منظمة الأغذية والزراعة للأمم المتحدة | 联合国粮食及农业组织 | Food and Agriculture Organization of the United Nations | Organisation des Nations Unies pour l'alimentation et l'agriculture | Продовольственная и сельскохозяйственная организация Объединенных Наций | Organización de las Naciones Unidas para la Alimentación y la Agricultura

# COMMISSION ON LIVESTOCK DEVELOPMENT FOR LATIN AMERICA AND THE CARIBBEAN

**XV CODEGALAC**

**Uruguay, 17-19 August 2021**

**Recovery with transformation for inclusive, resilient and sustainable livestock production**

## 1. CONTEXT

Livestock production in Latin America and the Caribbean (LAC) plays a key role as a source of food that contributes to food and nutritional security of its population, as well as an important driver of economic development of the countries.

The health and economic crisis caused by the COVID-19 pandemic has resulted in a sharp contraction of the global economy, despite the emergency measures adopted, with economic, social and political effects including: economic slowdown, increased levels of social vulnerability, malnutrition, unemployment and poverty. During the first half of 2020, Latin America and the Caribbean suffered the loss of more than 30 million jobs, recovering about 16 million jobs by the end of the year, which does not include informal employment;[1] the extreme poverty rate stood at 12.5 percent and the poverty rate reached 33.7 percent, or 22 million more people than the previous year.[2] This effect is greater among the most vulnerable population, taking into account that more than 80 percent of the people included in the poorest quintile of the wealth distribution in LAC work in the informal sector and therefore have no access to unemployment insurance, contributory pensions and other benefits, which are essential to cushion the effects of the crisis.[3]

[1] IDB. (2020). Challenges for family farming in the context of COVID-19. Evidence f rom Farmers in Latin America and the Caribbean (LAC). Obtained from https://publications.iadb.org/publications/spanish/document/Retos-para-la-agricultura-familiar-en-el-contexto-del-COVID-19-Evidencia-de-productores-en-ALC.pdf

[2] ECLAC. (2021). Pandemic Prompts Rise in Poverty to Levels Unprecedented in Recent Decades and Sharply Affects Inequality and Employment. Obtained from https://www.cepal.org/es/comunicados/pandemia-provoca-aumento-niveles-pobreza-

[3] UNDP. (2020). UNDP LAC C19 PDS N°14 A Lessons from COVID-19 for a Sustainability Agenda in Latin America and the Caribbean. Obtained from file:///C:/Users/USUARIO/Downloads/undp-rblac-CD19-PDS-Number14A.pdf

Despite the lack of data and the difficulty to differentiate the effects of COVID-19 from other adverse factors, it has been possible to observe an increase in the determinants of the food crisis in the world,[4] due to mobility restrictions and loss of income, among others. According to the IMF, the global Gross|| Domestic Product (GDP) falls by 4.4 percent and in Latin America with rates below 8 or 9 percent.[5]

It is estimated that between 720 to 811 million people suffered from hunger in 2020 worldwide, about 118 million additional people than in 2019 (considering 768 million as the mid-point of the range). Compared to 2019, about 14 million more people suffered from hunger in 2020 in LAC.[6]

On the other hand, the economic recession has resulted in lower tax revenues, making it difficult to apply relief measures to mitigate the effects of the crisis on the most vulnerable population and productive apparatus, affecting the quality of life and health of the population, making them more vulnerable to future public health risks.

The livestock sector has been equally affected by the emergency measures, and although the effects have not yet been fully quantified due to the constant evolution of the pandemic, negative effects on the performance of value chains have surfaced, requiring economic recovery processes in the short term, and action plans in the medium and long term, to deal with the effects generated, and to increase resilience of livestock production in times of crisis.[7]

Designing and implementing efficient mitigation strategies to ensure the food security, nutrition and livelihoods of rural and urban populations requires greater efforts to effectively identify and quantify the effects of the crisis, as due to the general scarcity of recent information, the actual level of impact on the livestock sector in the region, especially in the most remote regions, is unclear.[8]

In this context, some of the main effects on livestock production value chains which could increase over time are identified:

## 1.1 PRODUCTION

### a. *Rural agricultural and non-agricultural employment*

In the absence of specific data on the impact on the livestock sector, the data found for rural employment in general was used as a reference, and it was found that, compared to other sectors of the economy, job losses have been low, given that most agricultural activities are carried out in territories with low population density, and that, in order to ensure food supply, the sector did not stop its activities completely, since its products have been considered consumer staples, which has prompted governments to free its workers from the restrictions that affect other economic sectors.[9] While for 2020, ECLAC estimated a 13.5 percent increase in the unemployment rate in LAC, equivalent to 44.1 million unemployed people (26.1 million more than in 2019); for the agricultural sector this rate was -5.1 percent. However, it is worth considering that due to the pandemic, employment surveys in 2020 were conducted by telephone or virtually, due to

[4] Availability of food, access to quality and safe food sources, in sufficient quantity, on a regular basis, availability of financial and physical resources to always purchase an appropriate amount of food.
[5] FAO. (2020). 35 percent of global food system jobs at risk because of Covid-19. Obtained from https://imagenagropecuaria.com/2020/en-riesgo-35-de-empleos-de-sistemas-alimentarios-globales-por-covid-19-fao/
[6] FAO, FIDA, OMS, PMA and UNICEF. (2021). The State of Food Security and Nutrition in the World 2021. Transforming food systems for food security, improved nutrition and affordable and healthy diets for all. Obtained from https://doi.org/10.4060/cb5409es
[7] UNFCCC. (2020). Nationally Determined Contribution Update for Colombia (NDC). Obtained from https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/Colombia%20First/NDC%20actualizada%20de%20Colombia.pdf
[8] FAO. (2020). New coronavirus disease (COVID-19). Frequently asked questions: COVID-19 pandemic, its impact on food and agriculture. Obtained from www.shar.es/aHRYip
[9] FAO – ECLAC. (2020). Bulletin N°5 Food systems and COVID-19 in Latin America and the Caribbean: Labour market impacts and risks. Obtained from https://www.cepal.org/sites/default/files/publication/files/45581/ca9237_es.pdf

mobility restrictions, and there may be sampling biases.[10] As previously mentioned, it is not possible to obtain specific information for the livestock sector, but it can be estimated that the behaviour is similar to that of the rural sector as a whole.

