



# **Environmental and climate audits on the rise**

– 10th INTOSAI WGEA survey  
on environmental auditing



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**The International Organisation of Supreme Audit Institutions (INTOSAI)** operates as an umbrella organisation for the external public sector audit community. **The INTOSAI Working Group on Environmental Auditing (WGEA)** is the largest working group of INTOSAI, with 80 member SAs.

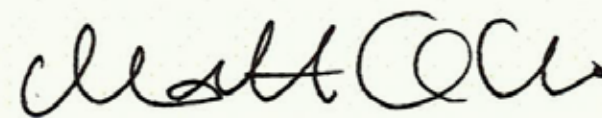
Our key goals are to increase the expertise in environmental auditing globally and to enhance environmental governance with high-quality contribution and visibility. We develop audit methodology, provide guidance and training, and manage a platform for exchange of information among peers. Moreover, important cooperation takes place at six regional WGEA Groups.

This INTOSAI WGEA survey provides a state of play of environmental auditing globally. It gives an overview of the audits SAs have conducted and plan to undertake, the resources SAs dedicate to the work, the topics they choose, the way they conduct their audits and communicate about them, and how they consider the global frameworks, notably the UN Sustainable Development Goals and the Paris Agreement on climate change. This report also provides an analysis on how the pandemic has affected SAs' work in environmental auditing.

The survey results give an interesting perspective both on environmental governance as well as on Supreme Audit Institutions' work and needs. Most of all, it is an immensely valuable resource for the INTOSAI WGEA Secretariat while planning future work. The survey provides clear ideas on topics where SAs would ben-

efit from more support, but also feeds into the planning of the longer-term strategy of the WGEA. We would like to extend our warmest thanks to all SAs that have contributed to this survey as well as the INTOSAI WGA Steering Committee Members for their valuable comments to the draft survey.

Helsinki, 9 December 2021



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# Methodological remarks

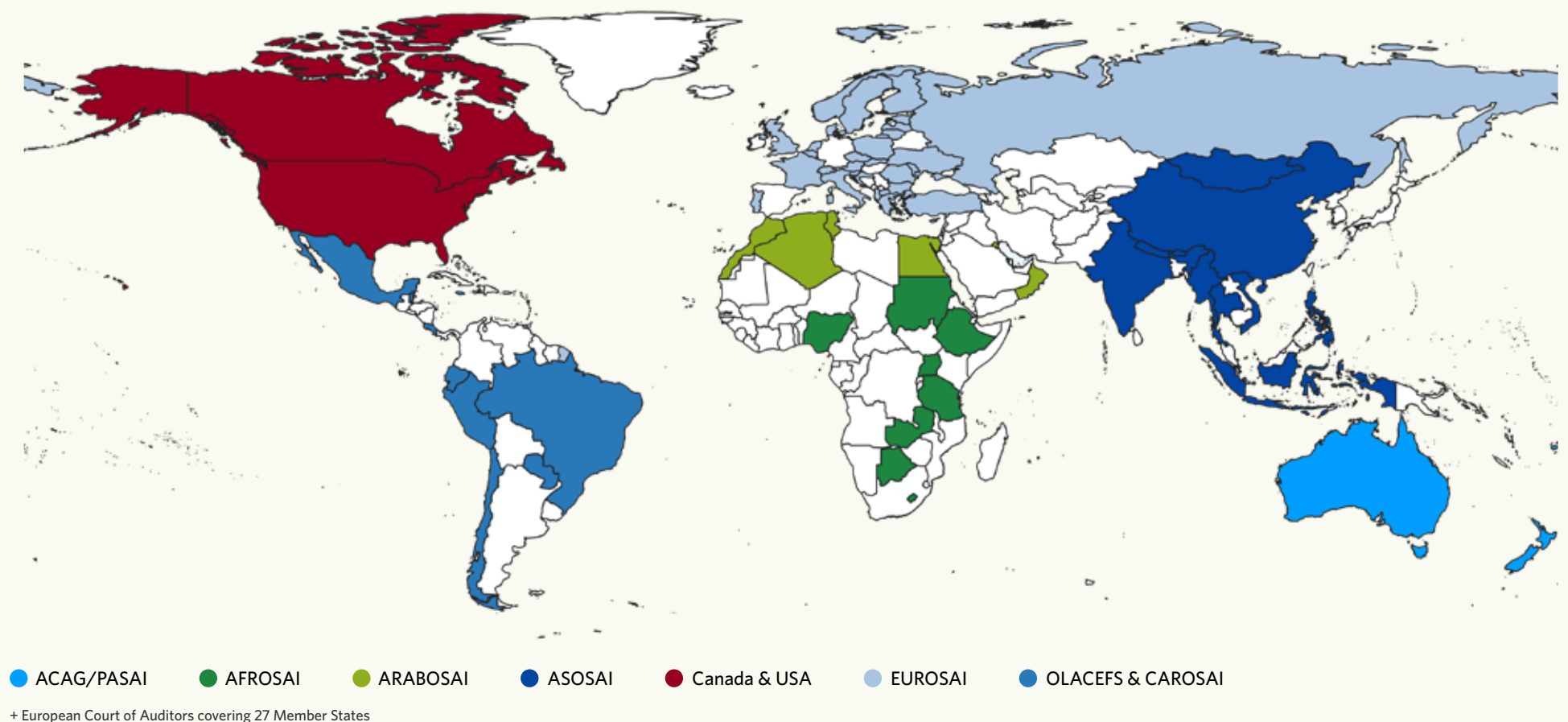
Since 1992, every three years the INTOSAI WGEA Secretariat has conducted a survey to map global and regional trends and challenges in environmental auditing. In April-May 2021, the survey was conducted for the 10th time. The survey covers the years between 2018-2020 and charts the SAIs' plans for 2021-2023.

The INTOSAI WGEA Secretariat submitted the survey by email to all 189 INTOSAI Members on 9 April 2021. The survey was a web-based questionnaire and was sent only in English, as INTOSAI WGEA is an English-speaking working group. By 25 May 2021, we received 71 answers, which equals a 38% response rate. This represents a 23% increase compared to the previous 9th environmental survey conducted in 2018.

As for methodological remarks, it is first important to note that the comparisons we make in this report between the current and previous surveys does not mean that we compare the same SAIs, as only 59% of the respondents in 10th and 9th survey were from the same countries. Rather, the survey gives a global and regional overview of the status of environmental auditing.

We also analysed some of the questions regionally. Countries were divided into regions according to their memberships in INTOSAI's Regional Organizations

## Respondent SAIs



(AFROSAI, ARABOSAI, ASOSAI, EUROSAI, OLACEFS here combined with CAROSAI, and PASAI). Moreover, to refine regional data, we added one region: Canada and the US.



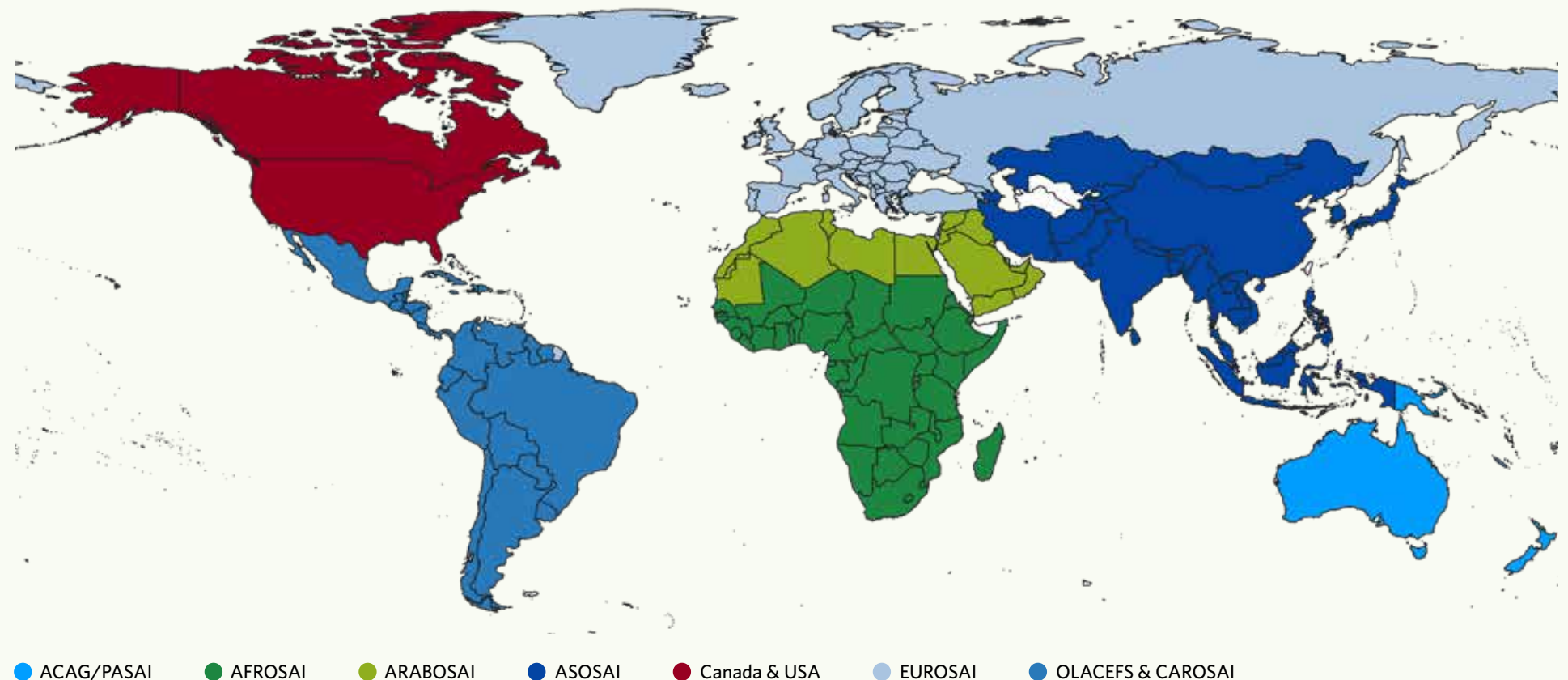
## The number of responses from SAI regions



The second methodological remark is that the number of respondents in some regions is very small, whereas almost half of the responses were from Europe. Consequently, one should be cautious while generalizing e.g., using percentage points. Nevertheless, as this is the best data on environmental auditing available, we will use it keeping in mind these methodological remarks.

Finally, the number of audits conducted in different SAs vary significantly, especially concerning performance audits. In 2018-2020, the number of environmental performance audits varied between one to as many as 186 audits in a single SAI. The variation can be explained by the differences in SAI size. It is important to bear in mind these differences between SAs when interpreting the survey results.

## SAI regions





# 1. Organizing environmental auditing





## 1.1. Hot topic: The pandemic has affected environmental auditing in many ways

Survey question: Please describe how has the global Covid-19 pandemic affected the environmental auditing practice of your SAI. If possible, elaborate also on the expected impacts for the near future. n=64

### The pandemic has brought a digital surge

This year, we added a question on the impacts of the pandemic to SAIs' environmental auditing. Out of the 64 answers to this question, 14 SAIs stated that the pandemic had no impact on environmental auditing, or any other auditing. 80% of the respondents, however, identified some impacts. The most common consequence of the corona crisis is the adoption of remote working and the use of digital tools. Although digital arrangements were usually introduced smoothly, sometimes unstable internet connections have caused problems. The access to auditees' systems also varies in SAIs.

In some SAIs, digital working has been hampered by the fact that all public sector records are not necessarily available in digital format. For example, those SAIs whose mandate extends to municipalities sometimes had to delimit audits because documents were available only on paper.

### Field visits have been replaced by desk work

The pandemic has also affected audit methods. While the amount of desk reviews has exploded, a quarter of the respondents noted that the lockdown meant that site visits and fieldwork became impossible. This was an observation in all the INTOSAI regions. Some respondents expressed worries on how the lack of physical verification affects the quality of audits. The pandemic has also made it impossible to continue with novel approaches, such as Citizen Participatory Audits.

One SAI out of ten had also faced delays in audits. This was not only due to problems on the auditee's end, but at times because SAI staff members had fallen ill.

Besides working methods, the pandemic has also affected what SAIs audit. On the one hand, the pandemic has shifted SAIs' audit planning towards Covid 19-related matters, which has drawn resources temporarily from environmental audits. In one SAI, its resources had been reallocated altogether to tackle the pandemic.

On the other hand, some SAIs noted that due to the pandemic, there will be audits on resilience and recovery funds for achieving climate and environmental objectives. The pandemic has also raised awareness of the importance of biodiversity for human health, which might mean that these topics will emerge in audit strategies. Audits could also address the negative impacts of the pandemic, such as an increase of plastic waste, but also positive aspects including cleaner air due to decreased traffic.



One of the key models for cooperation in the WGEA regions is cooperative audits. One respondent noted that a cooperative audit was cancelled because of travel restrictions and anticipated that there might be fewer cooperative audits in the future, which could affect capacity building in SAIs. The online format of INTOSAI WGEA meetings that took place during the pandemic caused inconvenience to WGEA members located in different time zones.

The respondents also pointed out some positive impacts related to the pandemic: cutting travels means less environmental emissions. Digitalisation was generally regarded positively, and the crisis had facilitated some SAIs to develop new ways to audit, for example by launching agile audits to optimize resource use.

## 1.2. Almost half of the SAIs have a specific mandate for environmental auditing

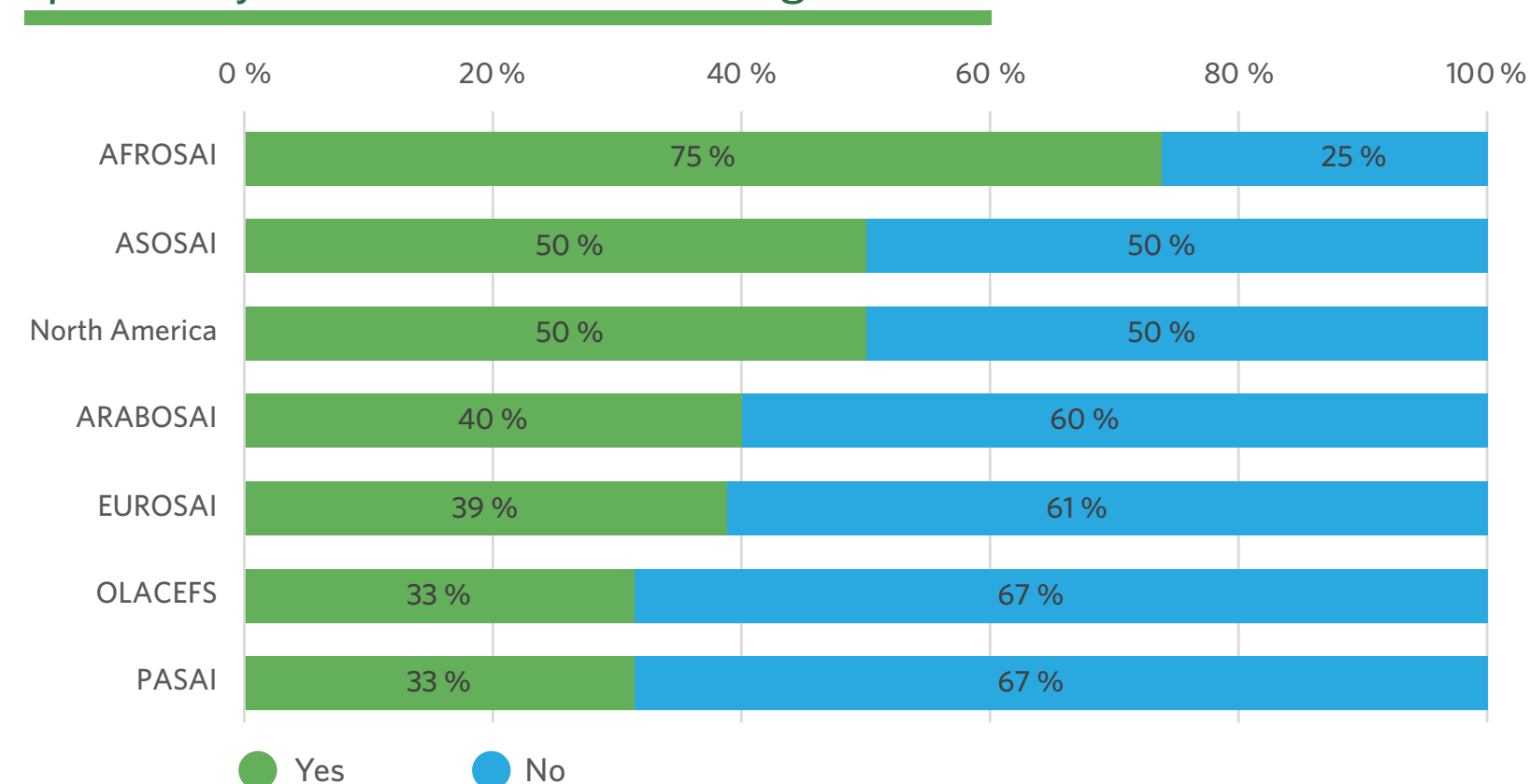
Survey questions: Does your SAI have a legal mandate referring specifically to environmental auditing? n=69

Has your SAI's legal mandat changed since 1 January 2018 in a way that has an impact on conducting environmental audits? n=69

The INTOSAI WGEA has asked in its surveys whether SAIs have a legal mandate specifically referring to environmental auditing although such a mandate

is not necessary to carry out environmental audits. 45% of the respondent SAIs informed that their mandate includes the environment, while 55% of SAIs did not have any particular reference to the environment. SAIs in the AFROSAI region most often have a specific legal mandate referring to environmental auditing. Three respondents out of 69 noted that their legislation concerning the Supreme Audit Institution had changed to also include the environment. However, several respondents remarked that SAIs have the mandate to audit any aspects and policy areas of government, including environmental issues, and thus a specific mandate would not be needed.

### Does your SAI have a legal mandate referring specifically to environmental auditing?





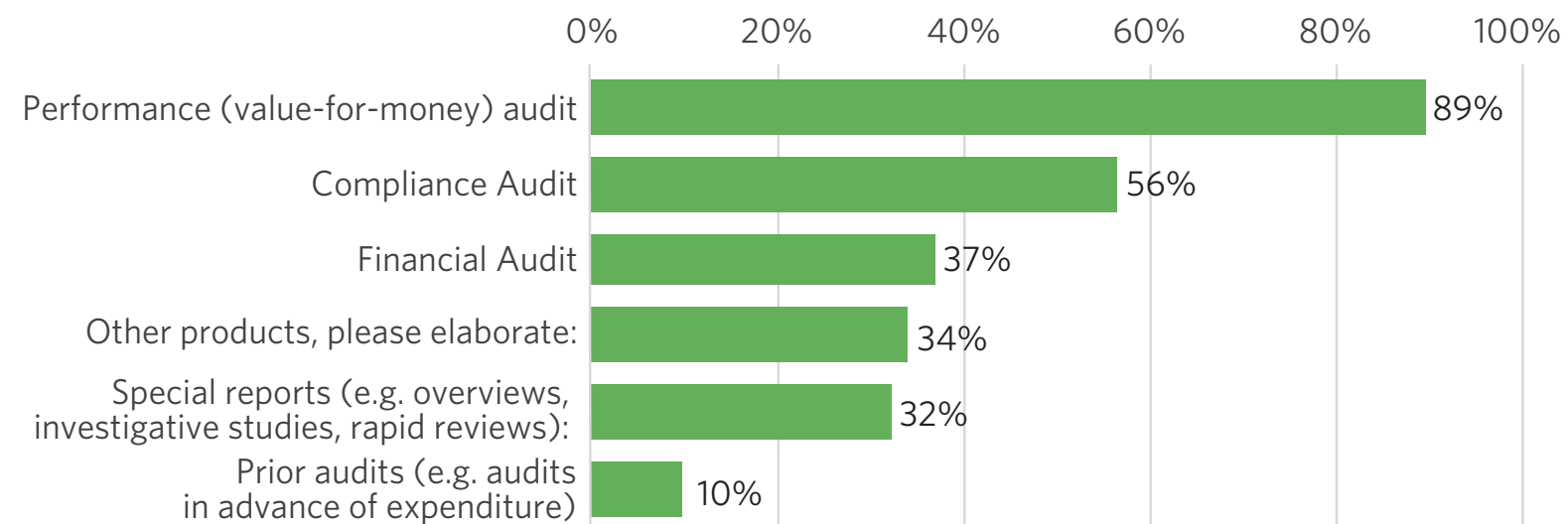
### 1.3. Performance audit is the most common environmental audit type

Audit questions: Which of the following types of environmental audits your SAI conducted during 2018-2020? n=69

If yes, please indicate the number of audits/products: n=58

Please elaborate if needed n=32

#### Types of environmental audits conducted during 2018-2020



Almost all (89%) respondent SAIs have conducted environmental performance (value-for-money) audits during 2018-2020. Over the half of them (57%) have carried out environmental compliance audits and over a third (37%) environmental financial audits. Only a few SAIs (10%) had conducted prior audits on environmental matters.

