GREENLINES

A newsletter of the INTOSAI Working Group on Environmental Auditing

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Message from the Chair

Dear INTOSAI WGEA members and other readers,

As SAI Finland concludes its term as Chair of INTOSAI's Working Group on Environmental Auditing (WGEA), I would like to thank all member SAIs for their engagement and constructive cooperation over the past 6 years. I also wish to highlight the remarkable dedication of Dr. Vivi Niemenmaa, who has led the WGEA Secretariat with professionalism and commitment throughout this period. Her contribution has been crucial in advancing the work of the global environmental audit community.

It has been inspiring to see how the WGEA has supported and enhanced audit work by providing practical, concrete tools—like the Audit Database—and promoting systematic sharing of best practices. WGEA resources have proven valuable in helping SAIs carry out impactful environmental audits.

Environmental themes remain globally significant—urgent, interconnected, and impossible to ignore. In this context, the work of WGEA is more important than ever. I firmly believe that our community has much to offer, both in terms of technical expertise and collective experience. SAI Finland remains willing to continue sharing our lessons learned and supporting all members in their efforts.

As we look ahead, I want to warmly welcome and wish the best of success to our next Chair, SAI Thailand. We are confident that under their leadership, the WGEA will continue to grow and thrive.

Thank you once again for the opportunity to serve this remarkable community.

Dr. Sami Yläoutinen, Chair of INTOSAI WGEA, Auditor General of SAI Finland

Feature Story

Steering Microplastic Governance to Meet SDGs and Planetary Boundaries

Without a doubt, microplastic contamination is ubiquitous worldwide. The scientific evidence is robust, and this environmental threat is already a consensus among researchers (Rochman 2018). Highlighting that the omnipresent contamination is not black and white helps guide policymaking and auditing practices towards a matrix- and case-specific approach to avoid dichotomous lenses. Microplastic contamination varies significantly in different matrices due to the polymer engineering complexity, with particles presenting varied shape, size, crystallinity, chemical composition, adsorbed chemical substances, and additives (Silva et al., 2018).…*continued on page 2*

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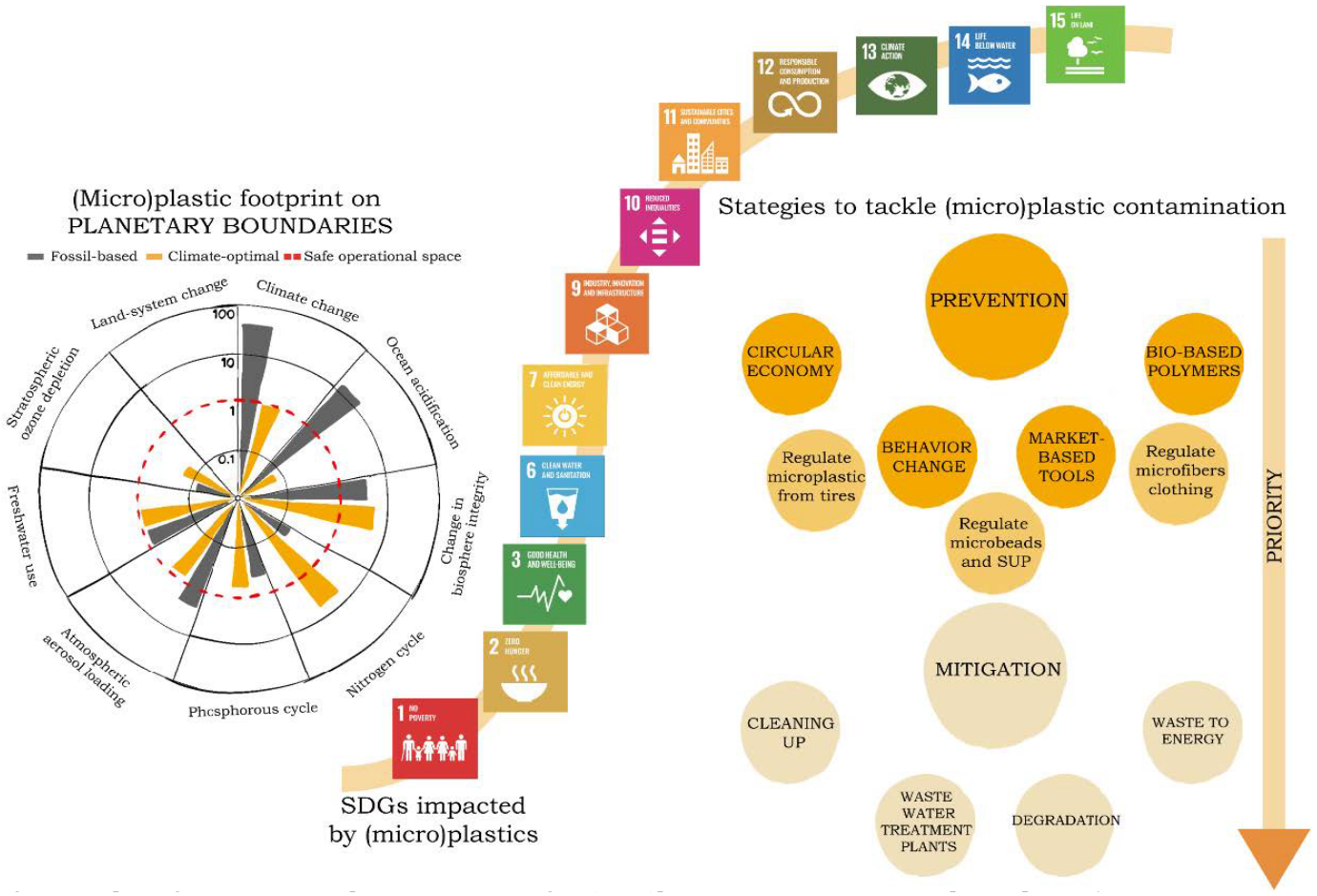
Continued from page 1…This multifaceted issue demonstrates the need for meticulous assessments before implementing strict measures, such as more drastic market-based instruments that could face public reluctance without an evidence-based approach. Top-down policymaking could rely on market-based instruments to steer the prevention and mitigation of (micro)plastic contamination. However, the solutions are more nuanced than that.

