better in the 3rd quarter of 2020 than the average global trade trend. In this quarter, Mexico's exports fell -4.3% compared to the previous year, while world trade flows dropped by -4.5% (EL ECONOMISTA, 2020).

In September 2020, the value of goods exports totaled USD 38.5 billion, 3.7% higher than in the same month of 2019. In any case, considering the period January-September 2020, the value of total exports was USD 294.2 billion, reducing -14.4 compared to the same period in 2019.

The value of goods imports reached USD 34.1 billion in September 2020, representing an annual reduction of -8.5%. In the period January-September 2020, the value of total imports reached USD 275.3 billion, down by -19.4% compared to the same period in 2019 (CONCANACO, 2020).

The Mexican trade balance showed a surplus of USD 6.3 billion in October 2020, a positive figure when compared to the deficit of USD 688 million in the same month of 2019. The data for October 2020 is also higher than the surplus of USD 4.4 billion in September 2020. In the first 10 months of 2020, Mexico recorded a trade surplus of USD 25.2 billion (EXPANSION, 2020b).

- Inflation

Mexico's annual inflation slowed down more than expected in November to stay within the range of the Central Bank's official target, due to less pressure on agricultural prices and promotional discounts for the annual "Good End" campaign. The National Consumer Price Index increased +3.33%, lower than the 3.42% anticipated in a Reuters survey and below 4.09% registered in October. As a result, the inflation annual rate was at the same level as in June 2020 and at the lowest level since May (INFOBAE, 2020b).

- Electricity Consumption

The demand for electricity has decreased in the country since April 2020 due to the social distancing and the interruption of activities due to the COVID-19 pandemic. Electricity consumption was reduced by -9% in April 2020, compared to the same month of 2019. Although, in households, electricity consumption has increased due to social confinement, shutdown of industries (such as automotive or cement) led to falling demand (EL FINANCIERO, 2020).

- **PERU**

- Gross Domestic Product (GDP)

In the third quarter of 2020, the Peruvian GDP contracted -9.4%, due to the reduction in domestic demand (- 8.2%) and exports decline (-25.6%). In the context of the process of mitigating the effects of the COVID-19 pandemic; the gradual reopening of economic activities, associated with support for the business sector, as well as the extension of government subsidies to vulnerable families, contributed to a lesser contraction of the GDP (INEI, 2020a).

- Industrial Production

In the third quarter, industrial production decreased -18.2% and in the last four quarters -13.8%. The lowest levels of production were registered in the industries such as textile (-27.8%), other manufacturing industries (-27.6%), paper, printing and recording reproductions (-10.3%), among others. On the other hand, the wood and furniture industry grew 21.0% (INEI, 2020a).

- International Trade

In October 2020, the total volume of goods exported decreased 9.3% in relation to same month of 2019, but in nominal terms, the total value of exports grew 1.1%. The total volume of October imports decreased 10.2%. In nominal values, imports were below the level reached in October 2019 (-13.7%), according to the National Institute of Statistics and Informatics (INEI, 2020b).

The trade balance for the third quarter of 2020 recorded an accumulated surplus in the last four quarters, equivalent to 2.9% of GDP, according to the Central Bank of Peru (EL COMERCIO, 2020a). In October 2020, the trade balance registered a USD 1.26 billion surplus. The result is the highest since January 2012, USD 836 million higher compared to October 2019, reversing the trade deficit recorded in the previous quarter (EL COMERCIO, 2020b).

- Inflation

The CPI annual inflation rate fell from 1.78% in May to 1.69% in August 2020, while the underlying component of inflation (CPI excluding food and energy) was 1.86% to 1.79% in the same period. In general, the annual CPI growth rate, as well as all inflation trend indicators, was at the bottom of the target range. Annual inflation is expected to decline in the following months due to the negative impact of demand shocks, being temporarily below the target range at the end of 2020 (0.8%) (BCP, 2020).

- Electricity Consumption

Electricity consumption by households in Lima increased an average of 20% during quarantine due to the pandemic. People, having spent more time in their homes due to confinement measures, have been watching more hours of television, teleworking, studying at home (ANDINA, 2020a).

The electricity consumption in the national industry increased 15% along the third quarter, after the end of the quarantine and the gradual beginning of the labor, production and commercial activities. This is a positive result for the economy, since during the months that the quarantine lasted, electricity consumption in this sector decreased by 30% (ANDINA, 2020b).

3 – KEY FINDINGS OF THE IMPACT ON THE FOREST SECTOR

The key findings, including an analysis on the impact and implications of the COVID-19 pandemic, specifically on sustainable forest management and forest sector of Latin America and Caribbean (LAC) region, are presented in this chapter. The findings and analysis consider the impacts and implications in the LAC region as a whole, followed by more details involving selected countries.

3.1 – GENERAL IMPACTS ON THE FOREST SECTOR OF THE LAC REGION

i. Forest Sector and Sustainable Forest Management

The forest sector is traditionally seen as more resilient (harvesting cycles are longer than other commodities), so that the expectation is great as to the central role forests will play in social and economic recovery in the aftermath of the crisis. Forest products, including wood and non-wood forest products, continue to support livelihoods throughout the crisis while delivering essential items, such as hygiene and sanitary products, biomass for heating, ethanol for sanitizer, respirator paper and packaging for parcels (FAO, 2020a).

It is possible that the COVID-19 pandemic might lead to an increase in deforestation, forest degradation and associated biodiversity loss. As household incomes decrease and food is less available, people in some rural areas will turn to forests and forest products for subsistence, including plants and wildlife for food, which can result in an overharvesting of natural resources. In addition, people and businesses seeking income in times of constraint will likely put even more pressure on forest resources through charcoal production, conversion of forests to agriculture and other informal and at times illegal economic activities.

There is a risk that stimulus programs prioritize quick financial returns and employment over longer term climate and sustainability objectives, which may exacerbate deforestation or forest degradation. Deforestation and associated biodiversity loss are meanwhile recognized as contributing factors to the risk of spreading diseases.

Production and trade disruptions affect entire value-chains and will put livelihoods and businesses at risk. However, day laborers or part-time workers and small, informal business operators risk being the worst hit as they often have no social safety net to fall back on. Similarly, micro, small and medium enterprises (MSMEs) and forest and farm producer organizations (FFPOs) have very low capacity to delay their spending without earnings. MSMEs account for over 50 % of total forest-related employment, and employ approximately 40 million people worldwide in the formal and informal sectors.

Restrictions on movement impact the transport of forest products from production sites to market centers, most of which are in urban areas. This in turn affects the income of producers and sellers, and also affects consumers in some urban areas who rely on wood fuel for basic needs such as cooking. Restrictions also affect the labor market, for instance through reduced availability of seasonal workers (including from abroad) for activities such as planting and harvesting (FAO, 2020b).

As in many other sectors, it has been mentioned that disruptions in forestry-related supply chains have led to a drastic decline in exports and imports worldwide. Global demand for wood and wood products, such as tropical wood, graphic paper and wooden furniture, has suffered to some extent a setback. Moreover, with orders for wood and processed products being postponed or canceled, forestry-related industries have not been able to continue operating at full capacity (OIT, 2020a).

The sum of the factors, including stagnation of production, falling demand, scarcity of raw materials, lack of working capital, increase in freight rates and labor shortages, has forced many companies (e.g. paper mills, sawmills, wood product manufacturers and logging companies) to stop activities, in some cases permanently. The situation is particularly problematic for many MSMEs in developing countries, which make up the bulk of companies in the forestry sector and are highly vulnerable to economic recessions. Demand for other forest-based products, such as packaging materials, wooden pallets and tissue for the manufacture of toilet paper and masks, has remained stable or even increased. In particular, the demand for toilet paper grew throughout the world when the pandemic broke out (OIT, 2020a).

Sustainable forest management is seen as one of the most solid strategies to counteract the negative effects of the pandemic in rural areas, due to the opportunities it represents for post-COVID economic recovery, through forest restoration actions, payment for environmental services and community forest management, which are characterized by intensive use of labor and relatively little capital (CONAFOR Mexico questionnaire, 2020).

ii. Livelihoods of Forest-dependent People, Indigenous Peoples and Local Communities

Forests are the source of livelihoods for millions of people throughout the world, including local and traditional communities, indigenous and tribal peoples. The pandemic has exacerbated the vulnerability of indigenous and tribal peoples, and other forest-dependent communities, who were already facing the consequences of climate change, deforestation, forest fires and illegal logging.

Indigenous and tribal peoples tend to suffer more from poorer health than the rest of the population, including respiratory illnesses, raising concerns about the impact of COVID-19 on their health. Likewise, they often have limited access to health care, and the services that are available may not be culturally appropriate. In most countries of the LAC Region, indigenous people have called for the prohibition of entry into their areas to prevent the spread of the virus, as well as for increased logistical and medical support. Information on preventing and mitigating the pandemic is not always available in indigenous languages, restricting their ability to respond to the disease in an appropriate and timely manner.

In addition to health-related risks, lockdown measures have affected the ability of communities to pursue their livelihoods, with direct consequences for their nutrition and food security. The banning of the hunting and consumption of wild meat in some countries with a view to containing the virus has removed a main source of protein for some of these communities (ILO, 2020a).

In case of women who depend on forests, steady progress has been made to empower women by supporting their participation in legal and sustainable fuelwood and charcoal production. However, COVID-19 has meant reduced access to markets and trading opportunities, impacting women who rely on selling forest products in cities that are currently off-limits. Restrictions on transportation and trade of fuelwood and charcoal may also affect reliable access to energy for cooking in urban areas (FAO, 2020b).

In Latin America, the spread of COVID-19 has also deepened the vulnerability of millions of small producers and agricultural workers, intensifying uncertainty for this large part of the population. This new reality is even more intense in countries with high levels of food insecurity, since they are more exposed to the pandemic, are particularly vulnerable to a range of threats and have limited installed capacities to cope with additional risks (FAO/ ECLAC, 2020).

At the regional level, the Andean Parliament (Bolivia, Colombia, Ecuador and Peru) approved the draft recommendation at the Plenary of the Andean Parliament on July 30, 2020 to implement urgent actions against any kind of violence against children and adolescents during isolation measures taken to mitigate the spread of COVID-19 (PARLAMENTO ANDINO, 2020).

iii. Forest Industries and Domestic / International Demand for Forest Products and Services

In general, LAC countries governments did not impose restrictions on the operation of the forestry industry, but adopted measures of social distancing and others, which reduced production capacity. The functioning has been partially affected by short periods of restrictions imposed by some governments and mainly by market reasons, largely due to the postponement of order delivery (TOMASELLI, 2020c). In Mexico, the forestry industry, since it was non-considered as essential, restrictions of operations were imposed. Thus, economic activity in 85% of the community forestry enterprises decreased and in 15% it remained the same. In the case of private forest industry, 79% decreased their economic activity, 10% remained the same and 11% increased (CONAFOR, 2020).

iv. Labor Market and Employment

The forest sector provides work to at least 54.2 million women and men worldwide (13.7 million of formal workers, equivalent to 0.4% of the total labor force). Ten countries concentrate more than 60% of the total employment (including the three sub-sectors: logging, wood processing, and pulp & paper. The top 10 countries by forest sector employment are: China, USA, Brazil, Russia, India, Japan, Germany, Indonesia, Italy, and Malaysia (ILO, 2020b).

Besides timber production, processing and trade of wood products, forests generate employment involving non-wood products, such as food, and a range of other products, and services such as ecotourism. As already mentioned, these activities are quite important for some countries. With closed borders and limitation on movement of persons, some services, ecotourism in particular was severely affected, and a strong reduction on employment and revenues was faced in some countries, affecting especially local populations.

The forest sector is characterized by a high degree of informality, particularly in developing countries. A tendency that reinforces the weight of informal work in the sector is the expansion of illegal logging. There are wage disparities within the forestry sector and some studies have pointed out that they reflect the differences in the value added per worker in each sub-sector. Although women are important in the wood industry and forestry operations around the world, their work is often overlooked (ILO, 2020b).

The COVID-19 pandemic is affecting public health and causing unprecedented disruptions to economies and labor markets, including for workers and enterprises in the forest sector. Pandemic has exacerbated existing challenges, with many enterprises and workers suffering as a consequence. In response, governments, employers' and workers' organizations, and other forestry stakeholders around the world, are collaborating to mitigate the impact of the pandemic with a view to protecting businesses and livelihoods, including through social dialogue and the promotion of international labor standards.

Despite the potential of the forest sector to promote growth and employment, the persistent decent work deficits have been worsened by the pandemic. Globally, many jobs have been lost and many more are still at risk, as companies around the world have faced challenges in retaining their workforce and meeting payroll commitments, leaving workers furloughed or unemployed. Forest work is characterized by high occupational safety and health (OSH) risks, which are compounded by contagious diseases, such as COVID-19.

In sawmills and wood processing factories, as well as in other forest-related activities, where operations have continued, it is often difficult to maintain physical distancing between workers, and adequate hygiene measures may not be readily available. Forest rangers may be at risk of contracting COVID-19. In some cases, reduced monitoring due to physical distancing measures has led to opportunistic illegal loggers taking advantage of the situation. Forest firefighters work, travel, eat and sleep close to one another, in isolated, and generally hot and dirty conditions, sometimes sharing gear, making them highly vulnerable to contagious diseases (ILO, 2020a).

Peru, Costa Rica and Chile are the countries in the world that lost the highest percentage of jobs between March and July this year due to the COVID-19 pandemic, according to a study by the Santiago Chamber of Commerce (CCS - Câmara de Comércio de Santiago). Latin America appears to be the most affected, as mentioned in the report, with six countries in the top ten on the list of those who lost the highest percentage of jobs in that period. Thus, the cases cited from Peru (39%), Costa Rica (21%) and Chile (21%) are added to Colombia (12%), Brazil (10%) and Argentina (7%) (FORBES, 2020).

The report points out that "the common factor in the evolution of the labor markets has been the loss of jobs due to contention contagion measures" as well as the abandonment of the workforce by the new unemployed due to lack of expectations" because most of the economic activities were restricted (FORBES, 2020).

There is no segregated official information yet on the impact of the COVID-19 on the labor market and employment in the forest sector of Latin America and Caribbean countries. Most of the information presented in the section specific to each country reflects the general impact on employment of selected countries of the LAC region. In any case, the information can be used as a proxy to estimate the impact on employment involving the forest sector. In Mexico, 41% of the community forestry companies were forced to make staff cuts, while in the private forestry industry only 5% were forced to do so (CONAFOR Mexico questionnaire, 2020).

v. Forest Financing and Investment

The COVID-19 pandemic forced countries to take several mitigating measures, measures that have impacted all components of the Foreign Direct Investment (FDI)). Capital expenditures, investments in new areas and expansions have been hampered by the physical closure of some areas and the slowdown in production (InvestChile, 2020).

