



SDG implementation in selected Latin America and Caribbean countries and possibilities to link with the GBEP Sustainability Indicators

prepared by

Leire Iriarte, Uwe R. Fritsche

IINAS - International Institute for Sustainability Analysis and Strategy

Technical Report prepared for



Pamplona & Darmstadt, November 2019

Scientific Director:

Uwe R. Fritsche uf@iinas.org

Administrative Director:

Thomas Stetz ts@iinas.org

Darmstadt Office:

Heidelberger Straße 129 ½
D-64285 Darmstadt, Germany
ph +49 (6151) 850-6077
fax +40 (6151) 850-6080

Berlin Office:

Marienstr.19-20
D-10117 Berlin, Germany
ph +49 (30) 28482-190

info@iinas.org

Scientific Advisory Board:

Joseph Alcamo, CESR (DE)
Suani Coelho, CENBIO (BR)
Teresa Pinto Correia, ICAAM (PT)
Maria Curt, UPM (ES)
Marina Fischer-Kowalski, IFF (AT)
Bundit Fungtammasan, JGSEE KMUTT (TH)
Alan Hecht, EPA (US)
Eva Heiskanen, NCRC (FI)
Alois Heißenhuber, TU München (DE)
Edgar Hertwich, NTNU (NO)
Jorge Hilbert, INTA (AR)
Tetsunari Iada, ISEP (JP)
Thomas B. Johansson, Lund Univ. (SE)
Lev Nedorezov, INENKO RAS (RU)
Martina Schäfer, ZTG TU Berlin (DE)
Udo Simonis, WZB (DE)
Ralph Sims, Massey University (NZ)
Leena Srivastava, TERI University (IN)
Helen Watson, UKZN (ZA)
Sir Robert Watson, Tyndall Centre (UK)

Bank Account:

Volksbank eG Darmstadt
IBAN DE5450890000005548609
BIC GENODEF1VBD

Company Register

HRB 90827 District Court Darmstadt
VAT ID
DE 282876833

www.iinas.org

Table of Content

List of Figures	ii
List of Tables	ii
Acronyms	iii
Executive Summary	iv
1. Introduction	1
2. Methodology	3
3. Implementation of the SDGs in Latin American and Caribbean Countries	6
3.1 The SDGs as a lively framework	6
3.2 Where do LAC countries stand?	8
3.3 Overview of the Implementation of the SDGs in LAC countries	10
3.4 SDG maps at the national level	13
4. Application of the GSI at country level	22
4.1 The GBEP Sustainability Indicators (GSI)	22
4.2 Interactions between the SDGs and the GSIs at the Global Level	22
4.3 GSIs pilot testing in selected countries	24
4.4 GSI implementation in selected Latin America countries	25
5. Interactions between the GSI and the SDG at the country level	27
6. Perspectives	30
References	31

List of Figures

Figure 1	Indicators produced and information covered at national level with respect to the global SDGs for selected GBEP partner countries	iv
Figure 2	Conceptual framework of this study.....	2

List of Tables

Table 1	Conceptual SDG Map at the indicator level.....	4
Table 2	Conceptual SDG Map at the target level.....	5
Table 3	Indicators by tier according to the global framework	7
Table 4	Overview of progress towards the SDGs in selected LAC countries.....	9
Table 5	<i>State of the art, implementation mechanisms and dissemination systems at the national level for the SDGs in selected Latin American and Caribbean countries.....</i>	11
Table 6	Argentina – National SDG map	14
Table 7	Brazil – National SDG map.....	15
Table 8	Colombia – National SDG map	16
Table 9	Mexico – National SDG map.....	17
Table 10	Paraguay – National SDG map	18
Table 11	Spain – National SDG map.....	19
Table 12	Summary of the national SDG indicators for selected LAC countries and Spain.....	20
Table 13	Summary of the information covered in the national frameworks with respect to the SDGs for selected LAC countries and Spain, in percentage.....	21
Table 14	The GBEP Sustainability Indicators for Bioenergy.....	22
Table 15	Summary of the interactions between the SDGs and the GBEP Sustainability Indicators for Bioenergy	23
Table 16	Relevance and assessment of the GSI in Argentina, Colombia and Paraguay.....	25
Table 17	Coverage of all GBEP Sustainability Indicators by the SDGs at country level.....	27
Table 18	Coverage of relevant/assessed GBEP Sustainability Indicators by the SDGs at country level	29

Acronyms

AR	Argentina
BR	Brazil
CL	Chile
CO	Colombia
DO	Dominican Republic
EC	Ecuador
ES	Spain
GBEP	Global Bioenergy Partnership
GSI	GBEP Sustainability Indicators
HPF	High Policy Forum
JM	Jamaica
LAC	Latin American and Caribbean Countries
MX	Mexico
NVR	National Voluntary Report (of the implantation of the SDGs at national level)
PY	Paraguay
PE	Perú
SDG	Sustainable Development Goals
SDSN	Sustainable Development Solutions Network
UN	United Nations
UY	Uruguay

Executive Summary

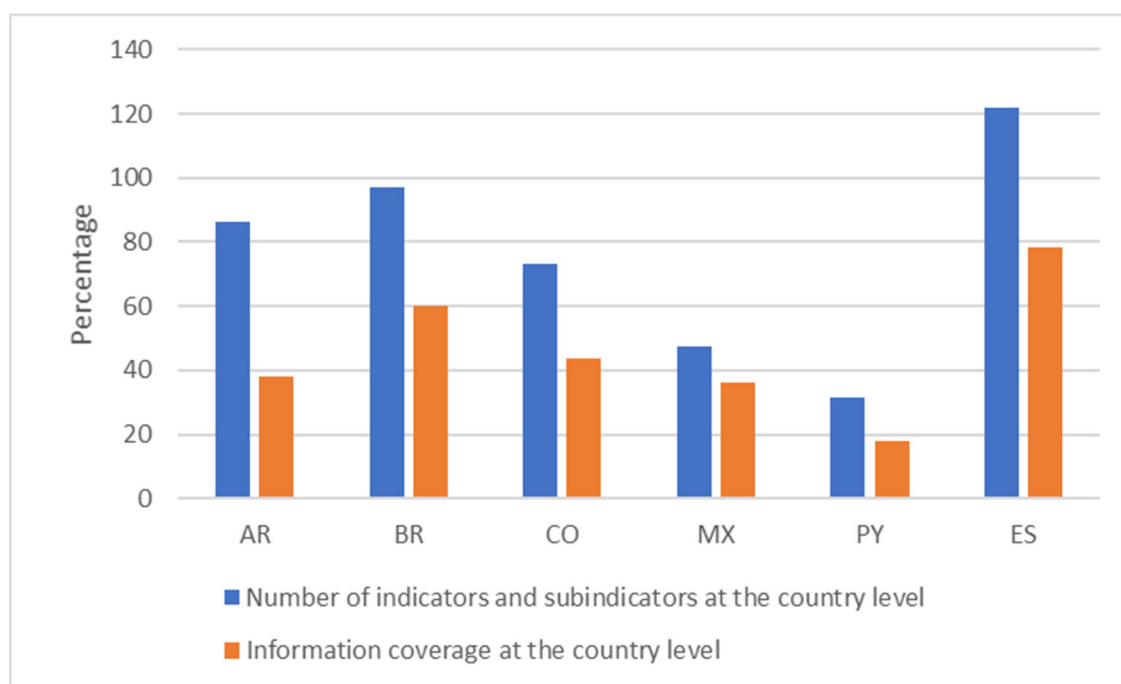
This study aims to explore and better understand the **interactions between the Sustainable Development Goals (SDGs) and the GBEP Sustainability Indicators (GSI) at the country level in selected Latin American and Caribbean (LAC) countries and Spain.**

To do so, Argentina (AR), Brazil (BR), Chile (CL), Colombia (CO), Dominican Republic (DO), Ecuador (EC), Jamaica (JM), Mexico (MX), Paraguay (PY), Perú (PE) and Uruguay (UY) as well as Spain (ES) have been selected. These countries represent a variety of diverse social, environmental and economic circumstances.

Selected countries show different approaches, challenges and priorities towards the SDGs. As of May 2019, all the considered countries had started to develop **national SDG indicator schemes** even if the set of indicators might not be final yet.

National SDGs maps for the selected countries that are GBEP partner countries (AR, BR, CO, ES, MX, PY) were developed. National adaptations of the global SDGs were assessed in terms of national indicators selected and information coverage with respect to the global agenda (see Figure 1).

Figure 1 Indicators produced and information covered at national level with respect to the global SDGs for selected GBEP partner countries



Source: own compilation

The analysis of the national indicator frameworks revealed that the number of indicators and subindicators produced at country level in comparison with the global SDG indicators (composed of 244 indicators) as well as the information covered varies among countries.

In all countries the percentage of the number of indicators is higher than the information covered with respect to the global agenda. The information covered by the set of indicators range from 18 percent for Paraguay to 78 percent for Spain.

For these seven countries, the **SDGs** with the higher coverage of information at the country level are SDG 3 (Good Health and Well-being), SDG 4 (Quality Education), SDG 7 (Affordable and Clean Energy) with 58 %, 64 % and 63 % respectively while the SDGs with the lowest coverage are SDG 12 (Responsible Consumption and Production) and SDG 14 (Life below water) with 30 % both of them, SDG 13 (Climate Action) with 32 % and SDG 16 (Peace, Justice and Strong Institutions) with 34 %. In fact, countries give higher priority to some Goals than others.

The **GBEP Sustainability Indicators** (GSI) are composed by 24 indicators related to the environmental, social and economic dimensions. Of the 12 selected countries in this study, five of them (AR, BR, CO, PY and UY) have developed a pilot GSI application to their national contexts. This pilot testing has concluded with various lessons learnt that are being taken into account in the development of the Indicator Guide for the GSI.