The United Nations proposed 17 universal Sustainable Development Goals (SDGs) to tackle the most pressing global threats by 2030 (Hák et al., 2016). Although some goals may align with the need to tackle (micro)plastic contamination in the environment, only SDG 14 (Life Below Water) specifically mentions microplastic pollution, likely due to the ocean science role as a pioneer in raising awareness on microplastic pollution. However, Walker (2021) identified that at least 12 of the 17 SDGs are directly impacted by microplastics (see Figure below). Moreover, fossil-based (micro)plastic contamination also exceeds several planetary boundaries (Bachmann et al., 2023), and this footprint demands an optimal combination of circular technologies to minimize the maximal transgression of the planet's safe operational space (see Figure 1 below). Without action, the planetary footprint of plastics and microplastics will not achieve a safe operational space.

It is clear that preventing microplastics from entering the environment should be a priority over cleaning them up, which can be cost-prohibitive and often technically challenging. The way forward to regulate microplastic contamination in the following decades is to strengthen policymaking and governance to control microplastics from entering the environment through comprehensive and operational legislation, regulations, and the enforcement of already-existing top-down policies within the circular economy context. Policies and initiatives tackling single-use plastics have been pioneers in targeting plastic pollution in the environment. Strengthening these policies is necessary after proper life cycle assessments for each case.



SDGs. Adapted from Bachman et al. (2023), Walker (2021), and Munhoz et al. (2023).

This could be encouraged through harmonization of legal instruments, market liability, investments in alternative materials, eco-design, extended producer responsibility schemes, including externalities in products, microplastic-free labels, and enforcing measures to inspect plastic-related businesses. Environmental and socioeconomic benefits can be achieved when incentives trigger the development of alternatives to non-degradable oil-based plastics. Behavioral changes towards microplastics at all societal levels need to be fostered through environmental literacy and engagement of different stakeholders through behavior-shifting efforts linked to media campaigns

Additional efforts should focus on alternative materials and technologies to replace oil-based clothing, synthetic rubber used in tires, the plastic coating used in marine antifouling paint, along with other sustainable alternatives. However, it is noteworthy that (micro)plastic pollution is intertwined with several environmental issues. For instance, banning plastic mulch in agricultural soils may lead to decreased productivity, higher pesticide use, and higher water use, among others. Hence, life cycle assessments are necessary to avoid the often-sold "one-size-fits-all" solution and highlight the need for solutions tailored to specific circumstances and applications.

Once preventive lenses have been established, investments can also be made in mitigation measures. For instance, integrating waste management programs with technological advancements and tertiary treatments could also enhance health quality and living standards in developing countries. Moreover, biodegradable polymers and microbial degradation, often presented as potential solutions, require further thorough research due to the varied biodegradation rates of different polymer properties and the complexity of the receiving systems. For example, plastic films claimed as biodegradable under controlled environments may last longer or not degrade in natural environments. The cost efficiency of these solutions ought to be evaluated as well. For instance, are clean-up strategies demanding enormous infrastructure and fossil fuel consumption? Life cycle assessments of such initiatives are necessary before implementing far-fetched initiatives with low added value and excessive costs.

