Regional projections for the Sustainable Development Goals Indicators in Latin America and the Caribbean

Statistics Division

Economic Commission for Latin America and the Caribbean

Nineteenth meeting of the Executive Committee of the Statistical Conference of the Americas of ECLAC

Background

2019/ Projection exercise to 2030 for 18 statistical series of the SDG indicators (data as of February 2019)

» Possible situations in 2030 under the current trend of each indicator by adjusting a curve to a data set.

» 15 SDGs (excludes SDG 11 and 16). SDG 1 (poverty) different treatment.

» Results presented by ECLAC at the "High Level Political Forum on Sustainable Development 2019" (July 2019).

2020/ Projection exercise to 2030 for 72 statistical series of the SDG indicators (data as of February 2020)

» The projections give continuity and extend the previous exercise

» 17 ODS/ Four times more series

» 69 of the series belong to the set of 150 indicators prioritized for the region

» 49 targets evaluated (53% of the targets covered by the prioritized indicators for the region)

» **Use of structural and not only statistical models allow capturing the impact of COVID-19 on some explanatory variables.**

» Classification of indicators according to expected values (traffic lights)

» Scenarios under COVID-19 effect

» Results published by ECLAC in "The 2030 Agenda for Sustainable Development in the new global and regional context: Scenarios and projections in the current crisis".

The **2030 Agenda**
for Sustainable Development in
the new global and regional context

Scenarios and projections
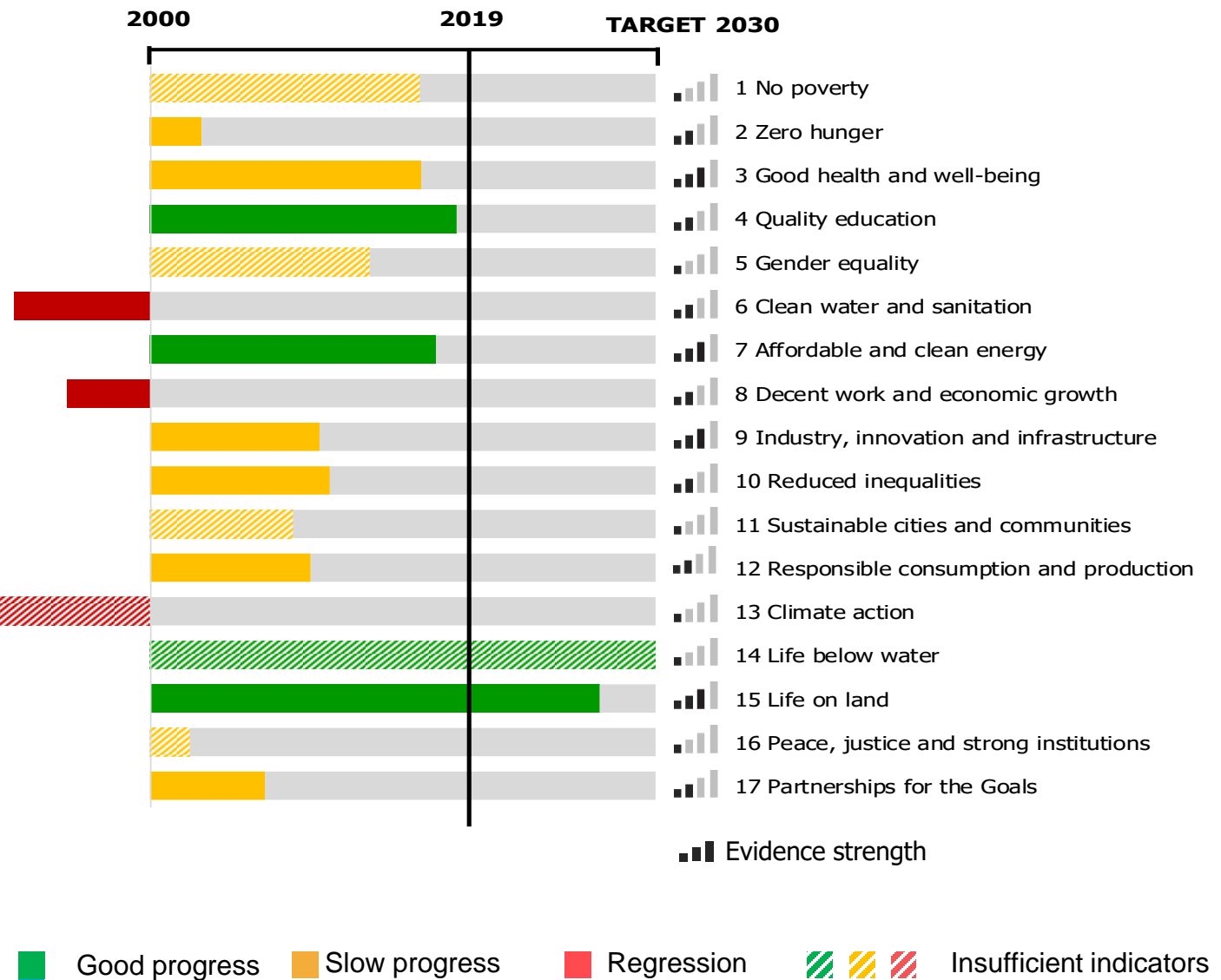in the current crisis

UNITED NATIONS

ECLAC

Background

2020/ "On track" measurement exercise coordinated among the 5 UN Regional Commissions (data as of July 2020)

» Application of a common methodology proposed by ESCAP

» Measurement of progress at the indicator, target and goal levels considering the official SDG indicator framework plus proxy and complementary regional indicators.

