The Asian Journal of Government Audit is a popular resource for the SAI community for promotion of sound and effective audit systems. This bi-annual Journal has been in circulation since 1983 and has provided a forum to ASOSAI members for discussion and dissemination of good practices. The Journal accepts articles, special reports, news items and other materials from member SAIs of ASOSAI.

The material for the Journal may be sent to the editorial office, O/o the Comptroller & Auditor General of India, 9 Deen Dayal Upadhyay Marg, New Delhi-110124.

Fax No.:91-11-23236818
Emails: ir@cag.gov.in, asosai.journal@gmail.com

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My greetings to all the distinguished members of the ASOSAI fraternity. ASOSAI has displayed exemplary leadership within the INTOSAI community by promoting the exchange of ideas and experience in public audit amongst its members. Since 1983, the Asian Journal of Government Audit [ASOSAI Journal] has contributed immensely to this cause by being its voice and a popular resource for the SAI community by providing a forum for sharing knowledge and experience. Over the years, the Journal has also played an important role in facilitating debate and discussions which has led to improvement in auditing practices.

Striving and constantly enhancing our efforts, SAI India, in 2019, envisioned to augment and revamp the Journal. This initiative aims to provide our readers with improved features, quality content, interactive and mobile friendly designs, and a social media platform to reach out to the vast family of public auditors and wider accountability fraternity.

The new and digitized ASOSAI Journal will pave the way for ASOSAI to connect better, share better and lead better. Despite innovations in communication, the journal will continue to serve as a dynamic medium to bring together the finest minds of ASOSAI to showcase and share expertise not only in the field of public audit but also in related areas of interest. Moreover, it will redefine the ways of knowledge sharing across ASOSAI.

This enhancement was not possible without the unflinching support of the Governing Board members of the ASOSAI. I would, in particular, like to thank the esteemed Chairman and Secretary-General of ASOSAI for their continued support and cooperation in this endeavour. I also take this opportunity to thank all other member SAIs of our organization for their contribution in achieving this goal.

With this, I am pleased to launch the new website, the Twitter handle and the redesigned April 2021 issue of the Journal. The theme of this issue is "Emerging Technologies in the field of Audit". In addition, the issue also covers articles on themes such as "Auditing the implementation of SDGs", "Disaster management", and "COVID-19 Pandemic: Digital Innovation."

I thank SAIs of Bhutan, China, Egypt, Indonesia, Japan, Kazakhstan, Korea, Kuwait, Philippines and Vietnam for contributing articles for the April 2021 issue of the Journal.

I am also grateful to Mr Tran Sy Thanh, Chairman of ASOSAI, and Mr Hou Kai, Secretary-General of ASOSAI, for their valuable messages.

I encourage the readers to visit our new website as well as Twitter handle and provide valuable feedback to continuously improve the quality of the Journal.
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Greetings to ASOSAI members and all readers!

First and foremost, on the occasion of the publication of ASOSAI Journal’s first issue of 2021, I would like to extend my respectful greetings to ASOSAI members and readers. It is my honor to announce that on April 7th, 2021, at the 11th Meeting of the XIV National Assembly of the Socialist Republic of Viet Nam, I was elected to the position of Auditor General of the State Audit Office of Viet Nam, meaning that I would assume the responsibilities of ASOSAI Chairman during the tenure of 2018-2021 from my predecessor - Mr. Ho Duc Phoc, who has now undertaken the management of the Minister of Finance. It is an opportunity that has enabled me to have a wider grasp of not only ASOSAI but also about our mission and goals towards building a stronger community of Supreme Audit Institutions. Furthermore, I also would like to express my sincere appreciation to ASOSAI members, in general and to the SAI of India Chief Editor of ASOSAI Journal, in specific for their great endeavor and continuous contribution to the refurbishment of ASOSAI Journal which has been appraised as a valuable resource for knowledge sharing and cooperation for mutual benefits among our community.

With the objectives of improving the quality and disseminating best practices in the field of governmental audit professionally and comprehensively, this edition of ASOSAI Journal concentrates on the theme of “Emerging technologies in the field of Audit”, which has attracted a lot of attention and research around the world and the region since emerging technologies has been continuously proving to their act in supporting management in almost Asian countries. Particularly, taking the global socioeconomic crisis caused by the current COVID-19 pandemic into consideration, the role of the Supreme Audit Institutions as an efficient agent to ensure the effectiveness and efficiency of both public policies and services and national target programs on emerging technologies has become widely recognized.

Over the past few years, INTOSAI’s regional organizations, including ASOSAI, have successfully implemented knowledge sharing activities in various forms of seminars, workshops, cooperative audits, research projects on audits in the field of emerging technologies with the application of ISSAI (The Cooperative Scientific Research project of ASOSAI Working Group on Environmental Audit Application of big data analytics in environmental auditing in 2019; The 12th ASOSAI Research project on Audit on Implementation of SDGs (leveraging digital or big data to achieve the SDGs from 2018-2021), especially Capacity Development Program of ASOSAI on Information Technology Audit during the term of 2018-2019. Additionally, with the view to better affirming and further promoting the role of SAIs in the context where the world and the region are facing great challenges related to emerging issues and other emergency situations, ASOSAI Journal’s first issue of 2021 also expanded its content with 03 added topics, including: (i) Auditing the implementation of SDGs; (ii) Crisis and disaster management; (iii) COVID-19 Pandemic: Digital Innovation.

I believe that the nominated topics and articles to be discussed in this edition will create valuable opportunity to share views, experiences and good practices in the field of public auditing among ASOSAI members and will simultaneously highlight our community’s efforts in approaching and implementing areas of great concern such as sustainable development goals, crisis management and digital initiatives in the context of the COVID-19 pandemic to provide solutions and contribute to the development of public auditing at national, regional and international levels.

Last but not least, I would like to convey my best wishes of health, happiness and success to all ASOSAI members and readers.
In a world changing rapidly, we are constantly facing new reforms and challenges. In the meantime, scientific and technological advancement is picking up speed with various new technologies continuing to emerge. Key technologies such as big data analytics, artificial intelligence, block chain, 5G network and machine learning bring new challenges to public sector auditing as well as new opportunities for the development of audit profession. In addition to auditing in the fields of science and technology, many SAIs are also proactively exploring the application of emerging technologies to their work. In particular, SAIs are eager to use emerging technologies in the context of COVID-19. During the pandemic, increasing number of SAIs are carrying out audits using remote auditing and big data analytics technologies to ensure audit institutions’ continuity and value.

As the Beijing Declaration endorsed at the XXI INCOSAI in 2013 states, “it is crucial that the audit methods of SAIs are based on current scientific and technical knowledge.” The Moscow Declaration passed at the XXIII INCOSAI in 2019 also indicates that “to ensure value and benefits, SAIs and INTOSAI need to be able to apply new approaches and take advantage of opportunities to meet emerging challenges,” and calls SAIs to “respond effectively to opportunities brought by technological advancement.” In addition, INTOSAI has set up a new Working Group on Impact of Science and Technology on Auditing to help SAIs orient their audit strategy in the face of technological development.

“Emerging Technologies in the Field of Audit” has been selected as the main theme of this issue of Asian Journal of Government Audit, an important knowledge-sharing platform for SAIs in the ASOSAI region. I hope this issue of the journal will be of some help for Asian SAIs to learn from each other’s experience in using emerging technologies, seize opportunities brought by new technologies, build capacity in applying audit technologies, and enhance the overall performance of SAIs by taking advantage of emerging technologies.
Themed Articles
Main Theme

Emerging Technologies in the Field of Audit
The Emerging Use Of Technologies In Audits: BPK’s Experience In Performance Audit Of Energy Sector

About the Author
Ms. Ari Kristiana
Senior Auditor
The Audit Board of the Republic of Indonesia

Ms. Kristiana completed her bachelor’s degree at the State Accounting College (STAN) in 2000, and obtained a master’s degree in Accounting from the University of Indonesia in 2005. She is an auditor at the Audit Board of the Republic of Indonesia (BPK). During her career as an auditor, she has gained extensive experience in the audit of energy sector, such as renewable energy management and mining sector non-tax revenue compliance. She has also participated in several audits in public sector, including financial audit of both central and local government, performance audit in fiscal stimulus, and school operational assistance (Dana BOS) management.

Email : ari.kristiana@bpk.go.id
Phone : +628128539534

Abstract
This past year, technology has advanced faster than ever before, far beyond what was predicted. The Covid-19 crisis that has hit the world for more than a year is one of the leading factors of that.

The COVID-19 is an ongoing worldwide pandemic that has spread across the globe with devastating human and economic consequences. Even though it is a health crisis, it has a broad impact affecting various domains: general society, economy, education, culture, politics, etc. The pandemic has changed the everyday habits of people around the world, and the new realities of lockdowns and social distancing have accelerated the uptake of technologies. The demand for communication software such as Microsoft Teams and Zoom has been unprecedented, as hundreds of millions of people have abruptly been required to work remotely from home.

Global developments relating to the COVID-19 pandemic have also impacted the work of auditors. The Audit Board of the Republic of Indonesia (BPK) has the mandate to audit the management of and accountability for the state’s finances. This mandate is unlikely to be postponed due to the pandemic. Therefore, BPK must adapt to the changes that occur. The pandemic forced auditor to move to a new way of conducting audits.

Prior to the pandemic, audit was conducted in a more conventional way. The majority of audit procedures – such as interviews, discussions, document examinations, inspections – were conducted in the auditee’s offices. The current circumstances has brought opportunities for auditors to do things more differently, by using new, or flexing the use of existing technology resources in auditing. Auditors have to adapt their works in obtaining sufficient and appropriate audit evidence, amid challenges in accessing people or information. The physical distancing that has been brought about by the pandemic has forced such audit activities to be done online.

