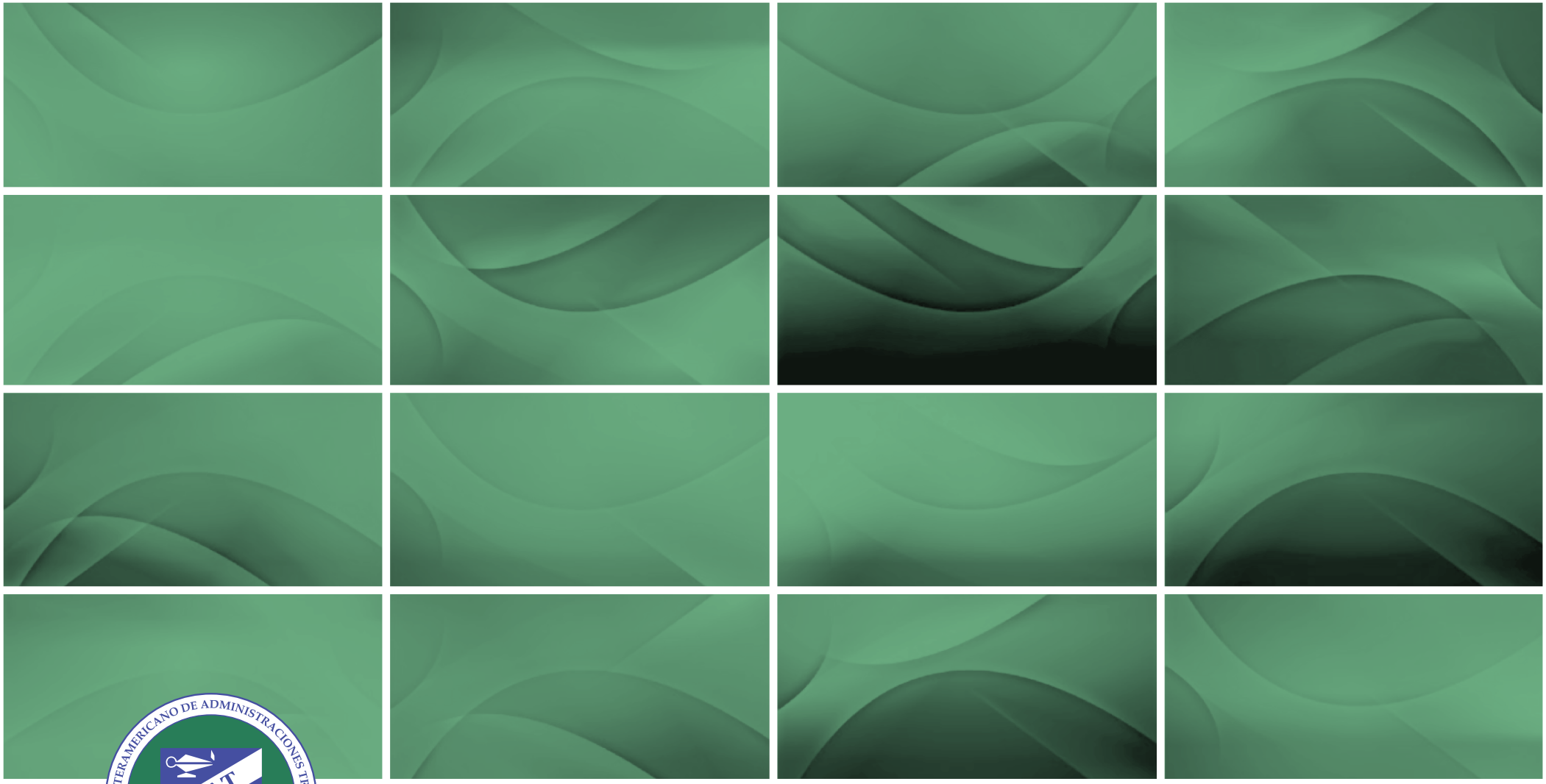

OVERVIEW OF TAX ADMINISTRATIONS IN CIAT COUNTRIES.

Results of the ISORA 2023

Volume I (annual questionnaire)

Carlos Garcimartin and Santiago Díaz de Sarralde Miguez

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Executive summary

- The current edition of the **Overview of Tax Administrations in CIAT Member Countries** is based on data from the latest version of the International Survey on Revenue Administration (ISORA), collected in 2023 and reflecting the status of tax administrations for year 2022.

- **A total of 179 tax administrations participated in ISORA 2023**, five more than in the previous edition, including 38 CIAT member countries. The survey represents countries across all income levels, with the majority classified as middle-income (55%) and high-income (31%).

- **ISORA collects information on various aspects of tax administrations, which, as in previous editions of this overview, have been grouped into four main categories**: 1) administered instruments, revenue collection, and budget; 2) available human resources; 3) organization and operational functions (taxpayer segmentation and registration, taxpayer assistance and support, filing and payment of obligations, enforced debt collection, and tax audits and compliance monitoring); and 4) innovative techniques and information and communication technologies (ICT) applied to tax administration and compliance improvement.

- The ISORA 2023 edition includes a series of special forms containing extensive data and additional information beyond the usual content. However, given the non-annual frequency of these forms and to ensure the comparability and consistency of this overview, **all such information will be analyzed in a separate document (Volume II Periodic Questionnaire), which will also be published by CIAT**.

Administered Revenues and Financial Resources

- **The Income Tax (IT), both for individuals and corporations, is present in nearly all ISORA countries**: 88.8% and 89.4%, respectively. The same applies to the Value Added Tax (VAT), which is widely implemented in 82.7% of cases. Excise taxes, while still prevalent, are less common, appearing in 58% of ISORA countries. **The administration of social security contributions by tax administrations is more limited,** with only 25.7% of ISORA participants handling them.

- **The average values for CIAT member countries do not differ significantly from the global ISORA averages**: widespread adoption of income tax for individuals and corporations (92.1% of cases), VAT (86.8%), and, to a lesser extent, Excise taxes (65.8%).

- Differences in the fiscal instruments administered, combined with the diversity in tax design and tax bases, result in **significant heterogeneity in revenue collection volumes**. The Total Net Revenue (TNR) managed by tax administrations reached an average of 17.1% of GDP in ISORA countries in 2022, with considerable variability across countries and groups. **The average for CIAT member countries (16.8% of GDP)** is very similar to the global average and to that of upper-middle-income countries. The average TNR per capita for ISORA was USD 3,682 per inhabitant, lower than that of CIAT countries (USD 3,915, USD 649 more than in 2021) and nearly double the average for Latin America and the Caribbean (USD 2,026).

- **The differences are much smaller when considering the TNR in relation to Total Government Revenue**. The global ISORA average is 57.8%, with slightly higher figures for the CIAT and Latin America and the Caribbean averages (63.1% and 62.3% of the total, respectively).

- **Income tax (IT) is the most significant source of revenue**, accounting for 42.9% of the total for ISORA countries, almost equally divided between corporate income tax and individual income tax. Following that, Value Added Tax (VAT) is the next largest contributor, representing 37.9% of TNR for the ISORA total. For CIAT member countries, the relative contribution of the main revenue instruments is similar to that of the overall ISORA countries, although the relative importance of Corporate Income Tax is higher than that of Individual Income Tax. Additionally, Personal Income Tax plays a much more significant role in high- income countries, while the reverse is true for Corporate Income Tax and VAT.

- **In CIAT member countries, VAT plays a prominent role**, particularly in several LAC such as Belize, Chile, El Salvador, Ecuador, and Guatemala (49%). In higher-income countries, the main instrument is Personal Income Tax, as seen in Canada, Spain, the United States, and Italy. Corporate Income Tax also plays an important role in a broad range of countries, especially in Latin America and other countries in Africa. The relative magnitude of social contributions is only significant in the few countries with integrated tax administrations (Argentina, Brazil, the United States, and the Netherlands).

- **The operating expenditure of the tax administrations participating in ISORA average 0.171% of GDP**. This figure is lower in CIAT countries (0.142% of GDP) and in Latin America and the Caribbean (0.164%). Additionally, these expenses increase as the income level of the countries rises.

- **Salaries are the main component of operating expenditure**, with a global average of 70.6%; slightly higher for the CIAT group of countries (72.1%) and for Latin America and the Caribbean (73.2%). In contrast, **spending on information and communication technologies (ICT) represents a small percentage** (7.4% for ISORA, 8.5% for CIAT, and 7.8% for Latin America and the Caribbean), with a clear upward trend as higher income levels are reached.

- The ratio between collected revenues and the operating budget, which can be interpreted as the “operating cost of revenue collection” for the tax administration, is 1.09 for the entire group of ISORA countries. This means that **the collection of 100 monetary units has an average operating cost of 1.09 units**. This cost is lower for CIAT countries (0.86) and slightly higher for Latin America and the Caribbean (1.13), with a clear decreasing trend as income levels rise.

- In the case of CIAT countries, when it comes to the size of the operating budget, some Caribbean countries stand out, such as Aruba and Jamaica, with 0.495% and 0.492% of GDP, respectively, compared to others where it is around one-tenth of that amount (Bermuda, the United States, India, or Mexico). This is also the case for Brazil, Chile, Colombia, Ecuador, and El Salvador, with values below 0.1% of GDP. The wide variation is also observed in terms of the share of salaries in operating/current expenses, spending on ICT, and the cost of revenue collection.

Characteristics of the Employed Staff

- **At the end of 2022, the total workforce across all jurisdictions participating in ISORA was nearly 2 million employees** (in full-time equivalent - FTE). Of these, just under a quarter (23.4% of the total) were in CIAT member countries, and just over 97,000 were in Latin American and Caribbean countries (5.1% of the total).

- In relation to the population, **the average for all ISORA countries is slightly over 5,000 inhabitants per full-time equivalent (FTE) worker** (339 more than in the previous ISORA edition), which is similar to that of CIAT member countries (5,401) and higher than that of Latin American and Caribbean countries (3,918). The population per worker decreases rapidly as income levels rise. However, the size of the workforce in relation to the number of taxpayers presents a different picture. With higher figures for Personal Income Tax than for Corporate Income Tax or VAT, the averages for CIAT countries are significantly higher than the global ISORA average in all cases.

- **Within CIAT, there is significant heterogeneity in terms of employed personnel.** This variability is seen not only in the absolute size of the workforce but also in relative terms, with some countries positioned well above the global or regional averages.

- **In 2022, unlike the previous year, the annual employment balance was positive across all ISORA countries** (+6,441 FTE workers), as well as in CIAT countries (+9,865), but negative in Latin American and Caribbean countries (-818). For all income groups, the balance was positive, except for upper-middle-income countries, where it was strongly negative (- 10,181), reinforcing the trend observed in the previous edition. In total, 68 ISORA participants (15 of which are CIAT members) reported a positive balance.

- **The average entry rate of FTE workers for ISORA (4.8%) was slightly higher than the exit rate (3.4%).** Among CIAT and Latin American and Caribbean countries, both rates are lower than the global average. By income levels, the entry rate decreases as income levels decline, while the exit rate shows its lowest values at both extremes.

- **Among CIAT countries, the dynamics of employed personnel showed significant fluctuations throughout 2022**, with the largest positive balances (over 1,000 net FTEs) in Canada, the United States, and the Netherlands. In contrast, France and Italy recorded the most notable negative balances, with net reductions in personnel exceeding 1,000 workers.

- **The RRP function (Registration, Returns, and Payments) accounts for the largest share of FTE personnel, representing 29.3% of employees on average across ISORA countries**, followed by the AIV function (Audit, Investigation, and Verification) with 25.2%. Far behind these, the EDC function (Enforced Debt Collections) employs 11.6% of the workforce. These proportions are quite similar for the CIAT average and, in general, for other relevant country groupings, with some exceptions.

- **The proportion of FTE personnel assigned to the central office is 25.7% on average across ISORA countries**, slightly lower than in CIAT countries and higher than in Latin American and Caribbean countries. Additionally, there is a notably decreasing pattern as the income level of the countries increases.

- **There are significant differences among CIAT countries in terms of the distribution of employed personnel by function**. In some countries, general patterns are maintained, with the registration function (RRP) being the main destination for personnel. However, in other countries, such as Argentina, Chile, Colombia, Costa Rica, Ecuador, or El Salvador, the audit function (AIV) employs the majority of the workforce. The function related to tax debt management (EDC) plays a significant role in Canada, Spain, and Mexico.

- **On average, for ISORA countries, more than three-quarters of the total FTE workers (78.9%) are concentrated in the age range of 25 to 54 years**. This same age group represents 75.1% of the workforce in CIAT countries and 79.9% in Latin American and Caribbean countries.

- **Among CIAT countries, some have relatively older workforces, such as Bermuda, Spain, Italy, the Netherlands, and Portugal**. Others, in contrast, **can be considered comparatively young**, such as Angola, Belize, Bolivia, Honduras, Kenya, and Trinidad and Tobago.

- **In general, years of service increase with the income level of the countries**. The approximate average length of service for employees is 11.3 years in low-income countries, 11.5 years in lower-middle-income countries, 12.8 years in upper-middle-income countries, and 13.2 years in high-income countries. In the ISORA countries as a whole, the average length of service is 12.4 years, 12.9 years for CIAT countries, and 12.5 years for Latin American and Caribbean countries.

- Within CIAT countries, the workforce with more than 19 years of service is the majority in Argentina, Aruba, Brazil, Chile, Costa Rica, and Morocco, among others. In clear contrast, in Bolivia, Canada, Panama, and, naturally, Honduras (due to the recent and complete renewal of its workforce), the average length of service is much lower.

- **On a global average for all countries included in ISORA, women represent 52.3% of the workforce, holding 40.4% of executive positions.** Both averages are higher in CIAT countries and in Latin American and Caribbean countries; in fact, in Latin America and the Caribbean, women are the majority, both in the total workforce (60.1%) and in executive positions (52.9%). In general, women's participation increases with the income level of the countries, both in the total workforce and in executive positions. However, the gap between these two indicators—overall participation and in executive

positions—is smaller in low- income countries than in high-income countries.

- **The current edition of ISORA also includes gender information regarding personnel hired during the fiscal year**. In 2022, 52.5% of new hires were women on average across ISORA countries, with this percentage being higher in both CIAT (57%) and Latin American and Caribbean countries (64.5%). By income levels, the percentage clearly increases as the income level of the countries rises. In fact, in low-income and lower-middle- income groups, the hiring of women is a minority, which means that the gender gap intensifies.

- **The global average for ISORA regarding the proportion of personnel with a bachelor's degree is 41.6%, while 20.9% of the workforce holds a master's degree or higher**. The percentages for CIAT and Latin American and Caribbean countries are higher for basic university education (48.2% and 47%, respectively) but lower for graduate education (15.9% and 11.3%).

Organization and Operational Performance

- Given its importance in terms of revenue collection, the most widespread segmentation technique is the establishment of **special offices or programs for large taxpayers (LTO). By the end of 2022, these offices were present in 79.9% of ISORA** participating countries, 89.5% of CIAT countries, and 82.4% of Latin American and Caribbean countries.

- **The LTOs contribute, on average, more than half of the total net revenues of tax administrations** (55.2%), with this participation being slightly lower for the average of CIAT countries (50.1%) and higher in Latin American and Caribbean countries (57.5%). Additionally, this contribution decreases as the income level of the countries increases.

- **Schemes for high-net-worth individuals (HNWI) are present in 26.3% of ISORA countries**, contributing 5.1% of the total net revenue (TNR). In CIAT countries, these percentages rise to 44.7% of the countries and 7.8% of the TNR, while in Latin American and Caribbean countries, the figures are 26.5% and 6.3%, respectively. The existence of these schemes and their contribution to revenue collection are greater as the income level of the countries increases.

- **The LTOs were present in 2022 in nearly all CIAT countries**, and their contribution to revenue collection is very significant in several of them, such as Costa Rica, Jamaica, Nigeria, and Peru. Meanwhile, 17 of the 38 CIAT member countries participating in ISORA had schemes for high-net-worth individuals (HNWI), with relatively significant contributions to revenue collection in countries like the United States, Spain, and France, among others.

- **In 2022, in-person registration remained the most important method (84.4%) among the ISORA participating countries.** However, the availability of digital channels (online or through applications) has notably increased compared to paper-based registration via postal mail.

- **CIAT countries exceed the average adoption rate of online computer-based** registration (78.9%), while Latin American and Caribbean (LAC) countries are at a similar level (70.6%). By income levels, there are significant differences in the adoption of these new online technologies, present in 89.1% of high-income countries but only in 55% of low-income countries. However, there has been a strong increase in adoption among the latter compared to the previous ISORA edition.

- **69.8% of tax administrations monitor incoming contacts** to improve existing channels and explore the introduction of newer ones. This percentage was even higher in CIAT countries (84.2%) and very similar in Latin American and Caribbean (LAC) countries (70.6%). By income level, this monitoring is more frequent in high-income countries (83.6%) and upper- middle-income countries (75%) than in low-income countries (70%) and lower-middle- income countries (51.1%).

- On average, in ISORA countries, **the telephone was the channel that handled the highest percentage of incoming contacts (37% of the total), followed by the online channel (24.8%), which has now surpassed in-person contact (18.5%)**. In contrast, the relative participation of digital assistance, email, and postal mail (paper) is low. In both CIAT and LAC, the three main channels are the same, although online communication is now the primary one.

- **On average, in ISORA countries, digital channels (online, digital assistance, and email) have already surpassed the combined "telephone/mail"** category as the primary means of communication for taxpayer services. This shift is even more pronounced in CIAT and LAC countries.

- **In CIAT member countries, monitoring incoming contacts by service is a widely practiced approach**. Regarding the most used contact channels, while there is significant variation, there is a stark contrast between countries with a clear orientation toward online digital communication and those where in-person communication still predominates.

- **In the group of countries in ISORA, the percentages of timely filings are 58.2% for the CIT, 62.2% for PIT, and 73% for Value-Added Tax (IVA)**. For CIAT member countries, the figures are 61% for CIT, 62% for PIT, and 69.8% for IVA, while the average for Latin American countries (LAC) is significantly lower than the global averages. By income levels, there is a clear positive relationship with income levels for all three taxes.

- **The declarations submitted through electronic channels globally average 73.6% for CIT, 70.1% for PIT, and 78.5% for VAT according to ISORA**. These percentages increase for the three taxes mentioned in CIAT member countries (86.6%, 87%, and 90.3%, respectively), while they are lower in LAC. The differences by income levels are significant, with much higher values as countries' income levels rise, although low-income countries have made significant progress since the previous edition of ISORA.

- **The on-time filing percentages vary significantly among CIAT member countries and across the three main taxes**. On the other hand, the implementation of electronic filing in CIAT countries is very high; in fact, a significant number of them achieve 100%.

- **For the ISORA average, on-time payment reaches 79.3% for CIT, 68.5% for PIT, and 81% for VAT.** In CIAT member countries, the average is very similar for CIT, lower for PIT, and higher for VAT, while in LAC it is comparable for VAT but clearly lower for CIT and PIT.

- The relative proportions of payments made through electronic channels average globally in ISORA at 71.7% for the number of payments and 75.5% for their share of total revenue, consolidating the increase observed in the previous ISORA edition. **CIAT member countries demonstrate strong adoption of digital channels**, with 72.5% of payments received and 82.6% of their value, also consolidating the notable growth observed in the previous survey. In contrast, the LAC region shows much lower averages (48.2% and 56.3%, respectively). By income levels, although a clear gap remains between low-income countries and the rest, the trend toward closing this gap, noted in the previous ISORA edition, continues.

- **For ISORA countries, the average proportion of PIT withheld at source is 75.1%, a significant increase compared to the previous edition.** For CIAT member countries, it is even higher at 77.9%, while in LAC countries it is slightly lower at 70.6%, although showing strong growth compared to the previous edition. There is also a notable lag in this indicator among low-income countries compared to others, although the gap continues to narrow.

- **The percentage of on-time payment varies significantly among CIAT member countries,** with several cases reaching or exceeding 90% across the three main taxes. Regarding payment through electronic channels, there are also cases with very high levels of adoption. As for PIT collected through withholding at source, despite the diversity of situations, it is widely implemented in some CIAT member countries.

- **The averages for ISORA countries regarding the level of debt and overdue payments (as a percentage of revenue) vary across the three taxes considered,** being higher for CIT (35.5% of tax revenue) than for the other taxes (26.8% for PIT and 25.1% for VAT). The figures for CIAT and LAC countries are higher across all three taxes as well as in the overall total.

- **The proportion of "recoverable" debt is close to 60% for ISORA countries,** with slightly lower percentages for CIAT and LAC countries. On average, the outstanding debt for ISORA countries decreased by 3.2% in 2022 compared to 2021, continuing the trend observed in the previous edition. This decline is even greater for CIAT countries (-5.2%) and LAC countries (-4.1%)**.**

- **The effectiveness, measured by the proportion of cases resulting in a tax adjustment, averages 65.8% for ISORA**, 71.3% for CIAT

countries, and 69.9% in Latin America and the Caribbean (LAC). Regarding performance—measured as additional revenue as a percentage of total revenue—the ISORA average is 8.3% for corporate income tax, 1.9% for personal income tax, and 3.4% for value-added tax, with an overall performance of 3.9% for Total Net Revenue (TNR). In CIAT countries, performance is higher across all categories, while in LAC the same applies except for corporate income tax.

- **In general, CIAT countries demonstrate high percentages of audit effectiveness,** with positive results in terms of additional revenue generated.

Digital transformation and technological innovation

- **In recent years, progress has been made in developing pre-filled tax return systems.** A total of 44.1% of ISORA countries implement these procedures for at least one of the main taxes, with an even higher percentage among CIAT countries (55.3%). The use of this technique shows a clear upward trend correlated with the income level of the countries**.**

- **Of all ISORA countries, 38% have a mandatory electronic invoicing** system for some or all taxpayers. CIAT countries lead in the adoption of this tool, with 57.9% of the total, while in Latin America and the Caribbean (LAC) the percentage reaches 44.1%. Unlike most technological innovations in tax administration, high-income countries do not lead in the implementation of electronic invoicing; instead, middle-income countries take the lead**.**

- **In 55.9%, 65.8%, and 52.9% of ISORA, CIAT, and LAC countries, respectively, cooperative compliance mechanisms are applied to large taxpayers,** further consolidating the increase observed in the previous ISORA edition. These mechanisms are also implemented for "other taxpayers" (in 37.4% of ISORA countries, 47.4% of CIAT countries, and 26.5% of LAC countries) and, more recently and on a more limited scale, for high-net-worth individuals (in 19.6% of all countries, 28.9% of CIAT countries, and 17.6% of LAC countries).

- "**Data science and analytical tools**" **are implemented or in progress in 65.4% of ISORA countries**, 84.2% of CIAT members, and 72.6% of LAC countries. "**Cloud computing" shows utilization/ implementation rates of 43% in ISORA**, 57.9% in CIAT, and 44.1% in LAC, while "**artificial intelligence" is installed or close to being implemented in 36.9% of ISORA countries**, 50% of CIAT members, and 23.5% of LAC countries. "**Distributed ledger technology or blockchain" is present in 10.1% of ISORA** countries, 13.2% of CIAT countries, and 11.8% of LAC countries. For all these tools, although less clearly for the last one, higher adoption rates are observed with increasing income levels of the countries.

- **A total of 73.2% of ISORA countries have implemented or are in the process of implementing Application Programming Interfaces (APIs**), continuing the upward trend observed in previous editions. This percentage rises to 84.2% among CIAT members and 67.6% in LAC countries. **Digital identification technologies (such as biometrics and voice identification) have also seen notable**

adoption, with 33.5% of ISORA countries utilizing them, compared to 44.7% in CIAT countries and 38.2% in LAC.

- **Virtual assistants are already in use or under implementation in 43.6% of all countries**, 60.5% of CIAT members, and 38.2% of LAC countries. **Government or whole-of- government identification systems** are present in 50.3% of ISORA countries, 55.3% of CIAT members, and 41.2% of LAC countries. **Robotic process automation (RPA) shows lower adoption rates than the previously mentioned** tools, with 29.1% of ISORA countries, 39.5% of CIAT countries, and 23.5% of LAC countries using these systems, although RPA is also experiencing significant growth. These three innovative elements generally achieve greater penetration as the income level of the countries increases.

Final Comments

- The range of cases is vast across virtually all areas of tax administration analyzed, both among groups of countries and within them. Nevertheless, it is possible to infer some stylized facts and **corroborate trends identified in previous editions of this report**. Income tax and VAT remain the most widely managed taxes by tax administrations and, consequently, are the most significant contributors to revenue, albeit with variations among countries depending on their income levels. The cost of revenue collection clearly decreases with higher income levels, whereas the opposite trend is observed in the number of taxpayers per tax administration employee. Additionally, the distribution of tax administration personnel by function varies significantly according to the income level of the countries.

- **The digital transformation continues to advance,** driven by innovative technological solutions. Furthermore, the income-level gap in digital adoption appears to be narrowing.

- CIAT member countries generally have budgets below the ISORA average but benefit from lower revenue collection costs. Their workforce also exhibits notable features, such as higher participation of women compared to the ISORA average, both across the entire workforce and in executive positions, as well as strong educational attainment (half of the workforce holds a university degree). Additionally, the presence of special offices or programs for large taxpayers and high-net-worth individuals is more common among CIAT members than in the broader ISORA group. **Digital transformation is also advancing more rapidly in CIAT countries** compared to the ISORA average.