Due to the limited development of the GSI application in Brazil and Uruguay, this study has focused on analyzing the relevance and the application of the remaining three countries (AR, CO, PY). The **relevance of the global GSI indicators** is high (>80 %) for Argentina and Colombia while Paraguay doesn't explicitly refer to the relevance of the GSI for its context. The assessment of the information available at the country level with respect to the global GSI framework ranged from 54 % for Argentina to 65 % to Paraguay. This shows the difficulties that the countries found to find information for some of the aspects included in the GSI.

When analyzing the **interactions between the GSI and the SDGs** at the country level it has been found that the 38 % of the GSI are covered by the national SDG framework for Paraguay, 61 % for Argentina and 65 % for Colombia. This rate is slightly reduced when considering only the relevant GSI indicators for each country, especially for Argentina that drops to 48 %.

This highlights that there are relevant overlaps between the SDGs and the GSI for Argentina and Colombia but this is less prominent for Paraguay.

Therefore, the **way in which each country apply both frameworks is unique**. Therefore, as the study developed by Fritsche et al. (2018) concluded, there are many interactions between the two processes at the global level. However, attention has to be paid to the interactions at country level since the adoption and adaptation of the SDGs responds to the contexts, needs and priorities of the countries.

Moreover, both the SDG and the GSI implementation are **live processes**, which gives flexibility for national adaptation and respective implementation.

Both processes require relevant **efforts to generate information** that allow to assess, monitor and follow up the progresses. Therefore, there are opportunities exchange information, improve governance and create synergies in order to ease the processes and gain efficiency.

1. Introduction

After the adoption of the 2030 Agenda and the **Sustainable Development Goals (SDGs)** by all the members of the UN in 2015, countries need to adopt and adapt the international agenda to the national level. The 2030 Agenda aims to economic development that is socially inclusive and environmentally sustainable. In other words, leaving no one behind. The SDGs are composed by 17 goals, 169 targets and 244 indicators of which 12 are repeated for various targets (UNSTATS 2017). The implementation of the SDGs faces several challenges such as the availability of data and resources for implementation, integrative vision of the three dimensions of development, the political priority and the need of a long-term vision.

The engagement and progresses towards the agenda in the **Latin American and Caribbean (LAC)** region are variable. In 2018, eight countries of the region presented their National Voluntary Reports to the High-level Political Forum held in July in New York (CEPEI 2018). A review carried out by the UN Environment Programme and CEPEI (2018) of the fourteen Voluntary Reports on the implementation of SDGs, presented by LAC countries to the High-Level Political Forum in 2016 and 2017, concluded that the logic of silos has not yet been broken and there is no true integrative vision and that the environmental dimension of the SDGs still appears only in an incipient way in the revision of each one of them.

The Global Bioenergy Partnership (GBEP) was launched in 2005 to support wider, cost effective, biomass and biofuels deployment, particularly in developing countries where biomass use is prevalent (GBEP undated). The GBEP is comprised of 23 countries and 15 international organizations and institutions as well as 29 countries and 13 International Organizations participating as observers. In 2012 the GBEP agreed upon the **GBEP Sustainability Indicators (GSI)**. This framework proposed a set of 24 indicators regarding the economic, social and environmental pillar of the sustainable development aimed to guide sustainable bioenergy implementation at the country level. Since then, several countries have conducted pilot projects to apply the global scheme to their national contexts. As result of this effort, already several lessons learnt have been extracted and further work on learning from more country applications is ongoing. Moreover, the Task Force on Sustainability is now working to develop an Implementation Guide on the use of the GSI, to improve their practicality and related guidance for users (GBEP 2018).

The **SDGs and the GSI** can be seen as complementary agendas for sustainable development and for sustainable bioenergy development respectively. Fritsche et al. (2018) explored interactions and synergies between the SDGs and GSI at the global level.

The report concluded that the GSIs are closely linked to the SDGs and their targets, and indicators, and *vice versa*. Also, this study indicated that there are possibilities to share

data, and/or to jointly develop relevant new data sources for both the GSIs, and the SDG indicators.

As many LCA countries are already implementing the SDGs, a **new window of opportunity** arises to explore possible interactions between the two processes at country level.

Therefore, this report aims to go a step further and examine the interactions between the two processes **at country level with special focus in selected LAC countries**.

This study has selected 12 countries: 11 LAC countries and Spain aimed to show a variety of contexts both for the SDGs as well as with respect to the GSI. These countries are:

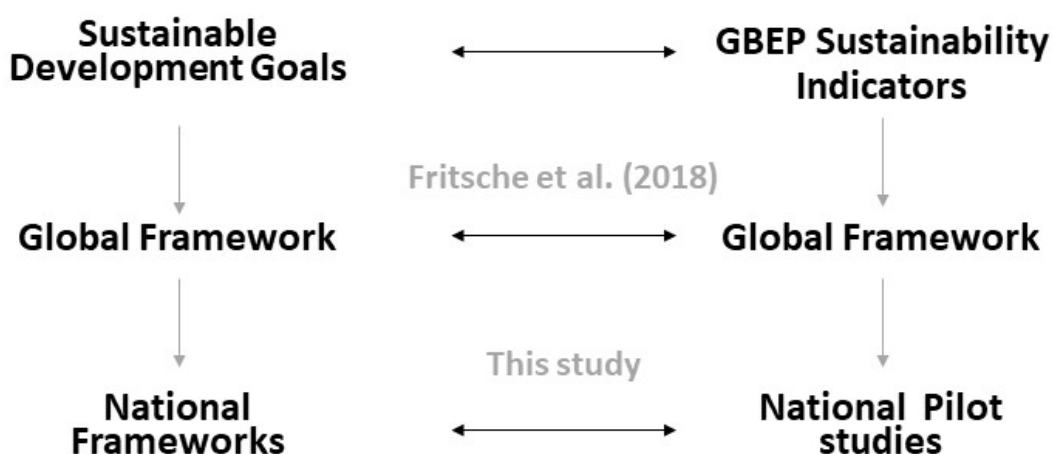
- GBEP partners: Argentina, Brazil, Colombia, Mexico, Paraguay, Spain
- GBEP Observers: Jamaica, Peru,
- Neither partners nor observers: Chile, Dominican Republic, Ecuador, Peru, Uruguay

The objectives of this study are:

- **Monitor the progresses** achieved by the 12 countries selected towards the SDGs and the GSI.
- Understand the **interactions** at country level between the SDGs and the GSI.
- Analyze how the SDGs and the GSI might **mutually benefit**.

The conceptual framework of this study is presented in the next figure:

Figure 2 Conceptual framework of this study



Source: own elaboration

The structure of this report is as follows:

- Methodology of the study (Section 2)
- How is the SDG implementation at country level in selected LAC countries and Spain? (Section 3)
- How is the GSI implementation at country level in selected LAC countries? (Section 4)
- Interactions between the SDGs and GSI at country level (Section 5)
- Perspectives of this work (Section 6)

2. Methodology




This report focuses on LAC countries as well as Spain. The methodology here developed and applied might be used in any other context.

2.1 Assessment of the implementation of the SDGs and the GSI at the country level.

First, the efforts that the selected countries have been done towards the SDGs and the GSI in terms of adoption and adaptation have been identified.

We have studied the progresses of the countries towards the SDGs. To better understand how countries have transposed the SDGs to their national frameworks, national SDG frameworks have been benchmarked towards SDG agenda. The versions of the national frameworks that have been used are the latest available as in December 2018. Then, a qualitative and quantitative assessment have been performed using a “traffic light system”, as follows:

1. **Qualitative assessment.** First, we have developed a SDG map for each country. These maps aim to visualize the position of each national indicator if developed for the country with respect to the international list of indicators. The baseline map of the global agenda is shown in the next tables (Table 1 and Table 2). Then, we identified the number of indicators including subindicators that each country has developed for any of the global indicators. This national SDG map shows how the national indicators cover the SDGs. For each intersection, a qualitative assessment following a color “Traffic Light System” was applied:

-  Indicator not considered in the national SDG framework
-  Indicator considered somehow in the national agenda but without fully considering all the aspects of the global agenda
-  Indicator considered as in the global agenda

2. **Quantitative assessment.** The qualitative assessment consists of giving a zero to one points to each intersection identified in the qualitative assessment: when the intersection is red it receives zero points, when it is yellow it receives 0.5 points and we give one point to green intersections. A quantitative aggregation was made at the goal level as the mean of all the indicators for each goal. The overall aggregated figure was then calculated as the mean of all the goals (for the SDGs) and indicators (for the GSI).