This paper will discuss the experiences of auditors in using technologies during the energy sector audit conducted by BPK in the midst of the pandemic in 2020.

This performance audit of energy sector focusing on city gas networks and gas refuel station development was conducted from long distance and depended heavily on technology. The paper will present the audit objective, methodology, findings, as well as the use of technologies and its obstacles.
Introduction

Energy, which is needed for every aspect of life, plays a key role for the development of countries. Countries need to use energy efficiently to have an advantage in the global competition and ensure sustainable development. A well-established energy system supports all sectors: from business, medicine and education to agriculture, infrastructure, communications and high-technology.

Energy growth is directly linked to well-being and prosperity across the globe. Meeting the growing demand for energy in a safe and environmentally responsible manner is a key challenge. As a country with a population of more than a quarter of a billion, Indonesia certainly has enormous energy demand. Today, most of the energy Indonesians consume comes from hydrocarbons, with crude oil being the dominant source of transportation fuels and liquid petroleum gas (LPG) for households. Although Indonesia contains large oil reserves, a lack of investment has caused Indonesia's oil production to decline during the last two decades. In contrast, Indonesia's oil consumption is showing a steady upward trend.

In order to reduce dependence on petroleum, the Indonesian government has made various efforts to diversify energy. In 2007, the Indonesian government embarked on the largest household fuel conversion program, to phase out the domestic use of kerosene completely in five years and replace it with liquefied petroleum gas (LPG). This was primarily motivated by the rising cost of kerosene subsidies. The program was successful in reducing domestic kerosene use by 92% in less than 10 years.

But then there is a new problem, the nation’s demand for LPG is increasing over time, as well as the subsidy burden borne by the government. The use of liquefied petroleum gas (LPG) for cooking in Indonesia has increased rapidly, with more than 70% of households now using the fuel, a large shift from kerosene. After a big cut on fuel subsidies in 2015, LPG emerged as the biggest component of fuel subsidies in Indonesia. For this reason, since 2015 the government has formulated a program to convert LPG and petroleum to natural gas by building gas refuel stations (SPBG) and city gas networks. The main objective of this program is to reduce LPG subsidy in households and fuel subsidy in the transportation sector.

The gas refuel stations and city gas networks development is the part of the government’s priority programs that were stated in the National Medium Term Development Plan (RPJMN) of 2015-2019. The government set a target that, by 2019, there will be city gas networks for around one million households and 118 gas refuel stations.

The city gas network development is still a national priority program in the RPJMN of 2020-2024 with a target of building more than four million connections by 2024. However, the gas refuel stations development is no longer a priority program even though only 73 of 118 gas refuel stations have been built until 2019, and there is no target for 2024.

SDGs Implementation: Energy

The Sustainable Development Goals (SDGs), also known as the Global Goals, were adopted by all United Nations Member States in 2015 as a universal call to end poverty, protect the planet and ensure that all people enjoy peace and prosperity by 2030. The 17 SDGs are integrated—that is, they recognize that action in one area will affect outcomes in others, and that development must balance social, economic and environmental sustainability.

In the energy sector, the world is making progress towards Goal 7 of SDGs, with encouraging signs that energy is becoming more sustainable and widely available. Access to electricity in poorer countries has begun to accelerate, energy efficiency is continuing to improve, and renewable energy is making impressive gains in the electricity sector.

The Indonesian government has issued Presidential Regulation number 59/2017 concerning the Implementation of the Achievement of the SDGs. This regulation sets targets for each goal and presents the action plan for responsible government institutions to achieve them. The Indonesian government has set a main goal for the energy sector that is to guarantee universal access to affordable, reliable and modern energy services by 2030.
One of the government’s programs to achieve Goal 7 is to build a city gas network. National targets to achieve include "Achieving a gas network of 1.1 million household connections by 2019". The ministry that is responsible in the implementation of SDGs in the energy sector is the Ministry of Energy and Mineral Resources, involving other ministries such as the Ministry of Finance, the Ministry of National Development Planning (Bappenas), the Ministry of State-Owned Enterprises (BUMN), and local governments.

Unfortunately, until 2020, there were only 537,916 household connections built, less than 50% of the 2019 target. Although this target had not been achieved, the government set quite an ambitious target in the RPJMN of 2020-2024, which is to build 4.7 million household connections.

Audit Objective

In 2020, BPK conducted performance audit concerning city gas networks and gas refuel stations development at the Ministry of Energy and Mineral Resources (MEMR) and state-owned enterprises. The objective of this audit was to assess the effectiveness of this development in supporting the achievement of government objectives in the use of natural gas in households and transportation sectors. This audit is mainly focused on three aspects, i.e. planning, implementing, and monitoring. The audit scope is the city gas networks and gas refuel stations development from 2015 to mid-2020.

Audit Questions

To answer the audit objective, BPK developed three audit questions:

1. Is the plan of city gas network and gas refuel station development defined in a comprehensive and integrated manner, and is it consistent and aligned with policies and regulations to ensure the achievement of the targets?
2. Has the government implemented the city gas network and gas refuel station development activities according to plan?
3. Has the government carried out systematic and regular monitoring and evaluation to measure the achievement of the targets set and to identify problems for improvement in the decision-making process?

Audit Approach

The audit approach determines the nature of the examination to be made. It is an important link between the audit objectives, audit criteria and the work done to collect evidence. Performance auditing generally follows one of three approaches:

1. a system-oriented approach, which examines the proper functioning of management systems, e.g. financial management systems;
2. a result-oriented approach, which assesses whether outcome or output objectives have been achieved as intended, or programs and services are operating as intended;
3. a problem-oriented approach, which examines, verifies and analyses the causes of particular problems or deviations from criteria.

According to ISSAI 3000, auditors should choose a result-, problem- or system-oriented approach, or a combination thereof, to facilitate the soundness of audit design. This audit used a combination of system and problem-oriented approach. This approach will help auditors identify problems in the entire development process and determine their root causes. The result-oriented approach was not chosen because preliminary audit findings revealed that the target set of city gas and gas refuel stations development was not achieved.

The system approach used the input-process-output-outcome model (IPOO model). Then auditors identified significant factors that affected each stage and the problems were found. The identification of problems is obtained from various sources, such as ministry performance reports, research results from outside parties / NGOs / academics, as well as news in various media. In this examination, BPK only assessed the achievement of the middle-term outcome, not the long-term outcome. (Figure 1).
The Emerging Use Of Technology In Audit Methodology

The audit standard requires auditors to design and perform appropriate audit procedures to obtain sufficient, relevant and reliable audit evidence to draw conclusions on an activity. However, the Covid-19 pandemic increases the risk of auditors not obtaining sufficient evidence. Auditors need to establish alternative procedures to overcome those risks.

The pandemic has forced auditors to operate remotely and embrace digital technologies - whether they were ready to or not. Covid-19 has significantly accelerated the evolution towards a "virtual" audit. The audit methodology and the emerging use of technology in this audit are as follows:

1. Establishing audit criteria, types and sources of evidence as well as inspection procedures. The audit criteria used are regulations, planning documents such as RPJMN and National Energy Plan (RUEN), and best practices adopted from UNDP, UN, etc. Audit criteria, evidence, and procedures will be outlined in the Audit Design Matrix (ADM).

2. Collecting data and information- The use of virtual meeting applications is absolutely necessary for collecting data and information. Prior to the pandemic, this data collection process was carried out through face-to-face discussions or interviews with auditee. Since the pandemic, all interviews must be conducted virtually using Zoom or BPK Room (a virtual meeting application developed by BPK). Data collection is also carried out using soft files, scanners and emails, not paper documents.

The benefits of this method is there will be a significant reduction in time spent on commuting to the audit location, thus audit can be conducted more efficiently. However, digitizing paper documents into softcopy creates the risk of document manipulation. Auditors need to be more careful to ensure that the documents received are valid.

3. Gathering opinions from experts- The auditor’s expertise in the field of natural gas is limited, therefore BPK held a focus group discussion (FGD) by inviting several independent experts. These experts have academic and practitioner backgrounds. This FGD is very important for auditors to get a more
comprehensive picture of energy management. The FGD was conducted virtually using Zoom. The advantages of a virtual FGD are flexibility in schedule, so it was easier to invite experts, and less costly compared to physical FGD.

4. Selecting sampling techniques and designing audit sample. In this audit, the audit team conducted a non-statistical sampling method using professional judgment to select the numbers of gas network and gas refuel stations to be physically observed. Physical observation and examination to gas network site and gas refuel stations were still needed by auditors, as they could provide key information in identifying problems of the program's implementation. From audit population of 49 location of city gas network and 73 gas refuel stations, the team visited only one location gas network and ten gas refuel stations. It was quite challenging to visit the audit sites due to limitation of mobility. The audit team ultimately managed to examine a city gas network in Sumatra virtually and visited ten gas refuel stations in around Jakarta.

5. Conducting a survey of city gas network customers. The audit team carried out a survey of city gas network customers with the aim of gathering evidence of the city gas network reliability. Surveys are usually conducted by directly visiting customers. However, due to the pandemic, the survey was conducted online using a survey application and sent to the customers’ What Sapp numbers. An advantage of using online surveys is a significant increase in response rates, compared to conventional surveys. The team received more than a thousand respondents, a number that would have been difficult to achieve with an offline survey. The main problem of conducting an online survey is how to design survey questionnaires. Auditors have to ensure that the questions are understood easily and answered correctly by respondents. Furthermore, the audit team should also ensure that the results of the survey are relevant with audit objectives.