The clearest impact on employment has been due to the very nature of rural work as the level of informality is high; they are more vulnerable to contagion than workers in other sectors, due to the precariousness of health services in rural areas and the biosecurity measures that can be implemented in the sector.[11] It was estimated that by 2019, 85.7 percent of workers employed in the agricultural sector in LAC were informal, with a higher percentage of women (91.6 percent informal); many of them with incomes below 50 percent of the average rural income; and an estimated 66.7 percent of these are self-employed.[12]

On the other hand, countries and production systems that employ migrant labour were affected by the restriction of internal and international mobility, reducing productivity and affecting production costs. This will also be reflected in reduced remittances, undermining rural livelihoods and food and nutrition security in areas of origin.[13] [14]

The greatest impact on employment has occurred in the other links of the productive chains, such as in the transformation and commercialisation processes, where there has been an impact due to the total lockdown measures, the nature of the work that does not allow remote work, the worsening of living conditions in urban areas, and the increase in contagion rates.[15] [16] In Latin American food systems, about half of the workers are employed in the various branches that are grouped in the so-called non-agricultural sector, it is estimated that 76.2 percent of these workers are in informal labour conditions, working mainly in micro-enterprises, which were seriously affected by the pandemic.[17]

### b. *Decrease in animal protein production and availability*

Physical distancing, forced business closures, economic slowdown, border closures, among others, have reduced feed production, the availability of raw materials and supplies, as well as the ability of producers to purchase products and services, affecting their productive capacity.[18] [19]

The purchase of productive supplies (equipment or materials such as veterinary products, supplements, among others) has also been limited for those producers whose economic situation has been affected, and who now have fewer financial resources available, also reducing their productive capacity. In addition, transport restrictions have affected the availability and access to these supplies, as in many regions public transport services have been suspended or operate with reduced frequencies.[20] Disruptions in the global economy, mainly in the US, China and Europe, reduced the availability of inputs and raw materials, as well. [21] In the second quarter of 2020, the contraction in the volume of world trade in goods was close to 18.5%, compared to the same period in 2019, disrupting global value chains by making productive inputs

[10] ECLAC. (2020) Food systems and COVID-19 in Latin America and the Caribbean: Labour market response. Bulletin N°14. Obtained from https://www.cepal.org/es/publicaciones/45581-sistemas-alimentarios-covid-19-america-latina-caribe-ndeg-5-impacto-riesgos
[11] FAO. (2020). Los trabajadores migrantes y la pandemia de COVID-19. Obtained from http://www.fao.org/3/ca8559es/CA8559Es.pdf
[12] OIT. (2020). Panorama Laboral en tiempos de la COVID-19. Nota técnica regional. Efectos de la COVID-19 en la economía rural de América Latina. Obtained from https://www.ilo.org/wcmsp5/groups/public/---americas/---ro-lima/documents/publication/wcms_760656.pdf
[13] UNDP. (2020). UNDP LAC C19 PDS N°8. Covid-19 and social protection of poor and vulnerable groups in Latin America: a conceptual framework. May 2020. Obtained from https://www.latinamerica.undp.org/content/dam/rblac/Policy%20Papers%20COVID%2019/finaldo
[14] UNDP. (2020). Food Security in the Face of the Covid-19 Pandemic. UNDP Blog. Obtained from https://www.latinamerica.undp.org/content/rblac/es/home/blog/2020/la-seguridad-alimentaria-frente-a-la-pandemia-del-covid-19.html
[15] FAO – ECLAC. (2020). Food systems and COVID-19 in Latin America and the Caribbean N° 5: Impact and risks in the labour market. Obtained from https://www.cepal.org/sites/default/files/publication/files/45581/ca9237_es.pdf
[16] UNDP. (2020). UNDP LAC C19 PDS N°8. Covid-19 and social protection of poor and vulnerable groups in Latin America: a conceptual framework. May 2020. Obtained from https://www.latinamerica.undp.org/content/dam/rblac/Policy%20Papers%20COVID%2019/finaldo
[17] OIT. (2020). Panorama Laboral en tiempos de la COVID-19. Nota técnica regional. Efectos de la COVID-19 en la economía rural de América Latina. Obtained from https://www.ilo.org/wcmsp5/groups/public/---americas/---ro-lima/documents/publication/wcms_760656.pdf
[18] FAO. (2020). Mitigating the impacts of COVID-19 on the livestock sector. Obtained from https://doi.org/10.4060/ca8799en
[19] UNDP. (2020). UNDP LAC C19 PDS N°14 B Latin America and the Caribbean: Natural Wealth and Environmental Degradation in the XXI Century. Obtained from file:///C:/Users/USUARIO/Downloads/undp-rblac-CD19-PDS-Number14B%20(2).pdf
[20] CIAT. (2020). Cómo afecta la crisis del COVID-19 a la producción ganadera en Colombia. Obtained from https://latinclima.org/articulos/como-afecta-la-crisis-del-covid-19-la-produccion-ganadera-en-colombia-0
[21] ECLAC. (2020). Measuring the impact of COVID-19 with a view to reactivation. Special Report COVID-19 N°2. Obtained from https://www.cepal.org/sites/default/files/publication/file

unavailable. In South America, the cost structure of the agricultural sector is highly dependent on productive inputs such as fertilisers, pesticides and seeds (25 percent), while in Central America and the Caribbean it represents a 5 percent.[22]