» 17 SDGs, 79 targets, 103 indicators.

» Results presented by the Regional Commissions at the "High Level Political Forum on Sustainable Development 2020" (July 2020)

Latin America and the Caribbean

2000 — 2019 — TARGET 2030

1 No poverty
2 Zero hunger
3 Good health and well-being
4 Quality education
5 Gender equality
6 Clean water and sanitation
7 Affordable and clean energy
8 Decent work and economic growth
9 Industry, innovation and infrastructure
10 Reduced inequalities
11 Sustainable cities and communities
12 Responsible consumption and production
13 Climate action
14 Life below water
15 Life on land
16 Peace, justice and strong institutions
17 Partnerships for the Goals

Evidence strength

Good progress — Slow progress — Regression — Insufficient indicators

2020/ Projection exercise to 2030 for 72 statistical series of the SDG indicators

(data as of February 2020)

Main activities carried out
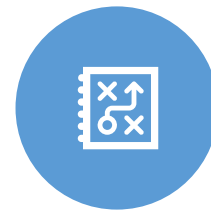
1

Data availability analysis

2

Definition of quantitative thresholds

3

Selection of indicators to be projected
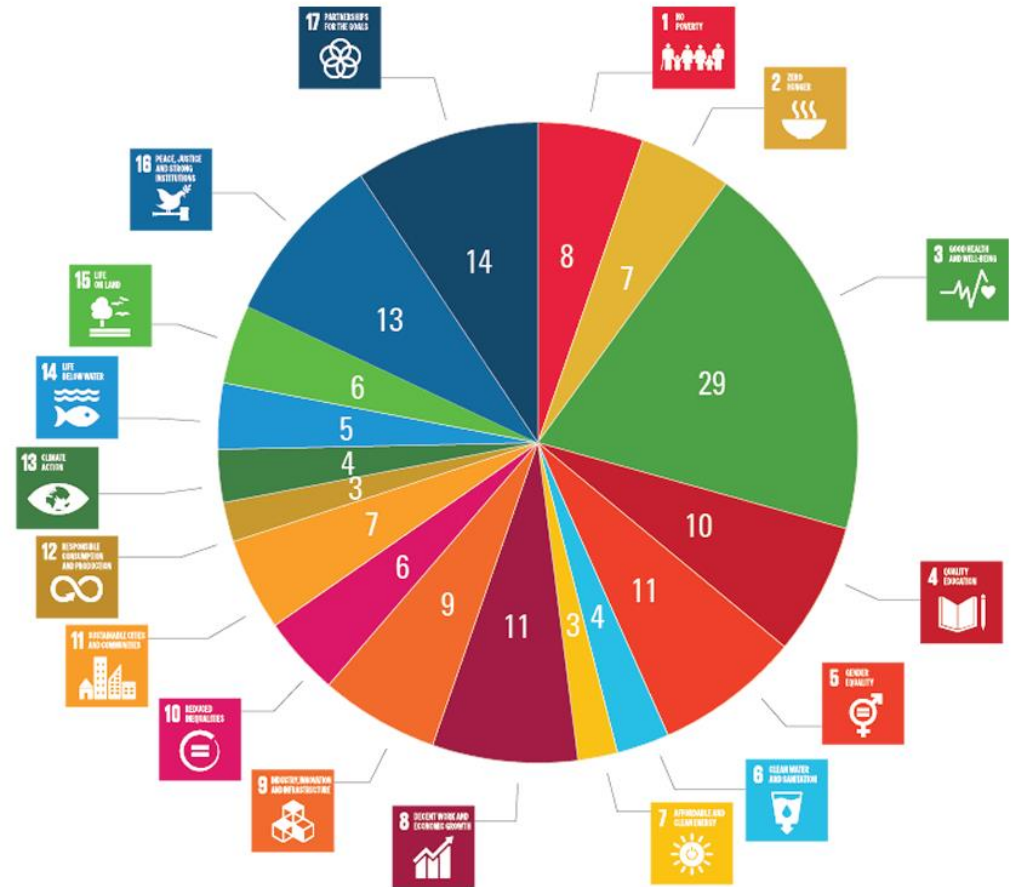
4

Projection models

5

Scenarios

6

Indicator Categorization - Traffic Light

1. Data availability analysis for Latin America and the Caribbean

Availability of data in UNSD database and in CEPALSTAT for the set of indicators prioritized by the Statistical Coordination Group for the 2030 Agenda in Latin America and the Caribbean

1. Data availability analysis for Latin America and the Caribbean

Heat maps of available information for each of the 17 SDGs for the entire region, sub-regions and countries

2. Definition of quantitative thresholds

A. Targets with numerical values in the 2030 Agenda

- Absolute value in the future;
- Relative value with respect to the starting position

B. Targets with numerical values in other international-regional agreements / official documents

- Absolute value in the future
- Relative value with respect to the starting position

C. Targets without explicit value

- Qualitative criteria according to the directionality established by each of the targets.