Table 1 Conceptual SDG Map at the indicator level

		Indicators																											
SDGs		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	
	1	1.1.1	1.2.1	1.2.2	1.3.1	1.4.1	1.4.2	1.5.1	1.5.2	1.5.3	1.5.4	1.a.1	1.a.2	1.a.3	1.b.1														
	2	2.1.1	2.1.2	2.2.1	2.2.2	2.3.1	2.3.2	2.4.1	2.5.1	2.5.2	2.a.1	2.a.2	2.b.1	2.c.1															
	3	3.1.1	3.1.2	3.2.1	3.2.2	3.3.1	3.3.2	3.3.3	3.3.4	3.3.5	3.4.1	3.4.2	3.5.1	3.5.2	3.6.1	3.7.1	3.7.2	3.8.1	3.8.2	3.9.1	3.9.2	3.9.3	3.a.1	3.b.1	3.b.2	3.b.3	3.c.1	3.d.1	
	4	4.1.1	4.2.1	4.2.2	4.3.1	4.4.1	4.5.1	4.6.1	4.7.1	4.a.1	4.b.1	4.c.1																	
	5	5.1.1	5.2.1	5.2.2	5.3.1	5.3.2	5.4.1	5.5.1	5.5.2	5.6.1	5.6.2	5.a.1	5.a.2	5.b.1	5.c.1														
	6	6.1.1	6.2.1	6.3.1	6.3.2	6.4.1	6.4.2	6.5.1	6.5.2	6.6.1	6.a.1	6.b.1																	
	7	7.1.1	7.1.2	7.2.1	7.3.1	7.a.1	7.b.1																						
	8	8.1.1	8.2.1	8.3.1	8.4.1	8.4.2	8.5.1	8.5.2	8.6.1	8.7.1	8.8.1	8.8.2	8.9.1	8.9.2	8.10.1	8.10.2	8.a.1	8.b.1											
	9	9.1.1	9.1.2	9.2.1	9.2.2	9.3.1	9.3.2	9.4.1	9.5.1	9.5.2	9.a.1	9.b.1	9.c.1																
	10	10.1.1	10.2.1	10.3.1	10.4.1	10.5.1	10.6.1	10.7.1	10.7.2	10.a.1	10.b.1	10.c.1																	
	11	11.1.1	11.2.1	11.3.1	11.3.2	11.4.1	11.5.1	11.5.2	11.6.1	11.6.2	11.7.1	11.7.2	11.a.1	11.b.1	11.b.2	11.c.1													
	12	12.1.1	12.2.1	12.2.2	12.3.1	12.4.1	12.4.2	12.5.1	12.6.1	12.7.1	12.8.1	12.a.1	12.b.1	12.c.1															
	13	13.1.1	13.1.2	13.1.3	13.2.1	13.3.1	13.3.2	13.a.1	13.b.1																				
	14	14.1.1	14.2.1	14.3.1	14.4.1	14.5.1	14.6.1	14.7.1	14.a.1	14.b.1	14.c.1																		
	15	15.1.1	15.1.2	15.2.1	15.3.1	15.4.1	15.4.2	15.5.1	15.6.1	15.7.1	15.8.1	15.9.1	15.a.1	15.b.1	15.c.1														
	16	16.1.1	16.1.2	16.1.3	16.1.4	16.2.1	16.2.2	16.2.3	16.3.1	16.3.2	16.4.1	16.4.2	16.5.1	16.5.2	16.6.1	16.6.2	16.7.1	16.7.2	16.8.1	16.9.1	16.10.1	16.10.2	16.a.1	16.b.1					
17	17.1.1	17.1.2	17.2.1	17.3.1	17.3.2	17.4.1	17.5.1	17.6.1	17.6.2	17.7.1	17.8.1	17.9.1	17.10.1	17.11.1	17.12.1	17.13.1	17.14.1	17.15.1	17.16.1	17.17.1	17.18.1	17.18.2	17.18.3	17.19.1	17.19.2				

Source: own compilation. The numbers in each cells refer to: (First number): SDG number; (Second number or letter): Target number within the SDG and (Third number) Indicator number within the target. For example, position row 2 column 7 refer to the Indicator number 1 of the fourth target within SDG 2. SDG number 3 has the highest number of indicators with 27 in total. Cells that don't contain indicators for each SDG are colored in grey.

Table 2 Conceptual SDG Map at the target level

		Number and Position of the indicators																											
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	
SDGs	1	1.1	1.2	1.3	1.4	1.5			1.a			1.b																	
	2	2.1	2.2	2.3	2.4	2.5	2.a	2.b	2.c																				
	3	3.1	3.2	3.3			3.4			3.5		3.6	3.7		3.8		3.9			3.a	3.b		3.c	3.d					
	4	4.1	4.2	4.3	4.4	4.5	4.6	4.7	4.a	4.b	4.c																		
	5	5.1	5.2	5.3	5.4	5.5	5.6		5.a	5.b	5.c																		
	6	6.1	6.2	6.3	6.4		6.5	6.6	6.a	6.b																			
	7	7.1	7.2	7.3	7.a	7.b																							
	8	8.1	8.2	8.3	8.4		8.5		8.6	8.7	8.8		8.9		8.10		8.a	8.b											
	9	9.1		9.2		9.3		9.4	9.5		9.a	9.b	9.c																
	10	10.1	10.2	10.3	10.4	10.5	10.6	10.7		10.a	10.b	10.c																	
	11	11.1	11.2	11.3		11.4	11.5		11.6		11.7		11.a	11.b		11.c													
	12	12.1	12.2		12.3	12.4		12.5	12.6	12.7	12.8	12.a	12.b	12.c															
	13	13.1			13.2	13.3		13.a	13.b																				
	14	14.1	14.2	14.3	14.4	14.5	14.6	14.7	14.a	14.b	14.c																		
	15	15.1		15.2	15.3	15.4		15.5	15.6	15.7	15.8	15.9	15.a	15.b	15.c														
	16	16.1				16.2			16.3		16.4		16.5		16.6		16.7		16.8	16.9	16.10		16.a	16.b					
	17	17.1		17.2	17.3		17.4	17.5	17.6		17.7	17.8	17.9	17.10	17.11	17.12	17.13	17.14	17.15	17.16	17.17	17.18			17.19				

Source: own compilation. Combined cells are used when a target has more than one indicator. For example, target 1.2 has two indicators so it uses two cells (columns number 2 and 3 within SDG 1).

3. Implementation of the SDGs in Latin American and Caribbean Countries

3.1 The SDGs as a lively framework

In 2015, the Goals and targets of the SDGs were adopted and it was not until 2016, that the indicators were proposed. The set of global indicators are classified by tiers¹ according to the maturity in methodological development (UNSTATS 2018):

- Tier 1: Indicator is conceptually clear, has an internationally established methodology and standards are available, and data are regularly produced by countries for at least 50 per cent of countries and of the population in every region where the indicator is relevant.
- Tier 2: Indicator is conceptually clear, has an internationally established methodology and standards are available, but data are not regularly produced by countries.
- Tier 3: No internationally established methodology or standards are yet available for the indicator, but methodology/standards are being (or will be) developed or tested.

As of May 2019, 43 % of the global indicators are Tier I; 40.2 % Tier II; 13.9 Tier III and 2.9 % multi-Tier. This results in an aggregated methodological development of 64.5 % (see *Table 3*). The SDGs with higher methodological development are SDG 3 (94.4 %), SDG 9 (87.5 %) and SDG 2 (80.8 %). On the contrary, SDG 13 (25 %), SDG 12 (30.8 %) and SDG 14 (45 %) are the SDGs with less methodological development.

The tier classification of many indicators is expected to change as methodologies are developed and data availability increases (UNSTAT 2019) so the set of indicators selected for the SDGs is a live framework.

¹ For more info visit: <https://unstats.un.org/sdgs/iaeg-sdgs/tier-classification/>

Table 3 Indicators by tier according to the global framework

Sustainable Development Goals	Number of indicators	Number of indicators by Tier				Percentage of indicators by Tier				Methodological score
		I	II	III	Multitier	I	II	III	Multitier	
SDG1: No Poverty	14	3	8	3		21.4	57.1	21.4	0.0	50.0
SDG2: Zero Hunger	13	8	5			61.5	38.5	0.0	0.0	80.8
SDG3: Good Health and well-being	27	25	1	1		92.6	3.7	3.7	0.0	94.4
SDG4: Quality Education	11	2	6	1	2	18.2	54.5	9.1	18.2	54.5
SDG5: Gender Equality	14	1	12		1	7.1	85.7	0.0	7.1	53.6
SDG6: Clean Water and Sanitation	11	6	5			54.5	45.5	0.0	0.0	77.3
SDG7: Affordable and Clean Energy	6	4	1	1		66.7	16.7	16.7	0.0	75.0
SDG8: Decent Work and Economic Growth	17	8	8	1		47.1	47.1	5.9	0.0	70.6
SDG9: Industry, innovation and infrastructure	12	9	3			75.0	25.0	0.0	0.0	87.5
SDG10: Reduced Inequalities	11	3	7		1	27.3	63.6	0.0	9.1	63.6
SDG11: Sustainable Cities and communities	15	3	8	4		20.0	53.3	26.7	0.0	46.7
SDG12: Responsible Consumption and production	13	2	3	7	1	15.4	23.1	53.8	7.7	30.8
SDG13: Climate Action	8	1	2	5		12.5	25.0	62.5	0.0	25.0
SDG14: Life below water	10	2	5	3		20.0	50.0	30.0	0.0	45.0
SDG15: Life on land	14	7	4	1	2	50.0	28.6	7.1	14.3	71.4
SDG16: Peace, Justice and Strong Institutions	23	6	16	1		26.1	69.6	4.3	0.0	60.9
SDG17: Partnerships for the goals	25	15	4	6		60.0	16.0	24.0	0.0	68.0
Total	244	105	98	34	7	43.0	40.2	13.9	2.9	64.5

Source: own compilation from UNSTATS (2019)

3.2 Where do LAC countries stand?

Many LAC countries have made significant progresses in achieving growth and reducing poverty levels but still there are several challenges ahead (ECLAC 2018). Regarding the 2030 Agenda, the approach and progresses made by the different countries are variable. An overview of the progresses in the selected countries in this study regarding the SDGs is summarized in Table 4 (based on SDSN 2018). This ranking has been done with 88 selected indicators.

Spain is the country ranking highest while Chile and Ecuador are the countries with the highest score within the LAC selected countries. At the bottom of the ranking are Jamaica and Mexico. For the selected countries, the Goals with the highest performance are: SDG 1, SDG 13 and SDG 3 and the Goals with the lowest scores are SDG 9 and SDG 10.