The financial markets, in turn, were also affected by the increase in uncertainties and the paralysis of economic activity. The searching for safe assets during the pandemic and the rush to liquidity put pressure on borrowing costs and credit became scarce, aggravating financial tensions. Lenders, concerned about consumers and businesses unable to pay pack, have tightened credit conditions. These effects can be further expanded through international financial ties, especially in countries that depend on external financing and with fiscal imbalances (InvestChile, 2020).

Several countries of the LAC region created specific credit lines and established other alternatives to support companies and the society in the mitigation of the COVID-19 impact. The information on financing, investment and specific credit lines for selected countries, are presented later in this report.

vi. Institutional Capacity

Institutional capacity of Latin America and Caribbean organizations involved in monitoring, control, capacity building and other activities related to forest management were also affected by the pandemic. Because of measures to reduce the infection in most countries, forestry and environmental agencies involved in monitoring and supporting forest-related activities were only partially operating, and restricted to office work.

This theme will not be presented separately by country, considering that the impacts on institutions focused on the forestry sector were very similar. Nevertheless, information was obtained from two LAC countries, which are believed to have had similar impacts in other countries as well.

In Mexico, the pandemic caused a decrease in personnel, causing a slower pace of forest management, increased cost of management, facilitated illegal operations, diminished interest in incorporating forest areas into forest management, increased production costs, loss of competitiveness (COFOM questionnaire, 2020).

In Paraguay, during the pandemic, there were reduction and relaxation of governmental forest control, so that illegal activities increased. Environmental NGOs in Paraguay have made formal complaints to the authorities. In fact, the Ministry of Environment and Sustainable Development

(MADES), National Forest Institute of Paraguay (INFONA) and National Anti-drug Secretariat (SENAD) procedures were carried out, but due to the reduced staff their impacts were limited. All roads in the area were guarded by the national police, and also by INFONA posts, but since a limited number of staff is allocated to work in the field, makes it difficult to have all sorts of forest control (GUYRA questionnaire, 2020).

vii. International and Regional Cooperation

In the context of the COVID-19 pandemic, international cooperation for development has been an essential tool to seek innovative mechanisms that allow finding solutions to common challenges. In view of the short period since the early stages of the impact of COVID-19 in the region began, few initiatives involving international and regional cooperation were identified. This subject will also not be presented in more details separately, by country. Nonetheless, some identified relevant initiatives involving international cooperation are presented below.

In October 2020, the Government of the United States has allocated over USD 28 million to help Peru in its emergency response to face COVID-19. This assistance reflects a strong history of investment in Peru's health care systems and long-term development, primarily through the United States Agency for International Development (USAID). Institutions and programs currently funded by the US Government are also adapting their activities to respond to this unprecedented crisis. In the last 20 years, the assistance of the United States to Peru amounts to more than 3.5 billion dollars, of which 265 million were destined to the health sector. Emergency assistance comes from USAID's Office of Humanitarian Assistance, the Department of Defense Humanitarian Assistance Program, and the State Department's Office of Population, Refugees, and Migration (USAID, 2020).

The European Union, its Member States and its financial institutions have joined forces as "Team Europe" to lead the global response to the pandemic. Team Europe has been working to mitigate the impacts of COVID-19 in its partner countries, including LAC countries (European Commission, 2020)

In Argentina, the Team Europe has led action on COVID-19 through flagship projects and new initiatives. This action is designed both to tackle immediate health needs and, beyond that, to address the pandemic's longer-term social and economic impact. In Paraguay, Team Europe has supported a project to connect remote indigenous communities in the Chaco region with the rest of the country (European Commission, 2020).

In October 2020, the Amazon Cooperation Treaty Organization (ACTO) and the Indigenous Peoples Development Fund of Latin America and the Caribbean (FILAC, signed a Framework Cooperation Agreement that will benefit the Indigenous Peoples of the Amazon in Bolivia, Brazil, Colombia, Ecuador, Guyana, Peru, Suriname and Venezuela. This bilateral agreement was signed at a time when the impact of the Covid-19 pandemic is affecting the region and is reflected in the areas of health, education and development of indigenous people, along with climate change. Thus, this Collaboration Framework will prioritize joint actions for the protection, promotion and exercise of the rights of Indigenous People in the Amazon Region for a period of six years (OTCA, 2020)

3.2 – IMPACTS ON THE FOREST SECTOR AT COUNTRY LEVEL

3.2.1 – ARGENTINA

i. Forest Sector and Sustainable Forest Management

Forest production activities during the COVID-19 quarantine were drastically reduced in Argentina, and it is expected that they will be upheld in the post-quarantine as well as all productive activities. Paradoxically, the effort to overcome the economic impact of the pandemic may end up contributing to further damage to the environment (ARGENTINA FORESTAL, 2020).

Although primary forestry was exempted from the beginning of the quarantine, as an essential activity within the framework of agricultural production, the market supply of forest products is strongly dependent on industrial activity. In this area, only some activities such as the production of pulp and paper, the production of pallets and boxes were not affected, while others such as the production of posts, resins, energy wood, timber and furniture had to cease their activity, as they were not within the excepted activities.

In the beginning of the pandemic, the scope of the Argentinean governmental measures was not completely known, giving the different interpretation criteria of municipal authorities and control authorities, which hindered the logistics of personnel, wood and products, and therefore the activity in general. Therefore, before the first declaration of the total quarantine, the provincial industrial forestry sector presented a high compliance (approximately 80%) and production was stopped. The scenario led the Argentine forestry-industrial sector at the end of March to request the national government to extend the activities exempted to the entire forestry-industrial chain.

On April 2, 2020, the national government, through Administrative Decision 450/2020, expanded the list of activities and services declared essential in the emergency and includes activities related to the production, distribution and commercialization of forest products, including sawmills and factories of wood products. Thus, a large part of the industrial activity was resumed, taking the necessary measures to guarantee the hygiene and safety conditions of the personnel, defined by the Ministry of Health of the Nation and the municipalities.

The inclusion of all forestry-related activities as essential facilitated the circulation in roads and accesses to the municipalities, partially unlocking one of the essential concerns of the quarantine as the logistics issue. However, in some municipalities not all accesses were released, which hinders the entry and exit of raw materials and products to industries close to urban centers. Difficulties in loading and unloading due to lack of staff are also mentioned in large urban centers, such as Buenos Aires (INTA, 2020).

ii. Livelihoods of Forest-dependent People, Indigenous Peoples and Local Communities

COVID-19 and quarantine aggravated all aspects of the life of indigenous people in Argentina. Indigenous communities had difficulty in accessing health services and even obtaining water for consumption. A pandemic, as expected, aggravates the situation of socioeconomic inequality, irregularity in land areas, historical invisibility and criminalization associated with its sociocultural condition. Additionally, there is a deep foundation of situations of racism, discrimination, verbal and physical violence against members of indigenous people (IHUCSO et al, 2020).

Although the news seems encouraging in the province of Chaco, Argentina, more than 600 cases of infected people have been registered until July/2020, and around 35 deaths. More than 22% of the total number of COVID-19 patients corresponds to members of indigenous peoples (IHUCSO et al, 2020). There were 98 positive cases reported and seven deaths until July/20 involving the indigenous communities in the Area Gran Toba de Resistencia. The problem was severe but it is still not possible to clearly assess the impact of the COVID-19 on in the communities’ health in the province of Chaco (IHUCSO et al, 2020).

iii. Forest Industries and Domestic / International Demand for Forest Products and Services

In April 2020, the Argentine Forestry Association (AFoA - Asociación Forestal Argentina) conducted a Survey on the Status of the Forest Chain with 64 member companies. The questions refer to the company's situation on April 2020, compared to March 2020, a month after the quarantine declaration. Here are the results (ARGENTINA FORESTAL, 2020b):

- 94% indicated that their sales decreased. Of these companies, the majority declared significant drops in sales in the domestic market. More than half of respondents said sales decreased by more than 50%;
- A total of 26% of the companies answered on the export forest products. The majority (63%) indicated that they reduced scheduled exports, 13% canceled and 25% continued to export normally;
- When asked about the financial situation on April 20, only 13% indicated it was normal, while 87% indicated that they had faced a deficit.

Another report published by the government of Corrientes, in May 2020, reflects that in the context of the pandemic the forest-industrial market was seriously affected, both in domestic sales and in exports. The study included 256 companies related to the forest sector, in the four main forest zones in the province. The main results separated by forest zone are as follows (ARGENTINA FORESTAL, 2020c):

- Northeast Zone:
  - Sales were affected by approximately 70%;
  - Market demand like China, Malaysia and Vietnam fell;
  - Some companies have problems with bank credit negotiations;
  - The manufacture of furniture and wood for construction has reduced by 90%.
- Northwest Zone:
  - Pallet production was reduced by 90%;
  - Around 60% of total sales were affected;
  - Around 80% of the companies faced logistics problems;
  - Exports were almost completely paralyzed;
  - Many problems with the payment system, especially with checks.
- Southeast Zone:
  - All sawmills reduced the production;
  - Timber supply to industry fell by 90%;
  - The delivery of finished products was mostly outsourced;
  - The payment system was affected by between 30 and 50%;
- Southwest Zone:
  - Industries worked at 30% of their capacity;
  - Total sales decreased by 50%;
  - There were logistics problems.

Sawmills and other industries that supply timber products for civil construction and furniture industry were the most affected by the pandemic. They were not exempt in the first part of the quarantine, and had to paralyze their activities. In addition, the demand declined, mostly due to the constraints on civil construction (ARGENTINA FORESTAL, 2020d).

Although most sawmills and industries have resumed their activities along the months of the first semester of 2020, they faced difficulties along the rest of the year, especially due to a reduction in the domestic demand of forest products due to the interruption of activities and the national economic retraction. As a result, many companies are working at 30-40% of their capacity. In some cases, the production has been totally paralyzed. Other players, such as forest nurseries, have difficulties in projecting sales and are in the midst of eucalyptus planting. This can cause a lack of seedlings for the plantation seasoning in the spring (ARGENTINA FORESTAL, 2020d).

The COVID-19 not only affected the forest and industrial operation, but also forest products trade. Additionally, services provided by forests, such as ecotourism and others, were also affected. Natural resources are important in Argentina, and in some regions ecological services provided by forests, or services involving forest resources, have a significant socio-economic impact. Different regions attract tourists and are therefore important to generate employment and it is a source of revenue for the country with impact on the local population.

One example is the Iguazu Falls Park, located in the Province of Misiones in the border with Brazil that attracts millions of international and national visitors every year. As Argentina closed its international borders for most of 2020, since the COVID-19 pandemic was first announced in March, 2020, and due to limited access to the park, several economic activities (hotels, restaurants, transportation and other tourist supporting services) were interrupted. The impact still needs to be measured, which is not limited to this site. But certainly it was significant, with a strong reduction of employment and income of local population.

iv. Labor Market and Employment

A total of 3.7 million jobs were lost in Argentina during the second quarter of 2020 as a result of the pandemic, according to figures reported by the National Institute of Statistics and Censuses of the Argentine Republic (INDEC). The country unemployment rate rose from 10.4% to 13.1%, a level that had not been reached since the third quarter of 2004 (LM DIARIO, 2020).

All labor indicators significantly worsened because of the paralysis that in April, May and June 2020 generated in the country the quarantine with which it was sought to mitigate the health impact of the COVID-19 pandemic, according to INDEC (LA VOZ, 2020).

v. Forest Financing and Investment

The forest-based industrial sector in Argentina has great possibilities to expand rapidly and can corroborate with a positive impact on employment and the economy immediately, being a possible way out for the post-pandemic recovery (CAFYDMA, 2020).

To this end, the 2030 Strategic Plan recently announced proposes a broad public-private partnership with the possibility of attracting USD7 billion in investments, the creation of 186 thousand jobs and the increase in exports in USD 2.6 billion. In addition to being a mechanism of growth, the forest sector can provide immediate responses in generating jobs with the expansion of forest plantations, the protection and sustainable management of forests, civil construction using wood and other forest-based industrial activities, in addition to generating foreign exchange through exports (CAFYDMA, 2020).

3.2.2 – BOLÍVIA

i. Forest Sector and Sustainable Forest Management

Based on information available (SELA, 2020), in Bolivia the following activities were allowed to continue during the pandemic:

a) Manufacturing, including agricultural, timber and forestry sectors

These activities include the supply of inputs, raw materials, and the distribution and commercialization of their products. Work hours shifts were allowed to be adjusted according to the activities they perform;

b) Mining sector

It includes the supply of inputs, raw materials and the distribution and commercialization of their products. In this sector also, work hours shifts where allowed to be adjusted accordingly; and,

c) Civil construction sector

In spite of the permission to continue operations of these selected economic sectors, the forest sector was affected by the pandemic in Bolivia, including the industrial operations, logistics and, above all, the trade. The pandemic affected the forest sector in terms of reduction of demand, of prices and limitation of activity. However, in Bolivia, the hardest phase of the pandemic (March to July) did not substantially affect forest operations, as this period is not the harvesting season. Nevertheless, it was very detrimental to timber industry and trade, as demand for forest products declined sharply (CFB Bolivia questionnaire, 2020).

During the health emergency period, more than 15,000 companies involved in forest and forest-related work suspended their activities, leaving the production complex in serious difficulties, according to the Bolivian Forestry Chamber. According to the sector's projections, the pandemic can lead to a permanent closure of thousands of companies, if the forest sector is not revamped and imports are restricted/ regulated. The sector was already dragging a tremendous crisis prior to the pandemic, so it could double the closure of companies (CFB Bolivia questionnaire, 2020).

ii. Livelihoods of Forest-dependent People, Indigenous Peoples and Local Communities

According to REPAM (Rede Eclesial Pan-Amazônica), in the Bolivian Amazon region, the number of confirmed cases of COVID-19 among indigenous people reached 3,438, resulting in 131 deaths as of October 2020. The survey comprises the departments of Pando, Beni, Santa Cruz de la Sierra, Cochabamba and Norte de la Paz (COICA, 2020).

Non-Governmental Organizations have monitored COVID-19 in Indigenous Peasant Territories, where a high incidence of COVID-19 has been identified in the municipalities of Villa Tunari, Chimoré, Entre Ríos, Ivirgarzama and Shinaota in the Cochabamba department, and Exaltación in the department of Beni. In Beni it has been identified a risk of physical and cultural extinction because they are people in a highly vulnerable situations. The first case is the Yuqui people who have a history of tuberculosis and pulmonary fibrosis, and the second is the Cayubaba people, a demographically reduced town with acculturation processes (Defensoría del Pueblo, 2020).

iii. Forest Industries and Domestic / International Demand for Forest Products and Services

At the time of the critical period of the pandemic, trade and supply of forest products fully stopped (CFB Bolivia questionnaire, 2020).The situation is quite complex in Bolivia, and spite of no specific restriction imposed by the government, forest-based industry activities were affected on three fronts:

a) Reduction in the domestic market demand;

b) Short supply of raw material for the industry; and

c) Reduction in exports.

