

Minutes of 19th INTOSAI WGEA Assembly Meeting Bangkok, Thailand, 5 – 9 August 2019



INTOSAI
Working Group
on Environmental
Auditing

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A. Monday, 5 August 2019 - Greening Supreme Audit Institutions – One Day Training

This training was held to test the training-tool package that was developed by SAI of Estonia and European Court of Auditors as part of the Work Plan 2017-2019. Thirty participants from 18 SAIs participated in this training. The trainers were *Ms. Viire Viss from SAI of Estonia, Ms. Jerneja Vrabic and Ms. Dilyanka Zhelezarova from European Court of Auditors (ECA)* who had been involved in developing the training modules. The modules itself was a continuation of an earlier project in previous Work Plan and has been published in 2016 with the same title.

The training mainly focused on how to start greening activities at the office level and what are the easiest and common greening activities to implement. There were 9 main sessions in the one-day training which include the introduction of what is greening, how to start it, how to implement it, and continuously improve it. By the end of the training, the participants were expected to understand the principles of greening office and could initiate the greening activities within their respective SAIs.



Greening SAIs Training Participants

B. Tuesday, 6 August 2019 – Environmental Excursion

SAI of Thailand invited the meeting participants to visit the PTT Global Chemical at Rayong Province in Thailand. PTT Global Chemical is a multinational company that has major concern on sustainable development. The company representative shared their experience on implementing the circular economy concept to reduce the negative impacts to the environment and other practices in preserving their surrounding environment and supporting local communities through a program called “Biodiversity Restoration Project”. Lastly, they highlighted that collaboration, networking, and support from local community are the key success of preserving the environment.



WG19 Participants at the PTT Global Chemical, Rayong Province - Thailand

C. Wednesday, 7 August 2019 – Meeting Day One

Opening Ceremony

Welcome remarks by General Chanathap Indamra, President of the State Audit Commission, SAO Kingdom of Thailand

General Chanathap Indamra representing SAO Kingdom of Thailand as the host of the 19th Assembly meeting welcomed all the meeting participants in Bangkok and hoped that all participants enjoy their stay in Bangkok. He said that it was a great honor to host the meeting. He added that since its membership in 2008, SAO of Thailand has continuously contributed in the Working Group and has learned from other SAs too about environmental auditing.

He expressed his hope that all participants enjoyed their stay in Bangkok, the city of Angels, which has approximately 7 million citizens (10% of Thailand's population). He was sorry about the traffic jam that might happened due to the transportation infrastructure's development that could be one of the discussion topic in the meeting. Lastly, he wished for successful meeting and fruitful discussion during the next three-days meeting and brought back good memories from Bangkok.

Keynote speech by Dr. Kobsak Pootrakool, Deputy Secretary General to Prime Minister for Political Affairs

Dr. Kobsak Pootrakool who is a Deputy Secretary General to Prime Minister for Political Affairs delivered a keynote speech regarding the importance of inclusiveness in ensuring that no one left behind in implementing the 2030 Agenda for Sustainable Development. He conveyed his gratitude for being invited in the meeting. He wished for a successful meeting and said the importance of the meeting in finding best ways to implement Sustainable Development Goals through environmental audits. He also wished that the participants could spent times outside the meeting room to enjoy the city.

He further mentioned about the importance of Sustainable Development Goals (SDGs) as it touch many areas mainly poverty, climate change, and environmental degradation. He added that with this SDGs, government should not just being obsessed over economic growth but should also consider other aspects. Lastly, he conveyed his expectations from the meeting to discuss more effective approaches in ensuring that "no one left behind" in the implementation of Agenda 2030 for Sustainable Development.

Opening remarks by Prof. Dr. Moermahadi Soerja Djanegara, CA, CPA as the Chair of INTOSAI WGEA

Prof. Dr. Moermahadi Soerja Djanegara began with conveying his gratitude to SAO of Kingdom of Thailand for hosting the meeting and warm welcome. He believed that by the professional organization of the meeting, it would achieved its objectives for the next three-days. He also welcomed all the Auditor Generals, guest speakers, and all participants and thanking their contributions to the Working Group.

He further highlighted the themes and aims of the meeting, the achievements of the three-year Work Plan and the current issues on environment that need to be addressed by WGEA members. He mentioned that based on the last Steering Committee meeting in Czech Republic, SDGs should be continuously be considered in the future activities of WGEA. The issues are climate finance (Goal 13), plastic waste (Goal 12), and sustainable transport (Goal 11) that will be discussed further as part of the next Work Plan of 2020-2022. He also highlighted how the WGEA could be part of the solution of the environmental problems faced by the world these recent years and wish all the meeting participants a successful meeting. He conveyed his great expectations that the meeting will continuously contribute

in improving the environmental auditing capacities worldwide and continue to be the part of the solution.



WG19 Participants Group Photo

Coffee Break

Introduction to Meeting Agenda by Chair of INTOSAI WGEA

Prof. Dr. Moermahadi Soerja Djanegara explained the rundown of the three-day meeting before inviting the first panel discussion session moderator, *Mr. Mark Gaffigan* from SAI of United States of America.

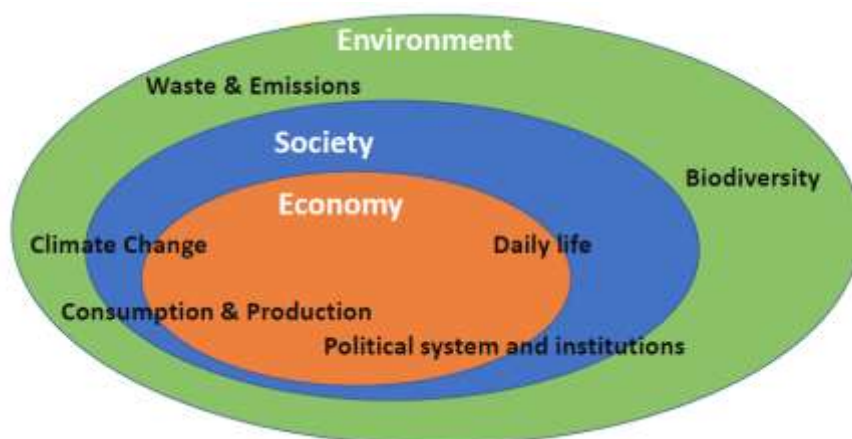
Session 1. Panel Discussion on Sustainable Development Goals

Mr. Mark Gaffigan from SAI of USA introduced the aim of the session that include updating the recent information on the progress of SDGs implementation from various perspective also to learn more on what SAIs could contribute in implementing the 2030 Agenda.

Current Progress on SDGs Implementation – UN Perspective by Mr. Stefanos Fotiou, Ph.D. (UNESCAP)

Mr. Stefanos Fotiou, Ph.D. presented about the SDGs progress in Asia Pacific to accelerate actions for the Goals. Mr. Fotiou briefly explained about the implementation framework of SDGs within Asia Pacific Region that is supported by the Asia Pacific Forum for Sustainable Development (APFSD) that was held as a forum for reporting the progress of SDGs implementation before it is reported in the High Level Political Forum (HLPF) within the global level. APFSD brings a regional road map for nationals and sub regions in terms of technical and policy supports. He further shared how slow the progress of goal achievements. He also highlighted some of the goals even run backward instead of progressing toward the set targets. Some goals' achievements were not supported with sufficient data thus, it might not showed the real situation/progress. In 2030, some goals are expected to have accelerated progress to achieve targets but some others are expected to have reverse trend in achieving its targets.

Mr. Fotiou further explained how the Asia Pacific region could accelerate the progress of achieving the targets through measures like: 1) bridging disparities on science, technology, and information across countries; 2) improving availability and quality of data and statistics; and 3) ensuring adequate finance for the goals. He pointed out how Asian countries can afford the investment, saying that, countries like India and Pakistan has considerably increasing number of investments to achieve goals. Some important way forward to accelerate the implementation of SDGs were explained. He mentioned the importance of changing the perception on Sustainable Development, in which the three dimension of economic, society, and environment are integrated and coherent (see picture below). The picture shows that to be sustainable, economic development shall not exceed the finite limits of what society and environment could sustain.



He added that it is expected that more public spending on education, health and social protection in the upcoming years would eradicate poverty within five more countries by 2030. Moreover, benefits of resources efficiency improvement would increase the region's energy efficiency by 20%. He further mentioned several macro-level policy pathways in promoting renewable energy that include integrating resource efficiency targets in development agendas, establishing legal and regulatory measures to enforce the standards and promote awareness, creating an overarching macroeconomic policy framework to promote resource efficiency, promoting enabling financing framework, and re-evaluating trade portfolios and its implications. In sectoral policy pathways, he also mentioned four main points including mainstreaming resource efficiency targets, improving technologies and innovation, prioritizing life-cycle approaches, and generating better data and indicators. Concluding his presentation, Mr. Foutiou invited the meeting participants to look on UNESCAP publications about SDGs that are available in the website.

Current Progress on SDGs Implementation – Government Perspective by Dr. Kobsak Pootrakool

Representing the Government of Kingdom of Thailand, *Dr. Kobsak Potrakool* shared about the SDGs implementation from the government's perspective. He began with explaining that Thailand is currently ranked 40th of 162 countries in the SDG Index¹. He further showed the Thailand's SDG Dashboard in 2019, and explained how the goals were progressing toward the positive direction. Despite the rapid economic development, there were several issues related to income gap between groups and the unjust land distribution.

Dr. Pootrakool pointed out the importance of leadership of His Majesty King Rama IX in the success of economic development through proper development path. He mentioned that in coping with the issues mentioned earlier, government began from the roots of the problems including the inequality of opportunities (education, finance, and jobs); difference in the rate of income growth; and lack of comprehensive policy package. *Dr. Pootrakool* mentioned that people in Thailand still have different level in accessing the education and banking service. Thus, the disparity of income still exist especially between larger and smaller districts. It is also important to strengthen the bottom approach through improvement of community bank, community welfare programs, community business, community forest, crab bank, and community housing projects. These projects have helped the government in reducing the economic gap through improving the welfare of lower income communities.

¹ SDG Index is the first worldwide study to assess where each country stands with regard to achieving the Sustainable Development Goals. (<https://www.sdgindex.org/about/>)

Current Progress on SDGs Implementation – Professional Accountant’s Perspective by Jimmy Greer (ACCA)

Before his presentation, *Mr. Jimmy Greer of the Association of Chartered Certified Accountants (ACCA)* expressed his gratitude for being invited and highlighted the some interesting points from the previous two presentations especially on how the private sector could contribute in further achieving SDGs. He introduced himself, his organizations and its main activities. He shared a recent work of research conducted by his organization about drivers of change in the role of professional accountants including rise of digitalization and globalization. He mentioned how the drivers of change required a professional accountant to have a set of seven skills including the technical and ethical competence, creativity, vision, and experience.

