Minutes of The 18th INTOSAI WGEA Assembly Meeting Bandung, Indonesia 16th - 19th July 2018



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Day 1. 16 July 2018 – Environmental Excursion and Steering Committee Meeting

Environmental Excursion

On the first day, most delegates departed from Jakarta while a few others departed from their hotels in Bandung. Mrs. Isma Yatun, the Board Member of SAI of Indonesia welcomed all delegates at the West Hall of the Satay Building (the office of West Java Governor). A short presentation on greening cities was then delivered by Dr. Fiqrina, a representative from Office of Housing, Land, and Landscape of Bandung City. Several important points from the presentation were:

- The importance of green perspectives in the city development shown in the 8 principles of development;
- Green open space and parks as examples of the actions taken to develop greener city and it has been regulated with Local Government Regulations;
- Strategies taken in the development of green city of Bandung which include innovation, decentralization, and collaboration;
- Collaboration made it possible for City of Bandung to develop green open spaces and parks through joint funding between governments, stakeholders and the society.

After lunch, delegates were taken into a tour around the city with a Bus called Bandros (Bandung Tour on Bus). Delegates had the chance to see some green open spaces nearby while enjoying the city's vibe on a Monday. Ending the journey, delegates had to pleasure to enjoy traditional music of the province at the Saung Angklung Udjo where they watched and played angklung with other audiences.



Delegates in front of the Satay Building (Gedung Sate)

Steering Committee Members Meeting on Quality Assurance Level

The aim of the meeting was to discuss the quality assurance level required by INTOSAI KSC on INTOSAI WGEA products. Ms. Juska Sjam as representative from INTOSAI WGEA Secretariat explained the different quality assurance level to be chosen by project leaders and explained how it would affect the timeline of the projects. She added that after this meeting, the project leaders were expected to decide which quality assurance level they plan

to take and adjust the projects timetable. Taken into consideration that the upcoming INCOSAI XXIII would be held in Moscow, Russian Federation on September 2019, Ms. Sjam explained the possibility to move the next WGEA Assembly meeting schedule into May or July 2019.

Discussion:

Mr. Sunil Dadhe from SAI of India asked for clarification on which parties could be considered as outside stakeholders. Further, he also said that whether the project leader decided to take level 3 quality assurance, it would still need to be clearly defined what level 3 quality assurance is. Similarly, in quality assurance level 2, it needed to be clarified who would be considered as the "outside parties": other SAIs or other organizations outside INTOSAI.

Ms. Sjam agreed upon the idea that outside parties would mean other SAIs or other international organizations such as United Nations bodies.

Mr. Michal Rampir from SAI of Czech Republic reminded other steering committee members that within the previous meeting in Washington D.C., the process of quality assurance from the INTOSAI KSC and PSC was not clear yet, so project leaders had not yet clearly decided on which level to take. He remembered that the Secretariat of INTOSAI WGEA had agreed to communicate further with INTOSAI regarding this quality assurance matter. He agreed that this matter should not be discussed in the plenary session.

Ms. Sjam said that during the 70th INTOSAI Governing Board Meeting held in Graz-Austria, INTOSAI did not endorse any documents related to quality assurance for non-IFPP documents. Thus, based on that, WGEA should made its own rule or statements regarding the quality assurance issue.

Mr. Rampir asked about whom would be responsible for the comments from external parties.

Dr. Vivi Niemenmaa from European Court of Auditors pointed out the quality assurance issue for research project. She further added that it would be difficult for asking external parties to confirm whether the research project was "quality assured".

Ms. Sjam clarified that this quality assurance process was not having someone/organization to confirm or declare that our products are quality assured. Consulting with external parties would only be a step to take to ensure that the development of the product has followed a certain procedure.

Dr. Niemenmaa reassured that consulting with specialist/experts is probable but not a strict requirement.

Mr. Junnius Marques Arifa from SAI of Brazil mentioned that hearing from specialists would be valuable for the process.

Ms. Tuuli Rasso from SAI of Estonia suggested that the paper/guidance should have background works or paper works that initiated the idea. She added that working with somebody from academic would take time and money. She was sure that no one from the academics would do it for free. Experts support could be used especially to check the consistency with regard to vocabulary and other specific terms within the certain topic. As for MOOC waste, as SAI of Estonia worked with Tartu University in developing the product, she asked whether that could be considered as quality assurance level 2.

Ms. Sjam agreed to use level 3 quality assurance for all current projects but the decisions would depend on the project leaders to take.

Ms. Corazon Gomez from SAI of Philippines asked whether quality assurance level for research projects and guidances would be different.

Ms. Sjam admitted that level 3 was considered being easier process compared to level 2. However, both would need formal approval from the Goal Chair, which was INTOSAI KSC.

Mr. Sunil Dadhe from SAI of India illustrated with the environmental data training tool project. He said he would ask support from internal WGEA to perform a piloting, testing, and comments on the training tool when the tool were created. Afterward, he would ask parties from outside WGEA to review the training tool. However, he then asked how long it would take for the training tool to be reviewed after it was finalized.

Ms. Sjam said that using level-2 quality assurance would be up to the project leaders to decide.

Ms. Viire Viss from SAI of Estonia said the time would not be enough to consider the level 2 quality assurance. She suggested describing the quality assurance process that have been taken by each projects including actions performed by project leaders to assure the quality of the product. She suggested that guidance should have a higher level of quality assurance than research project. She added that the product should be reviewed by external parties outside of WGEA because it would be used by SAIs as a reference. She suggested having level 2.5 instead of 2 or 3.

Ms. Sjam moved to rescheduling the 19th WGEA Assembly Meeting due to the INCOSAI XXIII scheduled in September 2019, taken into consideration that all WGEA projects were to be finalized beforehand to be reported in the INCOSAI congress.

The steering committee members agreed to move the 19th WGEA Assembly Meeting from September 2019 to July 2019 with the consequence that all projects were to be finalized before July 2019.

Day 2. 17 July 2018 – First Day of Meeting

Opening Ceremony

Remarks from Chair of INTOSAI Working Group on Environmental Auditing (WGEA) – Prof. Moermahadi Soerja Djanegara

Prof. Moermahadi Soerja Djanegara welcomed all participants in Bandung. He apologized for the last minutes change of venue due to a volcanic activity in Yogyakarta. He explained about the importance of the meeting as a forum of sharing knowledge and experience on recent issues in environmental audit especially on urban environment, sustainable land management, and society. He reminded the SAIs' role in ensuring the policies, regulations, and control systems in minimizing the negative impacts of development to be implemented properly. It was of no coincidence that the meeting themes were in line with the 2018 High Level Political Forum theme, which was "Transformation towards Sustainable and Resilient Societies". He conveyed his expectation that the meeting would improve environmental auditors' contribution through new ideas and updated approaches from the expert panelists. Lastly, Prof. Djanegara reminded how INTOSAI WGEA was already in the right path in supporting the implementation of Sustainable Development Goals (SDGs) and wished for fruitful meetings for three days ahead to improve the capacity of environmental auditing worldwide.

Session 1. How to Improve the Quality of Urban Environment – Moderated by Dr. Vivi Niemenmaa, European Court of Auditors (ECA)

Dr. Niemenmaa opened the first session of the meeting by introducing the topic and the importance of the topic. She hoped that by the end of the session, the meeting participants received new knowledge to support their next audits.

Sharing Experience on Urban Environmental Management of Surabaya City by Mrs. Tri Rismaharini (Mayor of Surabaya City)

Mrs. Tri Rismaharini shared her experience in managing the city of Surabaya through its neighborhoods or the-so-called *kampung*. In the past, *kampung* was identic with slums, underserviced, low educated people, and high crime. Her program was to raise the awareness of its citizens on the need of living in a sustainable neighborhood. Several examples were mentioned, such as waste bank initiative, recycled materials usage, compost center, public space developments, and the improvement of educational and health facilities. She also focused on the improvement of business potentials from *kampung* by supporting them in producing local products ranging from foods to handicrafts. *Kampung* has also been a good place to initiate an urban farming system using hydroponics from which citizens could cultivate and benefits from. Youth citizen took a major role in empowering the citizens to go global through digital world and other innovative ideas. In terms of landscape management, Mrs. Rismaharini mentioned several parks equipped with special technology for people with hearing-impaired. Green spaces and parks in the Surabaya city were improved during her leadership as Mayor.

Several urban forest and mangrove areas were also developed to improve the quality of living environment. She also mentioned about river revitalization and water reservoir management to avoid the risk of flood and to ensure that the citizens could benefit from the river through social activities. She also mentioned about the waste power plant, solar cell, and hybrid windmill that have contributed in generating electricity for the city and public facilities. Mrs. Rismaharini also encouraged public schools and governments to operate more sustainably through the implementation of green building, energy saving, tree planting and waste water treatment. To reduce the congestion in the city, she mentioned several programs such as car-free day and public transport improvement.

Further, to cope with the lack of land problem, she mentioned about the development of lowcost vertical housing. She also ensured that the city had a proper access to global knowledge through provision of more than 1,900 free Wi-Fi spots within the city. Finally, she explained that the programs have brought positive impacts especially in terms of improving air quality, reduced volume of waste, reduced number of diseases, poverty alleviation, reduction of flooded areas, and higher Human Development Index in 2017 compared to 2010.

Discussion:

Dr. Niemenmaa appreciated the works done by Mrs. Rismaharini and asked whether there would be any future program for her city.

Mrs. Rismaharini mentioned about the agenda of having 40% target of green measures achieved through planting more trees. Currently, the achievement was still in the level 23% coverage. Thus, she said that she would have to increase more green areas through additional green parks and sport area along the riverbanks in Surabaya. She added that she also plan to develop more vertical green buildings in Surabaya.

Mr. Ayine Anthony from SAI of Nigeria asked how long it had taken Mrs. Rismaharini to make the changes within the community.

Mrs. Rismaharini mentioned it took around seven years. She said that she performed direct supervisions to all *kampung* to ensure that the program worked well. She also mentioned the importance of the cooperation with media, private sectors, schools and campus to get the program done.

Ms. Helena Vorbova from SAI of Czech Republic asked about the car free day program and how it worked.

Mrs. Rismaharini said it started from closing one street supported by local government. Up to now, more and more streets have been closed to support the car free day program.

Mr. Zakaria Abukari from SAI of Ghana asked about the mechanism to convert government land into urban forest.

Mrs. Rismaharini explained that the government worked together with people to plant trees on the government's land. She added that it only took around two years for the trees to start looming.

Mr. Junnius Marques Arifa from SAI of Brazil mentioned the similarities between Indonesia and Brazil in many ways and was interested in knowing more how to manage the regulatory and budget system in the city governance.

Mrs. Rismaharini mentioned the difficulties in term of budget in the beginning of her program and she had to ask for private sector support for the funding. Now, more and more support have come from private sectors and communities, which made it possible to continue with the programs.

Ms. Ma. Corazon Gomez from SAI Philippines conveyed her wishes to talk with her own city government to be able to implement Mrs. Rismaharini's initiatives to her city. She later asked about the challenges faced in implementing her programs.

Mrs. Rismaharini said the geographical characters of Surabaya city was considered the biggest challenge. Located in coastal area and only 45 meters above sea level, Surabaya city was prone to flood. Coping with that, the local government has worked together with fishermen to build an inexpensive dam, plant trees, and work with community to lower the risk of flood in the city.

Mr. Alar Jürgenson from SAI of Estonia asked Mrs. Rismaharini to elaborate more on Waste Bank topic.

Mrs. Rismaharini said that it was initiated based on the idea to clean up the city area through waste sorting in community level. People were asked to sort their waste and categorize it into compostable waste and recyclable waste. These types of waste could be converted into money and as these amount increasing, the community organized a group which manage and treat these waste as an account called waste bank. The waste bank had benefited the people in ways that it not only could convert their waste into money but they could also live in a cleaner neighbourhood.

