Special Report



No. 13





27 January 2022

How to finance sustainable development

Recovery from the effects of COVID-19 in Latin America and the Caribbean



I. Stylized facts of two processes that are difficult to reverse: a worsening environmental situation and setbacks with the 2030 Agenda for Sustainable Development¹

A. Global asymmetries are becoming more acute

Global asymmetries influence policies for recovery in Latin America and the Caribbean. Nearly 30 years after the Earth Summit and the global adoption of an international development agenda, in practical terms the environmental pillar of the 2030 Agenda for Sustainable Development has not been taken into consideration in recovery policies in the region. This has created major problems in terms of the medium- and long-term direction of regional economies.

On balance, recovery measures —which have focused on maintaining consumption or offsetting falls in it— have weakened non-health public services, territorial monitoring, and social and governmental monitoring functions. Transfers to support consumption strengthen an unsustainable development pattern and recovery measures prolong the anchoring to an approach that results in high vulnerability to environmental impacts, with unchanged or increased dependence on fossil fuels. The region is squandering the opportunity to use the recovery effort to enhance production and consumption patterns and improve the quality and coverage of public services, which the coronavirus disease (COVID-19) pandemic has shown to be very important.

Segregation in production and distribution of COVID-19 vaccines has exposed the weaknesses of global solidarity and multilateralism. For example, it has revealed the geopolitical management of policies on stockpiling and recognition of vaccines by European countries. This

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¹ The information used to prepare this document, unless otherwise indicated, is that available on 31 August 2021.

impinged on developing country representatives' attendance at the twenty-sixth session of the Conference of the Parties to the United Nations Framework Convention on Climate Change in November 2021 and is continuing to affect other types of international movements.

There are also clear global and regional asymmetries in financing of climate change adaptation, with a marked bias towards mitigation. Urban mobility in the region has mainly been left to depend on individual choices, which often favour privately owned vehicles, exacerbating congestion and pollution in cities.

Emissions from urban and air transport decreased momentarily because of lockdown policies and the recession, with clear falls in air pollution in many cities. However, cuts to non-health public spending and weakened surveillance have led to more illegal activities such as deforestation on natural borders. The reductions in emissions were smaller than those called for in the Paris Agreement, and the resources applied and sectors favoured during the pandemic contrast with pledges and declarations of more ambitious explicit environmental policies. It is still possible to redirect financing and expand fiscal space to achieve a sustainable recovery, but the responses must be better and more urgent.

B. The regional impact of global warming is substantial, calling for more adaptation actions, and the global situation is worse than was thought before the pandemic

The last 30 years have been the warmest on record in the region, with the fastest temperature rises in countries at more northern and southern latitudes. Between the 1901–1930 average temperature and the 1991–2020 average, there is an increase of more than 1°C (see figure 1).

Figure 1 | Latin America and the Caribbean: average monthly temperature, 1901–2020, and temperature anomaly, 1991–2020 compared to 1901–1930 (Degrees Celsius)



Figure 1 (concluded)





Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of World Bank, Climate Change Knowledge Portal [online] https://climateknowledgeportal.worldbank.org/download-data.

During 2020 and 2021 there were several high-impact weather events, including severe droughts in South America and frequent and intense hurricanes in the Caribbean and Central America. Such events increasingly demand adaptation responses. Other changes are under way that are relevant to adaptation —as noted in the sixth report of the Intergovernmental Panel on Climate Change (IPCC, 2021)— and increase the region's vulnerability in the medium term. For instance, 2020 was one of three warmest years on record in Mexico, Central America, and the Caribbean, and the second warmest year in South America. The ice masses in the Chilean and Argentine Andes have continued to retreat, thus maintaining the pattern of recent decades, ocean levels have risen, and ocean acidification has worsened. Adaptation measures, such as early warning systems for various hazards, have not yet been developed to a sufficient level in the region.

Climate change diminishes crop yields, reduces availability of water resources, and causes substantial damage to marine and terrestrial ecosystems. These changes jeopardize achievement of the Sustainable Development Goals (SDGs), particularly ending poverty and reducing inequality. More adaptation resources are therefore needed.

C. Pre-existing pollution exacerbated the effects of the pandemic, and its brief decline in 2020 saved lives, especially in urban areas

Lockdowns and closures of industrial and commercial establishments led to localized improvements in air quality (ECLAC, 2020b). However, like the falls in greenhouse gas emissions, these improvements were temporary; and they dissipated when economic activities resumed (ESA, 2021). During lockdowns, coarse particulate matter (PM10) decreased by up to 58% and nitrogen oxides (NOx) by up to 70% in the most significant cases reported (PM10 in Lima and NOx in Medellín from March to April 2020) (Mendez-Espinosa and others, 2020). Significant impacts were also reported in Bogotá, Mexico City, Rio de Janeiro, Santiago and São Paulo (see map 1 and figures 2 and 3).



Source: European Space Agency (ESA), "Copernicus Sentinel-5P Tropospheric Nitrogen Dioxide" [online] https://maps.s5p-pal.com/no2/. Note: The borders and names on the map do not indicate support or official acceptance by the United Nations.



Figure 2 | Latin America (5 cities): air quality index for PM2.5 suspended particulate matter, before and during the pandemic

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of Air Quality Open Data Platform Worldwide COVID-19 dataset [online] https://aqicn.org/data-platform/covid19/es/.

Note: The air quality index is based on the median of PM2.5 measurements at air quality monitoring stations in Bogotá, Buenos Aires, Mexico City, Santiago and São Paulo. The index scale is based on the United States Environmental Protection Agency (EPA) standard, whereby an air quality index rating of 0 to 50 indicates satisfactory air quality that poses little or no health risk, and higher values indicate adverse effects on people's health.



Figure 3 | Latin America (5 cities): air quality index for PM10 suspended particulate matter, before and during the pandemic

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of Air Quality Open Data Platform Worldwide COVID-19 dataset [online] https://aqicn.org/data-platform/covid19/es/.

Note: The air quality index is based on the median of PM10 measurements at air quality monitoring stations in Bogotá, Buenos Aires, Mexico City, Santiago and São Paulo. The index scale is based on the United States Environmental Protection Agency (EPA) standard, whereby an air quality index rating of 0 to 50 indicates satisfactory air quality that poses little or no health risk, and higher values indicate adverse effects on people's health.

In 2019, fine particulate matter in the air and ground-level ozone caused around 165,000 deaths in the region (Murray and others, 2020). During the pandemic, Latin American and Caribbean capitals tended to move towards the guideline annual averages of 5 μ g/m³ for PM2.5 and 15 μ g/m³ for PM10 set by the World Health Organization (WHO) in September 2021. Improvements in air quality brought about by lockdowns led to a 3% reduction in mortality in cities such as Santiago and São Paulo and up to 7% in Lima (see figure 4).



Figure 4 | Latin America (4 cities): reductions in premature deaths and deaths owing to all causes among over-30s if improvements in PM2.5 particulate matter levels caused by lockdowns (first week of school closures) had been sustained throughout the year

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of J. L. Kephart and others, "COVID-19, ambient air pollution, and environmental health inequities in Latin American cities", *Journal of Urban Health*, vol. 98, No. 3, June 2021.

Note: Any effects and trends other than in PM2.5 fine particulate matter are not considered. These are average values, compared to the average of the corresponding weeks in the three preceding years.

Short- and long-term air pollution aggravated the health crisis. Based on an assessment of global research on the possible interaction of air pollution with COVID-19, Marquès and Domingo (2022, p. 7) note that "it seems evident that there has been/is a clear association between the air concentrations of certain air pollutants and the incidence and severity/mortality of COVID-19".