Along the first half of the 2020, the Bolivian forest products exports remained relatively stable, reaching USD 13.1 million, according to the Bolivian Institute of Foreign Trade (IBCE). It has been suggested that the impact of the pandemic can be mitigated if measures were taken to boost the sector, and especially forest products imports are regulated (Publiagro, 2020).

It is estimated that about 15,000 companies linked to the forest sector had to stop their activities due to legal and market restrictions and the lack of raw materials. According to the sector's projections, the pandemic may lead to the closure of 5,000 production units, if the sector is not reactivated and imports are restricted (Publiagro, 2020).

iv. Labor Market and Employment

The increase in unemployment is coupled with the increase in informal employment, and during the pandemic the situation has worsened, given the restriction measures and biosafety protocols required for businesses to prevent the spread of COVID-19. Many companies have not managed to survive because the demand for goods and services has decreased considerably, so in many cases companies were closed and several other have stopped the operations and are paying compensation to their workers (CAF, 2020).

The impact of the quarantine due to the COVID-19 pandemic on the labor market was severe in Bolivia and the unemployment rate almost doubled in less than six months, from 4.8% at the end of 2019 to 8.1% in May 2020 (CAF, 2020).

When unemployment is compared in the first 3 quarters of 2020, the first quarter registered an unemployment rate of 5.8%, evolving to 8.3% in the second quarter and closing at 10.8% in the third quarter, the highest unemployment rate registered since 2015 (INE, 2020).

v. Forest Financing and Investment

The Government of Bolivia created some financial credit lines during the COVID-19 pandemic period, basically to support micro and small producers. According to the Camara Forestal de Bolivia, the support was not sufficient to fully mitigate the impact of the pandemic (CFB Bolivia questionnaire, 2020).

The Inter-American Development Bank (IDB) has approved a loan of USD 450 million to help Bolivia to mitigate pandemic's economic effects. The proposal is to prioritize the "Renta Dignidad (Dignity Income)" and "Canasta Familiar (Family Food Basket)" programs for people above 60 years old or older and that do not have a pension. The loan will also cover up to 100% of electricity bills for those households that pay up to 120 bolivianos (USD17.20) a month. This will benefit some 2 million homes throughout the country by ensuring uninterrupted access to the service and preventing a widening of socioeconomic inequality (IDB, 2020).

3.3.3 – BRAZIL

i. Forest Sector and Sustainable Forest Management

The effect of COVID-19 pandemic in the Brazilian forest sector was less prominent. In the early stages, there was an expectation in reduction on the national demand of solid wood products, together with a reduction in exports. In the early stages of the pandemic a reduction of 30% in the 2020 production was projected. The expected impact on the pulp and paper segments was expected to be smaller.

More than 90% of the industrial timber supply in Brazil is from forest plantations and in general, forest operations (planting, management and harvesting) were maintained during the pandemic, in spite of the fact that at the early stages some reduction in the industrial timber demand was faced.

Most mills in Brazil continue their operations, to a greater or lesser extent. Pulp and paper industry continued operation and supported the production of surgical masks, hospital clothing, tissue paper, mattresses, among others. The domestic demand for these products increased. The pulp companies focused on exports have also maintained their production at the same level. Actually, in Brazil, revenues of exporting companies increased, partly as a result of the national currency devaluation. In the early stage of the pandemic, some impact was felt in the demand of packaging material as result of a general reduction in economic activity. In addition, companies involved in the printing and writing paper have announced a temporary reduction in their production, reflecting the fall in demand (STCP, 2020).

Plywood segment was affected by the pandemic, especially along the first semester. In March and April 2020, the domestic demand of forest products in general decrease as a result of a reduction of activities in the civil construction sector (Forest2Market, 2020). Brazil exports most of its phenolic plywood production to more than 90 countries, and five important importers were highly affected by the pandemic (USA, UK, Belgium, Mexico and Germany). Together these countries represent almost 80% of the international market for the Brazilian plywood. The USA alone is responsible for the import of almost 70% of the Brazilian tropical plywood and more than 30% of the sawn pine. This market concentration created an environment of uncertainty (Tomaselli, 2020a).

On the overall, the national industry involved in reconstituted panels and solid wood products have suffered more than the pulp and paper industry. The main markets of these segments are the civil construction, the furniture and packaging industry. All these segments started shrinking in March 2020 due to restrictions imposed on population circulation and the scenario of uncertainties. In any case, at that early period, the forest industry expectation was that along the second quarter of 2020 that export would continue, mainly to some Asian countries due to a greater control of the pandemic in those regions that would allow gradually resuming the economic activities (STCP, 2020).

The export prices for the Brazilian solid wood products declined slightly in the first semester of 2020. However, the effect on the exports was small, as a result of gains of competitiveness in the international market taking advantage of the currency depreciation, generating, to some extent, a false perception of the impact of the pandemic on business. The analysis of the exchange rate fluctuation indicates that the depreciation of the Real currency in recent months is partly the result of a short accommodation of domestic political and economic factors. In real terms, the current exchange rate is equivalent to that of 2005. In any case, it is very likely that in the medium term the exchange rate will be again adjusted to a new level, below the current level, which will affect the exports of the Brazilian solid wood products (Tomaselli, 2020b).

The Brazilian Forest Service (SFB) adopted measures to mitigate the economic impacts caused by the COVID-19 pandemic in the forest concession contracts. The SFB postponed the quarterly payment due for forest production aiming to release the burden on the concessionaires and to maintain jobs and the financial health of companies. The other measure adopted to mitigate the impact involved a Brazilian Development Bank (BNDES) emergency credit line, created to support small and medium-sized companies to overcome the economic crisis caused by the COVID-19 pandemic (SNIF, 2020).

The measures adopted by SFB postponed the collection of approximately R$ 4.8 million in concession fees, from April to December 2020. All forest concession contracts will benefit from the postponement of payment of the quarterly installment 01/2020 and no fee adjustment will be applied (SNIF, 2020).

ii. Livelihoods of Forest-dependent People, Indigenous Peoples and Local Communities

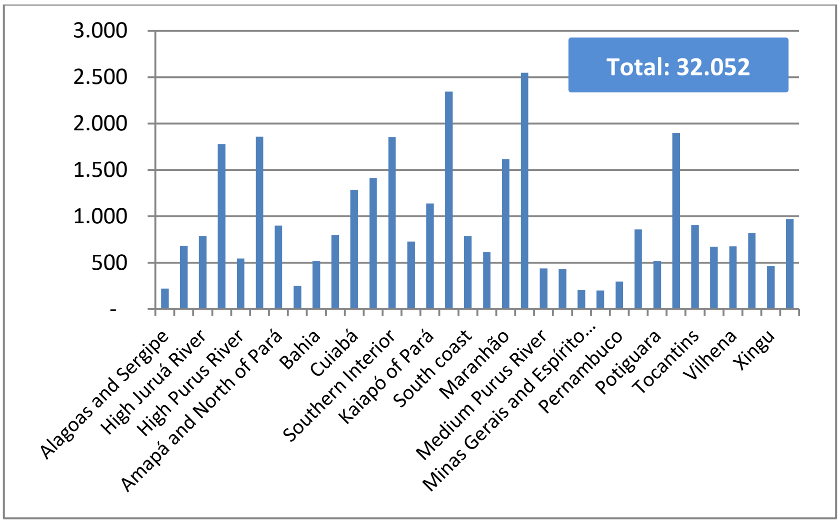
Traditional communities, involving approximately 5 million people, according to data from the United Nations Development Program (UNDP), occupy a large part of the Brazilian national territory. These people have their own ways of organizing themselves socially, are culturally differentiated and recognize themselves in that way (OXFAM, 2020). A large part of indigenous people live in collective houses and it is common among many of them to share utensils, such as bowls, spoons and other objects, which favors situations of contagion.

Indigenous people are, in general, more vulnerable to epidemics due to the precarious social, economic and health conditions, which increase the potential for the spread of diseases. Other particular conditions also affect these populations, such as the difficulty of accessing health services, either due to geographic distance, or due to the unavailability or insufficiency of health teams.

In Brazil, since the creation of the National Indigenous Foundation (FUNAI) in 1967, different government institutions and agencies have taken responsibility for assisting indigenous peoples. In 1999, this policy changed, resulting in the creation of the indigenous health subsystem of the Unified Health System, organized in 34 Special Indigenous Health Districts (DSEI). In 2010, the Special Secretariat for Indigenous Health (SESAI) was created, under the Ministry of Health. The Unified Health System subsystem was created to assist indigenous health suffers from a lack of structure and resources for the treatment of more severe complications, such as the COVID-19 pandemic (SOCIOAMBIENTAL, 2020).

Based on the Special Secretariat for Indigenous Health (SESAI), figure 1 and figure 2 present the number of confirmed cases and deaths of indigenous people in Brazil, respectively, caused by the COVID-19, as of October 2020.

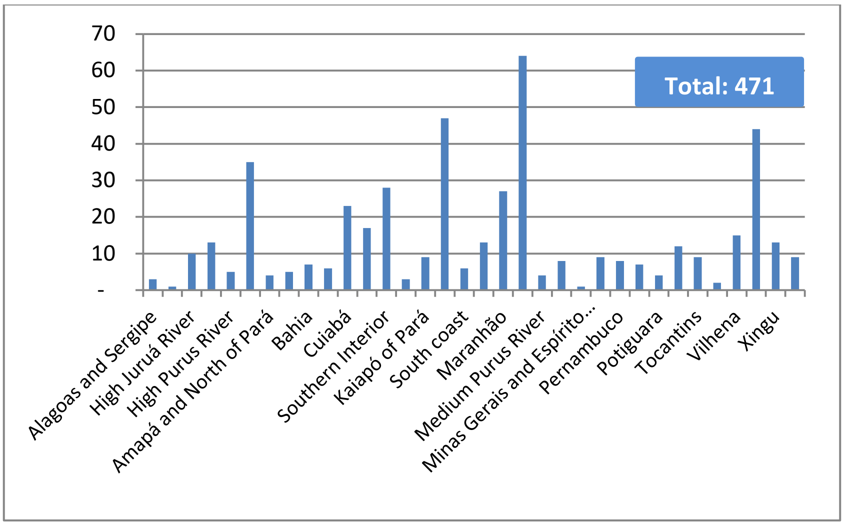
Figure 1 – Confirmed cases of COVID-19 per DSEI (Indigenous Populations) as of October 2020



Source: SESAI, 2020

Another relevant vulnerable group is the Quilombola Communities (afro descendent communities). Until August 2020, the epidemiological bulletin developed by the National Coordination of Articulation of Black Rural Quilombola Communities (CONAQ), pointed out 151 deaths and more than 4 thousand cases of COVID -19 among the quilombolas. Without access to adequate health services, they travel long distances to find a place to be assisted (OXFAM, 2020).

Figure 2 – Confirmed deaths of COVID-19 per DSEI (Indigenous Populations) until October 2020



Source: SESAI, 2020

In July 2020, the federal government of Brazil signed Law 14.021/2020, which establishes actions to contain the progress of COVID-19 among indigenous, quilombola, artisanal fishermen, and other communities and traditional Brazilian peoples. This Law establishes specific sanitary and epidemiological surveillance measures to prevent the contagion and spread of COVID-19 in indigenous territories and other communities, and creates the Emergency Plan to Combat COVID-19. It provides for food security guarantee actions, measures related to isolated indigenous peoples and of recent contact during the pandemic, stipulates measures to support quilombola communities, artisanal fishermen and other traditional peoples and communities to combat Covid-19 (CIMI, 2020).

Some provisions involving quilombolas, however, were vetoed by the federal government, including guarantee access to drinking water and differentiated offer, in an emergency, hospital beds and intensive care. In addition, other provisions vetoed include the release of emergency funds for indigenous health, the distribution of basic food baskets, and the creation of a specific credit program for the Plano Safra 2020 (credit line for farmers) and the facilitation of access to emergency assistance in remote areas (CIMI, 2020).

In the midst of a pandemic, invasions of indigenous lands bring the extra risk of contamination of villages and entire people. Among the measures cited by the Federal Public Ministry – MPF and by indigenous organizations, such as the Articulation of Indigenous Peoples of Brazil (APIB), are the protection of indigenous territories and actions for the immediate removal of miners, loggers and land grabbers and other invaders from traditional lands (CIMI, 2020).

Additionally, the economic impact on traditional peoples is underlined, since indigenous communities that are closer to cities are more dependent on urban life, where they study, work, sell handicrafts and other products from the forest (VALOR ECONÔMICO, 2020).

iii. Forest Industries and Domestic / International Demand for Forest Products and Services

Through a questionnaire applied by Brazilian Association of the Solid Wood Industry (ABIMCI) in October 2020, involving member companies was possible to obtain a general picture on the effect of COVID-19 in the forest industry operations in Brazil and in the domestic / international trade of forest products. The main findings were:

- The domestic market declined in March and April, mainly as a result of uncertainties created by the pandemic, which reduced the national economic activity as a whole. In general, there was a reduction in demand, with reprogramming of orders;
- Because of reduction in the demand, industrial operations were generally reduced. In the case of panel production (especially MDF and particleboard), most industrial operations came to a standstill. It is estimated that, as a result of the partial industrial shutdown, the reduction of reconstituted wood panel production in Brazil along April and May was approximately 300 thousand cubic meters;
- In June, the market started to show signs of recovery and, it is estimated that at that month the industrial production reached about 50% of the pre-pandemic level. In July, industrial production returned to 100% of normal to meet a growing demand, which has been maintained for the rest of 2020;
- Currently, due to the high demand from the civil construction and furniture industry, even operating at maximum capacity, the forest industry has not been able to replenish stocks, especially of wood panels. Furniture industry is also facing limitation on the supply of accessories, chemicals, metals, packaging material and other components;
- Exports began to show signs of decline between January and February, caused mostly by the lack of new orders from China and other Asian countries, one of the main markets for the Brazilian forest products. At that period exports to Europe and USA were practically not affected. China resumption in imports took place in the April-May period;
- European imports signaled a decline in March, mainly to Italy and Spain. Imports from other countries were little affected, with a small reduction from April to May. In the case of the United States, another important destination of Brazilian timber products, imports of the Brazilian product increased over the second quarter, mainly as a result of the reduction in American domestic production;
- Overall, exports increased gradually in the last six months, both in terms of volume and value, from May-June 2020. The expectation is that the domestic and international forest products market will return to normal along the last months of 2020 was confirmed, and along 2021 prices and demand will be stable.