Further, he mentioned that with regard to role of private sector in SDGs implementation, there were some business risks identified including faster disruption, the need of value creation, and the change of work nature and organization. He also talked about the challenge on how trade-offs between the goals which were not well understood. *Mr. Greer* mentioned about the investment opportunities that came from the SDGs implementation, despite not happening yet, the opportunities for public and private to work together are there. He pointed out that it is important for SAIs to support the positive changes that came from the SDGs implementation. *Mr. Greer* explained that his association has put a great attention to SDGs specifically related to the exponential environmental and social risks; opportunities aligned to SDGs; digital, data analytics, and artificial intelligence; finance demands for better disclosures; and governments’ report to the UN.

Mr. Greer also talked about how SDGs are still lacking of depth in terms of common language as it is currently missing the ‘society’ element. Based on the data over five-year period of time on the companies’ report in South Africa, most companies have mentioned about SDGs and the graphic displayed showed positive trend on the numbers of companies mentioning the SDGs issue. Before ending his presentation, he mentioned several findings from the research including the importance of: understanding the context, being precise, reliability of data, and having in-depth common language in progressing the implementation of SDGs.

Discussion

Before inviting questions from the floor, *Mr. Mark Gaffigan* highlighted the main points from three presentations and asked the panelists to give their opinion on what role could SAIs play to contribute in the SDGs implementation.

Mr. Stefanos Foutiou of UNESCAP mentioned how audit could support the 2030 Agenda. He mentioned several points like auditors should go beyond the quantitative aspects and look what prohibited the advance of the progress. He further mentioned about how performance audit on certain targets could boost its progress. *Mr. Foutiou* also mentioned how auditors could contribute specifically in improving the accountability of governmental institutions (SDG 16) and accelerate the SDGs implementation through their recommendations. He also talked about the importance of top management’s role; the vision; and how to operationalize the vision. Lastly, he once again highlighted the need to have a sufficient and valid data for SAIs could measure the SDGs progress. Thus, he encouraged SAIs to support the government in making those data available to be measured.

Mr. Jimmy Greer of ACCA similarly touch upon SDG 16 in which SAIs could contribute through strengthening the government institution. He also talked about understanding and taking a lead-role in the issue of crosscutting ministerial mechanism in implementing SDGs.

Dr. Kobsak Pootrakool highlighted the importance of having someone accountable to make things work. He mentioned to put someone in charge and take responsibility to manage the collaborative work. Auditor's role in keeping everyone checked is important especially with regard to fulfil the needs of politicians who wants instant results.

Mr. Hassan Namrani of SAI of Morocco thanked the panelists for the presentation and asked about how to deal with challenges faced in data collection. He mentioned several issues such the numbers of indicators, the year differences, context of different nationalities, different statistical system and capacity to generate data.

In response to *Mr. Namrani* question, *Mr. Foutiou* of UNESCAP talked about going beyond the statistics. *Mr. Foutiou* stated that it was not just the collection issue, but also the data availability issue. He mentioned about using many available data especially which came from corporate data that usually put into public domain and monetized. He also talked about what SAIs can do to build government's capacity in making the data available through recommendations. Considering that the data is a very sensitive issue, it needs to be planned properly. He also talked about the importance of education to raise the awareness on SDGs through inclusion of SDGs issue in the curriculum.

Dr. Pootrakool mentioned about his experience in building a team of data collection that structured into three classification of data: a) the available data (the data they have); b) the unavailable data (the data they did not have); and c) the misreported data. With regard to the misreported data, the team sent it to the data provider to fix the data. Meanwhile, for the unavailable data category, the team work together to collect the data. He also mentioned about using UN data as reference and the abundance of tasks they had during the process.

Mr. Raj Ganesh Viswanathan of SAI of India asked about how to measure the cross-departmental work in SDGs implementation, as they have no specific mechanism in performing such performance audit. He further asked about how to work together to create micro-level accountability centers with regard to that.

In response to *Mr. Viswanathan*, *Mr. Greer of ACCA* said that he mentioned about the recently published document from IDI on SDGs audit that provides several good examples on how things are happening. He added about how the issue on lower-level management became a problem in both public and private sector. Further, he said that ACCA has spoken with many focal points related to SDGs and mentioned the importance of understanding which Ministries involved in the implementation of SDGs.

Dr. Pootrakool reiterated the importance of having someone responsible on top-level as the coordinator. Thus, it is expected that the agencies be assigned properly with no complaints or confusion especially with having numbers of indicators that have to be measured.

Agreeing with *Dr. Pootrakool*, *Mr. Gaffigan* mentioned the importance of collaboration in SDGs implementation. He added about SAI of USA's experience in auditing ocean acidification, where none of the institutions involved in the ocean acidification issue wanted to be the one who is in charge of it. He also mentioned about one of the key elements of collaboration criteria is defining roles and responsibilities, thus it also means defining the leadership.

Concluding the session, *Mr. Gaffigan* highlighted the key issues from the discussion such as the criteria in collaboration, the importance of clear roles and responsibility among institutions, and leadership. He closed the session by thanking all panelists for the interesting presentations.

Work Plan 2017-2019 Project Presentation (1)

Environmental Auditing and Sustainable Development Goals: Discussion Paper by SAI of Indonesia, SAI of Brazil and SAI of Canada

Mr. Muhammad Rizkarmen of SAI of Indonesia representing the project team present about the final output of the project. He started with explaining the background of the project and the reasons behind the decision to develop a discussion paper instead of guidance based on the inputs from IDI, UNDESA, SAI UAE, and other SAIs. The discussion paper aims to provide important information about what is 2030 Agenda and SDGs, to provide examples of carried out audits by SAIs, and to propose some issues to be discussed further by WGEA. The paper consist of five chapters including the background, environmental audit in the context of SDGs, SAIs' experience overview, next steps, and conclusion. The background chapter explained the three pillars of sustainable development and the intergenerational equity that became the main reason of why it is important to perform sustainable development for future generations. Though most of the goals of SDGs have connections with environmental issues, the paper discusses the most related goals with environmental issues and the role of SAIs (Goal 13, 14, 15, 16 and 17).

Chapter 2 mainly discusses about the shifting perspective about sustainable development from traditional model (silos), the subsequent model to nested model. The recent (nested) model represents the environment and its natural resources as the ultimate limit to other aspects of development. He added, environmental audit conducted by SAIs has traditionally examined the performance of government's activities that aim to preserve the environment. He also introduced the IDI SDGs Audit Model (ISAM) developed by IDI to be combined with the current approaches. Environmental audit with SDG perspective means that the auditor shall not only considering environmental aspects but also economic and social aspects. Despite that, he mentioned this definition would be discussed further to clarify its difference with conducting environmental audit in context of sustainable development.

Chapter 3 provides an overview and examples of SAIs experience in performing audit related to Agenda 2030 and SDGs to encourage SAIs learning from each other and to inspire further audits on SDGs. The chapter provides examples on: 1) SAIs' audit on SDGs preparedness (i.e. Canada, Ghana, Indonesia, Philippines, Brazil, and Latin America); 2) SAIs' audit on environmental programs that contribute to SDGs implementation (i.e. India, Indonesia, and United Kingdom); and 3) common findings and challenges faced by SAIs in auditing SDGs. Chapter 4 offers next steps that WGEA might take after this paper which could be formulated in several questions like 1) what is an audit on SDGs?; 2) what are the implications for environmental auditing?; and 3) what is an environmental audit with an SDG perspective? *Mr. Rizkarmen* concluded the presentation with a conclusion that WGEA should come together with other key INTOSAI players to organize a whole-of-INTOSAI response on auditing the implementation of SDGs.

Ms. Kimberley Leach of SAI of Canada added that this discussion paper is expected to be a good starter for further discussion from SDGs preparedness to the implementation.

Mr. Hugo Freire of SAI of Brazil mentioned that SDGs audit became a common question for SAIs. Thus, this discussion paper is expected to offer the answer as part of bigger answer on how to audit SDGs. He also talked about the need for SAIs to support the government in achieving the 2030 Agenda.

Research paper on Potential Criteria for Auditing Climate Change Adaptation – Strengthening Resilience and Adaptive Capacity to Climate-related Hazards by SAI of USA

Ms. Marissa Dondoe of SAI of USA began with introducing the subcommittee members including SAI of Canada, SAI of Malaysia, SAI of New Zealand, and SAI of Zambia. Since the audit on climate change in relation with SDG implementation is considerably new, this paper is expected to describe the current

international frameworks, provide criteria for conducting performance audits, and shows SAI how to integrate multiple performance audits into a greater body of work. The paper consist of seven chapters with the first three chapters explaining about the topic, the background, and the scope of the paper.

Chapter 4 explains about international frameworks include the Agenda 2030 for Sustainable Development and the Sendai Framework for Disaster Risk Reduction² that was endorsed in 2015. Chapter 5 explains about role of SAIs in auditing SDGs continued with Chapter 6 that provides criteria for performance audits and assessing national preparedness for strengthening resilience and adaptive capacity to climate-related hazards and natural disasters. *Ms. Dondoe* illustrated the use of SDG targets as criteria in conducting performance audit along with other criteria including laws, regulations, and best practices. The targets 13.1 and 13.1.2 of SDG 13 could be used as criteria of what should be done. She also mentioned about the possibility of requiring meeting collaboration criteria as an addition to Target 13.1.2.

Chapter 7 offers the idea for SAIs to integrate multiple performance audits to assess high-level goals. For example, *Ms. Dondoe* explained the SAI of USA High Risk Report on Limiting the Federal Government's Fiscal Exposure by Better Managing Climate Change Risk. The report has served to identify and help to resolve serious weaknesses in certain area that involve substantial resources and provide critical services to the public. SAI of USA relied on a number of individual performance audits to develop the high-risk report, thus the Chapter 7 suggests that this method of bottom-up approach could be used in auditing SDGs. She concluded the presentation by thanking the audience and offered them to comment on the presentation.

Discussion

Mr. Vladimir Matus of SAI of Slovak Republic asked to elaborate more on collaboration criteria in an audit.

Ms. Dondoe explained that in GAO (SAI of USA), collaborative criteria is a common thing to use especially in identifying roles and organizational culture. She illustrated how the collaboration criteria used in the previous audit they performed on ocean acidification.

Lunch Break

Session 2. Panel Discussion on Role of Information Technology to Accelerate the Sustainable Development Goals

Ms. Viire Viss of SAI of Estonia as the session moderator introduced the session with elaborating the aim of the session especially with the development of IT sector and the exploded numbers of data. This session is expected to give the members a picture about what SAIs can do with the IT development and such numbers of data in accelerating the SDGs achievement.

SDGs and Information Technology for Public Administration by *Ms. Ewijeong Jeong* (UNPOG, DPIDG/UNDESA)

Ms. Ewijeong Jeong representing UN Project Office on Governance – Division for Public Institutions and Digital Government UN Department of Economic and Social Affairs presented about the relationship between SDGs and Information Technology for Public Administration. *Ms. Jeong* mentioned that several targets of SDGs are strongly related to the Information and Communication Technology (ICT) (i.e. Targets in Goal 4, Goal 5, Goal 9, and Goal 17). She further mentioned the vast growth of internet access in the world especially in terms of international bandwidth and traffic, which even higher than the growth of population access to internet use. Some statistics were explained to support these facts.