On the other hand, reduced market access due to the disruption of trade routes, the closure of slaughter houses, the closure of fresh produce markets and live animal markets, where exports were reduced by 40 percent in the first half of 2020 compared to the same period in 2019,[23] implied that producers had to keep their stocks longer, and in some cases, products such as milk have had to be discarded, resulting in increased production costs and reduced cash flow, reflected in reduced production capacity. In the Serra Dourada region of Brazil, for example, several producers have been forced to dispose of 15000 litres of milk a day in the second half of 2020 in view of the almost total lack of demand. In Mexico, the dairy industry foresees a 10-15 percent drop in trade, which will lead to the demise of many small producers, who account for 88 percent of the dairy industry in Mexico.[24] These effects on the household economy of producers affect the ability of households to purchase basic commodities, putting the food security of rural families at risk.

Transhumance-based production systems have been restricted, leaving producers without access to animal feed and limiting the production of these systems.[25]

In the case of fisheries and aquaculture, which accounts for 38 percent of primary production destined for international trade, and artisanal and small-scale fishing is the livelihood of at least 1.8 million families in LAC, it has been affected mainly by disruptions in transport and marketing, caused by the closure of markets and food services in tourism and hospitality. For example, artisanal fishermen in Osorno, Chile, estimate that their economic losses in the second quarter of 2020 amounted to 100 percent of their usual production, due to the reduction in sales to wholesalers.[26]

### c. *Rural extension - technical assistance*

Mobility restrictions have forced the suspension of technical assistance services, training, production and health control, and vaccination cycles, among others, which could mean a decrease in productivity and future health problems. On the other hand, the distribution of replacement stocks (e.g. day-old chicks and semen, among others) has been affected, putting the replenishment of the region's livestock inventories at risk.[27]

Public and private entities have developed a wide range of programmes using technological platforms, but their reach has been limited for the most vulnerable populations due to lack of access to the necessary technology, internet coverage or capacity to make use of the technologies.[28] In 2019, 95 percent of rural households in the region (almost 120 million people) did not have access to the internet.[29] In the medium term, it is possible that public resources dedicated to these technical aspects will be affected due to the redirection towards priority issues for reconstruction processes, weakening progress in the productive transformation of livestock systems.[30] [31]

---

[22] ECLAC. (2020). Food systems and COVID-19 in Latin America and the Caribbean N° 11: Impacts and opportunities in fresh food production. Obtained from https://www.cepal.org/es/publicaciones/45897-sistemas-alimentarios-covid-19-america-latina-caribe-ndeg-11-impactos

[23] FAO and ECLAC. (2020). *Food systems and COVID-19 in Latin America and the Caribbean N° 12: Trade performance during the crisis*. Obtained from https://doi.org/10.4060/cb0583es

[24] ECLAC. (2020). Food systems and COVID-19 in Latin America and the Caribbean N° 11: Impacts and opportunities in fresh food production. Obtained from https://www.cepal.org/es/publicaciones/45897-sistemas-alimentarios-covid-19-america-latina-caribe-ndeg-11-impactos

[25] FAO. (2020). Mitigating the impacts of COVID-19 on the livestock sector. Obtained from https://doi.org/10.4060/ca8799en

[26] ECLAC. (2020). Food systems and COVID-19 in Latin America and the Caribbean N° 11: Impacts and opportunities in fresh food production. Obtained from https://www.cepal.org/es/publicaciones/45897-sistemas-alimentarios-covid-19-america-latina-caribe-ndeg-11-impactos

[27] FAO. (2020). Mitigating the impacts of COVID-19 on the livestock sector. Obtained from https://doi.org/10.4060/ca8799en

[28] FAO. (2020). Mitigating the impacts of COVID-19 on the livestock sector. Obtained from https://doi.org/10.4060/ca8799en

[29] BID. (2020). Banco Interamericano de Desarrollo informe sobre sostenibilidad de 2020. Obtained from file:///C:/Users/USUARIO/Downloads/Banco-Interamericano-de-Desarrollo-Informe-de-Sostenibilidad-2020.pdf

[30] FAO. (2020). Mitigating the impacts of COVID-19 on the livestock sector. Obtained from https://doi.org/10.4060/ca8799en

[31] CIAT. (2020). Cómo afecta la crisis del COVID-19 a la producción ganadera en Colombia. Obtained from https://latinclima.org/articulos/como-afecta-la-crisis-del-covid-19-la-produccion-ganadera-en-colombia-0

Private technical assistance initiatives, which have been successful for several years, have been scaled back since the onset of the pandemic, due to the economic contingency plans established to cope with the health crisis, including the reduction of staff and biosecurity measures.[32]

### d. *Credits*

Compliance with financial obligations was affected because payment capacity was reduced as productivity declined. According to the IDB, in 2020, 65 percent of small and medium-sized producers showed a decline in sales, and 70 percent had to sell their assets, use their savings or ask for credits to cope with the crisis.[33] In some LAC countries, emergency rescue lines were created, which consisted of credit lines aimed at covering the interest associated with credits, providing credit lines at lower interest rates. It has transpired that small producers have had limited access to these incentives, mainly because of the logistical difficulty of approaching financial institutions, due to mobility restrictions.[34].

## 1.2 PROCESSING

### *a. Reduction of processing capacity*

Staff downsizing due to the lockdown and casualties are constraining the dairy and meat processing industries. Storage and preservation have been affected due to difficulties in mobility, disruptions to supply chains and closure of local shops. This affects small-scale processors and informal businesses to a greater extent, who have seen greater restrictions on their operation. Much of dairy and meat processing in developing countries is informal (up to 90 percent of the volume in some cases), however, there are no available figures to estimate these effects.[35]

### *b. Transport*

National and international transport restrictions and other measures that have affected the operation and logistics in ports, customs and roads, have disrupted the flow of livestock food to the cities; affecting especially the livestock exporting countries, causing economic losses that have not been calculated so far, and that continue to be a threat since the health crisis is not over.