The domestic demand of forest products is growing based mainly on the civil construction, furniture and packaging industry. The international trade indicators are also positive and are spite of the fact that some products faced some exports reduction, on the overall the demand is growing. Comparing August 2020 to the same month in 2019, exports of tropical plywood grew 98%, pine plywood 45% and pine sawnwood 68%. Certainly, the reduction in the domestic demand of forest products along the early stages of the pandemic, associated with the depreciation of the Brazilian currency favored exports (Tomaselli, 2020d).

As in the case of other countries of the region, the COVID-19 pandemic not only affected the forest operations and the timber industry but also wood products trade. Forests in Brazil are important for timber production, but also for non-wood products (including food such as acai palm, Brazil nuts and others) as well as services such as ecotourism. In some regions non-wood forest products and services are important source of revenue for local population.

Açai palm is an important food product for local consumption, but over the past few years it gained the national and international market. The activity involves hundreds of people in harvesting the acai palm seeds, processing and trade, and is an important source of revenue for local population. There is no detailed information on the effect of COVID-19 pandemic on the production and trade of Açai.

In any case, information available points out that at early stage of the pandemic this activity was almost fully paralyzed.

As in the case of Argentina, ecotourism was severely affected in Brazil. Ecotourism in Brazil involving the Iguazu National Park, is an example. Located in the south region, at the border with Argentina attracts millions of national and international visitors every year. The park remained closed for more than six months, which seriously affected economy of the regions involving hotels, restaurants, transportation and other tourist supporting services. This reduced employment and revenues especially of local population.

iv. Labor Market and Employment

The unemployment rate in Brazil reached a record 13.8% in the quarter referring to May to July 2020, reaching 13.13 million people, with a closing of additional 7.2 million jobs in three months (G1 – GLOBO, 2020).

The Federal Government established a Provisional Measure MP Nº 936/2020, converted into Law Nº 14.020/2020, which institutes the Emergency Program for Maintaining Employment and Income. This was the main government measure to mitigate the impact over the affected labor market in the pandemic period. Among the measures of Law Nº 14.020/2020 are the payment of an Emergency Benefit for the Preservation of Employment and Income, and options to make more flexible the labor regulation allowing, for instance a proportional reduction of working hours and wages and temporary suspension of the employment contract.

According to the National Forum of Forest Based Activities (FNBF), in the north region of the country, at early stages of the pandemic industries have given collective holidays and/or canceled workers' contracts, and were forced to stockpile raw materials and finished products. An example is the Paluchowski family timber company, located in Sinop, Mato Grosso State. In view of the reduction in demand and limitations of operations resulting from the COVID-19, the company adopted the alternative given by the Provisional Measure (MP) Nº 936/2020 and suspends working contracts for 60 days.

In Santarém, Pará State, there is another example. In view of the effect of the pandemic on the demand, the timber company owned by Liceu Veronese decides to have a collective vacation strategy for the large majority of their employees. In addition to having suspended veneer sales, the industry also stopped getting payment for products already sold (AGRO EM DIA, 2020).

v. Forest Financing and Investment

The Brazilian government created a set of specific credit lines to support financing the economic activity along the COVID-19 pandemic period. Most of the measures supported small and medium size companies. Other measures to ensure the economic survival of companies, and employment, included for instant the postponement of payment of taxes

In Brazil, rural producers, cooperatives and agroindustry committed R$ 73.8 billion in three months of the Plano Safra 2020/2021[1] to finance agricultural, forestry and fishing activities. The favorable performance of rural credit reflected an increase of 28% in relation to the same previous period. Favorable market conditions, domestic and international, resulting from the growth in demand, high exchange rate and agricultural prices, were considered by policies to support rural producers, and explain the sharp growth in demand for rural credit, notably for investments (OCEPAR, 2020).

[1] Credit line Safra Plan (Plano Safra) was created by the Federal Government, which covers the services of Technical Assistance and Rural Extension, credit, production insurance, price guarantee, commercialization and economic organization of families living in rural areas. Launched annually, effective from July to June of the following year (a period strategically chosen from the Brazilian agricultural harvest calendar), the Plano Safra is a source of incentive for Brazilian rural producers.

The National Monetary Council (CMN), through Resolution Nº 4.810/2020, approved a series of measures to reduce bureaucratization in the granting of financing to rural producers. The measures were adopted on an emergency basis, due to the crisis caused by the COVID-19 pandemic, which restricted the movement of people with social isolation.

In addition, some special credit lines were created to help rural producers during the pandemic period: special credit line under PRONAF (National Program for Strengthening Family Farming), special credit line at PRONAMP (National Support Program for the Medium Rural Producer); Emergency FNO (Northern Constitutional Fund) with interest of 0.21% per month and differentiated conditions (BASA, 2020).

3.3.4 – CHILE

i. Forest Sector and Sustainable Forest Management

Based on news published in August 2020, the forestry and timber industry in Chile was working at a production level of around 85%, with extreme health care, with evident impacts on world trade and in particular on the forestry sector, where there is a lag of impact in relation to other productive activities (LOGINEWS, 2020).

The Chilean government defined that pulp and paper companies, paperboard and derived products could remain in operation, with the necessary licenses so that their work was not interrupted during the COVID-19 pandemic. The production of pulp derivatives plays an important role at the domestic level and at the health level. Therefore, forestry production was considered an essential activity to maintain the supply of hygienic products such as baby wipes disposable wipes, toilet paper, clinical clothes, masks and sanitary clothes for hospitals, cleaning materials, medicines and food packaging, among others (DIARIO EL CENTRO, 2020).

Harvesting and transportation activities, most often carried out by small and medium-sized companies, continued to operate normally. Transport volumes have been affected due to decreased production, and due to the “sanitary cords[2]”, changes in route and blockages in some cities and villages (CORMA, 2020).

In the forestry sector, companies involved in importing, for example, should operate with partial capacity, and it may recover quickly. In addition, as suppliers of forest producers are small and medium-sized enterprises (SMEs), is expected a shortage of local production due to the bankruptcies of the small-sized companies (CONAF Chile questionnaire, 2020)

Through the Economic Reactivation Program for small and medium-sized forest companies, preventive and sanitary management of native forest, afforestation and recovery of forests affected by forest fires or climate change, will be carried out on 24 thousand hectares in the period 2021-2022. As result, the program will help improving the condition of direct income of more than 2 thousand households, involving almost 9 thousand people, and will directly contribute to the restoration of the economic income of this target group and the revitalization of local economies (CONAF Chile questionnaire, 2020).

Currently, the forestry sector contributes to 2.1% of national GDP, around 9% of total exports, generates 121 thousand direct jobs and about 180 thousand indirect jobs. This adds up to more than 300 thousand people who work and develop their lives around the sector, so this is expected to be a key element for the country's economic reactivation (IFSA Chile questionnaire, 2020).

[2] Sanitary cords: these barriers are implemented depending on the contingency, aiming at refraining people from entering or exiting certain areas. Accordingly, from May 8 onwards, new sanitary barriers have been established at Metropolitana Region, towards Viña del Mar and Valparaiso.

ii. Livelihoods of Forest-dependent People, Indigenous Peoples and Local Communities

In the context of the health and economic crisis that Chile and the world are experiencing, indigenous or native peoples are one of the most vulnerable groups in the face of the impacts of the COVID-19 pandemic and the resulted economic crisis, due to various social inequalities they face. This is added to the overload of diseases they face, such as the high rates of diabetes and hypertension because of the dietary changes caused by the territorial reduction.

Likewise, given Chile's economic, social, and cultural inequalities, the effects of poverty and unemployment will disproportionately affect indigenous or native peoples who inhabit both rural and urban areas.

According to the 2017 Census, the indigenous peoples in Chile represent 12.8% of the country's total population, which means approximately 2.1 million people, with the Mapuche people being the most numerous (1.7 people). Likewise, there is a trend in the progressive increase of the indigenous urban population. The same study shows that 87.8% live in urban areas (Comunidad Indígena Yagán, 2020).

Since the start of the COVID-19 pandemic in Chile, indigenous organizations have requested epidemiological information from the government and the Ministry of Health to learn about the impact on their communities and, also, that the right to participation and prior consultation be respected in all response plans in their territories, but the data is insufficient.

Table 4 shows confirmed cases of COVID-19 in July/2020 among indigenous peoples in Chile (CIIR, 2020).

Table 4 – Confirmed cases of COVID-19 on indigenous communities in Chile (as of July/2020)

Community	Confirmed cases
Arica	2.721
Putre	28
Calama	5.450
Pozo Almonte	508
Copiapó	991
Tierra Amarilla	99
Taltal	99
Los Vilos	74
Isla de Pascua	5
Talca	1.635
Alto Biobío	167
Saavedra	99
Pucón	72
San Juan de la Costa	42
Cabo de Hornos	22
Total	12.012

Source: CIIR (2020).

iii. Forest Industries and Domestic / International Demand for Forest Products and Services

Between January and August 2020, Chile's forestry exports totaled USD 3.2 billion, registering an 18% decrease compared to the same period in 2019, when USD 3.95 billion were shipped, according to the Chilean Wood Corporation (CORMA). In August, forest products exports totaled USD 425 million, registering a decrease of 14% in relation to the same month of 2019 and of 2% in relation to the previous month.

Forest exports in June 2020, for example, fell by 8.1% in relation to the previous month, totaling USD 410 million, according to the Forestry Institute (INFOR). Both China and the United States are the main destinations for the country's forest products exports and have registered significant declines in their demands. China, which represents 30% of shipments, registered 28% less purchases, while the United States, with 18% share, reduced their imports by 10%, compared to the first half of 2019 (CONAF Chile questionnaire).

On total forest exports along the first half of 2020 decreased in most of the exported products, especially bleached pine pulp, in which sales totaled USD 407 million and a 33% drop in the first half of 2020. Over the same period bleached eucalyptus pulp with sales reached USD 502 million, a 28% decrease. The group of sawnwood, planed wood and glued panels, among others, had a 22% drop in the first half of 2020, followed by plywood in which sales fell 17% as compared with 2019. Wood chips exports were less affected, showed an increase in exports until May 2020, and in June a slight drop of 1%. Coated multilayer cardboard grew 19% compared to January-June 2019 (CONAF Chile questionnaire, 2020).

It is noteworthy that in terms of wood pulp, three of the four largest pulp-exporting countries, Brazil, the United States and Chile, increased their shipments between 12% and 26% in March month-on-month. The five top importing countries all purchased more pulp in March than in February 2020, with China and South Korea increasing their volumes the most (40% and 29% respectively) (GWMI, 2020)

Although in the beginning of the COVID-19 pandemic there was an increase in orders for timber for civil construction, in the following months the demand tended to be flat. Given the variability presented by the economic and health scenario worldwide, the Chilean forest sector fells to be difficult to anticipate how the demand for forest products will evolve in the coming months (Portal Portuário, 2020).

The health crisis has severely affected construction activity in Chile. Apartment sales, for instance, are projected to fall more than 70% during the second quarter of 2020, while housing sales in general are expected to fall over 60% in the same period. The fall in real estate activity in the United States has been reflected in a lower external demand from Chile materials for housing construction, such as wood, whose participation in the housing construction varies between 21% and 34%. This explains, in part, the drop observed in industrial exports of forest products including wooden furniture over 2020 compared to 2019, whose main destination is the United States (Diario Futrono, 2020).

iv. Labor Market and Employment

Companies in the forest sector have acted preventively, which has meant prioritizing job to their workers, establishing alternate work schedule shifts, performing administrative work from the home office, reducing the "density" of workers in various ways to promote social distance, establishing transportation with fewer passengers, applying sanitary protocols in factories and in the forest. On the overall these measures meant working and producing at a slower pace.

The Araucanía region, a forestry-industrial hub in Chile, employs approximately 35 thousand people, directly or indirectly. Approximately 20% of workers are employed in large companies and 80% in SMEs, which shows the relevance of forest and timber-related SMEs in the sector, and they were the mainly affected by the COVID-19 pandemic (CORMA, 2020).

Unemployment in Chile rose to 13.1% in the quarter ended in July 2020 and returned to the highest level in a decade, driven basically by the impact of COVID-19 on the economy, according to the National Statistics Institute (INE). It is the highest percentage in the whole series since 2010, registering an increase of 5.6 percentage points in twelve months (EL MOSTRADOR, 2020).

A Labor Protection Law was created to protect the workers, allowing them access to unemployment insurance benefits, with the main measure being the suspension of the employment contract by an act of authority (quarantine). In addition, an Emergency Family Income (IFE) was created, which corresponds to economic aid for households that receive insufficient formal income or informal workers, and whose resources have been reduced because they cannot work due to the COVID-19 pandemic (CONAF Chile questionnaire, 2020).

v. Forest Financing and Investment

In Chile, a credit granting initiative aimed at economic recovery during the pandemic period was proposed, the Guarantee Fund for Small Entrepreneurs (FOGAPE), managed by the federal bank. The main objective was to make available to micro, small and medium-sized companies and companies with annual sales of up to) 1 million UFs (Chilean Development Units), new credits to generate the liquidity they lack in times of crisis, especially the crisis caused by COVID-19.

3.3.5 – COLOMBIA

i. Forest Sector and Sustainable Forest Management

In a questionnaire applied to the National Federation of Wood Industry (FEDEMADERAS – Colombia - Federación Nacional de Industriales de la Madera), it was found that in general, all forest activities were affected by the COVID-19 pandemic, including forest management, forest-base industry, logistics and trade.

The main activities affected during the pandemic are the proper functioning of environmental authorities in the country, especially those related to the monitoring of actions for the formulation of forest management and management plans, as well as field monitoring of requests for the sustainable use of natural forests. Similarly, the processes of forest governance and capacity buildings of the communities that live on the forests have been affected. Several works related to the forest supply chain (wood and non-wood products) were affected by the pandemic (Cancillería de Colombia questionnaire, 2020).

ii. Livelihoods of Forest-dependent People, Indigenous Peoples and Local Communities

In the Colombian Amazon, the number of confirmed cases among indigenous people reached 18 thousand, resulting in more than 600 deaths as of October 2020. The survey comprises the departments of Amazonas, Caquetá, Guainía, Guaviare, Putumayo, Vaupés, Arauca, Casanare, Vichada and Meta (COICA, 2020).

iii. Forest Industries and Domestic / International Demand for Forest Products and Services

Colombia exports are highly dependent on natural resources. About 75% of the value of exports is made up of raw materials, mainly petroleum and its derivatives (NACIONES UNIDAS, 2020b). Forest products are important mainly for the domestic market, but have a relatively small contribution to exports.

The National Federation of Wood Industry of Colombia (FEDEMADERAS) conducted a survey on the impact of COVID-19 pandemic on the forest industries (FEDEMADERAS, 2020). The survey was carried out during the period June-July, 2020. The main findings are summarized below:

- Of those surveyed companies 34% reported a decrease in their sales by more than 50% and 43% reported a smaller decrease (less than 30%). Around 20% of the companies mentioned not to have faced a decrease in their sales between March and July 2020;
- The large majority, 91% of those surveyed companies, have already resumed their normal production activity by the middle of the year. Only 19% said they were operating below 40% of normal capacity;

- Of those surveyed companies 17% expressed to have negative expectation of economic performance along 2020 and 69% expect a slow recovery. Only 7% expect that economic recovery will take place within a short period. A significant portion (41%) considers even that the pandemic created an opportunity in their immediate future.

