Executive Summary
Climate change has been recognised as one of the greatest threats facing humanity and as one of the most important risks that sectors, such as the financial sector, face to ensure their future operations. Given this scenario, it is increasingly urgent to work on the mobilisation, access, management, monitoring and evaluation of financing, which will make it possible to meet the needs of the population in the face of the negative impacts of climate change.

In this context, the Sustainable Finance Index seeks to identify the gaps between revenues and expenditures from sources considered sustainable or aligned with climate objectives, and those revenues and expenditures that are carbon-intensive, with the objective of transforming the behaviour of financial flows towards a transition to sustainable development.

**Key findings of the Sustainable Finance Index 2022**

- **None of the countries with the highest greenhouse gas emissions in Latin America and the Caribbean have reached a sustainable finance:** According to the results of the Sustainable Finance Index 2022, none of the analysed countries scored 4 points, which would mean that they have reached a sustainable finance.

- **Central American countries have more balanced finances in relation to other countries in the region:** El Salvador ranked first with a score of 2.7 out of 4 points, followed by Cuba with 2.4, Nicaragua with 2.4, and Guatemala with 2.3. These countries have lower revenues and expenditures associated with carbon-intensive activities, and higher public spending on climate change-oriented activities.

- **Mexico, Trinidad and Tobago and Uruguay are the countries with the lowest levels of sustainable finance:** Mexico, with a score of 1 point, followed by Trinidad and Tobago and Uruguay both with a score of 0.6, were the countries with the lowest levels of sustainable finance.

- **Carbon-intensive revenues exceed sustainable revenues by a factor of 10:** Looking at the 20 countries studied, we find that these countries received $126.331 billion from carbon-intensive activities compared to $11.879 billion in international climate finance.

- **Carbon-intensive budgets outweigh sustainable budgets by 39 times:** Looking at the 20 countries studied, we find that these countries allocated $70.275 billion for carbon-intensive activities compared to $1.8 billion for sustainable budgets.
**What is the Sustainable Finance Index?**

The Sustainable Finance Index (SFI) is a tool that tracks national and international revenues and expenditures on climate change and sustainable development. It also tracks those resources that could be hindering progress towards a transition to low-carbon and climate-resilient development, mainly from problem-causing activities such as those related to the extraction and production of fossil fuels and mining.

This third edition of the SFI including data up to 2021 was applied to the 20 countries with the highest greenhouse gas (GHG) emissions in the Latin American and Caribbean (LAC) region. The SFI is calculated based on four variables composed of various public finance items, both national and international:

1. **Sustainable Income (SI):** It integrates international development finance and disbursed finance from bilateral and multilateral sources dedicated to climate change.

2. **Carbon Intensive Revenues (CIR):** It integrates revenues from hydrocarbons, mining, and fuels.

3. **Sustainable Budgeting (SB):** It integrates a budget earmarked for climate change, energy efficiency, renewable energy, and attention to natural disasters.

4. **Carbon Intensive Budgets (CIB):** It integrates the budget allocated to hydrocarbon exploitation, including industrial processes, and the budget for state-owned companies, when available.

For the calculation of the SFI, a value is assigned to each of the four variables that compounds it, in this case, each of the variables can have a value between 0 and 1. In the case of the SI and SB variables, since they are positive items, they are assigned an ascending value, that is, the best scores will tend towards a value of 1. While the CII and CIB variables are classified in the opposite way, that is, those countries with higher carbon-intensive income and expenditure will have a descending score towards a value of 0. Therefore, the sum of the score of each of the variables is integrated to measure the levels of sustainable finance and these are classified into 7 categories (very high, high, medium high, medium, medium low, low, and very low) that are adjusted according to their level obtained from the analysis.