A clear example is Argentina and Uruguay, whose exports were temporarily suspended, undermining the income of livestock farmers [36] [37] (OIT, 2020). In Chile, the daily restriction of food containers to China dropped to a range of 40-50 containers per day, compared to the 200-300 containers that were commonly received, with seafood among the products affected. St. Vincent and the Grenadines has faced connectivity restrictions between its transhipment point, the United States of America, and China.

The transportation of processed food and animal products was disrupted by the interruption of routes, changes in the frequency of service and delivery times due to increased controls and border closures; costs also increased due to more stringent disinfection protocols, the difficulty of finding services for carriers on their routes, among others.[38]

---

[32] CIAT. (2020). Cómo afecta la crisis del COVID-19 a la producción ganadera en Colombia. Obtained from https://latinclima.org/articulos/como-afecta-la-crisis-del-covid-19-la-produccion-ganadera-en-colombia-0

[33] ECLAC. (2020). Food systems and COVID-19 in Latin America and the Caribbean N° 11: Impacts and opportunities in fresh food production. Obtained from https://www.cepal.org/es/publicaciones/45897-sistemas-alimentarios-covid-19-america-latina-caribe-ndeg-11-impactos

[34] CIAT. (2020). Cómo afecta la crisis del COVID-19 a la producción ganadera en Colombia. Obtained from https://latinclima.org/articulos/como-afecta-la-crisis-del-covid-19-la-produccion-ganadera-en-colombia-0

[35] FAO. (2020). Mitigating the impacts of COVID-19 on the livestock sector. Obtained from https://doi.org/10.4060/ca8799en

[36] FAO. (2020). Mitigating the impacts of COVID-19 on the livestock sector. Obtained from https://doi.org/10.4060/ca8799en

[37] OIT. (2020). Panorama Laboral en tiempos de la COVID-19. Nota técnica regional. Efectos de la COVID-19 en la economía rural de América Latina. Obtained from https://www.ilo.org/wcmsp5/groups/public/---americas/---ro-lima/documents/publication/wcms_760656.pdf

[38] CIAT. (2020). Cómo afecta la crisis del COVID-19 a la producción ganadera en Colombia. Obtained from https://latinclima.org/articulos/como-afecta-la-crisis-del-covid-19-la-produccion-ganadera-en-colombia-0

Transport disruptions also affected the distribution of fresh food to local markets, affecting small-scale producers who depend on these markets. The closure of towns, the lack of exit and entry permits for food transporters and road interruptions make it difficult to move food from the field to urban wholesale and retail markets, causing substantial losses of perishable and fresh food at one of the first links in the chain as transport, reducing the availability of good quality food, access to a nutritious, diversified and healthy diet for a population that also has less income due to the economic slowdown.[39] [40]

### *c. Slaughterhouses*

Slaughterhouses were forced to design strict action plans, including temporary closures, health protocols (for workers, drivers and anyone else entering the plant), access restrictions for contractors or service providers, social distancing, reduction of slaughter hours and days, among others,[41] causing disruptions in the meat value chain.

The slaughterhouses that failed to comply with the standards had to be closed, increasing unemployment rates, illegal slaughtering, as they have resorted to clandestine slaughtering on farms or in private homes (without traceability or control, and with precarious hygiene), to the detriment of food security in the most remote rural areas.[42]

### *d. Milk collection and processing*

The collection structures of family production systems were seriously affected by the prevailing informality, thereby affecting processors and consequently informal milk value chains. This limits the productive capacity of smaller dairy plants, and leaves informal producers without their only market option, given their restrictions on product quantity and quality; with these effects being most noticeable in dual-purpose (milk and meat) livestock production systems.

On the other hand, the formal dairy sector was affected due to school closures and a decrease in school meals, as well as reduced demand for products for restaurants and the tourism sector.[43]

## 1.3 CONSUMPTION

### *a. Change in product supply and demand*

Due to the closures of fresh and informal food stores, the retail is shifting to supermarkets and online platforms. This means that demand for dairy and processed meat products has increased, creating new market opportunities; some products (yoghurts, cheeses, extended shelf-life milk) have been positioned and in some cases, producers have been brought closer to end consumers and new businesses have been created, such as "from farm to fork" online marketing platforms. There are several successful examples in the region that emerged during the pandemic, where, through digitalisation, producers market their products through e-commerce platforms. A study conducted in Brazil (Embrapa, 2020), showed an increase in direct purchases from the producer, through delivery, drive-thru or take-away. The use of digital media through mobile phones and social media has been successful in short marketing circuits, even more than online shopping, which has also increased.[44]

---

[39] FAO. (2020). Mitigating the impacts of COVID-19 on the livestock sector. Obtained from https://doi.org/10.4060/ca8799en

[40] UNDP. (2020). UNDP LAC C19 PDS N°14 B Latin America and the Caribbean: Natural Wealth and Environmental Degradation in the XXI Century. Obtained from file:///C:/Users/USUARIO/Downloads/undp-rblac-CD19-PDS-Number14B%20(2).pdf

[41] CONtextoganadero. (2020). Cambios en los horarios de algunas plantas de beneficio. Obtained from https://www.contextoganadero.com/ganaderia-sostenible/cambios-en-los-horarios-de-algunas-plantas-de-beneficio

[42] CIAT. (2020). Cómo afecta la crisis del COVID-19 a la producción ganadera en Colombia. Obtained from https://latinclima.org/articulos/como-afecta-la-crisis-del-covid-19-la-produccion-ganadera-en-colombia-0