Roughly a third of the respondents also mentioned having produced other products or special reports. Other products included coordinated and cooperative audits, annual reports, good practice recommendations and follow-up audits.

#### Environmental audits often combine compliance and performance audit types

Several respondents pointed out that most of their environmental audits combine a compliance and performance audit. Sometimes also financial and performance audit types are combined.

There are also differences in how SAIs track audit types. For instance, it was pointed out that compliance can often be considered in environmental audits, but they are not tracked based on whether they include compliance information or not. Also, follow-up audits can be an integrated part of all audits and thus not tracked on their own by some SAIs.

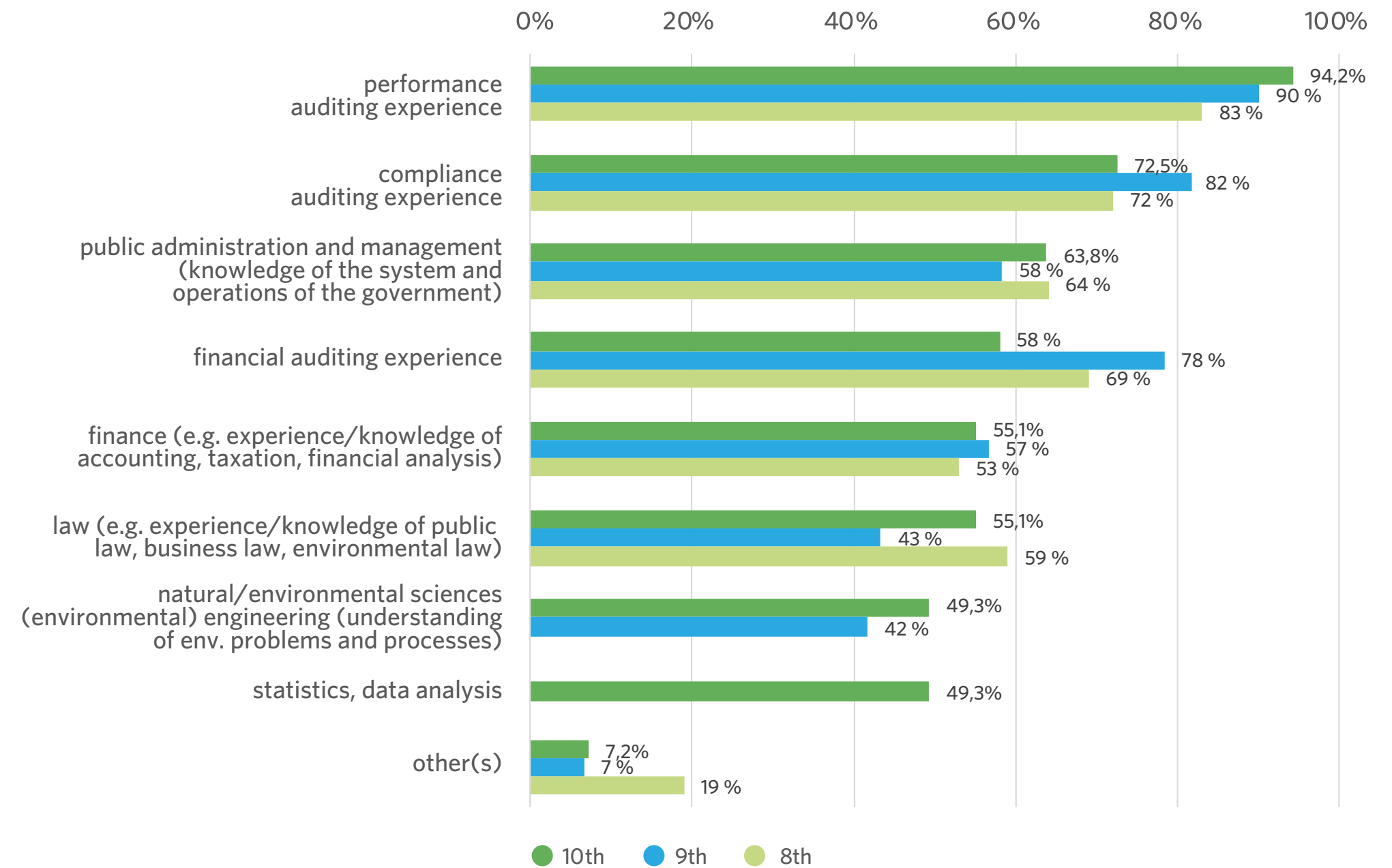


## 1.4. Performance audit competence of growing importance

Survey question: Overall, which of the competences are covered in your SAI by the employees working on environmental audits? n=69

Almost all the respondent SAs note that their environmental auditors have competence in performance auditing (94%). When comparing the last three surveys, this trend has strengthened, while there is a slight shift from financial audits. Compliance auditing experience, public administration expertise and knowledge of finance and law have fluctuated between surveys but end up being fairly consistent, while the environmental science understanding is also growing. Statistics and data analysis, a new response option in the 10th survey, was identified by half of the SAs.

Overall, which of the competences are covered in your SAI by employees working on environmental audits?





### 1.5. Overall volume of environmental audits keeps growing but the pace is decelerating

Audit question: In 2018-2020, how was the trend regarding the volume of environmental audits conducted in your SAI compared to the previous period (2015-2017)? n=69

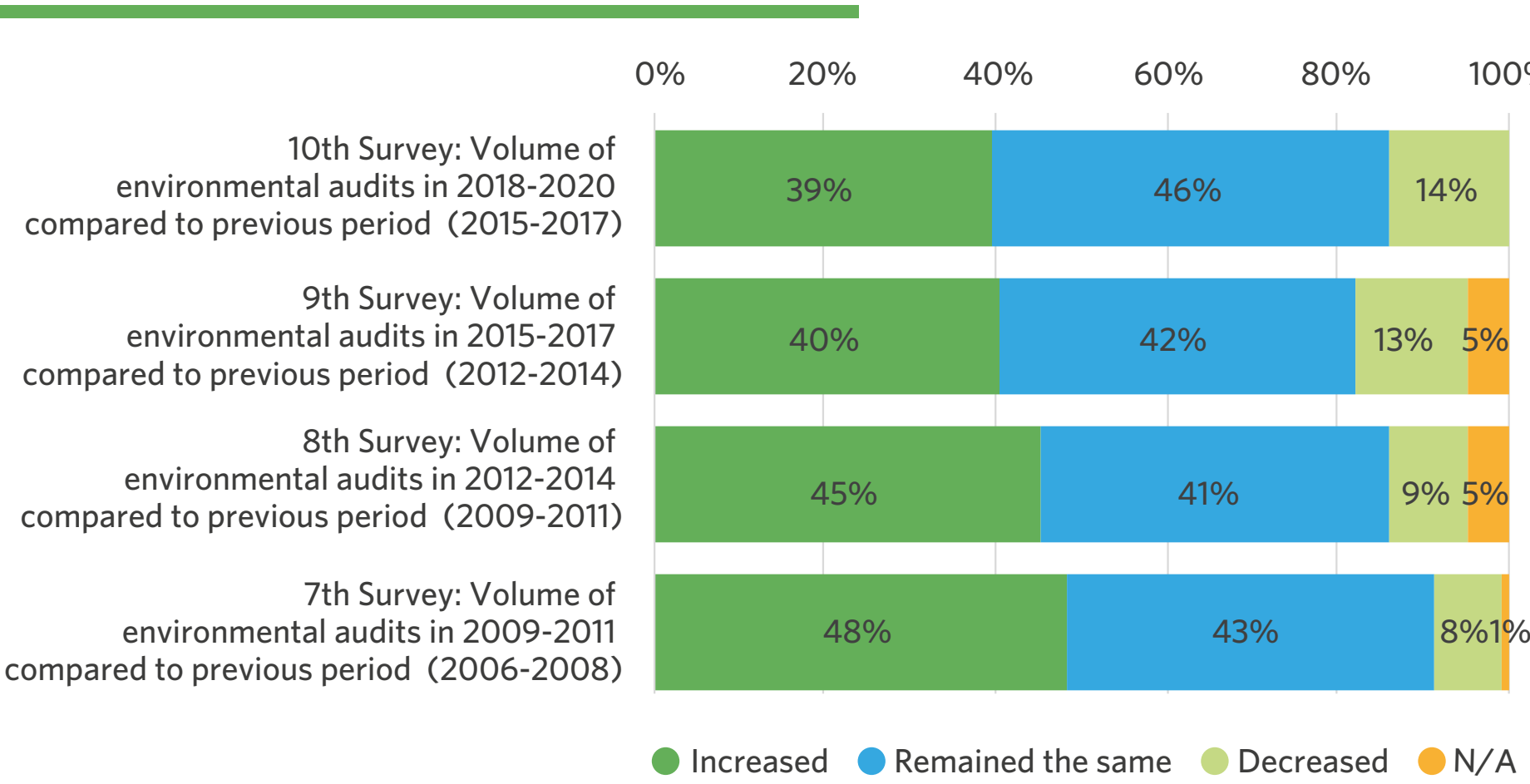
How does your SAI plan to change the volume of environmental audits in the next three years (2021-2023)? n=69

Compared to the previous period 2015-2017, the number of environmental audits increased in 39% of the responding SAIs, while it has decreased in 14% of the SAIs.

The growth in volume of environmental audits is a continuous but gradually decelerating trend: in 2012 an increase took place in 48% of the SAIs and it has slowly decreased to the current 39%. In parallel, there are more SAIs declaring that the environmental audit volume has decreased.

The SAIs mentioned different reasons for the changes in environmental audit volume. It had increased for instance due to the creation of a special environmental unit, increase in the volume of coordinated environmental audits and the

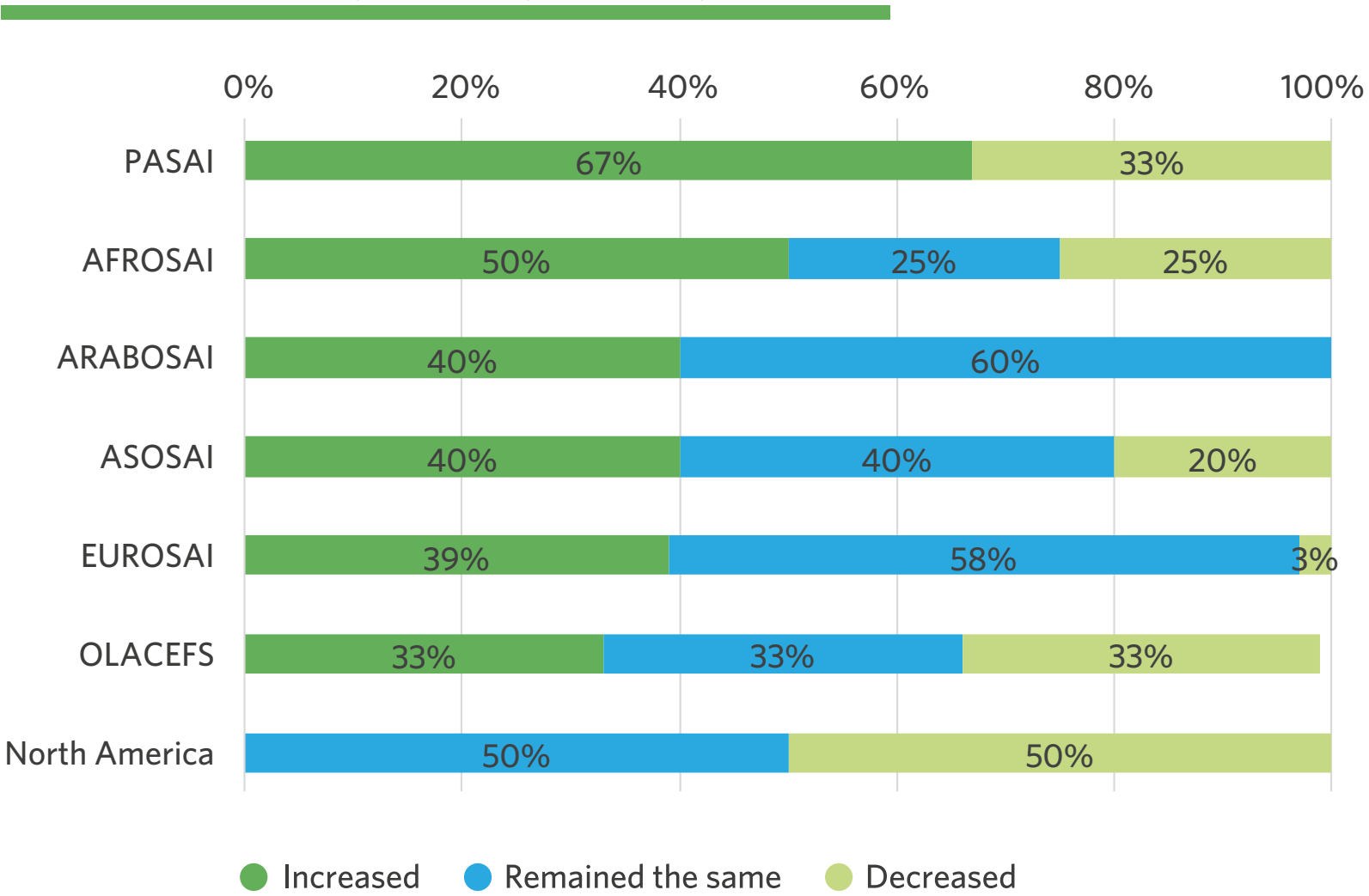
Volume of environmental audits compared to previous period



mainstreaming environmental issues. Organizational changes were mentioned as one of the reasons for a decrease in the total number of environmental audits. Their volume had also decreased in some SAIs because of the pandemic, decrease in volume of all audits, and shifting focus towards other issues.

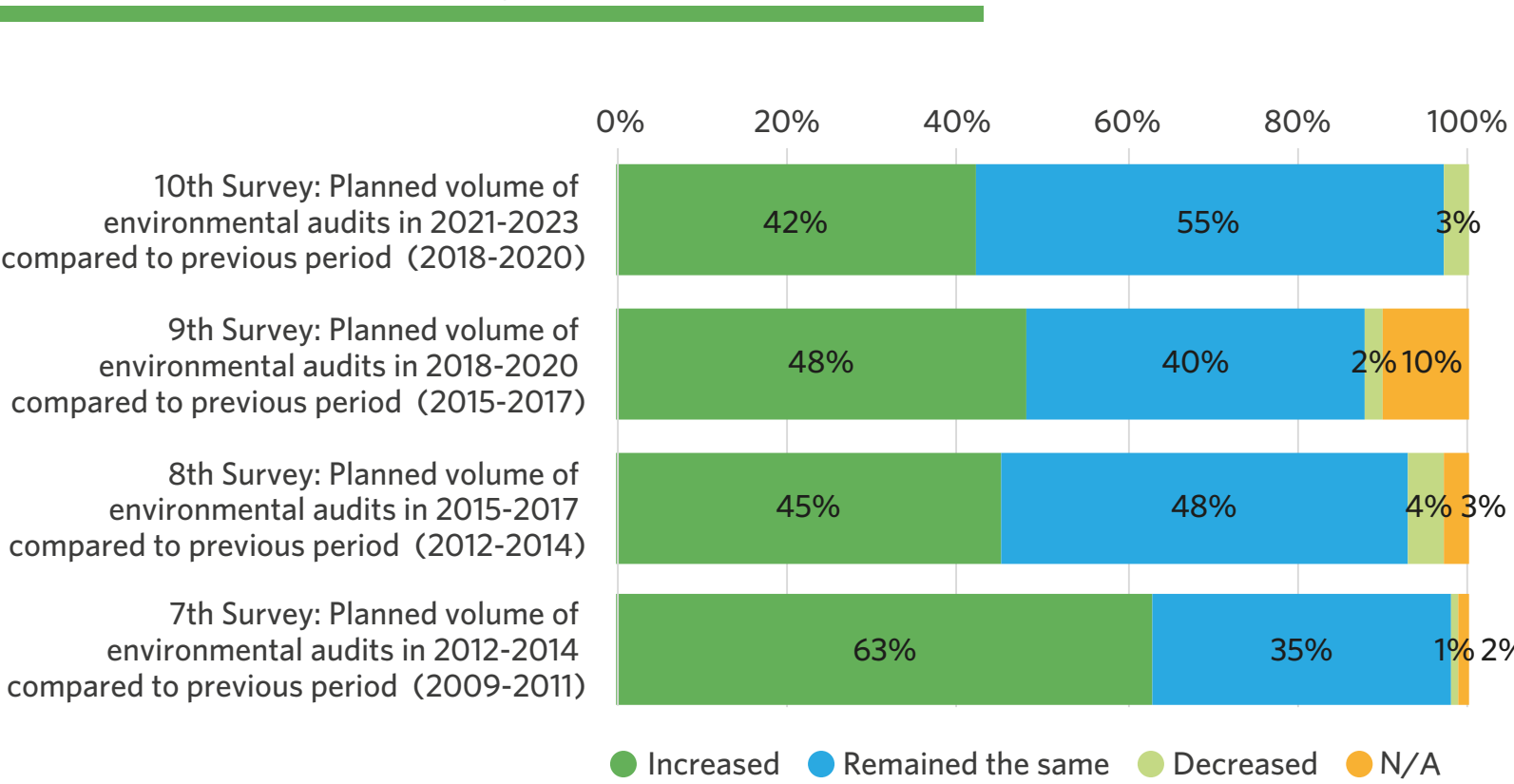


Regional comparison: Volume of environmental audits in 2018-2020 compared to previous period (2015-2018)



Regionally, the number of environmental audits has grown particularly in the PASAI and AFROSAI regions, at least among the 11 SAIs that responded from those regions.

Plan to change the volume of environmental audits in the next three years



Almost all SAIs declare that the volume of environmental audits they are planning to conduct in the next survey period (2021-2023) will either increase (42%) or remain the same (55%). The biggest increase in environmental audits is foreseen in the AFROSAI and ASOSAI regions.