Introduction

This document presents the updated edition of the Panorama of Tax Administrations in CIAT Member Countries, based on the latest version of the International Survey on Revenue Administration (ISORA). The data for this new version were collected in 2023, covering year 2022, and pertain to the tax administrations of 179 countries, five more than in the previous edition.

The ISORA survey results included in this document were prepared using standardized information provided about tax administrations. To facilitate presentation, summarize various aspects of tax administrations, and maintain the structure of previous editions of this Panorama, the results have been grouped into four main sections: 1) administered instruments, revenue, and budget; 2) available human resources; 3) organization and operational functioning (segmentation and registration of taxpayers, taxpayer service and assistance, filing and payment of obligations, enforced debt collection, and tax audits and compliance controls); and 4) innovative techniques and information and communication technologies (ICT) applied to tax administration and improving tax compliance.

Each section aims to identify general trends and stylized facts, presenting average results for: i) all ISORA countries; ii) CIAT members; iii) Latin American and Caribbean (LAC) countries; and iv) the four income levels defined by the World Bank. For CIAT member countries participating in this edition of ISORA, individual results are also presented.

The ISORA 2023 edition includes a series of special forms containing extensive data and additional information beyond the usual scope. However, given the non-annual frequency of these forms and to maintain the comparability and consistency of this Panorama, all such information will be analyzed in a separate document, which will also be published by CIAT.

Following this brief introduction, the next section describes the background of the ISORA survey and its international coverage in the 2023 edition. Subsequently, the main findings of the survey are presented, organized into the four major sections mentioned above.

RETURN TO CONTENT

1. The ISORA 2023 survey and CIAT countries in the international context of tax administrations

The International Survey on Revenue Administration (ISORA) is an initiative developed by the International Monetary Fund (IMF), the Intra-European Organisation of Tax Administrations (IOTA), the Organisation for Economic Co-operation and Development (OECD), the Inter-American Center of Tax Administrations (CIAT), and, since 2018, the Asian Development Bank (ADB).

ISORA was conducted for the first time in 2016 with the objective of collecting standardized information on tax administrations (TAs) across various topics. For the purposes of this Panorama and its previous editions, these topics have been synthesized into four main sections: 1) administered instruments, revenue, and budget; 2) available human resources; 3) organization and operational functioning (segmentation and registration of taxpayers, taxpayer service and assistance, filing and payment of obligations, enforced debt collection, and tax audits and compliance controls); and 4) innovative techniques and information and communication technologies (ICT) applied to tax administration and improving tax compliance.

This Panorama examines the latest edition of ISORA, which includes data from the national tax administrations[1] of 179 countries, collected in 2023 and referring to 2022, the reference year for analyzing the most relevant results from the survey. This represents five more jurisdictions than the previous edition (ISORA 2022; data from 20212). Among the ISORA participants are 38 CIAT member countries, an equal number from the OECD, and 34 from Latin America and the Caribbean (LAC).

According to the World Bank's[3] income-level classification criterio, 31% of the countries participating in ISORA 2023 are high-income countries, primarily from Europe and Central Asia (over half of the countries in this group), North America, and several from Latin America and the Caribbean, as well as East Asia and the Pacific (Table 1). Slightly more than half of the countries (55%) are middle-income nations ("upper-middle income" at 29% and "lower- middle income" at 26% of the total), which, in addition to the previously mentioned regions, include countries from Asia, Africa, and the Middle East. Finally, 11% correspond to low- income jurisdictions, the vast majority located in Sub-Saharian[4] Africa. Thus, ISORA provides detailed information across all continents and regions, albeit with

1 Although ISORA does not include information on this aspect, some countries with a federal political organization also have subnational tax administrations that operate independently from the central government administrations participating in ISORA. These subnational administrations are fully responsible for managing specific fiscal instruments (tax and non-tax).

2 The main trends observed in this area can be found in previous editions of this document (Díaz de Sarralde Míguez, 2018a and 2019; Morán and Díaz de Sarralde Míguez, 2021; Garcimartín and Díaz de Sarralde Míguez, 2024).

3 The classification criteria are available at World Bank Country and Lending Groups. It is important to note that the classification corresponds to 2022.

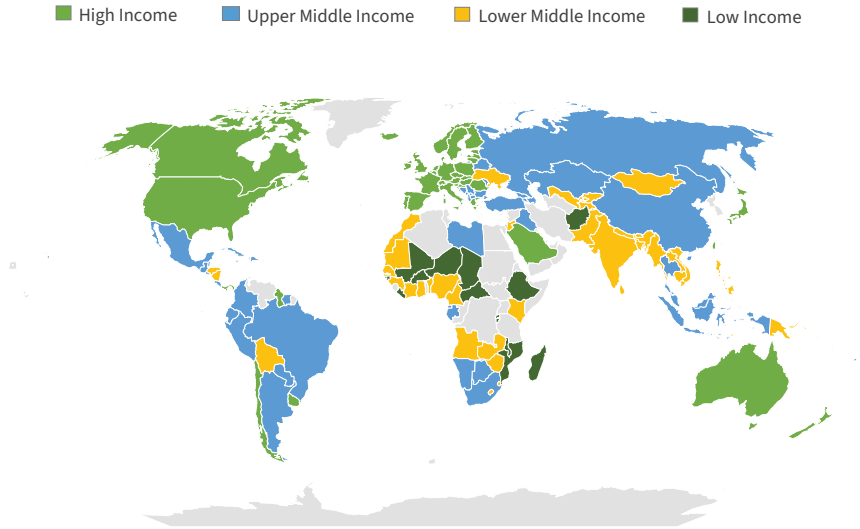
4 The total does not add up to 100% because some countries are not classified by income level by the World Bank.

Table 1: Number of countries participating in ISORA 2023. Classification by geographic region, income level, and membership in CIAT and OECD. Year 2022

Country Groups (Regions)	Number of countries in ISORA	Income Level					CIAT Member		OECD Member	
		Low	Lower Middle	Upper Middle	High	N.R.	Yes	NO	Yes	NO
Sub-Saharan Africa (SSA)	44	19	18	6	1	0	3	41	0	44
North America (NA)	3	0	0	0	3	0	3	0	2	1
Latin America and the Caribbean (LAC)	34	0	3	19	10	2	25	9	4	30
South Asia (SA)	8	1	6	1	0	0	1	7	0	8
East Asia and Pacific (EAP)	33	0	13	9	9	2	0	33	4	29
Europe and Central Asia (ECA)	50	0	4	15	30	1	5	45	27	23
Middle East and North Africa (MENA)	7	0	3	2	2	0	1	6	1	6
Total of Countries (ISORA 2023)	**179**	**20**	**47**	**52**	**55**	**5**	**38**	**141**	**38**	**141**

Note. N.R.: not rated by the World Bank.

Figure 1: Countries participating in the ISORA 2022 survey, classified by income level (World Bank criteria)



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relatively lower participation from countries in North Africa and the Middle East (Figure 1).

As noted, 38 OECD member countries participated in this edition of the survey, primarily from Europe and Central Asia, but also representing North America, LAC, the Middle East and North Africa, and Asia-Pacific. Similarly, 38 CIAT member countries participated in ISORA 2023, with representation across most regions of the world, except for East Asia and the Pacific, and a logical prominence in LAC. In each section of this Panorama, the results and responses of all CIAT member countries that participated in the survey will be presented. However, as a preview of their diversity, it can be noted that these 38 countries differ primarily in terms of income level: 15 of them (39%) are high-income countries, another 15 are upper- middle-income, and 8 (21%) are lower-middle-income. Moreover, most CIAT member countries belong to the LAC region (25 of the 38), while 11 countries are simultaneously members of both the OECD and CIAT (Table 2). Regarding the responsibilities of CIAT member tax administrations, although all focus on managing most domestic taxes, 12 of them (32%) also oversee customs revenue administration.

Table 2: CIAT Member Countries. Main classification characteristics of tax administrations surveyed in ISORA 2023. Year 2022

CIAT Countries	Code	Region	Income Level	OECD Member	Integration with Customs
Angola	AGO	SSA	Lower Middle	NO	Yes
Argentina	ARG	LAC	Upper Middle	NO	Yes
Aruba	ABW	LAC	High Income	NO	No
Barbados	BRB	LAC	High Income	NO	No
Belize	BLZ	LAC	Upper Middle	NO	No
Bermudas	BMU	NA	High Income	NO	No
Bolivia	BOL	LAC	Lower Middle	NO	No
Brazil	BRA	LAC	Upper Middle	NO	Yes
Canada	CAN	NA	High Income	Yes	No
Chile	CHL	LAC	High Income	Yes	No
Colombia	COL	LAC	Upper Middle	Yes	Yes
Costa Rica	CRI	LAC	Upper Middle	Yes	No
Cuba	CUB	LAC	Upper Middle	NO	n.a.
Dominican Rep.	DOM	LAC	Upper Middle	NO	No
Ecuador	ECU	LAC	Upper Middle	NO	No
El Salvador	SLV	LAC	Upper Middle	NO	No
France	FRA	ACA	High Income	Yes	No
Guatemala	GTM	LAC	Upper Middle	NO	Yes
Guyana	GUY	LAC	High Income	NO	Yes

CIAT Countries	Code	Region	Income Level	OECD Member	Integration with Customs
Honduras	HND	LAC	Lower Middle	NO	No
India	IND	SA	Lower Middle	NO	Yes
Italy	ITA	ACA	High Income	Yes	No
Jamaica	JAM	LAC	Upper Middle	NO	No
Kenya	KEN	SSA	Lower Middle	NO	Yes
Mexico	MEX	LAC	Upper Middle	Yes	n.a.
Morocco	MAR	MENA	Lower Middle	NO	No
Netherlands	NLD	ACA	High Income	Yes	No
Nicaragua	NIC	LAC	Lower Middle	NO	n.a.
Nigeria	NGA	SSA	Lower Middle	NO	No
Panama	PAN	LAC	High Income	NO	No
Paraguay	PRY	LAC	Upper Middle	NO	No
Peru	PER	LAC	Upper Middle	NO	Yes
Portugal	PRT	ACA	High Income	Yes	Yes
Spain	ESP	ACA	High Income	Yes	Yes
Suriname	SUR	LAC	Upper Middle	NO	Yes
Trinidad and Tobago	TTO	LAC	High Income	NO	No
United States	USA	NA	High Income	Yes	No
Uruguay	URY	LAC	High Income	NO	No

2. Administered revenue and financial resources

Starting with the block on administered revenues and financial resources, there is significant diversity among the various tax administrations, both in terms of their level and structure. The same applies to the financial resources available to tax administrations for carrying out their tasks and functions. The relationship between these two concepts provides an approximate idea of the implicit cost of tax collection. However, cross-country comparisons should be approached with caution, as specific factors unique to each country also influence this relationship. With this caveat in mind, the following sections analyze these dimensions based on the results of the ISORA 2023 survey.

2.1 Instruments collected and administered by the TAs

There is significant variation among countries regarding the number and types of tax instruments managed by their respective Tax Administrations[5] (Table 3). Income tax (applicable to both individuals and corporations) is present in almost all countries: 88.8% and 89.4%, respectively, of ISORA[6] countries. The same applies to Value-Added Tax (VAT), which is implemented in 82.7% of cases. Excise taxes, while still prevalent, are far less common, being present in only 55% of ISORA countries. Unlike VAT, excise taxes are more commonly found in low-income countries (75%) compared to other income groups.

Regarding other instruments complementary to traditional domestic taxes, the level of heterogeneity is greater, both across regions and income levels. For instance, the administration of social security contributions by tax administrations reaches only 25.7% of ISORA participants, with a majority presence limited to Europe, Central Asia, and North America. This administration is more prevalent in upper-middle-income (36.5%) and high- income jurisdictions (32.7%).

The average values for CIAT member countries are not significantly different from the global ISORA averages (Figure 2): widespread implementation of individual and corporate income taxes (92.1% in both cases), VAT (86.8%), and, to a lesser extent, excise taxes (65.8%). Compared to OECD member countries, the differences are also minimal, although the frequency of all instruments is higher among OECD countries (Table 3).

5 As previously mentioned, the data collected in ISORA and presented in this document do not include information on fiscal instruments (tax and non-tax) managed by subnational government tax administrations.

6 These figures and similar ones throughout the document should be interpreted as the number of countries, out of the total, that provided affirmative responses. For the remaining countries, the response may either be negative or unavailable.

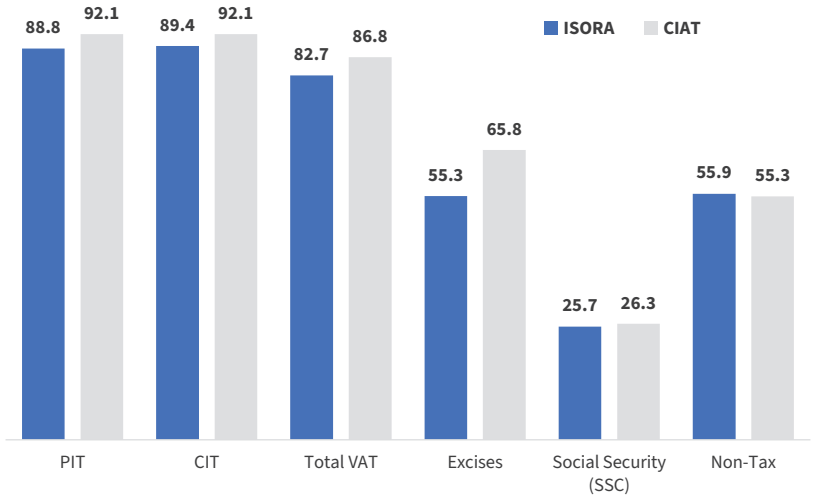
RETURN TO CONTENT

Table 3: Types or categories of tax revenues. Percentage of countries (of each selected group) in which the tax administration has direct responsibility for these instruments. Year 2022

Country Groups	PIT	CIT	Total VAT	Excises	Social Security (SSC)	Non-Tax
ISORA	**88.8**	**89.4**	**82.7**	**55.3**	**25.7**	**55.9**
Sub-Saharan Africa	93.2	93.2	88.6	65.9	13.6	63.6
North America	66.7	66.7	33.3	66.7	66.7	33.3
Latin America and the Caribbean	88.2	88.2	85.3	64.7	17.6	55.9
South Asia	87.5	87.5	75.0	50.0	12.5	50.0
East Asia and Pacific	87.9	87.9	66.7	27.3	3.0	39.4
Europe and Central Asia	96.0	96.0	96.0	62.0	60.0	70.0
Middle East and North Africa	28.6	42.9	42.9	28.6	0.0	0.0
Low Income	85.0	85.0	80.0	75.0	5.0	65.0
Lower Middle Income	85.1	85.1	78.7	55.3	14.9	44.7
Upper Middle Income	90.4	88.5	86.5	53.8	36.5	53.8
High Income	92.7	96.4	87.3	54.5	32.7	65.5
CIAT Members	92.1	92.1	86.8	65.8	26.3	55.3
Non CIAT Members	87.9	88.7	81.6	52.5	25.5	56.0
OECD Members	100.0	100.0	97.4	71.1	36.8	63.2
Non OECD Members	85.8	86.5	78.7	51.1	22.7	53.9

Among CIAT member countries, despite significant diversity, certain patterns can be observed. The administration of income tax (for individuals and corporations) and VAT (where applicable) is widespread.

Figure 2: Types or categories of tax revenues. Percentage of countries (in ISORA and CIAT) in which the tax administration has direct responsibility for these instruments. Year 2022



Excise taxes are also very common, and in cases where they are not applied or are not under the responsibility of tax administrations, other more specific taxes, such as those on motor vehicles, are often found. Taxes on various forms of property (real estate, wealth, inheritance, and gifts) are less prevalent among CIAT countries. Another element of heterogeneity lies in the administration of social security contributions and other non-tax revenues.

Table 4: Types or categories of tax revenues, under the direct responsibility of the tax administrations surveyed by ISORA 2023. CIAT member countries. Year 2022

CIAT Countries	PIT	CIT	Total VAT	Excises	Vehicles	Real Estate	Wealth	Inheritance	Other taxes	Social Security (SSC)	Non- Tax
Angola	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes
Argentina	Yes	Yes	Yes	Yes			Yes		Yes	Yes	Yes
Aruba	Yes	Yes			Yes	Yes			Yes	Yes	Yes
Barbados	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes		Yes
Belize	Yes	Yes	Yes						Yes		
Bermudas						Yes		Yes	Yes		
Bolivia	Yes	Yes	Yes	Yes			Yes		Yes		
Brazil	Yes	Yes	Yes	Yes		Yes			Yes	Yes	Yes
Canada	Yes	Yes	Yes	Yes					Yes	Yes	Yes
Chile	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes		
Colombia	Yes	Yes	Yes	Yes			Yes		Yes		
Costa Rica	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes		
Cuba											
Dominican Rep.	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes
Ecuador	Yes	Yes	Yes	Yes	Yes			Yes	Yes		Yes
El Salvador	Yes	Yes	Yes	Yes	Yes	Yes					
France	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes		Yes
Guatemala	Yes	Yes	Yes	Yes	Yes						
Guyana	Yes	Yes	Yes			Yes	Yes	Yes			Yes
Honduras	Yes	Yes	Yes	Yes			Yes	Yes	Yes		Yes
India	Yes	Yes	Yes	Yes					Yes		
Italy	Yes	Yes	Yes			Yes	Yes	Yes	Yes		
Jamaica	Yes	Yes	Yes	Yes	Yes	Yes			Yes	Yes	Yes
Kenya	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes		Yes
Mexico	Yes	Yes	Yes	Yes	Yes				Yes		Yes
Morocco	Yes	Yes	Yes		Yes				Yes		
Netherlands	Yes	Yes	Yes		Yes			Yes	Yes	Yes	Yes
Nicaragua											
Nigeria	Yes	Yes	Yes						Yes		
Panama	Yes	Yes	Yes			Yes					Yes
Paraguay	Yes	Yes	Yes						Yes		
Peru	Yes	Yes	Yes	Yes			Yes		Yes	Yes	Yes
Portugal	Yes	Yes	Yes	Yes	Yes	Yes			Yes		Yes
Spain	Yes	Yes	Yes	Yes					Yes		Yes
Suriname	Yes	Yes		Yes		Yes	Yes		Yes	Yes	Yes
Trinidad and Tobago	Yes	Yes	Yes		Yes	Yes			Yes		Yes
United States	Yes	Yes		Yes	Yes			Yes	Yes	Yes	
Uruguay	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		

2.2 Magnitude of administered revenue

These differences in administered fiscal instruments, along with the diversity in tax design and tax bases, result in significant heterogeneity in revenue levels (Table 5). In particular, the Total Net Revenue (TNR) managed by tax administrations averaged 17.1% of GDP in 2022 for ISORA countries, with wide variability ranging from 1% in Brunei to 42% in Sweden. Average revenue by country groups increases clearly with income levels: from 9.3% of GDP for low-income countries to 21.4% for high-income countries[7]. The simple average for CIAT member countries (16,8% of GDP[8]) is very similar to the global average and to that of upper- middle-income countries (around 17% of GDP). It is also above the average for Latin America and the Caribbean (15.6% of GDP).

Another indicator that highlights the gaps between countries is TNR per capita (in dollars). The average for ISORA was $3,682 per inhabitant, lower than the CIAT average of $3,915 (an increase of $649 compared to 2021) and nearly double the LAC average of $2,026. This indicator also shows a clear upward trend with income levels: just $58 for low-income countries, $351 for lower-middle-income countries, $1,434 for upper-middle-income countries, and $9,286 for high-income countries.

Table 5: Total Net Revenue (TNR). Alternative measures (in percentages of GDP, in dollars per capita and in percentages of Total Government Revenue). Simple averages for selected groups of countries. Year 2022

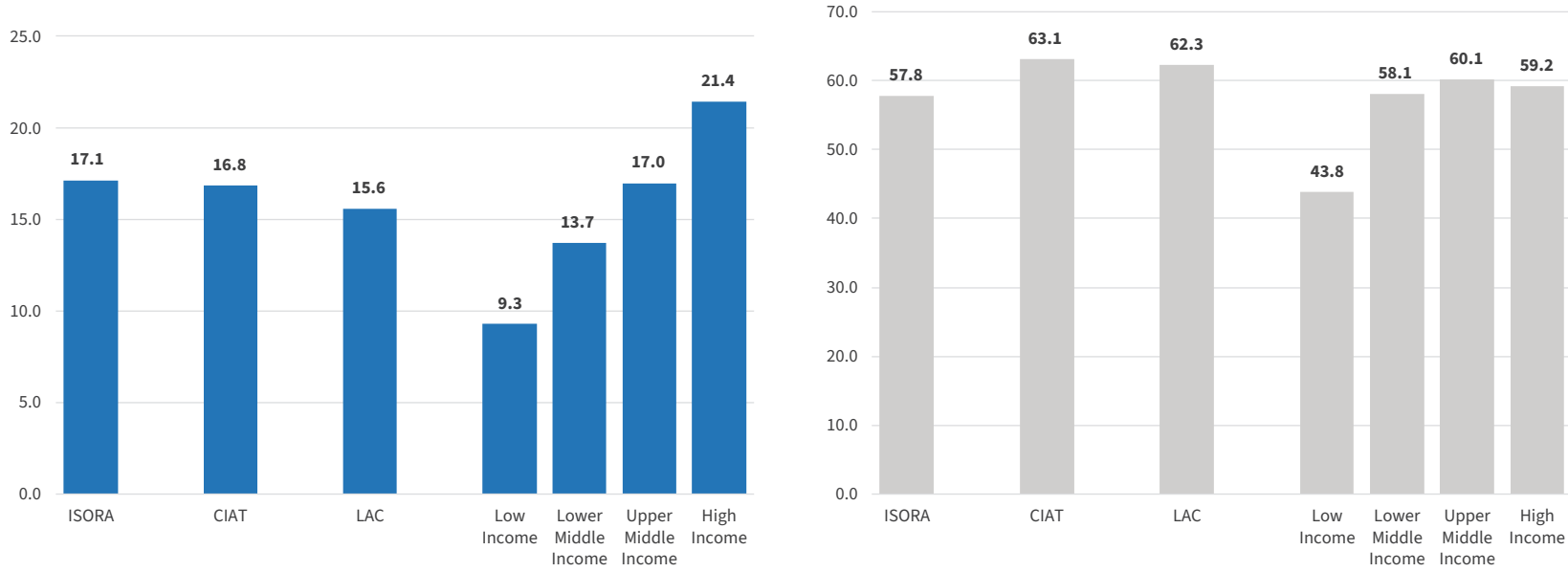
Country Groups	Total Net Revenue (TNR) (as % of GDP)	Total Net Revenue per capita (in dollars)	Total Net Revenue (as % of Total Government Revenue
ISORA	**17.1**	**3,862**	**57.8**
CIAT Members	16.8	3,915	63.1
Latin America and the Caribbean	15.6	2,026	62.3
Low Income	9.3	58	43.8
Lower Middle Income	13.7	351	58.1
Upper Middle Income	17.0	1,434	60.1
High Income	21.4	9,286	59.2

In contrast, the differences are much smaller when considering TNR as a proportion of Total Government Revenue. On average, 57.8% of government revenue in ISORA countries comes from their tax administrations, with slightly higher figures for the CIAT (63.1%) and LAC

7 It is important to reiterate that these figures refer to tax revenues administered by tax administrations. For total revenue data, consult the BID-CIAT Revenue Database (https://www.ciat.org/base-de-datos-de-recaudacion-bid- ciat/). Additionally, it is necessary to clarify that all statistics included in the ISORA survey and processed in this document correspond to the 2022 fiscal year, which in some cases may not align with the corresponding calendar year, as is the case in several CIAT countries.

8 However, time comparisons should be approached with caution, as the group of countries varies across ISORA surveys depending on the year. Furthermore, for the averages presented in this work, extreme values that could distort the results have been excluded in certain cases.

Figure 3: Total Net Revenue (left panel, in percent of GDP; right panel, in percent of Total Government Revenue). Simple averages for selected groups of countries. Year 2022



(62.3%) averages. This figure is lower for low-income countries (43.8%) but hovers around 60% for the other income groups (Figure3).

The analysis of CIAT member countries reveals significant differences across the three indicators considered. TNR as a percentage of GDP ranges from a minimum in Nigeria (5%), with other countries such as Panama (7.7%) and Bermuda (8.7%) also well below the CIAT average, to a maximum in the Netherlands (33.2%). Several countries also stand out above the average, including Aruba (27%), Italy (25.4%), Portugal (24%), and Argentina (23.1%). In per capita terms, as expected, high-income countries such as the Netherlands, France, Canada, Bermuda, and the United States lead, with annual figures exceeding $9,000 per inhabitant. At the other end of the spectrum are Nigeria, India, Kenya, and Honduras, with values below $500. Finally, regarding TNR as a percentage of Total Government Revenue, countries such as Aruba, Jamaica, Guatemala, the Netherlands, Peru, and the Dominican Republic exceed 75%, while in Ecuador, this figure is below 40% (Table 6).