The pandemic and environmental effects have interacted with growing social inequalities. Based on data collected between April and May 2020 in ten cities in the region, Bolaño-Ortiz and others (2020) assert that there is a positive correlation between daily cases, total cases and mortality, on one hand, and air pollution, poverty and inequality, on the other. Kephart and others (2021) link the decline in travel with lower incidence of COVID-19. Research on large urban areas also shows that the declines during lockdowns were sharper in wealthier districts than in less affluent ones (Aromí and others, 2021; Dueñas, Campi and Olmos, 2021; Gozzi and others, 2021; Mena and others, 2021). Informality, the prevalence of precarious short-term contracts, and greater participation in the provision of essential services are key determining factors in these findings (Delaporte, Escobar and Peña, 2021; Dueñas, Campi and Olmos, 2021). Martinez-Soto and others (2021) report that during the lockdown in Temuco (Chile), PM2.5 emissions increased in wealthier areas compared to the previous year, owing to burning of wood to heat homes, but decreased in poorer areas, probably as a result of energy poverty (both trends with harmful repercussions for human health).

D. Financing of public transport systems under pressure and changes in road space distribution

The pandemic, fear of infection, and lockdowns together led to a considerable drop in demand for transport. The decline has been very damaging for public transport systems, which have had to continue operating. There have been falls in demand for passenger transport across the region, as reflected in the cities that report relevant data, such as Montevideo (17%), Bogotá (31%), Mexico City (44%) and Lima (60%) (see figure 5). This fall in demand, restrictions on passenger load factors, and the obligation to maintain services have caused a significant de-funding of public transport systems and have put pressure on government support mechanisms to guarantee services, such as subsidies. Because public transport services are less frequent and of lower quality, travel time has increased from communities that are far from urban areas, creating a vicious circle of falling demand for and defunding of public transport. Some cities in countries with high motorization rates (Argentina, Chile, Mexico) have not yet returned to pre-pandemic levels of public transport use.



Figure 5 | Latin America (9 cities): change from typical pre-pandemic public transport use (Percentages)

Source: Moovit, *Global Public Transport Report 2020* [online] https://moovitapp.com/insights/en/Moovit_Insights_Public_Transit_Index-countries. Note: Change relative to the activity in the week before January 15 2020.

The trend towards higher motorization rates in the region is structural and linked to rising income levels. In addition, fears of overcrowding in public transport and its low quality due to lower frequency create a vicious circle of abandonment and increased costs for communities that are far from urban areas. In parallel, there has been an increase in the rate of motorization for cars and especially motorcycles. Between 2019 and 2021 the number of motorcycles grew faster than the number of road vehicles.

The need for continued movement and the key role of the public sector in the pandemic enabled reallocation of road space: space for privately owned cars was converted to cycle lanes and pedestrianized streets, which are very likely to become permanent.

E. As poverty has grown, so have informal settlements

In 2018, around 21% of the population (about 116 million people) lived in slums in 12 countries in the region (Argentina, Chile, Colombia, Costa Rica, Dominican Republic, Guatemala, Honduras, Mexico, Paraguay, Peru, Plurinational State of Bolivia and Uruguay). Constraints on household income have led to growth in informal settlements, complicated the self-build process, and hindered access to formal housing; the trend is difficult to reverse, given the slow pace at which poverty is being overcome and the extent of informality (see figure 6). In Chile, the TECHO foundation has reported that, based on the Ministry of Housing and Urban Affairs' 2019 national survey of informal settlements, in 2020–2021 there is set to be a 73.5% increase in the number of families in informal settlements, and a 20.8% increase in the number of such settlements (TECHO, 2021). In the recovery, 1.2 million housing solutions have been pursued, creating more than 1.5 million jobs. Housing solutions in the region are labour-intensive and low in import use, meet critical social demand and could reduce the environmental footprint in construction processes.



Figure 6 | Latin America (10 countries):^a year-on-year variation in mortgage portfolio, simple average, 2015–2021 (Percentages, on the basis of constant local currency)

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of Brazilian Association of Real Estate Loans and Savings Companies (ABECIP), Brazilian Institute of Geography and Statistics (IBGE), Central Bank of Brazil, Central Bank of Chile, National Institute of Statistics of Chile, Financial Market Commission of Chile, Bank of the Republic of Colombia, Financial Superintendence of Colombia, Central Bank of Costa Rica, Superintendency of Banks of Ecuador, Central Bank of Ecuador, National Banking and Securities Commission of Mexico (CNBV), National Institute of Statistics and Geography (INEGI), Central Bank of Paraguay, Central Reserve Bank of Peru, Superintendency of Banking, Insurance and Private Pension Funds Administrators of Peru, Superintendency of Banks of the Dominican Republic, Central Bank of the Dominican Republic, Superintendency of Banks of Guatemala and Bank of Guatemala.

^a The countries included are: Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, Guatemala, Mexico, Paraguay and Peru.

In terms of water and sanitation —which are central to tackling the crisis, along with housing, health and public transport— the region is not on course to meet the targets of universal coverage contained in the 2030 Agenda. Levels of coverage have become stuck at lower percentages than in previous years.

F. More plastic waste

Use and disposal of single-use facemasks and other plastic waste has increased as a result of the pandemic. In 2020, about 585 million tons of such plastic health-care waste was generated worldwide and around 82% of it came from 35 countries, including Brazil, Colombia, Mexico and Peru (Benson, Bassey and Palanisami, 2021). Discarded masks degrade into polluting plastic particles (Silva and de Sousa, 2021; Prata and others, 2020) and their plastic and silicone fibres contain significant levels of heavy metals (lead, antimony and copper) that are released on contact with water (Sullivan and others, 2021). Facemasks floating downstream into the sea or being dumped in it increase pollution and could be hazardous to public health; stricter rules are therefore needed on their manufacture, disposal and recycling.

G. A regressive structural change: trade in environmental goods has weakened

As a proportion of the region's international trade, exports of environmental goods have declined, possibly as a symptom of reprimarization. Production and export of environmental goods facilitate structural transformation by lifting the three limits that regional economies face in the three-gap (economic, social and environmental) model described by ECLAC (2020a). Production and export of such goods can also improve international competitiveness in the medium and long term, owing to demand for technologies linked to the ecological transition. Exports and imports both declined in absolute terms (see figure 7), and while in 2019 exports of environmental goods financed 71% of the value of environmental imports, that share declined by 2 percentage points in 2020. Renewable energy and drinking water treatment and wastewater management plants account for more than 50% of trade in both directions.



Figure 7 | Latin America and the Caribbean (11 countries):^a exports and imports of environmental goods, 2015–2020 (Billions of dollars at current prices and percentages of total exports and imports)

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of United Nations, UN Comtrade Database [online] https:// comtrade.un.org/.

- Note: The methodology from the Asia-Pacific Economic Cooperation (APEC) and Organisation for Economic Co-operation and Development (OECD) Combined List of Environmental Goods (CLEG) was applied (J. Sauvage, "The stringency of environmental regulations and trade in environmental goods", OECD *Trade and Environment Working Papers*, No. 2014/03, Paris, OECD Publishing, 2014; OECD, *Report on a Set of Policy Indicators on Trade and Environment*, Paris, 2019 [online] https://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=COM/TAD/ENV/ JWPTE(2018)2/FINAL&docLanguage=En), including 248 individual product categories. Some analysts believe that the CLEG methodology favours the more industrialized countries. Wherever possible, net exports and imports (without re-exports and re-imports) are used. The product lines are harmonized with the Harmonized Commodity Description and Coding System prevailing in that year, which is to say the fifth (2017–2020) and fourth editions (2015–2016).
- ^a The 11 countries included for which data are available for 2020 are: Argentina, Barbados, Belize, Brazil, El Salvador, Grenada, Guatemala, Guyana, Mexico, Plurinational State of Bolivia and Uruguay.