## 1.6. More staff working with environmental audits

Survey questions:

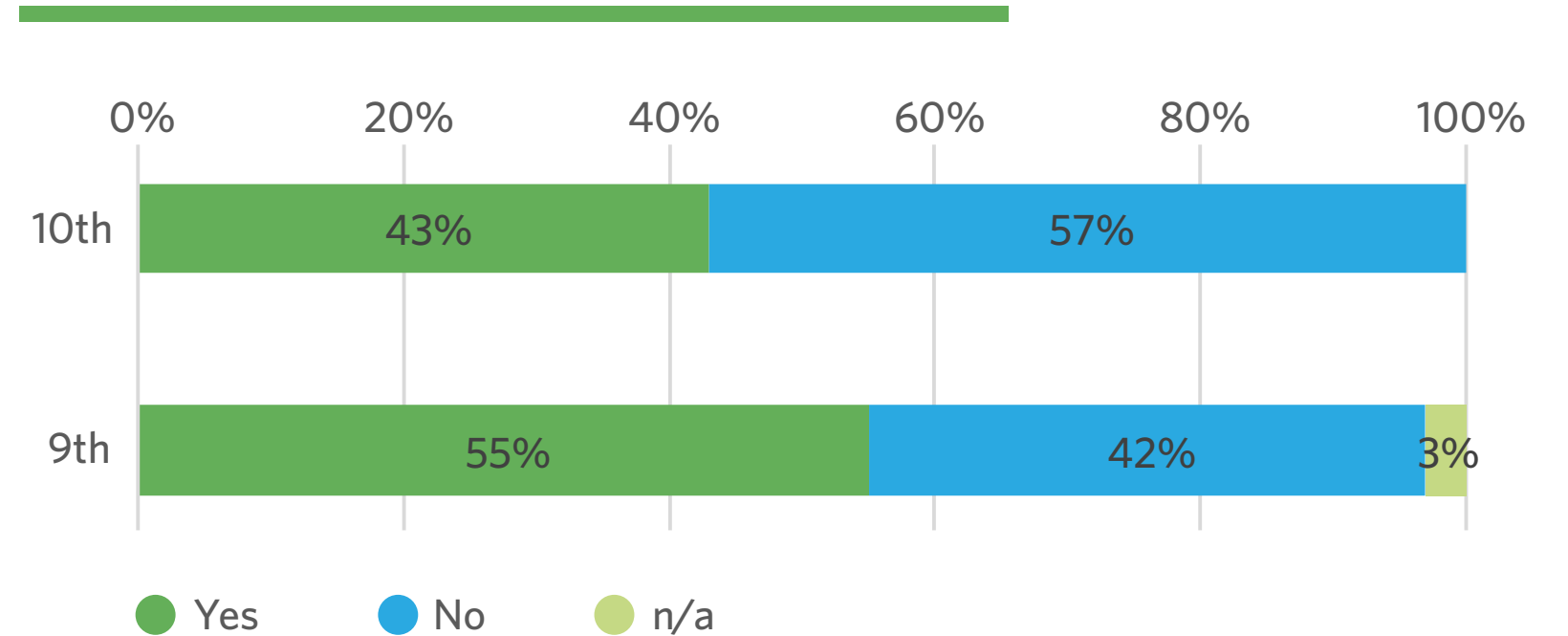
Does your SAI have a specific department or section working full time on environmental audits? n=69

During 2018-2020, on average, how many employees were involved in an audit team conducting one environmental audit in your SAI? n=66

During 2018-2020, did the number of employees working on environmental audits change in your SAI? The share of employees in environmental audit...? n=69

How does your SAI plan to change the number of employees involved in conducting environmental audits in the next three years? n=69

Does your SAI have a specific department or section working full time on environmental audits?



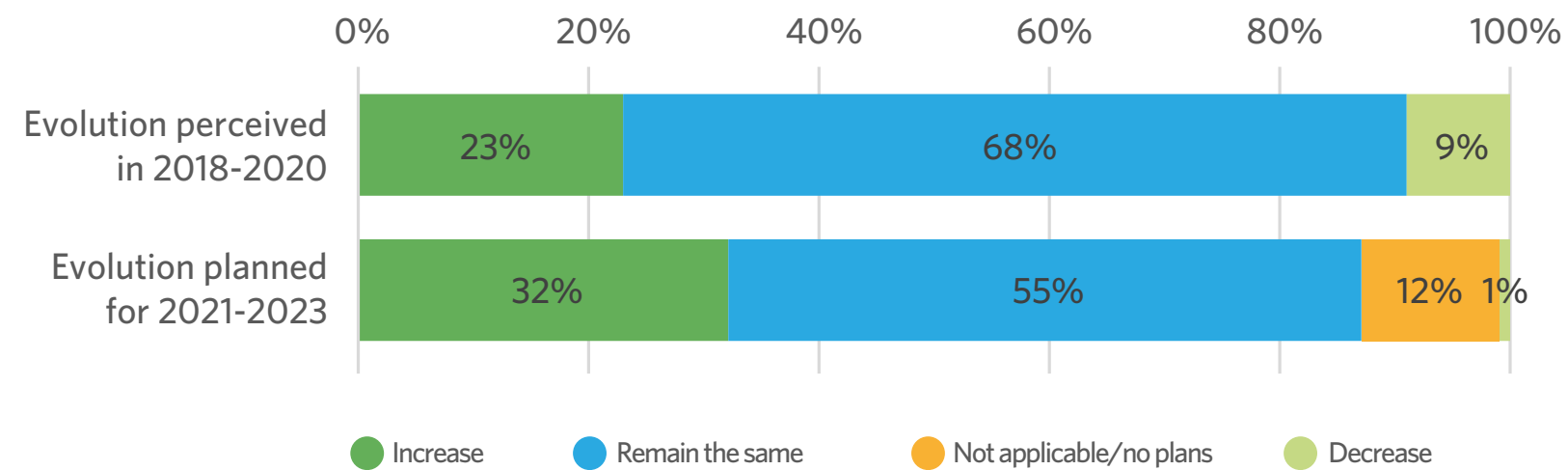
Less than half of the SAs (43%) have a specific unit working for environmental audits. Comparing the 10th and 9th surveys, the number has decreased from 55% to 43%. The reason could be besides different SAs responding to the 9th and 10th survey, also the way SAs organise their work altogether e.g., towards matrix organisations.

This is supported by the fact that the average amount of auditors involved in an audit team conducting one environmental audit has not decreased: eight auditors in the current survey and seven in the previous. In the 8th survey the question was formulated differently and 50% of respondent SAs had 1-4 auditors in a team conducting an environmental audit.



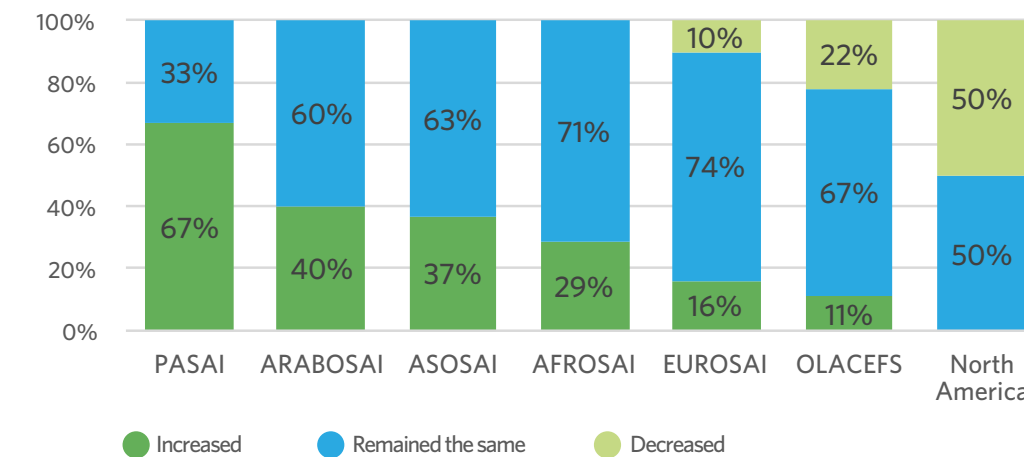
The number of employees working on environmental audits during 2018-2020 largely either remained the same (68%) or increased (23%), with 9% of SAIs reporting a decrease. Furthermore, 32% of the respondents reported plans to increase the number of employees involved in conducting environmental audits in the next three years, while 55% plan the number to remain the same.

### Evolution of the number of employees involved in conducting environmental audits

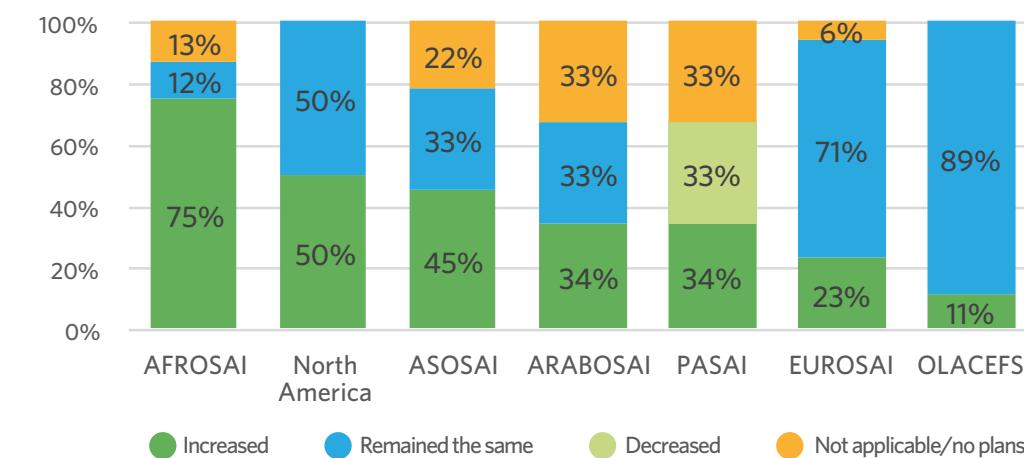


The strongest growth in the number of employees working on environmental audits during 2018-2020 took place in the respondent SAIs from the PASAI region. Among the SAIs part of OLACEFS and CAROSAI, the number of environmental auditors decreased in 22% of the responding SAIs in 2018-2020, and the numbers should stay relatively steady over the next three-year period. The strongest increase in the number of environmental auditors during 2021-2023

### Change in the number of employees working on environmental audits (2018-2020)



### Planned change in the number of employees working on environmental audits (2021-2023)



will take place in the AFROSAI region, where 75% of the SAIs declare to have intentions to reinforce their environmental audit team.



## 2. Environment in the audits





## 2.1. Climate, water and waste – the most important environmental issues globally

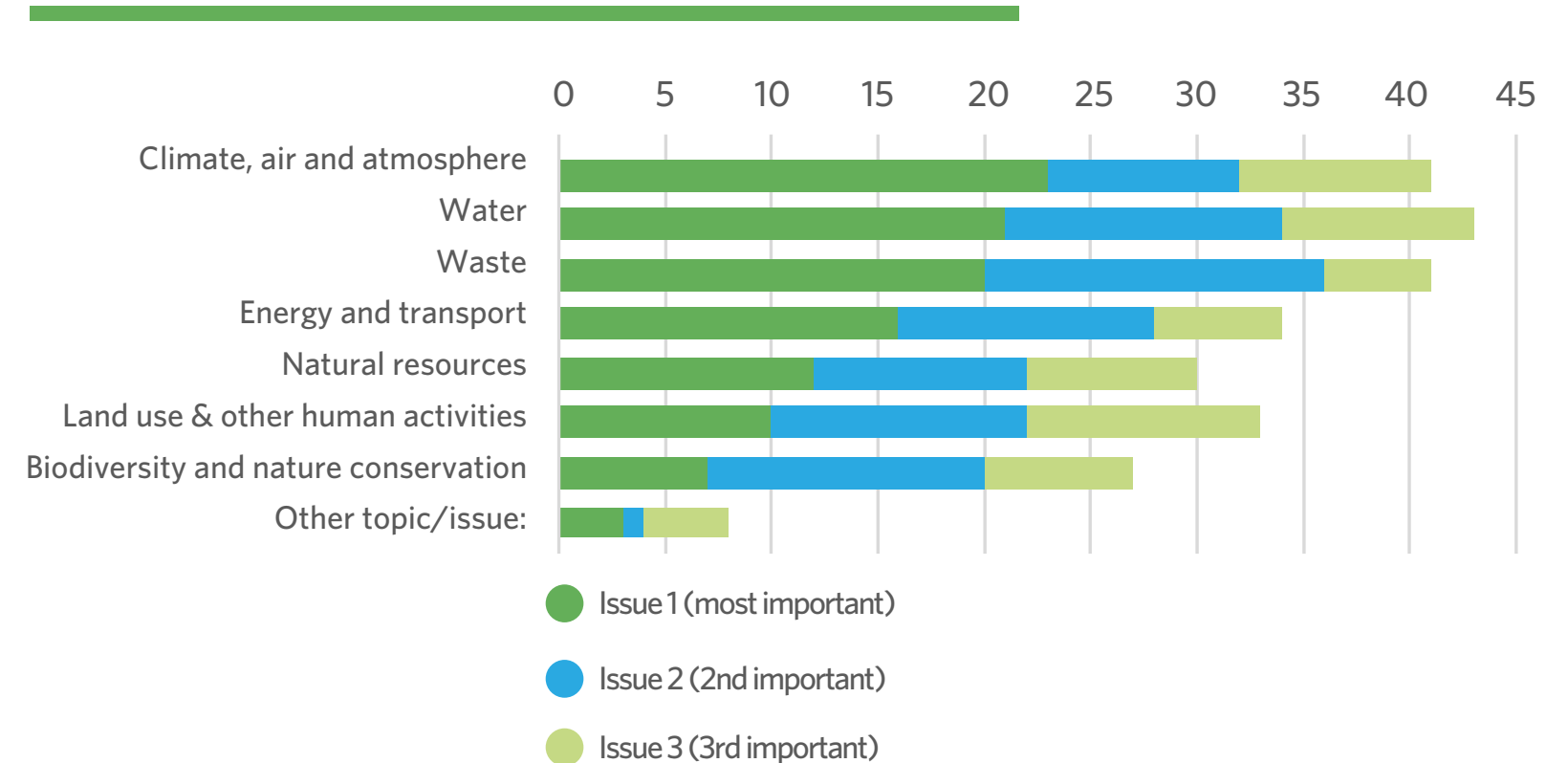
Survey question: Based on the list of topics provided in the previous question, please identify three most important environmental issues facing your country. n=68

The INTOSAI WGEA has classified various environmental topics under eight main themes, which are divided into several audit topics. The larger themes are:

- natural resources
- water
- climate, air and atmosphere
- waste
- energy and transport
- biodiversity and nature conservation
- land use and other human activities
- governance

According to these themes, we inquired SAls what they consider are the most important environmental issues facing their countries. The most important issue for 23 respondents was climate, air and atmosphere, followed by water (21) and waste (20). Several respondents (10) specified that the main issue is climate change mitigation and adaptation. When it comes to water, the main issue underlined by seven SAls was access to clean water.

### Three most important environmental issues facing your country

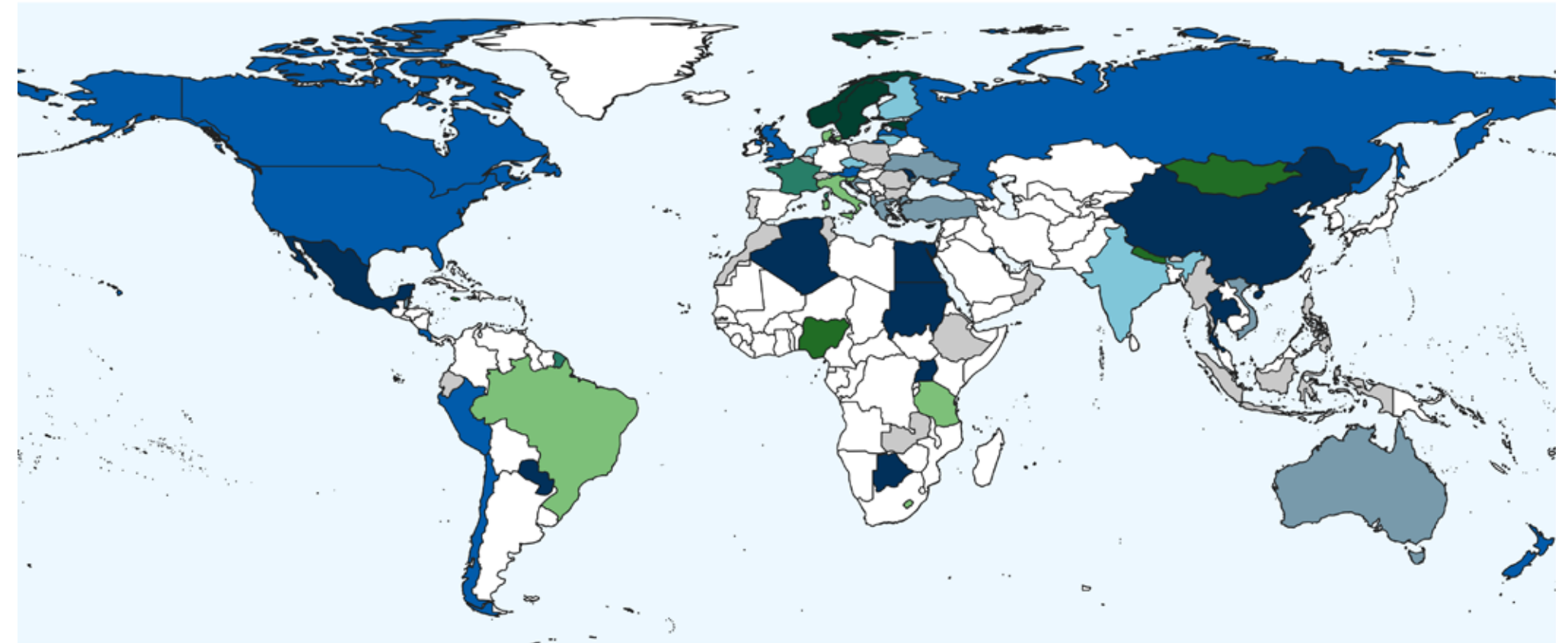


Combining the first, second and third most important environmental issues, water was mentioned most often (43 SAls). Climate, air and atmosphere as well as waste were both mentioned 41 times.

## Water an environmental issue in the global south and climate in the global north

Generally, SAIs located in the African and Asian continents perceived water as the top environmental issue in their countries, whereas climate, air and atmosphere tend to be more an issue for SAIs in the EUROSAI region and Canada & the US.

## The most important environmental issue facing countries



● Biodiversity and nature conservation

● Climate, air and atmosphere

● Energy and transports

● Land use and other human activities

● Natural resources

● Waste

● Water

● Other topic

● Blank answer

○ No available data

Data collected in May 2021



## 2.2. Land use and human activities the most audited environmental theme

Audit question: In the table below, a list of environmental issues is presented, structured in 8 main themes. Please identify the topics your SAI has audited during 2018-2020 and topics that your SAI intends to audit during 2021-2023. n=68

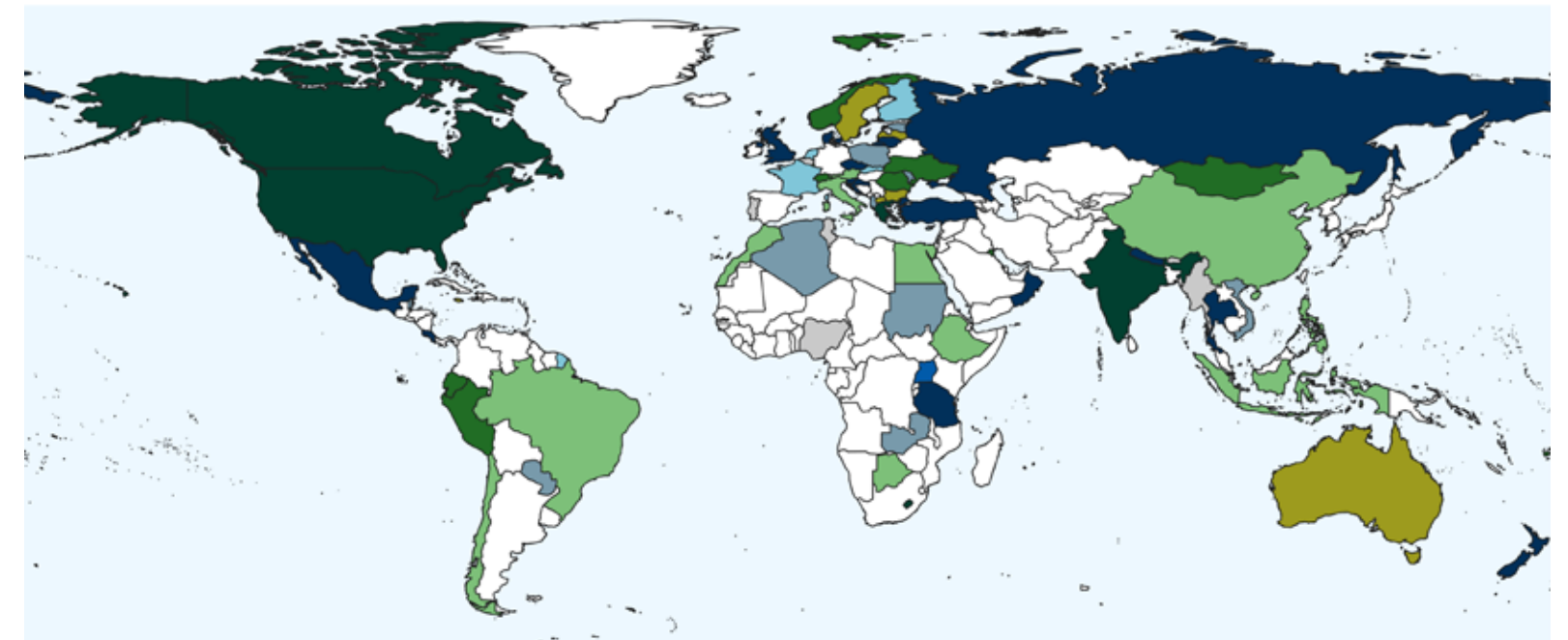
We also inquired which of the broad environmental themes SAIs have audited and plan to audit. In 2018-2020, the most audited theme was land use and other human activities, followed by water and waste topics. Concerning the plans for 2021-2023, land use and other human activities continue as the most popular theme, but topics under the governance theme come second, before the waste and water themes.

