


SDG 4 on Quality Education in Colombia between 2019 and 2021

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Abstract- Colombia ranks sixth among 24 countries in the Latin America and Caribbean region in the implementation of the 2030 Agenda. Despite its preferential position in the region, Colombia has not met any of the seventeen Sustainable Development Goals (SDGs). In this context of Sustainable Development, emphasis is placed on SDG 4 on Quality Education, from which the research question is formulated: what were Colombia's results in the fulfillment of SDG 4 concerning the countries of Latin America and the Caribbean between 2019 and 2021? To answer it, this research design was guided by the positivist stance and was implemented through the non-experimental method of the causal case study. In the SDG Index between 2019 and 2021, Colombia has maintained a moderate level of progress at a rate above 50% of the expected trend in SDG 4, but below the necessary trajectory for the fulfillment of SDG 4 in 2030. Therefore, Colombia has a critical lag in SDG 4, with a medium risk of not meeting this SDG by 2030.

Keywords: Education, Sustainable development, SDG.

Resumen- Colombia ocupa la sexta posición entre 24 países de la región Latinoamérica y el Caribe en la implementación de la Agenda 2030. A pesar de su preferente posición en la región, Colombia no ha cumplido ninguno de los diez y siete Objetivos de Desarrollo Sostenible (ODS). En este contexto del Desarrollo Sostenible, se hace énfasis en el ODS 4 de Educación de calidad, a partir del cual se formula como pregunta de investigación ¿cuáles fueron los resultados de Colombia en el cumplimiento del ODS 4 respecto a los países de Latinoamérica y el Caribe entre el 2019 y el 2021? Para responderla, el diseño de esta investigación fue guiado por la postura positivista y se implementó mediante el método no experimental de estudio de caso causal. En el Índice ODS entre 2019 y 2021, Colombia ha mantenido un nivel de avance moderado a una tasa superior al 50% de la tendencia esperada en el ODS 4, pero por debajo de la trayectoria necesaria para el cumplimiento del ODS 4 en 2030. Por lo anterior, Colombia presenta un rezago crítico en el ODS 4, con un riesgo medio de no cumplimiento de este ODS a 2030.

Palabras claves: Educación, Desarrollo Sostenible, ODS.

I. INTRODUCTION

The United Nations proposes the 2030 Agenda for each country to meet the seventeen Sustainable Development Goals (SDGs). However, this Agenda 2030 addresses the educational needs of the developed countries of the Global North but not those of the developing countries of the Global South. Latin America and the Caribbean is the most important region of the Global South, so this article seeks to answer the research question about what were Colombia's results in meeting SDG 4 concerning the countries of Latin America and the Caribbean between 2019 and 2021?

A comparative analysis of the results of SDG 4 on Quality Education between Colombia and the Latin American and Caribbean region will be developed in the SDG Index for Latin America and the Caribbean (SDG Index), developed in 2015 by the Center for Sustainable Development Goals for Latin America and the Caribbean (CODS) [1].

The SDG Index seeks to measure compliance with the seventeen Sustainable Development Goals (SDGs) by the countries of the region, using the methodology of the Sustainable Development Solutions Network [2], which has been validated by the European Commission through the Center of Expertise on Composite Indicators and Markers and the Joint Research Centre [3].

This research seeks to present preliminary results for the implementation of public policies to guide decision-making on educational gaps in Colombia, as one of the causes of non-compliance with SDG 4 on quality education.

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II. METHODOLOGY

A. Research question

The research question seeks to guide the inquiry process, guiding the researcher's interest in the scope of the research to answer the question formulated [4]. The question that this research seeks to answer is about what were the results of Colombia in the fulfillment of SDG 4 concerning the countries of Latin America and the Caribbean between 2019 and 2021? This question is related to measurement because it allows giving a value judgment on the effects of Colombia's results in the fulfillment of SDG 4 concerning the Latin American and Caribbean region.

B. Research position

This research seeks to be aligned between the research question, approach, and method, so given that the research question is related to measurement it will be aligned with a positivist research method and stance.

This research is designed from the positivist position because it seeks to provide a causal explanation of the phenomenon studied, in this case, Sustainable Development so that this position allows us to determine whether the fulfillment of SDG 4 has the expected impact on the Colombian population.

C. Research method

Regarding the selected method, it is considered that the methods related to positivist methods can be experimental and non-experimental [4]. Since the phenomenon studied is Sustainable Development, in this case, the researcher measures the SDG 4 indicators of quality education, a measurement that occurs naturally, given that there is no control over these variables, therefore a non-experimental design is used.