2. Definition of quantitative thresholds

- **2030 Agenda for Sustainable Development** contained in GA UN Resolution 70/1;

- **Official documents that set numerical targets,** such as the Sustainable Development Reports, as well as other sources that allow for the identification of specific values applicable by region (ECLAC, UNSTATS).

- **Official documents** from bodies such as the UN Economic and Social Council, UNFPA, UNDRR, WHO, UNICEF, UNEP, UNFCCC, and various relevant international instruments (e.g., Convention on Wetlands, Aichi Targets, Paris Agreement) and OECD.

3. Selection of indicators within those that can be projected

- Type of data - indicator's own behavior

- Length and robustness of the available series

- Availability of secondary information for the generation of different scenarios

4. Projection models

Indicators with sufficient information

- Econometric panel data model

- Linear regression method by Ordinary Least Squares (OLS)
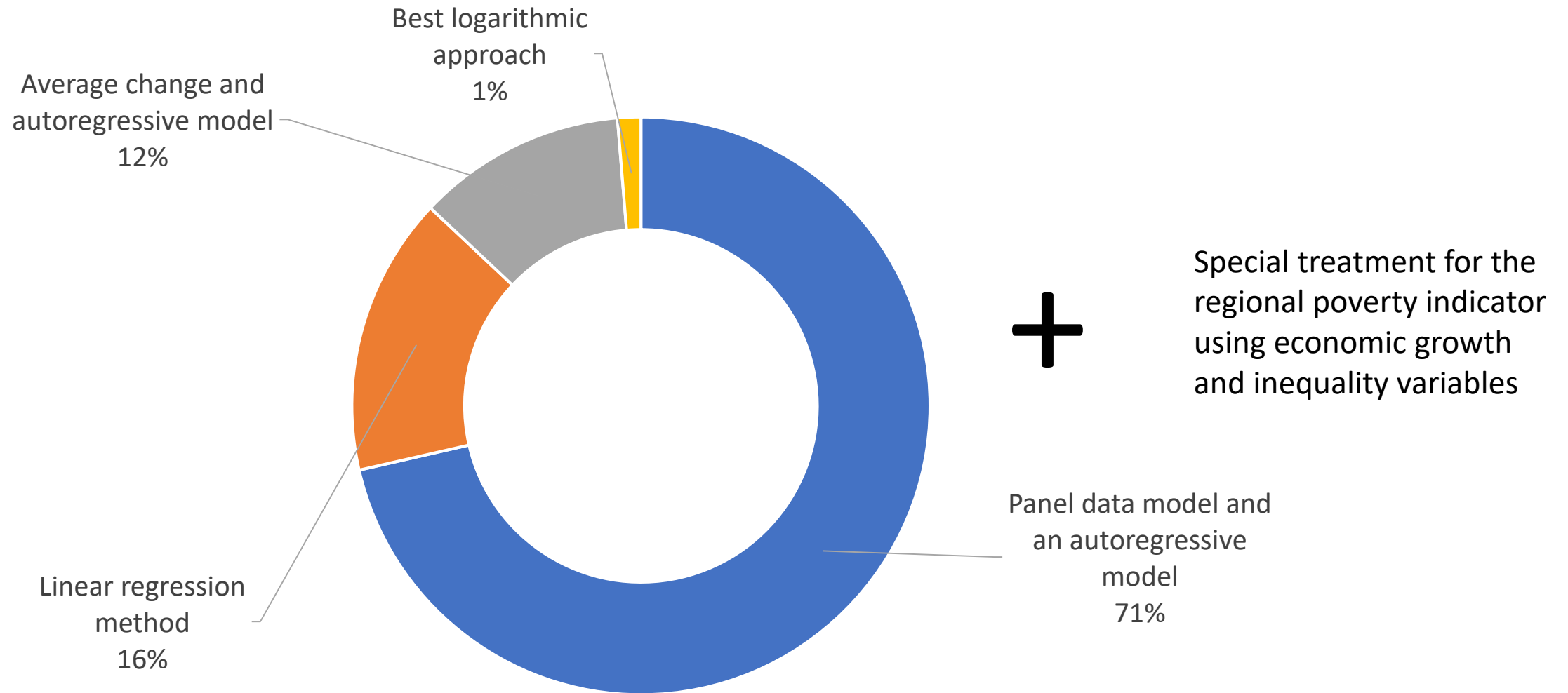
- Random effect and fixed effect models

Indicators with few data/ no explanatory variables

- Change of the average annual percentage of the indicator considering the period that best fits the trajectory of the series

- Best logarithmic approach with Ordinary Least Squares (OLS) regression

- Significant Autoregressive model

4. Projection models

Best logarithmic approach
1%

Average change and autoregressive model
12%

Linear regression method
16%

Panel data model and an autoregressive model
71%

+

Special treatment for the regional poverty indicator using economic growth and inequality variables
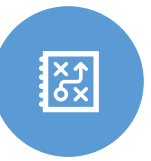
5. Scenarios

Once the regressions were estimated, the coefficients were used to generate the projections, under scenarios with a high probability of occurrence of the explanatory variables and assign values to them until 2030. In the case of these variables, the projections were made using the trend, the average change, the change at increasing/decreasing rates, or keeping the variable constant, depending on how best to adapt to the observed series.