Comparing to the question on the most important environmental issue facing countries, the answers did not correspond very well with the audited themes. The most important environmental issues, i.e. climate, air and atmosphere, were not present in the SAIs' audit themes. Concerning the more defined audit topics (see next chapter), the climate however appears in future plans.

### Priority environmental audit themes vary across countries

The themes that SAIs audited in 2018-2020 and plan to audit in 2021-2023 vary. Most of the SAIs also appear to change the priority theme, and there is no clear difference between the global south and north. The results of this question differ slightly from other survey responses, as for example the role of climate does not appear here very strongly. One reason could be the fact that the provided themes include different numbers of sub-categories.

### The theme that SAI has audited the most during 2018-2020



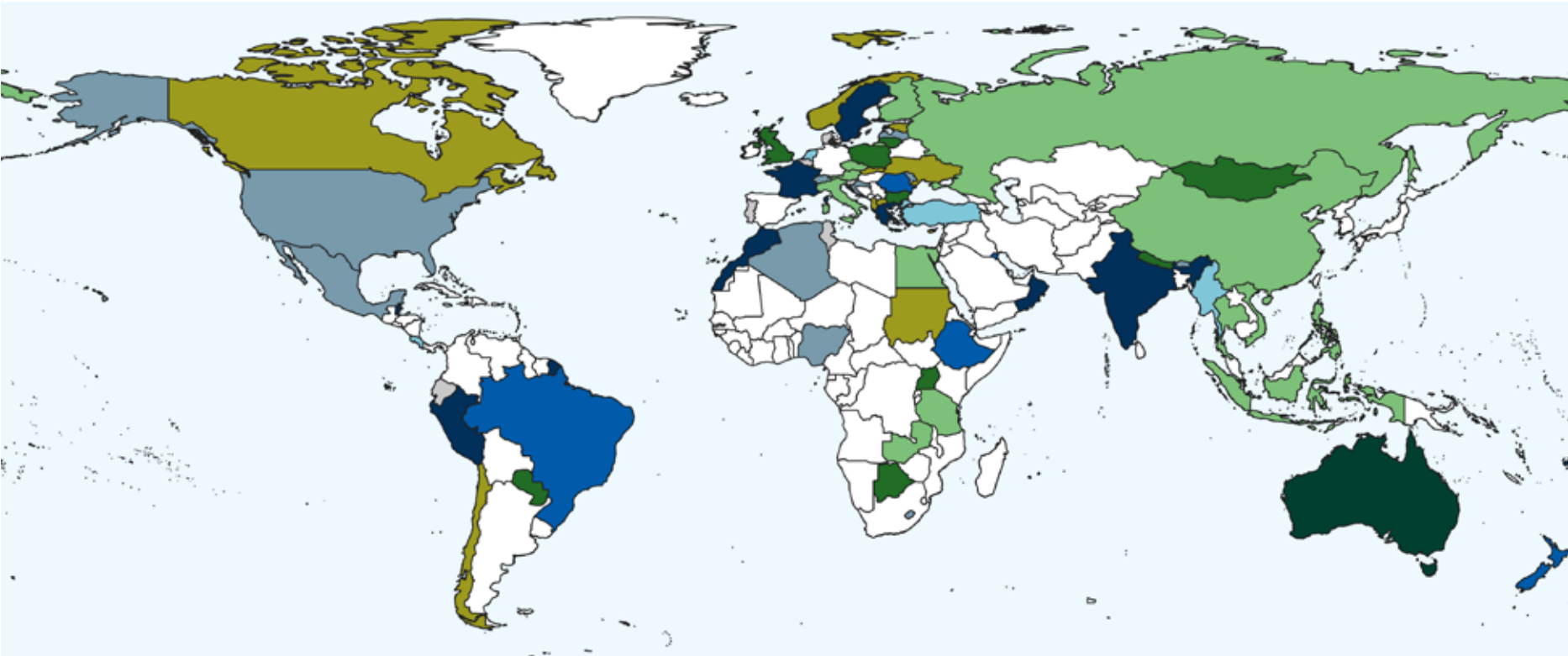
● Biodiversity and nature conservation  
● Climate, air and atmosphere  
● Energy and transports  
● Land use and other human activities

● Natural resources  
● Waste  
● Water  
● Governance

○ No available data  
● Blank answer

Data collected in May 2021

The theme that SAI intends to audit the most during 2021-2023



- Biodiversity and nature conservation

● Climate, air and atmosphere

● Energy and transports

● Land use and other human activities

● Natural resources

● Waste

● Water

● Governance

○ No available data

● Blank answer
- Data collected in May 2021

2.3. Climate change adaptation to replace nature protection as the most audited topic

We also analysed the answers concerning audit topics on a more detailed level. Globally, topics the largest number of countries had audited in 2018-2020 were protected areas, forestry and timber resources and wastewater treatment.<sup>1</sup>

Top ten audit topics in 2018-2020	Number of SAIs
Protected areas and natural parks	29
Forestry and timber resources	27
Wastewater treatment	27
Minerals, gas, oil and other non-renewable resources	27
Drinking water: quality and supply	26
Agriculture	26
Municipal, solid and non-hazardous waste	26
Pollution of water bodies (industrial and agricultural sources)	26
Municipal hazardous waste	25
Water quantity management or management of watersheds	25

1) INTOSAI WGEA has traditionally considered municipal solid and non-hazardous waste as a separate entity from municipal hazardous waste. However, if you combine both waste entities, they together would be the largest audit topic in 2018-2020. Moreover, combining climate change adaptation and mitigation, would have made it the second most popular topic. Concerning the audit plans of 2021-2023, combining climate change adaptation and mitigation would make it a clear frontrunner before the other topics.



In 2021-2023, adaptation to climate change has soared as the most popular topic, followed by protected areas and forestry and timber resources.

Top ten audit topics in 2021-2023	Number of SAls
Climate change adaptation	28
Protected areas and natural parks	24
Forestry and timber resources	23
Drinking water: quality and supply	23
Agriculture	21
Climate change mitigation	21
Municipal, solid and non-hazardous waste	19
Municipal hazardous waste	19
Environmental taxes, charges, fees, levies, deposit-refund systems	19
Circular economy	19

Growing audit interest towards climate change adaptation and circular economy

Comparing the two periods, the most remarkable difference is the increase in the interest concerning climate change adaptation. Altogether 11 more SAls mention it in their plans for 2021-2023, compared to the audits made in 2018-2020 when adaptation did not make it to the top ten of the most mentioned topics. Climate change mitigation also climbs to the top ten in plans for 2021-2023.

SAls also express increasing interest in the new topic of circular economy (+9), environmental taxes, charges, fees, levies, deposit-refund systems (+7) and environmental liabilities (+6). Contrarily, the topics that fewer countries plan to audit during the next 3 years period were hazardous waste (-12), minerals, gas, oil and other non-renewable resources (-11) and wastewater treatment (-9). Comparably, the topics related to wastewater and water pollution had dropped from the top ten list.

Regional priorities vary

Regionally, SAls’ audit priorities vary and are very dispersed. Concerning the audit topics for 2021-2023, in AFROSAI and ARABOSAI, the regions’ drinking water appears as most popular future topic, while ASOSAI prioritises transport-related audits. The EUROSAl region considers climate change adaptation as the most popular topic, while in North America adaptation and mitigation share the top ranking together with environmental liabilities. In Latin America, forestry and timber resources are the most common audit topic for the next years. The PASAI region considers climate change adaptation, mitigation and waste equally important.

## 2.4. National compliance and policy performance most common audit objective

Audit question: Please rate the potential objectives of environmental audits listed below according to how they have been used by your SAI during 2018-2020. n=68

“Compliance with domestic environmental legislation and policies” and “performance of government environmental policies and programs” are the most common objectives of environmental audits. They were very often or always considered by 87% and 77% of the responding SAIs respectively. Only 3% and 5% did not consider these objectives in their environmental audits.

On other objectives the dispersion is more pronounced. “Compliance with international environmental agreements and treaties” is considered often/always in 36% of the SAIs.

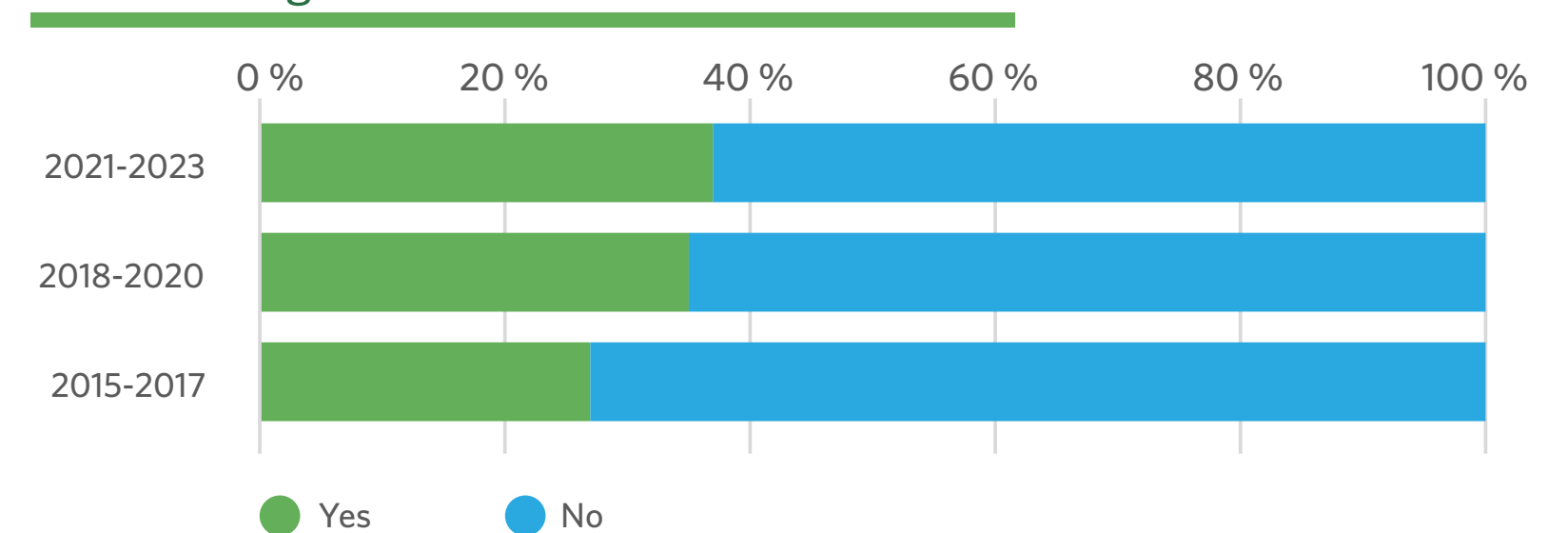
## 2.5. SDGs and the Paris Agreement most common international benchmarks

Audit questions: Did your SAI audit international environmental agreements or treaties during 2018-2020? n=68

Does your SAI plan to audit international environmental agreements or treaties in the next three years (2021-2023)? n=66

The majority of SAIs have not audited Multilateral Environmental Agreements (MEA) in the last few years, but the trend is upwards:

### SAIs auditing MEAs





The most common agreements and treaties were:

- Sustainable Development Goals/Agenda 2030 (mentioned 9 times)
- The Paris Agreement, including the preceding Kyoto Protocol (8 times)

Others included:

- Aichi targets on biodiversity
- Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management
- Convention to Combat Desertification in Countries Experiencing Serious Drought and/or Desertification
- Agreements on the topic of water quality, marine pollution, waste management and environmental law. EU Nature protection directives were also mentioned.

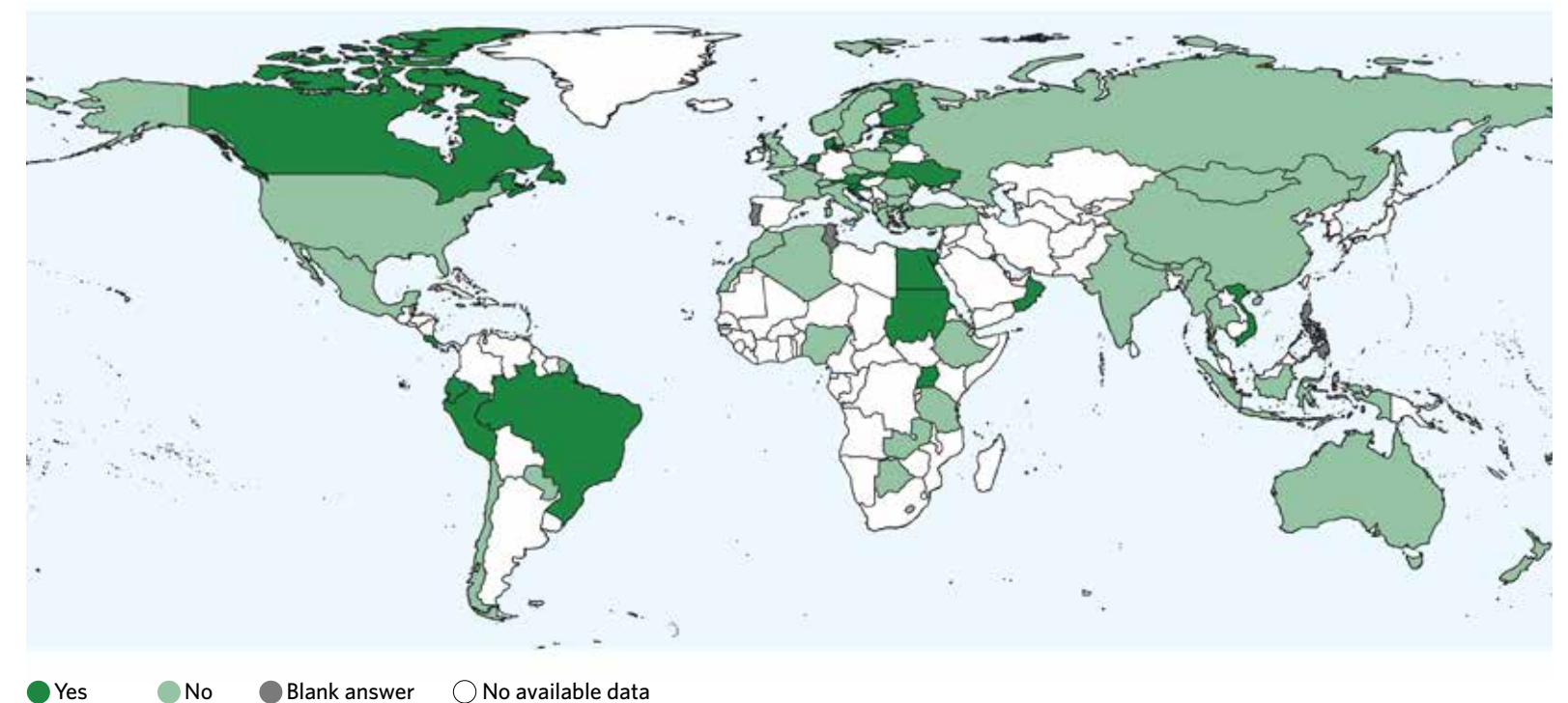
Based on the answers, the reason for the risen interest in auditing MEAs seems to be the popularity of Agenda 2030 and SDGs as starting points for audits. The most common international agreements audited in the 9th survey were the Paris Agreement (22%) and the Kyoto Protocol (15%), both addressing climate change. Agenda 2030 and the SDGs were not available as answers in the previous survey.

In the next three-year period, the Paris Agreement will be the most common agreement to be audited (8 mentions), followed by SDGs and Agenda 2030 (4 mentions) and the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal (3 mentions). Others include the Minamata Convention on Mercury, EU Directives and the Aichi Convention on

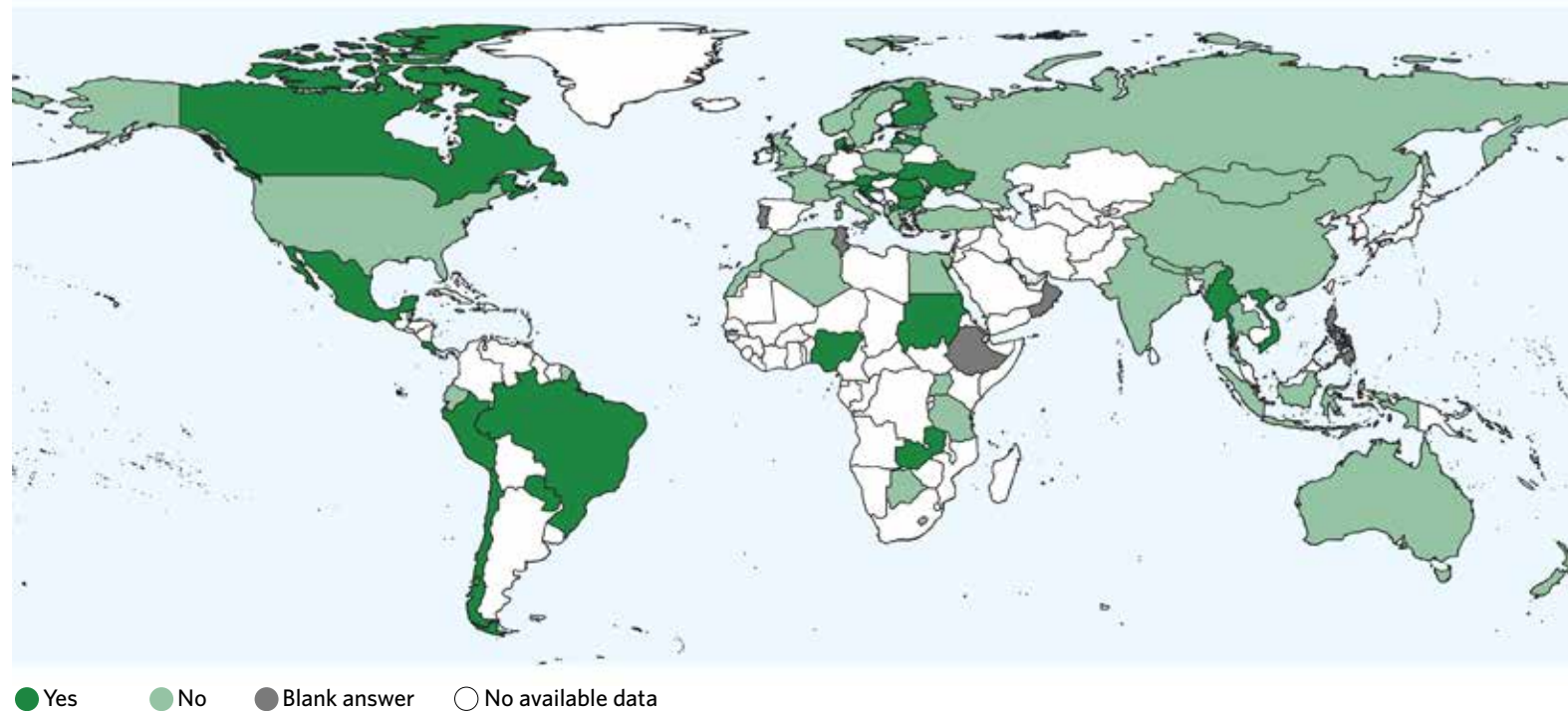
Biological Diversity. In the previous 9th survey, the most common planned audits on international agreements were on the Paris Agreement (15%) as well as the Kyoto Protocol and the Convention on Biological Diversity (13% each).