An aggregated level, the selected countries show 69.1 points (out of 100) so there is still work to be done if the SDG aims to be achieved. As recognized by the Forum of the Countries of Latin America and Caribbean on Sustainable Development (2018): *Progress had been made in the region with regard to the 2030 Agenda, such as the creation of new inter-institutional coordination mechanisms, the formulation of development plans that take the SDGs into account, the review of national budgets to finance the SDGs and the expansion of policies that combine the three dimensions of sustainable development. However, countries had yet to overcome challenges related to, among other things, discrimination, in particular against indigenous and Afrodescendent peoples; gender inequalities; sustainable human developments; nutrition, especially in early childhood; the development of rural communities; and the strengthening of social security mechanisms. National statistical capacities had become stronger for measuring various indicators. However, efforts must be redoubled to strengthen statistical capacities for those indicators for which information was not available or was not measured according to the necessary parameters or level of disaggregation. A major challenge is the availability of economic resources.*

Table 4 Overview of progress towards the SDGs in selected LAC countries

	Argentina	Brazil	Chile	Colombia	Dominican Republic	Ecuador	Jamaica	Mexico	Paraguay	Perú	Uruguay	Spain	Global (for selected countries in %)
SDG Index Score	70.3	69.7	72.8	66.6	66.4	70.8	65.9	65.2	67.2	68.4	70.4	75.4	
SDG Global Rank (of 157)	53	56	38	74	75	46	81	84	72	64	49	25	
SDG1	99.8	96.9	99.5	95.5	99.6	95.9	99.5	97.1	99.3	97.4	100.0	98.7	98.3
SDG2	69.1	67.7	68.6	56.7	52.9	49.7	48.8	56.2	66.0	60.5	65.9	62.8	60.4
SDG3	80.8	78.2	86.9	80.8	68.9	76.7	81.6	82.5	74.3	80.0	82.8	93.8	80.6
SDG4	88.6	77.4	84.1	75.5	71.6	78.1	66.6	81.9	75.0	82.9	83.2	88.1	79.4
SDG5	78.5	68.3	66.6	72.0	74.2	80.5	71.4	76.5	68.0	74.6	74.4	82.6	74.0
SDG6	100.0	98.3	94.2	97.6	80.3	97.5	88.8	59.7	96.7	96.3	85.1	84.6	89.9
SDG7	85.6	89.6	87.5	85.4	83.0	83.9	78.7	80.0	86.3	75.8	94.9	90.6	85.1
SDG8	61.5	67.6	78.1	56.9	65.5	67.5	66.0	64.7	68.4	61.4	70.5	74.0	66.9
SDG9	38.3	45.3	43.6	28.2	27.9	28.8	24.5	36.7	20.7	28.5	40.2	67.9	35.9
SDG10	39.8	25.7	27.4	21.8	32.9	35.6	36.5	14.7	42.5	41.9	50.2	69.3	36.5
SDG11	83.6	79.4	79.6	80.8	79.9	90.3	87.3	81.2	76.5	72.9	84.5	87.9	82.0
SDG12	69.9	70.3	74.0	74.7	78.8	73.4	77.9	74.2	71.3	73.2	63.2	61.2	71.8
SDG13	89.1	90.1	92.4	86.6	90.6	88.9	83.8	88.1	87.6	87.4	83.7	88.9	88.1
SDG14	44.5	59.9	62.9	54.2	57.7	62.6	23.7	58.4	48.5	63.8	45.8	47.5	52.5
SDG15	50.5	56.4	50.0	53.6	67.5	56.9	49.8	42.4	44.4	58.6	31.7	56.6	51.5
SDG16	58.8	47.3	68.3	50.6	47.7	57.1	60.3	52.7	49.1	52.2	65.9	72.6	56.9
SDG17	56.6	66.4	73.8	61.3	50.1	79.8	75.1	61.6	67.9	56.2	75.0	55.0	64.9

Source: own compilation from SDSN (2018)

3.3 Overview of the Implementation of the SDGs in LAC countries

Some LAC countries have played a leading role in the adoption and implementation of the SDGs. As in December 2018 (see Table 5) the 12 countries selected in this study had presented **voluntary national reviews** to the UN. Many of the LAC countries selected in this study already implemented the Millennium Development Goals so they are familiar with international and cross-cutting processes.

The countries in the region put in place different strategies for the adaptation and implementation of the SDGs to their national contexts (ECLAC 2018):

- Countries whose strategy for follow-up of SDG implementation focuses on: **prioritizing or adapting targets** to the national development plan; selecting, adapting or constructing relevant indicators to follow up on the selected targets; developing metadata and dissemination platforms for the chosen indicators. This group includes Argentina, Colombia, and Mexico.
- Countries that have **prioritized specific targets**, in accordance with their national development plans, but that have yet to define the indicators that will be used to follow up on these targets. Chile and Peru are in this group.
- Countries which are using the **global indicators** —to the extent of their statistical capacities and feasibility— while simultaneously preparing and defining a national framework. Ecuador is representative of this group.
- Countries which have **prioritized indicators** that are part of the SDGs and have been reviewed in the voluntary national reviews submitted to the high-level political forum. The Dominican Republic, and Uruguay are in this group.

Table 5 shows the institutions responsible for implementation and dissemination systems for the Agenda 2030 at the national level as well as the national websites for follow up.

Table 5 *State of the art, implementation mechanisms and dissemination systems at the national level for the SDGs in selected Latin American and Caribbean countries.*

Country	Voluntary Report on SDGs to the HLP	Institution responsible for the Agenda coordination	Institution responsible for monitoring and follow-up institutions	Name or URL of the monitoring and/or dissemination system
Argentina	2017	National Council for the Coordination of Social Policies of the Officer the President	National implementation and monitoring mechanism involving all Ministries and other bodies of the National Public Administration	"Agenda 2030-ODS Argentina" [online] http://www.odsargentina.gob.ar/
Brazil	2017	National Commission for the Sustainable Development Goals, Government Secretariat of the Office of the President	Brazilian Institute of Geography and Statistics (IBGE) and Institute of Applied Economic Research - IPEA-	"Plataforma Agenda 2030. Acelerando as transformações para a Agenda 2030 no Brasil" [online] http://www.agenda2030.com.br/
Chile	2017	National Council for Implementation of the 2030 Agenda for Sustainable Development	Technical Secretariat, Ministry of Social Development	"Chile Agenda 2030 para el Desarrollo Sostenible" [online] http://www.chileagenda2030.gob.cl
Colombia	2016, 2018	High-Level Inter-Agency Commission for the Effective Enlistment and Implementation of the Post-2015 Development Agenda and its SDGs (SDG Committee).	As part of the SDG Committee, the National Planning Department (DNP) and National Administrative Department of Statistics (DANE)	"Objetivos de Desarrollo Sostenible" [en línea] https://ods.gov.co/
Dominican Republic	2018	High-Level Inter-Agency Commission for Sustainable Development	Ministry of Economy, Planning and Development -National Statistical Office	"Objetivos de Desarrollo Sostenible" (ODS). Presentación" [online] http://ods.gob.do/Home/Inicio
Ecuador	2018	National Secretariat for Planning and Development	National Institute of Statistics and Censuses (INEC) of Ecuador	"Objetivos de Desarrollo Sostenible" [online] http://www.ecuadorencifras.gob.ec/objetivos-de-desarrollo-sostenible/

Country	Voluntary Report on SDGs to the HLP	Institution responsible for the Agenda coordination	Institution responsible for monitoring and follow-up institutions	Name or URL of the monitoring and/or dissemination system
Jamaica	2018	Inter-Ministerial Working Group on the Post-2015 Development Agenda, (Planning Institute of Jamaica)	Statistical Institute of Jamaica	“Overview of the 2030 Agenda” [online] http://statinja.gov.jm/sdg.aspx#/Overview
Mexico	2016, 2018	National Council for the 2030 Agenda for Sustainable Development	National Institute of Statistics and Geography	“Information system of the Sustainable Development Goals” [online] http://agenda2030.mx/
Paraguay	2018	SDG Commission Paraguay 2030	SDG Commission Paraguay 2030	(Only partially) http://www.stp.gov.py/pnd/
Perú	2017	National Center for Strategic Planning (CEPLAN)	National Institute of Statistics and Informatics (INEI)	“Perú: sistema de monitoreo y seguimiento de los indicadores de los Objetivos de Desarrollo Sostenible. ‘Objetivos para transformar nuestro país’” [online] http://ods.inei.gob.pe/ods/
Uruguay	2017, 2018	Office of Planning and Budget through its Directorate of Management and Evaluation	Office of Planning and the Budget, through the Directorate of Management and Evaluation (AGEV), together with the National Institute of Statistics (INE) and the Uruguayan Agency for International Cooperation (AUCI)	“Uruguay Suma Valor” [online] http://www.ods.gub.uy/index.php
Spain	2018	High Level Inter-ministerial Group for the 2030 Agenda	High Level Inter-ministerial Group for the 2030 Agenda	

Source: own compilation from the Sustainable Development Knowledge Platform (2018) and ECLAC (2018) and the National Voluntary Reports

Most countries have sought convergence between their national development plans and the SDGs, considering their international commitments or agreements. Mexico has considered its green growth agenda and Colombia has aligned its prioritization of the SDG targets with the Peace Agreement (ECLAC 2018). These differences in the adoption and prioritization of the goals of the agenda has resulted in different targets prioritized at the national level. Most countries have **prioritized some of the Goals**, especially: 1,2,3,5. Following to these goals, also Goals 9 and 14 have been emphasized by most of the countries. These figures show the priorities that countries have chosen with respect to the targets of the global framework but not necessarily consider the availability of information so don't reflect the importance that a particular country attaches to a given issue (ECLAC 2018).

As in December 2018, all the selected countries in this report have established a **national framework of preliminary indicators** for SDG follow-up at the national level. Apart from setting the indicators, several countries such as Argentina and Colombia have established intermediate targets (for some point from 2018 to 2025) and baselines (that range from 2010 to 2017). Also there is ongoing work in the methodological development of the indicators by tier.

In the adaptation of the SDGs to the national contexts, countries have also applied the tier approach when needed. In this respect Colombia has identified 96 information gaps regarding the global SDG framework and has designated as well the institutions that should generate the information (CONPES 2018). Argentina in its National Voluntary Report (2018) indicates the tiers of the indicators; 76.1 % of the national indicators are tier I, while 22.1 % are tier II and 1.8 % are tier III.

3.4 SDG maps at the national level

National SDG maps for selected GBEP partners are shown in the next Tables. These maps analyze how each country has developed its national set of indicators as in December 2018 in comparison with the global SDG framework regarding:

- The **number of indicators** considered at national level with respect to the global indicators. This parameter exclusively analyzes the number of indicators taken into account by any of the countries with respect to the SDGs. It refers to the number indicated in each cell.
- The **information coverage** by the national schemes with respect to the global agenda applying a qualitative assessment. This is represented by the color of the cell.