Most likely scenario

explanatory variable

4 additional scenarios

- 10%   - 20%   **projected growth of the chosen variable**   + 10%   + 20%

5. Scenarios / COVID-19 Effect

Original Scenario

Economic growth variable without considering the COVID-19 effect

COVID-19 Scenario – adjustment 2020

Regional GDP variation of -1.8% for 2020 and starting in 2021, rates of 2019 are used (World Economic Outlook (WEO))

COVID-19 Scenario / reaches the same level by 2030

A decrease in regional GDP of -1.8% is considered for 2020 and rates are adjusted from 2021 to reach the same level of GDP in 2030.
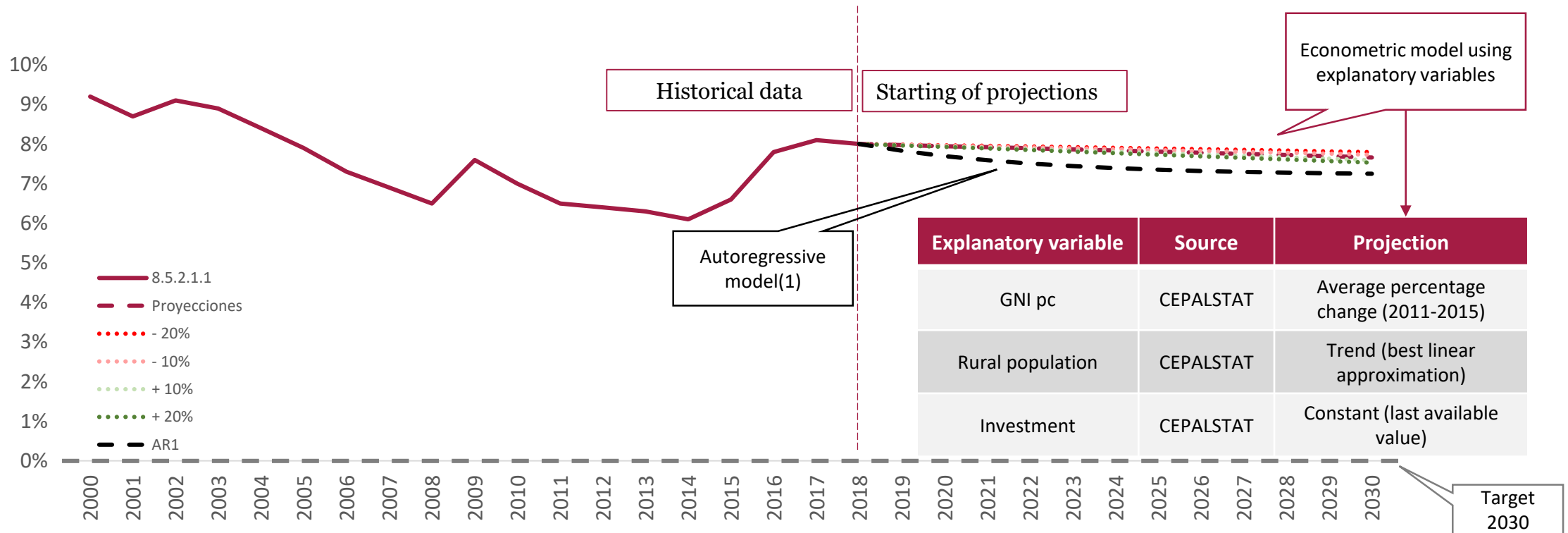
5. Scenarios / COVID-19 Effect/ **Original Scenario**

A panel data model was made and different scenarios were proposed for GDP per capita growth and variations of +/-10% and +/-20%.[1]

Indicator 8.5.2: Unemployment rate (%)

Legend:
- 8.5.2.1.1
- Proyecciones
- - 20%
- - 10%
- + 10%
- + 20%
- AR1

Callouts: Historical data · Starting of projections · Econometric model using explanatory variables · Autoregressive model(1) · Target 2030