Therefore, the non-experimental positivist method selected is the causal case study. The causal case study, as opposed to the qualitative case study, seeks to identify trends and causal relationships [5], to take the case as an instance in which there is a process that relates a house to an outcome.

Considering the above, this case study had as context the results of Latin American and Caribbean countries in the Sustainable Development Goals Index (SDG Index) between 2019 and 2021 as a case the results of Colombia in the SDG Index 2019-2021, and as a unit of analysis the results of Colombia in SDG 4 of Quality Education between 2019 and 2021.

III. RESULTS

Latin America and the Caribbean, one of the most important regions of the Global South, shows percentage differences in the SDG Index 2019 [1] and 2021 [6] (see Figure 1), which evaluates the region's performance in meeting each of the seventeen Sustainable Development Goals (SDGs).

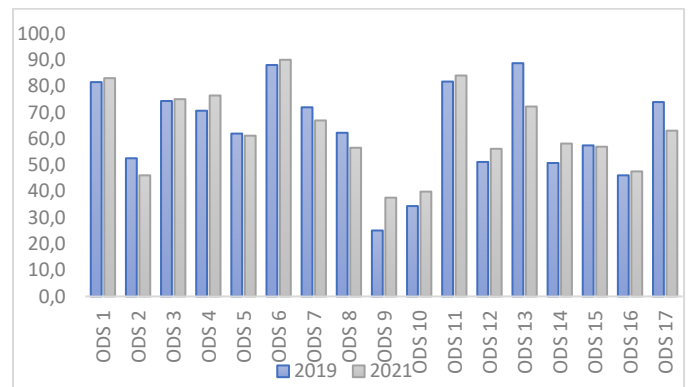


Fig. 1. Latin America and the Caribbean in the SDG Index 2019 and 2021.
Source: [7] with data from CODS [1], [6].

A. Latin America and the Caribbean in the SDG Index

Table I shows that the largest percentage differences in the Latin America and Caribbean region between the SDG Index 2019 and 2021 occurred in SDG 13 Climate Action, which decreased by 16.5%, SDG 9 Industry, innovation, and Infrastructure, which increased by 12.5%, and SDG 17 Partnerships to achieve the goals, which decreased by 10.9%. Likewise, the smallest percentage differences occurred in SDG 15 Life of terrestrial ecosystems (0.5%), SDG 3 Health and Well-being, which increased by 0.7%, and SDG 5 Gender Equality, which decreased by 0.8% [7].

TABLE I
SDG INDEX 2019 AND 2021 BY SDG. SOURCE: [7].

SDG	2019 (%)	2021 (%)
1	81,6	83,1
2	52,6	46,1
3	74,4	75,1
4	70,7	76,5
5	62,0	61,2
6	88,1	90,1
7	72,0	67,0
8	62,3	56,6
9	25,1	37,6
10	34,4	39,9
11	81,8	84,1
12	51,2	56,2
13	88,8	72,3
14	50,8	58,2
15	57,5	57,0
16	46,1	47,6
17	74,0	63,1

Paraguay	62,54	62,7
Peru	66,81	66,3
Dominican Republic	63,93	64,6
Suriname	62,98	66,4
Trinidad and Tobago	60,34	61,6
Uruguay	71,50	72,6
Venezuela	60,10	55,4
Guyana	57,42	ND

Table II shows the percentage averages of the twenty-four countries of Latin America and the Caribbean in the fulfillment of the SDGs.

TABLE II
SDG INDEX 2019 AND 2021 BY COUNTRY. SOURCE: [7].

Country	2019	2021
Argentina	66,94	65,9
Belize	57,62	60,7
Bolivia	64,77	64,3
Brazil	66,35	64,2
Chile	73,68	72
Colombia	64,78	63,5
Costa Rica	69,98	70,1
Ecuador	67,88	65,5
El Salvador	62,72	63,7
Guatemala	55,78	57,3
Haiti	44,58	46,9
Honduras	58,09	58,2
Jamaica	64,16	63
Mexico	65,55	63,1
Nicaragua	62,57	61,4
Panama	64,33	62,6

B. Colombia in the SDG Index

Colombia ranks ninth with 64.78% in the SDG 2019 Index [1], and climbed to sixth position with 63.5% in the SDG 2021 Index [6]. Although Colombia is well positioned among the 24 countries in the region, it is possible to show that in the SDG Index 2019 and 2021, it has not met any of the seventeen SDGs [7].

Given this non-compliance, it is possible to identify the levels of progress in each SDG, which are the decreasing level of regression in compliance, the stagnant level of compliance at a rate less than 50% of expected, the moderate level of progress at a rate greater than 50% of expected, and the level of expected trajectory of progress required to meet the SDG [6], [7].