The most affected segments of the Colombian forest sector were the sawmilling, furniture and other value added products industry. The value-added industry was among the last segments of the economy to have restrictions lifted according to by provision of the National Government, which happened in May (Decree nº 636/2020).

According to the Cancillería of Colombia, the forest-based industries reduced their labor force. The opening hours of the manufacturing sector for non-essential goods were restricted between 10am and 5pm, affecting the performance of small and medium-sized companies, which are the large share of forestry companies in Colombia.

iv. Labor Market and Employment

The Colombian National Government created the Formal Employment Support Program (Decree 639/2020), as a social program of the State that will grant the beneficiary of the same a monthly monetary contribution from the government, to be paid in three installments, in order to support and protect the country's formal employment during the COVID-19 pandemic.

Between March and August, the unemployment rate was 18.4%, compared to 10.4% that the index reported in the same period of 2019, which meant that the COVID-19 caused an increase of 8%. As for the unemployed total country population, while between March and August 2019 there were 2.58 million people, this year it rose to 4.13 million (LA REPUBLICA, 2020a).

v. Forest Financing and Investment

In Colombia no specific measure has been identified to support financing and/or forest investment. However, the 'Colombia Emprende Innova' credit line was proposed to be expanded. The companies benefiting from this credit line belong to the transportation and storage, information and communications, manufacturing industry and wholesale trade (ALIDE, 2020).

3.3.6 – COSTA RICA

i. Forest Sector and Sustainable Forest Management

The National Forestry Office (ONF - Oficina Nacional Forestal) with the Forest Research and Services Institute (INISEFOR - Instituto de Investigaciones y Servicios Forestales) of the National University (UNA - Universidad Nacional) requested information and collaboration of forest sector stakeholders on aspects related to the impacts of the health emergency situation due to COVID-19 in Costa Rica.

More than 80% of those surveyed faced a decrease in their operations. Specifically, 63% have had to reduce working hours and 33% indicated they resorted to dismissing staff. In addition, a significant portion indicated that they have had to make changes in customer service hours, among other measures, such as teleworking and the reduction of physical space.

Forestry activities, including forest plantations, forest management, as well as their sustainable use have the potential to generate employment that is needed in rural and coastal areas, without requiring large investments. The demand declined, but as wood is a non-perishable commodity, it was mentioned that harvesting can wait and on a long range the impact of the pandemic can be mitigated (ONF, 2020).

ii. Livelihoods of Forest-dependent People, Indigenous Peoples and Local Communities

Costa Rica recognizes eight indigenous peoples: Bribri, Brunka, Cabécar, Chorotega, Huetar, Ngöbe, Maleku and Térraba, with a total of 24 territories created through executive decrees. They are located in 6 of the 7 provinces that make up the country, and with land tenure of approximately 350 thousand hectares, representing 7% of the total national territory. According to the National Institute of Statistics and Census (INEC) of the year 2011, the Costa Rican indigenous population was 104 thousand inhabitants of which 51.7 thousand were women (49.65%) and 52.4 thousand were men (50.35%), which represents 2.4% of the national population of 4.3 million 2 inhabitants (FILAC - FIAY, 2020).

The Government of Costa Rica published recently the Technical Guidelines for the prevention of COVID-19 pandemic in indigenous territories and the Action Plan to address the issue in indigenous territories. These include strategic measures to prevent the spread of COVID-19 in the 24 indigenous territories of the country, taking into account the vision of indigenous people on health matters and the knowledge of their ancestral medicine (NACIONES UNIDAS, 2020).

Until June 2020, in Costa Rica there was no reported case or death from COVID-19, in any of the 8 indigenous peoples and their 24 territories. There is growing concern in the territories that are located on the southern and northern borders, and territories that are crossed by the southern inter-American route or highways with regular traffic, since many people from abroad and from national places are circulating through their lands, where the risk of contagion is high (FILAC - FIAY, 2020).

iii. Forest Industries and Domestic / International Demand for Forest Products and Services

The National Forestry Office of Costa Rica (ONF – Oficina Nacional Forestal) carried out a study on the wood consumption and supply / demand of forest products in the country during the pandemic. A summary of the findings are the following (ONF, 2020):

- For 94% of those surveyed, because of the COVID-19 pandemic the consumption of wood in the national market has decreased. The main reason was associated to a reduction in the civil construction industry, associated to shrinkage in the demand for furniture or other finished products. It was also made reference to a decrease in the national demand for wooden pallets;
- A significant portion, 40%, indicated that during the month of March 2020, they completely stopped domestic sales of forest products. In the following months, a decrease in demand was faced, but wood market prices have increased in some cases up to 50%;
- Among exporters 64% indicated that their sales of teak wood or other species to India, China, Vietnam, and the United States has decreased during the early stages of the pandemic. Additionally, 50% assure that they have experienced logistics difficulties when exporting because some ports were closed.

Ecotourism is an important economic activity for Costa Rica. Natural beauty has attracted an enormous quantity of international visitors, and Costa Rica has been able to provide quality services and efficiently, promoting ecotourism. This has been an important activity to generate employment and revenue. There is still no detailed information on the effect of the COVID-19 pandemic on this activity, but a strong reduction of the flow of international visitors to the country affected the ecotourism activity.

iv. Labor Market and Employment

Given the high unemployment rate faced by the country (over 24%), released by the National Institute of Censuses and Statistics (INEC), the Government presented a set of actions aimed at assisting and improving employment in face of the impact of the COVID- 19 pandemic (MTSS, 2020).

According to the INEC analysis for the quarter between May and July, the unemployment rate increased 12.9 percent and 270 thousand people were affected. The increase on unemployment was higher among women (MTSS, 2020).

v. Forest Financing and Investment

Costa Rica introduced financing for environmental related projects to mitigate the impact of the COVID-19 pandemic. The initiative opened three financing options, one of which is a line of up to approximately USD 8,700, with a ten-year term and a fixed rate of 4% per year, for the development of production, working capital, infrastructure, equipment and innovative projects related to the forest.

The Government of Costa Rica and the United Nations Development Program (UNDP) have also launched the "+Mujeres + Natura" Program, which offers financing options for women entrepreneurs and environmental managers to face the economic impact of the COVID-19 pandemic. The program aims to strengthen women's economic autonomy, address gender gaps in nature management and move forward in meeting the Sustainable Development Goals - SDGs (EL ECONOMISTA, 2020).

3.3.7 – ECUADOR

i. Forest Sector and Sustainable Forest Management

In order to contain the dissemination of COVID-19, the Government of Ecuador established Decree nº 1.017/2020 in March. It sets out the closure of public services, except for health, safety, risky services and those that, emergency ministries decided to keep open. One of the exceptions is the export-oriented production chain, including forestry activities.

In Ecuador, the forest sector tends to be cyclical, so, by restricting activities, industrial and artisanal production was affected, involving changes in the trade and in the supply/demand. The main activities that had an impact of the pandemic in Ecuador were:

- Forest management: forest plantations companies reduced forest management activities because labor was not available or was limited by restrictions imposed;
- Industry: the limited number of personnel available or allowed to access the industrial facilities affected the production of the companies;
- Trade: local market demand for processed and semi-processed forest products declined;
- Logistics: along the early stages of the pandemic, transportation of all goods was affected.

On the overall, all economic activities in Ecuador were affected, some more intensely than others. The forestry companies trading in the international market were not restricted by the government regulations. Nevertheless, there were restrictions on circulation of goods imposed by some municipalities. Also several forest products exporting companies had to stop their operations, partly due to restrictions imposed in importing countries. The companies trading products in the local market had to close their operations in March 16, 2020 and were only able to partially restart in May, but only for products that support the emergency (AIMA Ecuador questionnaire, 2020).

According to information provided by the Sustainable Forest Management Corporation (COMAFORS - Corporación de Manejo Forestal Sustentable), all domestic trade of forest products was closed, based on government imposed regulations, for a period of 75 days. Permission was given only to the sale and manufacture of coffins, which were enabled to meet the demand for these products during the COVID-19 pandemic. Plywood exporting companies were an exception; they have operated at 100% of their capacity and the reconstituted panel industry (MDF and particleboard) at a 50% level.

ii. Livelihoods of Forest-dependent People, Indigenous Peoples and Local Communities

The indigenous people of Ecuador, mainly from the Amazon region, are quite vulnerable. They have limitations to access health services, and also to have access to water and sanitation. The internal dynamics linked to the high mobility imposes a high risk. The mobility involves mainly young people moving between cities and rural areas, and between communities. There is also transit in communities lands of third parties, involved on mining, oil and forestry, were not stopped with the COVID-19 pandemic, despite the quarantine and restrictions on mobility (VALLEJO & ÁLVAREZ, 2020).

In the Ecuadorian Amazon region, the number of confirmed cases among indigenous people in the region reached at the middle of last quarter of 2020 more than 3 thousand people, with over 100 deaths. The affected peoples, according to this survey, were: Kichwa, Achuar, Siekopai, Shiwiar, Siona, Shuar, Waorani, Ai Kofan, Andwa y Sapara (COICA, 2020).

There is no any specific measure directed to forest-dependent people. The measures adopted are common to all economic sectors in Ecuador (MAAE Ecuador questionnaire, 2020).

iii. Forest Industries and Domestic / International Demand for Forest Products and Services

Sanitary and lockdown measures paralyzed about 90% of companies in the forest industry in Ecuador. The effects of the COVID-19 pandemic caused a shortage of raw materials for the primary industry, as the restrictive measures imposed suspension of sawmill operations, added to the scarce available workforce, caused the reduction of production volumes, affecting the constant supply flow of the secondary wood processing industry.

The volume of wood mobilized in 2020 fell in relation to 2019, mainly in the months of March to December (AIMA Ecuador questionnaire, 2020).

Exports, on the other hand, fell only in the months from March to July, showing recovery from August. Exporting companies could continue to operate, according to the exceptions stipulated by the authorities. However, several destination markets have been closed or restricted, due to measures adopted in the different countries to which forest products are exported. However, there were also markets whose economic activity did not stop, allowing companies to maintain an acceptable flow in exports, despite the logistical problems inherent in the uncertainty generated by the measures and its application (AIMA Ecuador questionnaire, 2020).

When analyzing the sector's revenue, both 2019 and 2020, the turnover was lower than in 2018. Total revenue was USD 1.36 billion in 2018, while in 2019 it was USD 1.32 billion, representing a drop of 2.8%. In 2020, total revenue until September was USD 1.06 billion (AIMA Ecuador questionnaire, 2020).

Each segment was affected at different levels or at different times. Despite the significant reduction in the Paper and Paper Products segment, with just over USD 96 million less than 2019, its share in the sector grew, while the Furniture Sales and Furniture Manufacturing sectors decreased 1% and 4%, respectively. Sales in the Furniture sector had a reduction of USD 146 million in revenue until September 2020, compared to the same period of 2019. On the other hand, silviculture/forestry had a growth of USD 20 million during 2020, increasing 3%. Wood production and manufacturing with just over USD 39 million less than in the previous year, its share in the timber industry grew by 1% (AIMA Ecuador questionnaire, 2020).

The primary and secondary forest industry involved in the production for civil construction materials and furniture products was very affected, and a drop of 33% drop in sales in the annual consolidated data is reported. There was no significant drop in prices, but informality increase in both the primary and secondary sectors, which poses a major problem in the sector (COMAFORS Ecuador questionnaire, 2020).

In general, due to a reduction in demand at a global level, there will be a drop in prices, except for the demand for balsa wood (Ochroma pyramidale) species from China has increased (Criterios Digital, 2020; MAAE Ecuador questionnaire, 2020). The demand generated in this market and the reputation of Ecuadorian balsa wood has pushed for an increase of orders, to the point that exports from the sector are expected to set a new record in 2020. In the first half of this year, the peak has already been exceeded the 2019 exports, which were USD 219 million. The Asian market, in which China is the main buyer, represents 78% of these exports. China is demanding more Ecuadorian Balsa wood for the construction of wind energy projects. Balsa wood is being used as one of the components in the manufacturing of blades for the wind turbines (EL UNIVERSO, 2020). It should be noted that in the Ecuadorian Amazon the problem of deforestation for balsa planting is increasing, becoming a social and environmental problem (MAAE Ecuador questionnaire, 2020).

Since the global health crisis due to COVID-19 pandemic, Ecuador closed tourism activities in the country's protected areas to safeguard the health of citizens, indigenous populations and personnel in these areas, which also meant an opportunity to assess the effects of confinement on wildlife (TRT, 2020). In a May 2020 analysis, the government estimated that losses in Ecuador's tourism sector if the crisis continued for another 90 days would be approximately USD 540 million (OECD, 2020).

iv. Labor Market and Employment

In Ecuador, unemployment reached about 1 million people in June 2020, a number considerably higher than in June 2019, where 366 thousand people were unemployed. From June to October 2020, unemployment rates decreased, while formal employment grew (EL COMERCIO, 2020)

The figures reflect that the Economically Active Population (EAP) increased by about three (3) points: from 7.6 million people in June to 7.9 million in September. Important news is that between June and September 2020, the number of unemployed decreased from 1 million (13.3% of the EAP) to 522 thousand (6.6%). In other words, unemployment has halved in just three months, showing signs of economic recovery in the country (CORONAVIRUSECUADOR, 2020)

The Ministerial Agreement MDT-2020-077 (March 15, 2020) enables the employer to adopt the temporary reduction of the work hours/ work days/ suspension of employment contracts, that is, provides labor flexibility, without implying the termination of the employment contract. Time will be adjusted/recovered when the sanitary emergency ends (Andean Parliament, 2020).

v. Forest Financing and Investment

The government determined that the institutions of the National Financial System, especially the public banking system, to create specific lines of credit to cover payroll and working capital, with priority for the production and educational sectors.

The production credit lines, including the agricultural/forestry sector, offered by the national financial sector, was proposed to be disbursed quickly, and consider special conditions (grace periods, payment terms and preferential interest rates). These provisions were enacted through:

- Resolution No. 569-2020-F, of March 22, 2020, issued by the Monetary and Financial Policy and Regulation Council (JPRMF).
- Organic Humanitarian Support Act to combat the health crisis from COVID-19, signed on June 19, 2020.
- Executive Decree No. 1021, of March 27, 2020 for the deferral of the payment of VAT and income taxes of four business groups, including microenterprises, the tourism sector, the agricultural sector; and usual exporters of goods (Andean Parliament, 2020; MAAE Ecuador questionnaire, 2020).