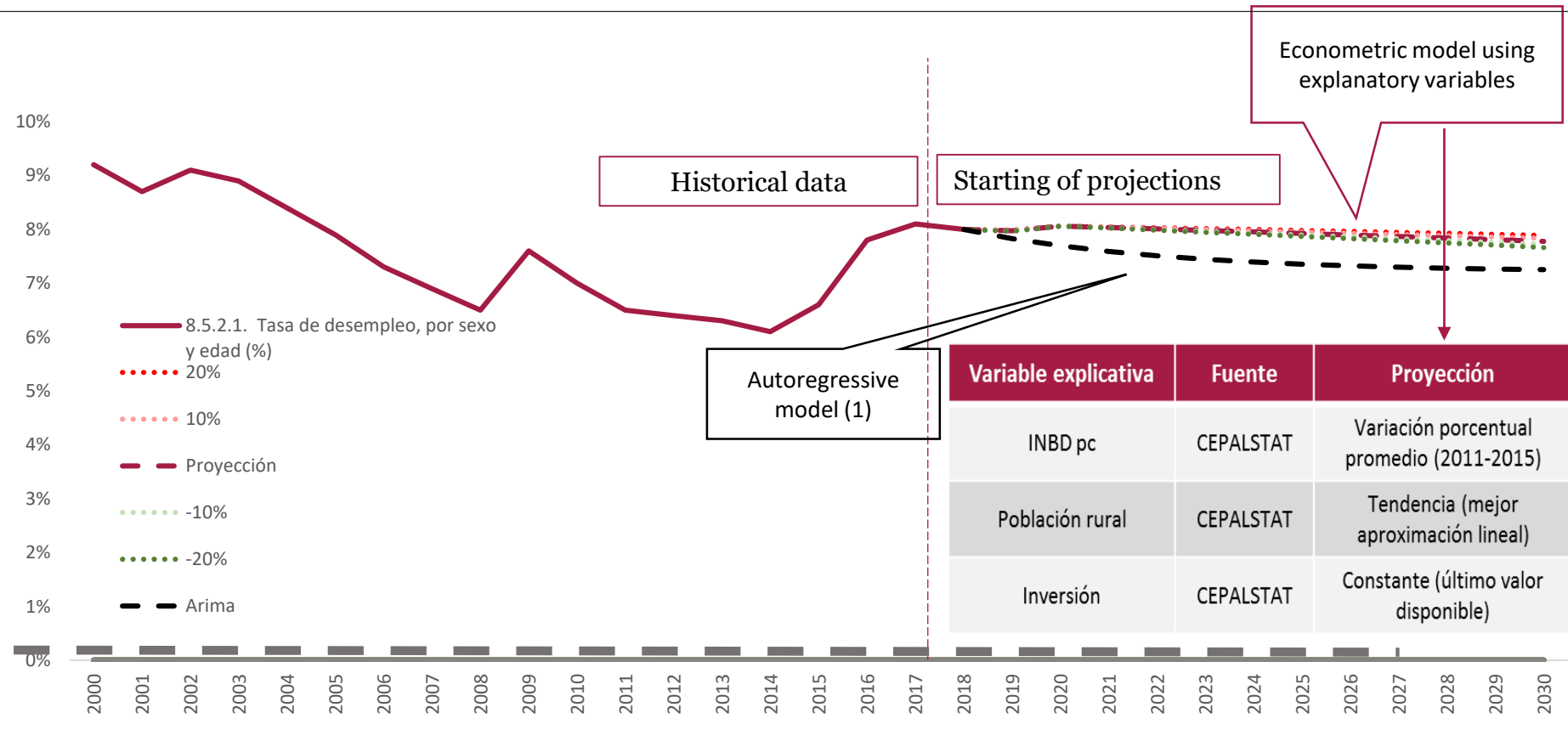| Explanatory variable	Source	Projection
GNI pc	CEPALSTAT	Average percentage change (2011-2015)
Rural population	CEPALSTAT	Trend (best linear approximation)
Investment	CEPALSTAT	Constant (last available value)

1. /* World Economic Outlook Octubre 2019.

5. Scenarios / COVID-19 Effect/
COVID-19 Scenario – adjustment 2020

Indicator 8.5.2: Unemployment rate (%)

Econometric model using explanatory variables

Historical data

Starting of projections

8.5.2.1. Tasa de desempleo, por sexo y edad (%)
······· 20%
······· 10%
- - Proyección
······· -10%
······· -20%
- - Arima

Autoregressive model (1)

Variable explicativa	Fuente	Proyección
INBD pc	CEPALSTAT	Variación porcentual promedio (2011-2015)
Población rural	CEPALSTAT	Tendencia (mejor aproximación lineal)
Inversión	CEPALSTAT	Constante (último valor disponible)

Target 2030

5. Scenarios / COVID-19 Effect/
COVID-19 Scenario / reaches the same level by 2030

8 TRABAJO DECENTE Y CRECIMIENTO ECONÓMICO

Indicator 8.5.2: Unemployment rate (%)