Table 6: Total Net Revenue (TNR). Alternative measures (in percentages of GDP, in dollars per capita and in percentages of Total Government Revenue). CIAT member countries. Year 2022

CIAT Countries	TA Total Net Revenue (TNR) (as % of GDP)	Total Net Revenue per capita (in dollars)	Total Net Revenue (as % of Total Government Revenue
Angola	n.a.	n.a.	n.a.
Argentina	23.1	3,160	69.2
Aruba	26.9	8,965	100.0
Barbados	16.4	3,393	55.3
Belize	11.0	770	47.8
Bermudas	8.7	10,678	n.a.
Bolivia	n.a.	n.a.	n.a.
Brazil	20.0	1,817	52.6
Canada	21.1	11,702	52.2
Chile	20.6	3,169	74.1
Colombia	13.9	928	50.8
Costa Rica	12.2	1,627	74.3
Cuba	n.a.	n.a.	n.a.
Dominican Rep.	12.9	1,305	84.6
Ecuador	13.0	843	36.1
El Salvador	19.0	958	72.5
France	23.8	9,719	44.3
Guatemala	11.9	654	94.4
Guyana	9.4	1,702	61.7
Honduras	16.6	499	65.4
India	9.3	224	47.8
Italy	25.4	8,910	53.5
Jamaica	21.8	1,319	75.3
Kenya	12.5	262	69.9
Mexico	16.4	1,880	65.7
Morocco	19.3	675	71.5
Netherlands	33.2	18,936	77.5
Nicaragua	n.a.	n.a.	n.a.
Nigeria	5.0	109	57.2
Panama	7.7	1,332	43.3
Paraguay	10.1	628	51.1
Peru	18.4	1,330	83.9
Portugal	24.0	5,879	55.4
Spain	19.0	5,635	44.3
Suriname	n.a.	n.a.	n.a.
Trinidad and Tobago	19.4	3,809	73.6
United States	16.5	12,782	50.7
Uruguay	17.5	3,588	63.5

2.3 Relative structure of administered revenues

In terms of the composition of Total Net Revenue (TNR) by fiscal instruments, income tax is the leading revenue generator, accounting for 42.9% of the total across ISORA countries, divided almost equally between corporate income tax and personal income tax. Next is total net VAT (domestic and imports[9]), which represents 37.9% of TNR on average for ISORA countries. The remaining revenue consists of other taxes (including excise, property, and customs duties), contributing an average of 7.9%; social contributions (5.4%); and non-tax revenues (6%) (Table 7).

For CIAT member countries, while figures are relatively similar to ISORA averages, some notable differences emerge. Within income tax, corporate income tax holds greater importance (24.2%) than personal income tax (18.6%). This bias toward corporate income tax is even more pronounced in LAC, where personal income tax accounts for only 15.1%. Non- tax revenues are also lower (2% on average for CIAT countries compared to 6% for ISORA), compensated by a higher share of other taxes (15.6% on average for CIAT countries compared to 7.9% for ISORA).

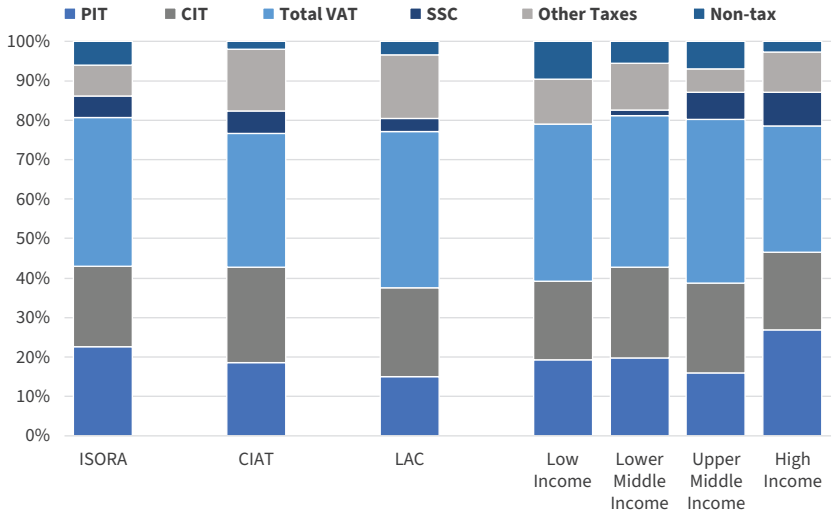
By income levels, personal income tax plays a much more significant role in high-income countries (26.8%), while the opposite is true for corporate income tax (19.8% compared to 23% in lower-middle-income countries). VAT, while contributing a substantial share of TNR in all income groups (ranging from 32% to 41.5%), has a smaller share in high-income countries compared to lower-income groups. Social contributions are relatively significant only in upper-middle-income and high-income countries (6.9% and 8.5%, respectively). In contrast, non-tax revenues are relatively important only in low-income countries (9.7%) and, to a lesser extent, upper-middle-income countries (7.1%) (Figure 4).

Table 7: Relative structure of revenues administered by the TA (as percentages of TNR). Simple averages for selected groups of countries. Year 2022

Country Groups	PIT	CIT	Total VAT	SSC	Other Taxes	Non-tax
ISORA	**22.5**	**20.4**	**37.9**	**5.4**	**7.9**	**6.0**
CIAT Members	18.6	24.2	33.9	5.7	15.6	2.0
Latin America and the Caribbean	15.1	22.3	39.7	3.2	16.2	3.4
Low Income	19.4	19.8	39.9	0.0	11.2	9.7
Lower Middle Income	19.8	23.0	38.4	1.4	11.8	5.7
Upper Middle Income	16.0	22.8	41.5	6.9	5.7	7.1
High Income	26.8	19.8	32.0	8.5	10.3	2.7

9 Figures are presented as net of refunds, even when the import component is collected by Customs.

Figure 4: Relative structure of revenues administered by the TA (as percentages of TNR). Simple averages for selected groups of countries. Year 2022



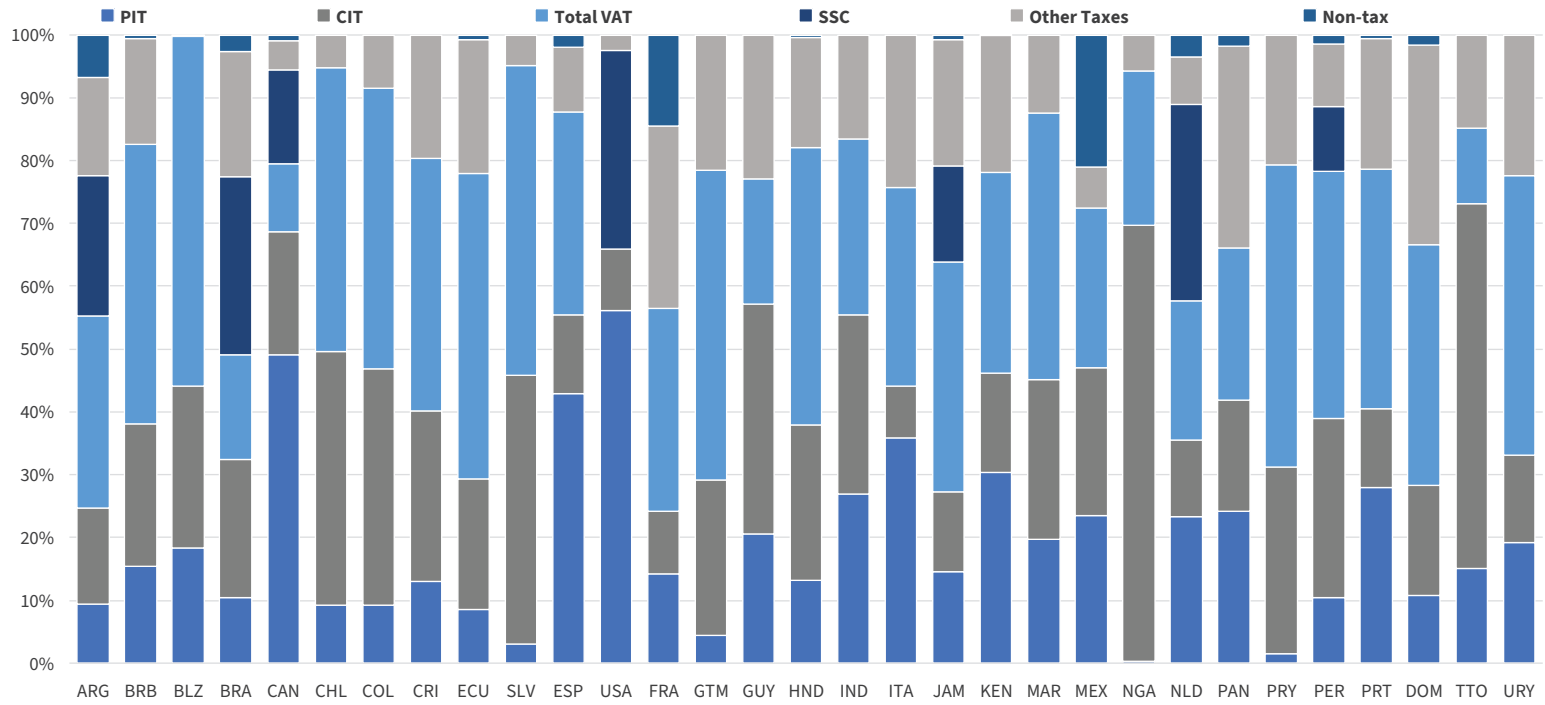
For CIAT member countries, VAT plays a prominent role, particularly in several LAC countries such as Belize (55.8%), Chile (45.2%), El Salvador (49.3%), Ecuador (48.6%), and Guatemala (49%), as well as outside the region in Morocco (42.5%) (Table 8). In more developed countries, the primary instrument is personal income tax, as seen in Canada (49.2%), Spain (42.9%), the United States (56.1%), and Italy (35.9%). Interestingly, this trend also applies to Kenya (30.3%). Corporate income tax is also significant in many countries, especially in LAC, where the known weaknesses of personal income tax and, in some cases, VAT play a role. This importance is also observed in some African countries, such as Nigeria (69%). Conversely, corporate income tax has a much smaller share in high-income countries like France, the United States, or Italy (Figure 5). The relative magnitude of social contributions is only notable in a few countries with integrated tax administrations, such as Argentina, Brazil, the United States, or the Netherlands. Finally, non-tax revenues hold significant weight in specific cases, such as France (14.4%) or Mexico (21%).

Table 8: Relative structure of revenues administered by the TA (in percentages of TNR). CIAT member countries. Year 2022

CIAT Countries	PIT	CIT	Total VAT	SSC	Other Taxes	Non-tax
Angola	n.a.	n.a.	n.a.	0.0	n.a.	n.a.
Argentina	9.5	15.2	30.6	22.4	15.7	6.7
Aruba	14.4	7.5	n.a.	33.9	41.9	2.4
Barbados	15.4	22.7	44.4	0.0	16.8	0.7
Belize	18.4	25.7	55.8	0.0	0.2	0.0
Bermudas	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Bolivia	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Brazil	10.5	22.0	16.7	28.3	19.8	2.7
Canada	49.2	19.5	10.8	15.0	4.6	1.0
Chile	9.2	40.4	45.2	0.0	5.2	0.0
Colombia	9.3	37.5	44.8	0.0	8.5	0.0
Costa Rica	12.9	27.1	40.2	0.0	19.7	0.0
Cuba	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Dominican Rep.	10.8	17.4	38.4	0.0	31.7	1.7
Ecuador	8.6	20.7	48.6	0.0	21.3	0.7
El Salvador	3.1	42.7	49.3	0.0	4.9	n.a.
France	14.2	9.9	32.3	0.0	29.1	14.4
Guatemala	4.4	24.8	49.4	0.0	21.5	0.0
Guyana	20.5	36.7	19.8	0.0	23.0	0.0

CIAT Countries	PIT	CIT	Total VAT	SSC	Other Taxes	Non-tax
Honduras	13.3	24.7	44.1	0.0	17.6	0.4
India	26.9	28.5	27.9	0.0	16.6	0.0
Italy	35.9	8.3	31.6	0.0	24.2	0.0
Jamaica	14.5	12.8	36.7	15.3	20.1	0.7
Kenya	30.3	15.8	32.0	0.0	21.9	0.1
Mexico	23.6	23.6	25.3	0.0	6.6	21.0
Morocco	19.7	25.4	42.5	0.0	12.5	0.0
Netherlands	23.4	12.1	22.3	31.2	7.5	3.5
Nicaragua	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Nigeria	0.4	69.3	24.7	0.0	5.7	0.0
Panama	24.1	17.7	24.2	0.0	32.2	1.8
Paraguay	1.5	29.8	48.1	0.0	20.7	0.0
Peru	10.5	28.4	39.4	10.3	10.0	1.4
Portugal	28.0	12.5	38.1	0.0	20.9	0.5
Spain	42.9	12.6	32.3	0.0	10.2	2.0
Suriname	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Trinidad and Tobago	15.1	58.1	12.0	0.0	14.9	0.0
United States	56.1	9.9	0.0	31.7	2.4	0.0
Uruguay	19.2	13.8	44.7	0.0	22.3	0.0

Figure 5: Relative structure of revenues administered by the TA (in percentages of TNR). CIAT member countries. Year 2022



Note: For countries where data is available.

2.4 Available financial budget and cost of collection

The operating expenses of the tax administrations participating in ISORA average 0.171% of GDP, with lower figures observed among CIAT countries (0.142% of GDP) and in LAC (0.164% of GDP). By income levels, the budget for operating expenses increases with the income level of the countries, from 0.151% for low-income countries to 0.194% for high- income countries (Table 9).

Regarding the composition of operating expenses, salaries represent the largest category, with a global average of 70.6% of the total. This percentage is slightly higher for CIAT countries (72.1%) and LAC (73.2%). By income level, there is no clear trend, although the percentages are somewhat higher at the extremes (high- and low-income countries). In contrast, expenditures on information and communication technologies (ICT) account for a small proportion of total operating expenses—7.4% for ISORA, 8.5% for CIAT, and 7.8% for LAC. ICT spending shows a clear

Table 9: Expenditure structure and operating budget indicators (as a percentage of GDP and as a percentage of total). Simple averages for selected groups of countries. Year 2022

Country Groups	Operating Expenditure (in % of GDP	Cost of Collection (in %)	Salary Expenditure / Operating Expenditure (in %)	ICT Expenditure / Operating expenditure (in %)
ISORA	**0.171**	**1.09**	**70.61**	**7.40**
CIAT Members	0.142	0.86	72.1	8.5
Latin America and the Caribbean	0.164	1.13	73.2	7.8
Low Income	0.151	1.64	70.5	5.5
Lower Middle Income	0.149	1.19	67.6	5.7
Upper Middle Income	0.165	1.10	69.9	6.8
High Income	0.194	0.86	72.3	9.3

upward trend as income levels increase: 5.5% for low-income countries, 5.7% for lower-middle-income countries, 7.8% for upper-middle-income countries, and 9.3% for high-income countries. However, this upward trend has become less pronounced compared to the previous ISORA edition, reflecting a certain convergence in ICT investment efforts.

The ratio of revenue collected to the operating budget can be interpreted as a proxy for the "cost of revenue collection" for a tax administration. Although, like any synthetic indicator, it has limitations and should not be directly equated with a measure of the efficiency of the tax administration[10] it provides a general indication of the effective performance of available financial resources (Díaz de Sarralde Míguez, 2018a). For ISORA countries, this ratio is 1.09, meaning that collecting 100 monetary units costs an average of 1.09 units. This cost is lower for CIAT countries (0.86) and slightly higher for LAC (1.13). Moreover, it decreases clearly with income level: 1.64 for low-income countries, 1.19 for lower-middle-income countries, 1.10 for upper-middle-income countries, and 0.86 for high-income countries (Figure 6).

For CIAT member countries, operating budget size varies significantly. Some Caribbean countries, such as Aruba and Jamaica, stand out with operating budgets of 0.495% and 0.492% of GDP, respectively, compared to others where the budget is around one-tenth of that (e.g., Bermuda, the United States, India, or Mexico). Additionally, Brazil, Chile, Colombia, Ecuador, and El Salvador report figures below 0.1% of GDP (Table 10). This wide dispersion is also observed in the share of salaries in operating/current expenses, ranging from 40.1% in Bolivia to 95.8% in Argentina. Similarly, ICT expenditures show significant variation, from less than 1% in El Salvador, Guatemala, or Panama to nearly 24% in the Netherlands and the United States. Finally, regarding the cost of revenue collection, this indicator exceeds 2 percentage points in Guyana and Jamaica, significantly above global and regional averages. On the other hand, countries such as Brazil, Chile, El Salvador, Spain, the United States, and Morocco report costs below half a percentage point (Figure 7).

10 Unlike previous editions of ISORA, the 2023 edition does not include information on capital expenditures, making this proxy less informative than in earlier Panoramas.

Figure 6: TAs Operating Expenditure (left panel, in percent of GDP) and cost of collection (right panel, in percentages). Simple averages for selected groups of countries. Year 2022

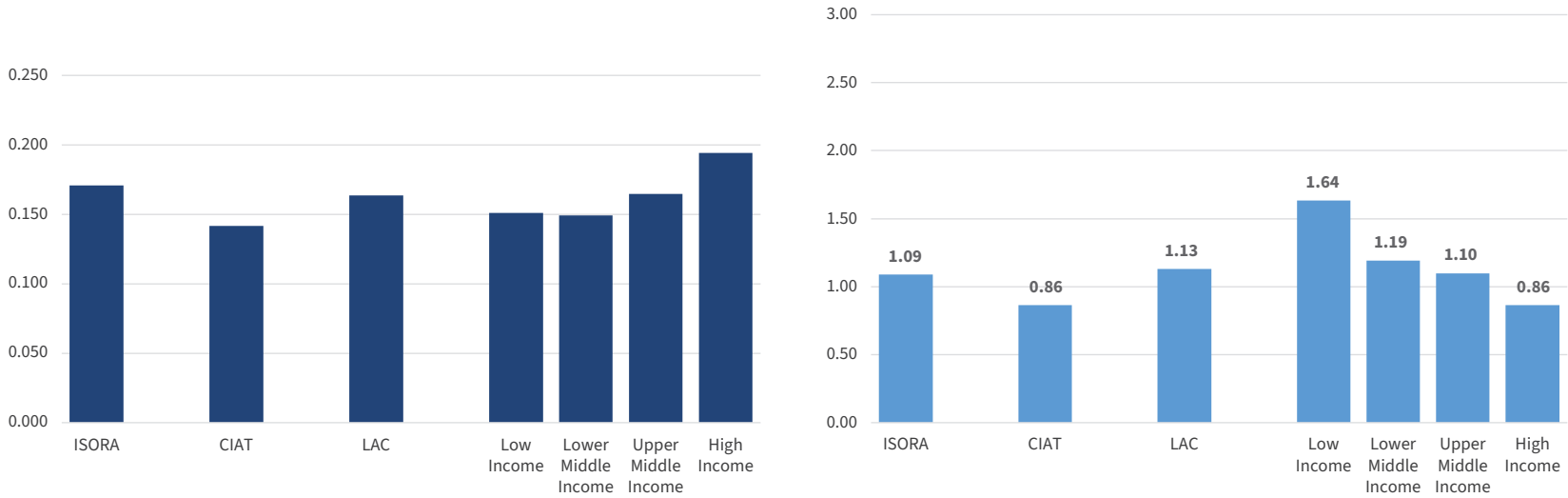
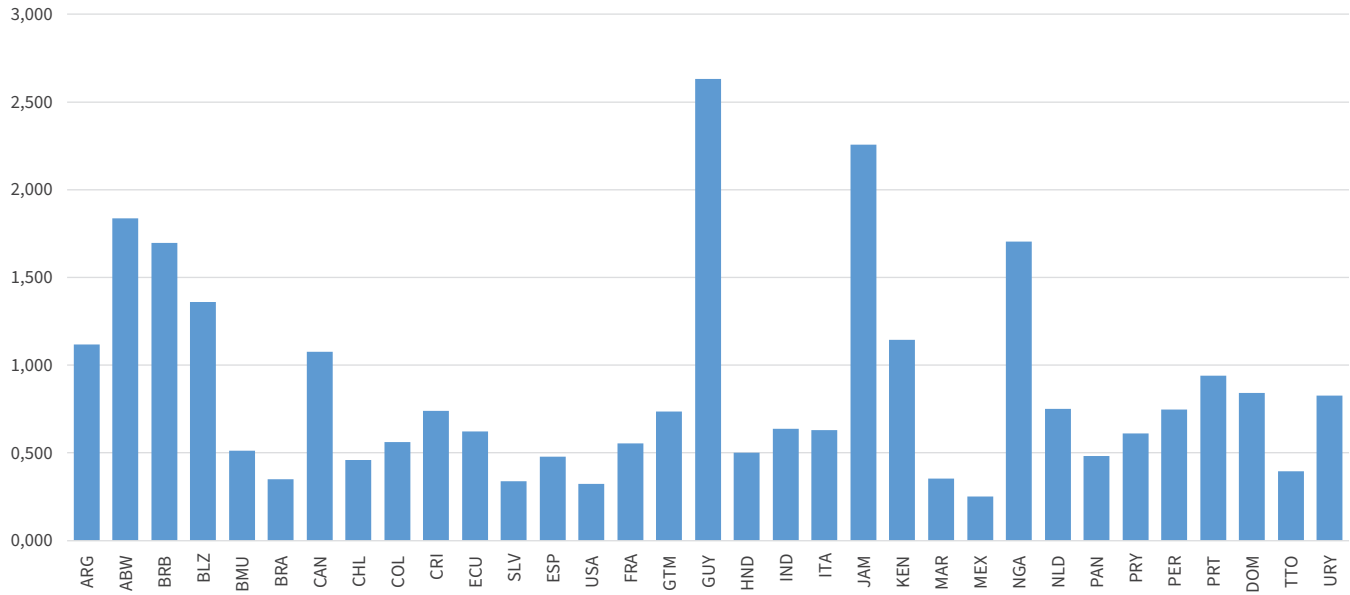


Table 10: Expenditure structure and operating budget indicators (as a percentage of GDP and as a percentage of the total). CIAT member countries. Year 2022

CIAT Countries	Operating Expenditure (in % of GDP)	Cost of Collection (in %)	Salary Expenditure / Operating Expenditure (in %)	ICT Expenditure / Operating expenditure (in %)
Angola	0.135	n.a.	n.a.	n.a.
Argentina	0.259	1.120	95.8	4.1
Aruba	0.495	1.837	65.7	13.4
Barbados	0.278	1.696	70.5	11.0
Belize	0.150	1.359	79.7	3.7
Bermudas	0.045	0.514	70.3	1.7
Bolivia	0.203	n.a.	40.1	14.4
Brazil	0.070	0.351	66.9	19.0
Canada	0.227	1.078	77.9	18.5
Chile	0.095	0.460	84.7	13.9
Colombia	0.078	0.562	80.8	n.a.
Costa Rica	0.090	0.738	57.1	5.9
Cuba	n.a.	n.a.	n.a.	n.a.
Dominican Rep.	0.109	0.841	n.a.	0.7
Ecuador	0.081	0.623	79.5	10.4
El Salvador	0.064	0.339	99.6	0.3
France	0.132	0.556	83.1	5.9
Guatemala	0.088	0.737	41.5	0.2
Guyana	0.246	2.629	75.8	5.5

CIAT Countries	Operating Expenditure (in % of GDP)	Cost of Collection (in %)	Salary Expenditure / Operating Expenditure (in %)	ICT Expenditure / Operating expenditure (in %)
Honduras	0.083	0.503	95.2	6.3
India	0.059	0.637	68.2	5.3
Italy	0.160	0.630	49.8	10.8
Jamaica	0.492	2.255	58.8	3.8
Kenya	0.143	1.146	62.9	n.a.
Mexico	0.042	0.253	83.4	n.a.
Morocco	0.068	0.354	81.2	11.5
Netherlands	0.249	0.751	71.1	23.1
Nicaragua	n.a.	n.a.	n.a.	n.a.
Nigeria	0.086	1.704	63.5	12.0
Panama	0.037	0.484	80.3	3.8
Paraguay	0.062	0.610	55.6	n.a.
Peru	0.137	0.747	70.1	5.7
Portugal	0.225	0.939	77.6	5.4
Spain	0.091	0.478	84.1	6.6
Suriname	0.049	n.a.	75.0	12.4
Trinidad and Tobago	0.077	0.395	56.1	0.5
United States	0.054	0.325	70.6	23.8
Uruguay	0.145	0.826	77.5	4.6

Figure 7: Cost of collection of TA (in percentages). CIAT member countries. Year 2022



Note: For countries where data is available.

3. Characteristics of the employed staff

Alongside financial and technological resources, human resources are fundamental for tax administrations to effectively carry out their tasks. The ISORA survey provides valuable information on various aspects of this area, enabling comparisons between countries and identifying some stylized facts.

3.1 Staff size

At the end of the 2022 fiscal year, the total workforce of the ISORA participating countries amounted to nearly 2 million full-time equivalent employees -FTE[11]). Of these, slightly less than one-quarter (23.4% of the total) were in CIAT member countries, and just over 97,000 were in LAC countries (5.1% of the total) (Table 11). The majority of these workers are concentrated in upper-middle-income (49.5%) and high-income countries (36.9%), which together account for 86.4% of the total workforce.

In terms of population, the average for ISORA countries is slightly over 5,000 inhabitants per full-time equivalent (FTE) tax administration employee (339 more than in the previous ISORA edition), a figure similar to that of CIAT

Table 11: Number of personnel employed (FTE) and weights by reference variables (population/taxpayers). Subtotals and simple averages for selected groups of countries. Year 2022

Country Groups	Tax Administration' s Staff (FTEs) Total	Total Population / FTE Average	Labor Force / FTE Average	PIT Active Taxpayers / FTE Average	CIT Active Taxpayers / FTE Average	VAT Active Taxpayers / FTE Average
ISORA	**1,919,658**	**5,314**	**2,363**	**704**	**100**	**101**
CIAT Members	4,48,400	5,401	2,501	1,013	131	221
Latin America and the Caribbean	97,604	3,918	2,219	816	124	187
Low Income	18,106	15,447	5,986	130	37	17
Lower Middle Income	2,40,094	8,776	3,423	470	57	42
Upper Middle Income	9,49,548	3,340	1,693	821	140	138
High Income	7,08,794	1,826	1,001	987	120	137

Note: the sum by income level does not coincide with the total because some countries are not classified.