[43] CIAT. (2020). Cómo afecta la crisis del COVID-19 a la producción ganadera en Colombia. Obtained from https://latinclima.org/articulos/como-afecta-la-crisis-del-covid-19-la-produccion-ganadera-en-colombia-0

[44] ECLAC. (2021). Food systems and COVID-19 in Latin America and the Caribbean N° 18: Digitalising agriculture for an inclusive transformation of rural societies. Obtained from https://www.cepal.org/fr/node/53992

However, consumers with lower purchasing power may see a reduction in their consumption of food of animal origin, due to their higher prices from processing and logistical costs of online trade deliveries, and their lower access to technologies for online marketing systems. Similarly, small and medium-sized producers who have limited or no access to technology, internet or electricity will be completely left behind, concentrating the market with large producers.[45] [46]

### *b. Reduced consumer purchasing power*

The lockdown, job losses, the impact on informal work, and the economic slowdown, among other factors, have left millions of people with less or no income to buy food, especially in countries with high labour informality.[47] [48]

A reduction in purchasing power can, in both the short and long term, cause alterations in the food basket. Some consumers may partially replace beef and dairy with cheaper options such as grains or caloric foods,[49] reducing the quantity and quality of their diets, increasing rates of malnutrition and the risk of future health problems.[50] [51] Recent analysis shows that approximately 50 percent of the poorest households in LAC are shifting their consumption patterns towards less healthy diets as a result of the COVID-19 crisis.[52].

In addition, the aforementioned loss of jobs has curtailed the capacity to purchase food. It is important to consider that, in addition to the loss of jobs during the pandemic, a reduction in working hours has been observed. While there was a global loss of 5.4 percent of working hours in the first quarter of 2020 (about 155 million full-time working days, assuming a 40-hour working week), and 14 percent in the second quarter (400 million full-time working days), South and Central America recorded a reduction of 20.6 percent in the first quarter and 19.2 percent in the second quarter of 2020.[53]

### *c. Reducing demand and public procurement*

The closure of restaurants and reduced tourism activities caused a sharp drop in the demand for food from these sectors globally, reducing, for example, the demand for premium livestock products such as speciality meat cuts. Regarding restaurants, businesses quickly migrated towards business models based on the use of technological platforms for the marketing and delivery of their products, along with new health and safety control measures. Nevertheless, a significant percentage of businesses closed for good. The WTO states that international tourism and related sectors suffered an estimated loss of 2.4 trillion dollars in 2020. In Central America, the crisis could cause a loss of up to 11.1 percent of its GDP. By country, Ecuador could fall by 9.0 percent, Argentina could lose 2.4 percent, and Colombia 2.3 percent. The decline would be smaller for Mexico (1.6 percent) and Brazil (0.6 percent).

Public procurement for school feeding programmes was also temporarily suspended, reducing producers' incomes and depriving millions of children of access to food. As of 23 March 2020, some 154 million

---

[45] FAO. (2020). Mitigating the impacts of COVID-19 on the livestock sector. Obtained from https://doi.org/10.4060/ca8799en
[46] UNDP. (2020). Food Security in the Face of the Covid-19 Pandemic, UNDP Blog. Obtained from https://www.latinamerica.undp.org/content/rblac/es/home/blog/2020/la-seguridad-alimentaria-frente-a-la-pandemia-del-covid-19.html
[47] ECLAC. (2020). Latin America and the Caribbean and the COVID-19 pandemic: Economic and social effects. Obtained from https://repositorio.cepal.org/handle/11362/45337
[48] OIT. (2020). Panorama Laboral en tiempos de la COVID-19. Nota técnica regional Efectos de la COVID-19 en la economía rural de América Latina. Obtained from https://www.ilo.org/wcmsp5/groups/public/---americas/---ro-lima/documents/publication/wcms_760656.pdf
[49] CONtextoganadero. (2020). Así sería el efecto del COVID-19 para el agro. Obtained from https://www.contextoganadero.com/economia/asi-seria-el-efecto-del-covid-19-para-el-agro
[50] FAO – CELAC. (2020). Food security under the COVID-19 pandemic. Obtained from http://www.fao.org/fileadmin/user_upload/rlc/docs/covid19/Boletin-FAO-CELAC.pdf
[51] UNDP. (2020). Food Security in the Face of the Covid-19 Pandemic, UNDP Blog. Obtained from https://www.latinamerica.undp.org/content/rblac/es/home/blog/2020/la-seguridad-alimentaria-frente-a-la-pandemia-del-covid-19.html
[52] BID. (2020). Garantizando la seguridad alimentaria en ALC en el contexto del COVID-19: Retos e Intervenciones. Obtained from http://dx.doi.org/10.18235/0002396
[53] ECLAC. (2020). Food systems and COVID-19 in Latin America and the Caribbean N° 14: Labour market response. Obtained from https://www.cepal.org/es/publicaciones/45581-sistemas-alimentarios-covid-19-america-latina-caribe-ndeg-5-impacto-riesgos

children and adolescents (more than 95 per cent of those enrolled in the region) were temporarily out of schools closed because of COVID-19, increasing the risk of child malnutrition.[54]

## 1.4 OTHER EFFECTS

### *Research*

The stability of research institutions focused on the livestock sector could be affected in the short, medium and long term. Some factors observed are, for example, a drastic change in research towards mitigating the effects of the crisis in the agricultural sector, less private resources allocated to research due to the economic slowdown, (temporary) budget cuts, suspension of research activities, and biosecurity measures, among others, which could affect research processes, and suffer setbacks in productive transition processes that were underway.[55]

### *a. Training, education and processes of livestock dialogue*

Meetings, workshops, farmers' field days, trainings, fairs, conferences were suspended, or some were held with technological support which, although they have proven to be a success due to the number of participants, have been inefficient to reach the most remote areas and the most isolated and vulnerable producers.[56]