Econometric model using explanatory variables

Historical data

Starting of projections

- 8.5.2.1. Tasa de desempleo, por sexo y edad (%)
- 20%
- 10%

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Target 2030

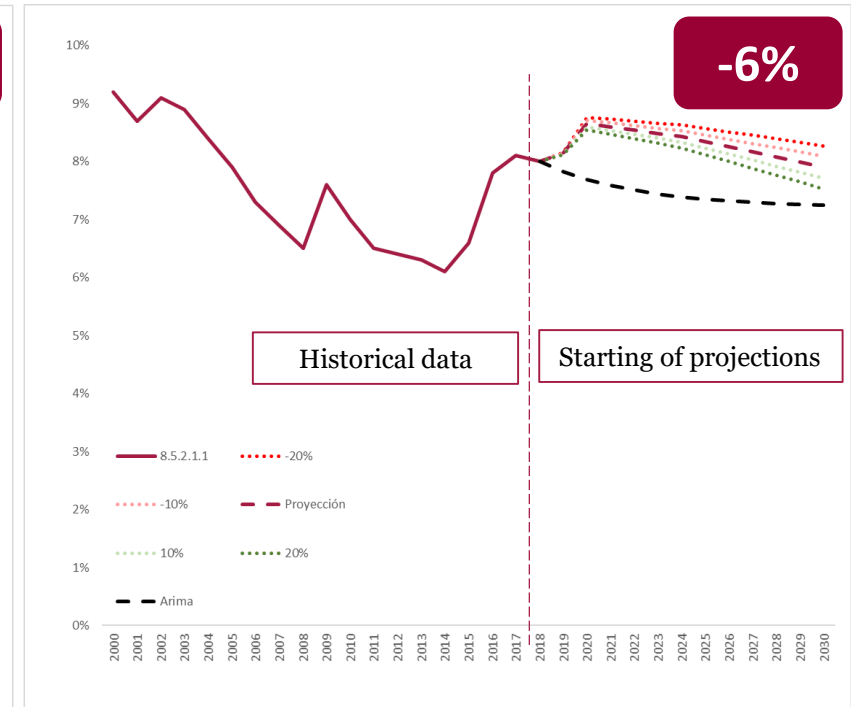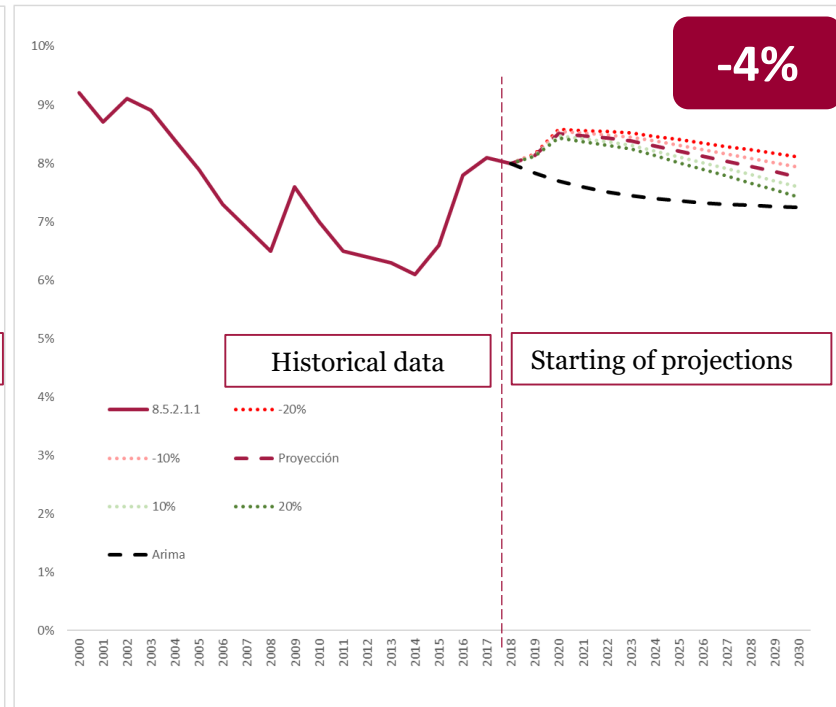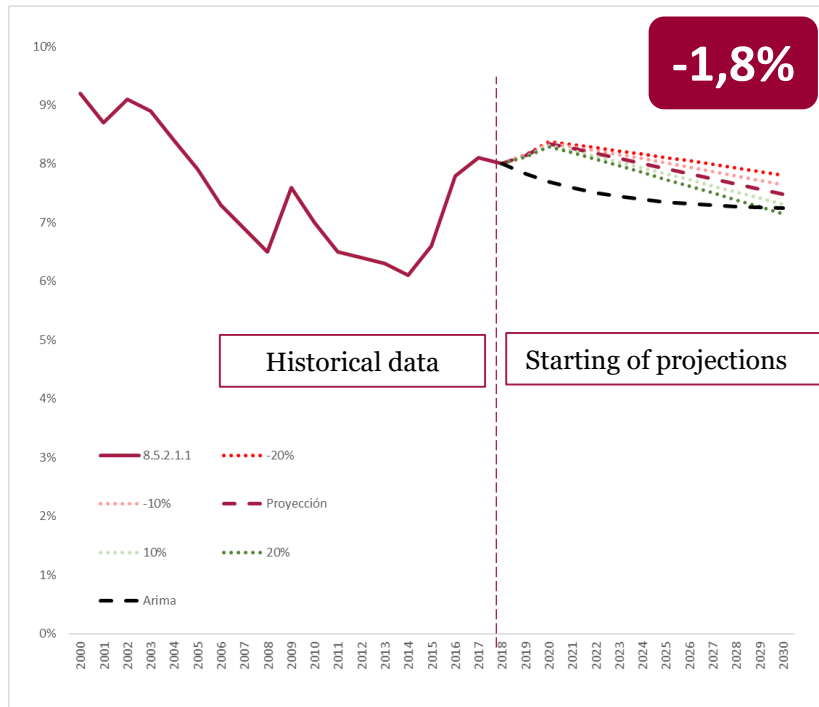## COVID-19 Scenario / reaches the same level by 2030