² Sendai Framework for Disaster Risk Reduction - <https://www.unisdr.org/we/coordinate/sendai-framework>

Some opportunities from the use of ICT in achieving SDGs including innovation and effective service delivery, inclusion of vulnerable groups, empowerment of people, and transparency and accountability of government. Challenges also risen in using ICT for achieving SDGs including the issue of digital divide, resilience of infrastructure and cybersecurity, privacy protection, and the future employment.

Moreover, *Ms. Jeong* mentioned that 13 goals are closely related to public service delivery with 66 indicators that specifically require public institutions to deliver the public service. She added that people are expecting more personalized services, greater degrees of transparency, accountability, and effectiveness, and more participation in decision-making process. Thus, government is expected to find ways to create more public value through effective, inclusive, and people oriented service delivery. The data trend on national digital readiness shows that 81% of national governments have implementation plan, and 70% of the nationals have aligned it with SDGs. The data trend also shows that most government digital strategies have included issues such Artificial Intelligence (49%), Smart Cities (48%), Big Data (44%), and Block chain (42%). The data trend also shows that there should be legal frameworks on things like digital certification (82%), personal data protection (82%), and access to information such as Freedom of Information Act (76%).

She mentioned five main principles Guide Innovation Efforts in Service Delivery including access, quality, inclusion and responsiveness to the needs of the furthest left behind, people-driven and personalized services, and transparency and accountability of service delivery. Moreover, she briefly said that the result of 24th UN/INTOSAI Symposium on Digitalization, Open Data, and Data Mining held in 2017 required SAI to improve its human resource capacities – methods, resources, strategies and learning. She also shared about the importance of SAI's SDG-related audits for the policymaking and implementation of the Agenda 2030. She further mentioned about how ICT could help SAIs in monitoring and reviewing SDG implementation especially because of the large number of indicators, resource constraint, and data quality issues. *Ms. Jeong* also explained about some examples from countries' practices in using ICT in delivering public service (i.e. practices in India, Cambodia, Kenya, Zambia, Bangladesh, and Malaysia). Concluding her presentation, she pointed out some policy considerations such as raising civil servants awareness on the need of vulnerable groups, the understanding that public service access is basic human rights, and the importance of creating innovative partnerships and stakeholder collaboration.

Sustainable Development Goals and Big Data by Mr. Qu Han of SAI of China

Mr. Qu Han from SAI of China presented about Using Big Data to Promote Environmental Auditing to a New Level. Before his presentation, he played a video about environment audit in China for Accountability on Ecological Governance. *Mr. Han* explained that the essence of Big Data lies in the abundance of data resources and the advancement of technology, which not only change the way people see the world but also lead to evolution of data processing. The evolution goes from overall analysis to sampling analysis, from direct data to indirect data, and from correlativity to causality. He further explained about the status quo of big data in China. He explained that Government of China has put great importance on the role of big data in economic and social development.

He also mentioned that in 2016, China's environmental protection department has developed the Overall Plan for the Big Data Construction of Ecological Environment that consist of one mechanism, two systems and three platforms. SAI of China itself has issued its Audit Work Development Plan, which pointed out about the need to speed up IT construction for auditing, improve audit capability and efficiency, and form a unified audit information system on national level. SAI of China has actively made use of big data in its environmental auditing and has helped them achieving its audit results. The use of technologies in problem detection such Geographic Information Technology (GIS and ArcGIS), Excel, and others have helped SAI of China in data analyzing on natural resources like land, forest, water etc.

He further display some pictures on how the technologies were used in environmental auditing performed by SAI of China. The big data analysis performed by SAI of China involved comprehensive management data, business data, data monitoring and law enforcement, external associated data, and satellite remote sensing image data.

SAI of China also used eight steps in ensuring that the data analysis would not be in vain and effectively used, including clarifying work program requirements, studying relevant policies, establishing data analysis platform, organizing data analysis, verifying data analysis results, finding the causes of problems, defining the main responsibility of problem, and expanding application from point to area. He also mentioned the importance of using data analysis technology to evaluate and judge, especially the natural resources assets in a region. *Mr. Han* also said that data analysis of geographical conditions has helped SAI of China in revealing the decrease of ecological surface of forestland and grassland in a region and has helped them in classifying natural resources based on its types.

Moreover, *Mr. Han* explained the challenges faced by SAI of China in using big data in their audit including the lack of authenticity, validity, and integrity, lack of professional expertise, the need for stronger overall planning, and difficulty in balancing data security management and efficient use. In coping with the challenges, SAI of China has improved their auditors' expertise, established environmental auditing platform based on big data, innovated the electric data audit management mechanism, and strengthened exchanges and cooperation.

The Use of Information Technology to Support the SDGs Audit by *Mr. Whidas Prihantoro* of SAI of Indonesia

Mr. Whidas Prihantoro from SAI of Indonesia presented the experience of SAI of Indonesia in using ArcGIS Survey123 in performing audit on the quality of healthcare facilities' services. *Mr. Prihantoro* mentioned how SAI of Indonesia has aligned its Strategic Plan with SDGs thus it conducted SDGs-related audit based on High Level Political Forum (HLPF) themes since 2017. He further explained the Performance Audit Framework on SDGs based on the General Assembly A/70/684 that consist of four HLPF themes since 2016. Based on the framework, System oriented approach will be suitable for conducting audit related to the Government preparedness on SDGs, because this approach is following the process. SAI Indonesia conducted this audit in beginning of 2018. The audit objective was to assess government efforts in adopting SDGs into national context, sustaining and securing resources and capacities needed, and establishing a mechanism to monitor, follow up, review and report on the progress toward the 2030 Agenda Implementation.

This audit has 2 subject matters, policy framework and data framework. Policy framework has 2 questions research, 1) To what extent has government adapted the 2030 agenda into its national content? And 2) has the government identified and secured resources and capacities (means of Implementation) needed to implement the 2030 agenda? And for data framework, the research question was related to monitoring evaluation and reporting, whether the government has established a mechanism to monitor, follow up and review? The logical framework of the problem oriented is start from resources/input, output, outcome and goals. The goals will be set according to national-region and global target. For example, in poverty problem. SAI will focus on the baseline, indicator and the measurement of poverty at each level, national, regional and global that has been set by the government. Because if the government doesn't have baseline, indicator and measurement tools, it will be difficult to determine poverty level in national level. He further mentioned several SDGs related audit that have been conducted by SAI of Indonesia.

Mr. Prihantoro continued with explaining the background of using mobile technology the audit on healthcare services' performance including the large audit scope and the limited number of auditors.

The technology is in form of mobile phone's software that can be installed in auditors' phone. The software has helped the auditors in obtaining data through a survey that could be filled by the auditors or the respondents. The submitted survey results were directly transferred to SAI of Indonesia's server and could be directly analyzed by the auditor or IT³ analyst. The application also enable the management level of SAI to monitor the audit progress. He further displayed the dashboard application to illustrate how to use the application using the GPS⁴ coordinates.

The application has helped SAI of Indonesia in identifying the total number healthcare facilities, average cost of healthcare service, the names of healthcare facilities, patient's satisfactory level, and any other data needed by the auditors. He said that SAI of Indonesia has used this application in conducting audit on SDGs preparedness in 2018. Using the application, SAI of Indonesia could detect the group of citizens that has a high probability to be left behind. He explained that using the satellite image of average stable light from 2009 to 2013 in East Borneo, it can be assumed that the more stable the light in night is the more diverse economic activities in the area. The Survey123 application was also used to obtain data like sources of drinking water, public sanitation, and slum area. Moreover, *Mr. Prihantoro* explained about the use of application in conducting performance audit on education service. The data obtained from the survey includes the satisfactory level, distance from school, parents' occupation, government's budget sufficiency, and number of schools in region.

He mentioned that there are several advantages of performing audit using mobile technology. The advantages include the ease of using the technology, the ease of obtaining large data in short time, the data security as it is stored in the SAI server with limited access, the ability for stakeholder to access data in real time manner, and the flexibility given to auditor to customize the analysis as needed. He added, the technology could be used for stakeholder engagement to improve audit impact and helped other stakeholder to make decision or important policy. Concluding the presentation, he hoped that the presentation could inspire other SAIs and thanked the audience for their attention.

Discussion

Ms. Viire Viss asked the panelists from SAI of China and SAI of Indonesia in ensuring the good quality of data within their audit.

Mr. Qu Han of SAI of China replied that they consulted with the data department to ensure that the data is good quality data and ensure there are no flaws within the obtained data.

Ms. Viss further asked whether they still go to the location to obtain the data.

Ms. Qu Han replied that they still go to the site unless the site is difficult to reach, SAI of China use drones and cameras to support them in obtaining the data.

In addition to *Mr. Han's* response, *Mr. Prihantoro* said that if they received a "noise data", they could remove it easily. The application form was designed to minimize the possibility to have "noise data" by using only numbers as response. Thus, when an alphabetic response is identified, it could be instantly excluded from the dashboard.

Mr. Tamba Momoh of SAI of Sierra Leone conveyed his interest on how SAI of Indonesia performed the audit using the mobile application. He further asked about data verification process before coming up with conclusion from the data obtained.

³ IT – Information Technology

⁴ GPS – Global Positioning System

Mr. Prihantoro replied that the application is using GPS coordinate so it relies to the exact coordinate location where the data is generated. Using this GPS coordinate data, the distance between locations could be immediately known. In the case of health care facilities audit, assuming that the respondents fill out the survey from their home, then the distance between health care facilities and their home could be immediately identified.

Ms. Corazon Gomez of SAI of Philippines asked the presenters whether they have encounter with the issue of reliability of data as the basis of audit conclusion.

In reply to *Ms. Gomez* question, *Mr. Qu Han* explained that they performed data comparison from several resources before coming up to a conclusion. He added that when there are differences in data they obtained, they would perform different analysis to each data based on the situation.

Mr. Prihantoro added that they use secondary data to compare with the primary data they obtained from the mobile application. When the data matched then it is good quality data, when it is not then next step will be taken to verify the data.

Mr. Clement Agada Ojile of SAI of Nigeria appreciated the work done by SAI of China in deploying big data for their audit. He further asked how other SAIs like Nigeria could do the similar thing with such resources and current capacity to audit big data.

In replied to *Mr. Ojile's* question, *Ms. Viss* pointed out the need to develop the capacity of the auditors through training.

Further, with regard to the challenges and issues related to the IT development, *Ms. Viire Viss* asked about what are the emerging issues related to big data and IT development.

Ms. Ewijeong Jeong of UNPOG mentioned about data protection or privacy protection issue as one of the emerging issue related to the big data.