11 In all cases, and for greater comparability, the figures refer to Full-Time Equivalents (FTE). An FTE of 1.0 indicates resources equivalent to one full-time staff member working for an entire year.

countries (5,401) and higher than the LAC average (3,918). By income level, the population per tax administration employee is significantly higher in low-income countries, averaging 15,447 inhabitants, and decreases rapidly as income levels rise, reaching 1,826 inhabitants per FTE worker in high-income countries—nearly one-tenth of the figure for low-income countries. A similar pattern is observed in terms of the active workforce: a global average of 2,363 active workers per FTE tax administration employee (214 more than in the previous edition), slightly higher for CIAT countries (2,501), and with averages decreasing by income level, from 5,986 in low-income countries to 1,001 in high-income countries.

The size of the workforce relative to the number of taxpayers presents a different picture. With logically higher ratios for personal income tax (PIT) compared to corporate income tax (CIT) or VAT, the averages for CIAT countries are significantly higher than the global ISORA average in all cases, as well as those from the previous survey edition: 1,013 taxpayers per FTE worker in CIAT countries versus 704 in ISORA for PIT; 131 versus 100 for CIT; and 221 versus 101 for VAT, respectively. By income levels, the average number of taxpayers per FTE worker increases clearly with income level, rising from 130 to 987 for PIT, from 37 to 120 for CIT, and from 17 to 137 for VAT (Figure 8).

As noted in previous editions of this Overview, various factors contribute to these differences, including demographic circumstances (higher population growth in lower-income countries) and economic conditions (lower per capita income, greater informality, weaker direct taxes, and dependence on a small number of large taxpayers) (Díaz de Sarralde, 2019).

Figure 8: Economically active population (labor force) per employee (FTE) (left panel, number of persons) and Number of PIT taxpayers per employee (right panel). Simple averages for selected groups of countries. Year 2022

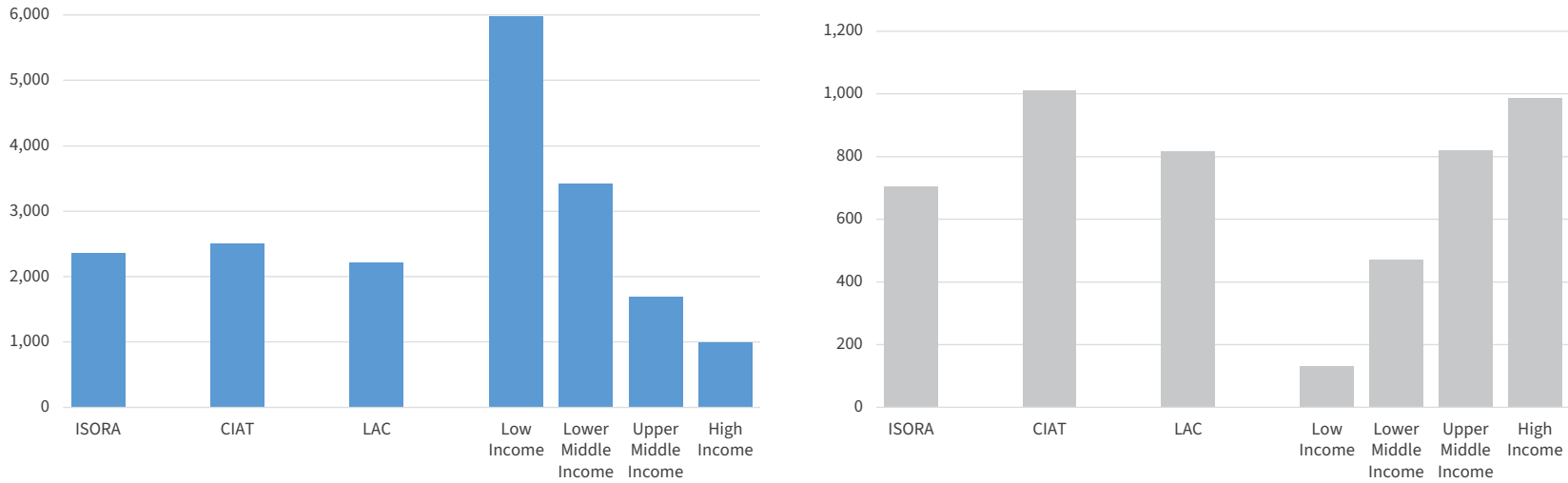


Table 12: Number of personnel employed (FTE) and weights by reference variables (population/taxpayers). CIAT member countries. Year 2022

CIAT Countries	Tax Administration's Staff (in FTEs)	Population / FTE	Labor Force / FTE	PIT Active Taxpayers / FTE	CIT Active Taxpayers / FTE	VAT Active Taxpayers / FTE
Angola	2,931	12,142	5,031	22	106	28
Argentina	14,294	3,235	1,505	244	35	129
Aruba	219	486	n.a.	271	50	n.a.
Barbados	310	909	469	592	48	30
Belize	227	1,785	815	642	185	26
Bermudas	33	1,927	n.a.	n.a.	n.a.	n.a.
Bolivia	1,659	7,368	3,564	16	17	21
Brazil	13,782	15,623	7,891	3,026	n.a.	n.a.
Canada	49,950	780	428	688	59	85
Chile	4,897	4,003	1,967	2,383	487	421
Colombia	7,184	7,221	3,587	623	247	218
Costa Rica	881	5,881	2,886	471	450	610
Cuba	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Dominican Rep.	3,230	3,476	1,602	82	97	130
Ecuador	3,104	5,799	2,839	721	72	552
El Salvador	803	7,891	3,531	1,234	55	261
France	43,143	1,575	733	1,198	78	213
Guatemala	3,367	5,155	2,099	415	47	398
Guyana	1,269	637	227	327	8	5

CIAT Countries	Tax Administration's Staff (in FTEs)	Population / FTE	Labor Force / FTE	PIT Active Taxpayers / FTE	CIT Active Taxpayers / FTE	VAT Active Taxpayers / FTE
Honduras	1,073	9,723	4,254	344	47	151
India	78,555	18,041	7,054	1,462	22	174
Italy	28,435	2,073	891	2,820	83	327
Jamaica	2,224	1,271	682	107	13	12
Kenya	5,008	10,788	4,942	3,041	173	51
Mexico	24,669	5,169	2,380	3,669	122	304
Morocco	4,843	7,734	2,515	n.a.	n.a.	n.a.
Netherlands	21,434	826	457	624	51	162
Nicaragua	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Nigeria	10,543	20,729	6,961	19	50	69
Panama	896	4,920	2,288	496	220	90
Paraguay	954	7,108	3,568	302	679	998
Peru	7,431	4,582	2,458	1,270	242	249
Portugal	9,153	1,137	579	1,137	71	204
Spain	20,691	2,309	1,145	1,256	109	365
Suriname	208	2,971	1,183	28	65	n.a.
Trinidad and Tobago	778	1,968	868	1,254	69	26
United States	79,070	4,215	2,127	n.a.	n.a.	n.a.
Uruguay	1,152	2,971	1,520	2,647	146	316

In the specific case of CIAT member countries, there is significant heterogeneity in the workforce. This is evident not only in the absolute size of the staff but also in relative terms, with some countries far exceeding global or regional averages. Even when considering the number of taxpayers per FTE employee, the figures are remarkably high in diverse CIAT member countries such as Chile, Kenya, Mexico, Italy, or Uruguay.

3.2 Staff dynamics

In 2022, unlike the previous year, the annual employment balance was positive for ISORA countries as a whole (+6,441 FTE employees) and for CIAT member countries (+9,865), but not for LAC countries (-818). By income level, the employment balance was positive across all groups except for upper-middle-income countries, where it was significantly negative (- 10,181), further accentuating the trend observed in the previous edition. The low-income group added 1,933 employees, the lower-middle-income group added 1,826, and the high- income group gained 12,845 employees. Overall, 68 ISORA participants (15 of which are CIAT members) reported a positive balance, representing 38% of the total[12] .This proportion was relatively similar for CIAT countries and across all income groups, except for upper- middle-income countries and LAC, where it was notably lower (Table 13).

The average FTE entry rate for ISORA countries (4.8%) was slightly higher than the FTE exit rate (3.4%). Among CIAT and LAC countries, both entry and exit rates were lower than the overall average. By income levels, the entry rate decreases as income levels decline, while the exit rate shows its lowest values at both extremes (low- and high-income groups) (Figure 9).

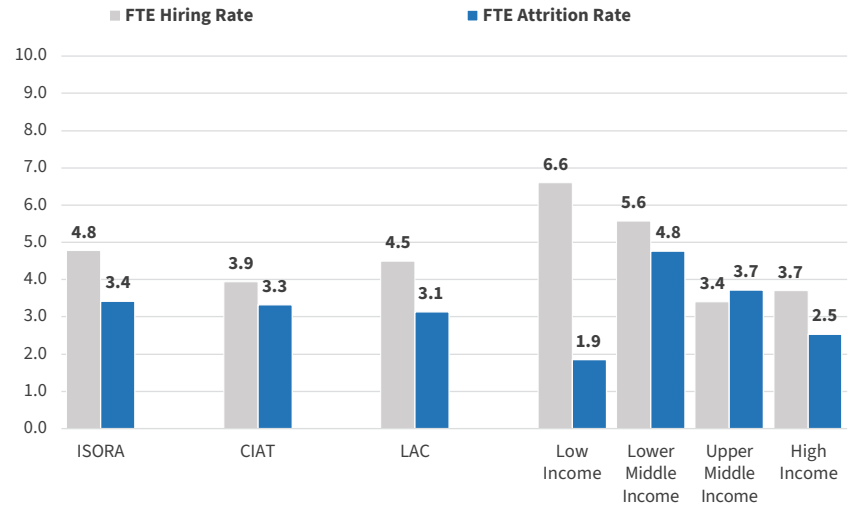
Table 13: Indicators of employee dynamics (FTE). Subtotals and simple averages for selected groups of countries. Year 2022

Country Groups	Annual Balance in FTE Employment (Amount)	FTE Hiring Rate	FTE Attrition Rate	TAs with positive FTE Employment Balance (number)	TAs with positive FTE Employment Balance (in %)
ISORA	**6,441**	**4.8**	**3.4**	**68**	**38.0**
CIAT Members	9,865	3.9	3.3	15	39.5
Latin America and the Caribbean	-818	4.5	3.1	8	23.5
Low Income	1,933	6.6	1.9	9	45.0
Lower Middle Income	1,826	5.6	4.8	20	42.6
Upper Middle Income	-10,181	3.4	3.7	14	26.9
High Income	12,845	3.7	2.5	22	40.0

Note: FTE Entry Rate = Hires during the 2022 fiscal year / ((FTE at the beginning of the 2022 fiscal year + FTE at the end of the 2022 fiscal year) / 2)
FTE Exit Rate = FTE exits during the 2022 fiscal year / ((FTE at the beginning of the 2022 fiscal year + FTE at the end of the 2022 fiscal year) / 2)

Note: Totals do not match the sum by income level due to unclassified countries.

Figure 9: Hiring and attrition rates of employed staff (FTE). Simple averages for selected groups of countries. Year 2022



12 This does not mean that for the rest the balance was negative, since there are TAs with unavailable data.

Among CIAT countries, the dynamics of the workforce showed significant fluctuations during 2022. The largest positive balances (exceeding 1,000 net FTE employees) were observed in Canada, the United States, and the Netherlands. Conversely, France and Italy reported the most notable negative balances, with net reductions of more than 1,000 employees. This variability is also evident in the annual FTE entry and exit rates, reflecting the unique characteristics of each country, the different stages in the institutional development of their respective tax administrations, and the specific macroeconomic context (Table 14).

Table 14: Indicators of employee dynamics (FTE). CIAT member countries. Year 2022

CIAT Countries	Annual Balance in FTE Employment (Amount)	FTE Hiring Rate	FTE Attrition Rate
Angola	10	0.2%	
Argentina	-182		0.9%
Aruba	-13		5.8%
Barbados	-8		2.5%
Belize	-4		1.7%
Bermudas	2	7.4%	
Bolivia	-109		6.4%
Brazil	-490		2.9%
Canada	8,570	15.9%	
Chile	-59		1.2%
Colombia	339	3.1%	
Costa Rica	-24		2.7%
Cuba	n.a.	n.a.	n.a.
Dominican Rep.	-78		2.4%
Ecuador	14	0	
El Salvador	n.a.	n.a.	n.a.
France	-1,878		2.0%
Guatemala	581	8.9%	
Guyana	76	6.0%	

CIAT Countries	Annual Balance in FTE Employment (Amount)	FTE Hiring Rate	FTE Attrition Rate
Honduras	-109		9.7%
India	566	0.5%	
Italy	-1,753		6.1%
Jamaica	-28		1.3%
Kenya	22	0.3%	
Mexico	-622		2.5%
Morocco	6	0.1%	
Netherlands	1,743	5.8%	
Nicaragua	n.a.	n.a.	n.a.
Nigeria	-61		0.6%
Panama	46	5.2%	
Paraguay	-83		8.3%
Peru	5	0.0%	
Portugal	-294		2.8%
Spain	232	0.9%	
Suriname	-5		0.9%
Trinidad and Tobago	-15		1.9%
United States	3,517	4.2%	
Uruguay	-49		4.2%

3.3 Staff distribution by TA function

Regarding the distribution of personnel among the main functions of tax administrations, the RRP function (Registration, Returns, and Payments) accounts for the largest share of FTE staff, averaging 29.3% of employees across ISORA countries. This is followed by the AIV function (Audit, Investigation, and Verification) at 25.2%. Far behind these, the EDC function (Enforced Debt Collections) employs 11.6% of the workforce, while slightly over one-third is allocated to "other miscellaneous functions" (Table 15). These proportions for the ISORA total are quite similar to the averages for CIAT countries and, in general, for other relevant country groupings, with a few exceptions. In LAC, the RRP function has a lower relative weight in terms of personnel assigned (23.7%), while the AIV function becomes more significant as income levels increase. Specifically, AIV accounts for 16.1% of staff in low- income countries, 19.7% in lower-middle-income countries, and 29.5% and 27.8% in upper- middle-income and high-income countries, respectively).

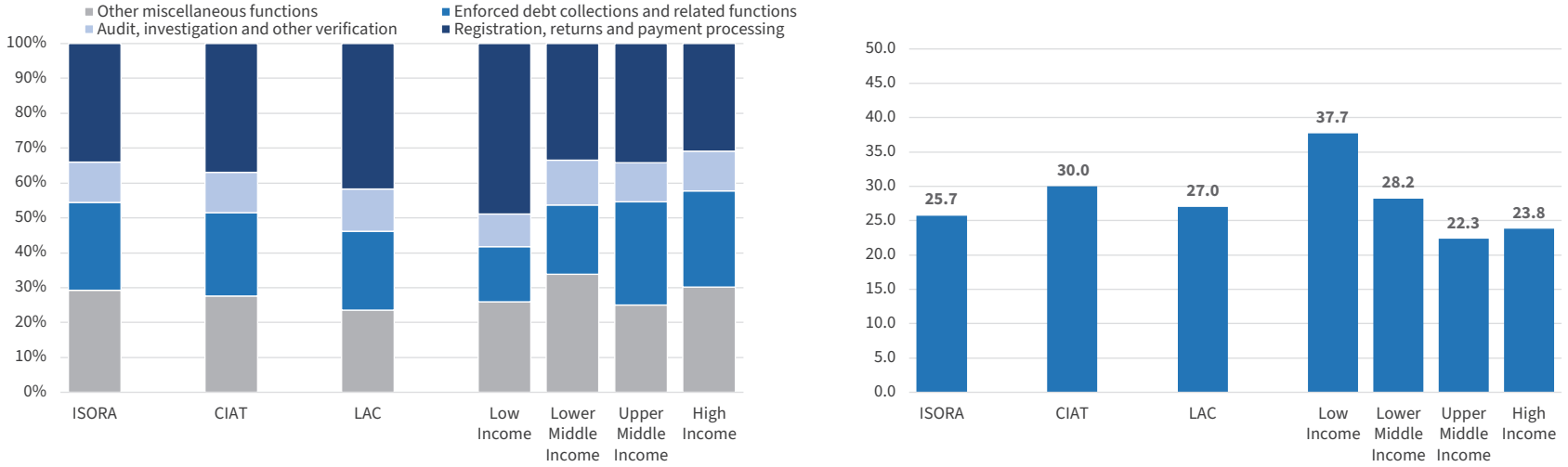
Tax administrations can have varying degrees of geographic operational decentralization, depending on specific factors in each country, such as size, population density, or the territorial economic structure. This decentralization determines how personnel are distributed between the central headquarters and regional branches or agencies.

In this regard, the proportion of FTE staff assigned to central headquarters averages 25.7% across ISORA countries. This share is slightly higher for CIAT and LAC countries. A clear decreasing trend is observed as income levels rise: 37.7% of staff are based in central headquarters in low-income countries, compared to approximately 23% in upper-middle- income and high-income countries (Figure 10).

Table 15: Distribution of personnel employed (FTE) by functions or main areas of TA (in percentages). Simple averages for selected groups of countries. Year 2022

Country Groups	Functions of the Tas				Percentage staff in headquarters
	Registration, returns and payment processing	Audit, investigation and other verification	Enforced debt collections and related functions	Other miscellaneous functions	
ISORA	**29.3**	**25.2**	**11.6**	**34.1**	**25.7**
CIAT Members	27.6	23.9	11.7	36.9	30.0
Latin America and the Caribbean	23.7	22.9	12.1	42.1	27.0
Low Income	26.3	16.1	9.5	49.7	37.7
Lower Middle Income	33.8	19.7	12.8	33.3	28.2
Upper Middle Income	25.1	29.5	11.2	34.3	22.3
High Income	30.4	27.8	11.5	31.1	23.8

Figure 10: Distribution of staff employed (FTE) by main functions or areas of the TAs (left panel) and proportion of staff assigned to the head office of operations (right panel) (both in percentages). Simple averages for selected groups of countries. Year 2022



Among CIAT member countries, there are significant differences in the distribution of personnel by function (Table 16). In some countries, general patterns are maintained, with the Registration, Returns, and Payments (RRP) function being the main allocation of FTE staff. However, in other countries, such as Argentina, Chile, Colombia, Costa Rica, Ecuador, or El Salvador, the Audit, Investigation, and Verification (AIV) function employs the majority of personnel. The Enforced Debt Collections (EDC) function holds significant importance in countries like Canada (24.5%), Spain (20.1%), and Mexico (21%), while in others, such as Angola, Belize, or Nigeria, its share is much smaller. Lastly, the allocation of personnel to central headquarters varies widely, ranging from 2.6% in the Netherlands to 100% in Bermuda or Paraguay.

Table 16: Distribution of staff employed (FTE) by functions or main areas of TA (in percentages). CIAT member countries. Year 2022

CIAT Countries	Functions of the Tas				Percentage staff in headquarters
	Registration. returns and payment processing	Audit. investigation and other verification	Enforced debt collections and related functions	Other miscellaneous functions	
Angola	n.a.	n.a.	2.2	n.a.	35.0
Argentina	11.9	36.2	14.1	37.9	18.0
Aruba	55.7	11.0	14.6	18.7	4.1
Barbados	11.6	13.6	6.8	68.1	38.0
Belize	39.2	25.6	6.2	29.1	3.0
Bermudas	18.2	21.2	18.2	42.4	100.0
Bolivia	26.8	28.5	16.9	27.8	25.0
Brazil	27.4	14.5	16.5	41.6	5.4
Canada	30.0	21.1	24.5	24.4	30.2
Chile	15.6	46.3	n.a.	n.a.	25.0
Colombia	10.9	26.8	16.8	45.5	38.3
Costa Rica	22.6	32.5	14.9	30.1	27.9
Cuba	n.a.	n.a.	n.a.	n.a.	n.a.
Dominican Rep.	35.4	19.1	1.6	43.8	49.8
Ecuador	22.7	39.2	5.4	32.8	31.8
El Salvador	16.8	39.6	n.a.	n.a.	46.0
France	27.3	23.9	16.3	32.5	3.8
Guatemala	28.7	20.9	8.5	41.8	43.9
Guyana	7.5	14.5	7.7	70.3	69.4

CIAT Countries	Functions of the Tas				Percentage staff in headquarters
	Registration. returns and payment processing	Audit. investigation and other verification	Enforced debt collections and related functions	Other miscellaneous functions	
Honduras	31.0	16.6	6.8	45.6	36.2
India	33.1	19.2	18.7	29.0	3.0
Italy	30.0	30.5	3.6	36.0	6.5
Jamaica	21.0	17.5	19.7	41.9	31.0
Kenya	6.6	5.3	8.2	79.9	n.a.
Mexico	14.4	36.5	21.0	28.1	27.8
Morocco	49.5	11.3	13.0	26.3	11.0
Netherlands	17.6	33.2	6.3	42.9	2.6
Nicaragua	n.a.	n.a.	n.a.	n.a.	n.a.
Nigeria	71.8	13.1	1.8	13.4	14.0
Panama	25.1	18.0	17.4	39.5	68.0
Paraguay	19.3	30.4	16.1	34.2	100.0
Peru	17.2	30.3	14.4	38.1	15.8
Portugal	53.7	18.2	12.9	15.2	17.4
Spain	17.1	44.4	20.1	18.5	13.2
Suriname	29.3	18.3	10.1	42.3	10.0
Trinidad and Tobago	45.1	9.9	2.4	42.5	13.0
United States	39.3	25.6	11.3	23.9	7.3
Uruguay	37.4	24.4	4.3	34.0	78.9

3.4 Staff composition according to age ranges

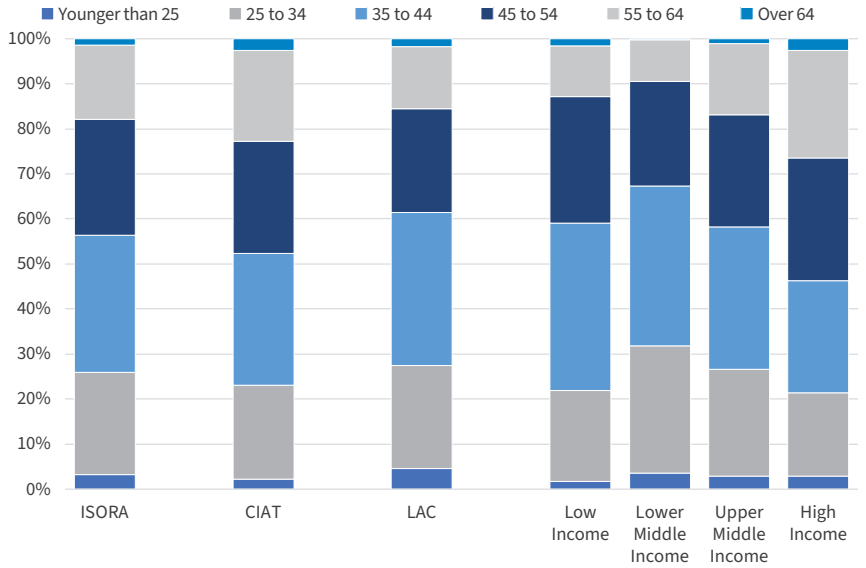
Analyzing the composition of personnel by age groups, the average for ISORA countries shows that more than three-quarters of the total FTE workforce (78.9%) is concentrated in the three age ranges between 25 and 54 years (Table 17). This same age group accounts for 75.1% of the workforce in CIAT countries and 79.9% in LAC. By income levels, this age range shows a clear decreasing trend as income levels rise: 85.5% of FTE personnel in low-income countries, compared to 70.5% in high-income countries. Conversely, the 55–64 age group holds significantly more weight in high-income countries than in other groups, accounting for 23.7% of the total workforce (Figure 11).

Using the weights provided for each interval in Table 17, along with the central values and boundary values for the two extremes, the average age for low-income countries is 54.4 years, 56.5 for lower-middle-income countries, 56.3 for upper-middle-income countries, and 56.1 for high-income countries. This indicates that average ages are very similar across income groups, a trend also observed in LAC (55.2 years), the global ISORA average (56 years), and CIAT countries (56.3 years).

Table 17: Composition of staff employed (FTE) by age ranges (in percentages). Simple averages for selected groups of countries. Year 2022

Country Groups	Younger than 25	25 to 34	35 to 44	45 to 54	55 to 64	Over 64
ISORA	**3.2**	**22.7**	**30.6**	**25.6**	**16.4**	**1.5**
CIAT Members	2.2	20.9	29.2	25.0	20.2	2.6
Latin America and the Caribbean	4.6	22.8	34.0	23.1	13.8	1.7
Low Income	1.7	20.2	37.2	28.1	11.4	1.5
Lower Middle Income	3.6	28.2	35.5	23.4	9.2	0.2
Upper Middle Income	2.8	23.8	31.6	24.9	15.8	1.1
High Income	3.0	18.4	24.9	27.2	23.7	2.7

Figure 11: Composition of staff employed (FTE) by age ranges (in percentages). Simple averages for selected groups of countries. Year 2022



Among CIAT member countries, some have relatively older workforces, such as Bermuda, Spain, Italy, the Netherlands, and Portugal, where ages are concentrated between 45 and 64 years. Conversely, others can be considered comparatively younger, with concentrations in the 25 to 44 age range, such as Angola, Belize, Bolivia, Honduras, Kenya, and Trinidad and Tobago (Table 18).