- "Reactívate Ecuador" credit line, was started on May 25, 2020, for the production reactivation so that the payroll and operating costs of micro, small or medium-sized companies can be covered. The Pacific Bank (Banco del Pacífico) was the first institution to offer the loan, with rates of up to 5%, a 36-month term and a 6-month grace period (LA REPUBLICA, 2020b; MAAE Ecuador questionnaire 2020).

In order to reactivate the country's economy, since the health emergency due to COVID-19 pandemic was declared, BanEcuador invested USD 440.7 million in the 24 provinces, between new loans and obligations agreements (refinancing, restructuring and innovation) in the total of 76,694 operations. The SMEs were supported by a credit of USD 27 million, which contributes to the creation of jobs and the reactivation of the economy (MAG Ecuador questionnaire, 2020).

3.3.8 – MEXICO

i. Forest Sector and Sustainable Forest Management

The COVID-19 pandemic has impacted severely Mexico, particularly villages that carry out community forest management and that also develop ecotourism projects as part of their source of income. These traditional communities are facing the collapse of the timber market, as well as the absence of tourists (IFSA Mexico questionnaire, 2020).

Currently, more than 60% of the Mexican territory has forest cover that provides important ecosystem services. Most of the total forest areas are in possession of "*ejidos*[3]" and agrarian communities that are inhabited by 10.9 million people. In 2016, 80% of the area under forest use belonged to "*ejidos*" and communities, demonstrating the importance of community management in Mexico (WRI MEXICO, 2020).

According to Conafor, there are 2,943 *ejidos* and communities that carry out forest management. For those *ejidos* and communities in the country, that contribute to 80% of the national forest production, forestry represents their main economic activity (EL ECONOMISTA, 2020)

The *ejidos* that carry out community forest management offer to the market wood products, non-wood products and ecotourism services. As the activities had to be suspended, a great impact was faced during the peak periods of the quarantine. Additionally, the bureaucratic procedures involved to comply with regulations imposed by the pandemic, have been almost completely paralyzed the activities in the Mexican forest sector (IFSA Mexico questionnaire, 2020).

It is expected that with the resumption of the civil construction sector, forestry companies will be able to return to their operation activities and gradually increase production. Additionally CONAFOR is allocating subsidies to mitigate the COVID-19 pandemic impact and support community forest management (IFSA Mexico questionnaire, 2020).

In Mexico, all activities in the forest production chain have been affected by the pandemic, aggravated by the failure to consider forestry activities as essential in the country during the pandemic. In Mexico, there was a decrease in forest production and of the areas under authorized management. CONAFOR is discussing, within Mexico's Government, regrading the reconsideration of the forestry sector as essential due to its relations to the agro-food and civil construction industries. Also, it will promote a strategy to encourage consumption to reactivate the economy in the forestry sector. Moreover, it will give support to profitable and competitive production projects through feasibility studies, incentives and financing, through the funds that CONAFOR has with the Mexican Development Bank. Additionally, the combat to illegal logging that affects the market and price of forest products will be promoted, as weel as opportunities for the development of the forestry sector

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[3] In Mexico, *ejido* is a rural property for collective use of great importance in the country's agricultural life.

will be pursued through the Treaty between Mexico, the United States and Canada (T-MEC) (CONAFOR Mexico questionnaire, 2020).

ii. **Livelihoods of Forest-dependent People, Indigenous Peoples and Local Communities**

The Pan American Health Organization (PAHO) points out that in Mexico, until July 26, 5.4 thousand cases of COVID-29 were confirmed among traditional peoples, including 766 deaths. In addition to the impact on health, the pandemic has also affected the local economy of communities that must seek alternatives to support themselves. In Mexico, as well as in Guatemala, food product exchange practices have been resumed. The contagions reached not only the elderly people, with more number of deaths, but also the community between 35 and 50 years old (DW, 2020b).

The government of Mexico has prepared the "Guide to assisting indigenous and Afro-Mexican peoples before COVID-19", published on its website, in indigenous languages. This guide includes prevention, surveillance measures and care related to COVID-19, in the context of indigenous lands. It also has strategic mechanisms to provide counseling and support to the indigenous migrant population (GOBIERNO DE MEXICO, 2020).

iii. Forest Industries and Domestic / International Demand for Forest Products and Services

The economic crisis caused by COVID-19 pandemic affected the demand for forest products at national level. In Mexico, the forest sector was not considered an essential activity, and was paralyzed for several months due to the pandemic. This led to a reduction in the production, mainly at the community level, where many people temporarily lost their jobs or had their wages reduced (IFSA Mexico questionnaire).

Some timber industries have not stopped their activities completely, but their production was reduced due to the slow mobility, involving the supply of raw material and trade of their products. In fact, there is a general decline in sales since the second half of 2018. Sales by some companies decreased by around 30% compared to 2019, others observed a decrease in their production up to 50% due to problems in supply, and some of them had to reduce the number of employees by 50% to 60% (IFSA Mexico questionnaire). The sales that decreased the most are those of construction industry, as of March 28, 2020, sales decreased by 57% on average in the following states: Aguascalientes (60%), Mexico City (50%), Estado México (45%), Jalisco (100%), Morelos (10%), Nuevo León (90%), Querétaro (40%). Regarding sales of packaging, pallets, furniture industry and others have decreased by 44%, on average (CONAFOR Mexico questionnaire, 2020).

Besides the timber industry, non-wood products and ecotourism activities were also affected. In April 2020, forest communities involved with ecotourism had to close spaces to the public. Particularly in Chiapas, Michoacán and Oaxaca the effect on ecotourism was significant due to the decrease in their activities as a result of a strong reduction in the low flow of visitors (LA JORNADA, 2020). In other regions of the country, such as the Southeast, community companies dedicated to non-wood products, such as honey or charcoal, stopped their activities, as their main clients are hotels and restaurants on the Riviera Maya. Activities in this area were recently opened (mid-June), but the flows of tourists are far from reaching traditional occupancy levels (LA VERDAD, 2020).

In Mexico, 92% of community forestry enterprises have had insufficient cash flow to maintain their workforce and commercial operations; in the private forestry industry it represents 76% (CONAFOR Mexico questionnaire, 2020).

Director General of the National Forestry Commission of Mexico (CONAFOR) pointed out that the impacts of COVID-19 pandemic on the forest industry were differentiated. He explained that a survey of eight entities in the country showed that in the case of Chihuahua there were losses because for more than a semester the demand for materials fell considerably (LA JORNADA, 2020). Regarding the impacts of the COVID-19 pandemic in the first half of 2020, in the state of Chihuahua, which is the most important forest state in the country, forest production was reduced by up to 30% compared to the same period in 2019. Likewise, it was noticed that in the second half of 2020, in the period from July to September, production doubled from 821,671 m^3 to 1,666 m^3 (CONAFOR Mexico questionnaire, 2020).

In Michoacán State, there were impacts on the resin industry. The state produces 90% of the pine resin of the country, involving 18 companies that process the raw material. These companies have stopped their operations and cancelled the acquisition or raw material from forest producers, and around 50 thousand people lost their main source of income, according to the Mexican Civil Council for Sustainable Forestry – CCMSS (LA JORNADA, 2020 and (CONAFOR Mexico questionnaire, 2020).

iv. Labor Market and Employment

An analysis of Mexico's labor market in October 2020, involving the impact of the COVID-19 pandemic, indicates (ILO, 2020e):

- Estimated unemployment rate of 11.7% for the Economically Active Population (EAP) by the end of 2020, which would be equivalent to approximately 6 million people;
- During the COVID-19 pandemic, informal employment (in the informal sector and in the formal sector) fell to 47.7%, which represents a historic decline, a significant loss of informal jobs;
- In the first 5 months of the pandemic, more formal jobs were reduced than created throughout 2019.

According to ILO estimates, the sectors most affected were the manufacturing industries, wholesale and retail trade, real estate services and accommodation and food and beverage preparation services.

Mexico reported a loss of employment and income in the entire forestry chain, according to CONAFOR. The income from forestry activities dropped from 41%-100% in 85% of the forestry producers (CONAFOR Mexico questionnaire, 2020).

v. Forest Financing and Investment

In the first months of 2020, the Mexican economy was already showing a downward trend, however, due to the outbreak of COVID-19 pandemic worldwide, Mexico's decline of economy was accelerated (SEGOB, 2020)

Direct incentives to employment and income will be given to forest producers and workers in the forest chain, through the granting of subsidies from CONAFOR by paying an incentive per m3 of roundwood or processed wood. Also, with direct incentives for working capital to companies in the social forestry sector or certified forestry companies (CONAFOR Mexico questionnaire, 2020).

Mexico has created the Institutional Program 2020-2024 of the FND - National Financial for Agricultural, Rural, Forestry and Fisheries Development. It is a development program implemented by the Financiera Nacional de Desarollo (FND) and considers actions of immediate institutional response, with programs that allow them to obtain an additional term to fulfill their contractual commitments, as well as to obtain new financing to reactivate the economy of their communities and their workplaces (SEGOB, 2020).

3.3.9 – PARAGUAY

i. Forest Sector and Sustainable Forest Management

In Paraguay, the forest sector during the pandemic and was forced, by a government decision that imposed limitation to activities, to reduce production. This was mainly the case of the primary industry (INFONA DGPF Questionnaire, 2020). The value-added industry and trade suffered mainly due to reduction on the domestic demand. On the other hand, forest activities involving management and harvesting activities were not strongly affected by the COVID-19 pandemic.

The pandemic also affected the international trade. As borders were closed, imports and exports of forest products, as well as imports of machinery, equipment and goods used by the industry were restricted. This situation delayed or suspended investments and restricted trade (STP Paraguay Questionnaire, 2020).

Some organizations that support development programs for the forest industry in Paraguay were affected by the pandemic. On example is the Itapúa Forest Technical Training Center, operated by the forestry industry. This Center served along the COVID-19 pandemic period as lodging for the National Government employees who are required a mandatory quarantine. Normal operations pf the Center were completely stopped along most of the year 2020. Currently, it does not have people in quarantine, so the industry section has returned to normal operation. The Alto Paraná Higher Forest Technical Training Center, the forest industries section operates continuously since May, heavily reduced their operations as they faced staff limitations resulting from the pandemic (INFONA DGEEF Paraguay Questionnaire, 2020)

The COVID pandemic encouraged the development of illegal activities. Among the illegal activities that increased their market share is the charcoal production. Illegal activities, involving mainly logging, also increased in natural forests, forest reserve areas or protected areas in general (GUYRA Paraguay questionnaire, 2020).

During the pandemic, the use of fire as a tool for changing land use was notable, in particular in the Paraguayan Eastern Region, although specific cases were also observed in the Chaco region. A change in land use was observed in the forest remnants in form of patches. Forest fires were observed in neighboring areas of mechanized crops and the subsequent conversion of these areas into mechanized crops, as it occurred with 3 thousand ha in the Caazapá National Park area (GUYRA Paraguay questionnaire, 2020).

ii. Livelihoods of Forest-dependent People, Indigenous Peoples and Local Communities

In Paraguay, a large percentage of the most sensitive workforce, involving local communities and also indigenous populations, has suffered temporary losses and in other cases a definitive loss due to the closure of several companies, due to the crisis resulting from the COVID-19 pandemic. However, the government has enacted and implemented social aid programs to mitigate the impact. The program involves the donations in cash and delivery of food to the most vulnerable that somehow has alleviated the crisis generated by the COVID 19 pandemic.

In Paraguay, according to studies, 71% of families depend in some way on the forest for the use of fuelwood for cooking. Very few of these families purchase fuel wood and most of them extract from their nearest forest in the surrounding area, but fuel wood supply has not been a serious problem during the pandemic period. The program involving the promotion of forest plantations and delivery of seedlings, as an option to make available fuel wood, was continued (INFONA DGEEF Paraguay questionnaire, 2020)

iii. Forest Industries and Domestic / International Demand for Forest Products and Services

Most of the forest industry in Paraguay is located in the eastern region of the country, with a workforce of around 4 thousand persons, and the large majority is men. The installed production capacity is for the processing is almost 900 thousand m³ of logs per year, being around 60% of this volume logs come from plantations. Only 10% of the logs come from forests that belong to the industry, the large majority is from third parties.

The COVID-19 reduced the domestic demand of forest products along the first semester of 2020, but there was no impact on the exports. According to data provided by the Directorate of Forest Commerce and Industry (DCIF) in November 2020, exports of wood products grew between March and September 2020.

Data on the Paraguayan exports of forest products covering the pandemic period (March to September 2020) are presented in table 5. In terms of export volume (in kilograms), charcoal exports grew 23%, while sawnwood showed an increase of 58%. In terms of FOB value (USD), charcoal, for instance, exports grew 34% in the period, whereas sawnwood grew 97%.

Table 5 – Export of selected forest products during the period March-September (2020) in Paraguay

Value of exports (FOB/USD)								
Product	Mar	Apr	May	Jun	Jul	Aug	Sep	Var (%)
Charcoal	2.374.719	1.824.302	3.087.353	3.127.540	3.846.650	3.206.441	3.180.035	34%
Sawnwood	179.289	267.153	212.922	379.663	217.586	288.028	353.647	97%
Volume of exports (kilogram)								
Product	Mar	Apr	May	Jun	Jul	Aug	Sep	Var (%)
Charcoal	6.874.171	4.850.178	9.487.865	9.882.589	10.795.601	8.697.952	8.460.140	23%
Sawnwood	416.887	313.925	290.641	529.539	361.445	454.500	656.703	58%

Source: INFONA DCIF (2020)

iv. Labor Market and Employment

Paraguay is characterized by a low unemployment rate compared to other countries of the region. In 2019, Paraguay's unemployment rate at the national level was 6.6%, while the regional average for LAC was 8.1%. Another characteristic of the unemployment rate is the lack of clear correlation with economic cycles, a behavior that persists to a lesser extent, even with the series of growth without agriculture and binational companies (ILO, 2020f).

The employment rate in Paraguay fell 4.3 percentage points between the second quarter of 2019 and the second quarter of 2020 (from 65.9% to 61.6%), that is, 160 thousand people were unemployed. This decrease is concentrated in women, with a decrease of 6.4%, against 2.0% in men (ILO, 2020f).

In terms of measures relative to the labor market, the government has taken timely economic measures to alleviate the consequences of unemployment, approving subsidies and loans to small businesses (INFONA DGPF Paraguay questionnaire, 2020).

v. Forest Financing and Investment

In general investments in the forest sector have been restricted along the COVID-19 pandemic period, as it generated a certain degree of uncertainty. In any case the already scheduled investments were maintained (STP, 2020).

The World Bank is supporting the country to improve sustainable forest management in Paraguay and is providing immediate and effective emergency support in case of an Eligible Crisis or Emergency. The total project cost is USD 30 million.