Mr. Hassan Namrani from SAI of Morocco thanked Mrs. Rismaharini for the inspiring presentation and asked whether any of the programs had prioritize the national issue. He also asked how to deal with coordination issue of the programs.

Mrs. Rismaharini pointed out the importance of involving community in her programs. She added her programs had lowered the city temperature at around 2°C from 35°C to approximately 31°-32°C. She also mentioned the supports from 29,700 facilitators in encouraging and educating the community to have better waste management. Routine monitoring was also done in order to assess the community needs for their neighborhoods.

Dr. Niemenmaa asked about measures taken to deal with urban congestion in the city.

Mrs. Rismaharini mentioned several transportation measures taken in Surabaya city, such as trams, city buses and the 'pay with plastic' Suroboyo bus program. The 'pay with plastic' bus allowed the passengers to pay for the transportation using plastics instead of money.

Ms, Dwi Amalia from SAI of Indonesia conveyed her concern about the sustainability of the programs and whether there were any systems available to ensure that the next mayor will continue the programs within the city.

Mrs. Rismaharini mentioned that as she worked with the community, she believed that the community was aware of their needs to have clean environment despite the change in the government. She also added that she could control her city through CCTV that had reduced around 29 billion rupiahs for paper reports and saved time.

Sharing Experience on Auditing Urban Environmental Management by Mr. Grant Hehir, Auditor General for Australia

Mr. Grant Hehir, Auditor-General for Australia shared the Australian National Audit Office's experience in auditing Australian government urban environment activities. The growing population of cities in Australia has brought pressure on cities' livability, natural environment and infrastructure. Australian urban environment management is a shared responsibility across three levels of government (local, state and territory, and commonwealth). The Commonwealth Government has responsibilities including matters of national environmental significance and implementation of obligations under international treaties and conventions. State and territory governments are responsible for matters where the Commonwealth does not have constitutional powers.

Further, Mr. Hehir explained his SAI's approach to auditing urban environmental management topic through performance audit. The ANAO has focused its environmental audit coverage on program design and delivery, regulatory functions, asset management, and service delivery. Several key themes selected by ANAO include weaknesses in funding arrangements, variability in discharging regulatory function, and scope to improve performance measurement. In addition to that, Mr. Hehir elaborated on the partnership the ANAO has with many stakeholders including with WGEA members and other SAIs sharing unique perspectives on auditing in differing contexts. Finally, Mr. Hehir said that through the audits, the Australian Parliament obtaines assurance regarding the extent to which policy and program objectives are being achieved and informs important lessons learned from their environmental audits.

Discussion:

Mr. Md. Azizul Hoque from SAI of Bangladesh asked about how to identify and assess the risks related to the topic.

Mr. Hehir said it involved judgement and learning from other institutions.

Mr. Jãnis Salenieks from SAI of Latvia asked how to quantify the impacts of the audits results (financial/economic impacts) to the parliament and society.

Mr. Hehir noted that impact quantification has been considered at the ANAO. As for now, the implementation of the recommendations from the audit reports has been examined. He said it was challenging to quantify the impacts of the audits in Australia.

Mr. Hassan Namrani from SAI of Morocco asked about dealing with the availability and reliability of environmental data issue in performing the audits.

Mr. Hehir mentioned on how their audits rely on the available information in the audit entities. He noted the importance of presenting a performance information so people can analyze and think about how to fix performance issues.

Ms. Dwi Amalia from SAI of Indonesia asked Mr. Hehir opinion about the trade-off between environment and the development issue accommodated in the audit.

Mr. Hehir gave an example of Green House Gases (GHG) emissions topic and how it had become a public debate topic in Australia. He explained the importance of analyzing a whole set of environmental policies and underlining the assumptions.

Mr. Sunil Dadhe from SAI of India conveyed his appreciation on the audit reports on GHG emission and asked whether he could share his experience in using the data analytics within the audit.

Mr. Hehir said the issue would be too technical to share in the forum but his SAI will be happy to share their experience on the issue in a different setting.

Ms. Camilla C. Fredriksen from AFROSAI General Secretariat asked how to perform the risk-based approach audit method in making recommendations when the environmental policy and regulation implementation were performed outside the Ministry of Environment.

Mr. Hehir said it was important to first analyze the regulatory framework and perform the risk assessment to understand which activity has more risks than the others. Based on the risk assessment, the SAI could then proceed with the audit.

UN-Habitat Initiatives in Improving the Quality of Urban Environment and its Implementation in Indonesia by Ir. Sri Hartoyo from Ministry of Public Works and Housing of Indonesia

Ir. Sri Hartoyo began with explaining about growing urban population in Indonesia and its impact to environment, need of infrastructure supply and affordable housing. Ministry of Public Works and Housing committed to implement SDGs and New Urban Agenda through collaboration among all stakeholders. The implementation of New Urban Agenda contributed to the achievement of the SDGs. There were several principles of this agenda including: a) no one left behind, b) ensure sustainable and inclusive urban economies; and c) ensure environmental sustainability. Kuala Lumpur Declaration was enacted to accelerate the new urban agenda implementation. This declaration had three main aspects, which were formulation of implementation framework, encouragement of multiple collaborative governance mechanism, and foster a culture of creativity and innovation, also develop creative and innovative funding. In implementing the agenda, there were several strategies taken by the government including process identification, achievement, lesson learned, reimplementation, and appreciation. Three mechanisms were used in implementing the agenda. These include: a) inclusive multi-stakeholders platform; b) cross-cutting problem solving approach; and c) supervision by Habitat Indonesia Board.

By 2030, cities were expected to have 100% basic services available for all citizens including children, youth, and disabled. There were some examples of existing urban development

programs like water supply system, slum area upgrading, and enhancement of sanitation system, green public spaces improvement, and revitalization of heritage building. In implementing the agenda, the Ministry of Public Works and Housing worked together with UN-Habitat through sharing knowledge at World Urban Forum and Joint Workshop concerning cooperation on new urban agenda held in Jakarta last July 2018. Lastly, Ir. Hartoyo pointed out the importance of collaboration and partnership between urban stakeholders being the key to the sustainable urban development in Indonesia.

Discussion:

Ms. Rukhsana Rafique from SAI of Pakistan asked about how to deal with the land use change, which affected the habitats.

Ir. Hartoyo mentioned that improving urban environment quality was a complex process that face many problems such as urbanization and lack of land. With regard to lack of land problem, the government had two main measures including developing multi stories building and new city development. He added that the government had a program named "Kotaku" (translated: My City), which aimed to eradicate the slum areas within the city in collaboration with private sectors, society and philanthropist. It was expected that through this program, the city would be more accessible, habitable and livable.

Evaluation of the Results of Mini Survey related to the Research Project on Greening Cities-Sustainable Urban Development by Mr. Michal Rampir from SAI of Czech Republic

Mr. Michal Rampir as the project leader began with explaining the research objectives that included identifying and describing the most critical challenges of urban agglomerations; sharing experience of auditing the area; and emphasizing the importance of the issue within INTOSAI WGEA. Three questions were asked to all INTOSAI members through INTOSAI WGEA Secretariat. The responses were as follow:

- a) At least 26 SAIs considered environmental issues related to sustainable cities were significant for their SAIs from the auditor's point of view;
- b) Among seven environmental challenges related to urban environment, waste management and air quality were considered as the most important for the SAI's nationals;
- c) National legislation was considered as the most influential instruments used with regard to sustainable cities issue;
- d) There were at least two main challenges faced by SAIs in auditing sustainable cities, they were "lack of knowledge and information", and "education (technical term), mandate, and the number of employees";

Discussion:

Dr. Niemenmaa asked whether the responding SAIs consisted of more mandated SAIs or not mandated SAIs to audit local governments. It could be seen that there were more mandated SAIs than non-mandated SAIs within the participants.

Ms. Dwi Amalia from SAI of Indonesia asked about the technique or methodology in performing the survey.

Mr. Rampir said that Secretariat of INTOSAI WGEA distributed the survey to all INTOSAI members. He used the public available data from UN bodies, academic publications and

many others. He added Greening Cities was a trending issue having a close relation with the achievement of the adoption of Sustainable Development Goals.

Dr. Niemenmaa explained how waste topic became more and more interesting these days. She mentioned how the world had become more aware on the importance of waste management (collection, reduce and reuse) and specific issue on plastics, micro-plastics, and reduction of plastic use.

Dr. Niemenmaa concluded the session by mentioning several important points such as:

- Fantastic examples of environmental policy in Surabaya city presented by Mayor of Surabaya;
- Interesting experience in auditing environmental policy performed by SAI of Australia;
- Good examples of an integration of SDGs issue in the UN-Habitat initiative implementation in Indonesia; and
- Interesting statistics from the Greening Cities research project performed by SAI of Czech Republic.

Lunch break

Session 2. Sustainable Land Management – moderated by Ms. Camilla C. Fredriksen (AFROSAI General Secretariat)

Ms. Camilla C. Fredriksen welcomed the meeting participants in the session and mentioned the importance of strategic approach to cope with the problem on land management and the importance of social entrepreneurship in sustainable land management.

Engaging Society in Sustainable Land Management: Social Forestry by Mr. Bambang Suprianto (Ministry of Forestry and Environment)

To start the presentation, Mr. Bambang Suprianto explained briefly about forest in Indonesia that covered about 63% of total land in Indonesia. The national government was committed to increase the number of forest area managed by community to alleviate poverty in Indonesia. Social forestry was a system of forest management enforced inside or around state forest/forest rights/customary forest by local community/customary people as main actor to improve prosperity, environmental balance, and social-culture dynamics through Community Forest, Village Forest, Forest People Plantation, Customary Forest, Private Forest, and Forestry Partnership. The long-term outcomes of this project would be increased employment rate and decreased poverty rate within villages around forest areas. This system would enable forest management access for community through licensing and partnership for capacity building. Up to June 2018, the total area of social forestry had reached around 1,7 million hectares with more than 4,500 permits issued.

Mr. Suprianto further explained the key success factor of the system using three criteria, which included the institutional set-up, forest management, and business development. Traditional way of thinking and low business orientation were the two main challenges of the system. To cope with challenges, government performed several measures such as accelerating Social Forestry permits, enhancing economic enterprises and market access to the existing social forestry groups, and improving the monitoring system through Social Forestry Navigating System. Finally, Mr. Suprianto mentioned several positive impacts of social forestry such as increased income of the community, poverty alleviation, and behavior change of the community.

Maintaining and Restoring Land Resources by Ir. Nazir Foead (National Peatland Restoration Agency)

Ir. Nazir Foead representing National Peatland Restoration Agency explained the importance of sustainable peatland management in Indonesia. Peatlands covered around 3-5% of the earth's surface and stored more than 3% of the world's soil carbon stocks, especially in within tropical peatland that could contain four times as much as the atmosphere. Ir. Foead mentioned about the drought issue caused by land clearing for farming activities as the most importance issue of tropical peatland. The drought could lead to forest fire that contributed to climate change and could raise serious public health concerns. Several practices of peatland management in Finland, Scotland and Japan were explained to illustrate the complex issue of managing peatlands.

Peatland Management in Indonesia was regulated with Law and Regulation to ensure that by 2020, two million hectares of peatland would be restored and more peatlands would be declared protected. Measures such as canal backfilling, deep well, and canal blocking were taken to rewet the dried peatlands. The government also performed revegetation within burnt land through natural succession, plantation enrichment, and maximum plantation. In addition to that, government also revitalized the livelihood through developing peat villages, building institutional capacity, and providing alternative commodity and income for the community.

The government also developed Peat Hydrological Unit Mapping to map the peatland areas based on its characteristics and function. Based on the maps, government developed an annual plan on how to manage the peatland. Government through the agency worked together with international organizations and other national governments to improve its management on peatland. Lastly, Mr. Suprianto explained about the monitoring and evaluation system used by the agency. The system was used to ensure that the possible risk of forest fire caused by the drought could be avoided.