6. Data analysis- The data collected were not only primary data obtained directly from auditee, but also secondary data from reliable external sources, such as Statistics Indonesia (BPS), trusted national mass media, and other data collection platforms. The audit team conducted several analytical methods that include root cause analysis, regression analysis, and LEAP (Long-range Energy Alternatives Planning) analysis.

There are other advantages in using technology in audit:

1. Saving time and money as most data is accessible from anywhere. Interviews and even observations can be conducted through popular platforms like Microsoft Teams or Zoom. There will be a significant decrease in money and time spent on commuting to the audit location.

2. The audit team works more efficiently. The audit team feels more comfortable working from their home office environment, since they are able to use all the necessary tools, such as high-speed internet, monitors, printers, etc.

However, there are also challenges encountered during the audit by using technology:

1. Internet network disruption is a major obstacle. Sometimes, network connections are not very reliable, or the auditee can have difficulties to log into a database in order to show evidence. In addition, due to network issues, interviews and meetings can be interrupted, taking some time to reconnect and solve all the network problems.

2. Not all data and documents are available in digital form. Big data analysis has not been able to run optimally, because the data needed has not been fully integrated.

3. There is lack of attention from the auditees, possibly since they are performing other tasks while the audit is being conducted, or they have more than one virtual meeting at the same time.

4. There is a gap in auditors’ ability in using advanced technology. The reality is that these new technologies and expectations are evolving rapidly, requiring auditors to constantly upgrade their skills and approach.
Audit Findings

BPK found several problems on the city gas network and gas refuel stations development:

1. The government had not considered the short-term, medium-term, and long-term costs and benefits when formulating the goals and objectives of the city gas network and gas refuel stations development. Those designs have not been integrated with the plans for the use of other energy sources. For this matter, BPK recommends the government to study the implementation of city gas network and gas refuel station and its impact on reducing LPG and petroleum consumption comprehensively;

2. The government does not yet have a clear and measurable roadmap for accelerating the use of natural gas for households and transportation sectors. In an effort to do so, BPK's recommendation on this issue to the government is to define a clear, measurable and comprehensive roadmap, as well as to develop tools to monitor its implementation;

3. The program of converting petroleum to gas does not depend only on one ministry, but involves many other agencies. However, the involvement of cross-sectoral roles and coordination between ministries, agencies, local governments and business entities in the development of city gas network and gas refuel station have not been optimal. Therefore, the construction of city gas network and gas refuel station does not synergize with government policies in other sectors, and it is difficult to achieve the expected targets.

4. Monitoring and evaluating city gas network and gas refuel station development activities have not been able to assess the medium-term outcome, namely controlling the rate of increase in imports and subsidies for LPG and petroleum, and the resulting impact if the targets set in the construction of city gas network and gas refuel station are not achieved.

By performing simulations and analysing the results using LEAP application, BPK revealed that the potential to reduce LPG imports would not be achieved if the government did not make a breakthrough in city gas development. Figure 2 shows the import value of LPG that can be suppressed if the construction of city gas network is as targeted, the economic growth is as assumed, and the other policy such as Dymethil Ether (DME) run smoothly.

Figure 2
Figure 3 shows the value of LPG imports using realistic scenario data, namely economic growth of 5% using real figures for 2015 - 2019, adding gas lines only around 90 thousand SR per year according to the trend in the last five years, and without any other policies. The simulation shows us that LPG import will increase significantly.

BPK also conducted a simple linear correlation and regression analysis by comparing the effect of city gas consumption with the realization of 3 kg (subsidized) LPG consumption in 2014 - 2019 in the city of Prabumulih, where 80% of the people have benefited from gas network. The results of the analysis show a negative coefficient of 0.3, which means that the construction of city gas has not had a significant effect in reducing the 3 kg LPG subsidy. The Ministry of Energy and Mineral Resources needs to study why this happens and find solutions so that the city gas policy can achieve its objectives, one of which is to reduce the 3 kg LPG subsidy.

3 kg (subsidized) LPG consumption in 2014 - 2019 in the city of Prabumulih, where 80% of the people have benefited from gas network. The results of the analysis show a negative coefficient of 0.3, which means that the construction of city gas has not had a significant effect in reducing the 3 kg LPG subsidy. The Ministry of Energy and Mineral Resources needs to study why this happens and find solutions so that the city gas policy can achieve its objectives, one of which is to reduce the 3 kg LPG subsidy.
Conclusion

The results of BPK’s audit of the city gas network and gas refuel stations development found positive efforts and achievements by the government in building and operating city gas networks and gas refuel stations. However, without diminishing appreciation for those efforts, BPK states that the above problems should be resolved immediately. Otherwise it can affect the effectiveness of city gas networks and gas refuel station development in supporting the achievement of objectives of the utilization of natural gas in households and the transportation sector.

The Covid-19 pandemic has abruptly forced change, in a matter of days. Digital transformation has become a necessity during these unusual times, when physical distancing and remote work have become the norm. But the future of audit isn't just about remote audits; it's about transforming underlying processes using technology to achieve three objectives: a higher quality audit, a more efficient audit and better business insights for our clients through the traditional audit process.

References:

1. BPK, 2020, Performance Audit Report of Effectiveness of City Gas Network and Gas Refuel Station Development at Ministry of Energy and Mineral Resources;
2. ISSAI 3000: Performance Audit Standard;
3. ISSAI 3100: Guidelines on Central Concepts for Performance Auditing
4. Canadian Audit & Accountability Foundation, 2020, Better Integrating Root Cause Analysis into Public Sector Performance Audit
The Situation, Requirements and Implementation of Information Technology Audit at The State Audit Office of Vietnam in the Era of Industrial Revolution 4.0

-SAI Vietnam

Background

IT (Information technology) plays an important role in Industrial Revolution 4.0 with its breakthroughs creating outstanding technology issues such as: IoT, Social Network, Big Data, Block chain, affecting the work of auditing by the possibilities of whether state auditors: (i) can quickly collect information through smart devices namely computers, phones, touch devices from Big Data; (ii) must have analytical capacity to improve data quality through the application of AI-based IT tools; (iii) have a wide grasp of core IT technologies and of the methods of transmitting and verifying data of transactions in the supply - value chains and between economic sectors; (iv) possess the ability to enhance the reliability and rationality of financial reporting information through self-control, self IT-based auditing and accounting systems.

In the era of Industrial Revolution 4.0, the authority and responsibility of the State Audit Office of Vietnam (SAV) are manifested as follows: (i) The IT system, including hardware, software and data of public agencies, is public property, formed by public financial sources, which should be audited by the SAV; (ii) Public administrative services operating on IT systems and subject to the control of related controlling systems should be audited by the SAV.

Key technical factors influencing auditing activities of the SAV Vietnamese government has currently been building national databases related to financial information including: Information systems on national credit; domestic tax and import - export tax; national budget accounting and national insurance. It is expected that by the end of 2021, Vietnam will have completed 06 major national databases with over 103 national information systems. These are digital resources that need to be exploited in auditing activities through the construction of specialized databases of the SAV.

The two most valuable digital resources of data available for sharing include: (i) Information among government agencies via e Government (for example: List of business status of tax authorities); (ii) Information of individuals and organizations that are willing to periodically share with state agencies (for example: financial statements of enterprises). State agencies that own these data (information gathered either on their own or received from other organizations or individuals) must be responsible for providing them to the SAV. Through activities of auditing, recordkeeping, internal research and training, the SAV has now in the possession of a huge amount of data warehouses accumulated over years that has not been organized, sorted and effectively exploited fruitfully. The aforementioned raw data warehouses need to be organized and arranged automatically by the use of AI to form Big Data for auditing works. Auditors of the SAV conducts data audit at Vietcombank (Joint Stock Commercial Bank for Foreign Trade of Vietnam).

Two basic perceptions of implementing auditing activities in the age of Industrial Revolution 4.0 - Public digital resources including IT systems and information and data which are either on public finance, public property or formed by public financial investments must be considered as public property under the control of the SAV. - The mastery and effective usage of each state auditor of digital resources formed by specialized database of the SAV to maximize his or her creativity and productivity through applying IT achievements in the era of Industrial Revolution 4.0.

The first perception putting its emphasis on digital resources in the era of Industry 4.0 is becoming increasingly valuable, hence must be strictly controlled. Public digital resources must be periodically audited by the SAV. The second perception emphasizes that auditors must be fully supported by information from the SAV's digital resources and must be knowledgeable in applying
IT achievements in the digital era. The two perceptions are closely related, in which the former is the premise of the latter because it is associated with the authoritative function of the SAV in auditing public digital resources. On that basis, the SAV can build its own specialized database to support state auditors in fulfilling the requirements of the second perception and forming IT auditing methods.

Challenges and missions of IT audit at the SAV- The subject of an IT audit is the IT system focusing on data and IT control, which are facing challenges, as follows:

- Does the investment in IT projects related to the management and use of public assets and public finance prove to be effective, economical and meet actual needs?

- Are the IT systems of the audited units strictly controlled to ensure legal compliance, efficiency, effectiveness and economy?

- Is the financial and operational information processed by the IT system of the audited entity completed and accurate when handed over to the SAV?

- Are the establishment and exploitation of public digital resources from specialized audit databases inherited from national databases for auditing works effective?

The first two challenges are directly relevant to the task of IT audit with the audited object being public digital resources. The other two are indirectly related to IT audits through the results of conducting IT audits in order to build the SAV's database and audit methods in the IT field.