The component 2 of the project deals specifically with “Sustainable Forest Management”, which will support sustainable forestry and forest conservation activities through grants and credits to small- and medium-scale producers, along with technical assistance in design, planning, plantation establishment, and forest management to increase private sector capacity. Subprojects financed with loan proceeds will incorporate best management practices for environmental and social protection, and certification for forest management when possible. Support will be provided for the development of a national forest sustainability certification standard and market development for

Paraguayan wood products. These measures will help set high standards for Paraguayan forestry and serve as models to the sector, producers, and potential investors and buyers. Furthermore, it will be important to mitigate the impact caused by the COVID-19 pandemic.

The project will consider the great diversity of Indigenous Peoples (IPs) in Paraguay and their specific differences in culture, language, and access to development opportunities to ensure they are equal beneficiaries of the initiative. The Environmental and Social Assessment (ESA) under the ESS1 (Assessment and Management of Environmental and Social Risks and Impacts) assessed impacts in all IPs at the national level. There are over 117 thousand IPs (1,8% of total population) belonging to 19 IPs from five linguistic families, 91% of them living in rural areas of 14 out of 18 national departments. Also, IPs are present in one of the two pilot projects areas chosen under component 3 (Naranjal), and the Project intends to include them in the SFM schemes (WORLD BANK, 2020a).

3.3.10 – PERU

i. Forest Sector and Sustainable Forest Management

A nationwide lockdown in Peru was announced on 16 March with some of the region's most stringent containment measures. Peru introduced a "gender-based restrictions model", with women were allowed to go out on Tuesdays, Thursdays and Saturdays and men on Mondays, Wednesdays and Fridays. Everyone had to stay home on Sunday.

In early stage, all activities involving the forestry and timber sectors have been stopped until further notice. Recreational activities, college classes, universities and institutes, cinemas, theaters, as well as productive activities have been closed, except those involving priority or strategic activities such as food production, health services and banking (ITTO, 2020).

In the case of forest management, based on information of the Peruvian Exporter Association (ADEX – Asociación de Exportadores) all concessions in Peru were affected, as in some areas forest management operations have been paralyzed. According to ADEX, more than 40% of Peru's forestry concessions are experiencing economic problems, considering that there has been a reduction in the demand for wood. In addition, other problems involving logistics in addition to the highly bureaucratic procedures have been aggravated by measures taken to face the COVID-19 pandemic (APNotícias, 2020).

ii. Livelihoods of Forest-dependent People, Indigenous Peoples and Local Communities

According to Asociación Interétnica de Desarrollo de la Selva Peruana (AIDESEP), by September 2020, there were over 15 thousand confirmed cases of COVID-19 in indigenous peoples in the Peruvian Amazon, and 394 deaths. The affected regions were Loreto, Amazonas, San Martín, Ucayali, Madre de Dios, Cuzco, Huánuco, Junín, Pasco and Cajamarca (COICA, 2020).

One of the impacts of the pandemic on traditional peoples is related to economic matters. An example is the Yurilamas Reserve, which covers 26 thousand hectares, of which indigenous communities using sustainable production methods and dedicated 7 thousand to the cultivation of products such as cocoa, beans, bananas, manioc and peanuts. The restrictions imposed to face the COVID-19 pandemic in transportation and other logistical activities, as well as the urgent need to protect indigenous populations from infection, resulted in a severe drop in the income of many of these communities in San Martín, which is also the third largest producing area of coffee in Peru (RAINFOREST ALLIANCE, 2020a).

The murders of indigenous leaders have also drawn attention in recent months. AIDESEP warned that from April to September 2020, five human rights defenders were murdered in the country. Among these victims, four indigenous representatives in the Peruvian Amazon are included. In addition to these crimes "threats to communities by alleged illegal agents" entering their territories were intensified to which AIDESEP indicated that "coordinated measures are urgently needed in a multisectoral way" (DW, 2020).

iii. Forest Industries and Domestic / International Demand for Forest Products and Services

Because of the COVID-19 pandemic 90-95% forest and industrial operations in Peru were, in an initial stage, fully paralyzed. The government has issued regulations where production operations in the country were limited to companies dealing with goods of first necessity, such as food, agriculture, agribusiness and large mining operations. The forest sector was not included in that category, which forced processing plants to work based on logs from last year's harvests, being limited to deliver certain products such as pallets to support agro-industrial activities (STCP, 2020).

In Peru, along the pandemic period main limitation was faced by the forest sector involve transportation. Because of logistics limitations travel time that used to take 3 to 4 days was taken up to 8 to 10 days. Trucks were frequently stopped by the "rondas campesinas" (peasant security committees), who detain the carriers due to security reasons. It was also reported that some drivers prefer rather not to work, fearing infection and because it is not profitable to return to their regions with an empty truck (STCP, 2020b).

Additionally, Forest Transportation Guides, which are mandatory documents for transportation of forest products, were not issued because the forest authority offices were closed and therefore, they cannot be sealed. Another problem faced by the forest industry in Peru was related to the logistics for the supply of spare parts for the industrial machinery and forest equipment. In all cases, protocols on social distancing and movement of persons have been strictly enforced, and this reduced the production capacity (ITTO, 2020a).

iv. Labor Market and Employment

COVID-19 arrived in Peru at a time of vulnerability in the labor market. After a period of high economic growth and job creation for a number of years, economic performance was moderate since 2017. This has resulted in a low rate of job creation, which caused a slowdown in the unemployment rate. It is estimated that 2019 would have ended with 697 thousand unemployed Peruvians, out of a total of 17 million workers, actively looking for a job (ILO, 2020c).

In the Peruvian case, the COVID-19 pandemic has resulted not only in a serious health crisis but also in the fall in the largest economic activity in the last 100 years according to various studies, with devastating effects on employment levels. Before the COVID-19 pandemic, the production sectors most exposed to risk of job loss were commerce, manufacturing, maintenance and repair of motor vehicles and motorcycles, accommodation and restaurants, which generally involves low-income jobs and in informal conditions (ILO, 2020c).

In Peru, workers included in a perfect suspension of work continued to have the benefit of the Social Health Security - EsSalud. Similarly, the private sector employer receives a subsidy of up to 35% of the gross monthly salaries of its employees whose salaries do not exceed 1,500 soles, around 424 dollars (ILO, 2020d).

In the first quarter of 2020, the employment rate in Peru was 66.6%, while in the second quarter it dropped to 41.3%, representing a percentage change of -25.3%. The National Federation of Wood Industry Workers (FENATIMAP - Federación Nacional de Trabajadores de la Industria de la Madera) established a national training program on biosafety for forest workers with the aim of preventing the spread of COVID-19 (ILO, 2020a).

v. Forest Financing and Investment

As part of the efforts to mitigate the crisis resulting from the COVID-19 pandemic, the Forest Investment Program (FIP) Sub Committee approved the Forest Investment Plan for Peru (FIP-PE) in October 2020, an amount of USD50 million, with key indigenous and community involvement. As part of the agreement, representatives of indigenous organizations and communities will directly implement the activities they are responsible for under FIP-PE. Additionally, US$14.5 million will be allocated to the following three priorities: i) Indigenous territorial titling (USD 7 million); ii) Community forest management (USD 4 million); and iii) Community governance (USD3.5 million) (BIC, 2020).

3.3.11 – URUGUAY

i. Forest Sector and Sustainable Forest Management

The spread of COVID-19 in Uruguay has been lower compared to its neighboring countries in South America, while the pandemic continues to spread throughout the Americas, since May, Uruguay registered less than 10 new cases per day, despite some more recent outbreaks. Taking this into consideration, it is possible to assume that the impacts of the pandemic in the country have been relatively lowe. However, the restrictions and sanitary measures have had an effect on the various activities of supply chain of the forest sector.

Forest nurseries, for instance, suffered an impact on their businesses, as several companies canceled their orders, making it difficult from a logistical and economic point of view. Most nurseries had to reduce the number of employees to avoid contagion and maintain safe distances between workers. In addition, a consequence of the market changes due to the pandemic was the scarcity of materials for work, such as the latex gloves used to protect against eucalyptus essential oils that can cause skin irritations (TARDAGUILA AGROMERCADOS, 2020).

According to ARAUCO company, which has forest operations in Uruguay, harvesting and transportation operations were maintained, which are guaranteeing the operation of the industry, especially the supply of raw material for pulp production used for sanitary products, essential in combating COVID- 19. However, some operations had to be interrupted or continued with a reduction in production capacity (CONTRATISTAS FORESTALES, 2020).

ii. Livelihoods of Forest-dependent People, Indigenous Peoples and Local Communities

Until August 2020, there were no cases of COVID-19 identified in indigenous populations in Uruguay, as a result of rigorous control and stricter quarantine adopted in the country. However, this information may not be accurate, since the government does not integrate the data of those affected by the pandemic with the ethnic-racial variable. No specific policies have been identified that consider the particularity of the indigenous and traditional communities in the country. However, some organizations are mobilizing to contain the impacts of the pandemic (DW, 2020b).

The Conacha, an organization that brings together 10 Charrúa indigenous groups in Uruguay, is using an online educational platform from "Escuela Intercultural Charrúa - ESICHAI", in which they exchange traditional indigenous knowledge about the use of medicinal plants to strengthen the immune system (NACIONES UNIDAS, 2020).

The Charrúa people of Uruguay are delivering basic food baskets to the Charrúa families who need it most, including informal or independent indigenous workers who can no longer guarantee their income. The indigenous organization Conacha is organizing a seed bank to have a stock to exchange among the indigenous population (NACIONES UNIDAS, 2020).

iii. Forest Industries and Domestic / International Demand for Forest Products and Services

The pandemic in Uruguay caused a drop in demand for forest products and services, first from abroad and then locally. The confinement also brought new ways of working and problems to access to raw materials, factors that also acted as restrictions for the industrial sector.

This resulted in more evident declines in the core of the industrial sector, sales for instance (which have been on a downward trend since 2014) contracted by 14% in the first quarter of 2020, while production fell in April and May between 23% and 26%, compared to the same months of 2019. The situation also affected investment decisions in manufacturing companies. The investment index for industrial machinery and equipment, prepared by the Chamber of Industries, decreased 36% in the second quarter of 2020, one of the worst records in the last 10 years (EL PAIS, 2020).

In terms of product supply/demand, the traditional paper market was affected by less economic activity, while the fall in pulp prices was consolidated. Nevertheless, products such as packaging and hygiene-related paper (such as toilet paper), showed an increase in demand. In the last few months of 2020, it was felt a general drop in the markets, which had a more significant impact on the wood panel business, due to a significant reduction in demand (EL OBSERVADOR, 2020). Along the first semester of 2020 exports continued to be destined to Asia, and it was faced a reduction 21% from initial projection due to low demand resulting from the COVID-19 pandemic (CARE, 2020).

The profits of UPM and STORA ENZO, important forestry companies in Uruguay, fell less than expected in the first quarter of 2020. These companies also stressed their solid financial position despite the drop in sales and the fall in pulp market prices. UPM reported that, in the first quarter 2020, the revenues amounted to USD 431 million, a decrease of 18% in relation to the same period of 2019, but the fall was below expectations. STORA ENZO, meanwhile, reported a 46% drop in revenues compared to the first quarter of 2019. The effect of the reduced sales volume was partially offset by lower fixed costs, due to the postponement of maintenance activities and strict spending control. The packaging paper unit was the only one that showed an improvement in revenue compared to 2019 (EL OBSERVADOR, 2020).

iv. Labor Market and Employment

The effects of COVID-19 pandemic on the Uruguayan economy were significant, impacting the labor market and family income. The fall in economic activity during the first quarantine weeks settled that in the March-May quarter/2020 the employment rate was 52.7%, significantly less than the 56.5% recorded in the same period of 2019. Uruguay's unemployment reached 11% in September 2020, an increase of just two-tenths compared to August, but the highest level since 2006 (ILO, 2020g).

Unlike other countries in the region where mandatory confinement was enacted, in Uruguay the concept of “responsible freedom (liberdade responsável)” was established and voluntary confinement was promoted. From the health point of view, it was possible to maintain a relative control of the situation, which allowed the progressive lifting of several of the restrictions imposed at the beginning. In that way, it was possible to resume face-to-face education, reopen major shopping malls and see an incipient recovery in the tourism sector with national customers, always keeping distancing measures and applying specific protocols to each activity (ILO, 2020g).

Uruguay was able to respond better to this crisis based on the high rate of formal job, as well as unemployment insurance, which opened up the possibility of maintaining employment with the use of temporary suspension. In addition, the adjustments introduced to incorporate the reduction in the working hours of monthly workers and the flexibility of requirements served to expand insurance coverage. In any case, the COVID-19 pandemic has led to an unprecedented use of unemployment insurance. In both March and April 2020, there were about 80 thousand applications for the insurance, a number significantly higher than that registered in any other period (ILO, 2020g).

v. Forest Financing and Investment

In order to mitigate the impacts of the COVID-19 spread in the private sector, the Government and other institutions in the country made available a series of financial supports, establishing specific regulations and proposing several new initiatives, mainly in support of SMEs.

Some of the credit, financing and investment assistance measures aimed at the business sector, including forest-based companies, are:

- Tool for companies affected by COVID-19: It is a platform that in just three steps provides the support options according to the specific characteristics/needs of each company;
- Targeted credit program: Financial support to SMEs through loans for working capital, longer payment terms, reduced interest rates and a long grace period;
- Economic productivity and employment: Financing programs for SMEs and short-term liquidity guarantees, foreign trade guarantee and loan restructuring;
- Production credits: implementation of a production credit program for small and medium-sized companies under more flexible conditions;
- Production sector: Registration of agricultural producers or fruit growers in the area affected by the agricultural emergency provided for in the decree of the Ministry of Livestock, Agriculture and Fisheries, in order to obtain an 18% reduction in the real estate contribution.

3.3.12 – OTHER CENTRAL AMERICAN COUNTRIES

This subsection presents some information on the impact of COVID-19 in Guatemala and Panama. These countries are in a separate item because limited information relevant to the study in these countries was found.

- **GUATEMALA**

i. Forest Sector and Sustainable Forest Management

In the forestry sector, logging companies, sawmill activities, domestic trade and export of forest products affected by the pandemic. The impact was caused mainly by the closure of non-essential work activities. Companies had difficulties to plan their production, and some needed to lay off part of their staff (IFSA Guatemala questionnaire, 2020).

The main complexity of the pandemic towards forestry activities lies in the limitation of activities such as suspending sawmill work, timber harvesting, forest management, monitoring, start of new projects, among others. On the other hand, the domestic demand for forest products declined, as priority for the society felled on basic needs such as food, health, hygiene, among other products used to survive during the pandemic period (IFSA Guatemala questionnaire, 2020).