Discussion:

Ms. Dwi Amalia from SAI of Indonesia asked both speakers about partnership issues in different land management issue especially in overcoming challenges and coordination between ministries.

Mr. Supriyanto responded that Government of Indonesia had a common vision, which was the National Medium Term Development Plan (RPJMN) called NAWACITA. Based on that vision, the ministry developed partnerships with several parties and signed Memory of Understanding (MoU) with Banks to get financial supports for the programs that could increase the income from the community.

Dr. Vivi Niemenmaa from European Court of Auditors (ECA) agreed with Ir. Foead on the controversial issue on energy production. The government of Finland had been using peat as "slowly renewable energy sources". In agriculture, peatlands were a source of GHG emissions and the question would be whether they should be cultivated. She asked whether Indonesia was facing similar problem about peatland cultivation.

Ir. Foead mentioned that Indonesia had similar situation with Finland. However, Finland government no longer issued new permits for extracting the fuel. It would mean that only existing companies with permits could extract the fuel from the ground. This was due to Finland's commitment to mitigate climate change. The problem with Indonesia was more on the existing license on planting agricultural areas in peatland. Indonesian government had focused more on managing peatland cultivation in agricultural areas to ensure that the peatland were in a safe level of water level and moisture level which reducing the carbon

level almost to zero but in the same time maintaining the production level of the agricultural areas. Indonesia also learned from other countries with the same peatland condition to get a better solution on peatland management. Another problem faced in Indonesia was more on managing the dried peatlands where it usually burnt because of burning practices. This was considered as the worst scenario for Indonesia that the government had to introduce an agricultural practice on wetland called Paludiculture.

Mr. Alar Jürgenson from SAI of Estonia asked Mr. Supriyanto about the issue of logging and the target of social forestry.

Mr. Supriyanto mentioned that the forests were categorized into different types that require different treatments and protection levels.

Mr. Ayine Anthony from SAI of Nigeria realized the enormous possible damages that come from unsustainable management of peatland. He asked Ir. Foead how to deal with controlling this issue.

Ir. Foead said continuous monitoring from all levels/stakeholders would be required to control this matter.

Ms. Fredriksen concluded the session mentioning several important points as follow:

- The importance of incorporating social aspects in the environmental management;
- The importance of integrating three different aspects (prosperity, people and planet) to audit the implementation of Sustainable Development Goals (SDGs);
- Coordination, monitoring, controlling and improved technology as some of the most important aspects in sustainable land management.

Session 3. Cooperative Audits and INTOSAI WGEA Reports moderated by Prof. Moermahadi Soerja Djanegara, Chair of INTOSAI WGEA

Prof. Djanegara welcomed the meeting participants in the third session and introduced each speakers who came from different regional WGEAs.

Cooperative Audit on Air Quality in Europe by Mrs. Ewa Polkowska and Mr. Grzegorz Haber from SAI of Poland

Ms. Ewa Polkowska opened the presentation with explaining briefly about the audit initiative led by SAI of Poland together with SAI of Netherlands. Further, Mr. Grzegorz Haber continued with explaining more detail on the reasons why EUROSAI decided to perform a cooperative audit on air quality in urban areas. The participants of project were 16 SAIs from both EU member and non-member states. This audit aimed to assess the effectiveness and efficiency of measures to improve air quality, taken by the authorities of individual countries. The audit focused on the main problem regarding air pollution, levels of exceedances from the air quality standards, actions to improve air quality, best practices in making less pollution, and the time needed to clean the air.

Starting in June 2016 with a kick off meeting at The Hague, Netherlands, the audit team had gone through two working meetings and one final meeting in June 2018. The final report was expected to be published in December 4th, 2018. Finally, Mr. Haber explained several potential benefits from the audit including: a) threat assessment and advancement in fighting against emission sources; b) identification cooperation areas for each countries' authorities; and c) joint conclusions and recommendations for the whole audit.

Discussion:

Mr. Adolphus Aghughu from SAI of Nigeria asked whether the reports were made separately or into one joint report.

Mr. Haber said the reports were made separately by 16 participated SAIs and would be compiled into one joint report as soon as all 16 reports were finalized.

Coordinated Audit on Preparedness of National Government to Implement Sustainable Development Goals (SDGs) by Mr. Junnius Marques Arifa from SAI of Brazil

Mr. Junnius Marques Arifa from SAI of Brazil introduced the initiative that involved 11 SAIs from Latin American countries. The audit aimed to assess the national governments' preparedness in implementing 2030 Agenda and to identify the governance mechanisms to implement that. Mr. Arifa explained the audit framework using Whole of Government Approach and target 2.4 of Sustainable Development Goals (SDGs) about Sustainable Food Production. The approach allowed the audit team to consider the horizontal and integrated perspective in the level of the public policy and its relationship with the stakeholders and coordination by the center of government. The collected data from each countries were used to develop the SDG Radar, which simplified the results of the assessment. The graphic enabled the audit team to indicate the level of governments' preparedness based on sectors ranging from zero (no implementation) to three (best practices in the implementation).

Several main findings from the audit in center government level were as follows:

- a) The deficiencies in the process of institutionalization and internalization of the 2030 Agenda;
- b) Lack of a long-term planning for implementing the 2030 Agenda. Even in some countries, there were no predicted regulation for such planning tool;
- c) Lack of risk prevention and management mechanisms at national level in implementing the 2030 Agenda;
- d) Deficiencies in the follow-up and review process of the SDGs, as well as the preparation of Voluntary National Reviews (VNRs);

Main findings from target level were as follows:

- a) Deficiencies in the coordination of public policies regarding the target 2.4;
- b) Deficiencies in the integrated follow-up and review of the results of public policies related to the target 2.4 achievement;

Despite the common approach on the audit, each SAI had different depths in audit perspective. Mr. Arifa explained the case of Brazil, where there were some factors such technical assistance, fiscal policies, and credit/insurance policies which contributed negatively to the achievement of the target. Several capacity-building efforts on SDGs were performed in OLACEFs, including the pre-meeting in 2016, E-learning on performance audit, E-learning on SDGs and E-learning on environmental audit-biodiversity in 2017-2018 supported by CCC and GIZ. Several communication products of the results were made, including flyer and reports. Lastly, Mr. Arifa mentioned some lessons learned from the project including the capacity building process, common criteria and language, consolidation and comparison, also the communication.

Discussion:

Mr. Bahtiar Arif from SAI of Indonesia asked about the method to get conclusion from the audit and with regard to limited resource of fund each countries had, how the audit could picture the financing issue of implementing the SDGs.

Mr. Arifa said that the team consolidated the findings from different SAI reports and found that the conclusion in each report showed almost similar findings and conclusion in terms of preparedness to implement the SDGs. The objective of the preparedness audit was to look whether the country had to prioritize their budget to implement the most important targets on SDGs. He said about some concerns about the topicality of the targets indicators and the transparency issue of the budget.

Mr. Sunil Dadhe from SAI of India asked about how the average value presented in SDGs radar were obtained from overall population or gap with reference to 2030 targets. The second question was how the average value of the audit results become a better basis compared to the range value in giving corrective actions for each country.

Mr. Arifa said that the calculation were based on consolidation results of ratings given by each SAIs on their own country. He added that if one country had a better solution on a problem, the solution could be shared among other countries facing a similar problem. However, he pointed out the importance of seeing the individual SDGs radar to give a better perspective on a certain problem and its solution.

Mr. Mohamed Nasr from SAI of Sudan asked about the use of INTOSAI approaches on auditing SDGs, the use of performance audit approach, and the difficulties faced by SAIs regarding the access to and availability of updated data in performing the audit. The success of each countries depended on how the government created a national strategic plan and a sound database from statistical bureau. He appreciated SAI of Brazil and other participated SAIs already in the right track through performing the audit. It was important to increase capacity building on performance audit and the INTOSAI seven steps approach. Another issue was on how the government prioritized the targets from all 2030 targets.

Mr. Arifa mentioned that the seven steps approach was one of the main consideration before performing the audit, although the approach was adapted to be more suitable for the preparedness audit. He also responded that the lack of data/information was a challenging issue among SAIs. SAIs had to consider using tools to obtain, analyze, and build the data. Each country had its own problems regarding the data issue. Regarding performance audit, another coordinated audit would be performed next year on the follow-up of Protected Areas audit using performance audit approach. He also mentioned about the GAO reports that could be used as a reference in auditing SDGs about fragmentation, overlapping, and duplication.

Congo Basin Cooperative Audit by Ms. Camilla C. Fredriksen from AFROSAI General Secretariat

Ms. Camilla C. Fredriksen representing AFROSAI General Secretariat began her presentation with explaining the importance of the Congo Basin Forest as the second largest forest in the world. There were some challenges faced by the government regarding the area including deforestation, draining of water, endangered species hunting, and land conversion to agriculture. In respond to that, the government developed policies, management mechanism and the creation of Central African Forests Commission (COMIFAC) consisting of nine member states. As a result of the AFROSAI WGEA Annual Meeting in 2014, the AFROSAI decided to initiate an audit of the area with five SAI member states as part of the initiative. The objective of the audit was to contribute in solving environmental problems

related to natural resources in the Congo Basin forest, reducing the rate of deforestation, and making recommendations to improve the natural resources management in the Congo Basin forest. The audit also enabled the SAI members to develop their capacity, exchange information-experiences in Central African sub-region, and develop common audit tools and process for environmental protection in respective countries.

The initiative began at a session took place in September 2016 to confirm the interest by the SAI members and officially started with a kick-off audit at Kinshasa in July 2017. Following that meeting, another meeting was held in November 2017 to discuss the design of the audit and to develop a common audit matrix. The result of the meeting was a presentation of lines of inquiry to achieve the audit objective that focus on the degree of state governments have put in place an effective system for sustainable forest management.

Further, Ms. Fredriksen explained how the support from mentors helped the audit team in planning data collection, finalizing audit plans, and presenting the relevant methods and techniques. The next step in the audit would be a mission to COMIFAC as the responsible authority for the management of Congo Basin forest. Ms. Fredriksen explained that the audit was still on going and was expected to have other workshops in October and December 2018 for reporting phase.

Discussion:

Ms. Dwi Amalia from SAI of Indonesia asked whether it was difficult to deal with multilevel/multi-sectors issue in performing the cooperative audit.

Ms. Fredriksen mentioned that it was definitely a difficult task, as they had to involve many different institutions from different levels and sectors.

Mr. Adolphus Aghughu from SAI of Nigeria asked why some member SAIs of Central Africa Commission were not involved in the audit.

Ms. Fredriksen mentioned that the audit had gone through a long period of consultation before it was started. The same process was performed for the Lake Chad Cooperative audit years earlier.

Coordinated Audit on Water Environmental Protection by Mr. Kritsanu Thipnoy from SAI of Thailand

Mr. Kritsanu Thipnoy represented SAI of Thailand as the leader of the coordinated audit project of ASOSAI WGEA. He mentioned that the project was part of the 2017-2019 ASOSAI WGEA Work Plan. Ten SAIs from ASOSAI WGEA participated in the initiative that focused on water environment protection, including its policies, projects, funds and the controlling/monitoring/evaluation activities related to it. The objective of the project was to promote the implementation of policies on water environment protection, improve the related projects' performance, also strengthen the related administration. This audit was also expected to facilitate the experience exchange and practice among Asian SAIs, to summarize the experiences and to explore a cooperative audit mode suitable for Asia. Each audit would be performed and reported separately by each participating SAIs. The project leader would collect the final reports from each country and compile them into one joint report by March 2019. Start-up meeting was held in June 2018 discussing audit plans and planned Audit Design Matrix for the audit.

Further, Mr. Thipnoy explained the benefits of performing the cooperative audit including experience exchange and practice sharing on water audit among participating SAIs and the

inputs received from SAI of India as Subject Matter Expert (SME). He also explained challenges in communication channel limitation and the disadvantage of having parallel audit mode where each participating SAI had different level of audit stages.