### *b. Gender, youth and minorities in the livestock sector*

The social impacts on rural livelihoods could be profound and long-lasting, affecting family dynamics and causing setbacks in terms of inclusion and gender equality. Difficulties in carrying out remote work, lack of infrastructure, lack of basic services, neglect of health problems due to the pandemic, lockdown, uncertainty and the associated emotional crises could leave emotional traces that will permanently affect the family group, especially children, causing long-term effects on society as it will be difficult to recover from these consequences in their early development stages.[57]

The increase in unpaid domestic work, the decrease in income sources, the impact on the family economy, the increase in insecurity and social tensions that can lead to the resurgence of internal conflicts. In addition, increasing impact on family dynamics, loss of jobs and the demise of several informal small-scale value chains, the restriction of access to markets and other spaces due to the difficulty of accessing markets and other spaces due to the difficulty of complying with biosecurity measures, among others, may deepen gender inequalities, increase poverty and exclude the most vulnerable populations.[58]

On the other hand, the closure of public schools, failure to educate rural families through virtual platforms due to the lack of financial resources to acquire the necessary technologies, lack of internet access, insufficient electricity coverage in remote regions, and even the difficulty of some adults to guide the on-line schooling process of children and young people, the urgent need to drop out of school to make a living

[54] UNICEF. (2020). COVID-19: Más del 95 por ciento de niños, niñas y adolescentes está fuera de las escuelas en América Latina y el Caribe. Obtained from https://www.unicef.org/lac/comunicados-prensa/covid-19-mas-del-95-por-ciento-de-ninos-y-ni%C3%B1as-esta-fuera-de-las-escuelas

[55] CIAT. (2020). Cómo afecta la crisis del COVID-19 a la producción ganadera en Colombia. Obtained from https://latinclima.org/articulos/como-afecta-la-crisis-del-covid-19-la-produccion-ganadera-en-colombia-0

[56] CIAT. (2020). Cómo afecta la crisis del COVID-19 a la producción ganadera en Colombia. Obtained from https://latinclima.org/articulos/como-afecta-la-crisis-del-covid-19-la-produccion-ganadera-en-colombia-0

[57] UNDP. (2020). UNDP LAC C19 PDS N°8. Covid-19 and social protection of poor and vulnerable groups in Latin America: a conceptual framework. May 2020. Obtained from https://www.latinamerica.undp.org/content/dam/rblac/Policy%20Papers%20COVID%2019/finaldo

[58] UNDP. (2021). The impacts of COVID-19 on women's economic autonomy in Latin America, UNDP Blog. Obtained from https://www.latinamerica.undp.org/content/rblac/es/home/blog/2021/los-impactos-del-covid-19-en-la-autonomia-economica-de-las-mujer.html

in times of crisis, will have a great long-term effect. Non-attendance to in-person classes will also affect gains in food security and malnutrition.[59] [60]

Young people have been also affected, especially in terms of employment. It is estimated that 77% of young workers worldwide were employed in the informal sector. According to the ILO, at least one in six young people in the world have stopped working since the pandemic began. In addition, basic education and technical and vocational training have been seriously affected, mainly due to a lack of infrastructure. Despite these general figures and estimates for young workers, it is considered that the effects on livestock-related youth would be similar.[61]

### *c. Impact on sustainability*

LAC countries have positioned themselves as major food producers, which is why they play a critical role in food security and regional and global environmental balance, since productive activities are carried out where ecosystem services benefiting the entire planet are generated. Although no disaggregated data is available, it can be considered that the reduction of transport activities, the suspension of processing and marketing activities, the temporary closure of markets, among other containment measures, could have reduced emissions and the environmental impact of the livestock sector to some extent during the crisis.

Globally, the Climate Action Tracker (2020) estimates a fall in CO2 emissions of 4-11 percent by 2020 and 1-9 percent by 2021 compared to 2019 emissions. However, it is expected that economic recovery will lead to a rebound in GHG emissions and other environmental impacts.[62]

In times of pandemic, livestock producers may see little incentive to invest in sustainable systems, as there will be less supply of support programmes, less technical assistance and process monitoring, less investment in research and development of low-emission production alternatives, less ability of the market to pay differentiated prices for green products, and a greater need to generate income.[63] Meanwhile, the immediate economic recovery could create a negative effect on the ecosystem, even more so when the global demand for food is expected to increase in the coming decades, so the challenge will be how to produce more food with less: less pollution, less greenhouse gas emissions, less land-use change, less water, among other resources.

Addressing the direct consequences of COVID-19 may be the opportunity to make the adjustments that agri-food systems require to build resilience to future risks and establish a more sustainable relationship between humans and nature, in order to achieve the goal of moving towards more resilient, sustainable and inclusive agri-food systems.[64]

## 2. PROCESS OF RECOVERY

When analysing the current effects of the health crisis on the livestock sector, we can see that the already well-known social, environmental, economic and policy challenges that governments have been working on together with international organisations, have been exacerbated and, given the difficulty of predicting its long-term effects given that the health crisis has not ended and the little available data to quantify the magnitude of the effects in the region, the recovery strategies for the livestock sector must be thought of as

[59] CIAT. (2020). Cómo afecta la crisis del COVID-19 a la producción ganadera en Colombia. Obtained from https://latinclima.org/articulos/como-afecta-la-crisis-del-covid-19-la-produccion-ganadera-en-colombia-0

[60] Vergara, D. (2020). Menos del 10% de los niños en el campo tienen computador para recibir clases durante la cuarentena. Obtained from www.cerosetenta.uniandes.edu.co/por-alla-no-llega-ni-dios-la-educacion-rural-en-tiempos-de-pandemia