H. Rule of law indicators worsened, and more environmental defenders were threatened or killed

Between 2019 and 2020, rule of law indicators for 40% of countries in the world worsened. In Latin America, the situation is worse (47%) (see figure 8). The deterioration of these indicators goes hand in hand with worse environmental performance because environmental protection is primarily a government function and is not co-opted by productive systems if the law is not observed.



Figure 8 | Latin America and the rest of the world: correlation between rule of law and environmental performance, 2020

Source: World Justice Project (WJP), "WJP Rule of Law Index", 2020 [online] https://worldjusticeproject.org/rule-of-law-index/.

Attacks on human rights defenders increased in 2020. According to data from the organization Global Witness, at least 227 murders of environmental and land defenders were recorded in 2020. Of these, around three quarters occurred in Latin America. This is more than the 212 murders reported in 2019, two thirds of which occurred in the region (Global Witness, 2021). Once again, Latin America and the Caribbean was the most dangerous region for people defending their homes, land and livelihoods, as well as ecosystems vital to biodiversity and climate.

- Of the ten countries with the highest number of recorded attacks in the world, seven are in Latin America. Nearly three quarters of the attacks recorded in Brazil and Peru occurred in the Amazon region.
- In 2020, the disproportionate number of attacks against indigenous peoples continued. Although they represent just 5% of the world's population, more than one third of fatal attacks targeted indigenous people.
- In 2020, 28 victims were State officials or park rangers and were attacked while protecting the environment.
- One third of the reported attacks are connected to extraction of resources (logging, mining and large-scale agro-industry) or the construction of hydroelectric dams.

I. While the entry into force of the Escazú Agreement is a step forward, it is more difficult to exercise environmental democracy

When it entered into force on 22 April 2021, the Regional Agreement on Access to Information, Public Participation and Justice in Environmental Matters in Latin America and the Caribbean (the Escazú Agreement) became a powerful instrument to ensure that procedural environmental rights are effectively upheld, even in emergency conditions. The Escazú Agreement was signed by 24 countries and, to date, has been ratified by 12.

In response to the threat and impacts of the pandemic, the countries of Latin America and the Caribbean followed the global trend in 2020 and much of 2021, by declaring states of exception according to their respective regulatory frameworks, with various restrictions that included administrative procedures.² In fact, various services began to be delivered exclusively online. These extraordinary measures hampered the exercise of procedural rights to information, participation and justice in environmental matters. Consequently, as regards access to environmental information, extensions were granted in matters such as companies' reporting deadlines to complete records of emissions and transfers of pollutants, and in processes of granting environmental permits and inspections. With regard to requests for information, response deadlines (including those applicable to environmental information) were lifted or extended, or requests related to the pandemic were given priority. In view of this situation, in most countries the public bodies that oversee transparency and the right of access to information have issued recommendations and guidelines.

Regarding public participation, in several countries face-to-face services were suspended, including those for obtaining environmental licences, and deadlines for activities relating to areas such as public accountability were postponed. These activities were carried out online or resumed with certain limitations in accordance with safety protocols. In view of this situation, the Inter-American Commission on Human Rights (IACHR), in its resolution 1/2020, called on countries to refrain from introducing legislation and/or moving forward to carry out production and/or extractive projects in the territories of indigenous peoples during the period the pandemic may last, given the impossibility of conducting prior informed and free consent processes, as provided for in the Indigenous and Tribal Peoples Convention, 1989 (No. 169) of the International Organization of Labour (ILO) and other relevant international and national instruments on the subject.

Access to justice followed a similar pattern, with measures such as the suspension of activities, lifting of deadlines, telework, limited work shifts, online hearings and prioritization of matters relating to protection of fundamental rights. In the environmental sphere, appeals to higher authorities were suspended and general orders were issued to monitor projects remotely, requiring proactivity from the respective owners.

Although in some cases the effective enjoyment of access rights began to slowly recover in the last quarter of 2021 with the gradual lifting of health-related restrictions, the repercussions are being felt even after measures are lifted, widening gaps that existed even before the pandemic.

J. The lack of surveillance resulted in faster deforestation and biodiversity loss

In the region, several areas and countries, such as Colombia, Mexico, Peru and northern Central America, suffer from forest loss, but the trend in Brazil is decisive with regard to the overall results. Deforestation in the Brazilian Legal Amazon accelerated from 10,120 km² lost in 2019 to 11,088 km² lost in 2020 (INPE, 2020) (see figure 9).

According to research carried out by Brazilian organizations, 94% of deforestation in the Brazilian Amazon and Cerrado biomes is illegal and poses a significant economic risk to the commodities market and legal producers and investors (see figure 10).³

² Countries such as Argentina, El Salvador, Honduras, Panama, Paraguay, Peru, the Plurinational State of Bolivia and Uruguay were placed in a state of public emergency or national emergency, while Chile, Colombia, Ecuador, Guatemala and Jamaica were place in a state of public calamity or disaster. Other countries, such as Mexico and Trinidad and Tobago, officially recognized COVID-19 as a serious contagious disease, enabling them to take various actions. The duration of these states of exception or extraordinary measures ranged from days to months, meaning that many instruments put in place in the region were extended in 2021 and the applicable decrees were amended. Along with these declarations, ministries, especially health ministries, determined or complemented the authorities' responses, which had an impact on fundamental freedoms and rights.

³ The organizations are: Instituto Centro de Vida (ICV), Instituto de Manejo e Certificação Florestal e Agrícola (Imaflora) and the Federal University of Minas Gerais (UFMG).

Figure 9 | Brazil: deforestation and emissions^a



A. Satellite monitoring of Amazon Forest deforestation, Amazon deforested area calculated by the PRODES project, 2012–2020.

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of National Institute for Space Research (INPE), "Nota Técnica Estimativa do PRODES 2020", 2020 [online] http://www.obt.inpe.br/OBT/noticias-obt-inpe/estimativa-de-desmatamento-porcorte-raso-naamazonia-legal-para-2020-e-de-11-088-km2/NotaTecnica_Estimativa_PRODES_2020.pdf.

^a For the states of Acre, Amapá, Amazonas, Maranhão, Piauí and Roraima, the data are for the period from 2018 to 2020.

Deforestation and illegal activities reduce biodiversity (the Living Planet Index reports a 94% decline in species population for Latin America and the Caribbean between 1970 and 2016) (WWF, 2020), increasing the risk of zoonotic disease, with global repercussions such as the recent pandemic. Deforestation and illegal activities are also important drivers of climate change in the region, because of emissions from land-use changes, which are estimated at 663 MtCO2e in 2020 (see figure 11). The rate of species loss increased in 2020 compared to the previous biennium.





Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of National Institute for Space Research (INPE), PRODES project.



Figure 11 | Latin America and the Caribbean: Red List Index (RLI), 2016–2021

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of data from International Union for Conservation of Nature and Natural Resources (IUCN) and United Nations Statistics Division (for Sustainable Development Goals indicator 15.5.1).

Note: The Red List Index shows trends in the overall risk of extinction of species and is used by governments to monitor progress towards the goal of reducing loss of biodiversity. An index value of 1.0 indicates all species are in the Least Concern category (meaning they are not under threat of extinction in the near future). A value of 0 indicates the extinction of all species.

K. The gap between words and actions is widening: countries in the region have pledged larger reductions in emissions, but budgets are shrinking, and recovery spending is moving in the opposite direction to the environment

Latin American and Caribbean countries have declared a major commitment to reducing emissions in 2020 and 2021: 21 have already updated their national commitments to combat climate change (see table 1). The new unconditional pledges by 2030 target an emission reduction of 22% from the baseline scenario, compared to the 13% announced in 2015 (Samaniego and others, 2019), while under the conditional pledges the reduction will be 28%, compared to the 23% originally announced in the nationally determined contributions (see figure 12). In addition, Argentina, Barbados, Belize, Brazil, Chile, Colombia, Costa Rica, the Dominican Republic, Jamaica, Panama and Uruguay —which account

for around 50% of regional emissions— have announced commitments to transition to carbon neutral economies by 2050. Chile, Colombia, Costa Rica, Guatemala and Mexico have even published their long-term strategies for the period through to 2050, as required by the Paris Agreement.