Work Plan 2017-2019 Project Presentation (2)

Training Tool on Environmental Data by SAI of India

Mr. Raj Ganesh Viswanathan from SAI of India presented the final output of the Training Tool project on Environmental Data. He explained that the project was initiated based on the 2013 research paper of Environmental Data: Resources and Options for SAIs that raised the issue of how to use environmental data effectively, what are the available key resources of environmental data, and alternative options when there are no data available. The research also concluded that the auditors should use related data to estimate unavailable data or develop own data through a survey using tools like GIS and social networking.

The training tool aims to introduce the concepts of data and data analysis with its usage in conducting environmental audits. It ranges from introduction of remote sensing; GIS and GIS file formats; and open source remote sensing data. The training also gives the opportunity to experience hands on QGIS and Google Earth software with its usages in environmental audit. After the training, the participants are expected to be familiar with the concepts of data and data analysis, principles of remote sensing, to be able to use open remote sensing data and understand the use of GIS, and can deal with situations where there is no data available. Several training methods are included such as lectures, videos, case studies, and hands on software (QGIS, Glovis, and Google Earth).

Mr. Viswanathan further explained about the content of each modules, including the introduction on audit evidence and data, principles of data analysis, introduction on remote sensing, and dealing with non-available data and the future directions. Concluding his presentation, he mentioned the distinctive

features of the training tool including the focus on open source tools; the flexibility in adding case studies; the ease for customization; and the use of videos/illustrations to enhance effect.

Massive Open Online Course (MOOC) on Waste Management Audit by SAI of Estonia

Ms. Kaire Keskula representing SAI of Estonia delivered the presentation on MOOC on Auditing Waste Management that was developed together with University of Tartu, Estonia. Similar to the training tools on environmental data, this MOOC was developed based on the WGEA Guidance on Auditing Waste Management (2016) and the importance of waste issue around the world. *Ms. Keskula* continued with explaining the structure of the course, which include 1) concept of waste and waste-related problems; 2) waste management principles and economics; 3) waste management actors and policy tools; and 4) designing waste audit.

The MOOC uses methodology such as literature review, case studies, illustrative videos, exercises and tests, and discussion forum. She further gave a sneak peek on the look of the MOOC dashboard and explained the grading and certification process. Lastly, she invited the participants to join the launch of the MOOC in September 2nd 2019 through this link: <https://www.ut.ee/en/mooc/auditing-waste-management>.

Coffee Break

Research Project on Environmental Health (focus on Air Pollution) by SAI of Philippines

Ms. Corazon Gomez from SAI of Philippines presented the final output of the research project of environmental health (focus on air pollution). She explained the background of the project, including the worsening of world's air pollution and the international commitment to reduce air pollution and manage its negative impact. Several negative effects of air pollution were mainly affected the human's health such stroke, cancer, and even led to million deaths annually. The topic also closely related with the implementation of the Agenda 2030 specifically the Goal 3 and Goal 11. Thus, this research was aimed to identify and describe the issues on environmental health caused by air pollution, determine the role of government related to the issue, identify the international organizations support related to the issue, and recognize the challenges encountered by SAIs in auditing the topic.

Ms. Gomez continued with explaining the chapters of the research. Chapter 1 explains the definition of air pollutions and the impacts of it on environmental health. Chapter 2 explains about the role of government in responding to air pollution that include the case studies from five countries' samples to illustrate the topic. Chapter 3 explains about the efforts of international organizations in reducing and combating air pollution and its effects through funding support and other programs. Chapter 4 explains about the case studies on audit of air pollution conducted by SAIs around the world. The audited areas include topics such implementation of environmental rules and international agreements, improving air quality, compliance with laws related to air pollution, and monitoring air pollution.

She further mentioned the results of the survey on challenges faced by SAIs in auditing air pollution includes the insufficiency of government's policy, unclear roles and responsibilities, lack of monitoring and reporting system, and lack of SAI's resources and skills. She added that based on the survey, SAIs also performed several measures in coping the challenges including conducting training, creating new division on environmental audit, exchanging knowledge, and engaging with experts. Concluding her presentation, she explained about the methods used in collecting the data for the research including literature review, survey, exchanging information with subgroup members, and work sessions during WGEA meetings.

Research Project on Greening Cities by SAI of Czech Republic

Mr. Michal Rampir from SAI of Czech Republic shared the final output of the research project on Greening Cities – Sustainable Urban Development. He began with explaining the main purposes of the project, which to identify the critical challenges of urban agglomerations, to share SAI's experience related to the topic, and to emphasize the importance of the issue within WGEA. He explained that the research project consisted of three chapters, the background information, the legal framework of the greening cities, and the auditing experience.

Mr. Rampir pointed out that number of cities has grown within the past years especially in Asia continent. He added that by 2050, 80% of world's population would reside in cities. Thus, urban sustainability and urban agglomerations considered important. The urban agglomerations included issues such as air quality, increased noise, waste management, sewage system, drinking water, transportation, and green infrastructure. The adoption of Agenda 2030 for Sustainable Development was also strengthen the current legal framework of urban sustainability. Moreover, the research also provides experiences of SAI's in auditing related to the topic that were obtained from the survey among WGEA members. The survey also identified that 1/3 of the SAI respondents have no mandate in auditing local authorities/regional governments. Before ending his presentation, *Mr. Rampir* listed the case studies provided in the research document and showed a picture about SAI of Czech's contribution in achieving a green city of Prague.

Research Project on Wastewater by SAI of Morocco

Mr. Hassan Namrani from SAI of Morocco explained about final output of the wastewater research project led by his SAI. He started with introducing the importance of the topic especially about the challenges faced by water resources, water scarcity and pollution, and the abuse of water consumption. He added that 80% of global wastewater was being discharged untreated into world's waterway and there was a huge number of funds being mobilized to invest in more sustainable wastewater treatment. Thus, by auditing wastewater, SAI's could assist the national and local governments in optimizing the efforts and policies engaged to improve the performance of wastewater management. The research was aimed to provide information on wastewater and its management, to identify opportunities in designing and implementing government policies related to wastewater issue, and to provide comprehensive and possible audit topics related to wastewater.

The methods used in obtaining the data included the literature review, survey, study of audit reports, discussion panels, exchanging information with subcommittee members, and work session during WGEA meetings. Briefly, he also explained the research process since project plan presentation during Steering Committee meeting in September 2017. He explained the contents of the final output chapter by chapter. Wastewater is synonymous with urban wastewater that consist of domestic effluent, water from commercial establishment, industrial effluent, and storm water. The survey result showed that combined wastewater management process (centralized and decentralized) remains the favorite way to manage wastewater.

In responding the wastewater management issues, countries performed several measures including regulations and standards; institutional aspects, financial mechanisms, and international cooperation. He explained also about the correlation between the wastewater with SDG target of 6.3. Furthermore, *Mr. Namrani* explained that majority of SAI respondents from the survey conducted performance audit on wastewater topic. Lastly, he mentioned several audit topics on wastewater based on the collected case studies including: auditing wastewater management and treatment, auditing specific wastewater programs and projects, linking water resources management and safe drinking water, wastewater as component of sanitation service, and wastewater environmental impact.

Dinner hosted by SAO Kingdom of Thailand

SAO of Kingdom of Thailand represented by *General Chanathap Indamra* welcomed all the meeting participants in a cultural dinner hosted in the Amari Watergate Hotel in Bangkok.



Official Dinner hosted by SAO Kingdom of Thailand – Amari Watergate Bangkok

D. Thursday, 8 August 2019 – Meeting Day Two

Chair's Presentation

Chair Report

Prof. Dr. Moermahadi Soerja Djanegara started with elaborating about the WGEA membership and the regional WGEAs. The Work Plan 2017-2019 has been implemented accordingly with the finalization of total 12 projects of researches, guidance, discussion paper, and training tools. The cooperation with several UN bodies such as CBD, UNEP, and UNDESA became the highlight of the report on the partnership by the WGEA.

Further, *Prof. Djanegara* explained the main points on the results of 9th Survey on Environmental Auditing that include the latest topic on Sustainable Development Goals (SDGs). He stated how majority of SAIs have legal mandates to conduct performance, compliance, and financial audits on environmental issues. Almost half of the responses indicated that they have legislative mandate that refers specifically on environmental auditing. With regard to audit access, most of the responses indicated that SAIs have access to national government, state-owned enterprise, provincial/state governments, local/municipal governing bodies, and semi-governmental organization.

The survey also shows that most of environmental auditing conducted by SAIs were performance audit and almost half of the SAI respondents (48%) planned to increase the number of environmental audits within the next 3 years. Concerning the topics of environmental audits, there is a highlight on the need to improve the focus on SDGs and exchange knowledge with other SAIs. Wastewater treatment, solid waste, and drinking water became the most popular topics audited by the SAI respondents. Meanwhile, future audit topics mentioned by the SAI respondents including protected areas, SDGs, and general waste.

Specifically with SDGs-related topic, the survey results show that SDGs have high priority in the strategic work plan of 68% of SAI respondents. SDGs have been considered in choosing the audit topics, used as criteria, and auditing the preparedness of government to implement it. Based on the survey, clean

water and sanitation (Goal 6) and quality education (Goal 4) are the highest two ranked as the most popular topics audited by SAIs related to SDGs.

Moreover, the survey results also show that most of the SAI respondents measure the impact of environmental audits through follow-up audit and monitoring the implementation of recommendation. With regard to environmental audit capacity, it is indicated that 55% of SAI respondents have specific unit on environmental audit and 25% of auditors within each SAIs work fulltime on environmental audit. The survey also indicated that there have been several cooperation between SAIs in terms of exchanging audit information or environmental auditing experiences.

Furthermore, the survey also found that the most well-known and used WGEA products are the website and the guidance materials. It is suggested for the next 2020-2022 work plan, WGEA should include about SDGs and climate change themes.

Introduction to the 2020-2022 Work Plan and Discussion by Secretariat and SAI of Finland

The session proceeded to the introduction of the 2020-2022 work plan by *Ms. Jaska Sjam as the Secretariat of WGEA* and *Dr. Vivi Niemenmaa from SAI of Finland*. *Ms. Sjam* began with explaining the messages from the previous steering committee meeting in Czech Republic in October 2018 that include the need to focus on few topics, link it with SDGs, and improve the communication on WGEA works.

Dr. Niemenmaa continued with explaining the proposed work plan that include seven working packages, namely:

1. Working Package 1: Analysis of Existing WGEA products to help create long-term strategy;
2. Working Package 2 – 4: Supporting auditing environmental SDGs on 3 (three) selected topics (Climate financing, Plastic waste, and Sustainable transport);
3. Working Package 5: Increasing the understanding of environmental SDGs and communicate it with INTOSAI community and UN;
4. Working Package 6: Experience sharing and capacity building through meetings and trainings;
5. Working Package 7: Response to the need of improving communication on WGEA works and products through stakeholder mapping and long-term communication strategy.

Ending her presentation, *Dr. Niemenmaa* invited all meeting participants' involvement in the next Work Plan of 2020-2022.

Discussion

Ms. Kimberley Leach of SAI of Canada thanked for the presentation of the 9th Survey result. She further talked about all the works that have been done by WGEA and asked whether there is any preference of the next product/activity that will be done by WGEA in the next Work Plan.