In Table III it is possible to visualize that Colombia has 1 SDG at decreasing level, 9 SDGs at a stagnant level, 4 SDGs at a moderate level, and 3 SDGs in the expected trajectory. Regarding SDG 4 on quality education, Colombia has maintained a moderate level of progress, in the SDG 2019 Index [1] and the SDG 2021 Index [6].

TABLE III
COLOMBIA'S LEVEL OF PROGRESS IN THE SDG 2021 INDEX.
SOURCE: [7].

Level of progress	SDG
Decreasing	1: End of poverty.
	2: Zero hunger.
Stagnant	5: Gender equality.
	8: Decent work and economic growth.
	10: Reduction of inequalities.
	12: Responsible production and consumption.
	14: Underwater life.
	15: Life of terrestrial ecosystems.
	16: Peace, justice, and strong institutions.
	17: Partnerships to achieve the goals.
	Moderate
4: Quality education.	
7: Affordable and non-polluting energy.	
9: Industry, innovation, and infrastructure.	
Expected trajectory	6: Clean water and sanitation.
	11: Sustainable cities and communities.
	13: Climate action.

C. SDG 4 on Quality Education

SDG 4 on quality education presents five indicators that measure each country's performance in meeting this Sustainable Development Goal (SDG).

Indicator 4.1 is the average net enrollment rate in primary education, i.e., the UNESCO 2020 report on the percentage of children of official school age who are enrolled in primary education.

Indicator 4.2 is the completion rate of lower secondary education, from UNESCO's 2020 report on the completion rate of secondary education, as the gross admission rate to the last grade of secondary education.

Indicator 4.3 is the literacy rate for both sexes aged 15-24 years, as measured by UNESCO in 2020 on the percentage of youth aged 15-24 years who can read, write, and understand a simple sentence of their daily life.

Indicator 4.4 is the gross enrollment rate in tertiary education, measured by ECLAC's 2020 report on total enrollment in tertiary education, regardless of age, as a percentage of the population of the age group corresponding to that level of education.

Indicator 4.5 is the gross enrollment rate in preschool education, as measured by UNESCO's 2020 report on the gross enrollment rate, regardless of age, among the population of the age group corresponding to that level of education.

In Figure 2, concerning the SDG Index 2019 it is possible to observe that Colombia performed better than Latin America and the Caribbean region in indicator 4.3 of the literacy rate in both sexes between 15 and 24 years old, indicator 4.4 of the gross enrollment rate in tertiary education and indicator 4.5 of the gross enrollment rates in preschool education, while it presented a lower performance in indicator 4.1 of the average net enrollment rate in primary education and indicator 4.2 of the completion rate of lower secondary education [1].

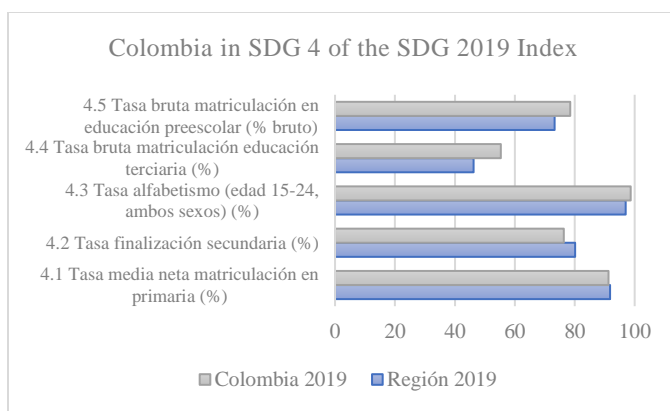


Fig. 2. Colombia in SDG 4 of the SDG 2019 Index. Source: Own elaboration.

In Figure 3, concerning the SDG 2021 Index, it can be seen that Colombia performed better than Latin America and the Caribbean region in indicator 4.1 of the average net enrollment rate in primary education, indicator 4.3 of the literacy rate in both sexes between 15 and 24 years of age, indicator 4.4 of the gross enrollment rate in tertiary education and indicator 4.5 of the gross enrollment rate in preschool education; while it had a lower performance in indicator 4.2 of the rate of completion of lower secondary education [6].