First nationally determine (12 countries)	d contribution, 2015	Updated commitments, 2021 (21 countries)				
Bahamas	Uruguay	Antigua and Barbuda	Nicaragua			
Bolivia (Plurinational	Venezuela (Bolivarian	Argentina	Panama			
State of)	Republic of)	Barbados	Peru			
Dominica		Belize	Paraguay			
Ecuador		Brazil	Dominican Republic			
El Salvador		Chile	Saint Kitts and Nevis			
Guatemala		Colombia	Saint Lucia			
Guyana		Costa Rica	Suriname			
Haiti		Cuba				
Saint Vincent and		Grenada				
the Grenadines		Honduras				
Irinidad and Tobago		Jamaica				
		Mexico				

Table 1	Latin America	a and the Caribbean	nationally determined	l contributions, 2021
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Source: J.L. Samaniego, J.E. Alatorre and R. Van Der Borght, "Panorama de las actualizaciones de cara a la COP 26", *Project Documents*, Santiago, Economic Commission for Latin America and the Caribbean (ECLAC), 2021, forthcoming.

Note: Countries with a target of carbon neutrality by 2050 are marked in bold.





Source: J.L. Samaniego, J.E. Alatorre and R. Van Der Borght, "Panorama de las actualizaciones de cara a la COP 26", *Project Documents*, Santiago, Economic Commission for Latin America and the Caribbean (ECLAC), 2021, forthcoming.

However, without structural change, the kind of economic growth being stimulated by recovery packages and the recovery itself will push emissions back onto their previous path, above the pledged levels. For Latin America and the Caribbean, it is estimated that the 2020 recession led to a 4.8% drop in emissions compared to 2019. As the region is expected to grow by 5.2% in 2021 and by 2.9% in 2022 (ECLAC, 2021), if no additional decarbonization policies are adopted, emissions will grow by around 3.6% in 2021 and 2% in 2022. Indeed, emissions are on course to deviate, in 2022, from a path that is compatible with the pledges (see figure 13).



Figure 13 | Latin America and the Caribbean: greenhouse gas (GHG) emissions and national emission reduction pledges, 2019-2030

Source: Economic Commission for Latin America and the Caribbean (ECLAC).

In contrast to the focus of declarations, average spending on environmental protection in Latin America and the Caribbean measured in current dollars (according to the functional classification of spending) has undergone a steady decline in recent years, particularly in 2019–2020, when the average for 11 countries in the region was a drop of around 35%. Environmental budget expenditure in local currency was more than 40% lower in 2020 than in 2019 in Colombia, almost 30% lower in Brazil and around 20% lower in Argentina, El Salvador and Mexico. Costa Rica, the Dominican Republic and Uruguay stand in contrast to this situation, as they have maintained their environmental budgets. Spending on environmental protection was already very low in all the countries: between 2016 and 2019 it averaged just 0.4% of central government spending, and in 2020 this proportion fell to 0.2% (see figure 14).



Figure 14 | Latin America and the Caribbean (11 countries): spending on environmental protection, 2016–2020 (Index 2016=100 and percentages)

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of national budget statistics.

Note: Includes functional information on environmental protection spending in Argentina, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, El Salvador, Honduras, Mexico, Peru and Uruguay.

II. By targeting recovery spending, the opportunity to boost transformative sectors has been lost and this, coupled with the uncritical demand in recovery, underlines the unsustainable nature of the pre-pandemic development pattern

A. Quality and amount of investment announced in 2020 not sufficient to implement the 2030 Agenda for Sustainable Development and the Paris Agreement

Generally speaking, the resources allocated to recovery in Latin America and the Caribbean have not been substantial (see figure 15). In addition, stimulus packages have not benefited sustainable development as they have tended to reflect the traditional (pre-2030 Agenda) approach, focusing solely on the social dimension. This was clearly visible in 2020, given the negligible share of green investment in total announced spending (0.4%) and in specific spending for recovery (2.3%) (see figure 16). Despite this, stimulus packages for post-pandemic economic recovery could provide an opportunity to boost investment in low-carbon sectors that support the 2030 Agenda, especially in urban public services and environmental services, which are necessary to ensure public health.

Very few of the region's countries have channelled part of investment for recovery towards sectors or activities that reduce the environmental footprint or protect nature.⁴ Brazil, Chile, Colombia, Panama and Jamaica are among those that have included a sustainability component, albeit representing a very low share of GDP, in spending for economic recovery (see figure 17).



Figure 15 | Announced global spending on post-pandemic recovery, 2021 (Trillions of dollars)

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of United Nations Environment Programme (UNEP), "COVID-19 Recovery Tracker for Latin America and the Caribbean" [online] https://recuperacionverde.com/en/tracker/ and University of Oxford, Global Recovery Observatory, Oxford University Economic Recovery Project [online] https://recovery.smithschool.ox.ac.uk/tracking/.

⁴ While a substantial amount of resources has been committed to recovery worldwide, only a small portion thereof is directed to low-carbon initiatives, though certainly not as small as in Latin America and the Caribbean. Total global spending during the pandemic amounted to \$16.6 trillion (20% of global GDP in 2020), with \$2.33 trillion spent on recovery. Green recovery spending stood at US\$ 0.5 trillion, or 21.5% of recovery spending, about ten times more than the share of green spending in Latin America and the Caribbean, which shows that there is room for improvement in the region (University of Oxford, 2021).



Figure 16 | Latin America and the Caribbean: distribution of announced spending on post-pandemic recovery, 2021 (Billions of dollars)

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of United Nations Environment Programme (UNEP), "COVID-19 Recovery Tracker for Latin America and the Caribbean" [online] https://recuperacionverde.com/en/tracker/ and University of Oxford, Global Recovery Observatory, Oxford University Economic Recovery Project [online] https://recovery.smithschool.ox.ac.uk/tracking/.





Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of United Nations Environment Programme (UNEP), "COVID-19 Recovery Tracker for Latin America and the Caribbean" [online] https://recuperacionverde.com/en/tracker/ and University of Oxford, Global Recovery Observatory, Oxford University Economic Recovery Project [online] https://recovery.smithschool.ox.ac.uk/tracking/.

Some transformative investments —likely planned in advance— that were made in the region during the pandemic and contribute to a green recovery were directed towards sectors such as renewable energy in Brazil, Chile and Colombia, involving wind farms, solar power and other forms of clean energy;⁵ sustainable transport infrastructure, such as the metro in Panama and electromobility in Chile; sustainable and climate-resilient agriculture in Dominica and Jamaica; energy efficiency and sustainable tourism, among others. However, the bulk of investments have been in traditional sectors and are not aligned with a sustainable development pattern, as in the case of infrastructure development for fossil fuel energy and conventional transport (see figure 18). This widens the gap between pro-climate action declarations and the actual allocation of resources.

⁵ Chile has announced in various public forums its commitment to dedicating 30% of recovery spending towards environmentally friendly alternatives and climate action.

COVID-19

Figure 18 | Latin America and the Caribbean (12 countries): composition of recovery spending, by sector, 2021 (*Millions of dollars*)



A. Recovery spending on environmentally-friendly sectors

B. Recovery spending on sectors with large environmental footprint



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of United Nations Environment Programme (UNEP), "COVID-19 Recovery Tracker for Latin America and the Caribbean" [online] https://recuperacionverde.com/en/tracker/ and University of Oxford, Global Recovery Observatory, Oxford University Economic Recovery Project [online] https://recovery.smithschool.ox.ac.uk/tracking/.