[61] OIT. (2020). Panorama Laboral en tiempos de la COVID-19. Nota técnica regional. Efectos de la COVID-19 en la economía rural de América Latina. Obtained from https://www.ilo.org/wcmsp5/groups/public/---americas/---ro-lima/documents/publication/wcms_760656.pdf

[62] UNDP. (2020). UNDP LAC C19 PDS No. 14 A Lessons from COVID-19 for a Sustainability Agenda in Latin America and the Caribbean. Obtained from file:///C:/Users/USUARIO/Downloads/undp-rblac-CD19-PDS-Number14A.pdf

[63] Trujillo, C. (2020). ¿Puede el confinamiento por COVID 19 propiciar un estilo de vida y un consumo más sostenible? Obtained from https://uniandes.edu.co/sites/default/files/asset/document/confinamiento-covid-19-cambio-consumo-sostenible.pdf

[64] ECLAC. (2020). Measuring the impact of COVID-19 with a view to reactivation. Special Report COVID-19 N°2. Obtained from https://www.cepal.org/sites/default/files/publication/file

dynamic processes, capable of adapting quickly to the circumstances as they arise, taking into account that new extreme climatic or sanitary events could occur and that the recovery must respond to the growing demand for food.[65]

The livestock sector must therefore be strengthened to support the recovery, ensuring access to safe and nutritious food to strengthen the health and resilience of populations and in sufficient quantity to overcome the crisis.[66]

It is necessary to take measures with a holistic approach to respond to the needs of the rural and urban population, drawing on the experiences of successful initiatives developed in recent years, especially in aspects such as adaptation to climate change and the reduction of its collateral effects, food security, actions to guarantee decent living conditions leaving no one behind, and the technological and environmentally sustainable reconversion of livestock production in LAC. But it is also important to respond to the distributive impact of the crisis on each segment of the population and its resilience (which is lower among the most vulnerable populations).[67]

To this end, FAO has recommended an essential measure, which lays down the foundation for all action:

***"the official statement from each government that, in the context of the COVID-19 pandemic, actions related to food and agriculture are strategic activities of national public interest, requiring special attention and support from all organs of the State, as well as support from the population at large."[68].***

This statement should have a special distinction and recognition of the importance of the livestock sector in ensuring the food security and livelihoods of the rural population. Recognise the role that family livestock production systems can play in productive and economic terms, their role in linking biophysical, organisational and socio-economic factors, and their strategic role in reaching the most vulnerable populations, ensuring food availability at the local level and reinforce sectoral investment, accordingly.[69] In order to minimise the adverse impacts of COVID-19 on food security and nutrition, while transforming global food systems to increase their resilience, sustainability and equity, FAO calls for immediate action in seven key priority areas, namely:

- Decision-making data. Ensuring the quality of data and analysis to provide effective policies for food systems and Zero Hunger.
- Transforming food systems. Rebuilding to transform during the response and recovery period.
- Economic inclusion and social protection for poverty alleviation: responses in favour of the poor people for inclusive post-pandemic economic recovery.
- Global Humanitarian Response Plan: addressing the impacts of COVID-19 and safeguarding livelihoods in food crisis contexts.
- Promoting smallholder resilience for recovery: protecting the most vulnerable people, promoting economic recovery and enhancing risk management capacities.
- Food safety standards and trade: facilitate and accelerate food and agricultural trade during the COVID-19 pandemic and beyond.
- Preventing the next zoonotic pandemic: strengthening and expanding the One Health approach to prevent animal-borne pandemics.

[65] CIAT. (2020). Cómo afecta la crisis del COVID-19 a la producción ganadera en Colombia. Obtained from https://latinclima.org/articulos/como-afecta-la-crisis-del-covid-19-la-produccion-ganadera-en-colombia-0

[66] CELIA. (2020). La territorialización de la producción agroalimentaria sobre bases agroecológicas en Cuba: Un reforzamiento sostenible ante la crisis del COVID-19. Luis L. Vázquez. Investigador Asociado-CELIA La Habana, Cuba. Obtained from http://www.agroecologynetwork.org/uploads/4/9/2/9/49299363/celia_luis_vazquez-_agroeco_cuba-covid19.pdf

[67] UNDP. (2020). UNDP LAC C19 PDS No. 14 B Latin America and the Caribbean: Natural Wealth and Environmental Degradation in the XXI Century. Obtained from file:///C:/Users/USUARIO/Downloads/undp-rblac-CD19-PDS-Number14B%20(2).pdf

[68] FAO – CELAC. (2020). Food security under the COVID-19 pandemic. Obtained from http://www.fao.org/fileadmin/user_upload/rlc/docs/covid19/Boletin-FAO-CELAC.pdf

[69] FAO. (2014). Agricultura Familiar en América Latina y el Caribe: Recomendaciones de Política. Obtained from http://www.fao.org/3/i3788s/i3788s.pdf

## 3. RECOMMENDATIONS

Recovery with transformation of agri-food systems must include social, economic and environmental dimensions to achieve the goal of moving towards more resilient, sustainable and inclusive agri-food systems. In this sense, recovery can be the opportunity for transformation, i.e. to make the adjustments that agri-food systems require to build resilience to future risks.

Protecting livestock producers means protecting the production of good quality food for all. This requires working together to establish strategies to address the social, economic and environmental effects of the animal health crisis.

FAO suggests taking advantage of CODEGALAC to design a joint strategy to support the recovery of the livestock sector in the countries of the region.