Discussion:

Mr. Abdul Latif from SAI of Indonesia asked about the solution in facing the challenges in performing the audit.

Mr. Thipnoy explained that it would be discussed in the next group meeting. As some SAIs were yet to complete the audit during the first meeting and there would be more discussion on how the audit should be performed.

Prof. Djanegara thanked the speakers for their presentations and discussions. Finally, Ms. Sjam concluded the session with mentioning several main points from the session as follow:

- Environmental problem as a cross boundary issue that it required cooperative/joint/coordinated audit to solve the problems while in the same time building the capacity of the SAIs;
- Appreciation to all regional WGEAs for their initiative in performing the cooperative audits which brought advantages to SAIs, especially experience exchange and practice sharing;
- She also mentioned about other advantages such as escalation of audit impacts and the improvement of audit quality;
- SAIs might face challenges in performing cooperative audits, for example: coordinating reports from individual SAI, the need to create a standard before coming to a joint conclusion for the compendium report, the lack of data, and different set of data in individual SAIs.

Lastly, she encouraged all the WGEA members/regionals to conduct cooperative audit especially those who have similar environmental problems.

Chair Progress Report by Chair of INTOSAI WGEA

Prof. Moermahadi Soerja Djanegara reported the progress of INTOSAI WGEA Work Plan of 2017-2019 projects. Having currently 77 member SAIs, INTOSAI WGEA was currently working on four goals achievement. Twelve project plans were approved at the Steering Committee Meeting in Washington D.C. last September 2017. Among the projects, some of the topics were reflected in the current Assembly meeting like land organization and greening cities. INTOSAI WGEA also continued to promote the capacity building of its members through the development of new training tools and annual training held in Global Training Facility and SAI of Indonesia's training center. Further, INTOSAI WGEA also supported the cooperation among its members through cooperative/joint/coordinated audit within the regional WGEAs. Lastly, Prof. Djanegara said that INTOSAI WGEA continued to seek out partners with environmental interest groups as support to its activities especially in the development of guidance, research and training projects.

Presentation on 9th Survey on Environmental Audit by Mr. Didik Ardiastanto from Secretariat of INTOSAI WGEA

Mr. Didik Ardiastanto explained in more detail on the improvements made in the 9th survey on Environmental Audit. This included the addition of SDGs topic, the reduction of questions from 53 to 51 questions, and the simplification from open answer questions into multiple-choice questions. The survey also had been translated into four other languages with the

help of SAI of Canada, SAI of Kuwait, SAI of Mexico, and SAI of Germany. The ninth survey started initially in June 2017 and hoped to be published by October 2019. Mr. Ardiastanto explained briefly on the topic sections within the survey, including mandate, audit impact, SAI's audit capacity, cooperation between SAIs, and the usage of the WGEA products. He also pointed out the reasons for including the SDGs topic within the survey. Lastly, he invited the meeting participants to participate in the survey through <u>surveywgea.bpk.go.id</u> or through <u>www.wgea.org</u>.

Day 3. 18 July 2018 – Second Day of Meeting

Session 4. Environmental Audit and Society – Moderated by Mr. Bahtiar Arif, SAI Indonesia Secretary General

Mr. Bahtiar Arif opened the session with introduction to the topic and the importance of society in environmental auditing. He introduced each speakers for the session coming from three different institutions.

Initiative on Greening Office by Mr. Ridwan Kamil (Mayor of Bandung City)

Mr. Ridwan Kamil the Mayor of Bandung City shared his thoughts on developing his city into a Happy City. He explained several examples of his initiatives to bring the vision of Sustainable Bandung 2030, such as Waste to Energy, Smart Bike, Bandung Skywalk etc. He pointed out the fact that bringing out Green Business needed approximately 4 billion US dollars. He shared his concerns on poor city condition before serving as Mayor of Bandung City and how it made him initiated those green ideas.

There were four main points in creating a clean and sustainable Bandung, they were: a) collaboration; b) regulation; c) innovation; and d) decentralization. As an illustration, for collaboration, the government worked together with multi-stakeholders from all level and sectors in cleaning up the city and the river. Government Laws to make the city more sustainable were enforced, such as the Waste to Energy regulation, Local Government Regulation on Cleanliness, Reduction of Plastic Bags, and Green Building regulation. A number of innovations such as urban farming, rainwater harvesting, car-free day, thematic parks, and waste bank brought significant difference within the city of Bandung. Lastly, decentralization enabled active participation from the society to build their own neighborhood to be more sustainable.

Discussion:

Ms. Ma. Corazon Gomez from SAI of Philippines conveyed her appreciation for Mr. Kamil's achievements and wished to communicate with her local city governments to contact Bandung City government for further information on the initiatives.

Dr. Vivi Niemenmaa from European Court of Auditors (ECA) thanked Mr. Kamil for the fascinating presentation. She further asked about initiatives taken to cope with urban congestions in the city.

Mr. Kamil on Ms. Gomez request said that he would love to learn from others. He said that his concept was a contextual concept that involved a changing/shaping mindset issue in the process. He illustrated on the differences in changing the mindset of adults and children in "bike to work program" and "bike to school program". He said that bike to school program was considered to be more successful compared to bike to work program. He added it was easier to change the mindset of children instead of adults. Also, as it was suggested for

students to go to school within the radius of their home, it was easier to encourage the children to use bike to school.

In response to Dr. Niemenmaa's question, Mr. Kamil said that transportation issue was more difficult issue to cope as it was costly compared to others. He explained that the Indonesian economic system was considered as one of the obstacle. He mentioned the ease of getting new motorcycle compared to encouraging people to use public transport. Aside from the LRT and MRT system, he mentioned other program called urban mobility that encouraged people to walk more instead of using transportation. He mentioned several examples such as skywalk, bike sharing, cable car, and encouraging parents to choose school for their kids within the radius of their homes. He also mentioned the importance of Public Private Partnership in terms of funding the project as 60% of the problem faced by the city government was about the financial issue.

Mr. Hassan Namrani from SAI of Morocco thanked Mr. Kamil's interesting presentation. With regard to changing behaviors of the society, what actions/tools were taken to change the society's behavior.

Mr. Mohamed Nasr from SAI of Sudan was impressed with the changes made within the city. He said that he would use the power of Supreme Audit Institution to advise the local government especially with regard to waste management issue. He asked whether Mr. Kamil could elaborate more on the garbage issue to be more environmentally friendly.

Mr. Ridwan Kamil explained that so far he used two most effective tools in changing behaviors of society. First, regulation, he mentioned several policies and regulations set by his government such as:

- the requirement to have trash bin in the car, which reduced the risk of people throwing trashes in the streets;
- reducing plastic bags in the department stores that encouraged people to bring their own shopping bags and reduce plastic wastes;
- Styrofoam banning from the city, which encouraged the producers of Styrofoam to produce degradable packages and forced the people to change their habits.

Second, the social media that was considerably powerful in enforcing people to change their behavior through social media shaming.

With regard to Mr. Nasr's question, Mr. Kamil explained briefly on the mindset changing to zero waste neighborhood through reducing the waste and the use of bio digester. Modernization of waste tools was used in compacting the waste to reduce the volume of waste dump to the landfill. He also mentioned the idea on 'waste-to-energy'. Due to the high cost this project had, the government worked with private sectors to realize this idea for the next three to four years.

Improving Environmental Audit Capacity through Massive Open Online Courses (MOOCs) on Environmental Auditing by Ms. Tuuli Rasso from SAI of Estonia

Ms. Tuuli Rasso from SAI of Estonia shared the experience of SAI of Estonia together with University of Tartu, Estonia in developing the Massive Open Online Course (MOOCs) on Environmental Auditing to improve the public sectors' auditors. She explained the methodology used within the courses that included literature reviews, case studies, illustrative videos, exercises and tests. The course included 3-4 modules that had to be completed in 4-5 weeks fully online. The benefit of following this course would be that the participants could adjust their own time to complete the course and get 1 European Credit

Transfer and accumulation System (ECTS) per course. She further elaborated on the mechanism of grading and certification processed by University of Tartu. University of Tartu as one of top world's university in Estonia gave technical realization also support for the course.

Quality assurance process were done to ensure the course gave its best benefit to its participants. This included consulting with group of SAIs, University of Tartu and the use of Open ECBCheck (E-learning in Capacity Building Check) which was the quality improvement scheme for e-learning programs. The first round of the MOOC on Introduction to Environmental Auditing was held in October 2016, followed by the second and third in November 2017 and next September 2018. Meanwhile, the first and second MOOC on Auditing Environmental Impacts of Infrastructure was held in January 2017 and February 2018 respectively. The third round of the MOOC on environmental impacts would be held on February 2019. Participation rate of each courses were considerably high with more than 150 participants for each course. Despite the high number of participants, the rate of participants who passed the final grading process was below 70%.

Further, she explained two latest MOOCs that would be launched in the upcoming years. First, MOOC on Auditing Water Issues which would be a EUROSAI WGEA project to be launched in 2018. Second was the on-going project of INTOSAI WGEA, MOOC on Auditing Waste Management that would be launched in 2019. Finally, she elaborated some lessons learned and some improvement needed for the next courses including more case studies and possibility on creating MOOC library.

Discussion:

Ms. Ma. Corazon Gomez from SAI of Philippines asked how to get information about the course schedule. She also asked about the methods to evaluate the impact of the courses.

Ms. Rasso explained that the information about the course would be available on the WGEA website. With regard to the evaluation of course impact, she admitted that it was yet to be done but there was satisfaction survey where participants could give their comments and inputs regarding the course.

Ms. Camilla C. Fredriksen from AFROSAI General Secretariat asked about the possibility on having the materials downloadable and having the course offline instead of online based. She also suggested a system that supported "library" to ease the user.

Ms. Rasso said that the current system was easy and that it supported library. Regarding the possibility to download the materials and do the course offline, she would need to check with her IT support.

Mr. Adolphus Aghughu from SAI of Nigeria suggested to have the course offline – classroom based course in cooperation with Global Training Facility or SAI of Indonesia's training center.

Ms. Rasso said that she had discussed this matter and how would it work to support the project. She said that there were already too many classroom training course with regard to the topic.

In addition to Ms. Rasso's response, Mr. Sunil Dadhe from SAI of India also as the Director of iCED (Global Training Facility) said that currently GTF was continuously improving the courses to synchronize the evolving issues in environmental audit. He added that GTF would be open to all capacity building efforts.

Ms. Rasso added that MOOC could be used as an introduction to the face-to-face discussion in the classroom course held in GTF.

Disaster Management by Mr. Willem Rampangilei from Indonesian National Disaster Management Authority

Mr. Rampangilei conveyed his utmost gratitude for inviting him in the meeting. He said that Indonesia could be considered as one of the most disaster-prone countries in the world. He also said about how Aceh tsunami disaster became a wake-up call for the government and the world about disaster management. Several potential hazards and climate change impacts were brought to mind that disaster management is complex, complicated, vastly multi-dimensional and involving multi-stakeholders. He mentioned the causes of increasing number of disasters in Indonesia, which included environmental degradation, improper spatial planning, lack of awareness from the community, and lack of disaster-risk analysis within the development. Thus, Indonesia had taken the strategic step of mainstreaming Disaster Risk Reduction (DRR) within their Mid-term National Development Plan 2015-2019, which included three main strategies: a) building the awareness of all the stakeholders; b) reducing vulnerabilities; and c) capacity building.

Based on the strategies, Indonesia was divided into several prone disasters areas. Built in each area was a contingency plan to reduce disaster risk by up to 30 per cent. With regard to integrating and harmonizing the efforts of reducing disaster risk, the National Disaster Management Authority proposed a 30-year Master Plan of Disaster Management (2015-2045) that included consideration on community's socio-cultural character, local and regional disaster hazards characteristics, also the national and local spatial plan. He mentioned the interconnection between climate change impact and the disaster risk reduction. He also said that Indonesia still treated both topics separately in terms of policy and programs.