Regionally, there is some growing interest in auditing MEAs in most regions. The EUROSAL region's answers are affected by the fact that some SAs consider the EU Directives as international agreements. The Paris and Kyoto agreements, Agenda 2030 and the Basel Convention were present in several regions, while the Convention on Biological Diversity was only mentioned by OLACEFS SAs.

### Did SAI audit international environment agreements or treaties during 2018-2020



## Does SAI plan to audit international environment agreements or treaties during 2021-2023?



## 2.6. Over half of the SAIs use SDGs to choose audit topics and as audit criteria

Survey questions: How did the United Nations 2030 Agenda for Sustainable Development influence your SAI's audit practice during 2018-2020? n=68

Did your SAI conduct any audits in direct relation to UN 2030 Agenda for Sustainable Development or one of the 17 Sustainable Development Goals during 2018-2020? n=67

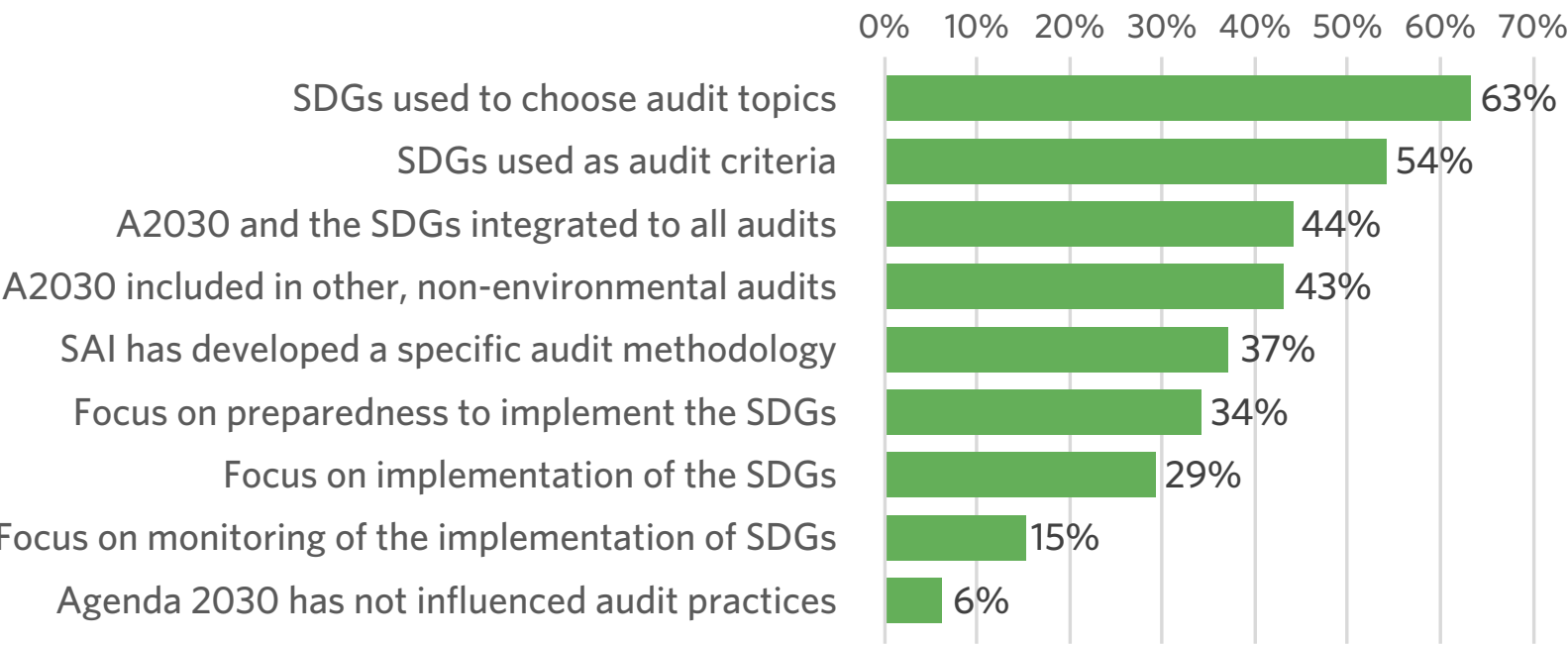
Please specify which of the environment-related Sustainable Development Goals listed below your SAI has audited during 2018-2020 and the environment-related SDGs that your SAI intends to audit during 2021-2023. n=59

In this survey, we asked for the first time how the United Nations Sustainable Development Goals have affected SAIs' work and whether SAIs audit them. Most often (63%), SAIs had used the SDGs to choose audit topics. Over half of the SAIs (54%) had used the SDGs as audit criteria. Less than half (44%) of the SAIs had integrated the SDGs into all of their audits, or had included Agenda 2030 in other, non-environmental audits (43%). At the time of the survey, spring 2021, a third (34%) of the respondents had audited governments' pre-

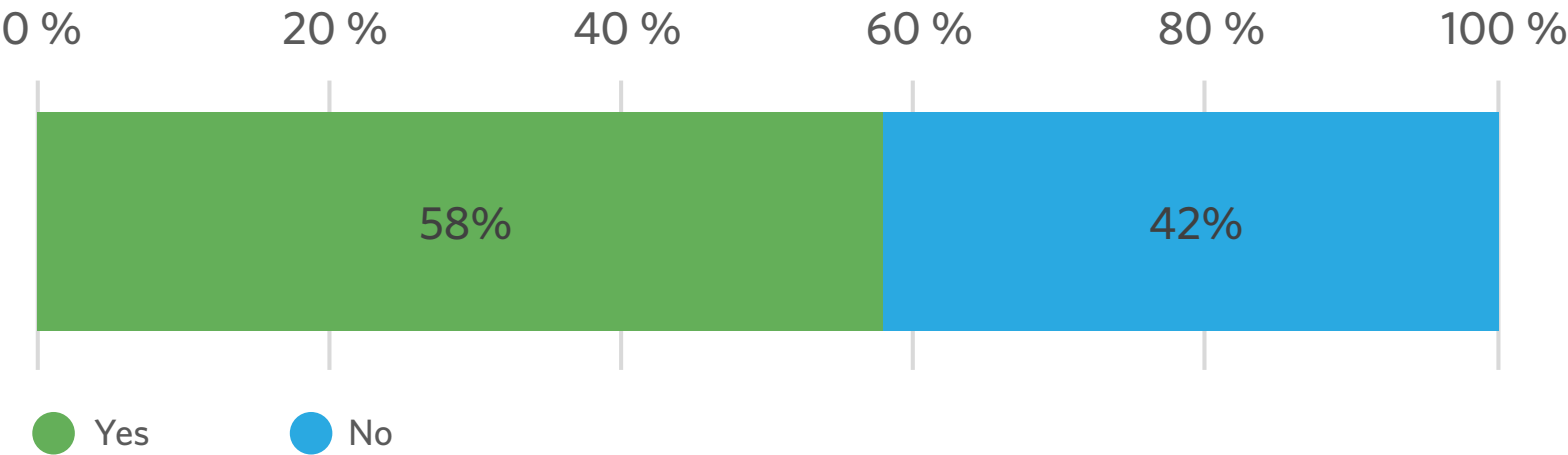


paredness to implement the SDGs, while slightly fewer (29%) had started to audit the implementation of the SDG. Only 6% of the respondents disclosed that Agenda 2030 had not influenced their audit practices.

How did the SDGs influence your audit practice in 2018-2020?



SAIs that conducted audits in direct relation to A2030 or SDGs



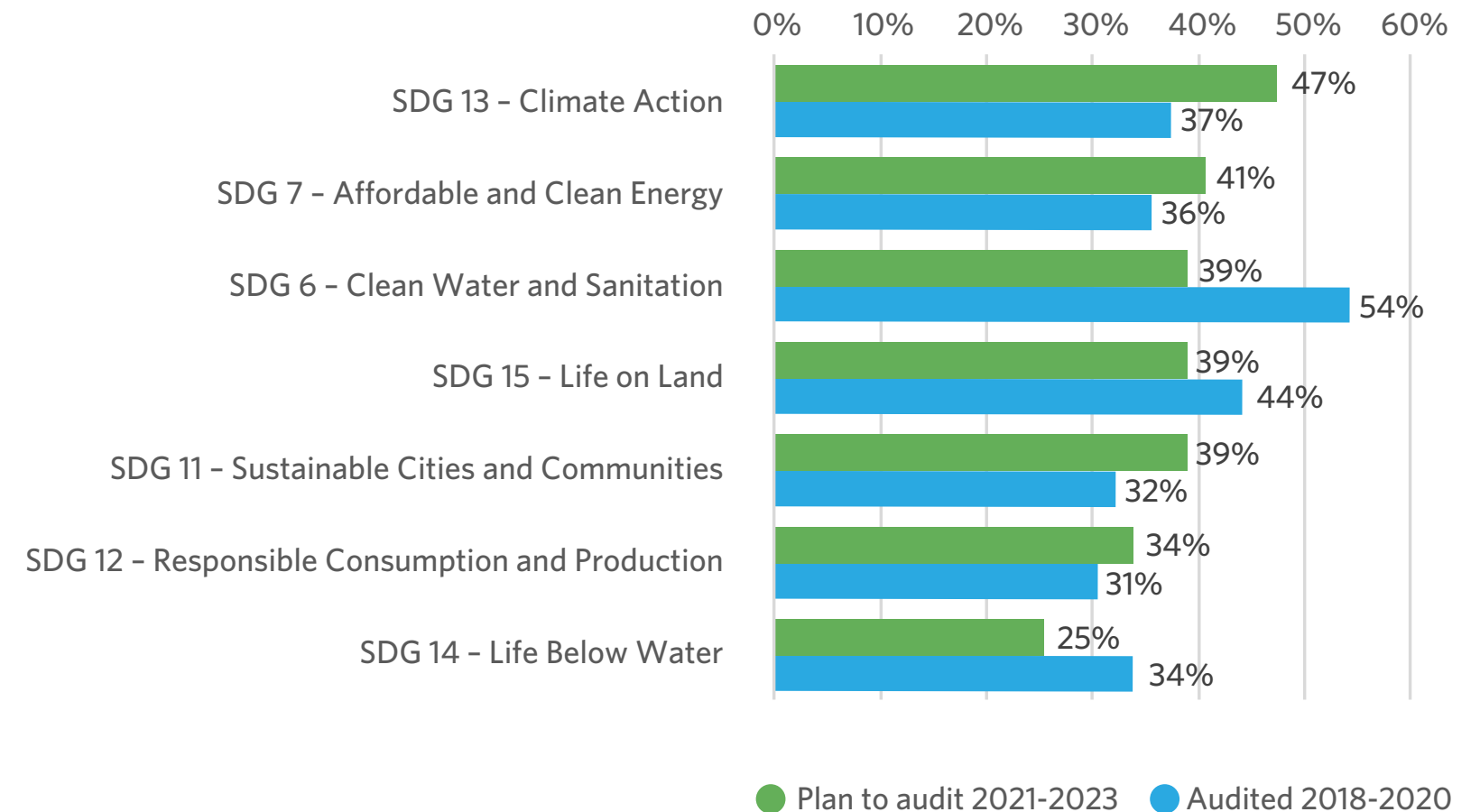
58% of the responded SAIs disclosed that they had conducted audits in direct relation to Agenda 2030 or one of the 17 Sustainable development Goals. Some SAIs noted that they had conducted an audit on the preparedness of governments to implement the SDGs which did not specifically address environmental topics.

## SDG 13 on Climate Action will replace SDG6 on Clean Water and Sanitation as the most audited SDG



The survey also provided a list of the more environmentally focused SDGs and inquired whether SAls had audited or planned to audit any of them. It is possible that SAls have not connected their audits to given SDGs per se, but it gives some idea of the SDGs that are most relevant for SAls. In 2018-2020, SAls audited SDG 6 on clean water and sanitation the most often, followed by SDG 5 on life on land and SDG 13 on climate action. The situation changes when SAls indicate their audit plans for 2021-2023: SDG 13 on climate action becomes most popular, followed by SDG 7 on affordable energy. The growing interest in the climate has emerged also in survey answers.

## Which environment-related SDG SAls have audited and plan to audit



In addition, some SAls pointed out that they had conducted environmentally relevant audits on other SDGs, such as energy poverty related to SDG 1 on no poverty or SDG 9 on industry, innovation and infrastructure.

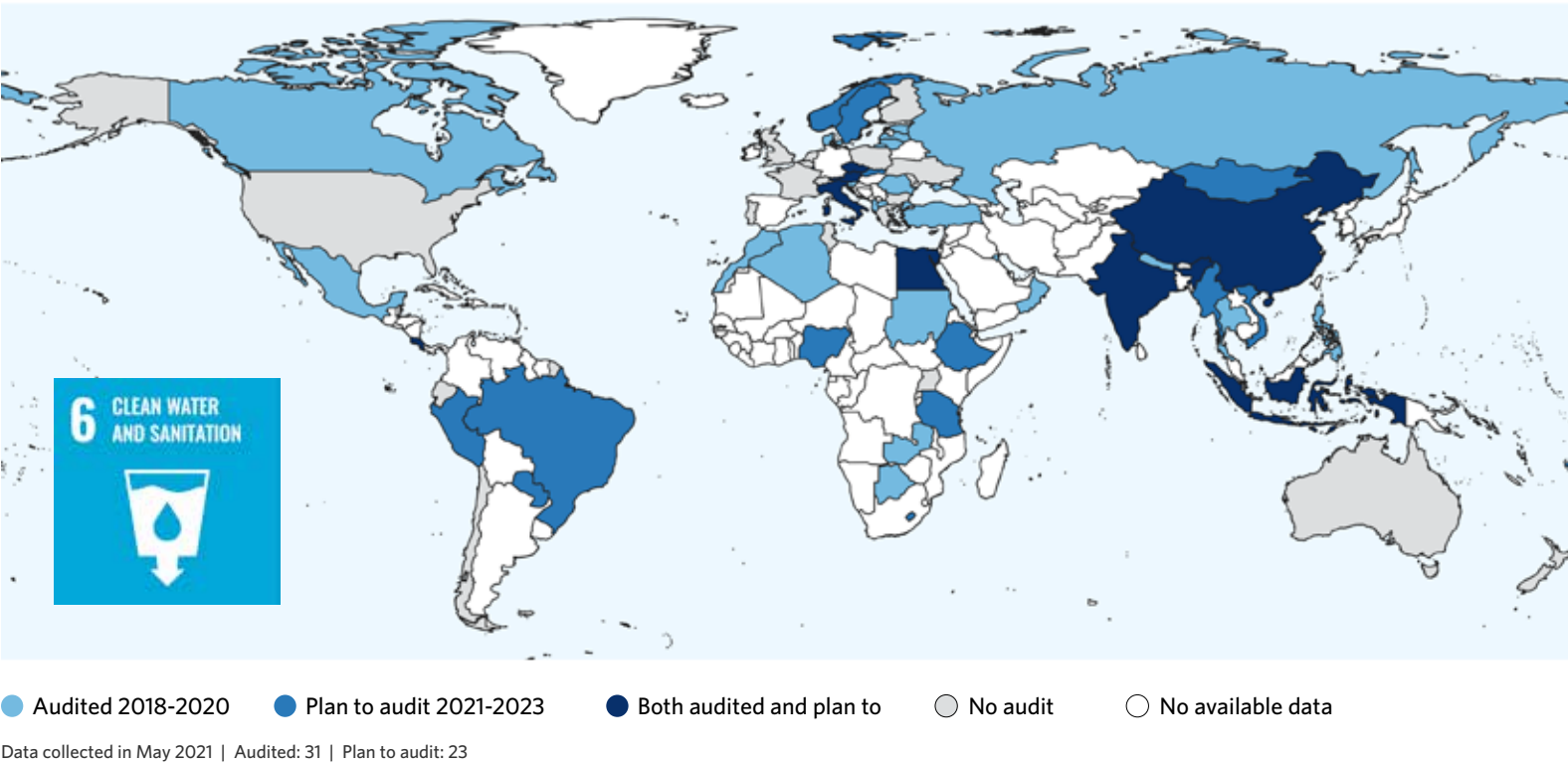


**Regional priorities in plans to audit environmental SDGs**

We also analysed whether there are any regional priorities in relation to SAls audits on the SDGs as well as plans to audit environmental SDGs. We present the results with maps, acknowledging the fact that large countries dominate in the visual appearance, while the small ones tend to disappear into the world map.

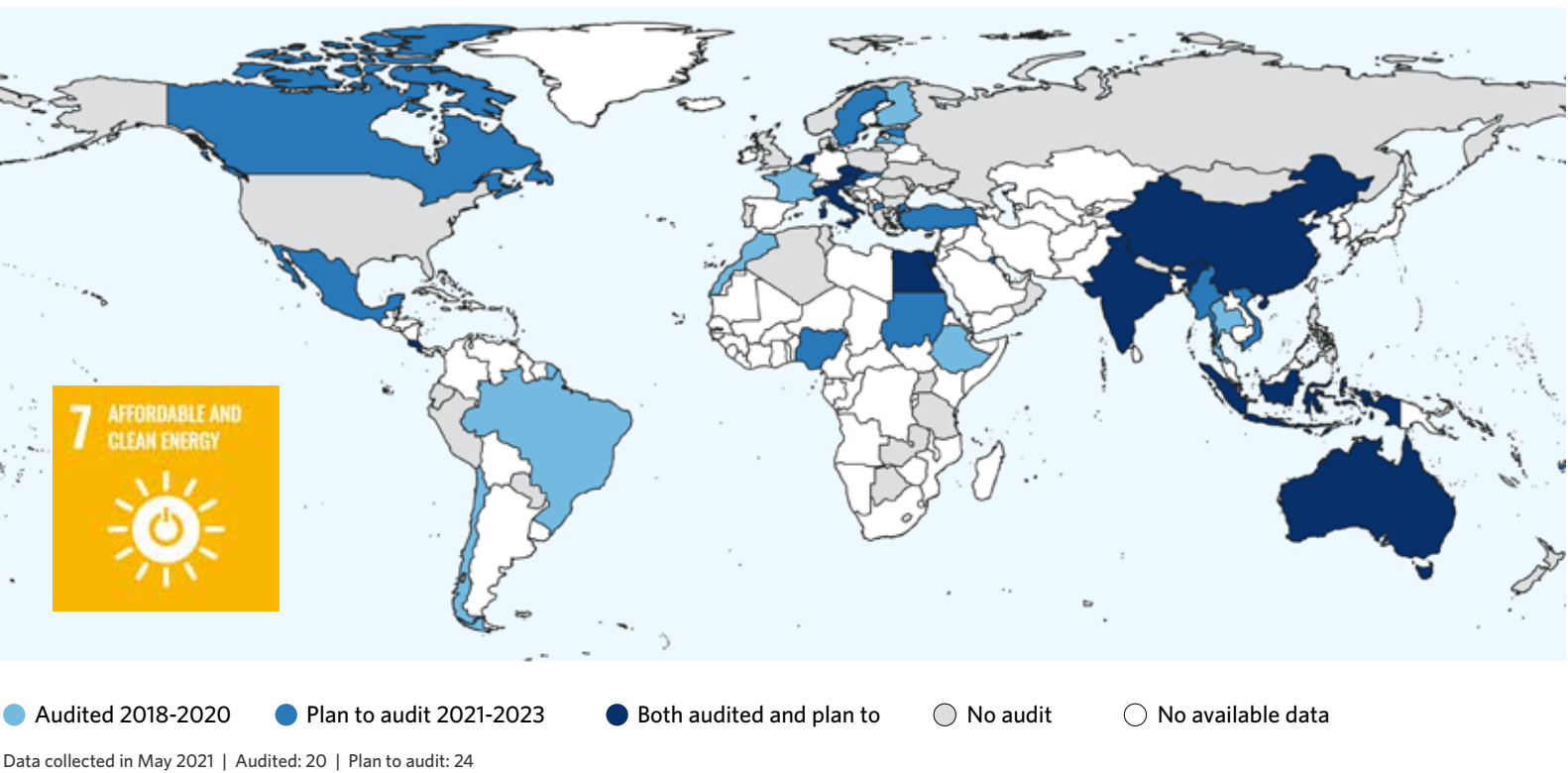
Globally, many SAls audited SDG 6 on clean water and sanitation in 2018-2020. It is a popular topic especially in the ASOSAI region.