Table 18: Composition of employed personnel (FTE) by age ranges (in percentages). CIAT member countries. Year 2022

CIAT Countries	Younger than 25	25 to 34	35 to 44	45 to 54	55 to 64	Over 64
Angola	0.8	19.6	51.6	21.3	6.7	0.0
Argentina	1.7	11.1	19.6	34.1	29.9	3.6
Aruba	0.0	7.3	26.0	33.8	32.9	0.0
Barbados	1.6	24.8	31.0	22.9	19.0	0.6
Belize	3.1	40.1	32.2	23.8	0.9	0.0
Bermudas	0.0	7.1	14.3	25.0	42.9	10.7
Bolivia	0.4	33.9	41.2	16.8	6.3	1.3
Brazil	0.0	2.3	21.9	32.5	33.6	9.7
Canada	6.0	24.1	26.6	24.3	16.5	2.5
Chile	0.1	11.9	27.4	36.3	18.6	5.7
Colombia	0.7	18.6	27.4	22.2	26.8	4.2
Costa Rica	0.1	10.4	33.0	24.0	30.4	2.0
Cuba	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Dominican Rep.	4.5	31.3	30.9	20.1	11.3	2.0
Ecuador	0.3	17.3	58.2	21.3	2.8	0.1
El Salvador	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
France	1.3	11.5	21.1	34.2	30.8	1.2
Guatemala	3.8	33.1	33.1	20.7	7.7	1.5
Guyana	16.7	30.2	29.2	16.0	7.5	0.3
Honduras	2.0	48.0	33.3	11.3	5.4	0.1
India	3.4	31.5	23.8	28.1	13.2	0.0
Italy	0.0	2.3	16.9	36.2	41.1	3.5
Jamaica	1.0	24.6	36.2	27.3	10.9	0.0
Kenya	0.8	43.3	34.3	15.2	6.5	0.0
Mexico	2.3	31.1	27.7	25.4	12.0	1.5
Morocco	0.5	25.0	31.4	24.5	18.5	0.1
Netherlands	1.6	17.2	17.7	21.1	38.8	3.6
Nicaragua	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Nigeria	0.2	18.8	43.9	27.0	10.2	0.0
Panama	2.1	18.8	27.6	24.9	23.0	3.6
Paraguay	0.1	20.4	35.5	21.4	19.8	2.7
Peru	0.4	21.7	32.1	21.6	19.8	4.4
Portugal	0.0	0.4	6.0	38.9	46.3	8.4
Spain	0.1	11.8	15.2	23.3	45.6	4.1
Suriname	2.6	18.7	32.6	37.7	8.1	0.3
Trinidad and Tobago	12.9	36.0	33.4	11.3	6.4	0.0
United States	3.3	14.4	23.2	25.0	27.2	7.1
Uruguay	2.7	12.1	27.3	23.9	29.3	4.8

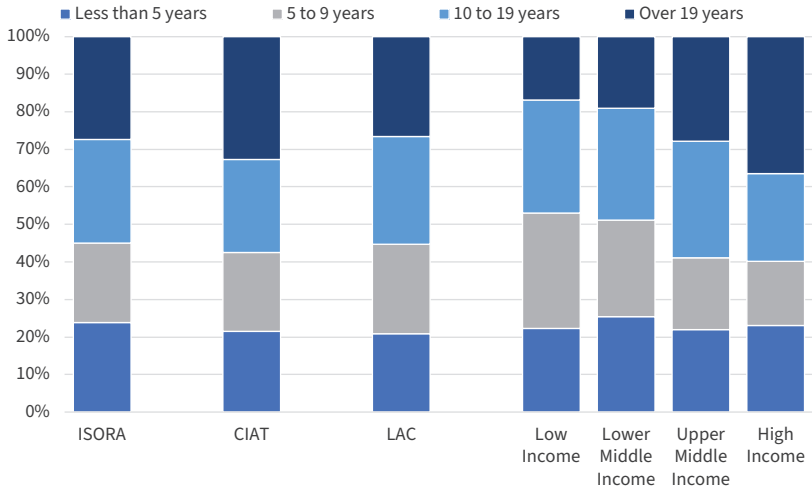
3.5 Staff composition by seniority (years of service)

In terms of tenure within tax administrations, years of service generally increase with the income level of the countries. Using the weights, central values for each intermediate range, and boundary values for the extremes shown in Table 19, the approximate average tenure of employees is 11.3 years in low-income countries, 11.5 in lower-middle-income countries, 12.8 in upper-middle-income countries, and 13.2 in high-income countries. In high-income countries, the percentage of FTE employees with 20 or more years of experience averages 36.5%, compared to just 16.9% in low-income countries (Figure 12). Across ISORA countries, the average tenure is 12.4 years, increasing to 12.9 for CIAT countries and 12.5 for LAC.

Table 19: Composition of personnel employed (FTE) by seniority ranges -years of service- (in percentages). Simple averages for selected groups of countries. Year 2022

Country Groups	Less than 5 years	5 to 9 years	10 to 19 years	Over 19 years
ISORA	**23.9**	**21.1**	**27.6**	**27.5**
CIAT Members	21.6	20.9	24.8	32.7
Latin America and the Caribbean	20.8	23.9	28.7	26.6
Low Income	22.3	30.7	30.1	16.9
Lower Middle Income	25.5	25.6	29.9	19.1
Upper Middle Income	21.9	19.2	31.1	27.8
High Income	23.0	17.1	23.3	36.5

Figure 12: Composition of personnel employed (FTE) by seniority ranges -years of service- (in percentages). Simple averages for selected groups of countries. Year 2022



Among CIAT countries, the segment of employees with more than 19 years of tenure is predominant in Argentina, Aruba, Brazil, Chile, Costa Rica, Spain, France, Italy, and Morocco, among others. In stark contrast, countries such as Bolivia, Canada, Panama, and notably Honduras—where 100% of employees have less than 9 years of tenure due to the recent and complete renewal of its workforce—show significantly lower tenure levels (Table 20).

Table 20: Composition of personnel employed (FTE) by seniority ranks -years of service- (in percentages). CIAT member countries. Year 2022

CIAT Countries	Less than 5 years	5 to 9 years	10 to 19 years	Over 19 years
Angola	19.2	30.3	38.9	11.6
Argentina	12.8	9.4	26.0	51.7
Aruba	9.6	18.3	30.6	41.6
Barbados	14.2	21.9	31.6	32.3
Belize	14.1	34.4	26.9	24.7
Bermudas	39.3	0.0	28.6	32.1
Bolivia	68.4	22.4	6.6	2.7
Brazil	0.8	7.8	31.6	59.9
Canada	47.2	13.6	21.2	18.0
Chile	10.3	22.4	30.4	36.9
Colombia	29.2	15.7	21.3	33.7
Costa Rica	18.5	11.6	29.3	40.6
Cuba	n.a.	n.a.	n.a.	n.a.
Dominican Rep.	41.1	16.3	27.7	14.9
Ecuador	14.1	30.5	42.8	12.5
El Salvador	n.a.	n.a.	n.a.	n.a.
France	17.6	12.2	18.4	51.8
Guatemala	33.9	20.7	22.8	22.7
Guyana	27.9	22.5	33.3	16.3

CIAT Countries	Less than 5 years	5 to 9 years	10 to 19 years	Over 19 years
Honduras	4.9	95.1	0.0	0.0
India	15.8	20.5	24.1	39.6
Italy	5.3	8.3	27.6	58.8
Jamaica	18.1	23.1	29.8	29.0
Kenya	35.8	32.6	21.0	10.5
Mexico	27.1	24.7	24.7	23.5
Morocco	5.5	23.6	30.6	40.2
Netherlands	31.1	11.0	10.1	47.8
Nicaragua	n.a.	n.a.	n.a.	n.a.
Nigeria	29.7	18.7	24.6	27.0
Panama	47.8	25.9	18.1	8.1
Paraguay	7.1	32.7	17.8	42.3
Peru	28.3	21.1	16.4	34.2
Portugal	0.8	0.4	8.6	90.2
Spain	18.0	7.4	16.0	58.6
Suriname	4.1	8.2	36.7	50.9
Trinidad and Tobago	11.3	33.5	32.8	22.4
United States	35.4	10.0	27.1	27.6
Uruguay	10.4	24.7	34.6	30.2

3.6 Staff composition by gender and educational background

The ISORA data also provide information on the gender and academic qualifications of employees (Table 21). Regarding gender, women represent 52.3% of the workforce on average across all ISORA countries, while they hold 40.4% of executive positions. Both averages are higher in CIAT countries and in LAC. In fact, in LAC, women are the majority both in the overall workforce (60.1%) and in executive positions (52.9%).

ISORA results indicate that, overall, the participation of women increases with the income level of countries, both in the total workforce (from 31.5% in low-income countries to 62.7% in high-income countries) and in executive positions (from 20.6% to 48.1%) (Figure 13). However, the largest gap between these two indicators—the difference between overall participation and participation in executive roles—is observed in high-income countries (14.5 percentage points, compared to around 10 points in other income groups).

The current ISORA edition also includes gender-related data for personnel hired during the fiscal year. In 2022, women accounted for 52.5% of new hires across ISORA countries, with higher percentages in CIAT (57%) and LAC (64.5%). By income levels, this share clearly increases with the income level of countries. In fact, in low- and lower-middle-income groups, the hiring of women is a minority, which implies that the gender gap is widening in these contexts.

Table 21: Relative share of female in employed staff (FTE) and proportion of staff with different degrees of educational attainment (bachelor/master) (in percentages). Simple averages for selected groups of countries. Year 2022

Grupos de Países	Percent staff who are female	Percent executives who are female	Percent of staff entering who are female	Percent staff with bachelor's degree	Percent staff with master's degree (or higher)
ISORA	**52.3**	**40.4**	**52.5**	**41.6**	**20.9**
CIAT Members	56.8	46.2	57.0	48.2	15.9
Latin America and the Caribbean	60.1	52.9	64.5	47.0	11.3
Low Income	31.5	20.6	31.1	41.1	22.8
Lower Middle Income	43.1	33.5	41.5	45.7	21.9
Upper Middle Income	54.1	43.4	50.6	45.1	17.0
High Income	62.7	48.1	62.8	36.6	22.6

Figure 13: Relative share of female in employed staff (FTE) and executive staff and entering staff (in percentages). Simple averages for selected groups of countries. Year 2022

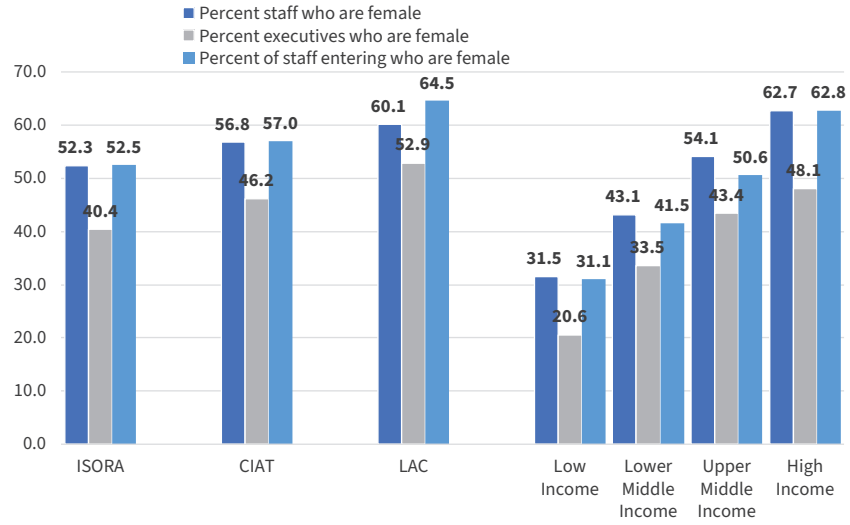
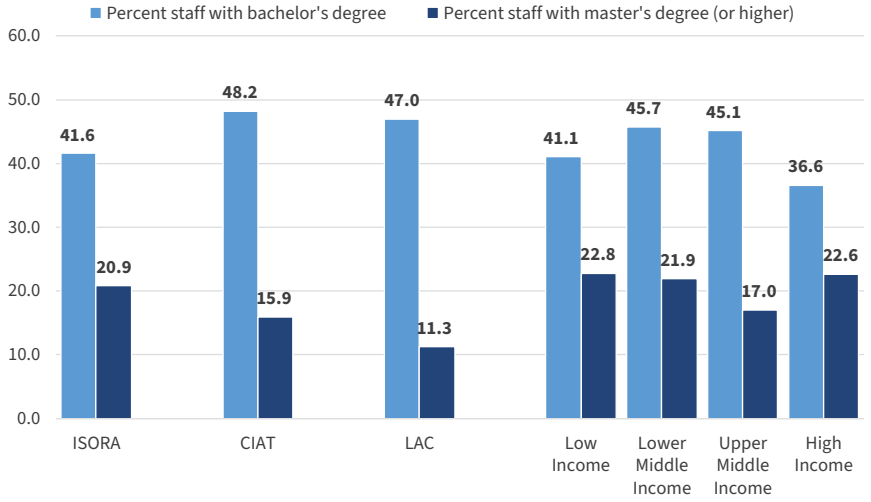


Figure 14: Proportion of staff with different degrees of academic training (bachelor/master) (in percentages). Simple averages for selected groups of countries. Year 2022



Globally, the average proportion of ISORA personnel with a bachelor's degree (or equivalent) is 41.6%, while 20.9% hold a postgraduate degree (master's or equivalent). In CIAT and LAC countries, the percentages are higher for basic university education (48.2% and 47%, respectively) but lower for postgraduate education (15.9% and 11.3%, respectively).

By income levels, there is no clear pattern regarding the proportion of employees with either a bachelor's or postgraduate degree (Figure 14). Notably, the share of employees with a bachelor's degree is lower in the high-income group compared to other income groups.

Among CIAT countries, variability is significant across several indicators. The share of women in the total workforce ranges from 35.5% in India to 89.3% in Bermuda. In executive positions, this share varies between 19% in Brazil and 100% in Belize, while for new hires during the year, it ranges from 12.9% in India to 100% in Bermuda. Regarding academic qualifications, some countries report that more than 30% of their personnel hold a master's degree or equivalent (Ecuador, Italy, Morocco, and Nigeria), while in others, this figure is below 5% (Angola, Belize, Brazil, or Spain). Similarly, there are countries where the proportion of employees with a bachelor's degree exceeds 70%, as observed in Bolivia, Brazil, Kenya, and Mexico (Table 22).

Table 22: Relative participation of female in employed personnel (FTE) and proportion of personnel with different degrees of academic training (in percentages). CIAT member countries. Year 2022

CIAT Countries	Percent staff who are female	Percent executives who are female	Percent of staff entering who are female	Percent staff with bachelor's degree	Percent staff with master's degree (or higher)
Angola	44.6	27.2	n.a.	63.9	3.4
Argentina	45.7	30.6	49.7	54.9	5.0
Aruba	71.7	65.0	72.0	16.9	7.8
Barbados	66.8	63.6	71.4	48.1	20.3
Belize	69.6	100.0	70.7	27.8	3.1
Bermudas	89.3	50.0	100.0	28.6	14.3
Bolivia	59.6	46.5	60.0	72.9	9.6
Brazil	35.5	19.0	54.6	85.5	1.7
Canada	58.6	50.7	56.9	n.a.	n.a.
Chile	52.5	41.9	44.0	69.9	16.1
Colombia	55.2	50.0	47.0	64.3	9.0
Costa Rica	57.8	57.5	n.a.	56.8	25.2
Cuba	n.a.	n.a.	n.a.	n.a.	n.a.
Dominican Rep.	59.4	55.1	56.0	51.2	17.1
Ecuador	60.9	44.0	55.0	59.0	34.0
El Salvador	51.8	46.2	n.a.	n.a.	n.a.
France	57.8	33.2	58.0	n.a.	n.a.
Guatemala	42.5	36.5	42.5	35.5	13.9
Guyana	57.7	65.9	57.5	n.a.	n.a.

CIAT Countries	Percent staff who are female	Percent executives who are female	Percent of staff entering who are female	Percent staff with bachelor's degree	Percent staff with master's degree (or higher)
Honduras	58.3	58.0	58.3	57.2	13.8
India	n.a.	n.a.	12.9	n.a.	n.a.
Italy	49.2	33.3	50.0	4.1	57.5
Jamaica	75.7	40.0	67.0	47.4	12.6
Kenya	46.0	36.9	46.2	75.4	9.8
Mexico	56.4	31.2	53.6	70.2	3.9
Morocco	49.3	26.4	59.0	7.9	62.1
Netherlands	46.0	40.7	54.0	42.9	26.7
Nicaragua	n.a.	n.a.	n.a.	n.a.	n.a.
Nigeria	41.6	25.0	47.9	54.2	45.8
Panama	64.4	71.8	n.a.	41.6	17.9
Paraguay	48.5	36.2	60.0	56.4	9.3
Peru	44.2	40.4	35.0	61.5	13.8
Portugal	60.5	43.0	50.0	49.3	4.9
Spain	53.2	38.0	55.7	61.0	0.6
Suriname	46.5	44.7	70.0	4.8	2.9
Trinidad and Tobago	79.9	80.0	80.0	n.a.	n.a.
United States	64.9	46.2	68.7	24.3	7.9
Uruguay	65.7	43.5	60.0	53.5	7.3

4. Organization and operational performance

The third block of this Overview examines various dimensions of organization and operational functioning. These include strategies for taxpayer segmentation, channels for registration and taxpayer services, mechanisms for filing and processing tax returns, methods for the payment of various taxes, management of tax debts and arrears, and audit practices for tax oversight and control. The main results are presented below.

4.1 Taxpayer segmentation

Given their importance in terms of revenue collection, the most widely used segmentation technique [13] consists of special offices or programs for large taxpayers (LTO)[14]. By the end of 2022, LTOs were present in 79.9% of ISORA countries, 89.5% of CIAT countries, and 82.4% of LAC countries. Additionally, LTOs are comparatively more common in low-income and upper-middle-income countries than in the other two income groups. In terms of revenue, LTOs contribute, on average, more than half of total net revenue collected by tax administrations (55.2%). This share is slightly lower for CIAT countries (50.1%) and higher in LAC (57.5%). Furthermore, the contribution of LTOs decreases with the income level of countries, from 65.9% in low-income countries to 44.3% in high-income countries (Figure 15).

In contrast to their significant role in revenue collection, Large Taxpayer Offices (LTOs) account for a relatively small share of personnel: 7% of the workforce for ISORA countries, 6.4% for CIAT, and 8.9% for LAC, with no clear pattern relative to income levels, though notably lower in high-income countries. The proportion of corporate income tax (CIT) taxpayers managed by LTOs relative to the total active CIT taxpayer base decreases as countries' income levels rise: 11.3% in low-income countries compared to 1.8% in high- income countries. For ISORA as a whole, this proportion is 6.1%, nearly half that (3.3%) for CIAT countries, and similar (6%) in LAC (Table 23).

Meanwhile, schemes for high-net-worth individuals (HNWI) are present in 26.3% of ISORA countries, contributing an average of 5.1% of TNR. In CIAT countries, these figures rise to 44.7% of countries and 7.8% of TNR, while

13 Taxpayer segmentation strategies have been analyzed in previous editions of ISORA (Díaz de Sarralde Miguez, 2018a and b, 2019; Morán and Díaz de Sarralde Miguez, 2021).

14 Countries tend to define large taxpayers based on variables such as annual sales/turnover, annual income, asset value, level of imports and/or exports, amount of taxes paid, and type of economic activity (e.g., financial services or mining sector).

in LAC, they are 26.5% and 6.3%, respectively. It is also noteworthy that the presence of these schemes and their revenue contributions increase with the income level of countries (Table 23).

Figure 15: Existence and contribution to revenue collection of large taxpayer programs (in percentages). Proportion of countries and simple averages for selected groups of countries. Year 2022

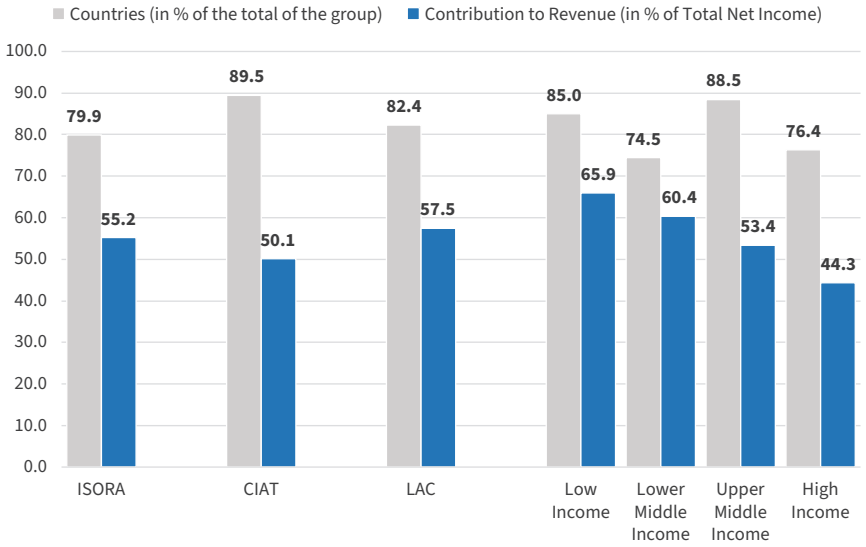


Table 23: Indicators of the main contributor segmentation programs (in percentages). Proportion of countries and simple averages for selected groups of countries. Year 2022

Country Groups	Large Taxpayers Office				High Net Worth Individuals (HNWI)	
	Countries (in %)	Total Net Revenue (in %)	Assigned staff (in %)	CIT Taxpayers (in % of total)	Countries (in %)	Total Net Revenue (in %)
ISORA	**79.9**	**55.2**	**7.0**	**6.1**	**26.3**	**5.1**
CIAT Members	89.5	50.1	6.4	3.3	44.7	7.8
Latin America and the Caribbean	82.4	57.5	8.9	6.0	26.5	6.3
Low Income	85.0	65.9	8.3	11.3	5.0	0.1
Lower Middle Income	74.5	60.4	7.4	5.8	27.7	0.8
Upper Middle Income	88.5	53.4	8.0	6.3	28.8	6.0
High Income	76.4	44.3	4.6	1.8	32.7	8.6

In 2022, LTOs were present in all CIAT countries except for Aruba and Bermuda, and their contribution to revenue was highly significant in several of them, exceeding 70% of TNR in countries such as Costa Rica, Jamaica, Nigeria, and Peru (Table 24). Meanwhile, 17 of the 38 CIAT member countries participating in ISORA had schemes for high-net-worth individuals (HNWI), with relatively significant revenue contributions in countries such as the United States, Spain, and France, among others.

Table 24: Indicators of the main taxpayer segmentation programs (in percentages). CIAT member countries. Year 2022

CIAT Countries	Large Taxpayers Office				High Net Worth Individuals (HNWI)	
	Existing program	Total Net Revenue (in %)	Assigned staff (in %)	CIT Taxpayers (in % of total)	Existing program	Total Net Revenue (in %)
Angola	Yes	50.0	4.1	0.1	No	
Argentina	Yes	50.6	3.1	0.2	No	
Aruba	No				No	
Barbados	Yes	48.0	5.2	1.4	Yes	0.0
Belize	Yes	63.0	7.9	0.6	No	
Bermudas	No				No	
Bolivia	Yes	70.0	13.9	17.7	Yes	1.0
Brazil	Yes	58.0	2.8	0.0	Yes	4.0
Canada	Yes	29.2	2.6	0.6	Yes	n.a.
Chile	Yes	56.6	4.2	0.1	Yes	3.9
Colombia	Yes	65.0	4.5	0.1	Yes	5.8
Costa Rica	Yes	73.0	10.9	0.3	Yes	n.a.
Cuba	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Dominican Rep.	Yes	69.6	4.7	0.2	No	
Ecuador	Yes	50.0	9.1	0.2	Yes	0.6
El Salvador	Yes	60.8	7.3	2.0	No	
France	Yes	48.0	2.6	1.6	Yes	2.0
Guatemala	Yes	32.0	4.5	0.4	No	
Guyana	Yes	36.0	2.5	1.5	No	
Honduras	Yes	61.0	14.4	n.a.	No	
India	Yes	0.2	n.a.	0.6	No	
Italy	Yes	29.0	2.2	0.2	Yes	n.a.
Jamaica	Yes	78.0	7.9	5.7	Yes	n.a.
Kenya	Yes	38.0	6.0	0.2	Yes	0.1
Mexico	Yes	57.0	4.2	0.3	No	
Morocco	Yes	69.0	3.1	n.a.	No	
Netherlands	Yes	66.6	11.7	1.2	Yes	n.a.
Nicaragua	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Nigeria	Yes	85.0	9.8	0.8	No	
Panama	Yes	62.0	0.9	0.2	No	
Paraguay	Yes	60.3	10.7	0.1	No	
Peru	Yes	81.2	11.9	1.0	No	
Portugal	Yes	43.6	2.3	0.5	Yes	n.a.
Spain	Yes	29.2	3.8	0.1	Yes	11.8
Suriname	Yes	29.0	19.2	63.1	Yes	29.0
Trinidad and Tobago	Yes	0.0	3.3	1.1	No	
United States	Yes	9.2	3.2	n.a.	Yes	28.0
Uruguay	Yes	46.1	5.8	0.2	No	

4.2 Taxpayer registration

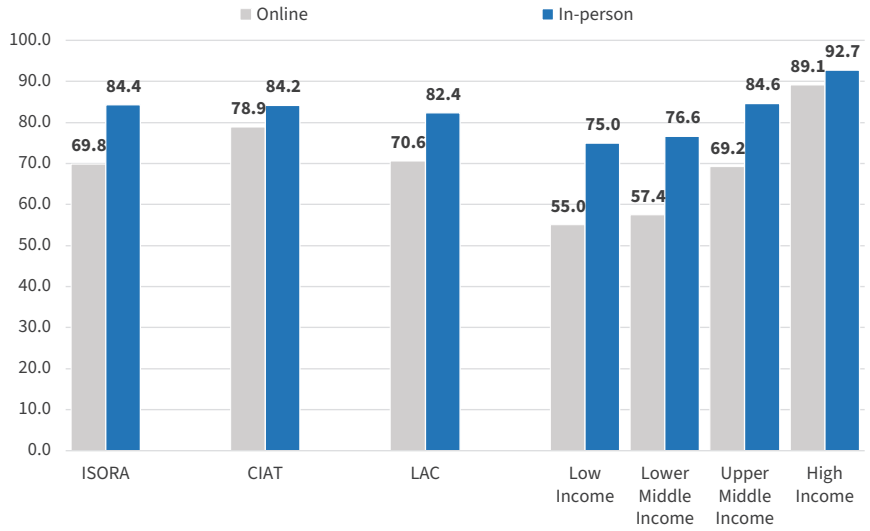
ISORA also provides detailed information on the different registration channels available to taxpayers. In 2022, in-person registration remained the most prevalent, available in 84.4% of the countries participating in the survey (Table 25). However, the availability of digital channels (online or via applications) has grown significantly compared to paper-based registration by postal mail. A total of 69.8% of countries offered digital options, compared to 46.4% that provided paper registration alternatives[15].