Further, he elaborated on how building a disaster-resilient nation and communities required collective mindset, and comprehensive approach. Thus, it had to reach the grassroots level especially in building their capacity through education and training. Concerning rapid urban population growth, Indonesia had undertaken a community-based mitigation synergy with several stakeholders to promote people's awareness about resilience. He added another initiative taken, which was the community-based disaster risk reduction for the ecosystem movement that had been very effective in solving problems of disaster and environment. Finally, he reinstated that comprehensiveness and inclusiveness were the key of successful disaster management and he hoped that people would be more prepared, able to endure minimal damage and recover quickly from any disasters.

Discussion:

Ms. Camilla C. Fredriksen from AFROSAI General Secretariat asked on how to make the society more resilient in Indonesia.

Mr. Rampangilei said that resilience was certainly a goal and it could only be done by changing the mindset of the community. He added that throughout the years, the scale of disasters was quite the same year after year. However, the number of victims decreased considerably. The strategy was a bottom-up approach in which community played a crucial role from the planning process.

Mr. Arif concluded the session by mentioning several important points from the session:

• From the Mr. Kamil's presentation, it could be learned that good regulation, innovation, collaboration with stakeholders were important elements in developing sustainable

society. Changing mindset and leading by example were the key actions in making it happen.

- From Ms. Rasso presentation, it was important to build the capacity of auditors through more creative model of training that is available online.
- From Mr. Rampangilei's presentation, it was important to harmonize national efforts to strengthen the society's resilience from disaster. Building capacity and awareness of the society would be two major actions to take by the government to strengthen the society's resilience.

Session 5 – Parallel Session on INTOSAI WGEA Projects 2017-2019

Group 1. Climate Change led by Ms. Barbara Patterson from SAI of United States of America

Ms. Barbara Patterson from SAI USA served as the project leader of the development of guidance to audit the government efforts in strengthening the resilience and adaptive capacity to climate change hazard. It was closely related with achieving SDG 13.1. The objectives were assessing SAI preparedness to audit government progress toward SDG 13.1 and providing tools on how to measure it. The main obstacle in developing the guidance faced until today was that there were no frameworks that took a holistic view to assess preparedness in achieving SDG 13.1. Lastly, Ms. Patterson explained the currently developed frameworks that included disaster resilience framework, collaboration criteria, enterprise risk management.

The session was continued with a presentation from Mr. Md. Azizul Hoque from SAI of Bangladesh. Mr. Hoque explained that SAI of Bangladesh had no specific environmental audit directorate but had a performance audit manual and guidelines, which did not specifically discuss about environment and climate change. However, he had conducted four environmental audits and the recent one was about Climate Resilient Participatory Afforestation and Reforestation Project (CRPARP).

The overall project objective was to reduce forest degradation and increase forest coverage. Meanwhile, specific project objective were to: (1) establish newly afforested and reforested area using climate resilient species in coastal and hilly area, and (2) support alternative livelihoods of forest dependent communities.

SAI of Bangladesh performed an audit on the program to assess whether the project objective were achieved in sustainable manners. Using regulation about forestry and program manual as criteria and system and result oriented approach, the audit found several main findings such as some forest lands established under the project were leased to other departments, and mangrove plantation areas were not thick enough to withstand the wave action. The audit was expected to strengthen the forest management and monitoring for enhancing forest coverage and poverty reduction through participatory forestation under the social forestry rules in order to implement national policy and to communicate the audit findings to different stakeholders. Lastly, Mr. Hoque explained the challenges faced during the audit related to the necessity of GIS and forest experts.

Another presentation was by Mr. Edward G. H. Simanjuntak from SAI of Indonesia about Accounting System to Evaluate the Impact of Climate Change. Mr. Simanjuntak explained that the economic activities released pollutant to the environment. The objective of the project was to integrate the economy, social, and environmental aspects into accounting system. Some examples were explained regarding the similar systems such as SAM used in India, NAMEA used in Netherlands, and SEEAM. Mr. Simanjuntak explained that the

systems were useful as tools for assessing effectiveness of government programs, planning phases – audit focus, and measuring the impacts of the programs.

Discussion:

Ms. Siham Abbas from SAI of Iraq asked about any guidance to audit the effect of climate change and environmental issues such as heat wave and dust storm.

Mr. Edward G. H. Simanjuntak said there were many guidance about environmental audit in the WGEA websites.

Group 2. Greening the Supreme Audit Institutions (SAIs) led by Ms. Jerneja Vrabic from European Court of Auditors and Ms. Viire Viss from SAI of Estonia

Ms. Viire Viss from SAI of Estonia began the session with a presentation on project plan. Greening of SAIs meant engagement and awareness raising, auditing SAI's activities and its impact to environment, and structure to deal with the environmental impact. The project aimed to develop a training toolkit that provide a conceptual framework regarding greening of SAIs. So far, the project leaders had performed research on most recent greening development and practice across the world, mini survey distribution, drafted one-day training program material, and brainstorm ideas in Albania. The training tools would include reading materials pre-training and one-day training materials. Lastly, Ms. Viss explained that the pilot training would start by January 2019.

The session was continued with a presentation by Ms. Camilla C. Fredriksen from AFROSAI General Secretariat. The content of green center of AFROSAI included the agreement on developing and promoting to reduce energy use, water consumption, pollution in transportation, and perform public green procurement. In addition to that, the charter promoted the creation of green space within SAI and platform for information exchange. The charter created windows to improve the current system which is still underdeveloped.

The session was followed with discussion on the training tool. There were discussion on:

- First step in starting the greening SAI project and the challenge of changing the people's mindset;
- How to change the people's mindset and what was the most important ones. This could be done by displaying eco-friendly activities (i.e., bike to work, reducing paper use in office);
- The possibility on having the training held concurrently at the meeting;
- Experience of SAI who had implemented greening SAI. The implementation was done gradually through top-down approach;
- Methods used in collecting information on SAIs' activity, including interview, questionnaire, observation, and report analysis;
- Learning impact of implementing greening SAI which would also mean a chance to create innovative ideas;
- How to obtain top management's commitment in implementing greening SAI which could be done through discussions and other approaches.

Group 3. Land Organization and Soil Quality led by Ms. Rukhsana Rafique from SAI of Pakistan and Ms. Manako Ramonate from SAI of Lesotho

Ms. Manako Ramonate from SAI of Lesotho opened the session. She introduced the session's topic and expected for participation for the project. Ms. Rukhsana Rafique from SAI of Pakistan proceeded the session with presenting the project plan. The project would

include chapters on introduction on the issue, international/national responses on the issue, role of SAIs, and planned audit stages for auditing the issue. Ms. Rafique pointed out the background of the topic as an adoption of SDGs implementation and previous WGEA works about land use and land management. Several auditable areas were identified based on the issue as follows: combating desertification, MEA implementation related to desertification, reforestation/afforestation, watershed management, soil conservation, sustainable land management and others. Ms. Rafique and her team had identified several case studies to explored further regarding the topic including audit on soil survey and conservation by SAI of India, forest monitoring by SAI of Zambia, evaluation of the desertification program by SAI of Kuwait, and joint audit on Lake Chad by AFROSAI. Lastly, Ms. Rafique said the project faced some challenges regarding the non-availability of audit reports and case studies and the broad scope of the issue.

Ms. Rafigue continued with sharing about Government of Pakistan's experience in dealing with desertification. Having varied physical features in the country, 34 of the soil in Pakistan were unfit for agriculture, forest, and rangeland. Pakistan faced desertification coming from wind and water erosion, poor irrigation practices, drought, deforestation, increased livestock feed, and climate change. Pakistan signed several number of international conventions to slow down the desertification in the country such as Vienna Convention, Convention on Biological Diversity, United Nations Convention to Combat Desertification, Kyoto Protocol, and Paris Agreement. Several policies were initiated in national level. For example, Pakistan had Forestry Sector Master Plan, National Conservation Strategy, Biodiversity Action Plan, and National Climate Change Policy. Some programs were also initiated to address the issue such as Green Pakistan Program, REDD+ Readiness, the UNDP and GEF funded Sustainable Forest Management project, the Islamabad Green Chapter. With regard to the signage of UNCCD, Pakistan had a National Coordination Committee on Desertification (NCCD) and National Action Program to Combat Desertification (NAP) supported by UNEP and ESCAP. Some progress were also made in Pakistan with regard to UNCCD implementation including Gully land management through soil conservation and water harvesting, rehabilitation of desert ranges through reseeding, and restoration of land productivity in Barani lands. Lastly, Ms. Rafique explained about challenges faced in Pakistan such as lack of strong political will from the government, lack of coordination, weak research institutes, and weak local participation.

Group 4. Sustainable Development Goals (SDGs) through Environmental Auditing led by Mr. Junnius Marques Arifa from SAI of Brazil, Ms. Siti Zubaidah dan Mr. Whidas Prihantoro from SAI of Indonesia

Mr. Whidas Prihantoro began the session with an introduction to the session. The session was continued by Mr. Junnius Marques Arifa and Ms. Siti Zubaidah who co-presented the progress of the project. Mr. Arifa explained about the project objectives which included provision of concepts on the importance of SDGs, experience overview on auditing SDGs, and discussion how to audit environmental issues with SDGs perspective. The SDGs perspective would mean considering principles and characteristics of SDGs when carrying out the audit, using whole-of-government approach, and analyzing policy integration and coherence. Mini survey was carried out and the results from 33 SAIs responses showed that 90% of SAIs were interested in auditing SDGs. Nine SAIs had participated in IDI Cooperative audit. Twenty five SAIs thought the project would be useful for auditing SDGs as only 12 SAIs had carried out audit on SDGs and only 5 SAIs carried out environmental audits using SDGs principles.

Mr. Zakaria Abukari from SAI of Ghana proceeded the session with an audit presentation on Ghana's preparedness for the implementation of SDGs. The audit focused on the SDGs adoption into national context, identified and secured resources, monitoring and evaluation mechanism. The audit concluded that the Government of Ghana had generally demonstrated its commitment and preparedness for the implementation of Agenda 2030 although there were still issues to address. Lessons learned from the audit included the new learnt capabilities to perform an analysis on institutional structures, whole-of-government approach to resolve environmental issues, and the international collaboration and knowledge sharing with other SAIs. The audit was expected to bring some impacts such as minimizing environmental degradation, minimizing pollution on water bodies, mainstreaming gender, and improving the anti-corruption movement in the country. Finally, Mr. Abukari explained some challenges in performing the audit especially with regard to coordination issues among stakeholders and obtaining the resources to perform the audit. In the future, SAI of Ghana would begin with auditing individual SDGs including gender mainstreaming, awareness creation, and more capacity building on SDGs audit.

Mr. Phan Truong Giang from SAI of Vietnam continued the session with a presentation on the development of environmental audit in his SAI. Mr. Giang explained some challenges related to the limited public awareness and understanding on environmental audit, lack capacity of auditors and audit methods, undergoing development of database and guidelines, and lack of environmental database. In the future, SAI of Vietnam would focus on developing capacity as well as ensuring the quality and quantity of environmental auditors. SAI of Vietnam would develop regulations/guidelines based on international standards and strengthen international cooperation on environmental audit. Mr. Giang also mentioned about developing and applying methods especially information technology within environmental audits, raising awareness, developing medium term plan with inclusion of SDGs issue, and strengthening quality control and quality assurance to improve environmental audits. Lastly, Mr. Giang mentioned about the upcoming 7th ASOSAI Symposium during the 14th ASOSAI Assembly to be held in Hanoi next September. The topic of the symposium would be environmental auditing for sustainable development.