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1 The selection of variables and the construction of the Sustainable Finance Index has its theoretical basis in the work of Guzmán, Sandra (2020). Incorporating climate change into public budgets in developing countries: a mixed methods analysis applied to Latin American and Caribbean countries. Department of Politics, University of York. United Kingdom.
Sustainable Finance Ranking

The result of the SFI 2022, applied to the 20 most GHG emitting countries in the LAC region, indicates that no country has a score of 4 points, which would mean that the country has achieved a predominant level of sustainable revenues and expenditures, and low carbon intensive revenues and expenditures, thus achieving a higher level of sustainable finance. The results show that there is no country in the “VERY HIGH” sustainable finance category, nor in the “HIGH” category. In the “MEDIUM HIGH” category, we find El Salvador with a score of 2.7 out of 4 points, which was the best placed country in the SFI 2022, followed by Cuba (2.4), Nicaragua (2.4) and Guatemala (2.3).

Argentina (2.2), Brazil (2.1), Honduras (2.1), Peru (2.1) and Colombia (2.0) are in the “MEDIUM” sustainable finance category. Panama (1.7), Costa Rica (1.7), Ecuador (1.7), Paraguay (1.7), Dominican Republic (1.7), Jamaica (1.5), Bolivia (1.3) and Chile (1.3) are in the “LOW MEDIUM” sustainable finance category.

In the “LOW” sustainable finance category we find Mexico (1.0), Trinidad and Tobago (0.6) and Uruguay (0.6). Finally, there are no countries in the “VERY LOW” sustainable finance category.

Source: Own elaboration with data from diverse fiscal documents of the 20 analysed countries in 2021.
**Sustainable Income (SI)**

The Sustainable Income variable seeks to identify and systematize the income obtained from development financing from bilateral and multilateral sources and other official flows, as well as bilateral and multilateral financing dedicated to climate change. The calculation is based on the percentage of development finance received by the countries of the region dedicated to climate change with respect to total development finance disbursed. The information was extracted from the Creditor Report System and Climate Change: OECD DAC External Development Finance for 2020.

The results show that Cuba with 43.2% was the country that received the largest amount of development financing for climate change out of the total financing, followed by Costa Rica with 40.2%, which are in the “**VERY HIGH**” sustainable income category. On the other hand, no country was in the “**HIGH**” sustainable income category.

Argentina with 27%, Honduras with 25.8%, Brazil with 25.1% and Ecuador with 24.4% are in the “**HIGH MEDIUM**” category. Peru with 21%, Mexico with 20.4%, Paraguay with 20.3%, Panama with 19.9%, Nicaragua with 19.9% and Jamaica with 19.7% are in the “**MEDIUM**” category.

In the “**MEDIUM LOW**” category are Colombia with 17.6% and Bolivia with 11.9%, while in the “**LOW**” category are Guatemala with 10.2% and El Salvador with 7.2%. And in the “**VERY LOW**” category is the Dominican Republic with 1.7%. Finally, Chile, Trinidad and Tobago and Uruguay are not registered as recipients of development finance for climate change.

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**Figure 2:** Ranking of Sustainable Revenues (% of total) in 2020

<table>
<thead>
<tr>
<th>Rank</th>
<th>Country</th>
<th>Sustainable Income</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Cuba</td>
<td>43.20</td>
</tr>
<tr>
<td>2.</td>
<td>Costa Rica</td>
<td>40.21</td>
</tr>
<tr>
<td>3.</td>
<td>Argentina</td>
<td>27.00</td>
</tr>
<tr>
<td>4.</td>
<td>Honduras</td>
<td>25.80</td>
</tr>
<tr>
<td>5.</td>
<td>Brazil</td>
<td>25.10</td>
</tr>
<tr>
<td>6.</td>
<td>Ecuador</td>
<td>24.40</td>
</tr>
<tr>
<td>7.</td>
<td>Peru</td>
<td>21.00</td>
</tr>
<tr>
<td>8.</td>
<td>Mexico</td>
<td>20.40</td>
</tr>
<tr>
<td>9.</td>
<td>Paraguay</td>
<td>20.30</td>
</tr>
<tr>
<td>10.</td>
<td>Panama</td>
<td>19.90</td>
</tr>
<tr>
<td>11.</td>
<td>Nicaragua</td>
<td>19.90</td>
</tr>
<tr>
<td>12.</td>
<td>Jamaica</td>
<td>19.70</td>
</tr>
<tr>
<td>13.</td>
<td>Colombia</td>
<td>17.60</td>
</tr>
<tr>
<td>14.</td>
<td>Bolivia</td>
<td>11.90</td>
</tr>
<tr>
<td>15.</td>
<td>Guatemala</td>
<td>10.20</td>
</tr>
<tr>
<td>16.</td>
<td>El Salvador</td>
<td>7.20</td>
</tr>
<tr>
<td>17.</td>
<td>Dominican Rep.</td>
<td>1.70</td>
</tr>
<tr>
<td>18.</td>
<td>Chile*</td>
<td>0.00</td>
</tr>
<tr>
<td>19.</td>
<td>Trinidad and Tobago*</td>
<td>0.00</td>
</tr>
<tr>
<td>20.</td>
<td>Uruguay*</td>
<td>0.00</td>
</tr>
</tbody>
</table>