CIAT countries exceed the average adoption rate for online registration systems, with 78.9% offering this option, while LAC countries are at a similar level (70.6%). By income levels, significant differences are observed in the adoption of these online technologies, which are present in 89.1% of high-income countries but only in 55% of low-income countries. However, low-income countries have shown a strong increase in adoption compared to the previous ISORA edition. The higher percentages across all registration channels in high- income countries reflect the existing gaps compared to lower-income countries (Figure 16).

Table 25: Availability of alternative channels for taxpayer registration (in percentages). Simple averages for selected groups of countries. Year 2022

Country Groups	Online	Telephone	E-mail	Mail / Post	In-person	Other
ISORA	**69.8**	**33.5**	**50.3**	**46.4**	**84.4**	**34.1**
CIAT Members	78.9	39.5	44.7	26.3	84.2	36.8
Latin America and the Caribbean	70.6	26.5	41.2	26.5	82.4	32.4
Low Income	55.0	25.0	30.0	25.0	75.0	35.0
Lower Middle Income	57.4	27.7	55.3	42.6	76.6	31.9
Upper Middle Income	69.2	25.0	40.4	32.7	84.6	32.7
High Income	89.1	50.9	61.8	67.3	92.7	36.4

Figure 16: Availability of main taxpayer registration channels (online and in-person) (in percentages). Simple averages for selected groups of countries. Year 2022



15 Different registration channels may not be available for all taxes or taxpayer segments.

Among CIAT member countries, in-person registration is available in all cases except for Bolivia, Jamaica, Panama, and Paraguay. Online registration is the next most common channel, available in 30 of the 38 CIAT members participating in the survey, followed by email registration, which is available in 17 countries (Table 26).

Table 26: Availability of alternative channels for taxpayer registration. CIAT member countries. Year 2022

CIAT Countries	Online	Telephone	E-mail	Mail / Post	In-person	Other
Angola	Yes	Yes	Yes	No	Yes	No
Argentina	Yes	Yes	No	No	Yes	No
Aruba	No	No	Yes	Yes	Yes	No
Barbados	Yes	No	No	No	Yes	No
Belize	No	No	Yes	Yes	Yes	No
Bermudas	No	No	Yes	Yes	Yes	No
Bolivia	Yes	No	No	No	No	Yes
Brazil	Yes	No	Yes	No	Yes	No
Canada	Yes	Yes	No	Yes	Yes	Yes
Chile	Yes	No	No	No	Yes	No
Colombia	Yes	No	No	No	Yes	Yes
Costa Rica	Yes	Yes	Yes	No	Yes	Yes
Cuba	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Dominican Rep.	Yes	No	No	No	Yes	No
Ecuador	Yes	No	No	No	Yes	Yes
El Salvador	Yes	Yes	Yes	No	Yes	No
France	Yes	No	Yes	Yes	Yes	No
Guatemala	Yes	No	No	No	Yes	Yes
Guyana	Yes	Yes	Yes	Yes	Yes	Yes
Honduras	No	No	No	No	Yes	No
India	Yes	Yes	Yes	Yes	Yes	No
Italy	Yes	Yes	Yes	No	Yes	Yes
Jamaica	Yes	No	No	No	No	Yes
Kenya	Yes	No	Yes	No	Yes	No
Mexico	Yes	Yes	Yes	Yes	Yes	Yes
Morocco	No	No	Yes	No	Yes	No
Netherlands	Yes	No	No	Yes	Yes	No
Nicaragua	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Nigeria	Yes	Yes	Yes	No	Yes	Yes
Panama	Yes	No	No	No	No	No
Paraguay	Yes	No	No	No	No	Yes
Peru	Yes	Yes	No	No	Yes	No
Portugal	Yes	Yes	Yes	No	Yes	No
Spain	Yes	Yes	No	No	Yes	Yes
Suriname	No	No	No	No	Yes	No
Trinidad and Tobago	Yes	No	No	No	Yes	No
United States	Yes	Yes	No	Yes	Yes	No
Uruguay	Yes	Yes	Yes	No	Yes	Yes

4.3 Contact channels for taxpayer services

In recent years, alongside registration processes, there has been a strong focus on facilitating and improving communication between taxpayers and tax administrations. According to ISORA results, 69.8% of tax administrations monitor incoming contacts to refine existing channels and explore the introduction of more innovative ones. This percentage is even higher among CIAT countries (84.2%) and similar in LAC (70.6%) (Table 27). By income level, such monitoring is more common in high-income (83.6%) and upper-middle-income countries (75%) than in low-income (70%) and lower-middle-income countries (51.1%).

Regarding the availability of different communication channels, digital options (online, email, and digital assistance) have become increasingly common as complements to—or even replacements for—traditional channels such as telephone, in-person, or paper-based communication (postal mail). The COVID-19 pandemic further accelerated this trend.

On average, for countries participating in the ISORA survey, telephone communication accounted for the largest share of incoming contacts (37% of the total), followed by online communication (24.8%), which has already surpassed in-person interactions (18.5%). In contrast, the relative share of digital assistance, email, and postal mail (paper) remains low. In CIAT and LAC countries, the same three main channels dominate, though online communication has already become the leading channel (36% in CIAT and 34.9% in LAC). Clear patterns by income level are only observed for online communications, which increase with income levels (Table 27).

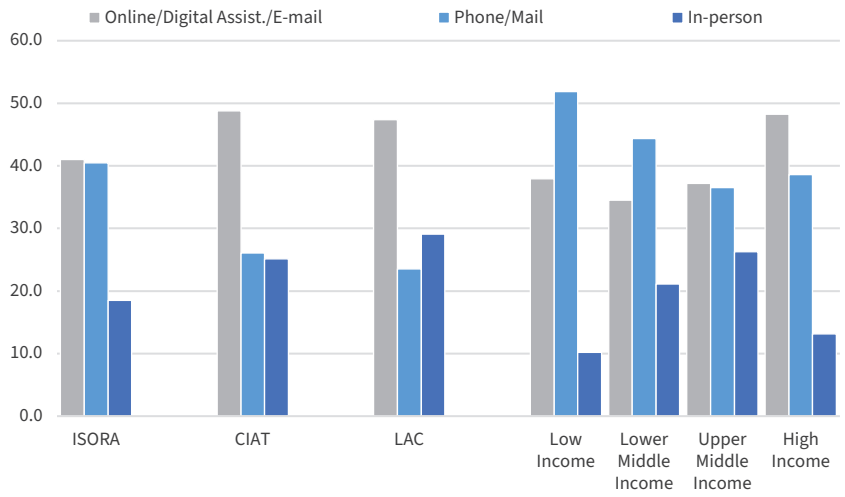
When considering digital channels as a group (online, digital assistance, and email)—which are more innovative and efficient in terms of resource requirements—they have already surpassed the "telephone/paper" category as the primary means of taxpayer communication in

ISORA countries. This trend is even more pronounced in CIAT and LAC countries (Figure 17).

Table 27: Use of different contact channels for taxpayer services (in percentages). Proportion of countries and simple averages for selected groups of countries. Year2022

Country Groups	TA monitors incoming contacts (in %)	Online	Digital assistance	Telephone	E-mail	Mail / post	In-person
ISORA	**69.8**	**24.8**	**6.4**	**37.0**	**9.8**	**3.5**	**18.5**
CIAT Members	84.2	36.0	5.4	24.4	7.4	1.6	25.1
Latin America and the Caribbean	70.6	34.9	6.0	22.5	6.5	1.1	29.1
Low Income	70.0	8.5	9.1	51.9	20.3	0.0	10.2
Lower Middle Income	51.1	13.8	8.5	36.8	12.2	7.5	21.1
Upper Middle Income	75.0	23.9	4.7	34.0	8.5	2.5	26.3
High Income	83.6	34.0	6.5	35.7	7.7	3.0	13.1

Figure 17: Use of different contact channels for taxpayer services (in percentages). Proportion of countries and simple averages for selected groups of countries. Year 2022



Among CIAT member countries, monitoring incoming contacts by service is a widely adopted practice, implemented in 32 of the 38 countries participating in ISORA (Table 28). Regarding the most commonly used communication channels, there is considerable variation. Notably, some countries demonstrate a strong orientation toward digital online communication, such as Barbados, Brazil, Canada, Ecuador, the United States, Spain, Peru, and the Dominican Republic. In contrast, others still rely predominantly on in-person communication, such as Bolivia, Jamaica, and Kenya).

Table 28: Use of different contact channels for taxpayer services (in percentages). CIAT member countries. Year2022

CIAT Countries	TA monitors incoming contacts	Online	Digital assistance	Telephone	E-mail	Mail / post	In-person
Angola	Yes	0.0	1.6	79.8	18.6	0.0	0.0
Argentina	Yes	50.1	0.2	10.5	11.4	0.0	27.8
Aruba	No	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Barbados	Yes	100.0	0.0	0.0	0.0	0.0	0.0
Belize	No	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Bermudas	No	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Bolivia	Yes	0.0	6.7	25.0	0.3	0.0	68.1
Brazil	Yes	98.9	0.1	0.0	0.3	0.0	0.7
Canada	Yes	73.9	0.8	22.8	0.0	2.6	0.0
Chile	Yes	50.3	2.3	35.0	0.0	0.0	12.4
Colombia	Yes	4.3	24.1	40.9	0.0	0.7	30.0
Costa Rica	Yes	17.8	18.8	28.2	8.6	9.0	17.7
Cuba	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Dominican Rep.	Yes	98.1	0.0	0.8	0.0	0.2	0.8
Ecuador	Yes	97.3	0.0	0.6	0.0	0.0	2.2
El Salvador	Yes	0.0	18.7	27.7	5.9	0.0	47.7
France	Yes	4.4	4.0	35.5	42.2	0.0	13.9
Guatemala	Yes	0.0	17.6	64.0	18.4	0.0	0.0
Guyana	No	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.

CIAT Countries	TA monitors incoming contacts	Online	Digital assistance	Telephone	E-mail	Mail / post	In-person
Honduras	Yes	2.5	5.5	9.2	0.9	0.0	81.9
India	Yes	8.5	0.0	72.5	18.6	0.4	0.0
Italy	Yes	43.9	1.1	18.8	11.2	0.0	25.0
Jamaica	Yes	0.8	0.0	4.6	0.6	0.0	94.0
Kenya	Yes	0.0	4.8	13.9	12.8	0.0	68.4
Mexico	Yes	0.0	11.2	9.5	0.0	0.0	79.3
Morocco	Yes	0.0	13.3	49.3	37.4	0.0	0.0
Netherlands	Yes	0.0	0.0	62.6	0.0	37.2	0.2
Nicaragua	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Nigeria	Yes	0.0	0.0	20.1	5.6	0.0	74.3
Panama	Yes	21.7	21.9	18.5	4.3	0.0	33.7
Paraguay	Yes	0.0	0.0	29.6	18.3	0.0	52.1
Peru	Yes	84.4	2.6	7.4	0.0	0.0	5.7
Portugal	Yes	28.3	7.3	23.4	0.0	0.0	41.1
Spain	Yes	96.8	0.3	1.7	0.0	0.0	1.1
Suriname	Yes	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Trinidad and Tobago	Yes	49.4	0.0	38.1	12.5	0.0	0.0
United States	Yes	94.1	0.7	4.1	0.0	1.0	0.1
Uruguay	Yes	91.6	2.9	3.1	1.6	0.0	0.8

4.4 Filing of tax returns

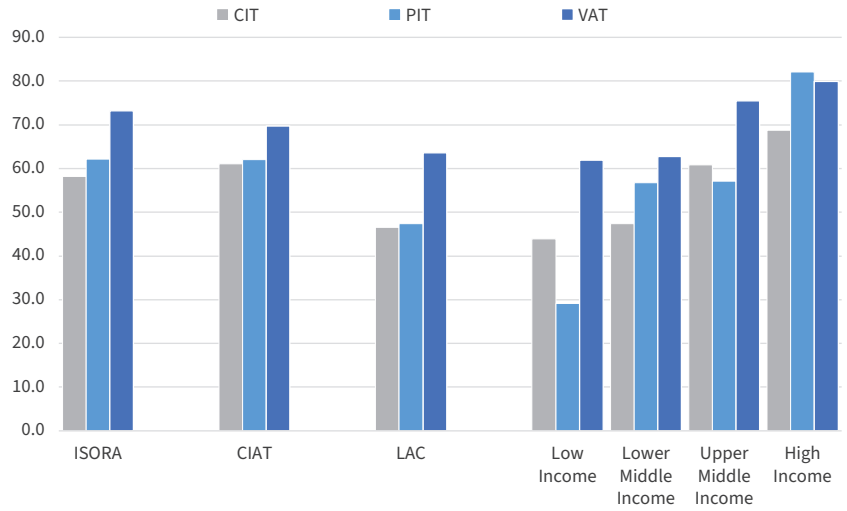
Regarding tax return filing procedures, ISORA provides information on timely filing compliance and returns submitted through electronic channels (Table 29). It is important to note that in many countries, electronic filing is legally mandatory (for all or certain taxpayers), a practice that is far more common in high-income countries and most CIAT member countries (Díaz de Sarralde Míguez, 2019).

Across ISORA countries, the percentages of timely filing—defined as filing within the legally[16] stipulated deadlines—are 58.2% for corporate income tax (CIT), 62.2% for personal income tax (PIT), and 73% for VAT. In CIAT countries, these figures are slightly higher: 61% for CIT, 62% for PIT, and 69.8% for VAT. However, the averages for LAC countries are notably lower than the global averages. By income level, a clear positive correlation is observed between income levels and timely filing compliance across all three tax types (CIT, PIT, and VAT) (Figure 18).

Table 29: Indicators of (on-time/electronic) filing of tax returns (in percentages). Simple averages for selected groups of countries. Year 2022

Country Groups	On-time filling rate			Electronic filling rate		
	CIT	PIT	VAT	CIT	PIT	VAT
ISORA	**58.2**	**62.2**	**73.2**	**73.6**	**70.1**	**78.5**
CIAT Members	61.0	62.0	69.8	86.6	87.0	90.3
Latin America and the Caribbean	46.6	47.4	63.6	63.6	66.7	68.8
Low Income	43.9	29.1	61.9	55.1	48.0	47.3
Lower Middle Income	47.4	56.8	62.7	67.7	61.3	0.7
Upper Middle Income	60.9	57.1	75.5	73.6	74.2	75.5
High Income	68.8	82.1	80.0	84.0	80.9	91.0

Figure 18: Proportion of on-time filed tax returns (in percentages). Simple averages for selected groups of countries. Year 2022

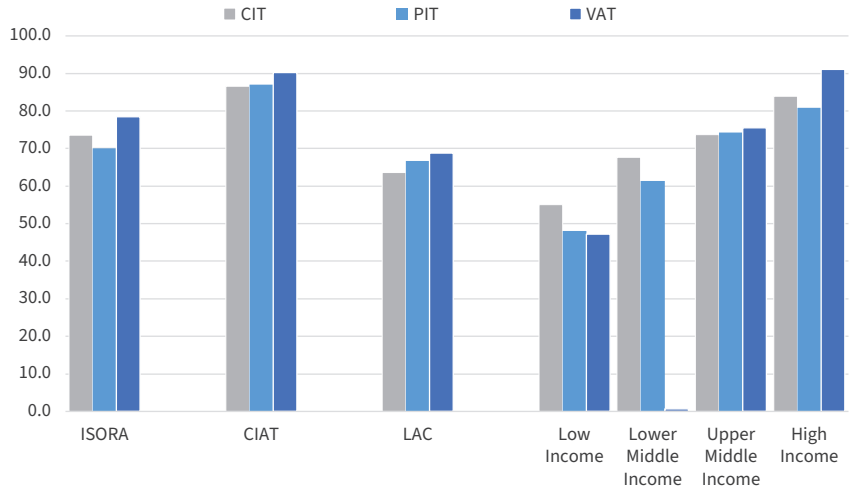


16 To measure the proportion of timely filings, "expected tax returns" are defined as the estimated number of returns that the tax administration anticipates receiving from registered taxpayers who are legally required to file in a given fiscal year.

For tax returns submitted through electronic channels—across various possible[17] modalities— the global ISORA averages are 73.6% for corporate income tax (CIT), 70.1% for personal income tax (PIT), and 78.5% for VAT (Figure 19). These percentages are significantly higher in CIAT countries, reaching 86.6% for CIT, 87% for PIT, and 90.3% for VAT, whereas they are lower for LAC countries. Once again, the differences by income level are striking. In low- income countries, electronic filing accounts for 55.1% of CIT, 48% of PIT, and 47.3% of VAT returns, compared to 84% (CIT), 80.9% (PIT), and 91% (VAT) in high-income countries. However, it is worth noting that since the previous ISORA edition, low-income countries have made significant progress in adopting electronic filing.

At the individual level, CIAT member countries show significant variation in timely filing percentages across the three main taxes (Table 30). Some countries report figures exceeding 90% for certain taxes, such as Canada for PIT, El Salvador for CIT and PIT, Spain for PIT, and Portugal for all three taxes. On the other hand, the implementation of electronic filing in CIAT countries is very high; in many cases, it reaches 100%, including countries like Argentina, Barbados, Brazil, Costa Rica, Ecuador, and Uruguay, among others.

Figure 19: Proportion of tax returns filed through electronic channels (in percentages). Simple averages for selected groups of countries. Year 2022



17 In contrast to paper-based returns (e.g., those completed at a tax office, sent via postal mail, scanned, or emailed), electronic returns can take the following forms: i) Fully pre-filled by the tax administration, presumed accepted unless otherwise modified, ii) Fully pre-filled, requiring explicit confirmation by the taxpayer, iii) Partially pre-filled with income and/or expense information, or iv) Not pre-filled at all.

Table 30: Tax return filing indicators (on-time/electronic) (in percentages). CIAT member countries. Year 2022

CIAT Countries	On-time filling rate			Electronic filling rate		
	CIT	PIT	VAT	CIT	PIT	VAT
Angola	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Argentina	31.2	41.4	78.5	100.0	100.0	100.0
Aruba	34.7	58.8	n.a.	0.0	0.0	n.a.
Barbados	46.7	28.0	39.6	100.0	100.0	100.0
Belize	66.3	63.6	77.6	6.6	15.3	9.5
Bermudas	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Bolivia	84.4	90.0	95.3	100.0	100.0	n.a.
Brazil	n.a.	n.a.	n.a.	100.0	100.0	100.0
Canada	84.5	90.5	55.2	93.6	91.0	95.4
Chile	73.6	n.a.	82.6	99.9	99.8	100.0
Colombia	66.7	88.1	n.a.	100.0	93.2	100.0
Costa Rica	33.5	51.8	55.1	100.0	100.0	100.0
Cuba	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Dominican Rep.	71.5	65.1	47.1	99.0	95.4	99.9
Ecuador	64.0	45.4	69.8	100.0	100.0	100.0
El Salvador	94.8	96.0	66.8	100.0	100.0	100.0
France	78.9	99.1	89.9	95.7	86.1	n.a.
Guatemala	77.9	5.5	66.4	100.0	100.0	100.0
Guyana	20.4	22.6	31.3	5.6	6.8	26.5

CIAT Countries	On-time filling rate			Electronic filling rate		
	CIT	PIT	VAT	CIT	PIT	VAT
Honduras	77.5	57.0	67.7	91.6	91.5	96.0
India	n.a.	n.a.	65.3	n.a.	n.a.	100.0
Italy	n.a.	n.a.	n.a.	100.0	100.0	100.0
Jamaica	64.3	65.6	77.4	100.0	100.0	100.0
Kenya	35.4	28.0	96.1	100.0	100.0	100.0
Mexico	43.2	34.5	n.a.	100.0	100.0	n.a.
Morocco	n.a.	n.a.	n.a.	99.9	99.6	100.0
Netherlands	80.8	94.4	91.4	100.0	98.7	100.0
Nicaragua	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Nigeria	90.2	59.8	81.9	100.0	100.0	100.0
Panama	62.4	77.4	33.2	100.0	100.0	100.0
Paraguay	40.1	65.1	53.9	0.0	0.0	0.0
Peru	90.8	76.6	90.6	100.0	100.0	100.0
Portugal	97.6	96.6	96.2	100.0	100.0	100.0
Spain	n.a.	99.1	n.a.	100.0	100.0	100.0
Suriname	25.9	20.8	n.a.	100.0	100.0	n.a.
Trinidad and Tobago	9.2	9.4	55.1	99.1	100.0	100.0
United States	n.a.	96.7	n.a.	67.2	93.8	n.a.
Uruguay	62.9	71.8	79.8	100.0	100.0	100.0

4.5 Effective payment of taxes

Regarding tax payments, ISORA includes data on timely payments—compliance with tax obligations within the required time and manner—and the use of digital tools to facilitate such payments. On average across ISORA countries, timely payments reach 79.3% for corporate income tax (CIT), 68.5% for personal income tax (PIT), and 81% for VAT. For CIAT countries, the averages are very similar for CIT, lower for PIT, and higher for VAT: 80.9% (CIT), 64.7% (PIT), and 85.1% (VAT). In LAC countries, the average is comparable for VAT (81.9%) but significantly lower for CIT (72.1%) and PIT (51.7%) (Table 31). By income level, no clear pattern emerges, although low-income countries report notably lower figures for PIT and VAT compared to other groups.

Regarding the adoption of digital tools to facilitate tax payments, the proportion of payments made through electronic channels in ISORA countries averages 71.7% of the total number of payments and 75.5% of the total revenue collected. These figures consolidate the increase observed in the previous ISORA[18] edition. CIAT member countries show strong adoption of digital channels, with 72.5% of the number of payments and 82.6% of the revenue collected through these methods, further solidifying the notable growth observed in the previous survey (Figure 21). In contrast, the LAC region reports significantly lower averages (48.2% for the number of payments and 56.3% for the revenue collected). By income level, while there remains a clear gap between low-income countries and others, the trend toward closing this gap, already observed in the previous ISORA edition, continues.

Another interesting ISORA indicator is the use of withholding mechanisms for personal income tax (PIT), which provides advantages in terms of administrative costs and reducing opportunities for tax evasion (Table 31). For ISORA countries, the average proportion of PIT collected through withholding is 75.1%, marking a significant increase compared to the previous edition. This proportion is even higher for CIAT countries (77.9%) and slightly lower for LAC countries (70.6%), though LAC has shown substantial growth compared to the prior edition. A notable lag is observed in low-income countries, where the proportion is 60.2%, compared to approximately 75%-77% in other income groups. However, this gap is also narrowing over time.