Dr. Niemenmaa replied that it really depends on how the needs from member SAIs. She agreed that WGEA has already have a lot of guidance. She said a research paper or audit model building might be useful for the next Work Plan.

Agreeing with *Dr. Niemenmaa*, *Ms. Sjam* said that WGEA need no more new guidance. She pointed out that there were some overlapping in the current WGEA products and expected that fresh new ideas might be brought up from the next parallel discussion.

Panel Discussion on Insights for Upcoming Work Plan 2020-2022

Dr. Vivi Niemenmaa of SAI of Finland continued the session with moderating the Panel Discussion on the possible topics that will be brought up in the next Work Plan 2020-2022. Introducing the first topic, she chose two videos to introduce about what is Climate Finance.

Discussion

Mr. Raj Ganesh Viswanathan from SAI of India asked about what kind of audit framework that could fit to our SAI regarding the topic.

Mr. Musthaq Memon of UNEP said that Climate Finance is not just about the fund but also about the framework on climate finance itself. He mentioned that it is not that simple.

Sustainable Development Goal 13 and Climate Finance by Mr. Ming Yang Ph.D. of Global Environmental Facility (sent after the meeting)

Mr. Ming Yang from Global Environment Facility shared about the GEF7 (2018-2022) that focuses on three main focal areas strategy including: 1) promoting innovation, technology transfer for sustainable energy breakthroughs; 2) demonstrating mitigation options with systemic impacts; and 3) fostering the enabling conditions for mainstreaming mitigation concerns into sustainable development strategies. With regard to promoting innovation, and technology transfer, GEF cooperates with World Bank on Sustainable Energy Scale-up in Belarus and with EBRD on Sustainable Bioenergy Value Chain Innovations in Ukraine. Both projects aimed to promote innovations in reducing carbon dioxide (CO₂). In demonstrating mitigation options, GEF worked on a program named Sustainable Cities Impact Program. The program offers natural integrated systems, power of innovation, and wide stakeholder base to achieve large scale Global Environmental Benefits (GEBs). To foster the enabling conditions for mainstreaming mitigation concerns into sustainable development strategies, GEF worked on several projects namely Capacity-building Initiative for Transparency (CBIT), Support the Nationally Determined Contributions (NDCs) preparation, and National Communications (NCs), also the Biennial Update Reports (BURs).

GEF Programming Strategy on Adaptation to Climate Change for special climate change fund has three main objectives. It include: 1) reducing vulnerability and increasing resilience through innovation and technology transfer; 2) mainstreaming climate change adaptation and resilience for systemic impact; and 3) fostering enabling conditions for effective and integrated climate change adaptation.

The GEF-7 blended finance initiative is focused on the use of non-grant instruments such as debt, guarantees, and equity under the Non Grant Instrument Program (NGI Program). It is used where the actual risks are too high for commercial financial alone and to promote private sector participation. In GEF 7, the NGI program expands the blended finance to USD 136 million to support delivering the GEBs and catalyze investments from private sector.

Sustainable Development Goal 12 and Plastic Waste: Create Plastic Solution by Mr. Musthaq Ahmed Memon, PhD (UNEP)

Mr. Musthaq Memon of UNEP began with explaining the problem statement on how plastics should become world's concern through explaining several interesting facts, such as: it takes 100 years for plastic to degrade in the environment and 10 million tons of plastic enter ocean each year. He added that by 2050, 99% of seabirds will have ingested plastic, marine litter harms more than 600 marine species, and 15% of species affected by the marine litter.

He further mentioned three main sectors solution with regard to plastic in South East Asia. At business sector, there were market-based solutions such as plastic reuse and recycle, and reduction of single

use packaging. In science sector, the solution offered was strengthening the scientific base for decision making on the plastic value chain. Lastly, with regard to awareness, it is important to raise the region-wide awareness on marine litter and plastic pollution. The results were increased reused and recycled plastic and reduction in plastic pollution. Thus, he further explained how generating circular economy for plastics could be the solution for reducing pollution and increase the resource efficiency.

Mr. Memon pointed out several facts on the cost of waste management to show how expensive it is. He continued with briefly explaining several projects to reduce plastic pollutions in South East Asia in cooperation with several different governmental and non-governmental bodies in the world like Government of Sweden, Government of Japan, Government of Korea, European Union, Coordinating Body on the Seas of East Asia, and Switch Asia.

Furthermore, he explained the importance of focusing value chain in all levels of circular economy procurement models including system level, supplier level, and product level. Concluding his presentation, he mentioned three main actors of the circular economy in plastics. First, the government/public sector who is in charge for regulatory framework, institutional setup, tariff design, subsidies, and guarantees. Second, the private sector who is in charge on financial share, technical innovation, managerial role, local knowledge, and the backward and forward linkages. Lastly, the citizens for their 'willingness to pay', their 'awareness and will', and their 'environmental-friendly lifestyles'. He is open for further cooperation with WGEA concerning plastic waste topic and thanking the audience before closing his presentation.

Discussion

Dr. Niemenmaa of SAI of Finland talked about the circular economy done in Finland and how Finland still need more expertise to make it work effectively.

Mr. Jimmy Greer of ACCA asked about how to make put the "recycle process" into an accounting system.

In replied to *Mr. Greer's* question, *Mr. Memon* explained about the importance to understand the difference between normal accounting system and economic accounting system. In economic accounting, environmental impacts and benefits received by citizens are included. In economic accounting, it is not about the revenue, but the benefits received by the people. Life cycle assessment is important to change the normal accounting system to economic accounting system especially related to plastic. He also pointed out the importance of whole system approach instead focusing only to materials. *Mr. Memon* also talked about the ease of practicing "closing the loop" within smaller community. Reusing local waste as input within the smaller community (i.e. small-islands) considered easier. System approach is needed to have a better accounting system for the environment.

Mr. Shamsur Rahman of SAI of Bangladesh asked about practices in preventing plastic waste in other countries.

Mr. Memon replied that in some countries, plastic levy is suspended depends on the local situation. He shared how banning the plastic is easier in Singapore compared to other ASEAN countries. Further, he said that in one African country, plastic use is fully prohibited. While in Japan, peer pressure considered the most effective in reducing the use of plastic. He pointed out the importance of how people are disposing the plastic. He further explain how "waste to energy" considered not effective to reduce the plastic wastes, as it needs thicker plastics that has higher material values.

Sustainable Development Goal 11 and Sustainable Transport: Rail Transport System as Solution to World's Problem on Transportation by Dr. Rattapoom Parichartpreecha (Thailand)

Dr. Rattapoom Parichartpreecha of Thailand shared how rail transport system is a solution for the world's issue on transportation. He began with explaining the background of the rail transport system development that include the CO₂ emissions generated from transport sector, how it became the highest contributor of air pollution, and it takes the second place in energy consumption in the world. He added how traffic congestion, poor transport infrastructure have become the problem and considered that the railway system is the most efficient tool to cope with the problem. The railway system has higher capacity and lower energy consumption than automobile and buses.

Government of Thailand has developed the 8 years Railway Modernization Plans (2015-2022) which consist of developments of several tracks and lines. It is expected to be the railway hub of ASEAN. He further explained the reason why developing the High Speed Rail for reasons like energy efficiency, lower cost, and more environmental friendly. It also helps to control the urban sprawl and offers seamless mobility.

Moreover, he explained about the partnership with private sector in developing the railway system, also how the cost of this railway project is depend on the legal frame, standards, and level of industrial supply. He added that the most important is the expertise of Human Resource within the decision maker group, researcher, and technician with regard to the understanding of the standards. Concluding his presentation, he mentioned how this project is a challenge for the government of Thailand especially in terms of achieving the quality and the world competitiveness.

Discussion

Mr. Benjamin Mashauri Magai of SAI of Tanzania asked how to deal with the possible risk of government loss due to irresponsible practice of private sector that only cared about revenues.

Mr. Parichartpreecha said that currently in Thailand still focusing on the financial revenue not yet include the social benefits or environmental impacts from the partnership.

Mr. Memon added that PPP is a challenging task. Usually, government has not yet empowered with the assessment on the private sector. For example, in Indonesia, the PPP was not working as the private sector only focus on collecting the revenue not providing benefits for people.

Parallel Session on Upcoming Work Plan 2020-2022 Feasible Topics

Parallel Session I: SDG 13 – Climate Finance

Dr. Vivi Niemenmaa opened the session with explaining the aim of the discussion that was getting inputs for the next project in the Work Plan 2020-2022. The session continued with presentations from several SAIs including SAI of Peru, SAI of Thailand, SAI of USA and SAI of China.

Mr. Ivan Sotero of SAI of Peru shared their experience in auditing deforestation and land use change in Peruvian Amazon. He shared how the audit has found that the expansion of palm oil and cocoa in lands were not suitable in Peruvian Amazon and it increased the risk of deforestation and threats to protected species. The audit also expected to raise awareness on the importance to manage the climate change impacts with reliable information system.

Continuing the session, *Mr. Phattaraset Ardchawuthikulawong of SAI of Thailand* presented their experience in auditing the climate fund. The audit recommendations were made to improve the projects, to create tracking progress and data analysis system, and to eliminate inefficient projects and create solutions.

Ms. Marissa Dondoe of SAI of USA proceed the session with sharing GAO experience in auditing climate finance. The audit found that SAI of USA were unable to verify the reported numbers of USD7.5 billion in fast start finance between 2010-2012. The challenges were the number of supported projects and project level funding were unknown, difficulties in tracking the spending, and no project/spending status information provided. A discussion followed was spread around issues like lacking information, lack of funding, the need of regular reporting, and the site visits to learn on specific projects.

Mr. Zhang Hongwei of SAI of China shared the research of SAI of China on tackling climate change through audit. The audits including audit on energy conservation and emission reduction actions; and audit on fiscal, taxation, and financial policies. He also pointed out the importance of strengthening macro audit awareness in tackling climate change, auditor capacity building, and the need to establish effective big data audit mode.

The parallel session was ended with a discussion upon several questions. The discussion results were all participants agreed to discuss further about the international scope of funding regarding climate finance topic, more multilateral agreements, and WGEA could support these through conducting a research project.

Ms. Juska Sjam agreed that WGEA still need more information regarding to the climate financing thus research paper would be a good idea.

Parallel Session II: SDG 12 – Plastic Waste

Ms. Kimberley Leach accompanied by *Mr. Mushtaq Memon* as an expert on related topic led the session. There were some presentations from SAI of Czech Republic, SAI of Egypt, SAI of India, SAI of Poland, and SAI of Cyprus.

Mr. Michal Rampir from SAI of Czech Republic mainly shared about the audit plan on waste management effectivity in achieving objectives set out in European Union and National legislation using risk analysis process. The audit is planned to be conducted in 2021 and focus on the funds earmarked for implementing waste management. He mentioned several risks related to waste management including the ineffective plastic waste management and having most plastics end up in the landfills or energy recovery system. He also talked about the plastic wastes characteristics, elements, and it's recyclability. The discussion followed was spread around the criteria availability in auditing plastic waste, and how auditors could contribute in creating pragmatic solutions for the government based on the available directives/acts.