Mr. Nurendro Adi Kusumo shared SAI of Indonesia's perspective on environmental audit with SDGs perspective. The audit focused on tourism programs and activities at West Manggarai Regency, East Nusa Tenggara Province. Having supported by national government planning and SAI's strategic planning, SAI of Indonesia performed the audit which focused on the regulatory impact analysis of tourism activities. Some findings showed that local government tourism programs had not fully contributed to increasing local income and conserving the natural resources and waste management. Based on the audit, SAI of Indonesia gave some recommendations such as coordinating all government agencies to evaluate programs, suggesting to refer to eco-tourism best practices, and developing necessary policies to manage waste.

Ms. Julie Gelfand and Ms. Kimberley Leach from SAI of Canada shared their experience in auditing SDGs in Canada through a recorded video. SAI of Canada had performed a number of audits related to SDGs and had been working on the integration of SDGs in the government. In 2018, the Sustainable Development Strategy integrated the SDGs and a performance audit on government's preparedness to implement the SDGs was conducted. SAI of Canada had been working closely with INTOSAI especially with the implementation of four approaches of INTOSAI to contribute to SDGs. Some findings from the preparedness audit were the absence of structure articulating roles and responsibilities, the absence of system to measure results and the absence of system to monitor and report progress toward

the targets. Despite the positive findings, SAI of Canada concluded that the government was not adequately prepared to implement the SDGs.

Discussion:

The project leaders invited the session's participants to contribute to the project with topics as follows:

- a) What can we do to make the Guideline more useful for the WGEA Community?
- b) Are we missing something in the Guideline?
- c) Does your SAI have any audits related to the 2030 Agenda and the SDGs?
- d) Does your SAI have any audits with a SDG perspective (whole of government approach, multi-stakeholder approach, analyzing integration and coherence of public policies and governmental actions)?

Several questions were also raised during the session especially on how SAI and the government collaborated to the Voluntary National Report (VNR), stakeholder interactions template, contributions from other SAIs to the guidance, long term perspective of the guidance, the SAIs funding for the SDGs audit, and the challenges faced by SAIs in auditing the topic.

Lunch Break

Group 5. Visibility on Environmental Auditing led by Dr. Vivi Niemenmaa from European Court of Auditors (ECA) and Ms. Patricia Johnson from SAI of New Zealand

Dr. Vivi Niemenmaa from European Court of Auditors presented the project plan aimed to assist SAIs to increase visibility of their environmental audit and gave concrete ideas, examples, tips, and case studies for SAIs to communicate their audits. Dr. Niemenmaa explained methods used for the research project including literature review, case studies, mini survey, and focus group discussion. The session was proceeded with a presentation by Ms. Patricia Johnson from SAI of New Zealand. Ms. Johnson presented about who would communicate in SAIs. She explained the importance of understanding who would be SAI's audience, what they would need to know, and how SAI could help them. SAI of New Zealand shared its experience in using social media (i.e. Twitter, Facebook, and Instagram). Further, Ms. Johnson mentioned four main requirements for SAI in using the media, including preparedness, credibility, responsiveness, and ability to be an ambassador.

Dr. Niemenmaa continued with a discussion session, which focused on two main topics. First, who communicated in the SAIs, and second, how did SAI communicate. The results of the discussion were as follows:

- Audit communication usually performed by auditor general, audit managers, audit staffs, press division, public accounts committee.
- The communication media could be from social media, press release/journalists, media events, media banks, or interviews of Auditor General.
- The importance of SAIs' legal mandate to communicate the results of audit.

In that session, Ms. Johnson also shared about lesson from SAI of United States of America (USA) in using Google Analytics. By using Google Analytics, SAI of USA learned that social media was considered more effective than mass media in attracting SAI's web visitors. Since 2009, SAI of USA had intensively used Social Medias in communicating their audits. Dr. Niemenmaa once again invited opinions from the floor regarding the growing importance of

social media and what audits attracted public interest. The results of the discussion were as follows:

- Not all SAIs had access to use social media to communicate the audit.
- Some SAIs could only communicate partial report (not full reports) in their website due to the risk of wrong interpretation by the media.
- The issue whether all SAIs would need a special division to communicate the audit results.

Dr. Niemenmaa explained the result of a mini survey where 25% of the responses mentioned nature protection as the main topic for high visibility audit. The reasons behind the need of high visibility audits included the importance of the audit result, citizen's concerns, parliament interest, strategic sectors engagement, and economic significance. Based on the tentative findings of the research, there was no fundamental difference between communicating environmental audits and communicating other audits. However, environmental topics were relatively easy to communicate and had a tendency to get a lot of media attention. Dr. Niemenma asked the audience to discuss on other topics that included what SAI communicated about, who were the audience, and how to measure the visibility. The results were as follows:

- Some SAI communicated their audits through social media, some others had a more conventional way through mass media/newspaper. Social media had more audience compared to mass media.
- The visibility measurement could be done by measuring the traffic within the SAI's website about the related audit report.
- The importance to communicate the audit results to the public without any imposing specific judgement/negative opinion to a certain government agency.

Finally, several tentative topics for the research report were explained. These included typical communication process description, who should communicate the report, communication professionals in SAIs, what was being communicated, the audience, communication platforms and tools, and the importance of visuals (photos and videos).

Group 6. Greening Cities led by Mr. Michal Rampir and Ms. Helena Vorbova from SAI of Czech Republic

Mr. Michal Rampir started the session with a presentation about the research project plan, explaining the project objectives, the methodology, the planned outline, the timeline, and the results of mini survey. The session was continued with a more detailed presentation about the urban environmental issues faced in many countries and green initiatives undertaken within cities. The urban environmental issues explained included waste management, air pollution, and drinking water system. A case study from audit performed by SAI of Sierra Leone was presented to give an illustration about the issue of Municipal Solid Waste Management.

In the session, Ms. Barbara Patterson from SAI of United States of America (USA) also presented about audit on water infrastructure and storm water management performed by SAI of USA. SAI of China also presented their experience on auditing the administration and utilization of key funds earmarked for energy saving and environmental protection. SAI of Indonesia represented by Ms. Pitriyanti also shared its experience in auditing the effectiveness on implementing, controlling, and monitoring of spatial planning in Jakarta province. Following the presentations, a discussion was done about the use of electrical car

in China which could also be considered to be less environmental friendly as coal was still a source of the electricity.

Group 7. Wastewater led by Mr. Hassan Namrani from SAI of Morocco

Mr. Hassan Namrani from SAI of Morocco opened the session with explaining the Wastewater Research Project. He elaborated about the background of the project that included the water scarcity and pollution, the adoption of Agenda 2030 (target 6.2 and 6.3), and lack of sanitation. He mentioned that by auditing wastewater, SAI can assist government to optimize efforts and policies related to wastewater management. The objectives of the project were: a) providing information on wastewater management worldwide in sustainable perspective; b) identifying opportunities and potential efforts in designing, implementing government policies and developing government programs that provide adequate and effective responses to waste water issues; and c) providing a comprehensive and possible audit topics on wastewater issues and examples of how SAIs addressed these issues in their audits.

The scope of the project consisted of two parts: the first was best practices, opportunities and efforts, types of instruments; and the second was the identification of relevant audit topics, role of SAIs, case studies. Methods used within this research included literature review, survey, study of Audit Reports, discussion panels, information exchange, and workshops. He further explained about the sources of wastewater, the wastewater treatment process, and measures taken by government. There were several numbers of audits on wastewater performed in 2014-2018. Major audit topics included auditing wastewater management and treatment (Brazil, Costa Rica, Fiji), auditing wastewater programs and projects (Bahrain, Canada, USA), linking wastewater to water management and the safety drinking (Costa Rica, France, Macedonia), wastewater as components of the sanitation services (France, Kuwait, Peru), and impact of wastewater on the environment (Ecuador, Estonia, India).

The session was continued with the presentation on Water Pollution Prevention and Control Audit from SAI of China represented by Mr. Zhang Jun. The background of the audit was the importance of sewage treatment plant to prevent and control water pollution. The main audit focus was the verification of construction and operation status of the plant that included site selection, design of sewage treatment process, and sewage collection rate. The audit scope consisted of reviewing effluent quality, checking the control status of operation process, checking if the actual disposal quality met the designed processing capacity, checking the situation of sludge disposal, and checking the continuous operation status of the sewage treatment plants. Main findings of the audit included: a) early design work of the project was unreasonable; b) loopholes in the determination of the main process; and c) engineering management construction was chaotic.

Another presentation from SAI of India represented by Mr. Sunil Dadhe followed the SAI of China's presentation. The presentation was on the Rejuvenation of River Ganga Audit. Mr. Dadhe explained about the audit objectives, which consisted of six main aspects as follows: financial management, planning, project implementation, flora-fauna-flow, human resources, and monitoring evaluation. Main audit findings were: a) Long-term action plan had not been finalised; b) River basin management plan was not available; c) 26 of 45 projects were delayed; and d) Deficiencies in planning sanitation program. Based on the findings, SAI of India gave several recommendations such as synchronizing Interception and Diversion Projects with setting up of Sewage Treatment Plants and their operationalization for ensuring that there would not be any untreated sewage flows into the River Ganga, formulation of

action plan for augmentation and utilization of Clean Ganga Fund, and identification/declaration of River Conservation Zones on priority.

Mr. Normas Andi Ahmad continued the session with a presentation on Performance Audit on Brantas Watershed Management. The audit objective was to assess the effectiveness of water resources management in Brantas Watershed during 2010 to 2013. The audit had two main questions: (1) were water pollution control activities adequate to ensure water quality was within the defined water class range; and (2) were the government stakeholders' (ministries, local government, etc) efforts to control water pollution in Brantas Watershed adequate and according to respective task and function. The audit methodology used were (1) Risk Assessment, (2) Data Collection, Observation, Comparison and Analysis, Interview, and Confirmation, and (3) GIS Utilization in determining sampling location.

Several main findings were as follows: a) Ministry of Environment had not determined the pollutant carrying capacity and pollution sources identification activities were not effective; b) Industrial wastewater pollution control through liquid waste disposal permit (IPLC) instrument was inadequate; c) Industrial wastewater pollution control through supervision instrument was inadequate; and d) Domestic wastewater pollution control was ineffective. Based on these findings, SAI of Indonesia gave several main recommendations such as: a) Ministry of Environment should determine the pollutant carrying capacity; b) Establishing industrial data as a basis to issue the permit and issuing a guidance for applying the permit; c) Law enforcement regarding environmental permit; d) Establishing integrated programs related to sanitation and domestic waste control.

Yousouf Ali Al Fazari from SAI of Oman proceeded the session with a presentation on the Challenges of Utilizing Produced Treated Effluent in Oman. The background of the audit was the plan of building and operation of wastewater project by Oman Wastewater Company (Haya Water) established by the government, the project delay, and the annual government subsidy for the project. There were several main findings from the audit as follows: a) Treated Effluent Network was unavailable; b) Limited number of customers; c) No optimal consumption; d) Major investors were difficult to find, e) Tariff set by the government was lower than production cost; and f) Lack of coordination between related parties. Based on these findings, SAI of Oman gave their recommendations such as: a) Improving marketing and promotion; b) Studying new option for using PPP; and c) Exploring alternative technologies

Group 8. Environmental Health led by Ms. Ma. Corazon Gomez from SAI of Philippines

Ms. Ma. Corazon Gomez from SAI of Philippines began with introducing the session and presented the project plan. The project aimed to describe issues and risks related to the environmental health affected by air pollution, to identify supports from international organization regarding the issues, and to describe the challenges of SAIs in auditing the issues. The scope of the project included air pollution effect on health, role of governments in responding to air pollution and its effects related to health, efforts of international organization on air pollution. Further, Ms. Gomez explained about the results of the mini survey, which included challenges faced by SAIs in auditing the topic and strategies to overcome the challenges. The project would be completed using several methods like literature review, audit reports on related topic, mini survey results, data exchange with subcommittee members, and discussion during WGEA meetings.