The gap between science and policymaking, often mentioned in academic studies, still lacks a proper bridge. The legal recognition and enforcement of microplastics increased from 2010 onwards, raising key questions on the best strategies to prevent and mitigate plastic pollution. Engaging with the preventive and mitigation measures discussed here could assist the involved stakeholders in meeting the SDGs and the safe operational space for the planetary boundaries. We emphatically urge a wide-ranging assessment of how the policies implemented after the 2010s have helped to reduce the (micro)plastics in the environment to reassess and readjust measures to meet the SDGs for 2030. Microplastic pollution is another proxy within the Anthropocene that should neither be forgotten nor assessed as a separate issue due to its impact on several planetary boundaries. Bearing that in mind and acknowledging the need for life cycle assessments targeting case-specific microplastic contamination, environmental auditors will take another step towards a more sustainable future.

Davi R. Munhoz, PhD candidate, Soil Physics and Land Management, Wageningen University and Research, Netherlands

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Greetings from the Secretariat

The WGEA Secretariat has been led by SAI Finland through its final yaer in its current composition. The first half of 2025 has been a busy period for the Secretariat with preparations for the 23rd INTOSAI WGEA Assembly, facilitating new initiatives and contributing to relevant meetings and events.

In January, Secretary General Vivi Niemenmaa attended the 25th Anniversary of the United Nations Environmental Program (UNEP) Geneva Environment Network and met with various United Nations (UN) stakeholders. During the same month, Dr. Raisa Ojala joined the Secretariat as Deputy Secretary General. As Raisa joined our team, she began coordinating the drafting of the WGEA Environmental Audit Guidance.

The guidance builds upon the existing INTOSAI guidance 5200, 5201, and 5203, and the preparation process has been a joint effort with SAIs of Egypt, Estonia, Thailand, and the European Court of Auditors. The guidance was finalized after the quality assurance process and was approved as a WGEA Guidance document in the 23rd Assembly.

In February, Assistant Secretary General Mohammed Ibrahim Jaleel from SAI Maldives facilitated the International Workshop on Biodiversity by the International Centre for Environment Audit and Sustainable Development (iCED) in Jaipur, India. In March, the Secretariat team was complemented by two trainees, Emilia Linnekoski and Sari Suonpää, who worked with us until mid-July.

March was a month with much happening! In the beginning of the month, Vivi attended a Climate Conference of the Organization of Supreme Audit Institutions of the Mercado Común del Sur and Associated Countries in Chile, and a mentors' meeting of the cooperative audit on Climate Change Adaptation Actions (CCAA) in conjunction with its kick-off in the Arab Organization for Supreme Audit Institutions region. Additionally, the new initiative of the Environmental Audit Clinic was launched. These clinics were set up as one-on-one sessions in April and May to provide mentoring for SAIs on a specific issue or audit topic by experienced environmental auditors. The Secretariat sees great potential in continuing these sessions, as the feedback on the initiative has been positive and supportive.

On 8 March, in honor of International Women's Day, a podcast on women and girls within the changing climate was produced by the WGEA Secretariat, featuring experts on gender equality matters.

Some of the other highlights included the visit of Vivi and Vice Chair Hussain Niyazy from SAI Maldives to the iCED in Jaipur, India in June. The visit included discussion on developing joint training activities, connecting them more closely to the WGEA Work Plan activities.

In May, the Secretariat worked closely with project groups on the final project reports of the Work Plan 2023–2025. The project groups assembled their outstanding project reports, which are published as snapshots designed by the Secretariat. The project reports were approved in the 23rd INTOSAI WGEA Assembly. In addition to this, the planning of the Work Plan 2026–-2028 has been well in progress since autumn last year and was adopted in the Assembly. The new work plan and projects will be further planned in coordination with the new Chair.

The arrangements for the 23rd Assembly, organized in Malta from 1-3 July 2025, started early in the beginning of the year. Close cooperation on the meeting arrangements was smooth with our colleagues from SAI Malta hosting the Assembly. The theme of the Assembly this year was *Auditing Our Blue Planet*, focusing on critical environmental challenges related to water, the marine environment, and water scarcity from the perspectives of drought and drinking water availability. The theme is topical globally, as the UN Ocean Conference took place in June.

In the context of the Assembly, the 4th WGEA Award was given out on the topic of Innovative Practices in Environmental Auditing. SAI Philippines won in the category of Innovative Climate Audit with their audit on the National Climate Change Action Plan. In the second category, SAI Tanzania was awarded for their audit on the Management of Carbon Trade. The jury also decided to give an Acknowledgment of Inspiration to SAI Brazil for their incredible and inspirational work on the ClimateScanner.