Ms. Nouran Elgazar from SAI of Egypt shared about audit on plastic waste management in Egypt, its challenges, and the role of government and private sector in plastic waste management. She highlighted that only around 30 per cent of the total plastic waste is recycled. The audit recommended providing more support plans, improving waste collection management, and strengthening legislation encouraging recycling. In 2019, the government announced plastic bags and plastic tableware banning in some governments in Egypt to protect sea species and human health. Also, the Ministry of the Environment adopted a national initiative under the slogan "Beat Plastic Pollution", which focus on reducing the plastic bags consumption and use of the woven bags instead. A private sector company calls to rely entirely on recycled materials in packing their products by 2025, while other developed a vision goal of zero waste and circular economy in 2057. The discussion followed was spread around the plastic bags banning and some alternatives with regard to recycling food-packaging plastics.

Mr. Manish Kumar from SAI India shared about the results of audit on plastic waste management and the ease of understanding the topic. He also explained about the reason why they conducted the audit especially related to the negative effects of plastic waste on the environment and the implementation

gap among the governments in various levels. The audit was aimed to ensure the plastic waste management was performed effectively. The main findings were mostly related to lack of data and the ineffective plastic waste management. SAI of India recommended the government to encourage more waste prevention and to promote innovative technologies to reduce the number of plastic wastes. He also talked about how the audit has brought positive impacts to the governments in managing plastic wastes. He also mentioned about the importance of SAIs' roles in plastic waste management and encouraged sharing experiences among SAIs through collaboration in framing guidance or even joint audits. The discussion followed was spread around the data on plastics and the role of rag pickers in the plastic waste management legislation.

Mr. Wojciech Dudek from SAI of Poland shared about the cooperative audit on plastic waste management proposed to be conducted by EUROSAI WGEA. He explained how rapid growth of plastic production became one of the reason why plastic wastes management became an issue. He talked about the negative impact of plastics on oceans and wildlife health and the importance of addressing plastic pollution. Besides, he explained many interesting statistics around plastic waste across countries in Europe along with policies related to plastic waste in European Union especially the Circular Economy. The cooperative audit was planned covering the year of 2017-2019 to assess the effectivity of measures taken by the government on reducing plastic waste and to ensure its proper treatment. He also explained how the cooperative audit will be done by at least seven (confirmed) participating SAIs and how it is expected to be finalized in 2021. The followed discussion was spread around the method of integrating the different criteria from different countries and, how best practices could be used as criteria and recommendation.

Lastly, *Mr. Akis Kikas from SAI of Cyprus* shared about the audit on assessment of the plastic waste management effectivity especially on packaging waste. SAI of Cyprus also shared about the idea of Extended Producers' Responsibility (EPR), the achievement of recycling targets, and lessons learned from the audit including the need to involve significant financial interest, and the need to update recent developments in the national strategies. Further, there was a discussion on waste prevention, what WGEA can contribute about plastic waste, and the challenges related to intervening government's planning on waste management infrastructure.

Ms. Kimberley Leach summarizing the session and mentioning that most of the discussion was spread among the inadequacy of laws and regulations, significance of funding on waste management, lack of data, and whether the enforcement is effective. The discussion about what WGEA could contribute related to this topic has result several options such as: cooperation and liaise with UN or UNEP, summarizing what WGEA has been done in related topic, collaborative works within regions, connect the topic with the SDGs, the harmonization of legislations, and possibility to have more discussion on sea-based plastic waste management.

Ms. Juska Sjam agreed to have more in depth discussion upon these options afterward.

Parallel Session III: SDG 11 – Sustainable Transport

Dr. Sutthi Suntharanurak accompanied by *Mr. Rattapoom Parichartpreecha* led the session on the sustainable transport. There were at least three presentation from SAI of China, SAI of Jordan, and SAI of Tanzania.

Mr. Zhang Long from SAI of China explained about how Government of China developed a sustainable transportation system, and how that system has helped them in balancing regional development among different regions, improving people's livelihood, and promoting environmental protection. He also talked about SAI of China's audit in promoting sustainable transportation and the challenges they faced such as difficulties in obtaining effective data and lack of human resource. In the future, SAI of

China will pay more attention on economic level (i.e. urban agglomerations spatial planning); environment level (i.e. promoting new energy vehicles, and restrict the use of highly polluting fuels); and social level (i.e. construction of safe and convenience public transportation). He also talked about how his Government currently focuses on railway network improvement for its sustainable public transportation system.

Mr. Sameh Al-Nimri from SAI Jordan on the other hand talked more about SAI Jordan's experience in evaluating the performance of public transport in Great Amman Municipality (GAM) to assess the safety and effectiveness of the modern transport. He also talked about the Strategic Plan 2011-2013 related to public transport and about the control on operators of public transports means. *Mr. Al-Nimri* also talked about audit recommendations, which focus primarily on legislative framework organization, public service provision commitment, role of private sector, control system, and financial support.

Lastly, *Mr. Michael Malabeja from SAI of Tanzania* shared about the SAI of Tanzania's experience on auditing management of roads furniture. The audit found that there was lack of users' involvement in the road planning, inadequate capacity building on road safety, insufficient roads furniture in maintenance system, and SDGs have not yet adopted in the context of sustainable transport thus there are less involvement of local communities and indigenous people in roads construction, which should have more remarkable role. The audit recommended to involve key stakeholders, to ensure road safety has been considered sufficiently, to strengthen supervision, to build capacity, and to allocate sufficient budget for the necessary roads furniture. He mentioned about not having sufficient quality data, and lack of harmonized data collection system used by different agencies as the challenges they faced during the audit.

During the session, there was a discussion about the rural accessibility, the proof of the transportation in reducing CO₂ emission, data reliability, environmental impact in sustainable transportation massive construction, data sufficiency, and the use of sustainable energy in transportation sector. The discussion regarding the next project was spread around the need to develop a research project or guideline that should describe and provide better analysis on environmentally friendly transportation.

In response to that, *Mr. Mohamed Nor. A. Rahim* from SAI of Sudan said that Africa has to think about what is the best way to transport with the geographical characteristics of Africa.

Mr. Manish Kumar from SAI of India also mentioned that it would be worthy to know also about the cost of environmental impact of transport and plastic waste within the next project.

[AFROSAI E presentation on Sustainable SAIs: Leading by Example on the SDGs and Agenda 2063](#)

Ms. Melissa Reddy representing AFROSAI-E presented about how AFROSAI-E is encouraging their SAI members to contribute to the SDGs and the Agenda 2063. The vision of AFROSAI-E is to achieve a prosperous Africa based on inclusive growth and sustainable development. SAIs have a responsibility to lead by example by being a model of good governance, transparency, accountability, shared value creation, and sustainable development. In addition to that, SAIs could perform an audit to the implementation of programs and progress towards the achievement of the SDGs and Agenda 2063.

Based on the uniqueness of the continent and focusing in the two agendas, the AFROSAI-E developed a guideline to assist SAI members: 1) to lead by example; 2) to unpack the role and preparedness towards contributing to both agendas; 3) to understand and map the value chain at country level; and 4) to audit the progress on both agendas using financial audit, compliance audit, and performance audit methodologies. SAIs are expected to have sustainability leadership toward the SDGs and Agenda 2063.

This means that SAIs have to integrate the Agenda goals in their strategy, operational plans, with the principles of whole of the SAI and leave no one behind.

Further, *Ms. Reddy* explained how SAIs could link the SDGs to their goals and how SAIs could prepare themselves to audit the agenda through planning, training, information systems improvement, and communication with stakeholders. The AFROSAI-E suggested that SDGs and Agenda 2063 should be included in all SAIs' audits thus SAIs could diagnose the root causes and offer recommendations in meeting Agenda goals.

Moreover, she explained the differences about auditing the progress of SDGs that focus more on outcomes, crosscut across different government entities, inclusive, multi stakeholder approaches, also information and data analytics based. Before concluding her presentation, she mentioned the members of the AFROSAI-E development team that consist of representatives from SAI of Uganda, Mauritius, Lesotho, Namibia, and Malawi. Ending her presentation, she pointed out the importance of SAIs to lead by example and be the catalyst for change.

Work Plan 2017-2019 Project Presentation (3)

Auditing Land Organization and Soil Quality Management – Combating Desertification: Guidance for SAIs by SAI of Pakistan

Ms. Juska Sjam from INTOSAI WGEA Secretariat representing SAI of Pakistan to report the final output of the Auditing Land Organization and Soil Quality Management – Combating Desertification guidance document. She mentioned that the guidance consist of four chapters. First chapter explained about the main causes of desertification and its effect globally. The second chapter explained about the national and international response towards desertification levels for exercising all existing options to avoid or reverse desertification and its negative impacts. She also mentioned the importance of wise use of available land resources due to its limited numbers.

She further explained several methods on how land resources could be used wisely through Sustainable Land Management, Integrated Landscape Management, Land Governance and Land Use Planning and the Soil Quality Management. Furthermore, the importance of improved soil is evident from the fact that out of 17 SDGs adopted in 2015, four of them are related to soils. Lastly, in chapter 3 and 4 of the guidance, SAIs could learn about how to conduct environmental audits on combating desertification initiatives and offered several audit topics with case studies related to combating desertification.

Research Project on Improving the Visibility of SAIs' Work: Communicating Environmental Audit Results by European Court of Auditors

Ms. Jerneja Vrabic of European Court of Auditors began the presentation with introducing about the project team members and the focus of the research paper, which is how SAIs communicate about environmental audit to increase their visibility. *Dr. Vivi Niemenmaa* further explained the details of the research saying that environmental audits are easy to communicate and tend to get public attention. *Dr. Niemenmaa* pointed out that SAIs communicate increasingly in different platforms and with various tools especially social media. With regard to social media, she illustrated the example of SAI of USA in communicating their audit results through several social medias (i.e. Facebook, Twitter) and how it has more attention instead of the traditional media referrer.

She further explained the importance of visuals through example of SAI Slovenia's audit on Natura 2000 areas and how it has help the readers to understand the message of the audit report. Moreover, she mentioned the importance of providing various products for various readers in communicating the audit results. Concluding her presentation, she mentioned two key recommendations of the report that SAIs should have a communication strategy, and the communication on audit should be planned early.

To illustrate, she explained how ECA planned their media activity timeline for communicating their audit reports.

Coffee Break

Auditing Agriculture and Food Production: Guidance for SAIs by SAI of Cameroon

Mr. Valentine Onya representing SAI of Cameroon presented the final output of Guidance on Auditing Agriculture and Food Production. He began with explaining the objectives of the guidance, which are providing information on recent developments, the role of governments, and audit steps that SAIs may use in auditing agriculture and food production. First chapter of the guidance explained about basic definitions on sustainable agriculture and food production along with the trends, challenges and prospects. Second chapter explained about how SAIs could choose and design audits of agriculture and food production using the four steps approaches as follow: 1) understanding the agricultural sector; 2) mapping government's efforts; 3) prioritizing and selecting audit topics; and 4) designing the audit.