**SDG 6 – Clean water and sanitation**



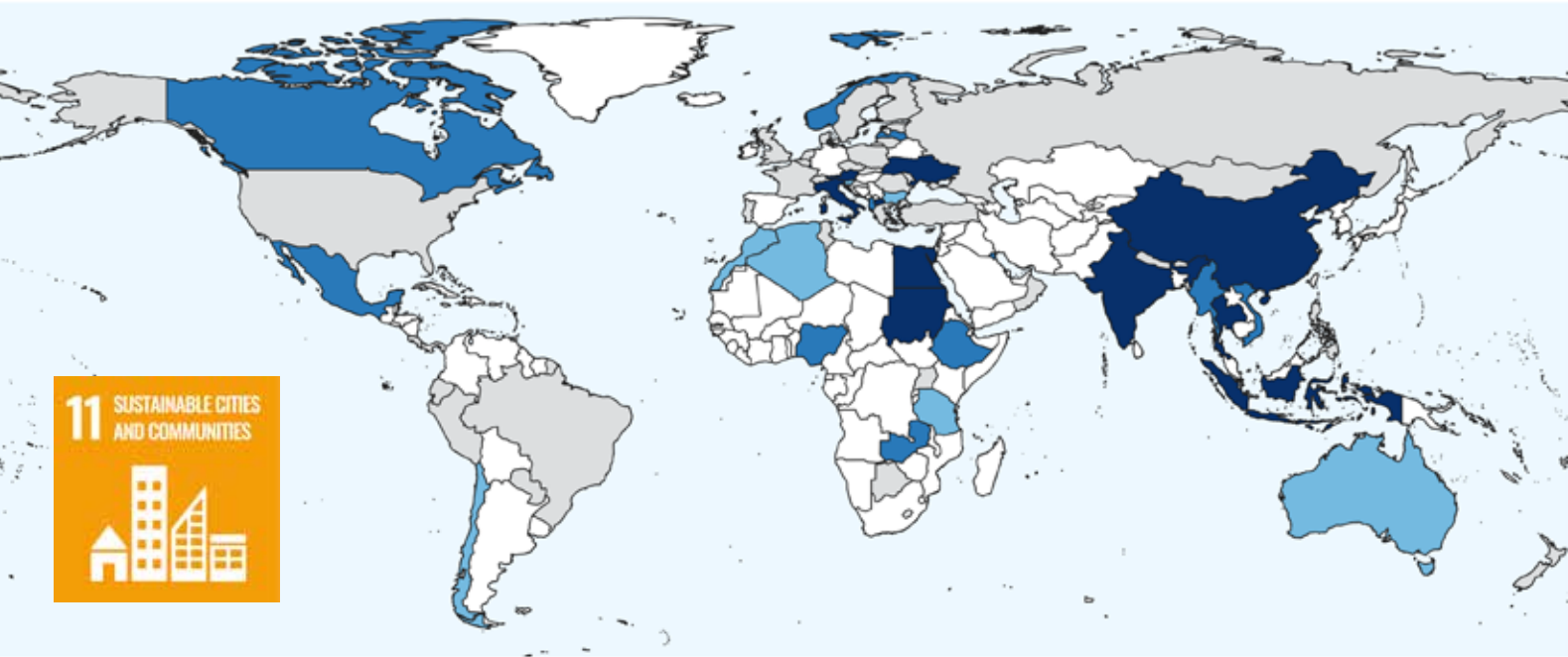
The SDG 7 on clean and affordable energy is prioritised especially in the ASO-SAI and PASAI region.

**SDG 7 – Affordable and clean energy**



Concerning SDG 11 on sustainable cities and communities, the ASOSAI region pays most attention to the topic whereas it is considered least relevant in the OLACEFS area.

SDG 11 – Sustainable cities and communities

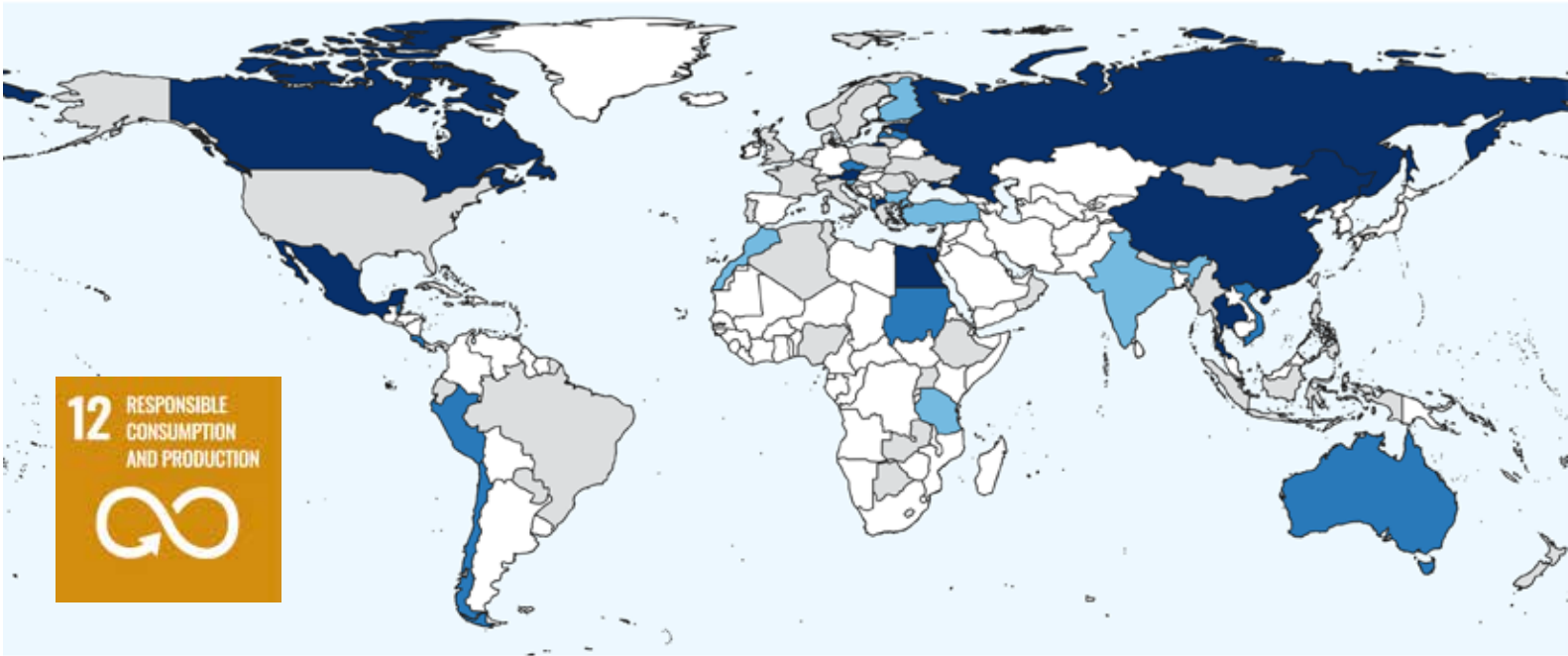


● Audited 2018-2020    ● Plan to audit 2021-2023    ● Both audited and plan to    ● No audit    ○ No available data

Data collected in May 2021 | Audited: 18 | Plan to audit: 23

SDG 12 on responsible consumption and production has not received yet much audit attention but seems to be a rising topic.

SDG 12 – Responsible consumption and production



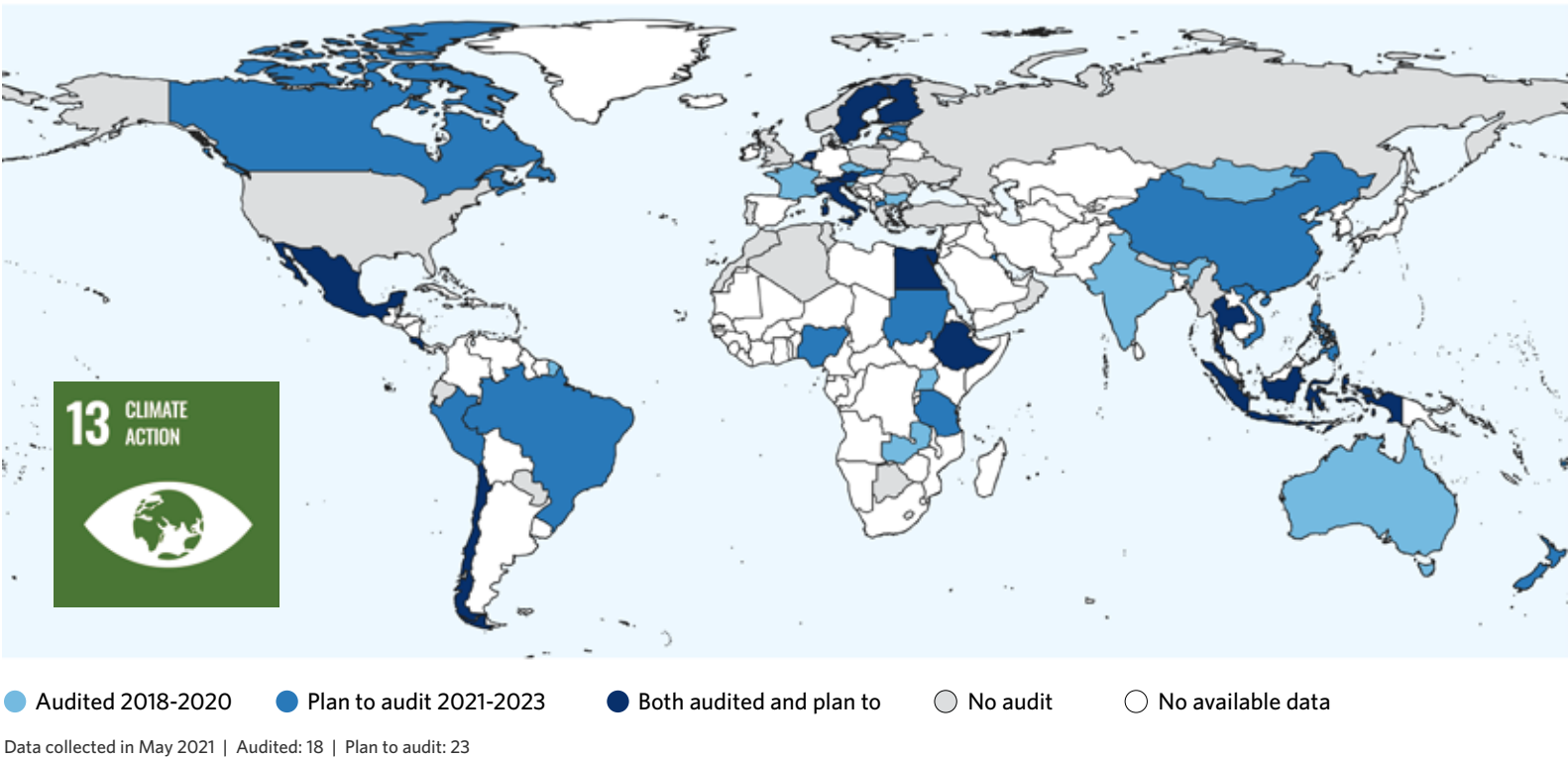
● Audited 2018-2020    ● Plan to audit 2021-2023    ● Both audited and plan to    ● No audit    ○ No available data

Data collected in May 2021 | Audited: 17 | Plan to audit: 20



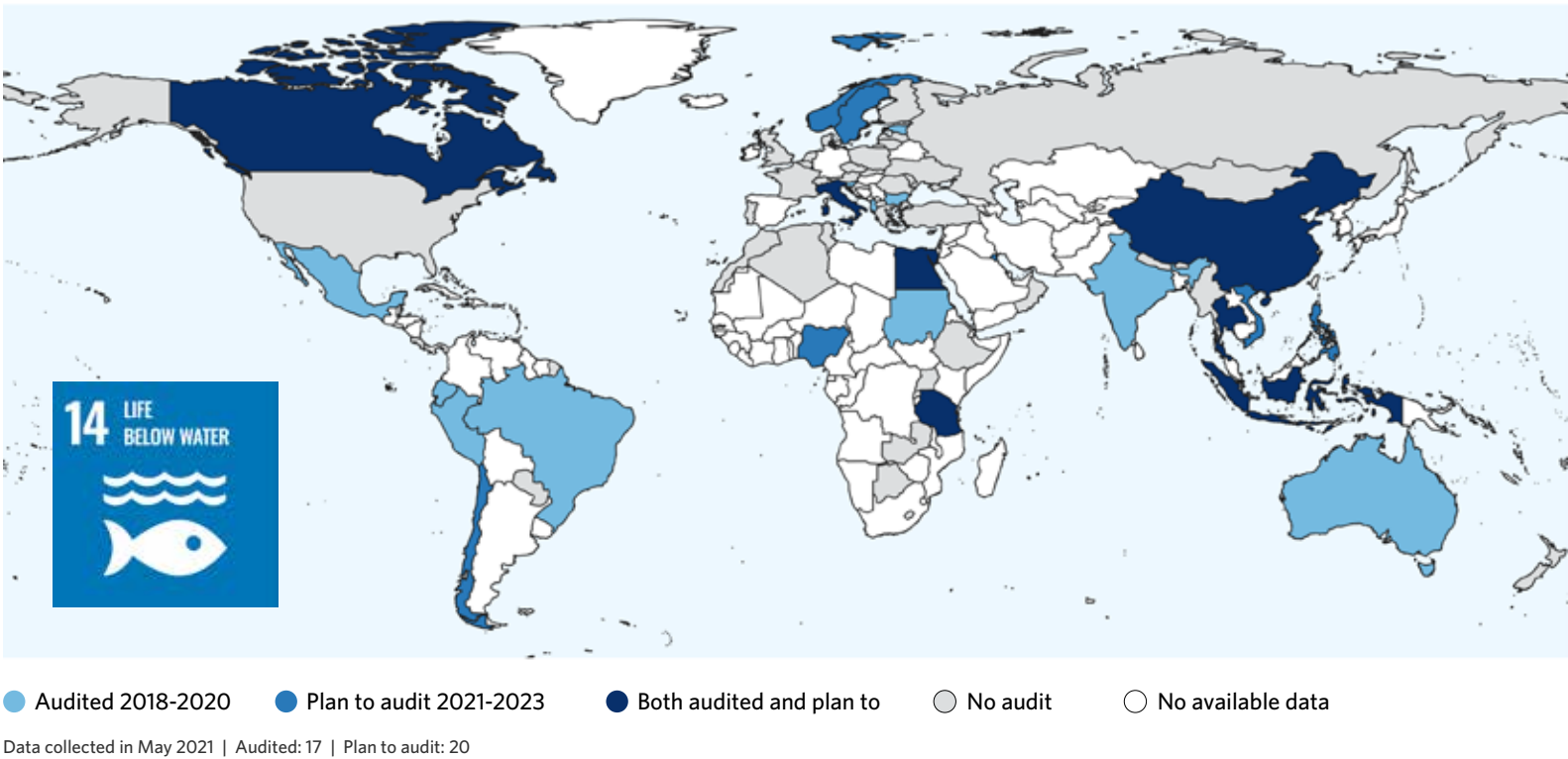
SDG 13 on climate action, including both mitigation and adaptation, is an audit topic that will receive increased attention from SAIs in all regions.

SDG 13 – Climate action



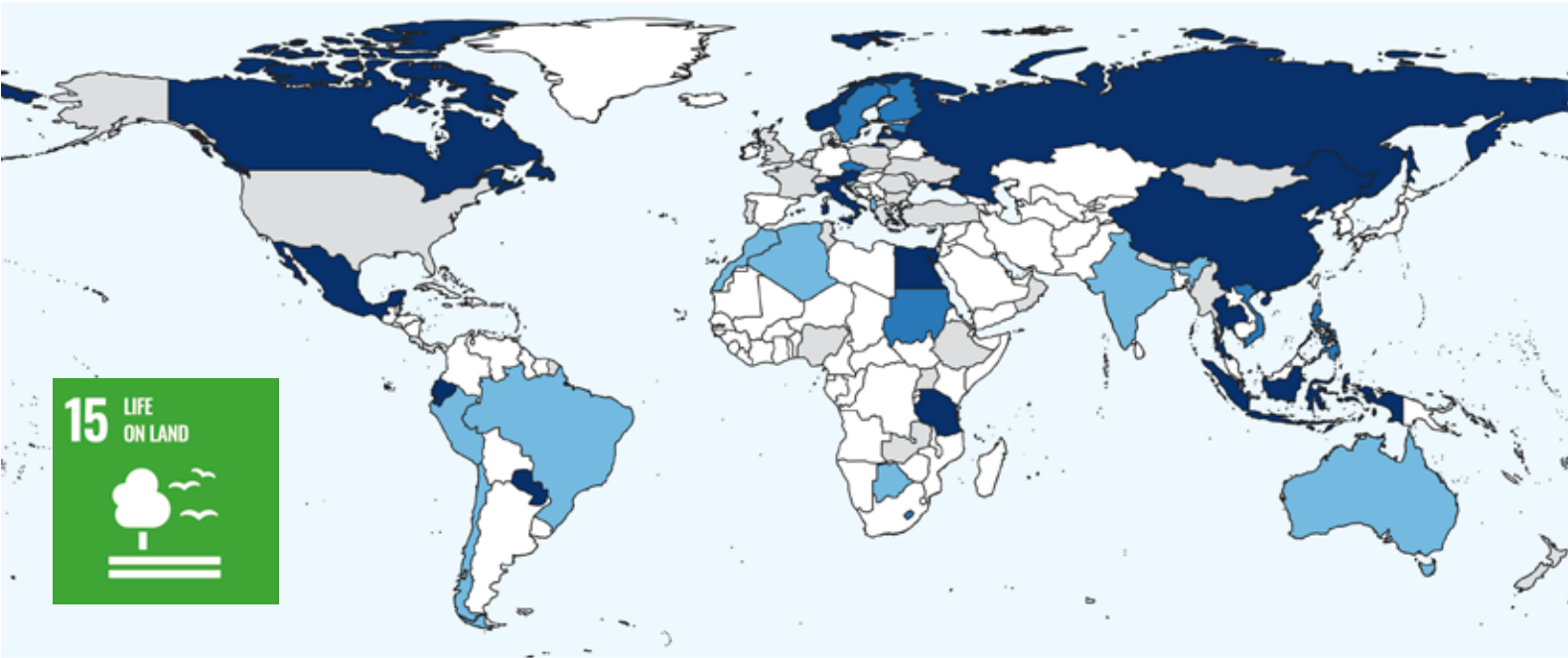
SDG 14 on life below water receives some attention from SAIs in all regions.

SDG 14 – Life below water



Finally, SDG 15 on life on land receives attention in all regions and appears as one of the areas of increased audit attention in all regions.