*(*) No data.

Source: Prepared by the authors with information from the Creditor Report System and OECD-Finance Sustainable Development, Recipient Perspective databases.
**Carbon Intensive Revenues (CIR)**

The Carbon Intensive Revenues variable shows the amount of resources from tax and non-tax schemes that contribute to the increase in GHG emissions (exploration and extraction of hydrocarbons and minerals, and commercialization of fuels) that cause climate change. The calculation is based on the percentage obtained by these revenues with respect to total revenues collected in 2021 in the 20 countries studied. The results show that Ecuador with 35.4% is the country with the highest carbon-intensive income, placing it in the **“VERY HIGH”** category. Mexico with 24.2% and Trinidad and Tobago with 21% are in the **“HIGH”** category. Perú with 17.9%, Chile with 15.3% and the Dominican Republic with 10.2%. Costa Rica with 8.1%, Nicaragua with 7.5%, Bolivia with 5.9%, Uruguay with 4.7% and Colombia with 4.2% are in the **“MEDIUM”** category.

Guatemala with 2.8% and Paraguay with 2.3% are in the **“LOW MEDIUM”** category. In the **“LOW”** category are Panama with 0.9%, Brazil with 0.8% and Argentina with 0.4%. And El Salvador with 0.2% and Jamaica with 0.07% are in the **“VERY LOW”** category. Finally, there is no available information for Cuba and Honduras.

**Figure 3: Ranking of Carbon Intensive Revenues (% of total) in 2021**

Source: Own elaboration with data from various fiscal documents of the 20 analysed countries in 2021.

(*) No data.
**Sustainable Budgeting (SB)**

Climate change is a cross-cutting issue, and it is currently difficult to know which budget items do or do not help to combat climate change. Under this premise, the Sustainable Budgeting variable analyses the budget allocated and labelled to the sectors and subsectors that have a more direct relationship with attention to the problem of the environmental sector, as it is responsible for climate policy in most countries, the energy sector as it is the sector with the highest emissions in most countries, and the sector associated with natural disasters management and prevention, which in most countries is more explicitly linked to the agenda of adaptation to climate change. The calculation is based on the percentage of the budget allocated to this area with respect to the total budget approved in 2021 in the 20 countries studied.

The results show that only Cuba allocated more than 1% of its budget to these items, with 5.5% of its total budget, placing it in the “VERY HIGH” category. On the other hand, no country fell under the “HIGH” category.

In the “HIGH MEDIUM” category are El Salvador with 0.7% and Nicaragua with 0.4%. In the “MEDIUM” category are Guatemala with 0.2%, Honduras with 0.2%, Colombia with 0.2% and Bolivia with 0.2%. In the “LOW MEDIUM” category are Panama with 0.1%, Ecuador with 0.1%, Peru with 0.1% and Paraguay with 0.07%.

Mexico with 0.05%, Argentina with 0.05%, Chile with 0.04%, Costa Rica with 0.04% and the Dominican Republic with 0.04% are in the “LOW” category. And in the “VERY LOW” category are Trinidad and Tobago with 0.02% and Brazil with 0.01%. Finally, there is no available information for Jamaica and Uruguay.

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**Figure 4:**
Ranking of Sustainable Budgets (% of total) in 2021

Source: Own elaboration with data from various fiscal documents of the 20 analysed countries in 2021.