Chapter 3 presented the audit experiences and good practices on topics such as food security, food safety, food production and SDGs, and agricultural programs for rural development. He further mentioned about challenges faced in developing the guidance especially related to difficulties in accessing government's documents or interviews, obtaining SAIs' experience related to the topic, and the language barrier. Coping with the challenges, SAI of Cameroon worked with the WGEA Secretariat through mini survey in obtaining SAIs' experiences, and work persuasively along with other to obtain the data. Concluding his presentation, he thanked all SAIs who have contributed in the accomplishment of the project through comments and inputs.

Auditing Biodiversity: Guidance for SAIs by SAI of Indonesia

Ms. Dominika Rosana from SAI of Indonesia presented the final output of updating the 2007 document of Auditing Biodiversity: Guidance for SAIs. She began with explaining the background of the project including the adoption of SDGs, the Paris Agreement and the enactment of Biodiversity decade. The document consist of four chapters including the introduction chapter. The introduction chapter provides about the international awareness, importance of biodiversity, and WGEA members audits on biodiversity. Chapter 1 of the guidance provides the information on scope and main concerns of biodiversity, its main threats, and how it can be protected. Specific paragraphs were added to explain about food chain, the importance of preserving natural habitats to prevent disasters, and the impact of climate change on biodiversity.

Chapter 2 provides step-by-step approach to audit government's response to threats on biodiversity. The four steps approach include identifying main threats to biodiversity, the government's response to the threats, prioritizing the audit topics, and adopting the specific audit approach to audit biodiversity. In chapter 2, there are also additional paragraphs on financial mechanisms, biodiversity impact assessment, and risk analysis to help in choosing audit topics. The last chapter offers several biodiversity topics along with the audit examples contributed by SAIs from all over the world. Some addition and adjustments were also made in the appendices. Concluding her presentation, *Ms. Rosana* mentioned about the quality assurance process that have been followed starting from the SC meeting in USA to the final exposure period from March to May 2019.

Training Tools on Greening the SAIs by SAI of Estonia and European Court of Auditors (ECA)

Ms. Dilyanka Zhelezarova from ECA and *Ms. Viire Viss from SAI of Estonia* presented the outcome of the Greening the SAIs training tool. The project aims to promote integration of the environment and sustainability concerns into the SAI's internal management and practice, and structure way to deal with SAI's environmental impacts and improving working environment. The training tool was built upon the previous WGEA research paper on the same title and has gone through some brainstorm sessions

during WGEA SC meeting and EUROSAT WGEA meeting in 2017. Finally, the training tool has been delivered in a pilot training to 30 participants on August 5th, 2019 before the WGEA Assembly meeting started.

The training materials consist of presentations, templates, examples, and exercises. In short, the training tool provides steps for implementing greening activities including: defining greening commitment, how to start the process, identify environmental aspects, perform initial review on environmental, develop the action plan, implementation, monitoring and evaluation, performance report communication, and continuous improvement. Some valuable feedbacks from the pilot training were explained including the importance of all sessions in the training, the need for adding one more day to the training, the need of more examples and exercises, and how the participants would recommend this training to others.

After the presentation, *Prof. Dr. Moermahadi Soerja Djanegara* handed the certificates to all Greening SAs Training Participants from 18 participated SAs and congratulated them and the trainers for the achievements.



Greening SAs Training Participants receiving their certificates

Dinner hosted by SAI of Indonesia

The dinner hosted by SAI of Indonesia took place at the Indonesian Embassy Residence at *Petchburi Road Ratchatewi, Bangkok 10400 Thailand*. The participants had the opportunity to enjoy some of Indonesian cuisines.



The participants at the Official Dinner hosted by SAI of Indonesia

E. Friday, 9 August 2019 – Meeting Day Three

Introduction to Day Three

Prof. Dr. Moermahadi Soerja Djanegara accompanied by *Ms. Juska Sjam* explained several adjustments made in the agenda for the third day before moving to the agenda item.

Regional WGEA Reports

ASOSAI WGEA

Mr. Zhang Long from *SAI of China* representative as the regional coordinator presented the activity report of the ASOSAI WGEA. Currently, there are 32 members and 1 observer within the ASOSAI WGEA. He further explained the previously held Joint Meeting on Cooperative Audit and Research Project in Thailand last January 2019. The regional working group is active in promoting cooperative audits within the region, participating in INTOSAI WGEA activities, and promoting environmental auditing outreach in Asia. Lastly, he explained several next step priorities that will be taken by the regional working group.

EUROSAI WGEA

Ms. Kaire Keskula representing *SAI of Estonia* as the EUROSAI WGEA coordinator. She began with explaining the current strategy and membership of the regional WGEA that based on the experience sharing and professional cooperation principles. Several activities were held within the regional since September 2018 including training seminar on Climate Data during 16th Annual Meeting in Slovakia, Steering Committee meetings and video conference, and the Spring Session about Waste Management to Circular Economy in Cyprus on May 2019. EUROSAI WGEA also actively encouraging its members to perform cooperative audits. In 2018-2019, there are three cooperative audits performed namely Energy efficiency of public sector buildings, Air quality, and Mediterranean marine parks.

Ms. Keskula also explained that EUROSAI WGEA has launched the Water audit MOOC in November 2018 in cooperation with the University of Tartu Estonia. EUROSAI WGEA is also continuously promoting environmental auditing through its website, newsletter, social media, and continuous cooperation with other regional WGEAs, EU institutions, and others. Concluding her presentation, *Ms. Keskula* mentioned the upcoming 17th Annual meeting in Luxembourg hosted by ECA. The meeting will focus on auditing biodiversity, and preparation for the new EUROSAI WGEA Strategic Plan.

PASAI WGEA

Mr. Jonathan Keate from *SAI of New Zealand* began his report with explaining the membership of the PASAI WGEA and its partners from IDI, European Union, Australian Aid, New Zealand Foreign Affairs and Trade Aid Programme, World Bank, ADB, and UNDP. Currently, SAI of New Zealand act as the PASAI Secretary General and the RWGEA coordinator. It also plays a role in twinning program of Samoa and Cook Islands and INTOSAI pilot program. Similar to other RWGEA, PASAI activities focused on knowledge sharing and capacity building through cooperative audits on environmental topics such as solid waste, drinking water, sustainable fisheries, and climate change.

Mr. Keate explained about the need of environmental audit training within PASAI region that is relevant to the need of SAI members. Thus, PASAI WGEA encouraged its members to participate in the environmental auditing related MOOCs developed by EUROSAI WGEA. PASAI WGEA also participated in a cooperative audit on SDGs preparedness supported by the IDI and PASAI Secretariat and had the opportunity to present the results in the HLPF meeting on July 2019. Concluding his report, *Mr. Keate* mentioned the upcoming meeting in 2020 is expected to encourage new cooperative audit on environmental/SDGs related topic and focus more on training with supports from INTOSAI WGEA.

AFROSAI WGEA

Mr. Valentine Onya from SAI of Cameroon presented the report as the regional coordinator of AFROSAI WGEA. He explained the working group's mandate and its work plan that has aligned with the AFROSAI Strategic Plan and INTOSAI WGEA Work Plan. In line with other RWGEAs, AFROSAI WGEA aims to build capacity of its members, share knowledge and disseminate information among its members. Currently, there are 31 SAI members within AFROSAI WGEA. *Mr. Onya* explained that AFROSAI WGEA members are actively participated in activities such MOOCs developed by EUROSAI WGEA, Congo Basin Forest Cooperative Audit, Green Charter of African SAIs implementation, and ISSAI 5100 series translation into French language.

Moreover, he explained main challenges in AFROSAI WGEA related to funding sources and capacity building. Thus, the group cope it with proactive funding strategy, make use of training opportunities from EUROSAI WGEA or ICED, and work with experts. Further, he explained that the group will continue to strengthen the cooperation with regard to building the capacity of its members, maintain to current partnerships with other regional WGEAs and GIZ, move forward on the planning activities of River Niger and Nile cooperative audits, contribute to INTOSAI WGEA projects, and information sharing on environmental auditing. Concluding his report, he mentioned that the upcoming 9th annual meeting of AFROSAI WGEA will be held in Cairo, Egypt on October 2019.

COMTEMA

Mr. Hugo Freire from SAI of Brazil presented the activity report of the COMTEMA. Created in 1998, COMTEMA has a mission to contribute to the development of environmental audits, to promote environmental management control, to ensure and strengthen the integration of SAIs. Main activities of COMTEMA involve coordinated audits, institutional alliances/cooperation, funding resources identification, capacity building, and strategic planning commission establishment. COMTEMA has performed several coordinated audits on themes like protected areas (ongoing), water resources, climate change, waste management, and SDGs. COMTEMA also build some alliances with UN, CBD, and other INTOSAI groups and translated several WGEA guidelines for the benefit of its members. Further, *Mr. Freire* explained the importance of communication within COMTEMA. The communication include communicating through website, social media, and reports to disseminate the work results of the COMTEMA.

He also pointed out the importance of developing different products for different actors to communicate the results (especially the coordinated audit results). COMTEMA collaborate increasingly with international organization in terms expertise and funding supports. In terms of capacity building, COMTEMA is establishing a learning path to environmental matters in cooperation with Capacity Building Committee. Moreover, he explained about establishing strategy for follow-up the implementation of SDGs, producing progress report on SDGs, and inducing the improvement of governance in Latin America. With regard to the COMTEMA strategic plan, *Mr. Freire* explained that the final version of the document would be approved in October 2019 during OLACEFS meeting. Finally, he presented about the latest activity of COMTEMA, the protected areas audit that focused on building the capacity of COMTEMA members through e-learning courses and workshops.

ARABOSAI WGEA

Ms Rania Alojairi from SAI of Kuwait presented the progress report of ARABOSAI WGEA. Having nine SAI members, ARABOSAI WGEA was initiated in May 2009. There are several activities of the group, namely report presentation on the efficiency and effectiveness in combating desertification, regional report on monitoring SDGs, participation in INTOSAI WGEA projects, and website development. With regard to combating desertification, ARABOSAI WGEA recommends several actions to be performed,

namely raising environmental awareness, encouraging scientific research, increasing the use of treated water, and forest protection.

Related to regional report on monitoring SDGs, ARABOSAI WGEA involved in the ARABOSAI initiative to report the implementation of 2030 Agenda through organizing training courses, translating guidance, and encouraging cooperative audit. Lastly, *Ms. Alojairi* explained about the development of ARABOSAI WGEA website to preview and evaluate the current situation, update the data, and the website would also available in English language.

Announcement of the New WGEA Chairmanship

Prof. Dr. Moermahadi Soerja Djanegara as the current WGEA Chair officially announced the next Chairmanship that will be taken over by SAI of Finland. *Ms. Tytti Yli-Viikari*, the Auditor General of Finland in her speech mentioned that she would continue the spirit of WGEA to support the global environmental audit community.