Indicator 8.5.2: Unemployment rate (%)

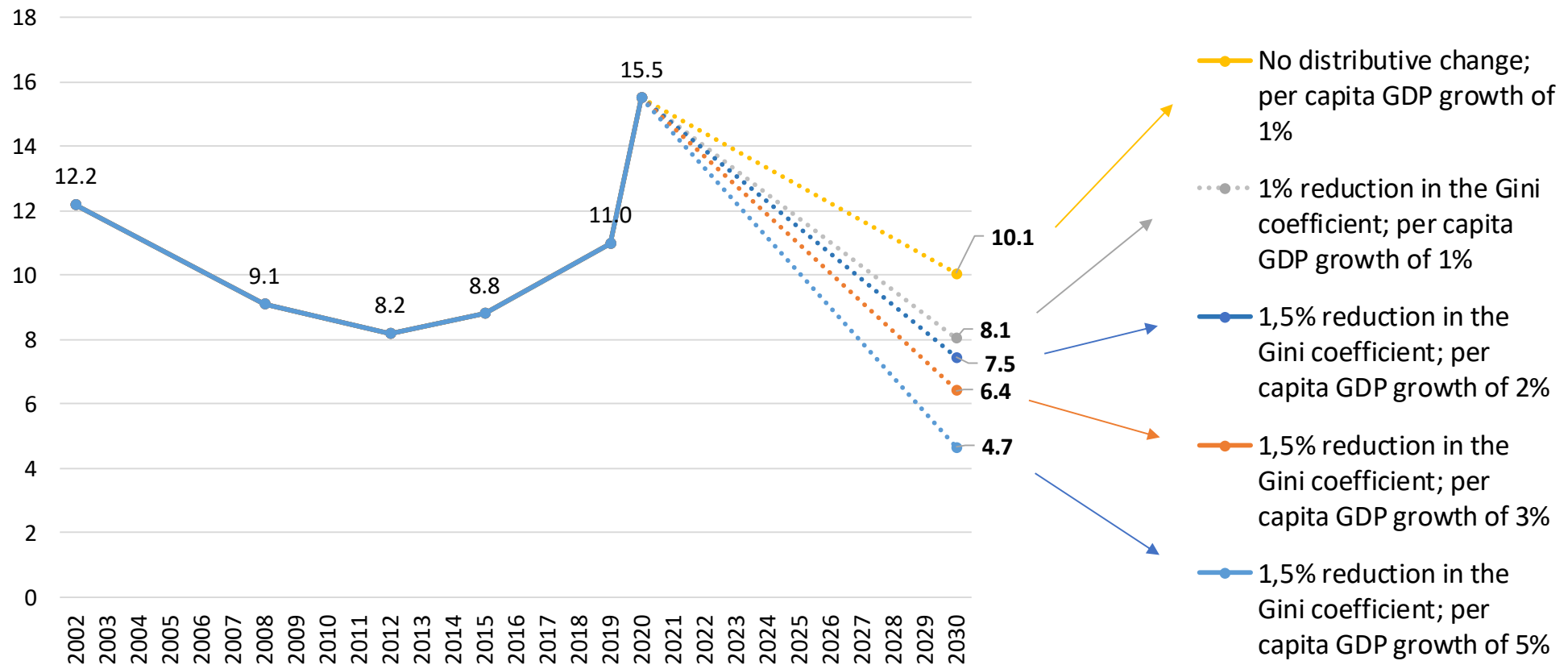**Projections were made with 3 scenarios for GDP per capita growth**

5. Scenarios

Causal model of economic growth and inequality variables

Indicador P-1.1.1: Population living in regional extreme poverty (%)

- No distributive change; per capita GDP growth of 1%
- 1% reduction in the Gini coefficient; per capita GDP growth of 1%
- 1,5% reduction in the Gini coefficient; per capita GDP growth of 2%
- 1,5% reduction in the Gini coefficient; per capita GDP growth of 3%
- 1,5% reduction in the Gini coefficient; per capita GDP growth of 5%

6. Traffic Light

A "traffic light" system was included to identify the indicators that are lagging behind, those that are on the right track, and those that already achieved the target for each particular geographic dimension.

Categories used for the classification of the indicators

Target likely to be reached only with significant public policy intervention

Target likely to be reached only with more public policy intervention

Progress towards the target stalled

Target likely to be reached on the current trend

Regression from the target

Target already reached

6. Traffic Light

N° of series	Expected outcome	
4		**Target already reached**
15		**Target likely to be reached on the current trend**
8		**Target likely to be reached only with more public policy intervention**
13		**Target likely to be reached only with significant public policy intervention**
27		**Progress towards the target stalled**
5		**Regression from the target**

Only 19 of the 72 statistical series analysed reached or would reach the goal with the current trend.