Table 6 Argentina – National SDG map

		Indicators																										
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
SDGs	1	Red	Green 1	Green 1	Green 2	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red
	2	Yellow 1	Yellow 1	Green 1	Green 2	Green 1	Yellow 2	Yellow 2	Yellow 3	Red	Red	Yellow 1	Red	Yellow 3	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red
	3	Green 1	Green 1	Green 1	Green 1	Yellow 2	Green 1	Green 1	Yellow 1	Yellow 7	Green 4	Green 1	Green 3	Red	Red	Green 3	Green 2	Green 1	Red	Red	Yellow 1	Red	Green 1	Red	Green 1	Red	Green 3	Yellow 1
	4	Green 24	Green 1	Green 2	Green 5	Green 2	Green 3	Red	Red	Green 4	Red	Green 3	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red
	5	Red	Green 1	Red	Red	Red	Green 1	Green 2	Green 1	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red
	6	Green 1	Green 1	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red
	7	Green 1	Green 1	Green 1	Green 1	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red
	8	Green 2	Green 1	Red	Red	Red	Green 5	Red	Green 2	Green 1	Green 3	Green 2	Green 6	Red	Green 4	Green 6	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red
	9	Yellow 1	Yellow 2	Yellow 1	Yellow 6	Yellow 1	Yellow 1	Green 1	Green 1	Green 1	Red	Yellow 1	Yellow 1	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red
	10	Green 1	Green 1	Green 1	Green 1	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red
	11	Green 1	Green 1	Green 1	Green 1	Green 7	Red	Red	Green 1	Green 1	Red	Red	Red	Red	Green 1	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red
	12	Red	Red	Red	Red	Red	Red	Yellow 1	Red	Yellow 1	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red
	13	Red	Red	Red	Yellow 1	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red
	14	Red	Red	Red	Red	Green 1	Red	Red	Green 1	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red
	15	Green 1	Red	Green 2	Yellow 2	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red
	16	Green 1	Red	Green 1	Green 1	Red	Red	Red	Green 4	Green 1	Red	Green 9	Green 1	Red	Yellow 1	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red
	17	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Green 1	Green 1	Red	Red	Red	Red	Red	Red	Red	Green 1	Yellow 3	Green 1	Red	Green 1	Green 1	Green 3	Red

Source: own compilation from the platform: Agenda 2030-ODS Argentina, except for the SDG3 that info was taken from a previous version from Consejo Nacional de Coordinación de Políticas Sociales. Presidencia de la Nación. Argentina (2019). Legend:

The number in each cell refers to the number of the indicators of the national agenda for each indicator at the international level

The colors of the cells refer to how the information provided by each indicator at the national level covers the information of the international indicators as follows:

- Indicator not considered or developed yet in the national SDG framework
- Considered somehow but not considers all the aspects included in the global agenda, or it is in implementation or data are not available or without a global methodology
- Indicator considered as in the global agenda

Table 7 Brazil – National SDG map

		Indicator																										
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
SDGs	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1													
	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1													
	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1													
	5	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1											
	6	1	1	1	1	1	1	1	1	1	1	1	1	1	1													
	7	1	1	1	1	1	1	1	1	1	1	1	1	1	1													
	8	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	9	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1												
	10	1	1	1	1	1	1	1	1	1	1	1	1	1	1													
	11	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	12	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1												
	13	1	1	1	1	1	1	1	1	1	1	1	1	1	1													
	14	1	1	1	1	1	1	1	1	1	1	1	1	1	1													
	15	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	16	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	17	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

Source: own compilation from the Brazilian National Commission for the SDGs (2018). Considering the ECLAC (2019) report not major changes of this indicator set had been produced. Minor updates have not been included in this document. Legend:

The number in each cell refers to the number of the indicators of the national agenda for each indicator at the international level

The colors of the cells refer to how the information provided by each indicator at the national level covers the information of the international indicators as follows:

■ Indicator not considered or developed yet in the national SDG framework

■ Considered somehow but not considers all the aspects included in the global agenda, or it is in implementation or data are not available or without a global methodology

■ Indicator considered as in the global agenda

Table 8 Colombia – National SDG map

		Indicators																										
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
SDGs	1	2	1	1	3		1	1	1																			
	2	1	1	2	1			1																				
	3	1	2	2	1	2	1	3	2		6	1	1	1	1	3	2	3			2	3		1				
	4	5	3		1		1	1		1																		
	5	1	3	3	2		2	1	1	5		1		3														
	6	3	1	2	1	1	1	2																				
	7	1		1		1																						
	8	1	1	1	4			1	1	1	1		1	1		2												
	9		1	1	1			1	3			1	2															
	10	2	1		1																							
	11	2	1			1	2		1	2		2			3													
	12				1		3	1	1				1															
	13	2		1	4																							
	14	1				1																						
	15	3	1	1				3																				
	16	1	1	2					2													1		1				
	17											1			1													

Source: own compilation from the Departamento Nacional de Planeación. Online platform: *Objetivos de Desarrollo Sostenible*. Considering the ECLAC (2019) report not major changes of this indicator set had been produced. Minor updates have not been included in this document. Legend:

The number in each cell refers to the number of the indicators of the national agenda for each indicator at the international level

The colors of the cells refer to how the information provided by each indicator at the national level covers the information of the international indicators as follows:

- Indicator not considered or developed yet in the national SDG framework
- Considered somehow but not considers all the aspects included in the global agenda, or it is in implementation or data are not available or without a global methodology
- Indicator considered as in the global agenda

Table 9 Mexico – National SDG map

		Indicators																										
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
SDG	1	1	1	1				1	1				1															
	2		2									3																
	3	1	1	1	4	3	1	2								1	2									1		
	4	5		2	1	1		1			3	3																
	5	1	2	2	1			3	2	2				1														
	6			1							1																	
	7	1		1	1																							
	8	1		1				4		1	1		1	1	2	1	3											
	9	1		2	1			1	1	1	1		2															
	10				1					1	1																	
	11	1				1	1	1																				
	12																											
	13	1																										
	14					1			1																			
	15	1	1				1	1					1															
	16	1														1												
	17	1	1			1	1		1	1		1	1	1	1						1							

Source: own compilation from Instituto Nacional de Estadística-Mexico. Considering the ECLAC (2019) report not major changes of this indicator set had been produced. Minor updates have not been included in this document. Legend:

The number in each cell refers to the number of the indicators of the national agenda for each indicator at the international level

The colors of the cells refer to how the information provided by each indicator at the national level covers the information of the international indicators as follows:

- Indicator not considered or developed yet in the national SDG framework
- Considered somehow but not considers all the aspects included in the global agenda, or it is in implementation or data are not available or without a global methodology
- Indicator considered as in the global agenda

Table 10 Paraguay – National SDG map

		Indicators																										
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
SDG	1	1	2		2																							
	2	1		2	4					2	1																	
	3	1	2	1	1	1	2				2	1		2	1	1	2					1						
	4		1	2	3	3																						
	5				1		1	1	2																			
	6	3	3																									
	7	1	1	1	1																							
	8			2			1	1	1	2																		
	9				1																							
	10																											
	11																											
	12																											
	13																											
	14																											
	15	1		5																								
	16					1																3						
	17											1																

Source: own compilation from Secretaría Técnica de Planificación del Desarrollo Económico y Social – Paraguay. Considering the ECLAC (2019) report not major changes of this indicator set had been produced. Minor updates have not been included in this document. Legend:

The number in each cell refers to the number of the indicators of the national agenda for each indicator at the international level

The colors of the cells refer to how the information provided by each indicator at the national level covers the information of the international indicators as follows:

- Indicator not considered or developed yet in the national SDG framework
- Considered somehow but not considers all the aspects included in the global agenda, or it is in implementation or data are not available or without a global methodology
- Indicator considered as in the global agenda

Table 11 Spain – National SDG map

		Indicators																										
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
SDGs	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1													
	2	1	1	1	1	1	1	3	1	2	1	1	1	1														
	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	4	6	1	1	2	1	1	1	1	1	1	1																
	5	1	8	3	1	1	1	1	1	1	1	2	1	1	1													
	6	1	2	2	4	1	1	1	1	1	1	2																
	7	1	1	1	1	1	1																					
	8	1	1	1	1	1	2	2	1	1	1	1	1	1	1	1	1	1	1									
	9	1	1	1	1	1	1	1	1	1	1	1	2															
	10	1	2	2	1	1	1	1	1	1	1	1																
	11	5	3	2	1	2	2	1	2	2	1	3	1	1	1	1												
	12	1	1	1	1	1	2	2	1	1	1	1	1	1														
	13	1	1	1	5	1	1	1	1																			
	14	2	1	1	2	1	1	1	1	1	1	1																
	15	1	2	1	1	1	1	1	1	1	1	1	2	1	1													
	16	2	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	2			
	17	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

Source: own compilation base don Gobierno de España (2018). Legend:

The number in each cell refers to the number of the indicators of the national agenda for each indicator at the international level

The colors of the cells refer to how the information provided by each indicator at the national level covers the information of the international indicators as follows:

- Indicator not considered or developed yet in the national SDG framework
- Considered somehow but not considers all the aspects included in the global agenda, or it is in implementation or data are not available or without a global methodology
- Indicator considered as in the global agenda

The **number of national indicators** and subindicators widely varies by countries as summarized in Table 12; while Spain has taken into account 297 indicators, Paraguay has considered 77.

Considering that the global SDG framework consists of 244 indicators, the national coverage over the global framework ranges from 122 % to 32 % for Spain and Paraguay respectively.

The **average coverage of the SDGs in the selected countries is 77 %** but with differences among goals. SDG 3 (Health and Wellbeing) SDG 4 (Quality Education), SDG 5 (Gender Equality) and 8 (Decent Work and Economic Growth) are the goals with higher representation in the national frameworks with averages for the selected countries of 100 %, 164 % 100 % and 104 % respectively.