Table 31: Indicators of actual tax payments (in percentages). Simple averages for selected groups of countries. Year 2022

Country Groups	On-time payment rate (in %)			Electronic payment (in %)		Estimated percentage of PIT withheld
	CIT	PIT	VAT	Amount	Value	
ISORA	**79.3**	**68.5**	**81.0**	**71.7**	**75.5**	**75.1**
CIAT Members	80.9	64.7	85.1	72.5	82.6	77.9
Latin America and the Caribbean	72.1	51.7	81.9	48.2	56.3	70.6
Low Income	79.4	51.9	65.7	50.2	72.3	60.2
Lower Middle Income	74.7	70.4	72.7	80.2	77.8	77.3
Upper Middle Income	79.1	63.4	85.9	69.8	74.5	74.9
High Income	82.2	77.1	85.0	75.1	77.9	77.1

Figure 20: Share of tax payments made on time or within expected time periods (in percentages). Simple averages for selected groups of countries. Year 2022

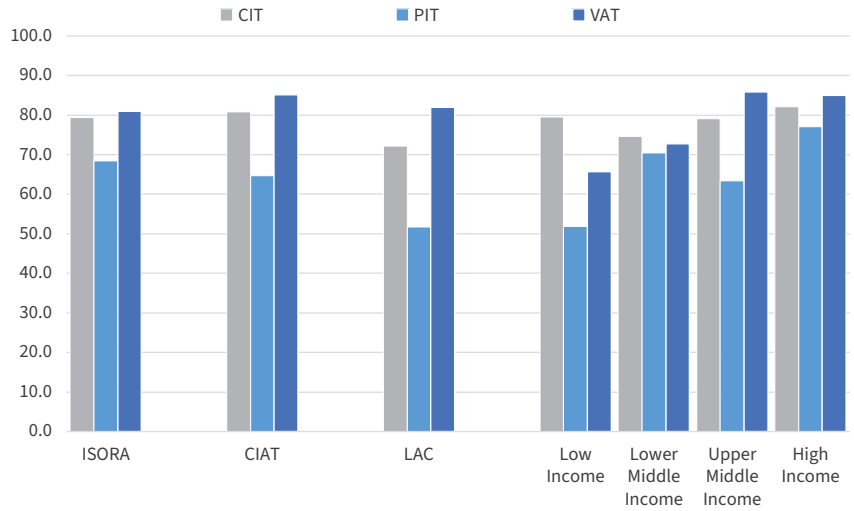
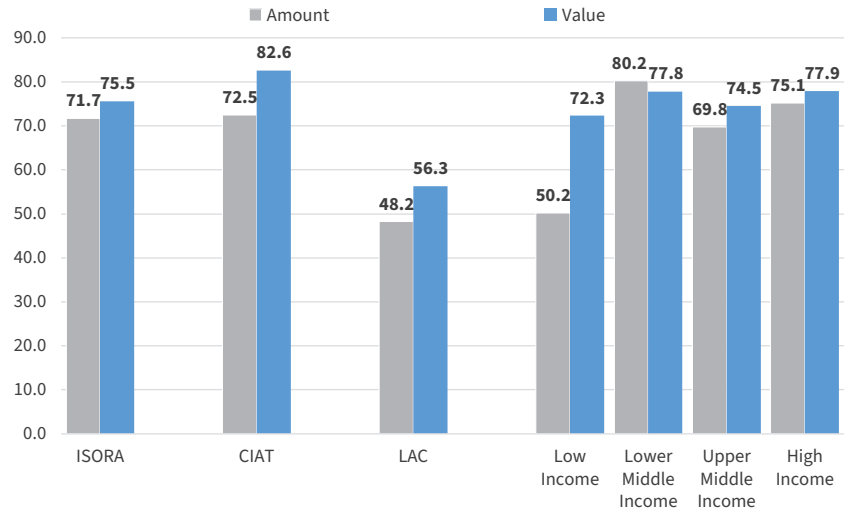


Figure 21: Share of tax payments (amount/value) made through electronic means (in percentages). Simple averages for selected groups of countries. Year 2022



For CIAT countries, the percentage of timely tax payments varies significantly, with many cases reporting figures around or exceeding 90% for all three taxes. These include Spain, El Salvador, Guatemala, Honduras, Kenya, and the Netherlands. Regarding payments made through electronic channels, some countries exhibit very high levels of adoption, such as Argentina, Brazil, Canada, Chile, Costa Rica, El Salvador, Spain, Guatemala, India, and Kenya. As for the percentage of personal income tax (PIT) collected through withholding, despite the diversity of situations, withholding is highly generalized in some CIAT countries, including Argentina, Aruba, Barbados, Brazil, Kenya, Morocco, Nigeria, the Dominican Republic, and Uruguay (Table 32).).

18 Electronic payment channels may not be available for all taxes or taxpayer segments.

Table 32: Indicators of effective tax payment (in percentages). CIAT member countries. Year 2022

CIAT Countries	On-time payment rate (in %)			Electronic payment (in %)		Estimated percentage of PIT withheld
	CIT	PIT	VAT	Amount	Value	
Angola	n.a.	n.a.	n.a.	73.0	n.a.	60.0
Argentina	85.8	49.6	79.5	82.9	98.7	87.8
Aruba	n.a.	n.a.	n.a.	64.0	89.0	89.0
Barbados	100.0	76.9	91.2	44.2	62.2	93.0
Belize	80.0	13.8	79.0	23.0	23.0	n.a.
Bermudas	n.a.	n.a.	n.a.	68.2	99.3	n.a.
Bolivia	73.9	12.1	66.1	n.a.	n.a.	n.a.
Brazil	79.4	70.3	71.4	84.0	93.0	90.5
Canada	83.4	92.6	n.a.	90.3	92.0	n.a.
Chile	n.a.	n.a.	n.a.	99.4	97.2	84.9
Colombia	n.a.	n.a.	n.a.	73.0	56.0	81.0
Costa Rica	25.7	47.8	60.8	99.0	99.0	88.0
Cuba	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Dominican Rep.	88.1	42.8	97.8	80.0	87.4	93.7
Ecuador	88.0	67.5	77.8	58.9	96.5	85.3
El Salvador	100.0	89.5	98.1	100.0	100.0	88.3
France	n.a.	89.5	100.0	n.a.	99.7	78.1
Guatemala	98.3	100.0	100.0	100.0	100.0	96.8
Guyana	n.a.	n.a.	n.a.	4.0	15.0	n.a.

CIAT Countries	On-time payment rate (in %)			Electronic payment (in %)		Estimated percentage of PIT withheld
	CIT	PIT	VAT	Amount	Value	
Honduras	88.6	84.7	97.1	68.6	52.9	91.7
India	n.a.	n.a.	n.a.	100.0	100.0	51.0
Italy	n.a.	n.a.	n.a.	74.1	97.4	83.0
Jamaica	90.0	62.9	97.9	21.0	76.0	100.0
Kenya	80.7	100.0	94.2	100.0	100.0	100.0
Mexico	94.0	80.9	n.a.	50.0	98.0	44.6
Morocco	n.a.	n.a.	n.a.	85.0	91.0	79.0
Netherlands	97.3	95.0	98.0	100.0	100.0	98.2
Nicaragua	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Nigeria	95.1	98.9	95.1	100.0	100.0	100.0
Panama	58.7	46.0	80.3	50.0	52.6	n.a.
Paraguay	n.a.	n.a.	n.a.	99.9	94.2	0.7
Peru	90.5	41.5	77.8	65.6	84.4	89.7
Portugal	67.1	77.8	91.0	97.0	98.0	81.8
Spain	95.8	97.4	96.0	100.0	100.0	81.5
Suriname	18.3	7.6	n.a.	100.0	100.0	n.a.
Trinidad and Tobago	n.a.	7.8	38.3	2.9	17.6	n.a.
United States	n.a.	n.a.	n.a.	n.a.	n.a.	50.3
Uruguay	n.a.	n.a.	n.a.	34.1	55.0	90.5

4.6 Tax debts and arrears

ISORA also collects information on the management and regularization of tax debts and arrears[19]. Three key indicators stand out: the magnitude of tax debts or arrears, the "recoverable"[20] percentage, and the variation in tax debt between 2021 and 2022 (Table 33). First, the ISORA averages for the level of tax debts and arrears (as a percentage of revenue) differ among the three taxes considered, being highest for corporate income tax (CIT) at 35.5% of CIT revenue, compared to 26.8% for personal income tax (PIT) and 25.1% for VAT. In CIAT and LAC countries, these values are higher across all three taxes, as well as for total net revenue (TNR). By income groups, the only clear pattern is that CIT debt decreases sharply as the income level of the country increases. Similarly, PIT debt is notably lower in high- income countries (Figure 23).

Secondly, the proportion of "recoverable" tax debt averages around 60% for ISORA countries, with slightly lower percentages for CIAT and LAC countries. No clear pattern is observed by income level. Finally, for ISORA countries as a whole, outstanding tax debt decreased by 3.2% in 2022 compared to 2021, continuing the trend observed in the previous edition, likely reflecting the circumstances of the COVID-19 crisis. This decline was even greater for CIAT countries (-5.2%) and LAC countries (-4.1%). By income level, as in the previous edition, tax debt increased in low-income countries, while it decreased in all other groups (Figure 22).

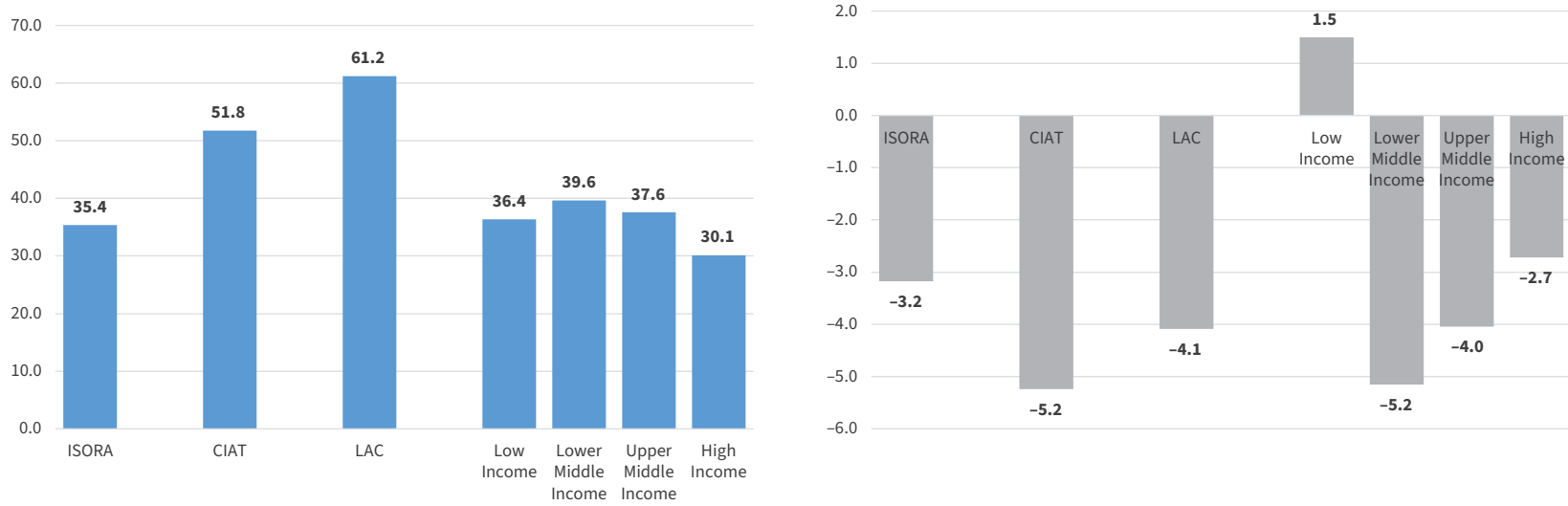
Table 33: Tax arrears (as percentages of TNR by item), collectable debt (as percentages of total), and change in debt-to-TNR ratio 2021/2020 (as percentages). Simple averages for selected groups of countries. Year 2022

Country Groups	Arrears in relation to collection (in %)				Collectable TNR Arrears (in % of total)	Change in TNR Arrears 2022/2021 (in %)
	CIT	PIT	VAT	Total (TNR)		
ISORA	**35.5**	**26.8**	**25.1**	**35.4**	**59.7**	**-3.2**
CIAT Members	56.0	33.6	36.6	51.8	56.8	-5.2
Latin America and the Caribbean	63.6	46.5	41.1	61.2	58.9	-4.1
Low Income	72.4	35.9	15.3	36.4	54.7	1.5
Lower Middle Income	47.0	37.5	31.3	39.6	65.4	-5.2
Upper Middle Income	40.3	29.0	26.8	37.6	58.5	-4.0
High Income	21.5	18.1	21.8	30.1	57.5	-2.7

19 According to the criteria defined in ISORA, this includes the total amount of tax debt (including interest and penalties) and debt from other revenues collected by the tax administration that remain unpaid after the due date. The total should also include amounts of tax debt under dispute, subject to payment agreements, or with extended payment deadlines.

20 According to ISORA's methodological criteria, uncollectible arrears may include: a) Amounts formally contested by the taxpayer, for which collection actions are suspended until the dispute is resolved, b) Amounts that are legally unrecoverable (e.g., due to taxpayer bankruptcy), and c) Arrears deemed irrecoverable (e.g., when the debtor has no funds or other assets).

Figure 22: Tax arrears (left panel, as percentages of TNR) and annual change in debt- to-TNR ratio (left panel, as percentages). Simple averages for selected groups of countries. Year 2022



It is important to note, however, that these figures should be interpreted cautiously due to the relatively low response rate for this section of the survey and the differing methods of recording and valuing tax debt across countries, which sometimes make comparisons difficult.

4.7 Tax audits

Regardless of the number of audits[21] conducted by each tax administration—which depends on various tax oversight and control strategies as well as available human and financial resources—two

21 Defined as an examination of the taxpayer's financial records and operations to verify the amounts reported in the returns. Audit types vary in nature, scope and intensity. They include comprehensive audits (of multiple taxes or multiple tax years), targeted audits, inspections of books and records, examination of VAT refund claims, and in-depth investigations for suspected tax fraud.

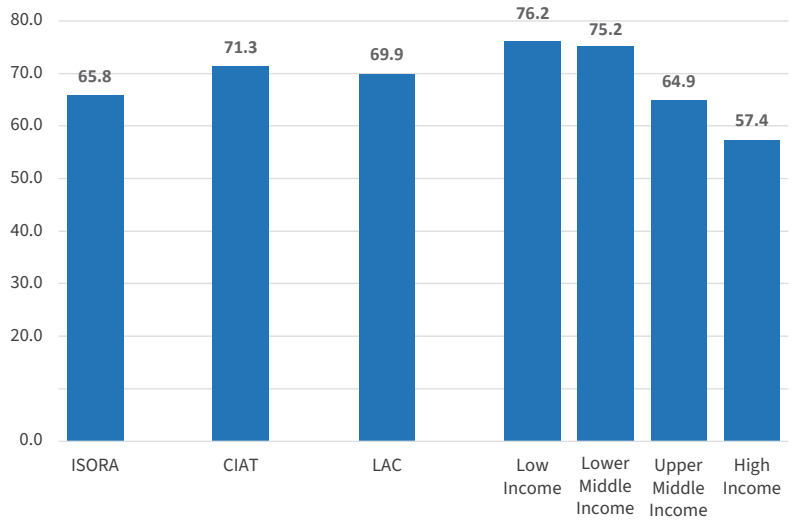
performance indicators are particularly useful: audit effectiveness and revenue yield. Regarding effectiveness, measured as the proportion of audits resulting in a tax adjustment, the ISORA average is 65.8%, compared to 71.3% in CIAT countries and 69.9% in LAC. By income level, a negative relationship is observed, with audits being more effective in low-income countries (76.2%) than in high-income countries (57.4%). This difference may be linked, among other factors, to higher levels of noncompliance and income underreporting in the former (Table 34).

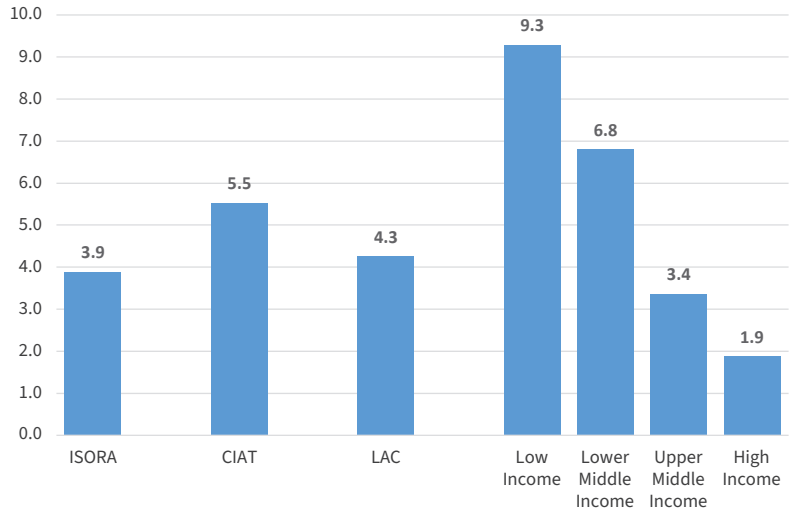
Regarding audit yield—measured as additional revenue as a percentage of total revenue—the ISORA averages are 8.3% for corporate income tax (CIT), 1.9% for personal income tax (PIT), and 3.4% for VAT, with an overall yield of 3.9% of TNR. In CIAT countries, audit yields are higher across all categories, while in LAC, the same applies except for CIT (Figure 23). By income levels, additional revenue generated through audits generally decreases as countries' income levels increase.

Table 34: Effectiveness and collection performance of audits (in percentages). Simple averages for selected groups of countries. Year 2022

Country Groups	Audit Hit rate (in %)	Audit performance (as % of collection)			
		CIT	PIT	VAT	Total (TNR)
ISORA	**65.8**	**8.3**	**1.9**	**3.4**	**3.9**
CIAT Members	71.3	11.4	2.2	5.1	5.5
Latin America and the Caribbean	69.9	6.1	2.5	3.9	4.3
Low Income	76.2	25.9	7.9	8.8	9.3
Lower Middle Income	75.2	14.2	1.2	5.7	6.8
Upper Middle Income	64.9	7.9	2.5	2.8	3.4
High Income	57.4	4.1	1.1	2.3	1.9

Figure 23: Audit effectiveness (left panel, in percentages of total) and audit collection performance (right panel, in percentages of collection). Simple averages for selected groups of countries. Year 2022





For CIAT countries, several exhibit high percentages of audit effectiveness, achieving positive results in terms of additional revenue generated (Table 35). However, it is important to emphasize that these data should be interpreted cautiously when making comparisons, given the differing methods of recording and valuing the specific outcomes of audits across tax administrations.

Table 35: Effectiveness and collection performance of audits (in percentages). CIAT member countries. Year 2022

CIAT Countries	Audit Hit rate (in %)	Audit performance (as % of collection)			
		CIT	PIT	VAT	Total (TNR)
Angola	n.a.	n.a.	n.a.	n.a.	n.a.
Argentina	79.0	1.1	1.1	0.5	0.6
Aruba	83.3	1.7	0.5	n.a.	0.3
Barbados	28.1	2.7	1.9	0.3	1.1
Belize	69.6	0.6	0.0	1.2	0.8
Bermudas	85.7	n.a.	n.a.	n.a.	0.0
Bolivia	88.4	n.a.	n.a.	n.a.	n.a.
Brazil	97.8	12.1	1.6	13.1	6.5
Canada	59.0	6.7	1.2	5.0	2.6
Chile	32.1	8.2	0.6	0.7	3.7
Colombia	55.7	4.3	3.4	0.2	2.0
Costa Rica	76.2	n.a.	n.a.	n.a.	2.1
Cuba	n.a.	n.a.	n.a.	n.a.	n.a.
Dominican Rep.	48.2	n.a.	n.a.	n.a.	n.a.
Ecuador	95.2	13.8	4.8	0.4	3.5
El Salvador	11.2	2.7	20.4	0.9	2.3
France	n.a.	5.5	1.8	2.5	2.8
Guatemala	25.6	1.0	2.4	0.2	0.5
Guyana	100.0	0.0	0.0	0.0	0.0

CIAT Countries	Audit Hit rate (in %)	Audit performance (as % of collection)			
		CIT	PIT	VAT	Total (TNR)
Honduras	100.0	7.7	2.0	44.7	55.3
India	48.7	91.6	6.3	n.a.	27.8
Italy	91.2	20.2	2.5	9.7	5.9
Jamaica	99.4	3.6	1.4	0.6	0.9
Kenya	72.0	56.1	0.6	22.9	19.4
Mexico	87.9	18.3	0.2	0.9	4.9
Morocco	99.5	5.2	0.4	1.2	2.2
Netherlands	24.4	6.6	1.3	1.2	1.4
Nicaragua	n.a.	n.a.	n.a.	n.a.	n.a.
Nigeria	98.8	5.9	0.3	6.0	5.9
Panama	n.a.	n.a.	n.a.	n.a.	2.7
Paraguay	95.7	n.a.	n.a.	n.a.	1.2
Peru	80.8	12.0	3.6	3.9	5.3
Portugal	49.5	8.1	0.2	2.2	2.0
Spain	n.a.	n.a.	n.a.	n.a.	6.6
Suriname	100.0	n.a.	n.a.	n.a.	n.a.
Trinidad and Tobago	n.a.	6.9	0.4	4.1	4.5
United States	n.a.	3.2	0.5	n.a.	0.7
Uruguay	57.2	1.9	0.0	0.6	0.9

5. Digital transformation and technological innovation

The need to accelerate the digital transformation of tax administrations, to more efficiently utilize available resources, has become increasingly evident in recent years. In addition to the digital tools already mentioned, this section provides information on the adoption of innovative technological solutions aimed at improving tax administration comprehensively.

5.1 Advanced techniques and strategies to improve compliance

Firstly, in recent years, progress has been made in developing pre-filled tax return systems, where tax administrations use third-party information—such as data from employers and financial institutions[22]. —to pre-populate returns. According to the ISORA survey, 44.1% of participants reported implementing these procedures for at least one major tax type (CIT/PIT/VAT), with an even higher percentage among CIAT countries (55.3%). The use of pre-filled returns exhibits a clear upward trend with the income level of countries (Figure 24).

Secondly, electronic invoicing, one of the most significant innovations in combating tax fraud, is implemented in 38% of ISORA countries. Its adoption is higher among CIAT countries (57.9%) and in LAC (44,1%)[23]. Unlike most technological innovations in tax administration, high-income countries do not lead in the implementation of electronic invoicing, with only 25.5% having adopted it. Instead, it is more widespread in middle-income countries, with adoption rates of 44.7% in lower-middle-income countries and 48.1% in upper-middle- income countries.

Another technique aimed at improving voluntary compliance is requiring taxpayers who sell goods and services to register their transactions through certified electronic fiscal devices or cash registers. This practice is implemented in 41.9% of ISORA countries, 34.2% of CIAT countries, and 26.5% of LAC countries. The adoption rates are relatively similar across different country groups by income level (Table 36).

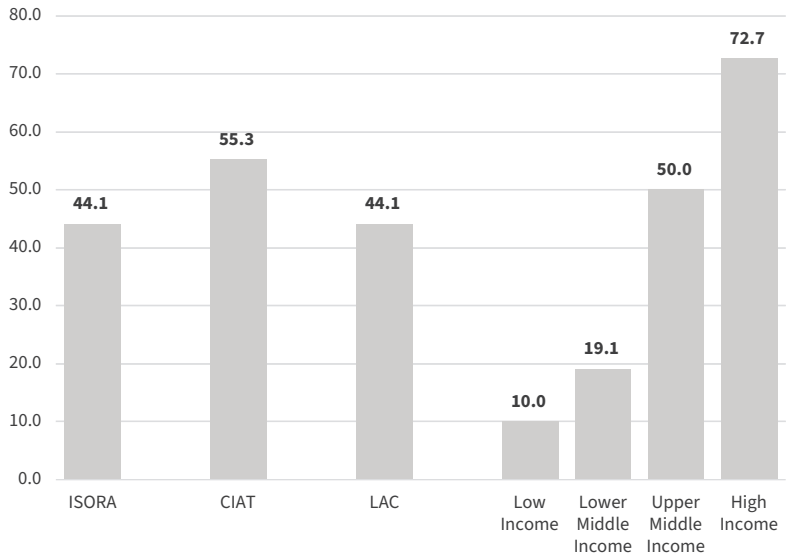
In addition to technology applied to tax control, several countries use cooperative compliance mechanisms with specific taxpayer segments[24]. The most widespread mechanisms, both among ISORA countries and within CIAT and LAC regions, are those targeting large taxpayers (55.9%, 65.8%, and 52.9% of cases, respectively). These mechanisms have continued to expand, consolidating the growth observed in the previous ISORA edition. Cooperative compliance mechanisms are also implemented for “other taxpayers” (in 37.4% of ISORA countries, 47.4% of CIAT countries,

22 Regarding pre-filled declarations, the CIAT-GIZ (2019) working paper on the subject can be consulted.

23 Further details can be found in the CIAT-IDB (2018) book on electronic invoicing.

24 Cooperative compliance mechanisms are characterized by requiring taxpayers to demonstrate: a) Good governance in handling tax matters, and b) A willingness to operate openly and transparently, with full disclosure of their tax risks as they arise. In return, the tax administration commits to providing enhanced services to the taxpayer, including: a) Dedicated points of contact, b) Faster resolution of technical and administrative issues, c) Assignment of a lower risk rating for audit purposes, and d) Reduced penalties.