Passing the Baton of INTOSAI WGEA Chairmanship

Coffee Break

Collaborative Audits on Environment and Sustainable Development Goals (SDGs)

SDG Audit Development in Thailand by SAI Kingdom of Thailand

The team from *SAI of Thailand* explained how SDG audit is developed in Thailand. In 2019, Thailand is ranked in 40th at SDG Index. The development of SDGs audit consist of three main milestones, namely the research phase (2016-2017), the State Audit Policy development phase (2018-2022), and the practice of performance audit in SDGs. Within the research phase, SAI of Thailand use two different views of auditing SDGs. In macro view, the research was conducted for State Audit policy setting in auditing SDGs. Meanwhile, in micro view level, the research was conducted to implement the economic evaluation and impact assessment as audit methods, and to extend audit criteria from 3Es to 6Es (Economy, Efficiency, Effectiveness, Environment, Equity, and Ethic).

The State Audit Policy phase involves several activities including engaging with academicians (through SDG101 workshop, E-blending course, Action research, and seminar), and engaging with other SAIs. Engagement with other SAIs includes involvement in the 12th ASOSAI Research Project on leveraging digital or big data to achieve the SDGs, and cooperative research with SAI of Nepal to address the challenges and opportunities and create constructive recommendations for SDG audit.

Joint Cooperative Audit on Marine Protected Areas (MPAs) within Mediterranean Sea by SAI of Cyprus and SAI of Malta

Mr. Akis Kikas from SAI of Cyprus and Mr. William Peplow from SAI of Malta presented the results of Joint Cooperative Audit on Marine Protected Areas (MPAs) within Mediterranean Sea that was recently completed by EUROSAT WGEA members. The MPA was selected as audit topic due to its importance as habitat for endangered species, its tourism product, and its limited scope made it easier to manage. Five SAIs including Cyprus, Malta, Greece, Albania, and Portugal performed this joint audit with the contribution from SAI of France and SAI of Slovenia in mid-2018 and published their joint report in July 2019. There were six main audit questions to help in answering whether the MPAs are appropriately safeguarded across Mediterranean countries. The audit team used several methodology including documentation review, site visits, interview with stakeholders to obtain the necessary data.

The legislative framework of MPAs comprises of national legislation, EU directives, and UN Conventions that mostly mandate countries to establish and manage MPAs. The audit team perform risk assessments although it was only limited to a specific technical scope not all waters within jurisdiction. The audit found that most of the participating SAIs' government have a national strategy despite its lack specificity, time frames, and measurable targets. The audit also found that the management of MPAs is hindered due to the weaknesses related to management plans thus increasing the risk of marine environment degradation and missing EU obligatory targets.

Monitoring of MPAs by national authorities was not performed regularly and lacking coordination between stakeholders. Some lessons learned from the audit including the need of understanding the complexities of competing interests, fragmentation of responsibilities management, no question that fits to all circumstances, expertise management, and understanding the tensions brought by international political scene.

Cooperative Audit on Air Quality by SAI of Poland

Mr. Wojciech Dudek from SAI of Poland presented the results of the cooperative audit on air quality led by SAI of Poland and SAI of Netherlands completed in 2018. The joint report was performed by ECA and 15 national SAIs. The main messages from the cooperative audit were the insufficiency of prioritization of air pollution problem in the national governments and except for Estonia, the fact that the governments in participating countries have not taken sufficient action to improve air quality. In addition to that, *Mr. Dudek* explained that most of participating countries do not meet national and/or international air quality standards and exceed limit values. There were also lack of coordination among actors and policies related to air quality improvement, limited information on budget, improper monitoring systems and the need for public information improvement.

The three main factors that influence air pollution were transport, industry, and household & commercial units (low emission). The recommendations were made, and grouped by the following topics: air quality plans preparation, action's effectiveness measurement, coordination improvement, relevant data provision and full cost-benefit analysis, monitoring systems improvement, and raising public awareness. Lessons learned from the cooperative audit include the importance of having detailed project management especially with two coordinators, the value added obtained from using good practices, and the best time to publish the report in order to strengthen the message.

Video Presentation on the Upcoming 9th Annual International Conference on Integrity (CAII) in Lima, Peru

As the host of the upcoming event, *SAI of Peru* invited the meeting participants to attend the conference that aims to develop proactively new and increasingly innovative strategies to combat corruption locally, regionally, and globally.

Coffee Break

Cooperative Coastal and Marine Environmental Audit by AFROSAI – E

Mr. Joshua Asimwe from AFROSAI-E presented the recently completed audit by AFROSAI-E members on coastal and marine environment. Before he began, he invited the meeting participants to watch two videos on the audits performed by SAI Seychelles and SAI Liberia. He continued with pointing out the importance of coastal areas are crucial for Africa's economic growth and revenue generation that will assist in reducing poverty and creating employment. The audit aims to assess the environmental state of the coastal and marine ecosystem, and to understand the significant issues and risks faced by coastal communities related to their coastal management and activities. There were six SAI members (Tanzania, Seychelles, Mauritius, Namibia, Sudan, Liberia) who participated in the audit that focus on areas of governance-monitoring-and enforcement, coastal pollution and degradation, overfishing, and climate change.

The audit found that the marine and coastal areas were neglected and were ineffectively managed by their governments. Some common findings were found within the six countries namely: lack of coordination between stakeholders, inadequate monitoring and poor legislation enforcement, ineffective performance indicators for monitoring progress, lack of public awareness, inadequate data and information systems, inadequate human and technical resources, and insufficient response strategies related to climate change risks. Concluding the presentation, Mr. Asimwe explained the importance of plan and undertakes the similar audit regularly to assess the protection and sustainable utilization of coastal resources for healthy planet and prosperous Africa.

Cooperative Audit on Waste Water Prevention by SAI of Bangladesh

Mr. A.H.M. Shamsur Rahman from SAI of Bangladesh presented the results of the cooperative audit on government initiatives regarding prevention of surface water pollution in Bangladesh. The audit aimed to assess effectiveness of the government initiatives especially the role of Environment Department as planning, implementing, and monitoring agency. The audit was carried out by collection data through document analysis, interviews, survey, and joint inspection. The audit found that there was a gap in the existing legislation related to surface water pollution prevention and there were no specific existing policies, or any strategic documents that address water pollution. He added, there were also several findings namely: lack of coordination in terms controlling surface water pollution, lack of current pollution levels indicators identification, lack programs related to polluted river restoration and pollution prevention on lake, lack of network in tracking pollution to river and lakes, and lack of human resources and funding.

Some limitations were mentioned in auditing the theme, especially with regard to no technical knowledge, time constraint, and lacking experience on related audit. He further mentioned several issues in performing the audit including the audit team capacity and competence was challenged by the entity, the report submission to Parliament, and the need of having the continuous learning from experience in cooperative audits within WGEA.

WGEA Trainings and Greenlines

Global Training Facility – iCED

Mr. Manish Kumar from SAI of India explained the background of the iCED before explaining the regular training programs that were included within the last two WGEA project plans. The Global Training Facility is a collaborative effort by several SAIs in improving environmental audit capacity of WGEA members. Some adjustments were made since the first training in 2013 including reducing the number of days, and session additions on greening SAIs, Market based instruments, and SDGs. There have been six trainings on Introduction to Environment Auditing since 2013 involving total of 126 participants from

39 SAIs and trainers from across the regions. Positive feedbacks were received from both the SAIs and the participants with regard to training contents and the facility.

Further, *Mr. Kumar* explained that ICED also hosted several other INTOSAI events including WGEI training and IDI KSC event. He also explained that trainings have provided platform to share best practices, recognize the works done by other SAIs, identify trainers on various topics, and develop common pool of trainers. He further mentioned the upcoming training that will be held in November 2019 and a workshop that will be held in February 2020. SAIs are requested to nominate their participants for the program. Concluding his presentation, *Mr. Kumar* mentioned several more courses to be added on topics such Greening Cities, use of GIS tools, and Climate Change and invited feedbacks and suggestions from SAIs.

Greenlines Newsletter

Mr. Mark Gaffigan from SAI of USA reintroduced the newsletter that has been published since 1996. It has served as an important source of information for WGEA and it is issued twice each year. *Mr. Gaffigan* also mentioned that SAI of USA has agreed to continue this work for the next Work Plan. The content of the greenlines newsletter including the message from the Chair of WGEA, feature story, WGEA news, regional news, news briefs, and feature extra.

Mr. Gaffigan mentioned the recent edition of the newsletter issued in April 2019, and invited contributions from SAIs for the upcoming edition issued in October 2019. For the next work plan 2020-2022, he mentioned that the newsletter would be a good media to ensure that WGEA products get visible among SAIs and larger audience, and to improve communication inside WGEA as well as enhancing communication with stakeholders. He added that they are open to engage in dialogue around the following target: a) how can Greenlines improve communication within and outside WGEA?; and b) Should we be thinking about expanding/changing our presence, such as through social media?

International Training on Forestry Audit – BPK Training Institute

Mr. Hery Subowo from SAI of Indonesia presented about the training that has been hosted by SAI of Indonesia since 2014. Before proceeding to his presentation, he invited the participants to watch a video about social forestry in Indonesia. He continued with mentioning that the upcoming 6th Forestry training will be held in September 16-20, 2019 in Indonesia. The training aims to build auditor's capacity in conducting forestry audit especially social forestry, to provide a hands-on experience in utilizing geo-spatial technology, and to contribute to the several targets of the SDGs. The training will use on-class and field trip to improve capability in designing an applicable forestry audit program.

There will be 8 main sections of the 5 days training including: 1) introduction to forestry audit; 2) understanding the Forest and Sustainable Forest Management; 3) determining topic, objective, and scope audit; 4) developing research question and audit criteria; 5) identifying audit evidence and methodology; 6) field trip; 7) preparing audit report; and 8) audit reports seminar and action plan. Before concluding his presentation, he invited the participants to watch a video about SAI of Indonesia training institute.

Closing

Approval of Work Plan 2017-2019 Outputs and the Next Work Plan of 2020-2022

Ms. Juska Sjam as Secretariat of INTOSAI WGEA seek for approvals from WGEA members on WGEA 2017-2019 outputs (12 research papers, guidance and training tools), 9th Survey on Environmental Auditing report, and the upcoming WGEA 2020-2022 work plan. WGEA members approved, and the Secretariat will bring the outputs to the next INCOSAI for Congress endorsement.

Closing Remarks

Mr. Hery Subowo from SAI of Indonesia officially closed the three-day meeting. He thanked all participants for their active contribution, thanked SAI of Thailand for hosting the meeting, and wished all meeting participants a safe trip back to their respective countries.



Thank you, Thailand!

List of Participants of 19th INTOSAI WGEA Assembly Meeting

Amari Watergate – Bangkok, 6-9 August 2019

No.	SAI / Organization	No.	Full Name	Position	Email
1	ACCA	1	Mr. James Michael Greer	Head of Sustainability Research and Policy	Jimmy.greer@accaglobal.com
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