Over 70% of the indicators analysed show that the region will require —in some cases significant— public policy intervention to achieve the threshold established by the target.

The uneven progress of the SDGs: at odds with the comprehensive spirit of the 2030 Agenda

6. Traffic Light

Indicators by status in relation to the 2030 thresholds defined by the targets

Target already reached (4)

SDG	Target	Indicator
3	3.1	Maternal mortality
	3.2	Under-5 mortality rate
	3.2	Neonatal mortality rate
14	14.5	Protected marine biodiversity areas

1

Target likely to be reached only with public policy intervention (8)

SDG	Target	Indicator
1	1.1	Employed population below the international poverty line
2	2.1	Prevalence of undernourishment
4	4.2	Pre-primary education
	4.6	Literacy of persons aged over 15 years
5	5.5	Women in national parliaments
8	8.5	Earnings of managers
15	15.1	Protection of freshwater biodiversity areas
		Protection of terrestrial biodiversity areas

3

Target likely to be reached on the current trend (15)

SDG	Target	Indicator
1	1.1	Population below international extreme poverty line
		Population below international poverty line
3	3.1	Births attended by skilled health personnel
4	4.3	Enrolment in tertiary education
	4.5	Gender parity among trained teachers
6	6.2	Open defecation
7	7.1	Access to electricity
8	8.10	Access to an account at a financial institution
9	9.5	Researchers per million inhabitants
	9.c	Mobile network coverage (2G)
15	15.1	Wetlands of international importance
	15.5	Red List Index
17	17.4	Debt service as a proportion of exports
	17.6	Fixed broadband Internet subscribers
	17.8	Internet users

2

Target likely to be reached only with significant public policy intervention (13)

SDG	Target	Indicator
1	1.1	Population in extreme poverty, by regional standards
		Working population in extreme poverty, by regional standards
2	2.2	Children with stunting
3	3.3	New HIV infections
		Tuberculosis incidence
		Malaria incidence
4	4.1	Proficiency in mathematics — lower secondary education
	4.a	Schools with Internet access
5	5.5	Women in managerial positions
8	8.3	Labour informality in non-agricultural employment
	8.5	Unemployment rate
	8.8	Fatal occupational injuries
11	11.1	Urban population living in slums

4

6. Traffic Light

Indicators by status in relation to the 2030 thresholds defined by the targets

Progress towards the target stalled (27)

SDG	Target	Indicator
1	1.3	Coverage of social protection systems
1	1.a	Public spending on education
2	2.4	Intensity of fertilizer use
2	2.4	Pesticide consumption
3	3.3	Prevalence of HIV/AIDS among young people
3	3.3	HIV/AIDS mortality
4	4.c	Teachers with minimum training
5	5.2	Femicide
5	5.5	Middle and senior women managers
6	6.1	Safely managed drinking water
6	6.2	Safely managed sanitation
7	7.2	Renewable energy share in final energy consumption
7	7.3	Energy intensity in terms of primary energy
8	8.1	Growth rate of GDP per capita
8	8.2	Growth rate of GDP per employed person
8	8.6	Youth not in education, employment or training
9	9.2	Manufacturing employment
9	9.4	Carbon dioxide emissions from fuel combustion
9	9.5	Research and development expenditure
9	9.b	Medium and high-tech industry value added
10	10.4	Labour share of GDP
12	12.2	Domestic material consumption
14	14.2	Mangrove area
16	16.1	Victims of intentional homicide
16	16.2	Victims of human trafficking
17	17.1	Proportion of domestic budget funded by domestic taxes
17	17.19	Resources for statistical capacity-building

5

Regression from the target (5)

SDG	Target	Indicator
2	2.2	Proportion of children overweight
9	9.2	Manufacturing value added
13	13.3	Greenhouse gas emissions
15	15.1	Forest area
17	17.1	Government revenue

6

Work in progress

» The projection exercise is being extended to the rest of the indicators of the SDG global framework.

» The COVID-19 Scenario will be used for these projections, which reaches the same level by 2030 with a regional GDP variation of -9.1% by 2020 (it will be completed by mid-September).

» Work is underway with the Statistical Divisions of the Regional Commissions and UNSD to harmonize approaches to help ensure consistency in the communication of results.

» The aim is to promote this type of exercise at national level by working with the countries of the region to choose a common methodology that will enable the countries to measure their progress.

» Possible line of work within the Statistical Coordination Group for the 2030 Agenda in Latin America and the Caribbean

» Once the methodology has been established, an online tool could be developed for countries to use their official information to assess their progress.

Final reflections

» It is essential to have a measurement that allows the evaluation of the progress in the fulfillment of the targets by 2030, and thus to be able to guide decision makers in the application of specific policies that will **leave no one behind.**

» However, this type of measurement includes new methodological and conceptual challenges that need to be addressed jointly in the corresponding institutional settings such as the Statistical Conference of the Americas.

Thank you very much

Nineteenth meeting of the Executive Committee of the Statistical Conference of the Americas of ECLAC

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UNITED NATIONS

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