Spending announcements in Argentina, Brazil, Chile, Colombia, Mexico and Peru amounted to US\$ 278 billion, which includes US\$ 47 billion for long-term recovery; of this, US\$ 1.5 billion corresponds to initiatives that are considered green in these countries. In other words, less than 0.5% of the total amount of announced packages of recovery measures are consistent with environmental and climate goals.

In 2021, Argentina, Brazil, Colombia and Mexico committed US\$ 10 billion in support for energy projects, with 59% of these resources allocated to measures that primarily provided support to fossil-fuel-based industries without environmental conditions (see figure 19). Recovery packages, therefore, have continued to follow an unsustainable path and do not encourage structural change. This highlights the inconsistency between the goals of the 2030 Agenda and the Paris Agreement and pronouncements in support thereof, and the actual targets of spending and investment programmes.

These four countries committed significant amounts of fiscal resources to support fossil energy by encouraging investment in oil exploration and extraction; gas exploration, development and production; construction of fossil fuel infrastructure; and support for sectors intensive in fossil energy, such as air transport. Resource commitments directed towards clean energy correspond primarily to the development of renewable energy (see figure 20).



Figure 19 | Latin America (4 selected countries): share of resources committed to support energy projects, by type of policy, 2021 (Percentages)

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of information from Energy Policy Tracker [online] www. energypolicytracker.org.

Note: Countries included are Argentina, Brazil, Colombia and Mexico. The policies are classified as follows:

- "Fossil unconditional" if they support the production and consumption of fossil fuels (oil, gas, coal, "grey" hydrogen or fossil-fuel-based electricity) without any climate targets or additional pollution reduction requirements.
- "Fossil conditional" if they support the production and consumption of fossil fuels (oil, gas, coal, "blue" hydrogen or fossil-fuel-based electricity) with climate targets or additional pollution reduction requirements.
- "Clean unconditional" if they support the production or consumption of energy is both low-carbon and has negligible impacts on the environment if
 implemented with appropriate safeguards. These policies support energy efficiency and renewable energies from naturally replenished resources
 such as sunlight, wind, small hydropower, rain, tides, and geothermal heat; "green" hydrogen and active transport (cycling, walking).
- "Clean conditional" (or "potentially clean") if they are stated to support the transition away from fossil fuels, but do not specify the implementation
 of appropriate environmental safeguards. Examples include: large hydropower; rail, public transport and electric vehicles (electric cars, bicycles,
 scooters, boats and others) that use multiple energy types.
- "Other energy" includes nuclear energy (including uranium mining), first generation biofuels, biomass and biogas (with a proven negative impact on the environment), incineration, hydrogen of unspecified origin and other multiple energy types.

Figure 20 | Latin America (4 selected countries): share of resources committed to support energy projects, by type of policy, 2021 (Billions of dollars)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of information from Energy Policy Tracker [online] www. energypolicytracker.org.

The policies are classified as follows:

- "Fossil unconditional" if they support the production and consumption of fossil fuels (oil, gas, coal, "grey" hydrogen or fossil-fuel-based electricity) without any climate targets or additional pollution reduction requirements.
- "Fossil conditional" if they support the production and consumption of fossil fuels (oil, gas, coal, "blue" hydrogen or fossil-fuel-based electricity) with climate targets or additional pollution reduction requirements.
- "Clean unconditional" if they support the production or consumption of energy is both low-carbon and has negligible impacts on the environment if
 implemented with appropriate safeguards. These policies support energy efficiency and renewable energies from naturally replenished resources
 such as sunlight, wind, small hydropower, rain, tides, and geothermal heat; "green" hydrogen and active transport (cycling, walking).
- "Clean conditional" (or "potentially clean") if they are stated to support the transition away from fossil fuels, but do not specify the implementation
 of appropriate environmental safeguards. Examples include: large hydropower; rail, public transport and electric vehicles (electric cars, bicycles,
 scooters, boats and others) that use multiple energy types.
- "Other energy" includes nuclear energy (including uranium mining), first generation biofuels, biomass and biogas (with a proven negative impact on the environment), incineration, hydrogen of unspecified origin and other multiple energy types.

In the rest of the world, trends in the direction of investment are no better. The G20 countries⁶ allocated 45% of recovery resources towards fossil energy and only 7% towards renewable energy projects (see figure 21), which delays the transition to clean energy globally and hinders adaptation in Latin America and the Caribbean.



Figure 21 Group of 20: share of resources committed to support energy projects, by type of policy, 2021 (*Percentages*)

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of information from Energy Policy Tracker [online] www. energypolicytracker.org.

- Note: Countries included are Argentina, Brazil, Colombia and Mexico. The policies are classified as follows:
 - "Fossil unconditional" if they support the production and consumption of fossil fuels (oil, gas, coal, "grey" hydrogen or fossil-fuel-based electricity) without any climate targets or additional pollution reduction requirements.
 - "Fossil conditional" if they support the production and consumption of fossil fuels (oil, gas, coal, "blue" hydrogen or fossil-fuel-based electricity) with climate targets or additional pollution reduction requirements.
 - "Clean unconditional" if they support the production or consumption of energy is both low-carbon and has negligible impacts on the
 environment if implemented with appropriate safeguards. These policies support energy efficiency and renewable energies from naturally
 replenished resources such as sunlight, wind, small hydropower, rain, tides, and geothermal heat; "green" hydrogen and active transport
 (cycling, walking).
 - "Clean conditional" (or "potentially clean") if they are stated to support the transition away from fossil fuels, but do not specify the implementation of appropriate environmental safeguards. Examples include: large hydropower; rail, public transport and electric vehicles (electric cars, bicycles, scooters, boats and others) that use multiple energy types.
 - "Other energy" includes nuclear energy (including uranium mining), first generation biofuels, biomass and biogas (with a proven negative impact on the environment), incineration, hydrogen of unspecified origin and other multiple energy types.

The recovery packages implemented in Latin America either assumed that the economic structure was adequate or failed to take into account considerations beyond the reactivation of consumption and its consequent impact on employment, thus sidelining any meaningful attempt to use recovery packages as a sustainable development strategy. Additional exceptional expenditure amid the crisis prioritized the health system, household consumption, without conditions, and support for businesses, without conditions. In the absence of a shift in supply and consumption patterns, environmental pressures and unsustainability will continue along their pre-pandemic path. As shown in figure 22, the areas to which fiscal supports were directed reinforced the prevailing pattern of consumption, rather than improving it.

⁶ Information from the Energy Policy Tracker database confirms that high-carbon projects outnumber renewable energy projects in G20 announced investment commitments, with at least USS 658 billion of public resources going towards various energy projects (see [online] www. energypolicytracker.org).





Source: M. Cárdenas and others, "Fiscal policy challenges for Latin America during the next stages of the pandemic: the need for a fiscal pact", IMF Working Papers, No. WP/21/77, Washington, D.C., International Monetary Fund (IMF), 2021.

Latin America and the Caribbean should seize this opportunity to ensure that regulation, increased spending, public investment and public procurement, as well as private investment that foster economic reactivation target the sectors that drive recovery, identified in ECLAC (2020a). These sectors include:

- Non-conventional renewable energies, which are cheaper per megawatt (MW), boost GDP growth, are more employment-intensive and have a smaller environmental footprint
- The restoration and improvement of urban services such as:
 - public transport with high-capacity clean-technology vehicles, to counteract the increasing rate of motorization
 - basic water and sanitation services, which have a significant multiplier effect on GDP and employment (ECLAC 2021)
- The circular economy, which also reduces the environmental footprint and creates high levels of employment
- Environmental restoration through:
 - emerging programmes for employment in the sale of environmental services, and
 - the bioeconomy and nature-based solutions
- The digital economy
- Sustainable tourism and
- the health-care manufacturing industry and
- the care economy

The common denominator in these sectors is that they have a high multiplier effect on GDP and employment creation and are aligned with climate goals and the Sustainable Development Goals. Announced spending as a share of GDP in countries whose recovery spending is directed towards environmentally friendly sectors, while countries that have announced higher recovery investments as a share of GDP tend to focus on sectors with a larger environmental footprint. This produces an "empty box," indicating that there are no instances where green investment in the recovery represents a high a share of GDP (see figure 23).