Therefore, IT audit at the SAV needs to perform the following important tasks: - Establish mechanisms, policies and strategic directions as the legal foundation for the implementation of audit activities in the digital age, focusing on clarifying the concept of public digital resources.

- Ensure the rate of accuracy in operation along with efficiency and compliance general as well as investments in specific IT systems of the audited units as the activity of auditing IT projects and systems with high risk and materiality.

- Collect information through auditing on: (i) National financial information system; (ii) Audit focal point; (iii) Software and important data for the foundation of constructing specialized databases of SAV.

- Access, exploit and analyze data of the national financial database in order to build up and provide data for the specialized database of SAV.

- Establish programs of training for state auditors to become members of the IT audit team.

- Conduct research and disseminate experiences in order to raise awareness of the ability to apply IT audit and IT application in auditing activities.

Future orientation of IT audit implementation at the SAV

The SAV is in the step-by-step progress of conducting audits of IT systems and national General Department of Taxation, General Department of Customs, Social Security Administration and has achieved several promising results. However, there are still a few issues to be improved:

- Public digital resources have not yet been accurately defined in accordance with their legal corridors and guidelines for auditing aforementioned subjects.

- Some key IT systems were initially audited, but were not enough to create a panoramic picture of the State's entire IT system.

- The auditing approach is not yet geared towards the IT-focused control system.

- The number of capable IT auditors at SAV is relatively small and a new training program for IT auditors is currently taking shape.

- The perception of several state auditors about the requirements set by the Industrial Revolution 4.0 is still unclear.
The implementation of IT audit activities of the SAV is oriented as follows:

- Conduct audits on IT projects and systems that are assessed to have high risk and materiality to ensure the rate of accuracy in operation along with efficiency and compliance with legal regulations of investments in development of the IT sector in general as well as investments in specific IT systems of the audited units.

- Collect information through auditing works on: (1) National financial information system; (2) Audit focal point; (3) Software and important data to create the foundation of constructing of specialized databases of the SAV.

- Access, exploit and analyze data of the national financial database not only to establish and provide data for the specialized database of the SAV but also to form audit documents and methods in IT audit field.

- Support other types of audit by placing the emphasis on transferring IT audit methods to other units in across the SAV through practical activities as well as practical experiences from the audited units.

The main activities of implementing IT audit are:

- Continue to the work of completing legal framework and detailed guidance on how to conduct IT audits that have the focus on public digital resources.

- Conduct a preliminary survey of the public digital resource system annually and establish a specialized database of public digital resources as the focus to gradually build a specialized auditing database. In particular, the focus is placed on data that are available for sharing on national databases.

- Establish an AI-based audit database system in an expeditious manner.

- Conduct periodic audits of national financial IT systems.

- Attach importance to the transfer of IT audit technology to units across the SAV while conducting integration audits as IT audits can be conducted independently or Integrated with other types of audits.
A Mirror of Auditing, Dynamic Tectonic Shift to Technology Auditing in Modern Era

-SAi Bhutan

About the Author

Mr. Tshering Tenzin, Deputy Chief Auditor, working in SAI Bhutan for almost decade. He has Bachelor Degree in Commerce (B.Com) Honors from Delhi University, Post Graduate Diploma in Financial Management (PGDFM), from Royal Institute of Management, Master of Business Administration (MBA), from University of Canberra, Australia. And also a 2011 batch Indian Audit & Accounts Services (IA&AS), reputed and regarded gazette officer, graduated from Shimla, India. Prior to joining in Head quarter, he was based in eastern and central Regional Audit Offices, which made him a versed in field and rich cross-cultural auditor in SAI Bhutan.

Introduction

Today, the pace in moving the technology age is beyond and unmeasurable, so the change of auditing pens and papers, works and brains must roll even much faster race. The momentum of audit related technology is changing as far as beyond reach, so the change in audit professionalism to follow the suits even more first ahead of the change. The change is inevitable in this 21st century and the growing recognition pace of technology can assist audits, providing the ability to automate data gathering or assessment to increase quality, remove subjectivity and make process more trustworthy and consistent. It has greater time saving and addressing the resource constraints associated while auditing in SAI around the globe. The advantages and benefits go far beyond efficiency gains from process automation and relates, in part, to the larger volume of data and evidence can be extracted from an audited entity and the sophistication of the tools available to interrogate and analyze further for the audit conclusion and opinion. The technology may obscure the nature of analysis and decision making may create a barrier to fully transparent audits as compared to more manual processes, but it must go hand and hand with modern technology and advancement.

Emerging of technology in the modern field auditing: A mirror of future auditors!

The change of technology in this 21st century is not a miracle in SAI auditing and nightmare for auditing professionals indeed a game change for auditing professionals. The Big Data and analytics are enabling auditors to assess ever-increasing volume of data and better identify the financial reporting, fraud & operational business risks and tailor their approach to deliver the relevant audit. The combination of visualization technologies can deliver audit business insights that impact the way an audit is planned, executed and delivered that invite maximum value and benefits to the stakeholders of the SAI’s organizations.

The three technologies will shape the mirror of auditing for the modern auditor can be asked in three questions, which auditor would face in digital age of technology transformation. They are;

1. How cognitive technology will enhance audit quality in the individual SIA’s operations?

2. How does the power of predictive analytics of data could grasp the accuracy of reported information and promote audit quality in the SAI operations?

3. How auditors could work remotely, and in real time, utilizing data and analytics, automation and visualization in this changing periods of the SAIs operations?
1. Cognitive technology in audit will magnify audit quality?

Cognitive technology other known as artificial intelligence can plow through vast tracts of data and perform digital analysis of this data in a way that is impossible even with teams of auditors today. It encompasses a process known as machine learning, where computers can course correct and try new strategies as they encounter obstacles or unknowns in their work of the auditors. The cognitive technology will empower and enable professionals to make key judgments and deliver high-quality audits in a world of exploding data and ubiquitous information, and provide auditors with access to richer, more detailed audit evidence and valuable insight that we can use to differentiate our service proposition. Auditor can use cognitive technology to redesign their work so that it can analyses of structured and unstructured data in ways not possible on traditional system of cross examinations.

Therefore, auditors can then use this analysis to deliver high-quality audits and may dig deeper into the data and reveal more about a company, its risks, financial reporting controls and its operating environment of the audited entity.

2. The power of predictive analytics data analysis

The predictive analytics involves an advanced data analysis techniques can make correct predictions based on probabilities about the future, and involve advanced technologies such as artificial intelligence and machine learning to refine those predictions. In the context of the high-quality audit, auditors can employ digital tools to extract information from an organization’s systems, and then predictive analytics for the purpose of identifying patterns that either align or don’t align with anticipated outcomes and trends. Specifically, auditors can use client data and combine it with industry or market data to enable a deeper and more robust understanding of the state of the business and any risks, and the focus is to provide probabilities that indicate potential outcomes.

The auditors working with a client can use predictive analytics to assess whether the client’s financial or other data conform to the expected norms for comparable historical data from both within the company as well as from companies in comparable circumstances. It is considered as powerful tool to grasp the accuracy of reported information and promote audit quality with comparative data as a benchmark setting.

3. A New Platform Dive: Smart Digital Hubs

The mobile technology made it possible for auditors to take their work and much more vital information outside the office and into the field. The latest wave of financial technology introduces digital hubs into the equation and importance in this modern auditing field. The use of “smart platforms,” can work remotely, and in real time, utilizing data and analytics, automation and visualization, which makes auditor works handy and easier.
Additional Theme 1

Auditing the Sustainable Development Goals
Towards an Effective Auditing of the Implementation of the Sustainable Development Goals (SDGs) with an Environmental Dimension

- SAI Egypt

The process of development, with its various concepts, is of great importance at the global level, and in recent years this concept has evolved to include the concept of sustainability and thus, the Sustainable Development has become the strategic goal that the world’s nations seek to achieve. Hence, we must all understand the meaning of Sustainable Development to realize its importance and the necessity of achieving its goals.

The Sustainable Development’s concept depends on a basic pillar represented in participating in the distribution of the burdens of development and reaping its fruits, so the idea that a generation or generations bear the burdens of development without benefiting from its fruits, or that a generation or generations reap all the fruits of development without bearing any of its burdens is an idea that is completely inconsistent. The Sustainable Development means “meeting the needs of the current generation without encroaching on the needs of future generations” on the one hand while on the other hand, the Sustainable Development strives to achieve economic development without neglecting the social and environmental aspects. Therefore, the Sustainable Development targets three basic dimensions: the economic, social, and environmental dimensions.

Within the efforts exerted by countries to achieve economic development, some bad practices appeared that did not take the environment into consideration due to not realizing that the environment has a certain capacity which is not absolute or limitless. As to consuming resources, natural resources have limits, and it is not right that one or several generations fully consume them, but they must be dealt with wisely in order to preserve the rights of future generations. On the production level, the exaggeration in loading the environment with wastes or residues resulting from the processes of manufacturing products or providing services based on the concept of the limitless environmental capacity led to the occurrence of many environmental problems represented in issues of pollution, global warming, desertification and biological imbalance.

Since the environment has been a permanent concern of governments over the past 20 years, there are many efforts to integrate the environmental considerations more effectively into the economic decision-making process. Examples include increasing investments in environment-friendly technologies, integrating government efforts in developed countries to reduce the use of fuels that cause carbon emissions, increasing the recognition of the value of ecosystem services for the business sector and society, banning the use of substances that cause ozone layer erosion as well as the efforts made to assess the progress in achieving the Sustainable development Goals (SDGs) with an environmental dimension.