Read more on the 4th WGEA Awards in the WGEA blog.

WGEA News (cont.)

In the 23rd Assembly, SAI Thailand was introduced as the new Chair of the INTOSAI WGEA. The official transfer will take place at the Congress of INTOSAI in October. During the transition period from the INCOSAI to the end of 2025, the current Secretariat will do its best to transfer all the relevant information on the WGEA work to the future Secretariat in SAI Thailand.

We in the Secretariat at SAI Finland thank the WGEA community for its support over the years of our Chairmanship. We firmly believe the working group will be in good care under the leadership of SAI Thailand.

We have been proud to cherish the amazing WGEA and wish all the best for the global environmental audit community!

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WGEA Regional News

Pragmatic Innovation, Efficient Collaboration: ASOSAI Accelerates and Leads New Developments In Regional Environmental Auditing Exchanges

The Asian Organization of Supreme Audit Institutions (ASOSAI) Working Group on Environmental Auditing (ASOSAI WGEA) recently organized a series of international exchanges to establish new fulcrums, expand new fields, enhance new capabilities, and plan for new developments.

By sharing audit experiences and fostering collaborative efforts to improve the innovative capacity of resource and environmental audits, ASOSAI WGEA is committed to advancing the achievement of the United Nations Sustainable Development Goals.

Establishing new exchange fulcrums through the platforms of regional international organizations

In April 2025, the 7th Meeting of the Shanghai Cooperation Organization (SCO) Member States' SAI Heads was held in Tajikistan. The meeting focused on two main topics: glacier protection, and sustainable utilization of water resources. Mr. Hou Kai, Auditor General of the National Audit Office of the People's Republic of China (CNAO) and Chair of the ASOSAI WGEA, shared insights on China's auditing experiences and audit outcomes.

The SCO prioritizes themes such as managing water resources and creating new fulcrums that effectively contribute to the goal of sustainable global natural resource use.

7th Meeting of the Shanghai Cooperation Organization (SCO) Member States – Malta (Source: ASOSAI WGEA)

Expanding new fields in desertification prevention and control audit

In June 2024, the ASOSAI WGEA hosted the International Seminar on green development and desertification prevention and control audit in Ningxia Hui Autonomous Region, China. Delegates from seven SAIs attended the meeting. Mr. Li Feng, Deputy Auditor General of CNAO, delivered a keynote speech on

China's desertification mitigation strategies and government auditing's contributions.

During the seminar, delegates conducted on-site inspections of phtovoltaic power generation, a grass grid sand barrier, and wetland protection projects related to desertification prevention and control.

Additionally, the Secretariat of the INTOSAI WGEA sent a congratulatory letter, praising the seminar for filling a gap in the field of global environmental auditing and for its significant influence on the attention SAIs are paying to global sustainable development.

International Seminar on Green Development and Desertification Prevention and Control Audit (Source: ASOSAI WGEA)

Enhancing new capabilities through biodiversity protection audit training

In December 2024, the ASOSAI WGEA conducted an online thematic training on the climate change adaptation audit and biodiversity protection audit.

The Vice-Chair of the INTOSAI WGEA, the Auditor General's Office of the Republic of Maldives (SAI Maldives), shared practical experiences in conducting climate adaptation audits. Audit institutions from Yunnan Province, Guangxi Zhuang Autonomous Region, and Shaanxi Province of China introduced a biodiversity protection audit focused on Asian Elephants, an audit of invasive species prevention and control, and an audit of ancient and notable trees protection. Information sharing from the audit institutions of China and the Maldives showcased the strong bilateral cooperation between the two countries in addressing climate change and protecting biodiversity.

ASOSAI WGEA online thematic training on Climate Change Adaptation Audit and Biodiversity Protection Audit (Source: ASOSAI WGEA)

Planning for new developments in audit cooperation at ASOSAI WGEA meetings

In February 2025, the 10th ASOSAI Seminar on Environmental Auditing and the 10th Working Meeting of ASOSAI WGEA were hosted by SAI Indonesia. Mr. Li Feng, Deputy Auditor General of CNAO, representing the ASOSAI WGEA, presented the Third Green Vision Award to SAI Thailand. Participants engaged in in-depth discussions on the theme of solid waste management and approved the working group's 2025–2026 plan.

Through careful planning, cooperative audits and collaborative scientific research projects will be initiated. These actions will further enhance communication, increasing mutual trust, and jointly improve the quality and effectiveness of audit practices.