(*) No data.
**Carbon Intensive Budgets (CIB)**

The transition to low-carbon and climate-resilient development implies an increase in public resources oriented towards addressing climate change and, at the same time, reducing resources that contribute to carbon-intensive GHG emissions. Therefore, the **Carbon Intensive Budget** variable analyses the budget allocated to activities that increase carbon emissions and deepen the problem of climate change such as hydrocarbon exploitation, including exploration and extraction, refining, petrochemicals, transportation, among others, and mining activities. The calculation is based on the percentage of the budget allocated to these items with respect to the total budget approved in 2021 for the 20 countries studied.

The results show that the countries with the highest budget allocations in this area were Bolivia with 19.2% and Mexico with 15.8%, both in the “**VERY HIGH**” category. The “**HIGH**” category includes Costa Rica with 6.4% and Paraguay with 5.5%.

Trinidad and Tobago with 1.9% and Argentina with 1.0% are in the “**HIGH MEDIUM**” category, while Cuba with 0.7%, Colombia with 0.6% and Brazil with 0.4% are in the “**MEDIUM**” category. Ecuador falls in the “**LOW MEDIUM**” category with 0.1%.

In the “**LOW**” category are Chile with 0.09%, Guatemala with 0.03%, Nicaragua with 0.02% and El Salvador with 0.01%. And in the “**VERY LOW**” category are Honduras with 0.005%, Peru with 0.003% and the Dominican Republic with 0.001%. Finally, Jamaica, Panama and Uruguay have no available information.

**Figure 5:** Ranking of Carbon Intensive Budgets (% of total) in 2021

Source: Own elaboration with data from various fiscal documents of the 20 analysed countries in 2021.
Level of Sustainable Finance versus CO₂ Emissions level

The analysis of Carbon Dioxide (CO₂) emissions shows that Mexico, with 419 million tons of CO₂, and Brazil, with 411 million tons of CO₂, are the highest emitters of CO₂, which is reflected in their level of sustainable finance, being that Mexico falls under the “LOW” sustainable finance category and Brazil falls under the “MEDIUM” category. While Nicaragua, with 4 million tons of CO₂, Uruguay with 6 million tons of CO₂ and El Salvador, with 7 million tons of CO₂, are the lowest CO₂ emitting countries and at the same time are the best positioned countries in the SFI, since El Salvador occupied the first position and Nicaragua the third position.

Figure 6: Level of sustainable finance versus CO₂ emissions level in the countries under study.

Source: Own elaboration with data from diverse fiscal documents of the 20 analysed countries in 2019, 2020 and 2021.

Comparative analysis: Sustainable Finance Index over time

The comparative analysis of the SFI in its three editions: 2020², 2021 and 2022 allows us to analyse the trends and performance of the 20 countries studied, and to examine the priorities that regional governments have in terms of climate change and sustainable development, and in terms of carbon-intensive activities. The results show that no country scored 4 out of 4 points in the SFI and none of the countries scored in the “VERY HIGH” sustainable finance category in any of the three editions. For

² In the 2020 edition of the SFI, 21 countries were considered, since Venezuela was included; however, for the following two editions it was excluded due to lack of information.
SFI 2020 Honduras with a score of 3.2 out of 4 points and Costa Rica with 3.1 were the countries with the highest score placing them in the “HIGH” category, for SFI 2021 Peru with 3.1 and El Salvador with 3.0 were in the same category. However, for the SFI 2022 no country was placed in this category. In other words, the level of sustainable finance of the countries has decreased in the last year of the study.

In the “HIGH MEDIUM” category, for the 2020 SFI are Jamaica with 2.9, Guatemala with 2.7, Nicaragua with 2.7 and Peru with 2.6; for the 2021 SFI are Guatemala with 2.6, Jamaica with 2.4, Nicaragua with 2.2, Brazil with 2.1, Cuba with 2.1 and the Dominican Republic with 2.1; and for the 2022 SFI are El Salvador with 2.7, Cuba with 2.4 and Guatemala with 2.3.