The Supreme Audit Institutions (SAIs) worldwide play a fundamental role in contributing to the achievement of SDGs through their auditing processes on the implementation of those goals, so the past years have witnessed a clear interest in the role that they can contribute with in order to support the efforts of countries represented by their governments to achieve the SDGs. This interest is reflected in the keenness of the International Organization of Supreme Audit Institutions (INTOSAI) to support the SAIs to carry out their tasks to audit and follow-up the implementation of the SDGs. The priorities of the INTOSAI Strategic Plan (2017-2022) included contributing to the follow-up and audit of the SDGs within the context of the Sustainable Development’s efforts of each country and in accordance with the terms of reference granted to the SAI. They also included the fields through which the SAIs could make valuable contributions to the SDGs’ implementation.
The traditional audit, whether financial, performance or compliance, differs from auditing the SDGs' implementation due to some features that distinguish this type of auditing from other types. There are many concepts associated with this type of audit, such as the concept of integrated government that stems from the participation of more than one entity in achieving one or more of the SDGs, so it is necessary to audit the achievement of the goal as a whole rather than considering the achievement of one party's responsibilities regarding this goal. There is also another aspect which distinguishes this kind of audit that is accurately determining priorities and starting with the most important ones which naturally differ from one country to another due to the difference between countries in the issues they suffer from or the challenges they face, whether on the executive bodies' level or on the level of the auditing bodies' capabilities and competences. In addition, auditing the SDGs' achievement is carried out in a more general and comprehensive manner and requires the concerted efforts of governments, civil society organizations and all relevant parties, in addition to the need to demonstrate the impact of achieving the Sustainable Development as well as making sure that no one is left behind which is one of the basic principles that underpins the SDGs.

Taking these differences into consideration, and in its strive to achieve the SDGs' implementation audit in accordance with unified standards to ensure the achievement of the highest levels of quality when carrying out the audit tasks, the INTOSAI Development Initiative (IDI) has issued a model named the IDI's SDGs Audit Model (ISAM) on auditing the SDGs which is considered a template aimed at providing support for SAIs to carry out high-quality audits of the SDGs' implementation.

In the course of auditing the SDGs' implementation, it is required that the SAI integrates the compliance requirements imposed by the International Standards of the Supreme Audit Institutions (ISSAI) related to performance auditing as well as the effective considerations of the impact of auditing within the audit methodology of the SDGs' implementation.

This process also requires the adherence to the requirements of ISSAI no. (300) and ISSAI no. (3000) where ISSAI no. (300) determines the general principles as well as the audit process related to those principles which must be adhered to during auditing of the SDGs' implementation.

When the matter is related to environmental auditing, there should be abidance by INTOSAI GUIDs, especially GUID 5200 entitled "Activities with an Environmental Perspective" as well as GUID 5201 entitled “Environmental Auditing in the Context of Financial and Compliance Audits”.

These GUIDs, as stated in them, aim to provide a base for SAIs to enable them to understand the nature of environmental auditing as it has recently developed on the governmental level. This base will be a starting point in which each SAI can develop its own approach to implementing the environmental related regulatory responsibilities in a satisfactory manner within the framework of its terms of reference and tasks.

In addition, each SAI should sets its policy regarding the assumptions and standards that must be followed when implementing environmental auditing to ensure the high quality of work and products.

The point no.10 under section "Background" of GUID 5200 stipulates “Environmental audit is usually defined as a performance, compliance or financial audit addressing the approach taken by responsible bodies".

This evidence made it clear that the environmental audit process procedures include:

• Planning the environmental audit process.
• Implementation of the environmental audit process.
• Reporting.
• Follow-up

All this is consistent with the various procedures of the audit tasks whether it is a financial, performance or compliance audit. However, due to differences between the various audit processes of the audited entities and auditing the SDGs' implementation, ISAM added the stage of selecting the subject(s) of SDG's auditing, and also showed the need to involve the
relevant parties in each stage of the audit and explained that during the application of the ISSAI's compliance methodology, it is appropriate to use a methodology that combines a results-based approach and a systems-based approach in these types of audits. In addition, the SAI must determine the impact of the required audit on the SDGs' implementation as well as taking the necessary measures to facilitate this impact throughout the audit period. ISAM also focused on the principle of leaving no one behind as it is one of the most important principles upon which the SDGs were based.

The checklists added by ISAM to each stage of the audit process represent a basic component of its elements aiming to confirm the compliance with all standards and determinants related to auditing the implementation of that stage of auditing the SDGs.

The audit process for implementing the SDGs in accordance with ISAM includes the following stages:

1. Selection of the audit topic(s) on the SDGs' implementation.
2. Designing the audit process for the SDGs' implementation.
3. Auditing the SDGs' implementation.
4. Reporting on the SDGs' implementation.
5. Following-up the impact of auditing the SDGs.

Through these elements, it becomes clear how the SAIs can adhere to the ISSAIs and achieve an audit effect based on performance audits that generalize the most important SDGs' considerations (1).

In conclusion, SAIs that audit the SDGs face the challenge of conducting audits that differ from the traditional financial and compliance auditing, and that there is a great difference in their terms of reference, capabilities and resources. On the other hand, the stakeholders have great expectations regarding the SAIs' role in contributing to achieving the SDGs through their audit tasks.

Therefore, these SAIs must determine precisely their priorities in this field as well as follow a comprehensive approach when implementing this type of audit guided by the ISSAIs and the relevant evidence in order to ensure the achievement of high quality and increase the added value and the positive impact to the audit work. This is undoubtedly reflected in the effective contribution to implementing the SDGs.

(1) For more details, visit the website https://www.idi.no/work-streams/relevant-sais/auditing-sdgs/audit-sdgs-implementation/isam
Public Infrastructure Audit Strategy: BPK’s Experience
- SAI Indonesia

About the Author
Dr. Hendra Susanto, ST, M.Eng, MH, CFrA, CSFA
Board Member I
The Audit Board of the Republic of Indonesia

Dr. Susanto graduated from Sriwijaya University in 1997 with a bachelor's degree in Civil Engineering and completed a master's degree in International Institute of Infrastructure, Hydraulic, and Environmental Engineering, Delft, the Netherlands in 2004. Then, he accomplished a Master of Business Law degree at Gadjah Mada University in 2016. Later, he completed Doctoral Degree in Accounting from the Economics and Business Program, Padjadjaran University in 2019, with the research subject on Digital Forensic Study.

He also holds a Certified Fraud Auditor and a Certified State Finance Auditor. His specialization is investigative and forensic audits. The author was mostly engaged in performing public works and infrastructure audits. In addition, he was an expert witness in numerous cases in Court.

Abstract
Infrastructure provision is an important goal in SDG’s goal. Also, infrastructure development is a priority agenda in the 2020-2024 Medium Term Development Plan (RPJMN) of the Republic of Indonesia. The 2016-2020 Audit Board of the Republic of Indonesia (Badan Pemeriksa Keuangan, BPK) Strategic Plan seeks to make the RPJMN the reference and direction of the audit policy, including audit on infrastructure. To meet these needs, BPK needs to prepare the professional competence of auditors according to the regulations in the State Financial Audit Standards (SPKN). To obtain quality infrastructure audit results, BPK needs to prepare adequate human resources for auditors through education, training, and certification. BPK may also hire experts from outside BPK. Besides, the implementation of the talent pool can also contribute to fulfilling the need for qualified auditors.

A. Introduction
Infrastructure is crucial for development. It provides the services that enable society to function and economies to thrive from transport systems to power-generation facilities and water and sanitation networks. The importance of infrastructure puts infrastructure at the very heart of efforts to meet the Sustainable Development Goals (SDGs) (The Economist Intelligence Unit, 2019). Infrastructure improvement is a priority of development agendas in The Medium-Term Development Plan (RPJMN) IV for 2020-2024 of the Republic of Indonesia. The Indonesian government allocates Rp415 trillion for infrastructure spending in the 2019 government budget (16.9% of total state expenditure).

However, Indonesia is still facing significant challenges in providing quality infrastructure. The existing procurement ecosystem and institution hinder the provision of quality infrastructure compared to developed countries. The Audit Board of the Republic of Indonesia (BPK), as the state auditor, has a role in improving state financial governance and further contributing to the achievement of the national development agenda. Therefore, the BPK also anticipates what the government will do by making the RPJMN one of the references (which also coherent with SDG’s goal) and the direction of the audit policy.
In the 2016-2020 BPK Strategic Plan, BPK also focuses on infrastructure themes, including examining maritime and marine themes and strengthening national connectivity through land, air, and rail transportation. Later, the BPK's 2020-2024 Technocratic Plan refers to one of the development agendas, namely strengthening infrastructure aimed at supporting economic activity and encouraging equitable national development, with the following objectives: (a) increasing national connectivity; (b) increasing the Information and Communication Technology (ICT) development index; (c) improved governance and utilization of water resources; (d) the fulfillment of decent, safe and affordable housing and settlements for households; and (e) the fulfillment of national energy needs (Badan Pemeriksa Keuangan, 2019b). BPK's policy direction and strategy explain that the BPK can carry out comprehensive audits starting from the planning, implementation, and evaluation stages of all relevant ministries/agencies by optimizing all work units owned by BPK following their respective authorities and portfolios. The character of the examination will pay attention to thematic, holistic, integrative, and spatial elements.

a. Thematic. BPK will align the theme of the audits to be carried out with the development agenda so that the results of the BPK audit will be more actual and more optimal in guarding the government's strategic programs.

b. Holistic. BPK audits will be carried out comprehensively, starting from the planning stage to monitoring and evaluation, by seeking to see the implementation of all development priorities to make it easier for BPK to identify root causes and provide more comprehensive recommendations.

c. Integrative. The BPK audit assesses and evaluates Government policies in an integrated manner across all ministries/agencies across sectors. Thus, it is necessary to have a synergy of all the resources owned by the BPK following their respective portfolios so that the audit conclusions and recommendation can cover all ministries/agencies that involved in the policies/programs; d. Spatial. The BPK audit will pay attention to the spatial or spatial layout in which the policy/program is implemented to ensure the success of the policy/program in each region.