10th ASOSAI Seminar on Environmental Auditing and 10th Working Meeting of ASOSAI WGEA (Source: ASOSAI WGEA)

Brazil

ClimaBrasil Panel and Climate Scanner Updates

ClimaBrasil Panel – A ClimateScanner Initiative

Brazil's Supreme Audit Institution, the Federal Court of Accounts, is leading the ClimaBrasil Panel—an innovative initiative designed to enable Brazil's regional audit courts to monitor public policies addressing climate change regularly, objectively, and systematically at state and municipal levels.

Inspired by the ClimateScanner, this project brings together 30 state and municipal audit courts across Brazil to assess climate governance, as well as mitigation and adaptation policies and climate finance instruments.

Brazil will be the first country to adopt the ClimateScanner methodology for subnational application. The aim is to present the results of both the ClimaBrasil Panel and the ClimateScanner at UN Climate Change Conference - Belém, November 2025 (COP30), providing an unprecedented diagnosis from the perspective of public auditing institutions.

The integrated and coordinated efforts of audit institutions at all levels of government are key to building more effective climate governance. The joint commitment of Brazil's Federal Court of Accounts (TCU) and Brazil's regional audit courts demonstrates that we can lead by example.

ClimateScanner Updates

The ClimateScanner is an initiative led by INTOSAI and WGEA designed to assess how national governments are responding to climate change through their governance structures, mitigation and adaptation policies, and climate finance efforts.

A total of 141 Supreme Audit Institutions (SAIs) have joined the initiative, and 240 auditors were trained in 2024 to apply the ClimateScanner tool. So far, 73 SAIs have completed their assessments, and the remaining institutions are expected to submit their inputs in time to enable the presentation of both consolidated and individual results at COP30.

Learn more about the initiative online at https://sites.tcu.gov.br/climatescanner/ingles.html.

For additional information, contact climate@tcu.gov.br.

Bulgaria

Forest Conservation and Restoration

In 2021, the European Union (EU) adopted the New EU Forest Strategy for 2030 as a priority initiative and part of the European Green Deal. The Bulgarian National Audit Office assessed the effectiveness of the country's policy for the protection, restoration and sustainable management of forests in terms of:

- mechanisms in place to implement the policy on the established regulatory and institutional framework; the organisation and implementation of the long-term planning and operational planning process; information provision for the forest management process; the provision of financial resources for policy implementation and effectiveness of control activities carried out by the competent authorities in forest areas; and
- achievements of the objectives and the expected impact of the policy for conservation, restoration and sustainable management of forests—including the implementation of measures and activities—and the contribution of the policy for sustainable forest management.

The audit established that the policy for conservation, restoration, and sustainable management of forests is aimed at multifunctional and sustainable management of forest ecosystems, as well as achieving a balance between the ecosystem, social, and economic functions of forests.

Further efforts are needed to ensure the policy is effective in addressing gaps and weaknesses in forest planning processes and as a tool for forest area management, national forest inventory, and forest management control. The audit identified gaps and weaknesses in the policy, including the lack of an integrated information system on forest territories and forest activities; insufficient absorption of the funds foreseen under the EU programmes, and investments and activities in forest territories; insufficient effectiveness of the administrative penalty activity for prevention, and detection of violations of the Forestry Act and its implementing regulations, among other things.

To address the deficiencies, 9 recommendations have been given to the Minister of Agriculture and Food and

13 to the Executive Director of the Executive Forest Agency.

View the report online at https://www.bulnao.government.bg/bg/documents/15104/05.2025.OD_GORI_-_i-net_-_3.pdf.

For additional information, please refer to Rossena Gadjeva, Director of Performance Audits Directorate, at r.gadjeva@bulnao.government.bg.

Czech Republic

Summary Report of Environmental Audits

2025 marks the 32nd anniversary of the establishment of the Supreme Audit Office (SAO) of the Czech Republic. Since its inception, the SAO has focused on the environment. Among its first audits, for example, the SAO addressed the topics of environmental rehabilitation in coal regions, revitalization of river systems, and anti-flood measures

Since then, much has changed. Air quality has improved significantly, particularly due to decreases in sulphur dioxide emissions. Since 2000, the quality of surface water has also improved, thanks to the construction of new wastewater treatment plants and the expansion of the sewage network. The situation with waste began to improve with the adoption of the Waste Act and the development of the waste sorting system.

Despite these improvements, the situation is far from ideal, as is evidenced by the results of the SAO's audits. New problems have emerged, and some existing ones have worsened. In addition, the county is experiencing the impacts of climate change, including a decline in biodiversity.