SDG 15 – Life on land



● Audited 2018-2020    ● Plan to audit 2021-2023    ● Both audited and plan to    ● No audit    ○ No available data

Data collected in May 2021 | Audited: 18 | Plan to audit: 23



### 3. Communication and impact of audits



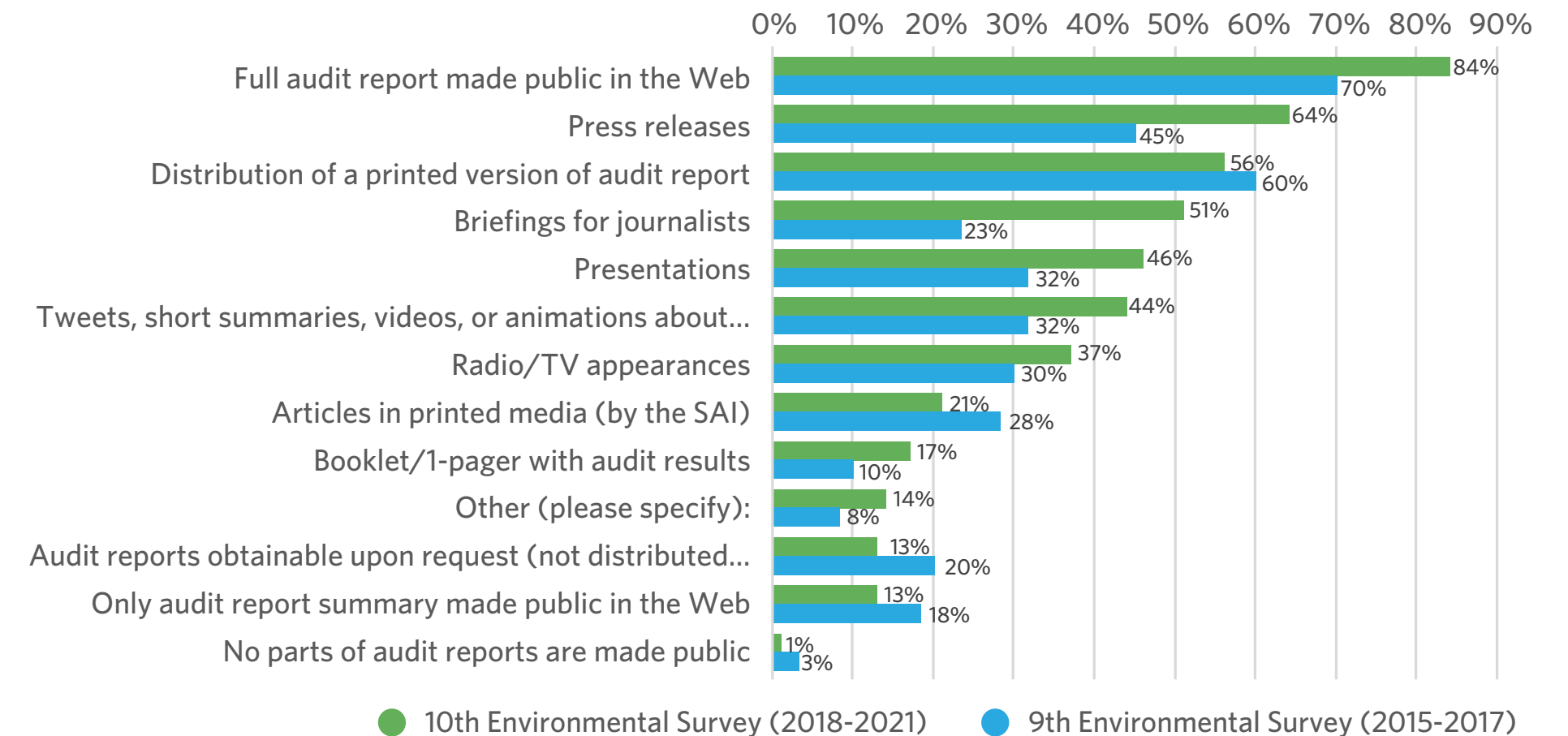
### 3.1. Increase in SAIs' communication – more direct briefings, press releases and social media

Survey question: How does your SAI usually communicate the results of environmental audits to stakeholders (mark all that apply)? n=70

The most used mediums for communicating the results of environmental audits were publishing the full audit report on the web, press releases and distribution of a printed version of the audit report. In the 9th survey from 2015-2017, publishing audit reports online was also the number one communication tool, however now in the 10th survey, printed audit reports had fallen in importance behind press releases.

In comparison to the previous survey, the overall communication of the results of environmental audits has increased. The percentage of audit reports made public in the web increased by 14 percentage points, while briefings for journalists showed the most notable increase of 28 percentage points. Moreover, communicating via press releases received 19 percentage points more responses.

### How does your SAI usually communicate the results of environmental audits to stakeholders?



Overall, digital mediums such as online publication are used more than before and communication via print shows a decrease. The responses also show that a wider array of different means is used in the communication of environmental audit results.



	AFROSAI	ARABOSAI	ASOSAI	EUROSAI	Can & USA	OLACEFS	PASAI
Full audit report made public in the Web	75%	67%	60%	94%	100%	89%	100%
Press releases	63%	17%	50%	84%	50%	56%	33%
Distribution of a printed version of audit report	88%	67%	70%	42%	50%	56%	33%
Briefings for journalists	50%	33%	20%	77%	50%	22%	0%
Presentations	13%	50%	30%	65%	100%	11%	33%
Tweets, short summaries, videos in social media	13%	0%	20%	65%	100%	44%	33%
Radio/TV appearances	25%	17%	10%	58%	100%	11%	0%
Articles in printed media (by the SAI)	13%	17%	40%	26%	0%	0%	0%
Booklet/1-pager with audit results	13%	0%	20%	23%	50%	11%	0%
Audit reports obtainable upon request (not distributed otherwise)	25%	33%	40%	0%	0%	11%	0%
Only audit report summary made public in the Web	13%	17%	20%	10%	0%	22%	0%
No parts of audit reports are made public	0%	0%	0%	0%	0%	11%	0%

According to regional comparison, at least 60% of the SAI in all regions make their full audit reports available on the web. Utilizing social media as well as radio and TV appearances is popular in North America and the EUROSAI region, while notably less common in other regions. Distribution of printed reports is most common in the AFROSAI and ASOSAI regions whereas the EUROSAI and AFROSAI regions publish press releases the most often. Briefings to journalists are provided most often by EUROSAI SAI.

## SUCCESS STORIES:

### Media and parliamentary attention

Several SAIs mentioned receiving parliamentary and media attention in their success stories. Contributing factors were published audit reports online and the most notable findings on social media, utilising interactive graphics and downloadable datasets in reporting and compiling findings from several audits into one reflection report. One SAI reported how an audit was referred to in the media long after its publication due to society's continued interest in the subject. SAIs also noted that locally relevant audits received wider media attention as local newspapers picked up on the topic. Regarding parliamentary attention, some SAIs reported how an audit report had directly resulted in measures being taken and the implementation of recommendations.

/// In 2020, the Austrian Court of Audit published its report on the Lake Neusiedl National Park. The Austrian Court of Audit noted that the increasing desertification is putting the saline ponds of the Seewinkel in danger and recommend that the province of Burgenland should, jointly with the Federal Ministry of Agriculture and the National Park Company, prepare a groundwater management plan for the Seewinkel. The audit was widely reported in the print media, as well as on national radio and television. It led to the formation of a task force that will now develop and implement measures to raise the groundwater level."

**- Austrian Court of Audit**

/// GAO issued a report on hazardous waste sites that are located in areas that may be impacted by climate change and what steps the Environmental Protection Agency (EPA) is taking to manage risks at these sites from climate change. This work included an interactive graphic and downloadable data set showing the locations of the hazardous waste sites and the relevant climate change effects at the locations. This work received a lot of attention from the press across the nation, since journalists were able to identify and report on sites in their geographic areas. In addition, the EPA has started to take steps to strengthen the management of climate change risks at these sites."

**-U.S. Government Accountability Office**

Based on the survey question: If possible, please share an environmental audit success story experienced by your SAI during 2018-2020 for the benefit of international peers. What were the key elements helping your SAI achieve impact? n=36



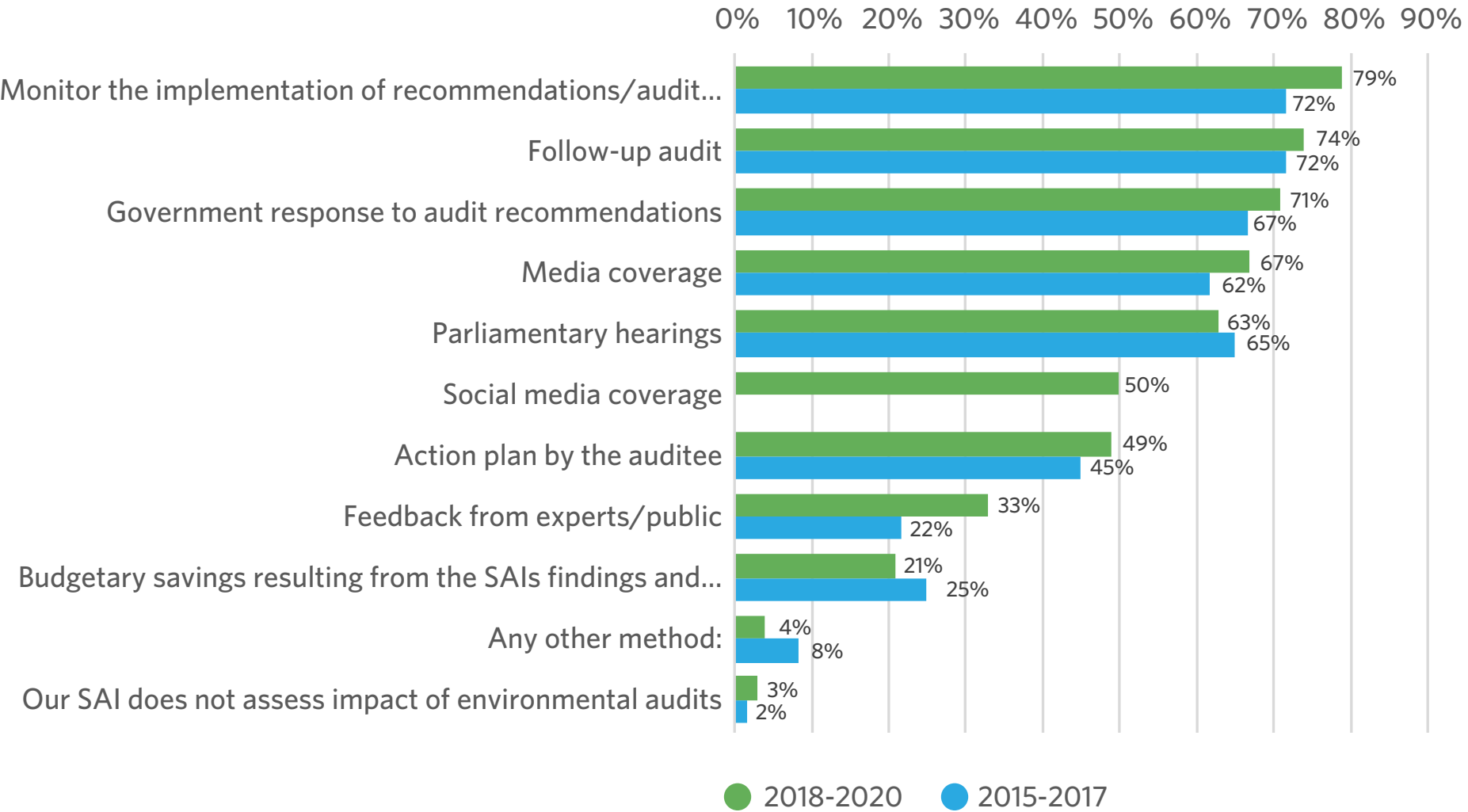
### 3.2. SAls most often assess their impact by monitoring the implementation of audit recommendations

Survey question: How does your SAI assess the impact of its environmental audits? Mark all that apply. n=70

The most common way (79%) for SAls to assess the impact of their environmental audits was by monitoring the implementation of audit recommendations and findings via letter, interview, survey etc. 74% of respondents also mentioned follow-up audits in assessing impact. The third most mentioned assessment method was government response to audit recommendations. These were also the top three answers in the previous environmental survey (2015-2017), however, in this survey round the number of SAls choosing these options had slightly increased.

Two thirds of SAls also mentioned media coverage as an indicator of environmental audit impact, with a 5 percentage point increase since the previous survey. Social media coverage as a factor in impact assessment was now added to the survey for the first time and 50% of SAls mentioned it in their responses.

### How does your SAI assess the impact of its environmental audits?



## SUCCESS STORIES: SAI impact

SAIs reported that certain audits had an impact on policymaking. Recommendations in audit reports led to governments assessing and revising their plans, issues raised by SAIs were included in new regulation and auditors were invited to discuss their findings with decisionmakers. Many SAIs noted concrete improvements regarding the audit topic after publishing the report.

The reasons for audits having high impact included the auditee and SAI's senior management having a clear understanding and appreciation of its importance, which resulted in a high-quality audit and a high rate of implementation of its recommendations. In addition, audits could influence besides the government also public opinion. One SAI found that the format of the report affected its impact and would continue to use infographics in the future.

For example, in the context of a performance audit on natural protected areas in 2014 and a follow-up audit in 2019, SAI Peru was able to notice a notable increase in compliance with audit recommendations. SAI Peru considers that the key elements for the described impact were:

- - Clear understanding of the usefulness of a performance audit by the audited entity in improving the management of natural protected areas.
- Commitment of the audited entity in the implementation of the recommendations resulting from the performance audit.
- Formation of an adequate team of professionals, who were specialists in the subject and with skills for the execution of a performance audit.
- Commitment and support from the senior management of the SAI of Peru for the development of performance audits on environmental issues."

**-SAI Peru**

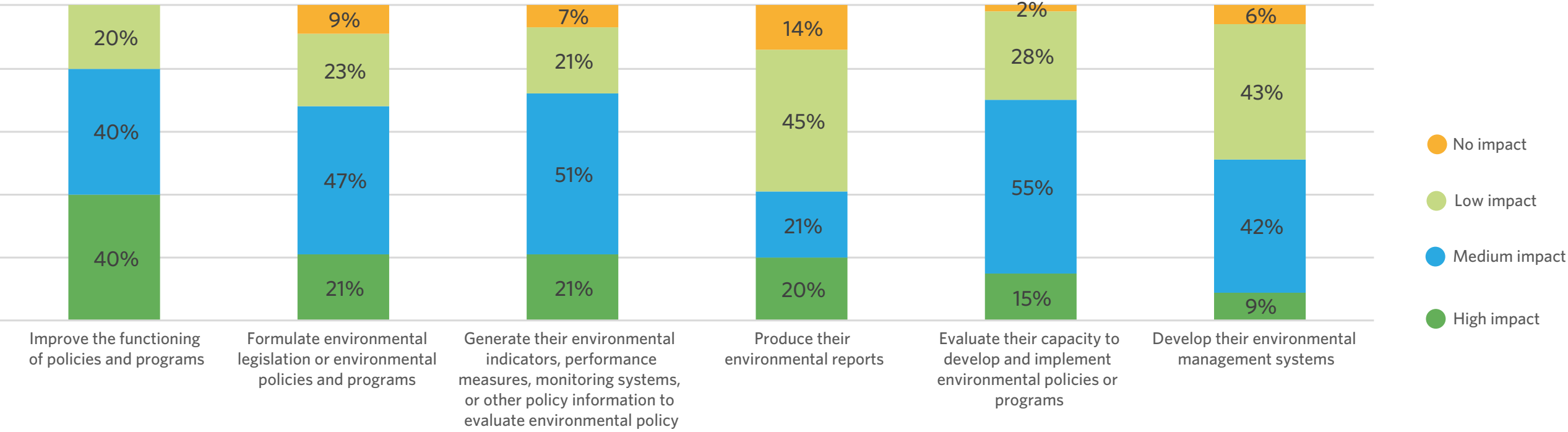
■ In January 2019 the UK government published a 25 Year Environment Plan, setting out its 10 overarching environmental goals. In November 2020 we examined how government had set itself up to deliver these goals. We found that while the Environment Plan brought together a number of aspirations and commitments in one place, it did not provide a clear and coherent set of objectives. We also found the government had not set a clear course for how it would go about developing these objectives so they were coherent, nor had it developed a full set of costed delivery plans. We recommended that the Cabinet Office and Defra improve arrangements for engaging other departments. This included mapping out areas where other departments had a critical role and establishing clear expectations as well as strengthening coordination and oversight. The environment department subsequently told Parliament it had acted on our recommendation and established a new board, with senior representatives from all the big domestic delivery departments with a stake in the 25-year plan."

**-UK National Audit Office**

Based on the survey question: If possible, please share an environmental audit success story experienced by your SAI during 2018-2020 for the benefit of international peers. What were the key elements helping your SAI achieve impact? n=36



### What level of impact the environmental audits conducted by your SAI have had in helping government departments to...



40% of respondent SAIs estimated that their environmental audits had had the highest impact in helping government departments to improve the functioning of policies and programs. The second most popular high impact response (21%) was helping government departments to formulate environmental legislation or environmental policies and programs and helping government departments to evaluate environmental policy.

### 3.3. SAIs consider that their audits improve the functioning of policies and programmes

Audit question: Please assess what level of impact the environmental audits conducted by your SAI have had in helping government departments to.... n=69

Helping government departments produce their environmental reports was estimated in 14% of the option's responses to have no impact. Moreover, helping government departments formulate environmental legislation or environmental policies or programs received 9% of responses for having no impact.



## 4. Challenges and future prospects





### 4.1. Data issues are the biggest barriers in environmental auditing

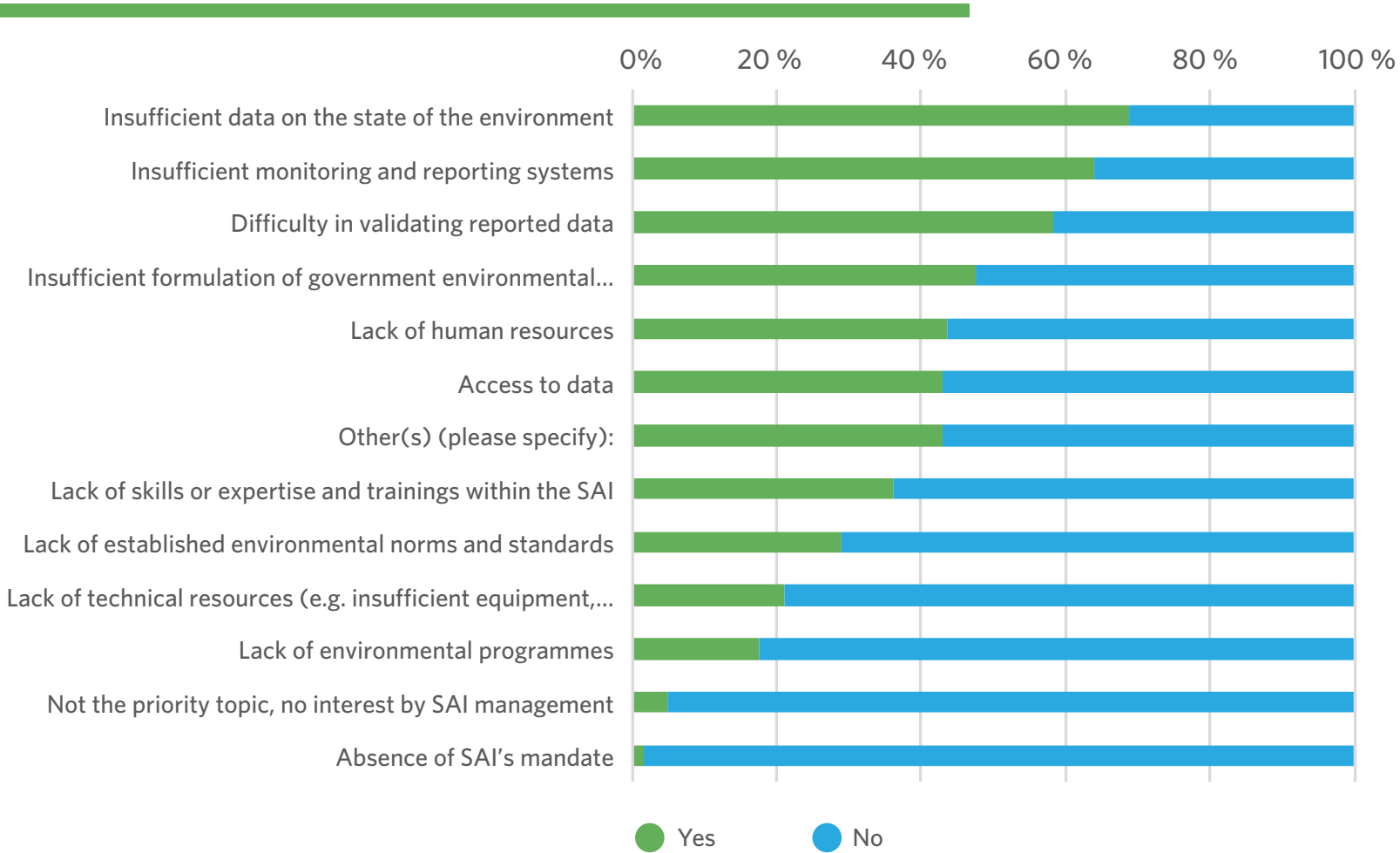
Survey question: Which of the following barriers did your SAI experience in executing environmental audits during 2018-2020? n=69

The most common barriers relate to data, either the lack of it in the first place (insufficient monitoring and reporting systems, insufficient formulation of government environmental policy, insufficient data on the state of the environment) or problems with accessing reliable data (difficulty in validating reported data, access to data). This does not seem to be a mandate issue, nor does it stem from a lack of resources of SAIs. Furthermore, governments usually have environmental programs and set standards.