Construction activities such as road construction, buildings, ports, and airports are the main object of BPK's infrastructure audit. The audit result reveals findings such as 1) shortage of work volume, 2) overpayment, 3) late work fines, and 4) specifications of goods/services that do not comply with the contract often occur and are of material value. These audit findings show that the internal control system weakness in construction activities.

On the other hand, lawsuits against the results of BPK's audits have started to emerge in the last few years. In 2016, for example, the Jambi City Asphalt Mixed Processing Unit sued the Jambi BPK Representative regarding the BPK Audit Report, which found a state financial loss of IDR 5.1 billion. The Jambi City Asphalt Mixed Processing Unit claimed that BPK had conducted errors regarding the audit mechanism. Another example, in 2014, the Sukoharjo Regency Government project partner PT. Ampuh Sejahtera sued the BPK Representative of Central Java regarding the audit results of the market construction. They also claimed that there had been procedural and calculation errors during the audit process.

The two examples above show that BPK is at risk of being sued related to the results of the audit that has been published. Therefore, BPK needs to improve the infrastructure audit strategy, especially in the construction sector. In addition to the macro audit strategy included in the BPK Strategic Plan, it is also necessary to formulate a micro audit strategy that emphasizes improving the competence of auditors and audit procedures.

As a response to such a risk, this paper aims to discuss issues and ideas concerning how to reduce such a risk by improving the audit strategies on infrastructure audit, especially that related to the construction sector. The discussion will be framed by answering the following questions:

1. How can the audit team collectively meet the professional competence related to infrastructure inspection, especially in the construction sector?
2. How to improve the BPK audit approach in the construction sector?

B. The Importance of Infrastructure Audit

The Indonesian government gives high priority to infrastructure development. The government has spent capital expenditures amounting to Rp 1, 887.7 trillion from 2014-2019. In 2019 alone, the allocation of the infrastructure expenditure budget was 16.9% of state expenditure or Rp415 trillion. This number has increased by 264% compared to the 2014 budget (Directorate General of Budget, 2019). Meanwhile, the regional expenditure budget also shows a similar priority agenda. The portion of capital expenditure in the 2018 APBD was relatively high, amounting to Rp223.6 trillion or 19.4% of the total regional expenditure of Rp1, 153.9 trillion.

The Ministry of Transportation carries out significant central government infrastructure development programs. From 2014-2019, The Ministry of Transportation built 15 new airports, developed 100 existing airports, the addition of 3,258 km of railway lines, developed 100 seaports, the construction of Mass Rapid Transit (MRT), Light Rail Transit (LRT), High-Speed Train (HST).) as well as 199 terminals and ferry piers.

If one looks at the realization of the government’s capital expenditure in the 2016-2018 period compared to the total expenditure, it shows that the percentage of realization exceeds 12%, and specifically, the Ministry of Transportation, the percentage of realized capital expenditure exceeds 57%. Table 1 shows the number and percentage of capital expenditure realization of the central government’s total expenditure and Ministry of Transportation.

Table 1. Comparison of Realized Capital Expenditure and Total Expenditure
Realization of the Central Government and the Ministry of Transportation

<table>
<thead>
<tr>
<th>Year</th>
<th>Realized Capital Expenditure (Rp)</th>
<th>Total Expenditure Realization of the Central Government (Rp)</th>
<th>%</th>
<th>Realized Capital Expenditure (Rp)</th>
<th>Total Expenditure Realization of the Ministry of Transportation (Rp)</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>169,474,230.32 4,273</td>
<td>1,154,018,222.0 35,100</td>
<td>14, 69</td>
<td>18,249,612.99 3,171</td>
<td>31,773,338.07 1,233</td>
<td>57, 44</td>
</tr>
<tr>
<td>2017</td>
<td>208,656,670.23 5,846</td>
<td>1,265,359,428.7 45,510</td>
<td>16, 49</td>
<td>27,351,001.02 6,526</td>
<td>41,405,517.36 5,629</td>
<td>66, 06</td>
</tr>
<tr>
<td>2017</td>
<td>184,127,627.50 0,274</td>
<td>1,455,324,879.2 27,610</td>
<td>12, 65</td>
<td>27,082,448.21 0,488</td>
<td>45,075,741.35 4,758</td>
<td>60, 08</td>
</tr>
</tbody>
</table>

Source: (Badan Pemeriksa Keuangan, 2017a, 2017b, 2018a, 2018b, 2019a, 2019d)
The increase in the capital expenditure account follows the increase of total both central government and local government expenditure, which became the object of BPK’s Audit, namely through Financial Statements audit and Examinations with Specific Purposes audit. One of the capital expenditures is construction and infrastructure activities through the procurement of government goods and services. Based on the Summary of Semester Inspection Results (IHPS) I 2017 - IHPS I 2019, it is known that construction findings such as shortage of work volume, overpayment, late work fines, and specifications of goods/services not following the contract are findings that often occur and are of great value. Table 2 shows the details of the examination findings.

Table 2. Recapitulation of Audit Findings in IHPS Semester I 2017 - Semester I 2019

<table>
<thead>
<tr>
<th>No</th>
<th>Problems</th>
<th>Semester I 2017</th>
<th>Semester I 2018</th>
<th>Semester I 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Number of Findings</td>
<td>Amount (million rupiah(s))</td>
<td>Number of Findings</td>
</tr>
<tr>
<td>1</td>
<td>Lack of volume of work and/or goods</td>
<td>816</td>
<td>560,556,71</td>
<td>907</td>
</tr>
<tr>
<td>2</td>
<td>Overpayment other than lack of volume of work and/or goods</td>
<td>502</td>
<td>427,762,10</td>
<td>527</td>
</tr>
<tr>
<td>3</td>
<td>Mark up</td>
<td>84</td>
<td>38,720,00</td>
<td>69</td>
</tr>
<tr>
<td>4</td>
<td>Shopping or procurement of fictitious goods/services</td>
<td>8</td>
<td>2,499,26</td>
<td>59</td>
</tr>
<tr>
<td>5</td>
<td>Specifications of goods/services received not in accordance with the contract</td>
<td>79</td>
<td>55,914,93</td>
<td>109</td>
</tr>
<tr>
<td>6</td>
<td>Goods/service procurement partners do not complete the work</td>
<td>51</td>
<td>34,532,81</td>
<td>43</td>
</tr>
<tr>
<td>7</td>
<td>Late work fines have not been collected/received</td>
<td>440</td>
<td>483,575,82</td>
<td>78</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>1,980</td>
<td>1,603,561,63</td>
<td>1,792</td>
</tr>
</tbody>
</table>

Source: (Badan Pemeriksa Keuangan, 2017a, 2017b, 2018a, 2018b, 2019a, 2019d)
Source: (Badan Pemeriksa Keuangan, 2017c, 2018c, 2019e)
Apart from the ability of the BPK auditor to carry out infrastructure audits, as previously explained, the BPK audit results also face several risks, namely the risk of BPK’s audit results and recommendations for infrastructure audits being sued in court and cannot be followed up.

C. Auditor Competence in the Infrastructure Audit Assignment

BPK Regulation No. 1 of 2017 concerning State Financial Audit Standards (SPKN) in the Conceptual Framework paragraph 50 states that the BPK ensures that the auditor has the necessary expertise. The audit Team must collectively have the knowledge, experience, and competence required for the audit. This knowledge and practical experience of the audit project include understanding standards and statutory provisions, understanding the entity's operations, and the ability and experience to exercise professional judgment. A specialist expert may assist the auditor in carrying out their duties based on need analysis for audit, assurance of competence and independence, and quality of work results as described in paragraph 52.

Paragraph 13 of General Standard states that the auditor collectively must have sufficient professional competence to carry out the audit task. Then paragraph 14 explains that the BPK must determine the competencies needed to ensure auditors have the appropriate skills to carry out audit assignments. BPK may use experts or auditors outside the BPK according to the competencies required in the audit as stipulated in paragraphs 16, 17, and 18.

The statement in the SPKN is critical, especially in the practice of field inspections. If BPK’s auditor fails to meet the audit standard (SPKN) while conducting the audit procedures, BPK is prone to face lawsuits regarding the audit findings/results.

2) provide training in construction inspection; 3) include auditors with a background in construction in the inspection team; 4) using construction experts from universities; 5) use a laboratory to test the results of field checks.

However, this is still not sufficiently proven by the existence of lawsuits that question the audit approach by the BPK. Besides, the existing practices show that the BPK has not paid enough attention to the fulfillment of the SPKN through carrying out good audit practices.

Therefore, the BPK needs to fulfill the SPKN in the construction field inspection by doing the following actions:

1) Establishing adequate guidelines (operational guidelines/technical guidelines) regarding the inspection in the construction sector. Currently, the Research & Development Directorate of BPK is preparing one of the technical guidelines for the construction sector;

2) Ensuring the audit team has an auditor with expertise in the construction field when the audit team needs for the object of inspection related to the construction sector;

3) Ensuring the availability of experts, if needed, in order to support the BPK audit.