As a result, the SAO prepared a new product in the field of environmental audits, which summarizes eleven environmental audits the SAO conducted since 2018. In the report, readers will find a discussion of energy savings, waste and water management (including the issue of pesticides in surface and groundwater), nature and landscape protection, and air quality. The report recaps the main messages from these audits (including funds spent), the financial instruments used for environmental protection, the impacts of the audits, and measures used by the responsible authorities in response to the SAO's audits.

An integral part of the publication is an international comparison, which allows readers to see how the Czech Republic is doing compared to other European countries. The audit also outlines instances of the SAO's cooperation with international supreme audit institutions and its activities in INTOSAI and EUROSAI working groups.

By summarizing both SAO audits and the individual environmental areas the SAO has—and has not—audited over the past 7 years, the SAO gained a good overview of its activities and gaps in its work. The SAO can take this information into account when planning future audits.

View the summary report online at https://www.nku.cz/en/publications-documents/other-publications/summary-report-on-the-sao-environmental-audits-id14781/.

For further information, please contact Sylva Müllerová or Michal Rampír at sylva.mullerova@nku.cz or michal.rampir@nku.cz.

Egypt

Environmental and Developmental Oversight Issues

The Accountability State Authority (ASA) strengthens its position as a world-leading SAI through diverse contributions to environmental issues, participation in developing international guidelines, and expanding its regional and global presence. This is in addition to its key role in monitoring national development projects within the Arab Republic of Egypt to strengthen its role in the field of environmental auditing, promoting good governance, and achieving sustainable development goals.

ASA participated in developing the new WGEA Guidance on Environmental and Climate Auditing. The work was carried out in cooperation with members from SAI Estonia, Thailand, Maldives, and the European Court of Auditors, under the coordination of the WGEA Secretariat (SAI Finland). The initiative consolidated and updated previous guidance into a single, coherent document to serve as a practical reference framework for conducting environmental audits. This guidance is not an INTOSAI Framework of Professional Pronouncements document, offering greater flexibility and contributing to enhanced quality in environmental audits.

The Council of the Food and Agriculture Organisation of the UN (FAO) approved the appointment of SAI Egypt as the external auditor of FAO for 6 years starting in 2026. Counsellor Mohamed Al-Faisal Youssef, the President of ASA, expressed that this appointment reflects ASA's independence and ability to provide accurate and professional audit reports on topics related to food security. ASA is also currently the external auditor of the World Tourism Organization and the UN Industrial Development Organization (UNIDO), and a member of the UN Panel of External Auditors.

Further deepening relations with international partners, ASA joined the Association of SAIs of French-speaking countries and participated in the 10th General Assembly of the Association. ASA presented a practical audit case study on a government project entitled "Egyptian Programme for Enhancing and Increasing Energy Efficiency in Electric Engines for Industrial Processes." The project is carried out in cooperation with UNIDO and aims to improve the efficiency of electric engines in the industrial sector by replacing old engines with energy-efficient ones to reduce energy consumption and carbon dioxide emissions.

Finland

Energy Investment Aid as a Driver for the Green Transition

The National Audit Office of Finland audited the effectiveness, allocation, and administration of energy investment aid granted to companies and communities to support Finland's and the EU's climate and energy goals. The amount of energy subsidies multiplied between 2018 and 2023. In addition to national support, funding from the EU's Recovery and Resilience Facility was also allocated to promote the green transition and climate goals.

The audit examined whether the Ministry of Economic Affairs and Employment and the funding centre Business Finland have created sufficient conditions for the effective targeting and use of energy investment support.

The audit found that the lack of concrete performance targets weakened the aid's steering effect and accountability. While new technologies were prioritized in principle, nearly half of the aid was granted to conventional technologies. The criteria for assessing technological novelty and risk were found to be ambiguous.

The audit also revealed inconsistencies in how the catalytic effect, emissions reductions, and energy savings were assessed. As a result, the comparability of the energy and climate impacts of the projects has been weak. It has not been possible to compile uniform and reliable monitoring data from the project information or to assess the overall impact of the support.

The audit concluded that clearer objectives, harmonized assessment methods, and better follow-up are needed to ensure the aid's effectiveness and transparency. Authorities should adopt better methods for assessing the triggering effect of energy subsidies and ensure that the preliminary assessment of project profitability, emissions reductions, and other impacts is based on consistent criteria and calculation rules. Additionally, it is important to ensure that the financial support is genuinely directed towards new technologies and to monitor the benefits achieved with the support in relation to its objectives.

View the summary in English in the WGEA audit database.

For more information, please contact Kaisa-Reeta Koskinen, Principal Performance Auditor, at kaisa-reeta.koskinen@vtv.fi.