At the global level, FAO has developed its strategic framework 2022 - 2031, which aims to support the 2030 Agenda through the transformation towards more efficient, inclusive, resilient and sustainable agri-food systems, to achieve better production,[70] better nutrition,[71] better environment[72] and better lives, leaving no one behind.[73] In this regard, FAO will apply four cross-cutting or cross-sectoral "accelerators": i) technology, ii) innovation, iii) data and iv) complements (governance, human capital and institutions) in all its programmatic interventions to speed up results.[74]

Considering this global framework, and the three regional initiatives that were established at the 36th Session of the Regional Conference for Latin America and the Caribbean[75]: i) Sustainable food systems to provide healthy diets for all, ii) Hand-in-Hand towards prosperous and inclusive rural societies and iii) Sustainable and resilient agriculture, it will be necessary to take actions to favour the economic reactivation, social recovery, promotion of instruments to protect labour, risk mitigation, among others, allowing the livestock sector to continue contributing to poverty reduction and the elimination of hunger in LAC countries.

In keeping with the above, FAO's proposal to support the LAC countries considers the following priorities:

- Transforming food systems: healthy diets for all, to ensure greater supply and physical access to diversified and nutritious diets for all people and to facilitate economic access to food and improve information and consumption habits to promote healthy diets.
- - Hand-in-Hand: towards prosperous and inclusive rural societies, which aims to generate tailor-made public policies for countries and territories that provide comprehensive solutions for the rural territory, in order to support increased investment in public and private goods, expand social protection in rural areas, promote sustainable natural resource management, boost non-agricultural rural employment and expand rural infrastructure with investment packages.
- Sustainable and climate change resilient agriculture, to strengthen the resilience of agri-food systems and livelihoods to socio-economic and environmental stress through a better understanding

[70] Ensure sustainable consumption and production patterns, through efficient and inclusive food and agricultural supply chains at local, regional and global levels, ensuring resilience and sustainability of agri-food systems under changing climatic and environmental conditions.
[71] End hunger, achieve food security and improved nutrition in all its forms, in particular by promoting nutritious foods and increasing access to healthy diets.
[72] Protect, restore and promote the sustainable use of terrestrial and marine ecosystems and combat climate change (reduction, reuse, recycling, waste management) through more efficient, inclusive, resilient and sustainable agri-food systems.
[73] Promote inclusive economic growth by reducing inequalities (urban and rural areas, rich and poor countries, men and women).
[74] FAO. (2021). Strategic Framework 2022-2031 http://www.fao.org/3/ne577es/ne577es.pdf. Obtained from http://www.fao.org/3/ne577es/ne577es.pdf
[75] FAO. (2020). Regional Conference for Latin America and the Caribbean (LARC). Obtained from http://www.fao.org/about/meetings/regional-conferences/larc36/documents/es/

of multiple risks and more effective governance mechanisms for the implementation of vulnerability reduction measures, for more sustainable production, reducing the environmental footprint and integrating ecosystems and biodiversity, and for producers, rural communities and ecosystems to be more resilient to climate change.

- Scaling up investments accelerating the transformation towards sustainable agri-food systems, with large-scale impact on reducing inequalities and eradicating poverty and hunger, through increased public and private investments and enhanced capacities to stimulate future investments.

Against this background, and recognising the need to take measures that favour the recovery and transformation that livestock production systems require in order to face current challenges, the CODEGALAC Technical Secretariat proposes to concentrate efforts and work considering the following actions/recommendations:

- Support the sustainable increase in the production, availability and quality of livestock products, favouring access to productive resources, financing, training, information and technological services to improve the connection between the livestock sector and goods and services markets.
- Facilitate the integration of small-scale production into local value and supply chains, favouring the establishment and development of associative forms of family livestock production, in order to improve the scale of operations, through strategies that bring producers closer to the final consumer (short circuits, public procurement), reducing intermediation links and exposure to health risks.
- Support the development of small-scale productive infrastructure such as collection centres, modular slaughterhouses, milk processing plants, and access to other public goods and financial and technical assistance.
- Support the sustainable increase in the production, availability and quality of livestock products, favouring access to productive resources, financing, training, information and technological services to improve the connection between the livestock sector and goods and services markets.
- Facilitate the integration of small-scale production into local value and supply chains, favouring the establishment and development of associative forms of family livestock production, in order to improve the scale of operations, through strategies that bring producers closer to the final consumer (short circuits, public procurement), reducing intermediary links and exposure to health risks.
- Support the development of small-scale productive infrastructure such as collection centres, modular slaughterhouses, milk processing plants, and access to other public goods and financial and technical assistance.
- Improve prevention, mitigation, preparedness and response initiatives for all hazards, including biological hazards. Invest in disaster risk reduction: improve risk-related information systems.
- Support the generation and collection of locally relevant data and information on the livestock sector to help strengthen evidence-based decision-making.
- Promote youth leadership pipelines, bridging the policy gap and generational change, fostering participatory innovation processes, and enabling youth leadership in their communities to design solutions to their own needs.
- Ensure biosecure international and national mobility and match labour demand with supply. Include agricultural migrant workers in social protection schemes and policy strategy, considering their different needs based on gender, age, migration or employment status.

FAO, through the Technical Secretariat of the XV CODEGALAC, offers support to the countries for the implementation of the actions described in this document, based on the new strategic framework and the regional priorities previously described:

- Supporting the improvement of government capacities to design policies, programmes and legal frameworks that strengthen inclusive and resilient livestock production and respond to social, economic and environmental priorities, facilitating accompaniment and evidence-based decision-

making spaces that respond to the needs of the sector, and that allow for the establishment of effective governance that balances the interests of all stakeholders and institutions necessary to ensure an inclusive transformation of livestock production systems.

- Supporting the identification, systematisation and implementation of successful experiences (knowledge, good practices, policies, technology, resources, etc.) that favour a sustainable recovery of the sector and that can be replicated and/or considered in other countries and/or territories.
- Supporting the mobilisation of resources from different sources, enabling the implementation of actions, strategies and programmes to move towards more resilient, sustainable and inclusive livestock production.
- Strengthening dialogue at the regional level, between the public and private sectors, with a view to promoting the development and implementation of joint strategies and projects for the sustainable development of the livestock sector.