Figure 23 | Latin America and the Caribbean: efforts towards green post-pandemic recovery (Percentages and percentages of GDP)

- Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of United Nations Environment Programme (UNEP), "COVID-19 Recovery Tracker for Latin America and the Caribbean" [online] https://recuperacionverde.com/en/tracker/ and University of Oxford, Global Recovery Observatory, Oxford University Economic Recovery Project [online] https://recovery.smithschool.ox.ac.uk/tracking/.
- Note: The figure does not include information on previous investments, which could change the significance of the additional investment made during the pandemic. The horizontal scale represents countries that have 0% green (environmentally friendly) recovery spending as a proportion of their total recovery spending. Owing to limited space, only some of these countries are identified in the graph; the omitted countries are, from left (lowest recovery spending as a percentage of GDP) to right (highest recovery spending as a percentage of GDP): Guyana, Paraguay, Uruguay, Antigua and Barbuda, Cuba, Grenada, Nicaragua, Venezuela (Bolivarian Republic of), Guatemala, El Salvador, Ecuador, Honduras, Haiti, Belize, Trinidad and Tobago, Saint Lucia, Saint Kitts and Nevis and Bolivia (Plurinational State of). The dotted lines show the group of countries that have announced recovery spending greater than or less than 1% of their GDP (vertical line) and the countries that have announced green recovery spending that represents more or less than 30% of their total recovery spending (horizontal line).

B. How can investment be financed for a more sustainable recovery that is better aligned with global commitments?

Stimulus packages are important for recovering from the economic downturn of 2020, mitigating a further escalation of poverty and reviving economic growth globally. After registering a 3.2% contraction in GDP, the global economy is projected to grow by 6% in 2021 and 5% in 2022 (IMF, 2021). Selective economic growth and redistribution are essential to make up lost ground eradicate extreme poverty and reduce poverty, as set forth in the 2030 Agenda. In 2021, in Latin America and the Caribbean there were 78 million people living in extreme poverty (8 million more than in 2019) and 209 million people living in poverty (up 22 million from the previous year) (ECLAC, 2021).

To eradicate poverty, the economy must grow at an average of at least 4% by 2030 (with the current economic structure) and this should be accompanied by a strong redistributive policy (ECLAC, 2020a). However, annual growth of 4% has two harmful effects on the implementation of the 2030 Agenda:

- (i) The current production structure means that economic growth in the region increases demand for imports and the indebtedness of the economies.
- (ii) Given the energy mix and current land-use change, production and consumption patterns, growth translates to an increase in greenhouse gas emissions and hinders the fulfilment of the goals to slow global warming as set out in the Paris Agreement.

To maintain 4% growth once the effects of the stimulus packages have worn off, investment levels as a share of GDP will have to rise gradually from the current 17.6% to 28.0% in 2030, an increase of about 1 percentage point of GDP per year. It is acknowledged that there is a possibility of undesirable effects that reinforce the production pattern that has a large environmental footprint; investment must therefore transform the productive structure, targeting the aforementioned sectors to simultaneously boost economic growth, create decent jobs, increase the domestic content of production and reduce the economy's environmental footprint. In view of the inconsistencies between policies announced and those actually implemented, it becomes especially important to reconcile them through what ECLAC has termed the big push for sustainability.

C. A coherent fiscal policy scenario for financing a transition to lower-carbon and better-adapted economies

Increasing investment to raise the capital formation rate to 28% of GDP could be financed through various combinations.

Some transformative investment options are less resource-intensive than high-carbon options. Investment planning must therefore adjust to these positive changes in a timely manner. This is the case of energy from renewable sources, the operation of electric vehicles based on their life cycle and integrated livestock farming. These alternatives generate savings compared to business-as-usual pathways (ECLAC, 2020a). As regulatory reform, indispensable in the transition, is included in current expenditure, there are no additional costs —if there are, they would be marginal. Early adaptation of the regulatory framework to facilitate selective growth in the sectors identified is crucial.

The returns on investment, a lever of structural change, must be channelled in the right direction through public policy instruments —taxation, financial policy, technology policy and regulatory policy—to increase relative returns for the benefit of the sectors that drive recovery. The redirection of investment, albeit slow, together with intense technological innovation and shifts in consumer preferences, are defining an industrial profile that contrasts profoundly with that of the twentieth century. This section outlines potential sources of financing to strengthen a greener recovery and secure the level of investment needed. The aggregated findings of the analyses in each subsection are shown in table 2.

1. Reducing tax evasion and avoidance

In Latin America and the Caribbean, tax evasion and avoidance remain high and are an obstacle to resource mobilization (ECLAC, 2019). Globalization, harmful tax competition between countries, fiscal privileges, illegal practices and digital innovation have facilitated tax evasion and avoidance. A comprehensive and internationally agreed fiscal transition is needed to minimize this leakage. Estimates by the Economic Commission for Latin America and the Caribbean (ECLAC) on income tax and value added tax non-compliance stood at 6.3% of GDP in 2017, or US\$ 335 billion (ECLAC, 2020a). It also estimates that the Latin American and Caribbean region overall lost US\$ 85 billion these values would finance part of the transition to a low-carbon economy and the implementation of the 2030 Agenda. In its COVID-19 Reports, ECLAC has proposed potential applications of these resources, for amounts close to 3% of GDP, to make emergency transfers and finance a basic digital basket. If tax evasion and avoidance were progressively tackled so as to reduce them by 10% per year to 50% of the total amounts lost annually, resources amounting to US\$ 1.6 trillion in dollars at constant 2019 prices could be mobilized. This is equivalent to 36% of the resources needed for a sustainable recovery over the period 2021-2030, without prejudice to their use for the social purposes indicated.

2. Improving fiscal, environmental and regulatory options

Transformative recovery expands fiscal space, as it would require the reduction of fossil fuel subsidies,⁷ the establishment or adjustment of environmental taxes, the revision of tax waivers and the promotion of productive diversification that expands the tax base, all within the framework of a policy providing for compensation to people living in poverty and the strata of the real middle class (first three quintiles).

In Latin America and the Caribbean, subsidies for fossil fuel consumption amounted to US\$ 12 billion in 2020, down 40% from 2019, concentrated in eight countries (see figure 24). Phasing out fossil fuel subsidies, with corresponding mitigation or compensation measures for the most economically vulnerable sectors, could open up fiscal space of U\$ 354 billion at constant 2019 prices over the decade (8% of investment needs). For the financial year, a progressive reduction of existing subsidies of 10% per year is assumed.

⁷ The International Monetary Fund (IMF) estimates that, globally, fossil fuel subsidies amounted to US\$ 5.2 trillion (6.5 per cent of GDP) in 2017 (Coady and others, 2019).



Figure 24 | Latin America and the Caribbean (8 countries): subsidies for fossil fuel consumption, 2010–2020 (Percentages of GDP)

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of data from International Energy Agency (IEA).

Other under-explored sources of tax revenue exist, such as urban wastewater discharge fees, methane emission charges, and expanding the use of other non-tax revenue categories, such as raising fiscal revenues from the use of infrastructure for high-carbon activities. Some businesses, such as suppliers of health-care goods and digital services, have benefited significantly during the pandemic and could make a fiscal contribution to recovery.