Mrs. Andreea Lungu from SAI of Romania proceeded the session with a presentation of audit on air quality monitoring and efficient management of greenhouse gas emissions certificates allocated under Kyoto Protocol. The audit aimed to assess the management of gas emission allowances and the public funds allocated to air quality monitoring. The audit found several main findings such as the insufficient environmental policy documents, insufficient funds allocated to monitor air quality, and the decision to promote the program that was still largely political. Based on the findings, SAI of Romania provided recommendations for government to complete the legal framework with the necessary information, to perform an analysis regarding the equipment of the National Air Quality Monitoring Network with new measurement locations, and to coordinate activities among authorities in the field of air quality management. Mrs. Lungu also explained about the challenges during the audit such as topic's complexity, information specificity, and legislation vastness. Lastly, lessons learned were concluded especially on toll for second-hand cars and stimulation of national car-park renewal.

Ms. Nouran Elgazar from SAI of Egypt continued the session with a presentation of audit on environmental health focusing on air pollution at Edible oil Manufacturer Company and Cement Company. The audit was prepared using the generally accepted international standards on related topic. Several findings related to leakage, lack of environmental policies, absence of allocated credits, uninstalled filters, and failure to limit the negative environmental impacts were found through the audits. Ms. Elgazar explained several recommendations provided to the company and challenges faced by SAI during the audit. Finally, Ms. Elgazar explained some lessons learned from the audit such as the need for effective cooperation between SAI and the supervisory agency, and the need of professional team supported with an expert in related topic.

Adjournment

Dinner hosted by SAI of Indonesia



The delegates in front of Merdeka building after dinner.

Day 4. 19 July 2018 - Third day of the Meeting

Session 6. Parallel Session on INTOSAI WGEA Projects 2017-2019 and Regional WGEA Reports

Group 9. Auditing Biodiversity led by Ms. Manako Ramonate from SAI of Lesotho and Mr. I Gede Wiprada Pasupati from SAI of Indonesia

The session opened by project plan presentation by project leaders from SAI of Lesotho and SAI of Indonesia. Ms. Ramonate from SAI of Lesotho explained about the project objective and scope and the inputs received from SAIs regarding the project plan. Mr. Pasupati continued with explaining the results from the mini surveys received from approximately 45 SAIs. The mini survey results showed that the majority of SAIs had not yet used the guidance, most of the SAIs also mentioned their challenges in auditing biodiversity and how they had coped with that through capacity building process and working with experts.

The session continued with presentation from Dr. Yousif al Ani from SAI of Iraq on their experience in auditing biodiversity. The use of risk analysis matrix helped the auditors in deciding the audit scope. The audit pointed out the weak government policies on protecting the threatened species and SAI of Iraq recommended the government to develop more subtle policies on biodiversity and consistently enforce it.

Ms. Shao Yuan from SAI of China proceeded with the next presentation on SAI of China's experience in auditing biodiversity. The results of the audit helped the Government of China in achieving one of the Aichi Biodiversity Targets, which was achieving 17% area of the country as protected areas. After the presentations, the participants were asked to discuss two questions from the project leader, as follows: 1) how to increase the usage of audit guidance on biodiversity; and 2) how to update the guidance in order to cope with the challenges faced by SAIs (internally and externally).

The results of the discussion was as follows:

- For the first question, two groups mentioned several suggestions such as:
 - a) Make the guidance more simple and practical;
 - b) Summarize the guidance and more access for questions from the readers;
 - c) Provide a more accessible link to the guidance in the INTOSAI WGEA website;
 - d) Provide more case studies in the guidance;
 - e) Get a media coverage on the guidance whether internal/external WGEA;
 - f) Organize a campaign to socialize the guidance;
 - g) Develop an e-learning course on the guidance;
 - h) Develop a bank of audit methodology and models within the guidance and links to the related audits;
 - i) Engage with SAIs from international and regional level to learn from their experiences in using the guidance;
 - j) Adapt the guidance according to different needs and characteristics of SAIs and countries;
 - k) Participate in the internal and external training course.
- For the second question, the groups suggested several points as follows:
 - a) Build a table of challenges which accommodate the readers to identify the challenges, the possible solutions, the impact after the solutions, links to the report related and focal contacts from the SAIs dealing with the challenges;

- b) Build a table of background, audit methodologies/models and audit tools;
- c) Communicate with international/regional organizations related to the issue;
- d) Communicate with academician and auditees/audit entities;
- e) Encourage law enforcement from the responsible bodies on biodiversity;
- f) Engage with other SAIs with similar problems/issues.

Group 10. Massive Open Online Course (MOOC) on Auditing Waste Management led by Ms. Tuuli Rasso and Mr. Alar Jürgenson from SAI of Estonia

Ms. Alar Jürgenson and Ms. Tuuli Rasso from SAI of Estonia began the session by explaining about the project plan especially on the methodology used, course structure, mini survey results and the milestone of the project. The project was developed in cooperation with University of Tartu in Estonia and the delivery would be fully online. Before launching in 2019, the course would be tested to ensure its quality. The content of the course would include the background information of the topic, selection of audit topics, and audit approach and methodology. Results of mini survey showed that most SAI respondents had audited waste issues. In addition to that, some of SAIs did not conduct waste audits in the last five years because the topic was a low priority compared to other topics and some of SAIs did not have the sufficient environment auditors and mandate to audit municipal issues. Creation of Audit Design Matrix, and good practices on waste management were considered as the most beneficial topics for SAIs. Before moving to next presentation, SAI of Estonia explained the milestone of the project and their expectations from the session's participants.

Mr. Ahmad Shekib Hamraz from SAI of Afghanistan continued the session with a presentation on municipality office activities audit. In his presentation, Mr. Hamraz explained some of the challenges faced by SAI in terms of financial and human resources, awareness, and legal support. Some findings on municipal waste management and its impact to environmental health were explained. Based on the audit, the audited entity had prepared a strategic and operational plan to solve the problems and overcome the problems up to 60% after a year of implementation. Afterward, SAI of Estonia took the lead on a discussion about the topics proposed in each part of the course.

Group 11. Agriculture and Food Production led by Ms. Camilla C. Fredriksen and Mr.Asina Ignace from SAI of Cameroon (AFROSAI WGEA Secretariat)

The session was began with a project plan presentation by SAI of Cameroon as project leader. Ms. Fredriksen explained that the guidance was expected to increase knowledge about agriculture and food production and to encourage more audits in this area. The presentation also included the results from the mini survey distributed to INTOSAI WGEA members, and proposed steps to plan an audit on agriculture and food production.

A presentation by Mr. Zhang Jun from SAI of China gave an illustration about the audit on agriculture and food production. In his presentation, Mr. Zhang explained about the national developments in China's agriculture and food production. In addition to that, he elaborated about SAI of China's main work in auditing agriculture and poverty alleviation to promote sustainable development of modern agriculture in China. The audit aimed to ensure national food security and grain farmer's interests. Mr. Zhang added that to achieve good effect from the audit, methods would need to be innovated with scientific audit plan and supported by big data, information technology, improved data collection and analysis. In the future, SAI of China would pay more attention to the national agricultural fund management system to promote full coverage of agriculture audit.

SAI of Cameroon continued the session with explaining about planned chapter on audit experiences, good practice, and methodology. The chapter was expected to present audit experiences on the topics as follow: food security, food safety, SDGs and food production, agricultural programs for rural development, policies for improved productivity, externally funded agricultural development programs, and environmental impact of agriculture. Mr. Ignace invited the session's participants to give further inputs on good practices, additional topics for the guidance, and case studies to be included in the guidance.

Group 12. Environmental Data led by Mr. Sunil Dadhe from SAI of India

Mr. Sunil Dadhe from SAI of India began with presenting the project plan of "Training tool on Environmental Data: Resources and Options for Supreme Audit Institutions". He explained about the project objectives that included identifying key resources and available data resources for SAIs and exploring further possibilities for analysis of data in digital form. Further, Mr. Dadhe explained about the results from mini surveys distributed among INTOSAI WGEA members. In general, the results showed that majority of SAIs used technologies/tools to analyse environmental data during its audit. However, only 26% of total responses provided case studies/reports from using the non-conventional techniques in analysing environmental data. In terms of capacity building, only 12% of the responding SAIs developed competencies in using geo-spatial technologies such GIS and 35% of them would be willing to provide further data regarding the expertise. From the responses, it was known that majority of SAIs suggested the training duration to be 5 or 6 days long using elearning modules and case studies. Further, Mr. Dadhe explained about detailed proposed scope and content of the training tool with 5-days duration along with case study illustration using GIS in audit. Lastly, the project would be expected to be final by next year and will be presented during the 19th WGEA Assembly Meeting.

Mr. Whidas Prihantoro from SAI of Indonesia continued the session with a presentation on improving SAI's report quality using information technology. Mr. Prihantoro explained several case studies from performance audit on health care facilities and SDGs preparedness with ArcGIS technology. Following the presentation from Mr. Prihantoro, Ms. Viire Viss from SAI of Estonia shared her SAI's experience in using remote sensing and GIS in environmental audit on waste treatment in oil shale mining – processing and audit on municipal waste collection – recovery. The use of remote sensing in the audit helped SAI of Estonia to identify whether the landfill-site of oil shale waste were closed and remediated. The technology also helped SAI to map whether the available packaging containers followed the requirements and waste collection stations were located in appropriate distance from households.

Further, Mr. Kritsanu Thipnoy from SAI of Thailand shared his SAI's experience in using GIS in performance audit on forest management. The use of GIS helped SAI to create a forestry management digital map that comply with the laws and regulations and aligned with the existing digital map developed by other governmental bodies. Dr. Mark Rodrigues of SAI of Australia also shared the ANAO's experience in using data analytics for performance audit. SAI of Australia had a special group to perform a function on system assurance and data analytics who could access electronically information and evidence from government, assess it, and enable the auditors to focus on higher risk areas across complete populations of data. To illustrate, SAI of Australia provided a case study on greenhouse gas audit, where the data analytics techniques were used to verify accurate transfer of data, to examine coding within the system, to verify the logic and accuracy of formulas within spreadsheet, and to verify the source of data within spreadsheet.

Regional WGEA Reports

ASOSAI WGEA Reports by Mr. Zhang Jun from SAI of China

Mr. Zhang Jun representing SAI of China as the coordinator of ASOSAI WGEA reported recent activities performed by ASOSAI WGEA. ASOSAI WGEA held its 6th Working Meeting and 7th Seminar on Environmental Audit on January 2018 in Thailand. The meeting, which was attended by 57 delegates from 24 countries, discussed about big data application in environmental audit and poverty alleviation and living environment improvement in rural areas. The meeting also discussed the progress on the cooperative audit project on water protection which involving 10 SAIs and the next hosts for the 7th and 8th Working meeting, which would be SAI of Bhutan and SAI of Kazakhstan respectively. The 7th seminar discussed more technically on Information Technology (IT) in Environmental Audit and other featured practices of environmental audit.

Mr. Jun also reported about the responses of 8th survey on environmental audit which touched more on profiling the environmental audit departments and its people, also on how the audits were being carried out. Further, he mentioned several active participation of ASOSAI WGEA members in INTOSAI WGEA recent activities. In addition to that, ASOSAI WGEA had also actively exchanging knowledge with other regional WGEAs such as AFROSAI WGEA and EUROSAI WGEA. Finally, he conveyed its commitment to take active measures to carry environmental audit and continuously innovate and improve cooperation with others.