In Petén, an important forest cluster in Guatemala, local communities are examples of sustainable community forest management. Due to the measures taken to contain COVID-19 pandemic, forestry activities were temporarily interrupted in Petén, which caused losses for local people who are dedicated to the collection of xate leaf (hoja de xate), ramon seed (semilla de ramón) and forest management of highly valued timber species such as mahogany and cedar. It is estimated that the forest production sector in Petén has lost at least 6 million euros in revenue due to the pandemic (PRENSALIBRE, 2020).

Petén was affected by the decline in income of rural communities and the impact of forest fires. Forest communities that operate through concessions, which are in charge of large areas of forests, are looking for mechanisms to reactivate their economy through forest production (PRENSALIBRE, 2020).

Producers from the Carmelita communities in San Andrés and Uaxactún in Flores have been exporting xate leaf for 60 years for ornamental purposes, and the pandemic period has been the worst period since the beginning of their activities (PRENSALIBRE, 2020).

ii. Livelihoods of Forest-dependent People, Indigenous Peoples and Local Communities

In Guatemala, the Mayan, Ladino-Mestizo, Xinka and Garifuna peoples live together, with a population of more than 18 million inhabitants, mostly descendants of the Mayan people, who share a history, culture, identity, life styles and traditional knowledge (CLACSO, 2020).

Many cases in indigenous communities in Guatemala are migrants returning to the country, who, upon arriving in the country, do not have effective measures to determine whether they are sick, thus avoiding getting its community to infect its family (CLACSO, 2020).

In Guatemala, the rainforest communities are facing a severe loss of income due to the COVID-19 pandemic. Due to a breakdown in global supply chains, these communities are facing an estimated USD1.5 million loss in sustainable timber revenue (RAINFOREST ALLIANCE, 2020b)

No case or death information has been identified among indigenous and traditional communities.

iii. Forest Industries and Domestic / International Demand for Forest Products and Services

Regarding the industrial sector, the most affected segment was the value-added forest industry. Besides restrictions imposed these industry faced a reduction in the domestic market demand, and was forced to reduce production and in some cases to even to completely stop their operations. Export industries were also affected by the closure of borders, limiting the entry and exit of any cargo, except food (IFSA Guatemala questionnaire, 2020).

The sector that depends directly or indirectly on tourism continues to be affected by the crisis generated by the COVID-19 pandemic. Guatemala is one of the countries in the region that receives the most tourists per year. According to the Guatemalan Tourism Institute (INGUAT), out of 2,700,000 international tourists that were expected this year, at least 1,700,000 foreign visitors could be recovered if the borders were opened by July (ASIES, 2020).

iv. Labor Market and Employment

In July, the Guatemalan Development Foundation (FUNDESA) estimated that the country would lose 1.5 million jobs in 2020 due to the pandemic. The country still needs to overcome the challenge of precarious income and social protection. In Guatemala, 80% of employees have an income below the minimum wage (EL PERIODICO, 2020).

The impact of the pandemic was also reflected in staff recruitment. Since March, job opportunities in the business sector have been reduced. However, food companies, pharmacies, transport, banks, among others, increased their demand (EL PERIODICO, 2020).

v. Forest Financing and Investment

An investment project financing called the Guatemala Emissions Reductions Program implemented by the Ministry of Finance and Public Credit is funded by the World Bank FCPF Carbon Fund planned to start in January 2021. The total financing is USD 52.50 million. The major objective is to make payments to the Program Entity for measured, reported and verified Emission Reductions (ER) from reduced deforestation and forest degradation, as well as the enhancement of forest carbon stocks (REDD+) in targeted areas of Guatemala, and to ensure that paid amounts are distributed according to an agreed Benefit Sharing Plan (BSP) (WORLD BANK (2020b).

- **PANAMA**

i. Forest Sector and Sustainable Forest Management

In Panama, there were restrictions on the mobility of citizens causing an impact on the country's economic sphere, which suffered a drop in GDP, increased inflation, among others. Small and large companies were affected, reforestation projects were paralyzed due to mobility restrictions (IFSA Panama questionnaire, 2020).

ii. Livelihoods of Forest-dependent People, Indigenous Peoples and Local Communities

Indigenous peoples have resorted to their own means to report cases and contain the COVID-19. For example, indigenous peoples in Panama are collecting and reporting their own data and are creating a regional platform to share information in Latin America (FAO, 2020c).

Regarding forest dependent people, the government of Guatemala took the same measures as for the rest of the population, without any specific treatment to those people (IFSA Guatemala questionnaire, 2020).

iii. Forest Industries and Domestic / International Demand for Forest Products and Services

The forestry industry in Panama is characterized by primary processing products, thus higher value-added products do not represent a significant part of demand. On the other hand, the tourism sector is important in the country's economy. Loss of jobs and income is expected in the sector, which in turn has a high rate of informality, partly caused by seasonal variations in tourism and poor regulation, inspection and union organization (IFSA Panama questionnaire).

iv. Labor Market and Employment

It is estimated that the pandemic crisis in Panama will increase the unemployment rate to 25% and informality in the labor market to 55% in 2020, on average 460,000 to 570,000 unemployed people (FORBES CENTROAMERICA, 2020).

The Government distributes a bonus of USD 100 per month among the segments of the population affected by unemployment, amid criticisms that this value does not reach or reaches all those in need. In addition, the government approved financial support plans for the micro, small and medium-sized companies 70% of the country's jobs (FORBES CENTROAMERICA, 2020).

v. Forest Financing and Investment

In Panama, the National Council of Private Enterprise (CONEP) is preparing a portfolio of green investments, by sector and by geographic area to make visible, classify and measure the required financing. There is a special emphasis on green jobs and lowering the carbon footprint.

4 – EMERGING OPPORTUNITIES

This section present the emerging opportunities brought about by the COVID-19 pandemic to ensure the sustainable development of the economy, for the benefit of the society as a whole. Most of the LAC countries have created programs to mitigate the economic and social impact of the pandemic. The success of these country mitigation programs remain to be assessed. In any case, the forest sector was also benefited.

The forest sector involves a range of activities, such as forest management and forestry operations, logistics, industrial processing and trade. All these forest-related activities were affected by the COVID-19 pandemic, and the emerging opportunities identified over this crisis period can help the recovery along the post-pandemic period.

In spite of uneven impacts identified among the analyzed countries, the emerging opportunities involving the forest sector over the COVID-19 pandemic period are as follows:

- ✓ The forest sector proved to be resilient

  The forest sector has longer harvesting cycle compared to other commodities. Products can be stored and last over longer periods among other differences. That helped to mitigate impacts and facilitated adapting to the "new normal";

- ✓ The forest sector provided essential products

  In practically all countries, the forest sector was considered as a provider of essential goods and services. The forest industry produces pulp and paper, sanitary/hygiene products including toilet paper, towels, tissues and other essential products to overcome a health crisis. The forest industry also manufacture personal protective equipment (PPE), such as masks and protective clothing for medical workers based on wood pulp and soluble pulp fiber.

  The forest industry also made available paper and cardboard for packaging and delivery of products to support the increased reliance on e-commerce and delivery services during lockdowns;

- ✓ Increase in national funding and international cooperation

  During the COVID-19 pandemic most countries made available several forms of incentives to mitigate the social and economic impact. Some international agencies also made available finance funding to mitigate the impact and promote investments. This has also favored the forest sector, and finance was available to maintain forest management operations, reforestation and industrial development. This was one example of quick response of the international cooperation to mitigate the impact in countries that have limited financial resources.

- ✓ The forest sector contribute to mitigate social impacts

  Even under the impact of a pandemic, the forest sector, especially the forest industry, continued to generate employment. In most countries, the forest sector maintained their forest and industrial operations, keeping most of their working force. This helped to mitigate social impacts, especially in rural areas.

  In spite of the some impact of the COVID-19 identified in rural populations, indigenous people, small farm holders, and other forest-dependent communities, the overall impact in communities involved in forest operations was generally small. In many countries private forest sector helped to mitigate the impact providing essential goods and services.

- ✓ The forest continued to be sustainably managed

  In spite of some limitations, sustainable forest management continued over a long pandemic period. Forest management, for timber and non-timber production, is a long cycle activity and even if interrupted for a short period no significant impact is expected. In some countries forest industry faced restrictions resulting from reduction of staff and/ or working hours of official agencies. Issuance of legal documents was affected, and this favored illegal operations, compromising sustainable forest management.

  Protected areas, including national parks and other areas were closed during the period, and continued to be managed during the COVID-19 pandemic, based on existing management plans. Nevertheless, in some countries, this generated a strong impact in ecotourism activities, and affected local communities involved in providing services.

5 – POTENTIAL RESPONSES AND MEASURES

Government's income recovery programs have allowed some segments to react more quickly, including durable goods, compared to what was initially expected. Prospectively, the poor predictability associated with the evolution of the pandemic and the necessary adjustment of public spending after 2021 increases the uncertainty about the resumption of activity. In this sense, in regional terms, this uncertainty about the pace of social and economic recovery is even greater for economies most impacted by emergency benefits.

In some countries, at early stages of the COVID-19 pandemic, the forest sector was affected. Access to raw material was limited and associated to logistical problems compromised the industrial production. Domestic and international markets also declined. This led, initially, to an expectation of reduction in operation and employment. Nevertheless, this changed over the following quarters, and most of the forest industry in LAC has gradually returned to pre-crisis levels.

Governments, international organizations and private sector companies of most countries have, to some extent effectively responded to the crisis. Governments of most LAC countries created programs to reduce social impact, created health protocols, offered financial support to households, and soft finance mainly to SMES. International cooperation made available funds, and private sector made adjustments to survive along the pandemic crisis. All these were effective responses to the crises and in spite of failures in planning and implementation, measures helped to mitigate social and health impacts.

The potential responses and measures aiming to achieve a "new normal" in a post- pandemic period in the LAC region includes:

- ✓ Macro-Economic Measures

  Preserving fiscal balance, adopting at the same time monetary and financial measures to support families and corporations is essential for the economic activity gradually returns to normal. Some countries of other regions have already been designing public policies in that direction, such as Australia, Germany, Japan and others. These initiatives can be applied by LAC counties.

- ✓ Create a Dedicated Global/ Regional Information System

  In the short to medium term, a detailed and consistent global information is necessary to assess economic, social and environmental impacts; based on that define measures/ actions, develop and implement recovery strategies for the forest sector and support sustainable development, considering the possible emergence of a new pandemic perspective;

- ✓ Revise National Crisis Supporting program

  In general, the programs had contribute to mitigate the social and economic impact of COVID 19 pandemic, but Governments need to revise to ensure a sustainable transition to the "new normal". The economic reactivation program should be directed mainly to small and medium-sized forest owners/ companies;

- ✓ Enhance International Cooperation

  The international cooperation may have a critical role in providing technical assistance and financing the forest-related activities. Forest finance, for instance, is important to the private sector to increase efficiency and compete in the market.

  In the medium to long term, international cooperation should be strengthened by sharing good practices, involving the private sector, developing competitive wood processing, facilitating trade, enhancing investments, promoting sustainable production and consumption of forest products, and reporting the impacts of pandemic crisis and the effectiveness of government responses.

- ✓ Provide Support to indigenous people and local community

  Lack of information on the pandemic resulted and late reaction from the indigenous people and other communities located in remote areas. To allow a quicker reaction it would be advisable to prepare protocols for the setup of early alerts, especially on health crisis such as the pandemic. This involves the establishment and management of information systems. Additionally propose a contingency plans for the protection of health in highly vulnerable indigenous people and in initial contact;

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ANNEX 1 - LIST OF CONTRIBUTIONS BY COUNTRY

COUNTRY	INSTITUTION	CONTACT
Brazil	ABIMCI – Associação Brasileira da Indústria de Madeira Processada Mecanicamente (*Brazilian Association for Mechanically Processed Timber*)	Mr. Paulo Pupo
Brazil	Major Groups – Latin America and the Caribbean Region	Ms. Fernanda Rodrigues
Brazil	IBA – Brazilian Tree Industry	Ms. Patricia Machado
Bolivia	CBF – Camara Forestal de Bolivia (*Forestry Chamber of Bolivia*)	Mr. Jorge Ávila
Chile	IFSA – International Forestry Students Association in Chile	-
Chile	CONAF – Corporación Nacional Forestal	Mr. Luis Andres Gianelli G.
Colombia	Federal Government – Cancillería de Colombia	Mr. Sebastián Acosta Triana
Colombia	FEDEMADERAS – Federación Nacional de Industriales de la Madera (*National Federation of Wood Industry)*	-
Ecuador	COMAFORS – Corporación de Manejo Forestal Sustentable (*Sustainable Forest Management Corporation*)	Mr. Juan Carlos Palacios
Ecuador	AIMA – Asociación Ecuatoriana de Industriales de la Madera	Mr. Christian Riofrío
Ecuador	MAG – Ministerio de Agricultura y Ganadería	Mr. Walter Schuldt (Ministerio de Relaciones Exteriores y Movilidad Humana/ Cancilería de Ecuador)
Ecuador	MAAE – Ministerio del Ambiente y Agua del Ecuador	Mr. Walter Schuldt (Ministerio de Relaciones Exteriores y Movilidad Humana/ Cancilería de Ecuador)
Guatemala	IFSA – Asociación de Estudiantes de Ingeniería Forestal Aseforc Cunoroc-Usac (*International Forestry Students Association*)	-
Mexico	IFSA – International Forestry Students Association in Mexico	Ms. Jazmin Lopez
Mexico	COFOM – Comisión Forestal del Estado de Michoacán	Mr. Alejandro Ochoa Figueroa
Mexico	CONAFOR – National Forestry Commission	Ms. Irma Karina Lopez

COUNTRY	INSTITUTION	CONTACT
	of Mexico	Sanchez
Panama	IFSA – International Forestry Students Associationin Chile	-
Paraguay	INFONA/ DGPF – National Forest Institute/ General Directorate of Forest Plantations	Mr. Cristian Fox
Paraguay	INFONA/DGEEF – National Forest Institute/ General Directorate of Forestry Education and Extension	Ms. Deisy Gill
Paraguay	INFONA/DCIF – National Forest Institute / Directorate of Commerce and Forest Industries	Ms. Maria Elisa Benitez
Paraguay	STP – Secretaria Técnica de Planificación del Desarrollo Económico y Social (*Technical Secretariat for Economic and Social Development Planning*)	Mr. Rafael González Bordón
Paraguay	GUYRA Paraguay (NGO)	Mr. Jose Luis Cartes
Peru	ADEX – Asociación de Exportadores	Mr. Erik Fischer
Perú	IFSA/UNALM – Asociación de Estudiantes de Ingeniería Forestal / Universidad Nacional Agraria La Molina (*International Forestry Students Association*)	-
Peru	Asociación CINDES (Indigenous people NGO)	Mr. Samuel Cauper Pinedo

Source: Compiled by the Consultant (as of January 22, 2020)

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