Latin American countries' tax receipts from environmental taxes amounted to 1.3% of GDP in 2016, compared with the 2.4% of GDP collected by countries of the Organisation for Economic Co-operation and Development (OECD), with most of this revenue coming from excise taxes on fossil fuel consumption.⁸ In line with enhanced taxation for climate action, the introduction of a carbon fee that would gradually increase to US\$ 40 per tonne of carbon dioxide (CO₂), in dollars at constant 2019 prices, could complement the mix of instruments to finance additional investments (see figure 25). This would allow an additional 30% of investment needs to be met by making resources of around US\$ 1.3 trillion (at constant 2019 prices) available in the period 2021–2030. At the same time, investments in alternatives to carbon-intensive industries would be more competitive, because of the climate-risk-adjusted return.



Figure 25 | Latin America (4 countries): carbon tax revenues, 2020 (Percentages of GDP)

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of World Bank, Carbon Pricing Dashboard [online database] https://carbonpricingdashboard.worldbank.org/.

⁸ Data from ECLAC, on the basis of OECD (2018).

Regulatory options are among the recovery efforts that involve low-fiscal cost public initiatives. Tenders could be launched to mobilize private investment within a framework of regulatory certainty for the construction of infrastructure such as transmission lines for renewable energy that would be operational when more energy is required for the recovery, or public transport and water and sanitation infrastructure. Similarly, the development of the regulatory framework for substitutes for goods with a high environmental footprint would facilitate private investment in such production (conversion of conventional vehicles to electric vehicles, natural building materials, geothermal temperature control, wastewater treatment, waste reuse, paid ecosystem services, among others).

Some pro-recovery technologies are covered by foreign patents; regional diplomacy could facilitate the use of certain technologies, especially European ones, in areas such as the production of medicines and decontamination.

3. Green bond issuance and international sustainability funds

The green bond market for Latin America and the Caribbean opened in 2014; however, only 12 of the region's 33 countries had issued green bonds up to 2021. The regional green bond market amounted to US\$ 21.6 billion between 2014 and 2020, with 67% of this amount issued by Chile and Brazil. In 2020, green bond issuance in Latin America and the Caribbean was up 61% over the previous year, driven mainly by an increase in public sector bonds. That same year, the sum of sovereign and non-financial corporate bonds accounted for 89% of total green bond issuance.

In 2019 and 2020, Mexico and Chile issued bonds worth close to US\$ 7 billion. In July 2021, the Government of Mexico announced the placement of its second sovereign bond linked to the Sustainable Development Goals (SDGs) for a 15-year term and an amount of 1.25 billion euros. In Brazil, the National Bank for Economic and Social Development (BNDES, 2018) generated US\$ 1 billion through green bonds to finance new sustainable businesses (see figure 26).





Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of data from Climate Bonds Initiative.

Although there has been significant growth in green bond issuance in Latin America and the Caribbean, the region accounts for only 2.7% of the global market. Since the region began issuing green bonds, the energy sector has received a substantial share; however, in 2019 and 2020, the transport sector emerged as a driver of long-term investment financed through green bonds. In 2020, the energy and transport sectors together accounted for 79% of green bond allocations, which went to renewable energy and sustainable mobility projects (see figure 27).



Figure 27 | Latin America and the Caribbean: use of resources from green bonds issued, by sector, 2014–2020 (Billions of dollars)

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of data from Climate Bonds Initiative.

A conservative estimate of a 10% annual increase in this amount would bring it to US\$ 59 billion (at constant 2019 prices) by 2030, equivalent to 1% of the additional investment requirements.⁹ Furthermore, the region is a recipient of international funds for climate change and sustainability. In 2018, flows from these funds amounted to US\$ 741 million at constant 2019 prices. Assuming a 10% annual growth in flows, consistent with the trend in green bonds, some US\$ 12 billion at constant 2019 prices could be raised over the course of the decade.

Awareness in the financial sector could further drive change in relative returns. However, the financial system does not fully capture signals of climate risk and biodiversity loss, which are yet to be expressed in prices and applicable standards, which results in misleading assessments.

4 Expansionary spending

Responses to the pandemic have expanded fiscal space to address the health crisis and to drive an economic and social recovery. In 2020, countries in the region spent an estimated US\$ 164 billion in constant 2019 dollars to combat the pandemic. For the purpose of this report, it has been assumed that the amount spent on such responses will be 10% higher in 2021 and decline by 10% each year thereafter. A total amount of US\$ 1.2 trillion in constant 2019 dollars could thus be estimated for these policies for the decade from 2021 to 2030, equivalent to 26% of investment needs.

5. Consolidated estimates of transformative investment funding sources

Table 2 lists potential sources of additional funding to support the transition to a low-carbon economy in the region. These possible sources of funding and investment stimulus are provided for illustrative purposes. However, they show that, with the appropriate combination of instruments, it would be possible to achieve an additional increase in the rate of investment of 10 percentage points of GDP over the decade, compared to the regional average. Based on the proposals, that would maintain regional GDP growth at the 4% needed to close the social gap, which, in turn, because of cumulative dynamic effects, would lead to concurrent reductions in the environmental and economic gaps.

In other words, closing all three gaps is possible with additional investment in sectors that can drive recovery with a low environmental footprint. That increased investment is feasible, considering the sum of the additional potential sources of revenue for a transformative recovery (see the amount of the additional annual increase of 1 percentage point of GDP in the investment rate in annex table A1).

⁹ The growth of climate and sustainable development bonds necessarily translates into an improvement in the classification of their destinations and their monitoring, which in turn would influence the classification of environmental portfolios and the fiscal budget.

The total shown in table 2 and figure 28 shows the extent and potential breakdown of additional financing. Much of the fiscal stimulus to which commitments were made in 2020 does not support a big push for sustainability, but stimulus in future years could. A portion of the amount obtained by reducing tax evasion and avoidance would finance other actions (of social policy, as proposed by ECLAC). The savings achieved by reducing fossil fuel subsidies must be used by governments to spend an equivalent amount to support green initiatives. In addition, the resources obtained through green bonds will have to be repaid from 2030 onward (possibly with the help of productive diversification driven by a transformative recovery). By way of comparison, the cost of closing the region's housing gap, which could support a transformative transition, is estimated at US\$ 250 billion, one tenth of the additional resources amassed.

Table 2 Latin America and the Caribbean: potential sources of financing and stimulus for increased investment in a low-carbon economy Image: source of financing and stimulus for increased investment

(Billions of constant 2019 dollars)

Year	Declining expansionary expenditure in response to the pandemic (G)	Savings from phasing out fossil fuel subsidies (H)	Green bonds (I)	International climate funds (J)	Progressive fight against tax evasion and avoidance (K)	Carbon taxª (L)	Total (M) = (G) + (H) + (I) + (J) + (K) + (L)	Difference (funding sources minus additional investments) (M) – (C)°
2019								
2020	164							
2021	181	6	4	0.7	41	131	363	269
2022	163	13	4	0.8	82	131	393	202
2023	147	19	4	0.9	123	131	424	133
2024	132	26	5	1	163	131	458	295
2025	119	32	5	1	204	131	492	226
2026	107	39	6	1.1	204	131	488	114
2027	96	45	7	1.1	204	131	484	-0,4
2028	87	52	7	1.1	204	131	482	-118
2029	78	58	8	1.6	204	131	480	-485
2030	70	64	9	1.7	204	131	480	-604
Total (2021- 2030)	1 178	354	59	12	1635	1306	4 5 4 4	33

Source Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of A. Bárcena, "Current conditions, scenarios and projections to 2030 amid the COVID-19 crisis", 3 April 2020 [online] https://www.cepal.org/sites/default/files/presentation/files/current_conditions_2030_crisis_covid-19_ab.pdf (expansionary spending); D. Coady and others, "Global fossil fuel subsidies remain large: an update based on country-level estimates", IMF Working Papers, No. WP/19/89, Washington, D.C., International Monetary Fund (IMF), 2019 (savings from phasing out fossil fuel subsidies); Climate Bonds Initiative, Latin America & Caribbean Green Finance State of the Market 2019, 2019 [online] https://www.climatebonds.net/files/files/CBI_LAC_SotM_19_web_02.pdf (green bonds); C. Watson and L. Schalatek, "Climate Finance Regional Briefing: Latin America", Overseas Development Institute/ Heinrich Böll Stiftung North America, 2019 (international climate funds); and Economic Commission for Latin America and the Caribbean (ECLAC), *Fiscal Panorama of Latin America and the Caribbean*, 2019 (LC/PUB.2019/8-P), Santiago, 2019 (progressive combatting of tax evasion and avoidance).