EUROSAI WGEA Reports by Mr. Janar Holm, Auditor General of SAI of Estonia

Mr. Janar Holm representing EUROSAI WGEA reported the recent activities done within the group for the past year. For the period of 2017-2020, the group had been focusing on professional cooperation and experience sharing. This was shown in their recent activities which included the 15th annual meeting in Albania, spring session on environmental governance held in Finland, training seminar on auditing climate change held in Cyprus, and the upcoming 16th annual meeting in Slovakia. Further, he mentioned three ongoing cooperative audits performed by EUROSAI WGEA members. This included cooperative audit on air quality (co-led by SAI of Poland and SAI of Netherlands), cooperative audit on energy efficiency in public buildings (co-led by SAI of Estonia, SAI of Latvia, and SAI of Lithuania), and cooperative audit on Mediterranean marine protected areas (co-led by SAI of Cyprus and SAI of Malta). Mr. Holm continued with explaining the ongoing project of Massive Open Online Course on Auditing Water Issue developed by SAI of Estonia with the help of University of Tartu in Estonia. This MOOC would be expected to provide introduction on water management and common problems related to water. Finally, he explained other activities within the group that included EUROSAI WGEA website, newsletter, and active cooperation with EU institutions and other stakeholders.

PASAI WGEA Reports by Mr. Jonathan Keate from SAI of New Zealand

Having different audit mandates, levels of experience and capability of its members, PASAI developed a ten-year strategy to build capability and strengthening audit independence and mandates. Several environmental issues and challenges were discussed within the regional working group, such as climate change, waste, extreme weather, and drought/fire. Mr. Keate mentioned several cooperative performance audits performed within the period of 2009 – 2015 with cooperative audit on SDGs being underway. Cooperative audit on SDGs

undertaken by 13 PASAI members aimed to assess the nationals' preparedness for SDG implementation. The report of this audit was expected to contribute to global report on SDG implementation. The most recent PASAI RWGEA meeting was held in Brisbane, Australia on May 2018 discussing about increasing impact/visibility of environmental audit, greening, SDGs, water and marine, and stocktake. The meeting recommended that there be a joint-cooperation to develop environmental audit capacity specific to the needs of Pacific Islands audit offices drawn from RWGEA/WGEA guidance, training resources, and contacts. Finally, Mr. Keate welcomed ideas and support from other WGEA members to realize this initiative.

AFROSAI WGEA Reports by Ms. Camilla C. Fredriksen from AFROSAI WGEA General Secretariat

Ms. Camilla C. Fredriksen representing AFROSAI WGEA General Secretariat explained the 3 different languages within AFROSAI, which created a certain characteristic of this region. There were several key priorities of AFROSAI WGEA, including capacity building - training, research project, cooperative audits, dissemination and communication. With regard to training activities, AFROSAI WGEA held training on "how to improve quality and impact in environmental auditing" in English and French language. There were several performed cooperative audits within the region, including Congo Basin Forest audit, Protected Areas audit in cooperation with OLACEFS, and Coastal Audit within AFROSAI-E. The Congo Basin Forest audit enabled SAIs to improve the management of natural resources of the Congo Basin Forest. In the next annual meeting, AFROSAI WGEA had planned to discuss about the Niger River Basin consultation and the necessary funding to support SAIs. AFROSAI WGEA also actively participated in activities held within INTOSAI WGEA Work Plan 2017-2019 as the project leader of Auditing Agriculture and Food Production. Ms. Fredriksen also shared about the AFROSAI Green Charter to promote good practice and sustainable development by SAIs in Africa. Lastly, Ms. Fredriksen mentioned about the upcoming RWGEA meeting at Kigali, Rwanda in 24-28 September 2018 that would discuss about pollution.

COMTEMA Reports by Mr. Junnius Marques Arifa from SAI of Brazil

Mr. Arifa introduced SAI of Brazil as the current president of COMTEMA consisting of 18 members from Latin America region. COMTEMA had three main objective that include strengthening the environmental audits, assessing the environmental management based on SDGs perspective, and fostering the integration of SAIs. Mr. Arifa actively conducted coordinated audits to strengthen partnership, exchange experiences and share best practices among SAI members. The most recent coordinated audit conducted within the region was Coordinated Audit on SDGs preparedness. COMTEMA also held several activities to build the capacity of its members through courses, MOOCs, and promoting interchange among SAIs. To effectively communicate the results of audit, COMTEMA actively promoted several communication media such executive summaries, graphics (SDGs radar, INDIMAPA), infographics, innovative methodology, and diagrams. COMTEMA also actively established cooperation with other groups within INTOSAI and communication with UN-bodies. Finally, Mr. Arifa mentioned three main aspects to improve environmental governance in Latin America and Caribbean, which was through capacity building, communication, and coordinated audits.

ARABOSAI WGEA Reports by Mr. Adel Alkoot from SAI of Kuwait

Started in 2009, ARABOSAI WGEA had 9 SAI members with SAI of Kuwait as the group coordinator. ARABOSAI was currently working under its third work plan for the period of

2016-2018. There were several projects underway within the Work Plan of 2016-2018, including topics on liquid industrial waste, environmental laws in Arab countries, auditing public parks and landscapes, procedural guideline on environmental auditing, auditing impact of communication towers to environment and human, auditing coastline, and auditing natural reserves. ARABOSAI also proposed training programs with regard to energy audit, environmental audit standards, medical waste, and joint collaborative review procedures. ARABOSAI members also actively participated in the INTOSAI WGEA Work Plan 2017-2019 activities and cooperated with other regional working groups such as attending EUROSAI WGEA and ASOSAI WGEA meeting.

Lunch Break

Session 7. Trainings and Greenlines moderated by Chair of INTOSAI WGEA

Prof. Moermahadi Soerja Djanegara welcomed the participants and started the session.

Global Training Facility (iCED) by Mr. Sunil Dadhe from SAI of India

Mr. Sunil Dadhe as Director of International Centre for Environment Audit and Sustainable Development (iCED) presented the training programs for the current Work Plan 2017-2019. iCED continued to shoulder the responsibility of Global Training Facility for INTOSAI WGEA to prepare course modules, organize one training-cum-workshop on specific environmental issue, and ensure collaboration with various SAIs in reviewing training programs and its delivery. There were already 5 International Training Programs (ITPs) held at iCED annually since 2013 with 107 participants where 57% of it were from INTOSAI WGEA members. Along the year, the modules of environmental auditing training course was revised with new additional topics and shorter training duration. Trainers of the ITPs were specialists from INTOSAI WGEA members such as SAI of Estonia, SAI of Indonesia, SAI of Brazil, SAI of Canada, European Court of Auditors, and SAI of India.

A number of positive feedbacks were received from the participants of the trainings about the course structure, teaching methods and the trainers. For the 6th ITP which would be held in November-December 2018, Mr. Dadhe made a call for voluntary contribution of trainers in cooperation with Secretariat of INTOSAI WGEA. In addition to the ITPs, workshop on audit of water issues was held in February 2018 and another workshop focused on waste issues would be held in January 2019. Finally, Mr. Dadhe also mentioned several activities hosted in iCED during 2017-2018 such as INTOSAI WGEI Learning Task Force inaugural meeting, IDI-KSC audit planning meeting, and India's National stakeholder seminar on SDGs audit.

International Training on Forestry Audit by Mr. Dwi Setiawan Susanto from SAI of Indonesia

Mr. Dwi Setiawan Susanto representing SAI of Indonesia's training centre presented the forestry audit training program that had been held since 2014. The program aimed to support the SAI's capacity building related to auditing forest and provide a hands-on experience in utilizing geo-spatial technology. Using the on and off class methods, the participants were expected to be able to design forest audit program through learning community. The materials of the training consisted of: a) introduction to forest audit; b) sustainable forest management; c) determining audit topic, objective, and scope; d) research questions and audit criteria development; e) audit evidence and methodology identification; f) field trip; g) audit report preparation; and h) audit report seminar and action plan.

There were total of 101 people from various SAIs participated in this program since 2014 to 2017. Positive feedbacks were received from the participants especially with regard to the use geo-spatial technology, and learning from international experience about audit for prevention. Mr. Susanto invited all meeting participants to participate in the upcoming training, which would be held in September 2018 and invited the audience to enjoy the video about the training.

Discussion:

Ms. Camilla C. Fredriksen from AFROSAI General Secretariat asked about the existence of guidance of new technology, which elaborated on how to use spatial data for new users.

Mr. Susanto said within the training, the participants were encouraged to practice the technology directly in the field and could learn directly on how to improve it.

Greenlines by Ms. Barbara Patterson from SAI of United States of America

Ms. Barbara Patterson representing SAI of United States of America as the coordinator for Greenlines Newsletter explained about the newsletter published since 1996. The newsletter served as an important source of information on the Working Group and Environmental Auditing, issued twice a year through WGEA website and email distribution. WGEA members could contribute to the newsletter in several types of articles such as feature story, news brief, WGEA news, and extra feature. Ms. Patterson invited all WGEA members to contribute to the upcoming newsletter that will be issued in September 2018. Finally, Ms. Patterson gave a glimpse to an updated look of the newsletter.

Cooperation with INTOSAI Development Initiative (IDI) by Mr. Yudi Ramdan Budiman from IDI

Through a recorded video, Mr. Yudi Ramdan Budiman representing INTOSAI Development Initiative (IDI) explained about the importance of auditing SDGs for SAIs. Mr. Budiman said that with regard to implementation of SDGs, SAIs required capacity to conduct high quality audits to contribute to value and benefits for citizens. There were four main difference in auditing SDGs including the issue of integration (whole of government approach), inclusiveness, multi stakeholder engagement, and follow up and review. Since 2016, IDI in cooperation with KSC had developed an auditing SDGs program involving at least 50 SAIs from all regions. The program focused on approach I (preparedness) and approach II (performance audit) of INTOSAI on SDGs. The program also involved advocacy and awareness raising through presentations in different forums.

IDI also developed a Guidance on Performance Audit of Preparedness for Implementation of SDGs, which was available on IDI website. To have a common reporting framework, a compendium and lessons learned of audit findings were collected and expected to be published for High Level Political Forum of 2019. A Massive Open Online Course (MOOC) about SDGs was developed to leave no one behind in auditing SDGs. Further, Mr. Budiman pointed out the need for SAIs to move from traditional approach (silos) to more integrated approach in auditing SDGs, go beyond financial/compliance to look performance, and engage widely with national and international stakeholders throughout audit process. In the future, IDI was expected to move from program to work-stream, work on a strategic framework that brings ISSAI based audit methodology and SDGs, support audit of SDGs implementation using Whole of Government Approach, explore new areas of audit, and continue to develop capacity, knowledge sharing advocacy related to SDGs.

Session 8. Conclusion and Upcoming Meeting

Conclusion by Chair of INTOSAI WGEA

Prof. Moermahadi Soerja Djanegara congratulated the meeting participants for the discipline and the commitment shown during the three-days meeting. He recalled some of interesting points from Mayor of Bandung on the four key elements in transforming a city into greener city: innovation, collaboration, decentralization, and regulation.

Several conclusion from the meeting were as follows:

- All WGEA projects under 2017 2019 work plans were progressing on time and in line with the projects' milestone. All project leaders had presented their extended outline at the Assembly meeting;
- 2. All WGEA projects would be presented at the 16th Steering Committee Meeting in October 2018 for SC Members approval;
- 3. The final projects would be disseminated at the 19th Assembly meeting in Thailand, 2019.

Next Meeting in Thailand by Ms. Kavissara Thanatewong from SAI of Thailand

Firstly, Ms. Kavissara Thanatewong from SAI of Thailand would like to welcome all INTOSAI WGEA members on the next meeting to be held next year in Thailand. She thanked SAI of Indonesia for hosting the event this year and for fully supporting SAI of Thailand for hosting the next meeting.

Finally, Prof. Djanegara concluded the three-days meeting by thanking all participants for their contributions and wished all the participants to have safe trip back to their home country.

Farewell Reception hosted by SAI of Indonesia

Prof. Bahrullah Akbar, Vice Chairman of the Audit Board of the Republic Indonesia gave his remark to open the reception. He wished the participants to enjoy the night vibe of Bandung city while having dinner and togetherness before returning to their home.