Argentina overrepresents the number of subindicators in SDG4 with 400 % of subindicators over the global agenda so this goal is overrepresented in the average of the countries.

On the other side, SDG 12 (Responsible Consumption and Production), SDG 14 (Life below water) and SDG 17 (Partnerships for the goals) are the goals with less coverage for the countries considered with average of 47 %, 45 % and 48 %.

Table 12 Summary of the national SDG indicators for selected LAC countries and Spain

SDG	No. Indicators in the global framework	AR	BR	CO	MX	PY	ES	Average of No. of indicators over the global framework (%)
1	14	4	14	10	6	5	14	63
2	13	17	13	6	5	10	16	86
3	27	37	27	38	17	18	25	100
4	11	44	10	12	16	9	17	164
5	14	5	13	22	14	6	24	100
6	11	2	11	11	2	6	17	74
7	6	4	6	3	3	4	6	72
8	17	32	17	15	16	7	19	104
9	12	17	12	10	10	1	13	88
10	11	4	11	4	3	0	13	53
11	15	14	15	14	4	0	28	83
12	13	2	13	7	0	0	15	47
13	8	1	8	7	1	0	12	60
14	10	2	10	2	2	0	11	45
15	14	5	14	8	5	6	16	64
16	23	19	22	8	2	4	26	59
17	25	12	21	2	11	1	25	48
Total	244	221	237	179	117	77	297	77

Source: own compilation from selected national frameworks (see references in the national maps)

However, despite the amount of indicators and subindicators developed, the **average information coverage** (measured as the global indicators for which there are national indicators) for the selected countries is 46 % (see Table 13).

The highest information coverage is found for Spain with 78 % and the lowest for Paraguay with 18 %. The SDGs with the higher coverage are SDG 3 (Good Health and Well-being), SDG 4 (Quality Education), SDG 7 (Affordable and Clean Energy) with 58 %, 64 % and 63 % respectively while the lowest ones are SDG 12 (Responsible Consumption and Production) and SDG 14 (Life below water) with 30 % both of them, SDG 13 (Climate Action) with 32 % and SDG 16 (Peace, Justice and Strong Institutions) with 34 %.

Table 13 Summary of the information covered in the national frameworks with respect to the SDGs for selected LAC countries and Spain, in percentage

SDG	AR	BR	CO	MX	PY	ES	Average
1	21	64	50	43	14	64	43
2	50	62	38	15	38	85	48
3	65	63	70	31	46	72	58
4	73	64	55	64	32	100	64
5	29	61	71	57	32	75	54
6	18	64	64	86	14	100	58
7	67	83	50	50	58	67	63
8	59	62	65	56	29	79	58
9	63	75	58	63	8	75	57
10	36	55	27	27	0	68	36
11	47	60	47	20	0	93	44
12	8	58	35	0	0	81	30
13	6	63	38	13	0	75	32
14	20	55	20	20	0	65	30
15	18	50	29	36	14	96	40
16	33	57	26	9	9	74	34
17	30	52	8	44	4	70	35
Average	39	60	44	36	18	78	46

Source: own compilation from selected national frameworks (see references in the national maps)

There is some **convergence** between the number of indicators by goal with respect to the global agenda and the information coverage. SDG 4 shows high number of indicators and high information coverage while SDG 12 and SDG 14 also show low number of indicators and low information coverage. This underlines the importance of paying attention to the definition of the indicators and not only to the number of indicators at the national level.

This analysis shows the **uniqueness of each national SDG framework** in terms of the number of indicators and information coverage. These national priorities and views have to be kept in mind.

4. Application of the GSI at country level

4.1 The GBEP Sustainability Indicators (GSI)

The GBEP Sustainability Indicators (GSI) is a framework of 24 indicators composed of 37 (sub)indicators in the environmental, social and economic pillar (GBEP 2017), as summarized in Table 14.

The indicators intend to guide any analysis undertaken of bioenergy at the domestic level with a view to informing decision making and facilitating the sustainable development of bioenergy in a manner consistent with multilateral trade obligations.

Table 14 The GBEP Sustainability Indicators for Bioenergy

Environmental pillar	Social pillar	Economic pillar
1. Life-cycle GHG emissions	9. Allocation and tenure of land for new bioenergy production	17. Productivity
2. Soil quality	10. Price and supply of a national food basket	18. Net energy balance
3. Harvest levels of wood resources	11. Change in income	19. Gross value added
4. Emissions of non-GHG air pollutants, including air toxics	12. Jobs in the bioenergy sector	20. Change in consumption of fossil fuels and traditional use of biomass
5. Water use and efficiency	13. Change in unpaid time spent by women and children collecting biomass	21. Training and re-qualification of the workforce
6. Water quality	14. Bioenergy used to expand access to modern energy services	22. Energy diversity
7. Biological diversity in the landscape	15. Change in mortality and burden of disease attributable to indoor smoke	23. Infrastructure and logistics for distribution of bioenergy
8. Land use and land-use change related to bioenergy feedstock production	16. Incidence of occupational injury, illness and fatalities	24. Capacity and flexibility of use of bioenergy

Source: GBEP (2011)

4.2 Interactions between the SDGs and the GSIs at the Global Level

The next Table summarizes the findings of the interactions found between the SDGs and the GSIs at the global level (Fritsche et al. 2018). The authors stated that:

- All GSIs from the environmental and social pillars and the majority from the economic pillar are linked to SDGs and their targets and indicators
- In total, 23 of the 24 GSIs are directly linked to SDGs and their targets (only exception: GSI 24 on Capacity and flexibility of use of bioenergy)
- Many of the GSIs from the environment pillar are linked to SDG indicators of Tier III (6 out of 14), implying that the SDG indicators will require more work
- Few of the GSIs from the social pillar are linked to SDG indicators of Tier III (3 out of 14), and only one GSI from the economic pillar is linked to SDG indicators of Tier III (1 out of 4)

Table 15 Summary of the interactions between the SDGs and the GBEP Sustainability Indicators for Bioenergy

GSI	Related SDG indicator	Tier
1. Lifecycle GHG emissions	13.2.1	III
	9.4.1	I
2. Soil quality	2.4.1	III
	15.3.1	III
3. Harvest levels of wood resources	15.2.1	II
4. Emissions of non-GHG air pollutants, including air toxics	11.6.1	II
	11.6.2	I
5. Water use and efficiency	6.4.1	II
	6.4.2	I
6. Water quality	6.3.1	II
	6.3.2	III
7. Biological diversity in the landscape	2.4.1	III
	15.8.1	III
8. Land use and land-use change related to bioenergy feedstock production	15.1.1	I
	15.1.2	I
9. Allocation and tenure of land for new bioenergy production	1.4.2	III
	2.3.1	III
	2.3.2	III
10. Price and supply of a national food basket	1.1.1	I
	2.1.1	I
	2.1.2	II
	2.c.1	II
11. Change in income	1.2.1	I
	1.2.2	II
	8.5.1	II
	8.5.2	I
	10.1.1	I
12. Jobs in the bioenergy sector	8.2.1	I
	8.3.1	II
13. Change in unpaid time spent by women and children collecting biomass	5.4.1	II
14. Bioenergy used to expand access to modern energy services	7.1.1	I
	7.1.2	I
	7.2.1	I
15. Change in mortality and burden of disease attributable to indoor smoke	3.9.1	I

GSI	Related SDG indicator	Tier
16. Incidence of occupational injury, illness and fatalities	8.8.1 8.8.2	I III
17. Productivity	(Target 2.3)	
18. Net energy balance	7.3.1	I
19. Gross value added	7.3.1 8.1.1 9.4.1	I I I
20. Change in the consumption of fossil fuels and traditional use of biomass	12.2.1 12.2.2	III II
21. Training and re-qualification of the workforce	(Target 4.4)	II
22. Energy diversity	7.2.1 7.3.1	I
23. Infrastructure and logistics for distribution of bioenergy	(Targets 9.1 and 9.4)	
24. Capacity and flexibility of use of bioenergy	No linkage	

Source: Fritsche et al. (2018)

4.3 GSIs pilot testing in selected countries

Since the release of the GSI, a number of countries have developed a pilot testing of the GSI at both regional and national level, to evaluate their feasibility and enhance their practicality as a tool for policymaking (GBEP Task Force on Sustainability 2017).

Five countries of the total selected in this study have carried out the pilot testing of the GSI: Argentina, Brazil, Colombia, Paraguay and Uruguay.

In Brazil a specific case study was developed for sugarcane ethanol mills in São Paulo State (Coelho et al. 2015). Given the specificities of this case study, it has not been taken into account.

Uruguay has identified which GSI are relevant for the country (22 out of 24) and which are not (GSI 14: Bioenergy used to expand access to modern energy services and GSI 15: Change in mortality and burden of disease attributable to indoor smoke). In 2015, Uruguay assessed the GSI for which information was available (17 indicators) and stated which ones were in process of getting information (5 indicators), as follow:

2. Soil quality
4. Emissions of non-GHG air pollutants, including air toxics
6. Water quality
18. Net energy balance
23. Infrastructure and logistics for distribution of bioenergy

4.4 GSI implementation in selected Latin America countries

In the next table summary information of the application of the GSI in Argentina, Colombia and Paraguay is shown, reflecting:

- The relevance of the indicator that each country gives to a certain indicator. Paraguay doesn't explicitly indicate the relevance of the indicator for the country and has assessed all the indicators.
- Whether a GSI has been assessed in the country or not.

While in Colombia the relevance of all the GSI has been determined, for Argentina there were 3 GSIs which relevance could not be assessed. Both Argentina and Colombia have considered relevant for their national circumstances more indicators (86 % and 81 % respectively) than those assessed (54 % and 60 %). In both cases there are coincidences on most of the indicators that are considered relevant (especially those related to the environmental pillar) while GSI 13 (Change in unpaid time spent by women and children collecting biomass) and GSI 14 (Bioenergy used to expand access to modern energy services) are neither considered relevant nor assessed in any of the countries. In Paraguay, all the indicators have been assessed even if difficulties with data availability has implied that many indicators were assessed only partially.