Data related problems were the biggest barriers in all SAI regions. All respondent SAIs in the PASAI region considered insufficient data on the state of the environment as a barrier, whereas all SAIs in the ASOSAI region identified insufficient monitoring and reporting systems as a barrier.

TOP BARRIERS		
Insufficient data on the state of the environment		
Insufficient monitoring and reporting systems		
Difficulty in validating reported data		

Which of the following barriers did your SAI experience in executing environmental audits during 2018-2020?



AFROSAI	ARABOSAI	ASOSAI	EUROSAI	Canada&USA	OLACEFS	PASAI
86%	60%	78%	57%	50%	89%	100%
71%	60%	100%	56%	50%	63%	67%
71%	50%	78%	52%	50%	57%	67%



## 4.2. SDGs and developing environmental expertise central to future developments

Survey question: Please mark which of the possible environmental audit developments listed below are planned in your SAI in the next three years? n=70

Please mark which of the possible environmental audit developments listed below are planned in your SAI in the next three years



	AFROSAI	ARABOSAI	ASOSAI	EUROSAI	Canada&USA	OLACEFS	PASAI
Focus on Sustainable Development Goals	88%	100%	90%	55%	50%	78%	33%
Training in environmental auditing	100%	83%	80%	55%	100%	56%	67%
Exchange of knowledge with other SAIs	75%	33%	70%	65%	100%	56%	67%
Training in environmental issues	88%	50%	60%	52%	100%	56%	67%
External expert advice	63%	17%	70%	45%	50%	22%	100%
Integration of environmental topics into other audits	63%	67%	40%	48%	50%	11%	0%
More attention to quality and reliability of information	38%	33%	40%	45%	50%	11%	100%
Development of environmental performance criteria in audits	38%	50%	10%	52%	50%	22%	33%
Evaluation of the impact of audits and improving the impact	38%	33%	50%	35%	50%	44%	33%
More measurement of effectiveness of policy	38%	17%	30%	39%	50%	22%	67%
Creation of a pool of environmental auditors	38%	33%	20%	16%	50%	0%	33%
Peer review by other SAIs	38%	17%	10%	10%	50%	11%	67%
Development of new non-environmental audit products	0%	17%	10%	16%	50%	11%	0%
Creation of an unit focusing on environmental audit	38%	17%	10%	0%	0%	0%	0%
No special developments	0%	0%	0%	13%	0%	0%	0%

The most common possible future developments include focusing increasingly on the Sustainable Development Goals, training staff in environmental auditing and environmental issues in general, building knowledge through networking with other SAIs and external experts and various technical developments and improvements to the environmental audit process. Organizational reforms are rare.

Regionally, the global south will place more emphasis on Sustainable Development Goals than the global north. SAIs in AFROSAI, ARABOSAI, ASOSAI

and Canada and the US are commonly planning training activities on environmental auditing, while the EUROSAI region prioritizes exchange of knowledge with other SAIs. The PASAI region seeks external expert advice and attention to quality and reliability of information.

## 5. Cooperation between SAIs and expectations for the INTOSAI WGEA





## 5.1. SAls exchange information, share experiences and cooperate on environmental audits

Survey questions:

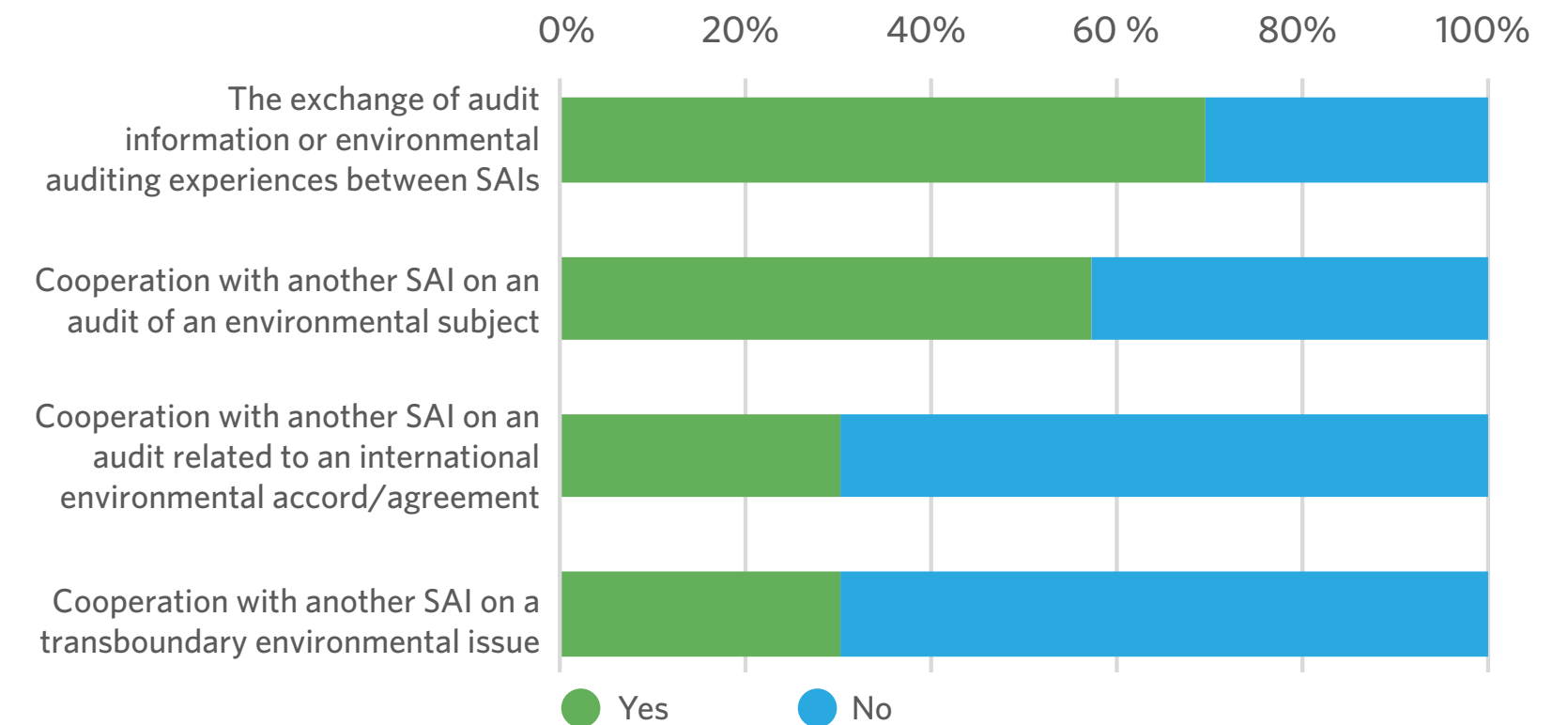
During 2018-2020, did your SAI have any experience with cooperating with another SAI(s) on environmental auditing issues? n=68

Please specify what types of cooperative activities was your SAI involved in during 2018-2020. n=66

68% of SAls had cooperated with other SAls on environmental auditing issues during 2018-2020. Reasons for not cooperating with other SAls were the lack of resources or having to prioritize the other activities of the SAI. Others mentioned the lack of suitable topics and requests for cooperation as well as the effects of the corona pandemic. Additionally, one SAI expressed incompatibility between their internal processes and those of many other SAls, which can inhibit the SAI in question from joining coordinated international audits.

Exchanging information was the most common type of cooperation between SAls, followed by cooperating on an environmental audit. Overall, the rate of

Please specify what type of cooperative activities your SAI was involved in during 2018-2020



cooperation between SAls has grown since the last survey, with every category having more positive answers than previously.

## 5.2. WGEA products are popular – more guidance on climate, SDGs and waste solicited

### Survey questions:

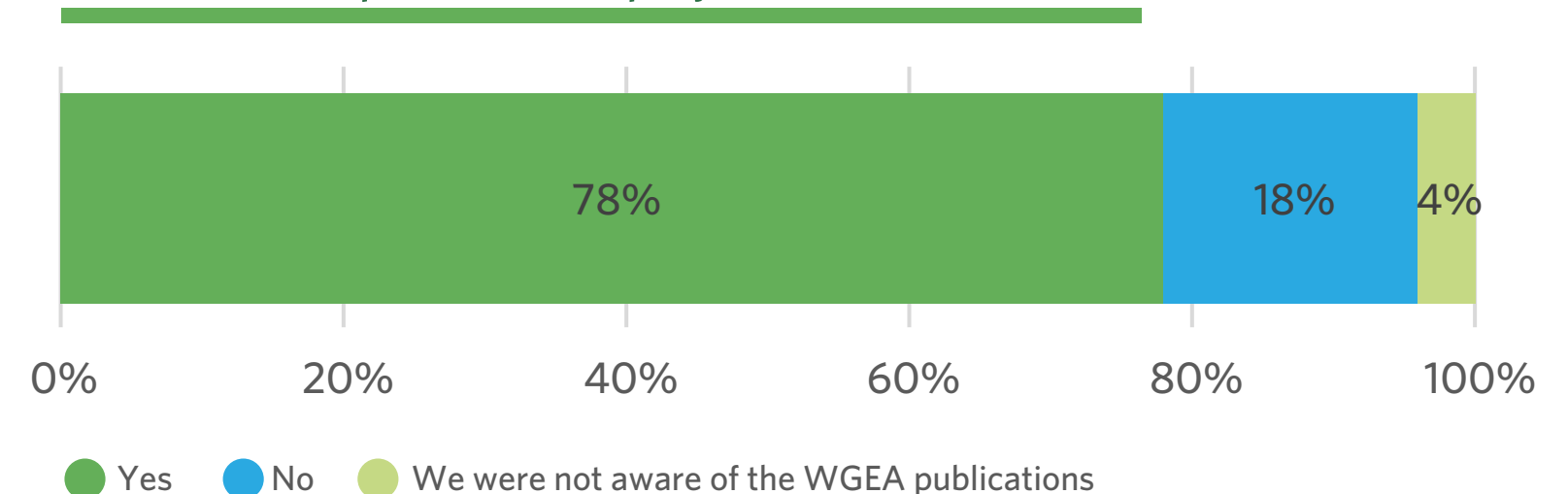
The visual below displays the WGEA documents produced throughout the years. You may have a closer look at all publications through the following link as well: <https://wgea.org/publication/studies-guidelines/>  
During 2018-2020, did your SAI consider any of the WGEA products displayed in its work? n=68

If applicable, please comment whether your SAI found WGEA products useful, bring examples if feasible, and provide any other reflections you wish to convey. n=4

Please rate the different types of INTOSAI WGEA products and services listed below. n=69

Would your SAI be interested in additional INTOSAI WGEA products related to environmental auditing? Please specify the most interesting topic(s) and types of products/projects for your SAI. n=48

During 2018-2020, did your SAI consider any of the WGEA products displayed in its work?



The overwhelming majority of SAs considered WGEA products and publications in their work. Only a small minority were unaware of WGEA products altogether.

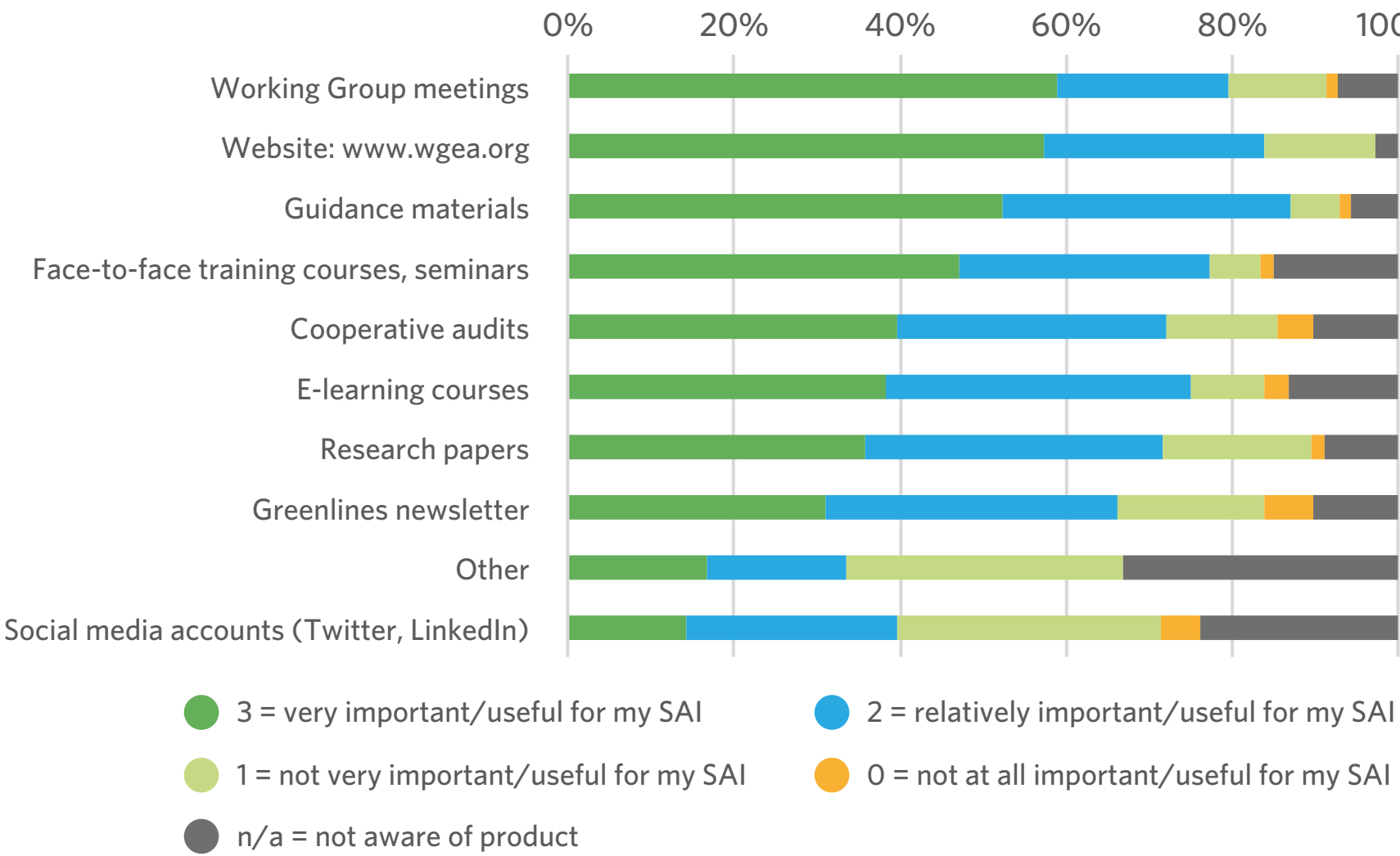
WGEA products were deemed most useful as resources for planning and conducting audits. Many SAs use publications and audit reports to get ideas for audits, as guidance for choosing topics and methods and as a source of best practices for the audit process. There were also responses asking for more clarity on audit methodology and the addition of performance indicators for better guidance. One SAI mentioned using the audit database to get a global overview of environmental auditing as it shows common audit topics, challenges and risks, for instance.

The other area where WGEA products are most useful is as sources of (scientific) information on the audit subject. Guidance documents, trainings and courses were most useful for this. One SAI found that WGEA guidance documents and reports had been useful in creating environmental auditing MOOCs. Another respondent mentioned the 2019 Research Project on Improving the Visibility of SAI’s work: Communicating environmental audit results being useful by presenting new ideas and practices on communication.

In addition, a few respondents expressed wishes for more products focused on the SDGs. This sentiment was also present in the previous survey, suggesting an ongoing need for guidance on the SDGs and environmental auditing.

Working group meetings and the WGEA website are the most important or useful resources to SAIs. This suggests that the working group can do valuable work both face-to-face and remotely. The following two items, guidance materials and training courses and seminars, reinforce this successful dual approach. WGEA meetings, the website and guidance materials had the lowest rate of respondents not being aware of them at all whereas face-to-face trainings and e-learning courses were unknown to over 10% of SAIs and up to 25% had no knowledge of WGEA’s social media presence. Every listed product or service was mostly deemed at least somewhat useful or important, with social media, Greenlines and cooperative audits receiving the most 0-answers, around 5% each.

### Usefulness of INTOSAI WGEA products and services





Need for further guidance and training

The most requested types of WGEA products relate to guidance, and knowledge and experience sharing. SAls wish for auditing guidelines and specific tools as well as materials, courses or seminars for field-specific expertise. There was some interest for seminars to discuss WGEA publications and networking with external experts (e.g. academic researchers). MOOCs and other online training courses were brought up by many respondents, as they are feasible during the pandemic. There were also mentions of the need for guidance on environmental auditing during a pandemic situation, as well as the relationship between the pandemic and the environment as an interesting topic.

The most requested topics for WGEA products were climate change, Sustainable Development Goals, waste (6 mentions each), air pollution and circular economy (3 each). Most of these have been the subject of WGEA publications before but many SAls are looking for updated or extended work on the topics. In addition, many more topics such as climate finance, biodiversity and conservation, natural resources, mining, land use, environmental impact assessment, energy, urban/ rural sustainability and transportation, specifically biofuels were also highlighted. SAls are looking to WGEA for a wide variety of environmental issues and topics. However, 10 respondents were content with the current state of WGEA work and were not especially interested in additional products or services.

5.3. Climate change and SDG implementation top priorities for the next WGEA Work Plan

Survey question: What do you recommend for the main theme of thec 2023-2025 WGEA work plan\*? Please explain your choice. n=49

The most mentioned themes for the WGEA Work Plan 2023-2025 were climate change and SDG implementation. Several responding SAls also wished to work on environmental audit and the Covid crisis, biodiversity and waste, as well as soil degradation, green economy and data.

The respondents argued that climate change should be the main theme of the next WGEA

Top 17 topics for the next Work Plan	Mentions
Climate change	10
SDG implementation	10
Environmental audit and the Covid crisis	5
Biodiversity	4
Waste	4
Soil degradation	3
Green economy	3
Data	3
Marine environment	2
Climate change mitigation and adaptation	2
Energy	2
MEA implementation	2
New technologies	2
Circular economy	2
Agriculture	2
Renewable resources	2
Disaster management	2

work plan because it is the most critical environmental issue. The theme of environmental audit and the Covid crisis was recommended to support SAls in continuing environmental auditing in times of crisis. As subcategories of waste management, SAls suggested targeting medical and hazardous waste as a consequence of the pandemic, E-waste and solid waste. Green economy is seen as an impactful transversal theme that covers several nexus areas related to for instance climate, biodiversity, health and economic inclusion. Lastly, it was mentioned that SAls should acquire skillsets in data analysis to best exploit the increasing data resources in their audits.



INTOSAI  
Working Group  
on Environmental  
Auditing



[wgea.org](http://wgea.org)



[@WGEASecretary](https://twitter.com/WGEASecretary)