Note: Figures for 2020 to 2030 are estimates.

^a Assumes a carbon tax of US\$ 40 per tonne of CO₂ in constant 2019 dollars.

^b Amount of additional investment needed to gradually raise the investment rate to 28% of GDP. For details, see column C of table A1 in the annex.



Figure 28 | Latin America and the Caribbean: potential sources of financing and stimulus for increased investment in a low-carbon economy, 2021–2030

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of A. Bárcena, "Current conditions, scenarios and projections to 2030 amid the COVID-19 crisis", 3 April 2020 [online] https://www.cepal.org/sites/default/files/presentation/files/current_conditions_2030_crisis_covid-19_ab.pdf (spending in response to the pandemic); D. Coady and others, "Global fossil fuel subsidies remain large: an update based on country-level estimates", IMF Working Papers, No. WP/19/89, Washington, D.C., International Monetary Fund (IMF), 2019 (phasing out of fossil fuel subsidies); Climate Bonds Initiative, Latin America & Caribbean Green Finance State of the Market 2019, 2019 [online] https://www.climatebonds.net/files/CBI_LAC_SotM_19_web_02.pdf (green bonds); C. Watson and L. Schalatek, "Climate Finance Regional Briefing: Latin America", Overseas Development Institute/ Heinrich Böll Stiftung North America, 2019 (international climate funds); and Economic Commission for Latin America and the Caribbean (ECLAC), *Fiscal Panorama of Latin America and the Caribbean*, 2019 (LC/PUB.2019/8-P), Santiago, 2019 (progressive combatting of tax evasion and avoidance).

The last column of table 2 ((M)-(C)) shows that over the decade the mix of additional financing sources results in a surplus over the required investment, which declines to a shortfall in 2027. If surplus resources are kept in reserve, the deficit in the last few years of the decade could be covered and investment could be increased to the level needed to close the social gap. Furthermore, if investment is focused on the eight aforementioned sectors, because of their rapid growth, capacity for endogenous development and low environmental footprint, it would be possible to close the three gaps simultaneously. Given the worsening climate emergency and recession, the proposed fiscal and investment policy would be within the feasible limits of action.

III. Aligning policies for the big push for sustainability, as a pillar of the recovery

Regional coordination could contribute to consensus-building, formation of narratives and establishment of harmonized regulations. It could also create spaces for dialogue and exchange between countries, through sectoral meetings that enable interaction among ministries that are key to a transformative recovery, in the areas of finance, planning, energy, agriculture, transport, environment, housing and urban development. It would thus be possible to harness public policy and climate action opportunities and advantages to support an economic recovery that is compatible with a more low-carbon development style.

It is no small task to dismantle arguments and pressure that, based on a supposed urgency, divert the recovery away from a path that is sustainable in the long term or are aimed at obtaining perks in the context of a recession. The Community of Latin American and Caribbean States (CELAC) could be such a regional workspace, due to its universal nature, as demonstrated at the sixth Summit of Heads of State and Government of CELAC, held on 18 September 2021, where three proposals were presented: the creation of a space agency for Latin America and the Caribbean, the establishment of a comprehensive disaster response fund and a health self-sufficiency plan for the region.

Incentives are not automatically aligned with sustainable recovery. Policies, regulatory frameworks and public investment are the result of decisions regarding which direction to take. A transition to a resilient, low-carbon economy will require targeted development in national governments' recovery financing and lending plans that favours strategic or priority sectors for sustainability. In addition, it is important to align the directions of national and regional development bank financing, and to set environmental criteria or safeguards for spending and investment for recovery. The expected outcome is selective growth that favours the sectors that contribute most to fulfilment of the 2030 Agenda and the Paris Agreement and to increasing employment in the region. The chosen direction calls for policy coherence and the creation of virtuous circles, in a process with clear direction that is conducive to focused private investment.

To reach decisions on how to direct investment and regarding short-term issues, there is a growing body of conclusive information on transformative alternatives that are green or sustainable and on their benefits in terms of net job creation, well-being, GDP growth and reduced social (inclusion and equality) and environmental footprints. Any effort to produce information and data that supports a more comprehensive and far-reaching narrative is important. The effort to drive a transformative recovery can simultaneously fulfil the 2030 Agenda and the Paris Agreement and close the gaps in the three dimensions of sustainable development, but this depends on social stakeholders' clarity, their capacity for consensus-building, their expressions of agreement, and their decision to pursue a future that is better than the pre-pandemic world. This would make it possible to protect our planet, as emphasized in the Secretary-General's report entitled Our Common Agenda.

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Annex

Table A1 Increa	se in investment	needed to sustair	annual GDP	growth of	4% in the region	, 2019–2030
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Year	Investment rate (percentages of GDP) (A)	Level of investment (billions of constant 2019 dollars) (B)	Additional investment (billions of constant 2019 dollars) (C)	Investment per capita (constant 2019 dollars) (D)	Additional investment per capita (constant 2019 dollars) (E)	Additional investment (percentages, compared to previous year) (F)
2019	18.1	1769	0	2 729	0	
2020	18.1	1636	0	2 497	0	
2021	19.1	1 787	94	2 708	142	9.4
2022	20.1	1914	191	2 877	287	7.1
2023	21.1	2 046	291	3 049	434	6.9
2024	22.1	2 182	162	3 2 2 5	240	6.6
2025	23.1	2 322	266	3 405	390	6.4
2026	24.1	2 466	373	3 589	543	6.2
2027	25.1	2 617	484	3 778	700	6.0
2028	26.1	2 768	599	3 971	860	5.9
2029	27.1	2 903	965	4 137	1 376	4.9
2030	28.1	3 0 4 0	1084	4 305	1534	4.7
Total (2021- 2030)	N/A	24 043	4 511	N/A	N/A	N/A

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of CEPALSTAT [online database] https://statistics.cepal.org/ portal/cepalstat/index.html?lang=en.

Note: 4% is the rate that would close the social gap with the region's current production structure (ECLAC, *Building a New Future: Transformative Recovery with Equality and Sustainability* (LC/SES.38/3-P/Rev.1), Santiago, 2020). GDP growth is assumed to be 3.7% in 2021 and 1.8% from 2022 onward (ECLAC, *Preliminary Overview of the Economies of Latin America and the Caribbean*, 2020 (LC/PUB.2020/17-P/Rev.1), Santiago, 2021). N/A: not applicable.



This *Special Report* is the thirteenth in a series prepared by the Economic Commission for Latin America and the Caribbean (ECLAC) on the evolution and impacts of the COVID-19 pandemic in Latin America and the Caribbean. The economic and social analyses it offers will be updated as the relevant information becomes available. The preparation of the Report is headed by the Executive Secretary of ECLAC, Alicia Bárcena, with the technical support of the Office of the Deputy Executive Secretary, Mario Cimoli, Joseluis Samaniego, Chief of the Sustainable Development and Human Settlements Division of ECLAC, and Carlos de Miguel, Chief of the Sustainable Development Policies Unit of the same Division.

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