These results underline the **gap between the relevance of any indicator and the possibilities for its assessment** and the need of information to fully assess the indicators.

Table 16 Relevance and assessment of the GSI in Argentina, Colombia and Paraguay

GSI	Relevance			Assessment		
	AR	CO	PY	AR	CO	PY
1. Lifecycle GHG emissions	Green	Green	White	Green	Green	Green
2. Soil quality	Green	Green	White	Yellow	Yellow	Green
3. Harvest levels of wood resources	Red	Yellow	White	Red	Yellow	Green
4. Emissions of non-GHG air pollutants, including air toxics	Green	Green	White	Yellow	Yellow	Yellow
5. Water use and efficiency	Green	Green	White	Yellow	Yellow	Yellow
6. Water quality	Green	Yellow	White	Yellow	Yellow	Yellow
7. Biological diversity in the landscape	Green	Green	White	Yellow	Yellow	Yellow
8. Land use and land-use change related to bioenergy feedstock production	Green	Green	White	Green	Yellow	Yellow
9. Allocation and tenure of land for new bioenergy production	Green	Green	White	Red	Yellow	Yellow
10. Price and supply of a national food basket	Green	Green	White	Green	Green	Yellow
11. Change in income	Green	Green	White	Yellow	Yellow	Yellow
12. Jobs in the bioenergy sector	Green	Green	White	Yellow	Yellow	Yellow
13. Change in unpaid time spent by women and children collecting biomass	Red	Red	White	Red	Red	Yellow

GSI	Relevance			Assessment		
	AR	CO	PY	AR	CO	PY
14. Bioenergy used to expand access to modern energy services	Red	Red	White	Red	Yellow	Yellow
15. Change in mortality and burden of disease attributable to indoor smoke	Green	Yellow	White	Yellow	Red	Yellow
16. Incidence of occupational injury, illness and fatalities	White	Green	White	White	Green	Yellow
17. Productivity	Green	Green	White	Yellow	Green	Yellow
18. Net energy balance	Green	Green	White	Green	Yellow	Yellow
19. Gross value added	Green	Green	White	Green	Yellow	Yellow
20. Change in the consumption of fossil fuels and traditional use of biomass	Green	Yellow	White	Green	Yellow	Green
21. Training and re-qualification of the workforce	White	Yellow	White	Red	Green	Yellow
22. Energy diversity	Green	Green	White	Green	Green	Green
23. Infrastructure and logistics for distribution of bioenergy	White	Green	White	Red	Yellow	Green
24. Capacity and flexibility of use of bioenergy	Green	Green	White	Green	Green	Green
Subtotal Environmental (GSI 1-8; %)	88	88		56	56	69
Subtotal Social (GSI 9-16; %)	71	69		36	50	50
Subtotal Economic (GSI 17-24; %)	100	88		92	75	75
Unknown	13					
Total (%)	86	81		54	60	65

Source: own compilation. AR: Argentina; CO: Colombia; PY: Paraguay. The percentages shown for Argentina are calculated based on the percentage of indicators that the relevance is known. Color code:



The indicator is neither relevant or assessed



The indicator is partially relevant or has been partially assessed. There might be several reasons why an indicator can be classified as partially relevant or has been partially assessed (lack of information or methodology, etc.) but the analysis of these reasons are beyond the scope of this study.



The indicator is relevant or it has been fully assessed

Blank cells: information is not available

Given the lessons learnt of these pilot testing studies, the GBEP has identified the need to develop an **Implementation guide** to provide guidance on methodological and practical issues related to the implementation of certain indicator methodologies (Morese 2017). Among the issues considered in this Implementation Guide, a key point is the attribution of impacts to bioenergy production and use, identifying a range of suitable approaches for each indicator (GBEP 2015).

5. Interactions between the GSI and the SDG at the country level

The next tables summarize the interactions between the GSI and the SDGs for the selected countries. Table 17 reflects in a qualitative and a quantitative way which SDG indicators of the global agenda relate to each GSI (based on the work by Fritsche et al. (2018) and whether the countries have considered these SDG indicators in their national frameworks. This benchmark exercise has been performed considering the results of Tables 6, 8 and 10. The quantitative coverage of the GSI by the national SDGs agendas show that in Argentina the coverage is 61 %, 65 % in Colombia and 38 % in Paraguay.

When only considering relevant GSI as assessed in each country (see Table 18) the coverage of the relevant national GSI by the national SDGs fall to 48 % in Argentina and 54 % in Colombia while in Paraguay it stays at the same level (38 %) since this country didn't indicate which GSI are relevant for the country. This shows the differences among countries and a significant overlap in two of the three countries (Argentina and Colombia).

Table 17 Coverage of all GBEP Sustainability Indicators by the SDGs at country level

GSI	Related SDG indicator (global agenda)	Qualitative coverage by the national SDGs agenda			Quantitative coverage by the national SDGs agenda (%)		
		AR	CO	PY	AR	CO	PY
1. Lifecycle GHG emissions	13.2.1	Green	Green	Red	100	100	0
	9.4.1	Green	Green	Red			
2. Soil quality	2.4.1	Yellow	Green	Red	50	50	0
	15.3.1	Yellow	Red	Red			
3. Harvest levels of wood resources	15.2.1	Green	Green	Green	100	100	100
4. Emissions of non-GHG air pollutants, including air toxics	11.6.1	Green	Green	Red	75	100	0
	11.6.2	Yellow	Green	Red			
5. Water use and efficiency	6.4.1	Red	Green	Red	0	100	0
	6.4.2	Red	Green	Red			
6. Water quality	6.3.1	Red	Green	Red	0	100	0
	6.3.2	Red	Green	Red			
7. Biological diversity in the landscape	2.4.1	Yellow	Green	Red	25	50	0
	15.8.1	Red	Red	Red			
8. Land use and land-use change related to bioenergy feedstock production	15.1.1	Green	Green	Green	50	100	50
	15.1.2	Red	Green	Red			
9. Allocation and tenure of land for new bioenergy production	1.4.2	Red	Green	Green	50	33	33
	2.3.1	Green	Red	Red			
	2.3.2	Yellow	Red	Red			
10. Price and supply of a national food basket	1.1.1	Red	Green	Green	37.5	75	50
	2.1.1	Yellow	Green	Green			
	2.1.2	Yellow	Green	Red			
	2.c.1	Yellow	Red	Red			

GSI	Related SDG indicator (global agenda)	Qualitative coverage by the national SDGs agenda			Quantitative coverage by the national SDGs agenda (%)		
		AR	CO	PY	AR	CO	PY
11. Change in income	1.2.1				75	80	60
	1.2.2						
	8.5.1						
	8.5.2						
	10.1.1						
12. Jobs in the bioenergy sector	8.2.1				50	100	50
	8.3.1						
13. Change in unpaid time spent by women and children collecting biomass	5.4.1				100	100	100
14. Bioenergy used to expand access to modern energy services	7.1.1				100	67	100
	7.1.2						
	7.2.1						
15. Change in mortality and burden of disease attributable to indoor smoke	3.9.1				0	100	0
16. Incidence of occupational injury, illness and fatalities	8.8.1				100	50	0
	8.8.2						
17. Productivity	Target 2.3				56.3	0	0
	2.3.1						
	2.3.2						
18. Net energy balance	7.3.1				100	0	100
19. Gross value added	7.3.1				100	67	33
	8.1.1						
	9.4.1						
20. Change in the consumption of fossil fuels and traditional use of biomass	12.2.1				0	0	0
	12.2.2						
21. Training and re-qualification of the workforce	Target 4.4				100	0	100
	4.4.1						
22. Energy diversity	7.2.1				100	50	100
	7.3.1						
23. Infrastructure and logistics for distribution of bioenergy	(Targets 9.1 and 9.4).				84.4	75	0
	9.1.1						
	9.1.2						
	9.4.1						
24. Capacity and flexibility of use of bioenergy	No linkage	N/A			0	0	0
Average coverage (%)					61	65	38

Table 18 Coverage of relevant/assessed GBEP Sustainability Indicators by the SDGs at country level

	Relevance of the GSI at country level			Average coverage of the national SDGs for relevant GSI at national level (%)		
	AR	CO	PY	AR	CO	PY
1. Lifecycle GHG emissions				100	100	0
2. Soil quality				50	50	0
3. Harvest levels of wood resources					50	100
4. Emissions of non-GHG air pollutants, including air toxics				75	100	0
5. Water use and efficiency				0	100	0
6. Water quality				0	50	0
7. Biological diversity in the landscape				25	50	0
8. Land use and land-use change related to bioenergy feedstock production				50	100	50
9. Allocation and tenure of land for new bioenergy production				50	33	33
10. Price and supply of a national food basket				37.5	75	50
11. Change in income				75	80	60
12. Jobs in the bioenergy sector				50	100	50
13. Change in unpaid time spent by women and children collecting biomass						100
14. Bioenergy used to expand access to modern energy services						100
15. Change in mortality and burden of disease attributable to indoor smoke				0	50	0
16. Incidence of occupational injury, illness and fatalities					50	0
17. Productivity				56.3	0	0
18. Net energy balance				100	0	100
19. Gross value added				100	67	33
20. Change in the consumption of fossil fuels and traditional use of biomass				0	0	0
21. Training and re-qualification of the workforce					0	100
22. Energy diversity				100	50	100

	Relevance of the GSI at country level			Average coverage of the national SDGs for relevant GSI at national level (%)		
	AR	CO	PY	AR	CO	PY
23. Infrastructure and logistics for distribution of bioenergy					75	0
24. Capacity and flexibility of use of bioenergy				0	0	0
Average				48	54	38

Source: own elaboration. In the report of Paraguay the relevance of the indicator is not considered. The colors of the cells indicate whether:

- The indicator is not relevant
- The indicator is partially relevant (as interpreted in the case studies).
- The indicator is relevant

Blank cells: information is not available

6. Perspectives

This exploratory work might be of interest to be considered in the follow up guidance that GBEP is developing to support countries in the **GSI application**². Further elaboration of the GSIs and the SDGs at the country level, might bring further linkages.