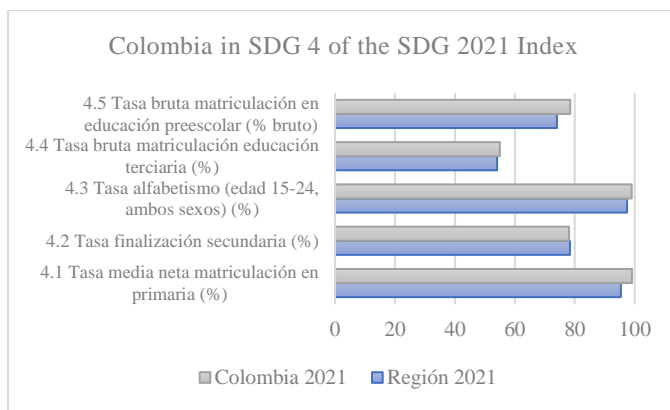


Fig. 3. Colombia in SDG 4 of the SDG 2021 Index. Source: Own elaboration.

Finally, Table IV allows differentiating Colombia's results in SDG 4 concerning the Latin American and Caribbean region between the 2019 Index and the 2021 Index, in terms of a slight increase in all SDG 4 indicators, except in indicator 4.5 of the gross enrollment rate in preschool education, which shows a constant trend, and a slight reduction in indicator 4.4 of the gross enrollment rate in tertiary education. [6].

TABLE IV
COLOMBIA'S PERFORMANCE IN ODS 4 BETWEEN SDG INDEX 2019
AND 2021. SOURCE: OWN ELABORATION.

SDG 4 Indicators	2019	2021
4.1 Average net enrollment rate in primary school (%)	91,27	99,1
4.2 Secondary completion rate (%)	76,35	78,1
4.3 Literacy rate (age 15-24, both sexes) (%)	98,67	99
4.4 Tertiary education gross enrollment rate (%)	55,33	55
4.5 Pre-school gross enrollment rate (%)	78,5	78,5

C. Measuring SDG 4 from Colombian sources

The 2030 Agenda proposes targets with corresponding indicators from the Global North. However, much of the information requested for such measurement does not exist in the Global South. Given that the case study is Colombia, it is proposed to measure compliance with SDG 4 on quality education based on the available information collected by official and private Colombian institutions.

For this purpose, the 5 indicators of SDG 4 of Quality Education are taken as a basis, but it is proposed to measure it, not from UNESCO reports, but from the information collected and reported by Colombian institutions.

Table V shows the Colombian sources for measuring each of the SDG 4 indicators, such as the Economics of Education Laboratory of the Pontificia Universidad Javeriana (Laboratorio de Economía de la Educación de la Pontificia Universidad Javeriana) [8], the Territorial Statistics System (TerriData) of the National Planning Department (Departamento Nacional de Planeación) [9], the Datos Abiertos portal of the Ministry of Information and Communication Technologies [10], the National System of Higher Education Information (SNIES) [11] and the SPADIES platform of the Ministry of National Education [12].

TABLE V
COLOMBIAN SOURCES FOR MEASURING ODS 4. SOURCE: OWN
ELABORATION.

SDG 4 Indicators	Colombian institution source
4.1 Average net enrollment rate in primary school (%)	Integrated Registration System (SIMAT)
4.2 Secondary completion rate (%)	National Information System of Basic and Secondary Education (SINEB)
4.3 Literacy rate (age 15-24, both sexes) (%)	Open Data Portal
4.4 Tertiary education gross enrollment rate (%)	National System of Higher Education Information (SNIES) SPADIES Platform
4.5 Gross enrollment rate in preschool education (% gross)	Economics of Education Laboratory (LEE) Territorial Statistics System (TerriData)

IV. CONCLUSIONS

The 2030 Agenda brings with it a commitment of the Colombian government to the United Nations; however, this global agenda has been imposed from the Global North, without adapting to the context of the Global South. In this sense, the results of the SDG Index between 2019 and 2021 pose goals in many cases already met by the developed countries of the Global North, while they are unmet goals in developing countries such as Colombia, mostly located in the Global South.

Given these inequalities between developed and developing countries, the failure of the Latin American and Caribbean region to meet the seventeen Sustainable Development Goals (SDGs) is evident.

In the case of SDG 4 on Quality Education, Colombia has not met this Sustainable Development Goal but has presented significant progress in three of the five indicators that measure compliance with this SDG in the country, while one indicator remains stable, and another indicator presented slight setbacks between 2019 and 2021. These results for Colombia in SDG 4 show that it presents a critical lag, with a medium risk of non-compliance with this SDG by 2030.

For this reason, a more inclusive global agenda is required to include the local and national context of each country, as well as the use of information sources collected by official and private institutions in each country, given that much of the information is collected by international organizations.

Finally, sources of information from Colombian institutions are proposed, which will allow the 2030 Agenda to be grounded in the context of the Colombian regions. This inclusive Agenda 2030 will allow regions of the Global South, such as Latin America and the Caribbean, to draw a route more adapted to their realities, to close the gaps and lags that so far exist, given the failure of most of the countries in the region to comply with the SDGs.

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