D. Infrastructure Audit Approach

The audit approach or the inspection procedure in the construction sector carried out by BPK is to compare the existing contracts and the realization or facts in the field. This approach emphasizes the presence aspect of construction work. Every auditor can implement this procedure because of its simplicity; therefore, it does not require an auditor with a construction background. However, the weakness of this approach is that it will not fully disclose the violations that have occurred.

For this reason, BPK needs to design a more comprehensive audit approach and procedure in the audit technical guidelines. The BPK audit will later be directed systematically to test the existence and to assess the price, quality, quantity, and delivery of construction development. BPK audits must also pay attention
to all stages in construction work, starting from the planning, procurement, and implementation stages of work.

In the planning stage, the auditor must review and understand planning documents such as the Detailed Engineering Design (DED), Engineer's Estimate (EE), and Own Estimated Price (HPS). The law violation and cheating have usually been committed at this stage. However, the problem is that it is not easy for an auditor who does not have a background in construction to analyze these documents. An expert or experienced auditor is required to perform this analysis.

In the procurement stage, the auditor will review documents such as tender documents and direct appointment documents. The auditor must ascertain whether the procurement process has been carried out according to the provisions and identify possible fraud. Apart from using the Presidential Decree on the Procurement of Goods and Services, the auditor must also pay attention to the Civil Code regarding the legal terms of the contract. Fraud in the procurement process is a violation of the legal conditions of the contract, namely lawful causes. Article 1320 of the Civil Code states that in order for a valid agreement to take place, four conditions need to be fulfilled: (1) their agreement which binds itself; (2) the ability to make an engagement; (3) a specific subject; (4) a cause that is not forbidden.

In the work implementation stage, the auditor will review the contract documents and work, including sub-contract documents, to ensure that the work is carried out following existing contracts and regulations. Auditors also test contract compliance with existing regulations. The auditor also examines the payment documents to ensure that payment for the work is following the provisions and job performance. The results of the BPK examination also showed a high risk of violating regulations and unfair prices when using subcontractors. There is also the risk that job pay is not compatible with job performance.

The auditor must also accompany the integrated audit approach above that the audit in the construction sector should be directed to the existence of work and the execution of work that is right on price, good quality, correct quantity, and timely.

The diagram below can assist the auditor in inspecting the construction sector:

**Figure 1. Law Application in Government Procurement**

![Diagram showing the application of law in government procurement](image-url)

*Source: (Susanto & Makmur, 2013)*
In general, construction problems include infrastructure development between agencies that have not been integrated. There is work overlap and inefficiency, inadequate work planning, outrageous price (markup), pro forma auction, quality of work not up to standard, work tardiness, and not yet subject to fines.

E. Use of Experts

The above analysis shows the importance of increasing the auditor’s competence improvement and experts in auditing the construction sector by the BPK.

<table>
<thead>
<tr>
<th>Audit strategy</th>
<th>Expectation of assignment</th>
<th>Risk of material non-compliance</th>
<th>Cost-benefit principle</th>
</tr>
</thead>
<tbody>
<tr>
<td>The audit conducted by auditors who have no formal education in infrastructure</td>
<td>Existence</td>
<td>Low</td>
<td>Cost of expertise &gt; benefits</td>
</tr>
<tr>
<td>The audit conducted by auditors who have formal education in infrastructure</td>
<td>Volume preciseness</td>
<td>Low</td>
<td>Cost of expertise &gt; benefits</td>
</tr>
<tr>
<td>The audit is carried out by involving experts in the infrastructure field</td>
<td>Volume or quality preciseness</td>
<td>High</td>
<td>Cost of expertise &lt; benefits</td>
</tr>
</tbody>
</table>

Source: (Badan Pemeriksa Keuangan, 2019c)

BPK auditors can perform infrastructure inspections to test the presence and accuracy of volumes with low non-compliance risk identification results. However, if the assignment expects to test the volume accuracy or quality assessment with a high risk of non-compliance, BPK needs to use experts according to the required field competence.

The next option is to increase auditors’ capacity to carry out volume accuracy testing and be encouraged to have certification according to expert standards. This option can encourage BPK to carry out comprehensive infrastructure checks starting from the planning, implementation, and evaluation stages according to BPK’s strategic policies. Besides, there is an urgency for implementing Strategic Initiatives for the formation of a Talent Pool. The talent pool can suffice the collective capability in a special infrastructure audit team according to the needs and expectations of the assignment. Following the Technocratic Design of the 2020-2024 Strategic Plan, the scope of the pool of talents has been identified, and software consisting of Talent Management Guidelines, Talent Management POS in Auditor Functional Positions, and Talent Management POS in Managerial Positions during the 2016-2019 period.
Conclusion

Below are the conclusions based on the description and discussion above:

1. The infrastructure development agenda in the RPJMN IV for 2020-2024 places a reasonably high portion, and the BPK Strategic Plan also emphasizes the focus of infrastructure inspection considering the importance of this, which is also shown by the large infrastructure sector budget in 2019 amounting to 16.9% of State expenditure or Rp415 trillion. Meanwhile, the infrastructure sector budget in the 2018 APBD is 19.4% of the total regional expenditure of Rp1,153,9 trillion.

2. The BPK also prepares policy directions and strategies to be able to carry out comprehensive and integrated inspections in the construction sector starting from the planning, procurement, and implementation stages of work that leads to the existence of work and implementation of work that is right on price, good quality, correct quantity, and on time.

3. BPK auditors are encouraged to have the capacity in infrastructure audits through education, training, and certification. BPK may use external experts if the audit expectation is higher as regulated in the SPKN. Also, the implementation of the talent pool is urgently needed to meet the needs of auditors in conducting infrastructure inspections.

Reference

Auditing of SDGs: Bhutan’s Action To Sdgs Dream Of 2030
-SAI Bhutan

About the Author
Mr. Tshering Tenzin, Deputy Chief Auditor, working in SAI Bhutan for almost decade. He has Bachelor Degree in Commerce (B.Com) Honors from Delhi University, Post Graduate Diploma in Financial Management (PGDFM), from Royal Institute of Management, Master of Business Administration (MBA), from University of Canberra, Australia. And also a 2011 batch Indian Audit & Accounts Services (IA&AS), reputed and regarded gazette officer, graduated from Shimla, India. Prior to joining in Head quarter, he was based in eastern and central Regional Audit Offices, which made him a versed in field and rich cross-cultural auditor in SAI Bhutan.

How SAI Bhutan initiates to conduct audit of SDGs? And prioritization of stakeholders to conduct peer review of the SDG Goals and rightful engagement of stakeholders?

The Global Goals which otherwise known as Sustainable Development Goals (SDGs), were adopted by all United Nations Member States in 2015 as a universal call to action to end poverty. The 17 SDGs are integrated as one area will affect outcomes in others, and that development must be balance social, economic and environmental sustainability in Bhutan. The Bhutan had committed to fast-track progress for those furthest behind first to reduce the poverty from SDGs in the international arena. Achieving the SDGs requires the partnership of governments, private sector, civil society and citizens alike to make sure the SDG in Bhutan is achieved within the time frame. The Government approach is to involve a wide range of stakeholders, including various levels of government to ensure that the principle of “leaving no one behind,” as enshrined in the 2030 Agenda for Sustainable Development.
The development of Bhutan is based on principles of GNH Model embraced with four main pillars of good governance, culture and preservation, conservation of environment and socio-economic development of Bhutan. The GNH Model of development philosophy mainly focused on the well-being of the citizens rather than counting the economic parameters of Gross Domestic Products (GDP). And also, GNH Model of development philosophy has captured and incorporated the SDGs commitments in the 12th Five Year Plan and annual action plan of the Government. The 12th Plan and National Key Results Areas are guided by the SDGs and 16 SDG goals are integrated into 17 National Key Results Areas (NKRA) with 63 targets have been integrated into the 12th plan Key Performance Indicators (KPIs) for 17 NKRA at national and local government through Key results areas and local government key results areas.

What are the significant challenges being faced while implementing SDGs in Bhutan?

Royal Government of Bhutan faced a lot of challenges while implementing and evaluation of SDG Goals on account of:

- Harmonization of policies,
- Improving data and statistics management,
- Improving awareness on SDGs and Ownership,
- Improving Stakeholder Coordination,
- Economy diversification,
- Financing and
- Youth unemployment.

The Baby Step for SAI Bhutan on audit of SDG implementations:

It is in the heart and hands of SAI Bhutan to conduct audit of SDG and implementations and how fruitfully SAs, Bhutan engages with stakeholders while auditing SDGs in Bhutan.

Audit of preparedness for implementation of SDGs and conduct audit of SDG implementation at cross-sectoral level.

What is audit preparedness for implementation of SDGs?

- To what extent has the government adapted the 2030 Agenda into its National context?
- Has the government identified and secured resources and capacities needed to implement the 2030 Agenda?
- Has the Government established a mechanism to monitor, follow, review and report on the progress towards the implementation of the 2030 Agenda?
The SAI Bhutan would address mechanisms that support participatory, multi-sectorial, and multi-level problem solving, all of which are needed to achieve long-term integrated approaches. Audit needs to engagement with the full range of diverse stakeholders, with a particular focus on marginalized groups and individuals. In response to norms of SDG, SAI Bhutan has provided audit teams with techniques and information on how to consider stakeholder engagement in their audits. Then put into the three audit objectives, which together comprise the adaptation of the 2030 Agenda into a national context, secure the means of implementation, and establish a mechanism on monitoring, follow up, and reporting on the progress towards the implementation of the SDGs action plan. SAI Bhutan continuously engage the stakeholders at the National Level to implement the SDGs Goals to fulfill it mandates of SDG Goals of the Country and around the globe goals.