The organizations responsible for the SDGs adoption and GSI elaboration at country level are different. Then, the question of who is responsible for which data is relevant. Coordination and collaboration between organizations to exchange data and information might be relevant for further work. For example, in Colombia and Germany organizations responsible for the SDGs implementation and GSI are different and they don't exchange information. This brings the issue of **governance** as a relevant aspect to be considered separately and in both processes.

² The GBEP Task Force on Sustainability is working to develop an Implementation Guide on the use of the GSI to improve their practicality and related guidance for users. <http://www.globalbioenergy.org/programmeofwork/task-force-on-sustainability/en/>

References

- Agenda 2030-ODS Argentina” [online] <http://www.odsargentina.gob.ar/>
- Argentina (2015) GBEP indicators
[http://www.globalbioenergy.org/fileadmin/user_upload/gbep/docs/2015_events/7_W_GCB_11_November_2015/Pilot - Argentina.pdf](http://www.globalbioenergy.org/fileadmin/user_upload/gbep/docs/2015_events/7_W_GCB_11_November_2015/Pilot_-_Argentina.pdf)
- Brazil GBEP indicators
http://www.globalbioenergy.org/fileadmin/user_upload/gbep/docs/AG2/GBEP_Sustainability_Indicators_for_biofuels_in_Brazil_case_study.pdf
- Brazilian National Commission for the SDGs (2018):
<https://indicadoresods.ibge.gov.br/objetivo/objetivo?n=1>
- CEPAL (2018) Second annual report on regional progress and challenges in relation to the 2030 Agenda for Sustainable Development in Latin America and the Caribbean. Economic Commission for Latin America and the Caribbean
<https://www.cepal.org/en/publications/43439-second-annual-report-regional-progress-and-challenges-relation-2030-agenda>
- CEPEI (2018) Análisis Cepei de los Informes Nacionales Voluntarios de América Latina y el Caribe en el FPAN 2018 <http://cepei.org/gobernanzas/analisis-cepei-de-los-informes-nacionales-voluntarios-de-america-latina-y-el-caribe-en-el-fpan-2018/>
- Chiappe, M. et al. (2015) Análisis e identificación de indicadores de sostenibilidad relevantes definidos por GBEP para las cadenas de producción de energía en base a residuos de biomasa forestal, biodiesel y bioetanol en Uruguay SEGUNDO INFORME: Propuesta metodológica y fuentes de Información. Proyecto FAO – MIEM
http://www.globalbioenergy.org/fileadmin/user_upload/gbep/docs/AG2/URUG_UAY_GBEP_Segundo_Informe_02_15.pdf
- Coelho, Suani et al. (2015) GBEP Sustainability Indicators for biofuels in Brazil: case study for sugarcane ethanol mills in São Paulo State
http://www.globalbioenergy.org/fileadmin/user_upload/gbep/docs/AG2/GBEP_Sustainability_Indicators_for_biofuels_in_Brazil_case_study.pdf
- Colombia (2016) Foro Político de Alto Nivel 2016 - ECOSOC Presentación Nacional Voluntaria de Colombia. Los ODS como instrumento para Consolidar la Paz
<https://sustainabledevelopment.un.org/content/documents/12644VNR%20Colombia.pdf>
- CONPES (2018) Estrategia para la Implementación de los Objetivos de Desarrollo Sostenible (ODS) en Colombia. Consejo Nacional de Política Económica y Social República de Colombia, Departamento Nacional de Planeación. Documento 3918
<https://colaboracion.dnp.gov.co/CDT/Conpes/Econ%C3%B3micos/3918.pdf>
- Consejo Nacional de Coordinación de Políticas Sociales. Presidencia de la Nación. Argentina (2017) Informe Voluntario Nacional. Foro Político de Alto Nivel. Naciones Unidas
http://www.odsargentina.gob.ar/public/documentos/seccion_publicaciones/ods/ivn_16-06_.pdf
- Consejo Nacional de Coordinación de Políticas Sociales. Presidencia de la Nación. Argentina (2018): Agenda 2030. ODS Argentina. Metadata

http://www.odsargentina.gob.ar/public/documentos/seccion_publicaciones/metadatos_ods.pdf

Departamento Nacional de Planeación Colombia. Online platform: Objetivos de Desarrollo Sostenible <https://ods.gov.co/>

ECLAC (2019): Quadrennial report on regional progress and challenges in relation to the 2030 Agenda for Sustainable Development in Latin America and the Caribbean <https://www.cepal.org/en/publications/44552-quadrennial-report-regional-progress-and-challenges-relation-2030-agenda>

Forum (2018) Second meeting of the Forum of the Countries of Latin America and the Caribbean on Sustainable Development Santiago, 18-20 April 2018: Distr. Summary of the Chair of the Second meeting of the Forum of the countries of Latin America and the Caribbean on Sustainable Development https://foroalc2030.cepal.org/2018/sites/foro2018/files/18-00381_fds.2_summary_of_the_chair.pdf

Fritsche, Uwe et al. (2018) Linkages between the Sustainable Development Goals (SDGs) and the GBEP Sustainability Indicators for Bioenergy (GSI). Technical Paper for the GBEP Task Force on Sustainability. IINAS & ifeu. Darmstadt, Heidelberg http://iinas.org/tl_files/iinas/downloads/bio/IINAS_IFEU_2018_Linkages_SDGs_and_GSIs.pdf

GBEP (undated) History <http://www.globalbioenergy.org/aboutgbep/history/pt/>

GBEP (2011) The GBEP Sustainability Indicators for Bioenergy. Global Bioenergy Partnership. Rome http://www.globalbioenergy.org/fileadmin/user_upload/gbep/docs/Indicators/The_GBEP_Sustainability_Indicators_for_Bioenergy_FINAL.pdf

GBEP (2015) Scope of work for the production of an implementation guide on the use of the GBEP sustainability indicators for bioenergy. Global Bioenergy Partnership. Rome http://www.globalbioenergy.org/fileadmin/user_upload/gbep/docs/2015_events/s/13_TF_Sustainability_12_November_2015/Scope_of_Work_for_the_GBEP_STF.pdf

GBEP (2017a) 15th meeting of the GBEP Task Force on Sustainability FAO Headquarters, Philippines Room C-277/281 Rome, 29 November 2017 Co-Chairs Conclusions http://www.globalbioenergy.org/fileadmin/user_upload/gbep/docs/2017_events/15_TF_Sustainability_29_November_2017/Co-chairs_Conclusions_15th_TF_on_Sustainability_Rome_2017.FINAL.pdf

GBEP (2017b) Task Force on Sustainability – Programme of Work. Global Bioenergy Partnership. Rome <http://www.globalbioenergy.org/programmeofwork/task-force-on-sustainability/ar/>

GBEP (2018) Task Force on Sustainability <http://www.globalbioenergy.org/programmeofwork/task-force-on-sustainability/en/>

Gobierno de España (2018) Anexo Estadístico para el Examen Nacional Voluntario 2018. https://sustainabledevelopment.un.org/content/documents/20332Anexo_estadstico_12.07.18.pdf

- Instituto Nacional de Estadística-Mexico (2018) Indicadores por Objetivo y Meta
<http://agenda2030.mx/ODSopc.html?ti=T&goal=0&lang=es#/ind>
- Jamaica (2018) JAMAICA Voluntary National Review Report on the Implementation of the 2030 Agenda for Sustainable Development June 2018. Statistical Annex
<http://statinja.gov.jm/pdf/Jamaica%20VNR%20Statistical%20Annex%202018.pdf>
- Ministerio de Relaciones Exteriores de Paraguay et al. (2018): Informe Nacional Voluntariosobre la Implementación de la Agenda 2030 para el Desarrollo Sostenible.
<https://bit.ly/2NuQPoy>
- Morese, Michela (2017) GBEP sustainability indicators for bioenergy. Implementation and lessons learned. Global Bioenergy Partnership. Rome
<https://www.iea.org/media/workshops/2017/sustainablegovernancebioenergy/MichelaMoreseGBEPSustainabilityIndicatorsforBioenergy.pdf>
- Nilsson, M.; Griggs, D. & Visbeck, M. (2016) Map the interactions between Sustainable Development Goals. Nature 534: 320-322
- ONU Medio Ambiente, CEPEI (2018) El Enfoque Integrado y la Dimensión Ambiental en la Agenda 2030. Los Informes Nacionales Voluntarios de América Latina y el Caribe (2016-2017) http://cepei.org/wp-content/uploads/2018/07/dimension_ambiental_agenda2030.pdf
- Plataforma Nacional de Seguimiento a los Objetivos de Desarrollo Sostenible Mexico. Website:
<http://143.137.108.139/objetivos.html#objetivoid17>
- SDSN (2017) SDG Index and Dashboards Report 2017. Global Responsibilities. International spillovers in achieving the goals. Sustainable Development Solutions Network. New York
<http://www.sdgindex.org/assets/files/2017/2017-SDG-Index-and-Dashboards-Report--full.pdf>
- Sustainable Development Knowledge Platform: <https://sustainabledevelopment.un.org/>
- UN ESF (2017) Progress towards the Sustainable Development Goals. Report of the Secretary-General. Supplementary Information. United Nations Economic and Social Forum. New York
<https://unstats.un.org/sdgs/files/report/2017/secretary-general-sdg-report-2017--Statistical-Annex.pdf>
- UN-STATS (2017) SDG Indicators. Global indicator framework for the Sustainable Development Goals and targets of the 2030 Agenda for Sustainable Development. United Nations. New York
<https://unstats.un.org/sdgs/indicators/indicators-list/>
- UN-STATS (2018) Tier Classification for Global SDG Indicators 11 May 2018. United Nations. New York
<https://unstats.un.org/sdgs/iaeg-sdgs/tier-classification/>