Figure 24: Proportion of countries using pre-filled tax returns (left panel) and requiring mandatory e-invoicing for some or all of their taxpayers (right panel) (in percentages). Simple averages for selected groups of countries. Year 2022



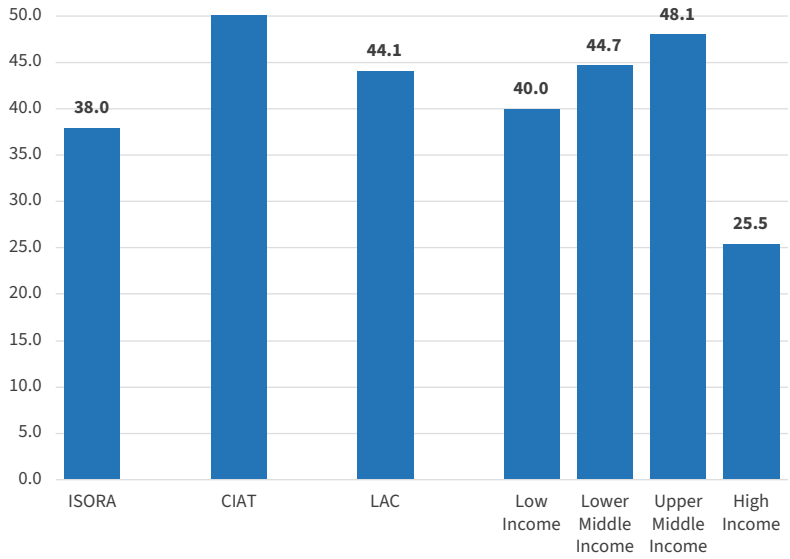


Table 36: Strategies implemented to improve tax compliance (as a percentage of total countries in each group). Simple averages for selected groups of countries. Year 2022

Country Groups	TA pre-fills tax returns or assessments	Mandatory use of electronic invoices (partial or total)	Mandatory use of electronic fiscal devices (partial or total)	Cooperative compliance approach		
				Large Taxpayers	HNWI Taxpayers	Other Taxpayers
ISORA	**44.1**	**38.0**	**41.9**	**55.9**	**19.6**	**37.4**
CIAT Members	55.3	57.9	34.2	65.8	28.9	47.4
Latin America and the Caribbean	44.1	44.1	26.5	52.9	17.6	26.5
Low Income	10.0	40.0	40.0	45.0	15.0	50.0
Lower Middle Income	19.1	44.7	38.3	51.1	29.8	53.2
Upper Middle Income	50.0	48.1	46.2	65.4	19.2	26.9
High Income	72.7	25.5	43.6	58.2	14.5	32.7

and 26.5% of LAC countries) and, more recently, in a more limited scope, for high-net-worth individuals (HNWI) (19.6% globally, 28.9% for CIAT, and 17.6% for LAC). Relatively, the number of jurisdictions with these programs is higher in middle-income countries than at the income extremes.

Most CIAT member countries have already adopted some or all of these techniques, confirming a trend that has been observed in previous editions of this Overview (Table 37).

Table 37: Strategies implemented to improve tax compliance. CIAT member countries. Year 2022

CIAT Countries	TA pre-fills tax returns or assessments	Mandatory use of electronic invoices (partial or total)	Mandatory use of electronic fiscal devices (partial or total)	Cooperative compliance approach		
				Large Taxpayers	HNWI Taxpayers	Other Taxpayers
Angola	No	Yes	Yes	Yes	No	Yes
Argentina	Yes	Yes	Yes	Yes	Yes	Yes
Aruba	No	No	No	No	No	No
Barbados	Yes	No	No	No	No	No
Belize	No	No	No	Yes	No	No
Bermudas	n.a.	No	No	No	No	No
Bolivia	No	Yes	No	No	No	No
Brazil	Yes	Yes	No	Yes	No	No
Canada	Yes	No	No	No	No	No
Chile	Yes	Yes	Yes	Yes	Yes	Yes
Colombia	Yes	Yes	Yes	Yes	No	Yes
Costa Rica	No	Yes	No	No	Yes	No
Cuba	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Dominican Rep.	Yes	No	No	Yes	Yes	Yes
Ecuador	Yes	Yes	Yes	Yes	No	Yes
El Salvador	Yes	Yes	No	Yes	Yes	No
France	Yes	Yes	No	No	No	No
Guatemala	No	No	No	Yes	No	Yes
Guyana	No	No	No	No	No	No
Honduras	No	Yes	No	Yes	Yes	Yes
India	Yes	Yes	Yes	Yes	No	No
Italy	Yes	No	No	Yes	Yes	Yes
Jamaica	No	Yes	Yes	Yes	Yes	Yes
Kenya	Yes	Yes	No	Yes	No	No
Mexico	Yes	No	Yes	Yes	Yes	Yes
Morocco	No	No	No	Yes	No	Yes
Netherlands	Yes	Yes	Yes	Yes	No	Yes
Nicaragua	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Nigeria	No	Yes	Yes	Yes	No	Yes
Panama	Yes	Yes	Yes	No	No	No
Paraguay	No	Yes	No	Yes	No	No
Peru	Yes	Yes	No	No	No	No
Portugal	Yes	Yes	No	Yes	Yes	Yes
Spain	Yes	Yes	Yes	Yes	No	No
Suriname	Yes	No	No	Yes	No	No
Trinidad and Tobago	No	No	No	Yes	Yes	Yes
United States	No	No	No	Yes	No	Yes
Uruguay	Yes	Yes	Yes	No	No	Yes

5.2 Innovative technologies and tools for tax management

Innovations in data processing and statistical information, along with other ICT solutions, offer significant opportunities to strengthen tax administration. For analysis purposes, four innovative technological solutions have been considered (Table 38)[25]. The most widely implemented is data science and analytical tools, which are either deployed or in progress in 65.4% of ISORA countries, 84.2% of CIAT members, and 70.6% of LAC countries. Their adoption increases with the income level of countries, reaching 90.9% in high-income countries. Next in importance is cloud computing"[26], with adoption rates of 43% in ISORA, 57.9% in CIAT, and 44.1% in LAC. Its diffusion also correlates with income levels, ranging from 15% in low-income countries to 63.6% in high-income countries. "Artificial"[27] intelligence (including machine learning) is the third most common, being deployed or nearing deployment in 36.9% of ISORA countries, 50% of CIAT members, and 23.5% of LAC countries. Adoption rates range from 5% in low-income countries to 69.1% in high-income countries. Finally, distributed ledger technology or blockchain[28] has the lowest implementation levels, present in only 10.1% of ISORA countries, 13.2% of CIAT members, and 11.8% of LAC countries. Its adoption is significantly higher in upper-middle-income countries than in other groups (Figure 25).

25 Note: three possibilities have been considered: "In Use" means that the technology in question is implemented and in use at the time of answering the survey; "Implemen." means that it is in the implementation phase for future use; and "NO" means that it is not in use and has not begun to be implemented.

26 Cloud computing is a service model that offers customers flexible, on-demand access to a spectrum of computing resources. Customers access such resources (e.g., software applications, storage capacity, networking and computing power) online.

27 The ability of machines and systems to acquire and apply knowledge, including performing a wide variety of cognitive tasks, e.g., sensing, linguistic processing, pattern recognition, learning and decision making, and prediction.

28 Distributed Logging Technology (DLT) allows transactions to be stored and updated on many computers at the same time. The combination of encryption and DLT ensures that a block, once added to the chain, cannot be altered and enables application authentication and secure transactions for a variety of assets.

Table 38: Innovative technological solutions (I). Proportion of countries using or in the implementation phase (in percentages). Year 2022

Country Groups	Artificial intelligence	Cloud computing	Data science/ Analytics tools	Distributed ledger technology/ Blockchain
ISORA	**36.9**	**43.0**	**65.4**	**10.1**
CIAT Members	50.0	57.9	84.2	13.2
Latin America and the Caribbean	23.5	44.1	70.6	11.8
Low Income	5.0	15.0	30.0	5.0
Lower Middle Income	14.9	34.0	48.9	6.4
Upper Middle Income	38.5	42.3	67.3	17.3
High Income	69.1	63.6	90.9	7.3

Figure 25: Innovative technological solutions (I). Proportion of countries using or in the implementation phase (in percentages). Year 2022

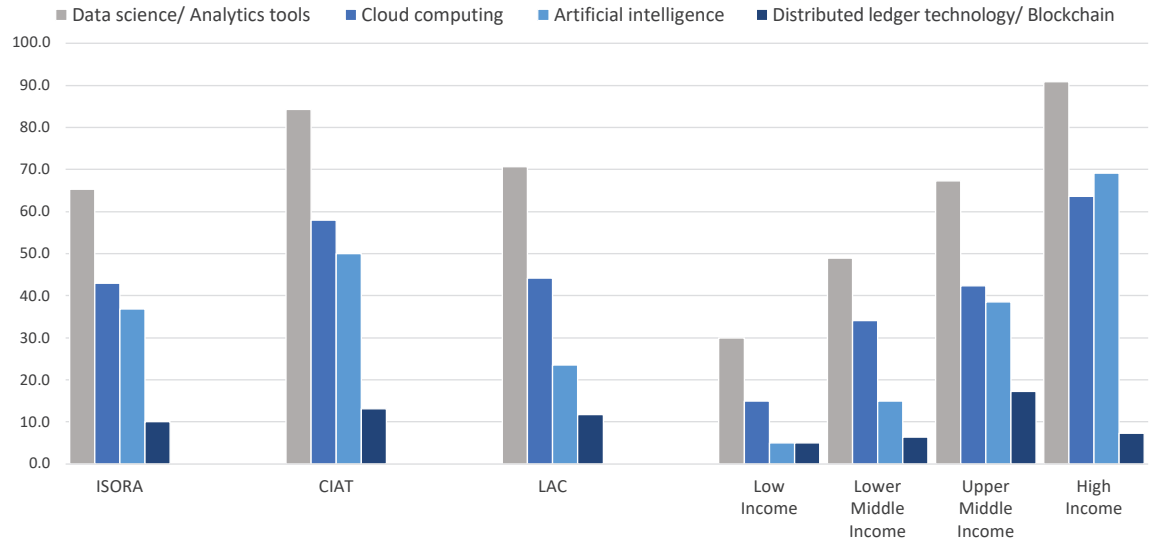


Table 39 summarizes the status of each of these innovative technologies across the 38 CIAT member countries participating in ISORA.

Table 39: Innovative technological solutions (I). Particular status. CIAT countries. Year 2022

CIAT Countries	Artificial intelligence	Cloud computing	Data science/ Analytics tools	Distributed ledger technology/ Blockchain
Angola	No	No	No	No
Argentina	In use	In use	In use	In use
Aruba	No	No	In use	No
Barbados	No	In use	In use	No
Belize	No	No	In use	No
Bermudas	No	Implemen.	Implemen.	No
Bolivia	No	No	Implemen.	No
Brazil	In use	Implemen.	In use	In use
Canada	In use	In use	In use	No
Chile	Implemen.	In use	In use	No
Colombia	In use	In use	In use	No
Costa Rica	No	In use	In use	No
Cuba	n.d.	n.d.	n.d.	n.d.
Dominican Rep.	No	In use	In use	No
Ecuador	Implemen.	Implemen.	In use	No
El Salvador	No	Implemen.	In use	No
France	In use	In use	In use	No
Guatemala	No	In use	In use	Implemen.
Guyana	No	No	No	No

CIAT Countries	Artificial intelligence	Cloud computing	Data science/ Analytics tools	Distributed ledger technology/ Blockchain
Honduras	No	In use	In use	No
India	Implemen.	In use	In use	No
Italy	In use	In use	In use	No
Jamaica	No	No	In use	No
Kenya	Implemen.	In use	In use	In use
Mexico	In use	In use	In use	No
Morocco	In use	No	In use	No
Netherlands	In use	No	In use	No
Nicaragua	n.d.	n.d.	n.d.	n.d.
Nigeria	Implemen.	In use	In use	No
Panama	No	No	Implemen.	No
Paraguay	No	No	In use	No
Peru	In use	In use	In use	In use
Portugal	Implemen.	No	In use	No
Spain	In use	No	In use	No
Suriname	No	No	No	No
Trinidad and Tobago	In use	In use	No	No
United States	In use	In use	In use	No
Uruguay	No	No	In use	No

Note: "In Use" means that the technology in question is implemented and in use at the time of answering the survey; "Implem." means that the technology is in the implementation phase for future use; "NO" refers to situations in which the technology analyzed is not in use, including cases where implementation has not yet begun.

Continuing with a second set of five innovative technological solutions, Application Programming Interfaces (APIs)[29]", stand out for their importance and widespread adoption. APIs enable secure digital interaction between revenue systems and external applications, such as banks, accounting software providers, and other government agencies. They can be used to exchange information, validate activities, and facilitate operations. APIs are available (in use or in the implementation phase) in 73.2% of ISORA countries, continuing the upward trend observed in previous editions. This percentage is even higher among CIAT countries (84.2%) and slightly lower in LAC (67.6%). No clear pattern emerges by income level, with the lowest levels found in middle-income countries. Digital identification technologies (such as biometrics and voice recognition) have also achieved acceptable diffusion, implemented in 33.5% of ISORA countries. Adoption rates are higher in CIAT countries (44.7%) and LAC (38.2%). By income level, adoption is relatively similar across most groups, except for low- income countries, where it is significantly lower (Table 40).

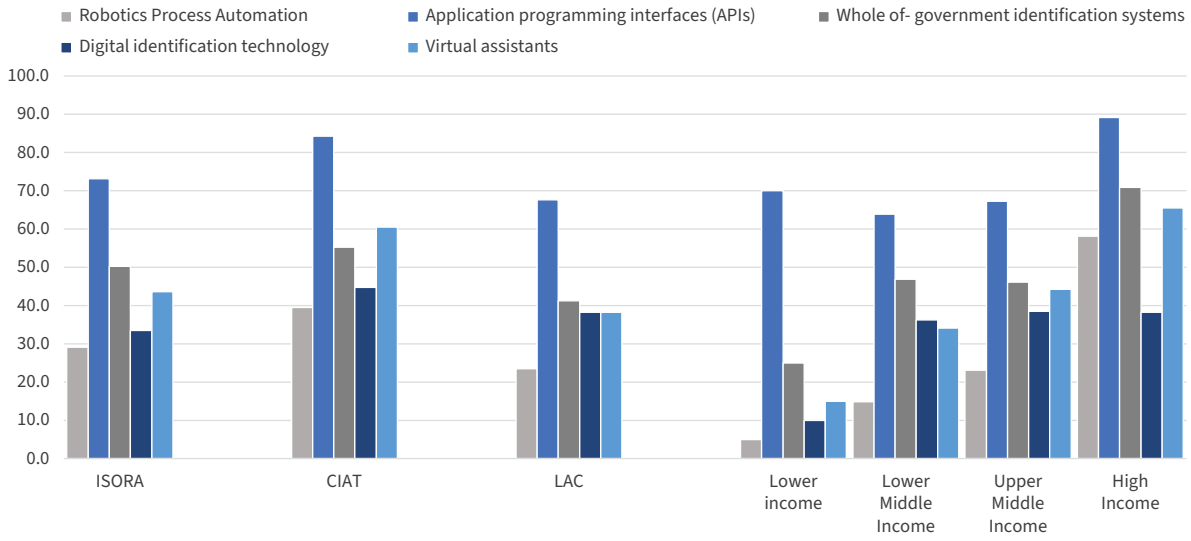
The set of innovative technologies explored in ISORA is completed with three additional elements of significant potential (Figure 26).

Table 40: Innovative technological solutions (II). Proportion of countries using or in the implementation phase (in percentages) 2022

CIAT Countries	Robotics Process Automation	Application programming interfaces (APIs)	Whole-of-government identification systems	Digital identification technology	Virtual assistants
ISORA	**29.1**	**73.2**	**50.3**	**33.5**	**43.6**
CIAT Members	39.5	84.2	55.3	44.7	60.5
Latin America and the Caribbean	23.5	67.6	41.2	38.2	38.2
Low Income	5.0	70.0	25.0	10.0	15.0
Lower Middle Income	14.9	63.8	46.8	36.2	34.0
Upper Middle Income	23.1	67.3	46.2	38.5	44.2
High Income	58.2	89.1	70.9	38.2	65.5

29 An API is a set of software functions and procedures that allow applications to access the features and/or data of another software solution. Applications can send requests to this interface and receive responses. A significant advantage of this, compared to traditional software interfaces, is that it can safeguard the complexity and sensitive information within the software solution, as communication with other applications occurs exclusively through the API.

Figure 26: Innovative technological solutions (II). Proportion of countries using or in the implementation phase (in percentages). Year 2022



"Virtual assistants"[30], are already in use or in the implementation phase in 43.6% of ISORA countries, 60.5% of CIAT members, and 38.2% of LAC countries. Government identification systems, which enable the integration of information across various public agencies and institutions, are present in 50.3% of ISORA countries, 55.3% of CIAT countries, and 41.2% of LAC countries "Robotic process automation (RPA)"[31] is less widespread than the previous tools, being implemented in 29.1% of ISORA countries, 39.5% of CIAT members, and 23.5% of LAC countries, although it is rapidly expanding. Overall, the adoption of these innovative technologies increases with the income level of countries.

The analysis by CIAT member country shows the great diversity of cases in terms of the five innovative instruments mentioned above (Table 41).

30 Software packages that simulate human interactions by answering questions or requests that would otherwise be handled by humans. They are sometimes called chatbots because they can be used to answer online chats. Virtual assistants can use a preset set of questions and answers and can also be equipped with machine learning capabilities.

31 A software 'robot' learns a set of operations and then performs them as if it were a human interacting with computers. This is often used to automate repetitive tasks that would otherwise have to be performed by tax administration staff, for example, copying information from one system to another.

Table 41: Innovative technological solutions (II). Particular status. CIAT countries. Year 2022

CIAT Countries	Robotics Process Automation	Application programming interfaces (APIs)	Whole-of-government identification systems	Digital identification technology	Virtual assistants
Angola	No	In use	In use	In use	In use
Argentina	No	In use	In use	In use	No
Aruba	In use	In use	No	No	No
Barbados	No	In use	No	No	No
Belize	No	In use	No	No	No
Bermudas	No	No	No	No	No
Bolivia	No	In use	No	In use	Implemen.
Brazil	In use	In use	In use	In use	In use
Canada	In use	In use	No	No	In use
Chile	In use	In use	In use	No	In use
Colombia	Implemen.	In use	Implemen.	Implemen.	In use
Costa Rica	No	In use	In use	No	In use
Cuba	n.a.	n.a.	n.a.	n.a.	n.a.
Dominican Rep.	No	In use	In use	In use	Implemen.
Ecuador	Implemen.	In use	In use	No	No
El Salvador	No	In use	No	No	In use
France	In use	In use	In use	No	In use
Guatemala	No	In use	No	In use	In use
Guyana	No	Implemen.	No	No	Implemen.

CIAT Countries	Robotics Process Automation	Application programming interfaces (APIs)	Whole-of-government identification systems	Digital identification technology	Virtual assistants
Honduras	No	In use	Implemen.	In use	No
India	In use	In use	No	No	In use
Italy	No	In use	In use	No	In use
Jamaica	No	No	In use	No	No
Kenya	No	In use	In use	In use	In use
Mexico	In use	In use	No	In use	In use
Morocco	In use	In use	No	Implemen.	In use
Netherlands	In use	In use	In use	In use	No
Nicaragua	n.a.	n.a.	n.a.	n.a.	n.a.
Nigeria	No	In use	Implemen.	Implemen.	In use
Panama	No	In use	Implemen.	Implemen.	Implemen.
Paraguay	No	No	No	Implemen.	No
Peru	In use	Implemen.	Implemen.	In use	In use
Portugal	No	In use	In use	No	In use
Spain	In use	In use	In use	No	In use
Suriname	No	No	No	No	No
Trinidad and Tobago	No	In use	In use	No	No
United States	In use	In use	No	No	No
Uruguay	In use	In use	In use	In use	In use

Note: "In Use" means that the technology in question is implemented and in use at the time of answering the survey; "Implem." means that the technology is in the implementation phase for future use; "NO" refers to situations in which the technology analyzed is not in use, including cases where implementation has not yet begun; "In Use" refers to situations in which the technology in question is not in use, including cases where implementation has not yet begun.

6. Final comments

Throughout this Overview, the main findings of the 2023 ISORA survey have been examined, organizing the information collected on tax administrations into four key areas: 1) Administered instruments, revenue, and budgets; 2) Available human resources; 3) Organization and operational functioning (taxpayer segmentation and registration, taxpayer services, return filing and payment of obligations, debt enforcement, and audit and tax control activities); and 4) Innovative techniques and information and communication technologies (ICT) applied to tax administration and the improvement of tax compliance.

As demonstrated throughout the preceding sections, while there is significant variability across virtually all areas—both between and within country groups—it is possible to identify some stylized facts and corroborate trends observed in previous editions of this Overview. The Income Tax and VAT are the most widely managed taxes by tax administrations and, consequently, have the greatest weight in revenue collection, although their importance varies between countries based on income levels. The cost of revenue collection decreases significantly as income levels rise, while the opposite is true for the number of taxpayers per tax administration employee. Additionally, the distribution of tax administration personnel by function shows notable differences depending on the income level of the countries.

Moreover, the digital transformation continues to gain momentum through innovative technological solutions aimed at improving the quality of taxpayer services, managing large volumes of information, facilitating and ensuring tax compliance, and ultimately achieving more efficient revenue collection. Additionally, it appears that the gap in digital transformation by income level is narrowing. Regarding the gender gap, women now constitute most of the workforce in tax administrations globally across all ISORA countries, although they remain underrepresented in executive positions. Furthermore, the gender gap is more pronounced in lower-income countries.

Finally, regarding CIAT member countries, although they generally have budgets below the ISORA average, their cost of revenue collection is lower, and the number of taxpayers per employee is higher. Their workforce has notable characteristics, such as a higher participation of women compared to the ISORA average, both in the overall workforce and in executive positions, and a strong educational profile, with half of the staff holding a university degree. Additionally, the presence of special offices or programs for large taxpayers and high-net- worth individuals is more common in CIAT countries than in the ISORA average. A similar trend is observed in digital transformation, which is progressing more rapidly among CIAT countries than in ISORA countries overall.

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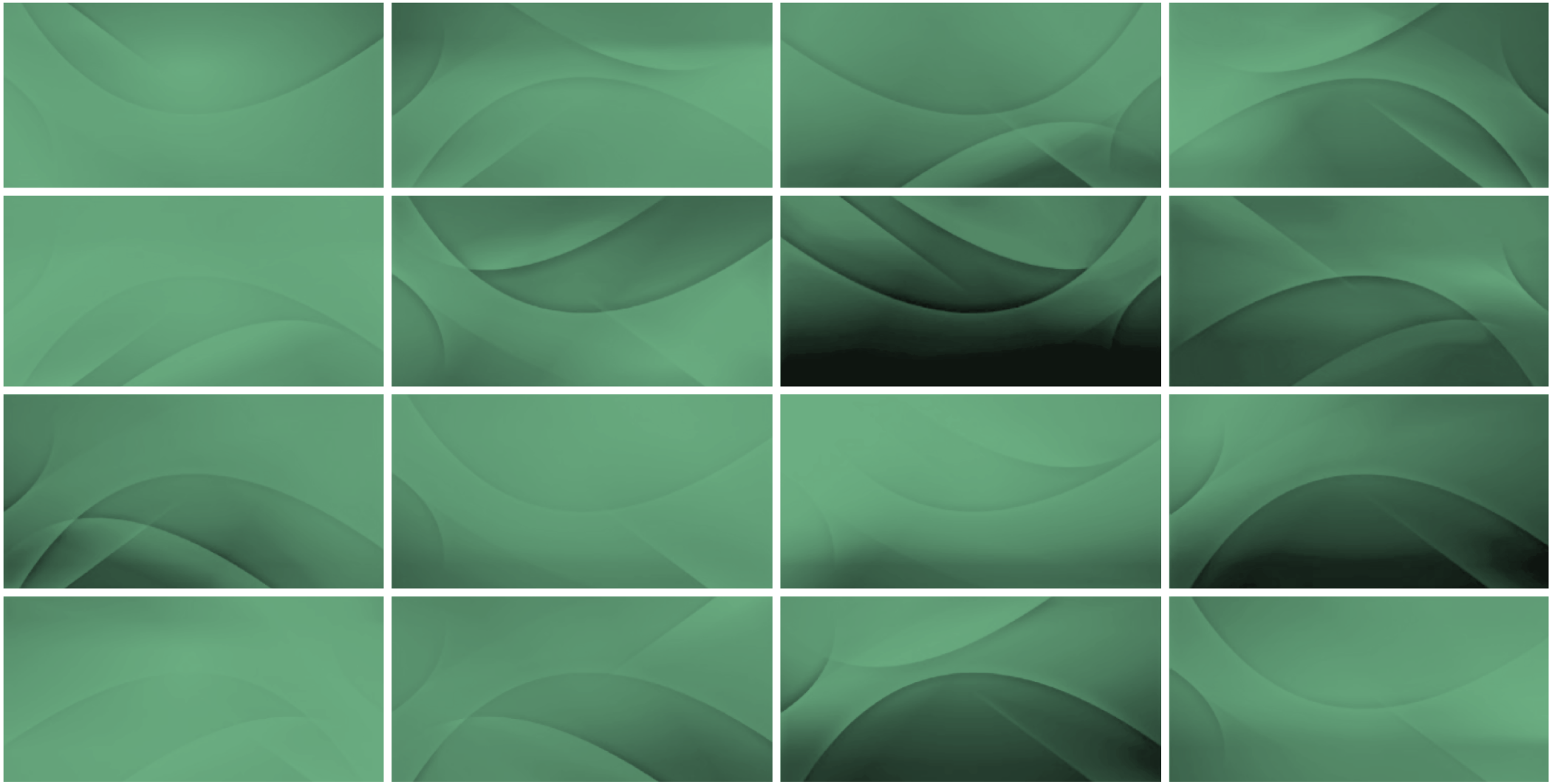

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