As for the “MEDIUM” category, for the SFI 2020, El Salvador with 2.0, Panama with 2.0 and the Dominican Republic with 2.0; for the SFI 2021, Argentina with 2.0 and Costa Rica with 2.0; and for the SFI 2022, Argentina with 2.2, Honduras with 2.1, Peru with 2.1, Brazil with 2.0 and Colombia with 1.9.

The “LOW MEDIUM” category for the 2020 SFI includes Brazil with 1.9, Colombia with 1.9, Venezuela with 1.9, Cuba with 1.7, Ecuador with 1.7, Paraguay with 1.7, Bolivia with 1.6 and Uruguay with 1.6; for the 2021 SFI, Honduras with 1.9, Paraguay with 1.9, Colombia with 1.8, Ecuador with 1.8 and Bolivia with 1.7. 9, Paraguay with 1.9, Colombia with 1.8, Ecuador with 1.8 and Bolivia with 1.7; for the 2022 SFI are Panama with 1.7, Costa Rica with 1.7, Ecuador with 1.7, Paraguay with 1.7, Dominican Republic with 1.7, Jamaica with 1.5, Bolivia with 1.3 and Chile with 1.3.

In the “LOW” category, for the SFI 2020 are Mexico with 1.5, Argentina with 1.3 and Chile with 1.2; for the SFI 2021 are Mexico with 1.4, Chile with 1.3 and Panama with 1.2; and for the SFI 2022 are Mexico with 1.0, Trinidad and Tobago with 0.6 and Uruguay with 0.6.

Finally, in the “VERY LOW” category, for the SFI 2020 is Trinidad and Tobago with 0.7; for the SFI 2021 are Trinidad and Tobago with 0.3 and Uruguay with 0.2; and for the SFI 2022 no country was placed in this category.
Main recommendations

In terms of planning:

**Definition of sustainable financing needs:** One of the major areas of opportunity identified in the implementation of the SFI has been the definition of climate and sustainable financing needs. That is, the identification of the cost of action, the possibilities of mobilising national resources and the identification of areas that could not be covered by public resources and require international or private financing.

**National Strategies to mobilize Sustainable Finance:** To better connect needs with financing mechanisms, the countries of the region could create National Strategies for Sustainable Finance, with the objective of identifying investment opportunities and areas that require a policy of diversification and divestment. This will allow countries to establish a portfolio of projects to implement their actions, such as those included in the Nationally Determined Contributions.

In terms of income:

**Effective sustainable revenues:** Countries in the region are challenged to identify better avenues for raising revenues, ensuring that they originate from sustainable sources and can be sustained over time.

**Fiscal reforms:** One way to achieve tax revenue diversification is to carry out fiscal reforms that will make it possible to achieve the decarbonization of public finances. These reforms require a multi-level character, i.e., they should be implemented at both the national and local levels.

**Carbon intensity taxes:** One of the instruments that can help transform finance is carbon taxes.

In terms of budget:

**Mainstreaming climate change in the public budget:** There is a large gap in the integration of the climate change perspective in all relevant sectors; therefore, it is important to review budgetary policies to ensure that the various entities consider climate change from the planning and budgeting stage, and in their operational cycle.

**Redirect taxes:** It is suggested to implement actions to redirect carbon-intensive budgets towards actions in favour of sustainability and that allow countries to mitigate emissions and adapt to the effects of climate change.

**Aligning public finances with sustainable development:** The analysed countries have the challenge, but above all the opportunity, to transform their public finances and move them towards sustainable systems, which allows them to align with the Paris Agreement in Article 2.1.c, and at the same time transform their economies to achieve a framework of social and environmental well-being based on justice and equity for all.
In terms of transparency and access to information:

**Increasing budget transparency:** It is essential to improve budget and fiscal transparency practices, ensuring that all countries have information available in a timely manner and at an appropriate level of disaggregation in each year of study.

**Classifiers for climate change and sustainable development:** There is a need to design, adopt and create classifiers that make it clear what resources are being directed to address climate change and sustainability in all areas of the public sector.

**Measurement, reporting and verification systems:** Climate and sustainable finance measurement, reporting and verification systems need to be created to identify climate change and sustainable development investment needs and gaps. This will be crucial to comply with the “Escazu Agreement” on access to information, environmental justice, and social participation in public processes in the region.
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