India

Innovative Methodologies in Environmental Auditing

SAI India has consistently demonstrated its commitment to promoting environmental accountability and sustainability through its constitutional audit mandate. SAI India has adopted several innovative methodologies in environmental auditing, such as:

Use of satellite imagery and land use data: This technique has been used in urban infrastructure audits to analyze land use changes and assess storm water drainage and sewerage systems. During the Performance Audit on Storm Water Drainage and Sewerage Management Systems in Municipal Corporations in

Odisha, SAI India used satellite imagery and land use data to examine time-series patterns of land use changes and assess the effectiveness of drainage systems.

Use of problem-oriented approach: This approach has been applied in a river pollution audit to identify and analyze root causes of pollution. In the Performance Audit on the Degradation of the Kshipra River in Madhya Pradesh, this approach helped in understanding the underlying issues contributing to the river's degradation, leading to more effective recommendations for improvement.

Scientific collaboration: SAI India collaborated with the external domain expert for the detection and analysis of microplastics in the water supply sources in the Performance Audit on Waste Management in Urban Local Bodies in Madhya Pradesh.

Use of unmanned aerial vehicles: This innovative technique has been employed in forest plantation audits for accurate, data-driven assessments of plantation activities. In the Performance Audit on the Assessment of Plantation Activities Undertaken by the Forest Department of Odisha, this technology enabled precise measurements and analysis, leading to more reliable and actionable audit findings.

View detailed reports online at Storm Water Drainage and Sewerage Management Systems, Degradation of Kshipra River, Waste Management in Urban Local Bodies, and Assessment of Plantation Activities Undertaken by Forest Department.

For more information, please contact iced@cag.gov.in.

Kuwait

Climate Change Issues: Water Security

In 2024, the State Audit Bureau of Kuwait (SAB) audited the role of related government entities in achieving water security, one of the most important challenges arising from climate change. Kuwait's climate is known for its extremely high temperatures in the summer and an absence of water bodies. The country relies solely on distilled seawater mixed with brackish water for drinking water; this makes Kuwait highly vulnerable to climate change risks.

The audit objective was to identify the risks and precautions taken by related government entities to preserve water security in the country. SAB evaluated the three pillars of water security—availability, access, and quality—in addition to evaluating the progress of the Sustainable Development Goal (SDG) indicators on clean water and sanitation (SDG 6). The audit involved three main government entities, namely the Ministry of Electricity & Water & Renewable Energy, Ministry of Public Works, and the Public Authority on Environment over the data period 2019–2023.

The report blended performance, compliance, and environmental auditing methods resulting in a comprehensive audit report. The results and recommendations were categorized for each of the above-mentioned government entities depending on their field of specialty and assigned responsibilities. The Ministry of Electricity & Water & Renewable Energy is responsible for the production of safe potable water under World Health Organization guidelines and for constructing and maintaining the potable water network. The Ministry of Public Works role is to provide sanitation services and water treatment to produce a complementary water resource in order to reduce the consumption of freshwater in other sectors (e.g., agricultural and industrial uses). Finally, the Public Authority on Environment is concerned with safeguarding the marine environment from pollution and with the safety of drinking water.

SAB recommended that all government entities develop a strategic plan to combine efforts in achieving water security, implement effective sustainable management policies for water resources, protect the marine environment from pollution, and work towards achieving SDG 6, providing clean water and safe sanitation services.

Latvia

Emission Allowance Auction Instrument Audit

The State Audit Office of Latvia recently conducted a performance audit to evaluate the cost-effectiveness of the Emission Allowance Auction Instrument (EAAI), a financial tool aimed at achieving climate policy goals.

Key Findings:

Inefficient Fund Utilization:

- The audit concluded that the EAAI funds have not been invested in the most cost-effective climate change mitigation measures. Despite the availability of substantial funding, the selection of mitigation measures lacked a data-driven approach.
- A significant portion of the EAAI funds, approximately 320 million euros, remained unused by the end of 2023, leading to a decrease in their value due to inflation.

Increase in Administrative Expenses:

- The Ministry of Climate and Energy, responsible for administering the EAAI since January 2023, has significantly increased administrative expenses. In 2 years, the Ministry spent almost twice as much on administration as the previous Ministry of Environmental Protection and Regional Development did in 11 years.

Lack of Cost-Effectiveness Evaluation:

- The audit highlighted that the Ministry has not conducted a cost-effectiveness evaluation of the EAAI measures, resulting in the continuation of cost-ineffective projects. For instance, the cost of reducing one ton of greenhouse gas emissions in certain projects was excessively high.

Recommendations:

1. Establish Prerequisites for Cost-Effective Planning: Develop and implement a methodology for evaluating the cost-effectiveness of climate change mitigation measures.
2. Targeted Achievement of Climate Goals: Ensure that EAAI funds are channelled towards measures that contribute significantly to achieving climate goals, based on cost-effectiveness calculations.
3. Efficient Use of Public Funds: Limit administrative expenses to no more than 7 percent of the funding paid out in EAAI project tenders per year.
4. Timely Utilization of Funds: Aim to use the funds obtained from emission allowance auctions within three years on average.

Conclusion:

The audit underscores the need for a strategic and data-driven approach to the utilization of EAAI funds to maximize their impact on climate change mitigation. By implementing the recommended measures, the Ministry of Climate and Energy can enhance the cost-effectiveness and transparency of EAAI fund utilization, contributing to Latvia's ambitious climate goals.

View the summary in English online at https://lrvk.gov.lv/en/audit-summaries/audit-summaries/are-the-funds-of-the-emission-allowance-auction-instrument-planned-in-a-cost-effective-manner.

For more information, please contact Mr. Jānis Salenieks Janis.Salenieks@lrvk.gov.lv.

New Zealand

Local Government Climate-Related Initiatives

New Zealand's Office of the Auditor-General looked at how well four councils—local government authorities—are moving beyond high-level climate change commitments and strategies towards taking action. All four councils had climate-related initiatives underway. Some of the initiatives are especially important for addressing future impacts of climate change, such as coastal inundation or inland flooding.

All four councils were engaged in coastal adaptation planning to some extent. Despite the absence of a legislative and financial framework to support some of the more significant climate adaptation options, councils were getting on with the important task of talking to their communities about what matters to them and what adaptation options look like.

All four councils have taken steps to be informed about the current and likely impacts of a changing climate on their infrastructure and communities. These steps included commissioning expert advice and, for councils that have in-house expertise, carrying out their own modelling. Two councils use an interactive online risk mapping tool to identify and communicate climate-related risks.

All four councils had identified climate change as a strategic priority in some way. All had declared a climate emergency. However, identifying climate change

as a strategic priority had not always translated into treating it as one. Strategic priorities should clearly drive council activities and be seen to do so. They need to be integrated into planning and resourcing and they need to be visible in governance decisions, community engagement, and reporting about performance and progress.

Governance arrangements have a critical role in ensuring good organisational performance. The audit found the approach to governance over council climate programmes varies and was not always clear. Councils need to be clear about how climate-related activities will be governed and staff need to be clear about what information is required for governing bodies to monitor progress and make informed decisions.

View the report online at How well four councils are responding to a changing climate — Office of the Auditor-General New Zealand.

United States

Textile Waste Reduction and Recycling

In December 2024, the U.S. Government Accountability Office (GAO) published its first report on textile waste. GAO reviewed 1) how textile waste affects the environment; 2) how and why the rate of textile waste changed in the U.S. in the past 2 decades; and 3) what actions the federal government is taking to reduce textile waste and advance textile recycling, and what opportunities exist for entities to collaborate.

The methodology included conducting a literature review; analyzing data and documents on textile imports and waste; interviewing officials from federal and state agencies, nonprofit organizations, and industry; and site visits in the states of California and Maryland, including to observe activities at a large non-profit collector and sorter of discarded textiles, cutting and sewing companies, and a textile-to-textile recycling company.

GAO found that textile waste has been increasing over the past 20 years in the U.S. due to the rise of "fast fashion" in the apparel industry and other factors. GAO also found that textile waste causes harmful effects to the environment, including the release of greenhouse gases and the leaching of contaminants into soil and water as textile waste decomposes in landfills. Some federal entities—such as the U.S. Environmental Protection Agency and National Institute of Standards and Technology—have planned or initiated efforts to reduce textile waste and advance textile recycling. However, most of these efforts are conducted individually.

GAO identified opportunities for interagency collaboration to improve these efforts. GAO recommended that Congress consider providing direction to a federal entity (or entities) to coordinate and take federal action to reduce textile waste and advance textile recycling. GAO also made seven recommendations to six federal entities, including that they coordinate through an interagency mechanism that follows leading practices for collaboration.

View the report online at GAO-25-107165 or in the WGEA audit database.

For more information, please contact Barb Patterson at pattersonb@gao.gov.

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- Adaptation Measures to Address the Risk of Coastal Erosion– New Caledonia
- Planning, Implementation, Monitoring, and Reporting of FSM's Climate Change Adaptation Actions Need Improvement– Federated States of Micronesia
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