A triangular thought for audit of SDGs Goals in Bhutan

The main objective should be set of policies that contribute to the achievement of a nationally agreed target linked with one or more SDG targets inline to 12th Five Year Plan of the Government. The audit of SDG implementation needs to be planned and conducted considering a whole-of-government approach and following important factors must be considered while reviewing implementations of SDGs.

- Progress made towards the achievement of the nationally agreed target;
- How likely the target is to be achieved based on current trends?
- The adequacy of the national target in comparison with the corresponding SDG target(s),
- The extent of coherence and integration in the implementation of policies and
- To conclude inclusiveness and multi stakeholder engagement.

Scanning process for the selection of SDG Audit topic and related significance to SAI,

It is very important that SAI’s audit team to scan the audit process and incorporate in Audit Plan adequately to address the issues of SDG and value and benefits is derived from the auditing. The following process may some extent add value in SDG audit, and process should not restrict it, need to customize it as per the own country & SAI context and environment.
The thoughtful exercise of SDG Auditor?

SDG Auditor should plan it at great length as per the internationally accepted principles and practices, audit approaches & methodology, execution of auditing, and preparation of audit report and follow up the audit recommendation with relevant stakeholders and agencies for the audit summary.

SDG Auditor's position?

The diagram explains that SAI SDG auditor should consider the SAI auditor competency, capabilities, required qualification and skills to conduct the audit effectively, efficiently and productively. The significance of the audit topic and resultant impact that would create after audit and its auditability from the stakeholders which is bread and butter of the SDG Auditor. And also, the SAI mandate of audit, which must be considered religiously while taking up the audit, and conflict of legality must be ignored and discarded at the least.
Auditing Sustainable Development Goals (SDGs) is one of the most outstanding areas where SAIs can touch citizen’s lives and can add remarkable values for the humanity. Including the pandemic process, we are going through, recent developments have revealed that it is impossible to ignore or not to take into account the SDGs particularly for the SAIs because the SDGs start to become an inevitable aspect of audit work day by day and even seem to locate in the heart of our work in the near future.

The TCA [Turkish Court of Accounts] is attributing great importance to stay relevant to the SDGs and tries to find proper ways to transfer the SDGs to the audit work as much as possible. As the point we have reached; the TCA conducted and completed the SDGs preparedness audit and the audit report named as “Evaluation of Preparation Processes for the implementation of the Sustainable Development Goals” has just been published. Now the TCA focuses on the audit of the implementation of the SDGs within the scope of its current audit program.

Before the ISAM was published by the IOI, the TCA already launched the preparations of selecting the audit topic bearing in mind the selection criteria in line with the international auditing standards: mandate, significance, auditability, audit capacity, audit impact. The SDGs Audit team suggested three possible audit topics to the Presidency of the TCA.

Then the TCA considered the national realities and priorities as well and finally decided on conducting a SDGs implementation audit on the renewable energy policies and practices of Turkish Government.

Below are some brief but crucial explanations about the key points of the planning phase of our ongoing SDG implementation audit experience, from the audit objective to the methodology.

As it is well known, audit objective is the heart of a performance audit. Since the audit objective should include the cores of an audit, it is crucial to design it meticulously. In this context, our audit objective is "To evaluate the efficiency of Turkey's policy and practices regarding the selected national
targets aimed at increasing the share of renewable energy sources in the total electricity generation of Turkey, within the framework of SDGs principles. We tried to cover all aspects of an SDG implementation audit while designing the audit objective.

Determining the limits of the subject matter in other words identifying the audit scope is another significant issue that we should elaborate during the planning process. As ISSAI 5130 [GUID 5202] said, we should keep the scope of SDGs implementation audit as narrow as possible in order to enable to an elaborative study. Therefore, in our SDG implementation audit on renewable energy, we preferred to exclude some of the renewable energy sources and included the energy sources of solar, wind and hydro merely because these constitute the vast percentage of the renewable energy sources in Turkey.

As for the audit approach, we followed both program-based and output-based approach, exactly as the ISAM says. This mixed approach allows us to assess both the extent to which the SDGs considerations 1 has been achieved by the government and the extent to which the government has achieved the national selected target and/or the likelihood of accomplishing the target as well.

The SDG implementation audit is a kind of performance audit which has also multidimensional and layered nature. The auditors should track and evaluate to what extent the government has succeeded in the SDGs considerations besides the achievement of the selected national target during an SDG implementation audit process. Due to its distinctive nature, this type of audit is sometimes more than a performance audit, so we followed not only the ISSAI 300/3000 auditing principles and standards of performance auditing but also the essentials and procedures specified in the ISAM model.

Last but not the least...

1- According to the ISAM. SDG Considerations: Whole-of-Government Approach, Coherence & Integration, Leave No One Behind, Multi Stakeholder Engagement.
Additional Theme-2

Crisis and Disaster Management
Audit of Disaster Prevention and Mitigation in China

SAI China

About the Author

Ms. Yao Rui, with a master degree, is a Deputy Division Director of CNAO’s Department of Fixed-assets Investment Audit.

Ms. Yao has been working in CNAO in the field of fixed-assets investment audit for a long time with rich professional experience and solid theoretical foundation. In recent years, she has successively participated in many audit assignments, including the audit of China’s airports construction and the audit of Beijing Winter Olympic Games. She has drafted 3 national audit guidance, which were approved and distributed to the audit institutions at all levels for implementation, and drafted more than 100 documents and reports on national fixed-assets investment audit. She participated in many audit researches and published 10 professional articles on fixed-assets investment audit in China’s core journals.

China is among the countries most severely stricken by various kinds of natural disasters with wide distribution, high frequency and heavy losses. The Chinese government has been attaching great importance to disaster prevention and mitigation and progressively improving the disaster prevention and mitigation management system.

I. China’s Disaster Prevention and Mitigation Management System

More than 70% of Chinese cities and more than 50% of the Chinese population are in areas vulnerable to serious earthquakes, and meteorological, geological or marine disasters. China is occasionally battered by floods, droughts, typhoons, hailstones, thunder and lightning, high temperatures and heat waves, sandstorms, earthquakes, geological disasters, storm surges, red tides, forest and grassland fires, and plant and forest insect pests, which pose a great threat to life and property safety as well as social harmony and stability. The Chinese government gives great weight to disaster prevention and mitigation and is improving its management system, mechanism and rule of law, so as to “strengthen accountability, improve system, integrate resources and coordinate forces to effectively level up the rule of law, standardization and modernization of disaster prevention, reduction and relief as well as the country’s comprehensive preparedness to resist natural disasters”. China’s disaster prevention, reduction and relief capabilities have improved appreciably, as evidenced by a sharp decrease in the ratio of disaster losses to national GDP. In 2018, the Ministry of Emergency Management of the People’s Republic of China was established to guide local authorities and departments in response to emergencies, coordinate emergency forces and material reserves and dispatch them in disaster relief, organize to build the disaster relief system, guide emergency relief related to safe production and natural disasters, and command the state’s handling of major disasters, etc.

Pursuant to the Constitution, the Audit Law and other laws and regulations, CNAO is responsible for independent audit of disaster management work including the raising, distribution, appropriation, and effective use of funds and materials for disaster relief and post-disaster recovery and reconstruction, regular publication of information on the use of funds and materials, and announcement of audit results. CNAO is an important player in China’s management system of disaster prevention and mitigation.
II. Overview of China’s Disaster Prevention and Mitigation Management Audit

According to the timing and subject matters of post-disaster audits, China’s disaster prevention and mitigation management audit is generally divided into disaster relief audit and post-disaster recovery and reconstruction audit, both are on real time basis. Disaster relief audit mainly targets funds and materials for disaster relief and its audit priorities include:

- Whether disaster relief funds and materials are allocated timely and adequately for approved purpose only;
- Whether they are subject to open, fair and just procurement, distribution and good management;
- Whether they are used in compliance with laws and regulations;
- Whether the donated funds and materials are received, transferred, managed and used in a standardized manner and are arranged openly and transparently with priority given to projects for which donators intend.
- Whether the resettlement and relief of disaster victims, health and epidemic prevention, and fire safety are timely, proper, safe and reliable;
- Whether living supplies are timely procured according to actual needs and funds and materials are efficiently distributed to disaster victims.

The post-disaster recovery and reconstruction audit mainly targets post-disaster recovery and reconstruction projects, and its audit priorities include:

- The implementation and actual effect of government policies introduced to support post-disaster recovery and reconstruction;
- Whether local governments have advanced post-disaster recovery and reconstruction according to plans;
- Whether the funds from different sources are used and managed in compliance with relevant regulations;
- Whether the funds from different sources are used and managed in compliance with relevant regulations;

In recent years, CNAO carried out recovery and reconstruction audits in Wenchuan and Yushu Earthquake stricken areas, and guided local audit institutions to conduct disaster relief and post-disaster recovery and reconstruction audits of Ludian Earthquake and Jinggu Earthquake in Yunnan and the mudslide in Zhouqu, and revealed findings such as low performance and non-compliance. CNAO has played an important role in safeguarding the safe, compliant and effective use of disaster relief funds and materials, promoting the smooth implementation of post-disaster recovery and reconstruction and successful achievement of related objectives, among others.

III. Auditing Disaster Prevention and Mitigation Management

Taking into consideration of the urgency and toughness of disaster relief as well as heavy workload, huge investment, wide coverage, long duration and high social attention of post-disaster recovery and reconstruction, CNAO has modified its audit resource management mechanism and developed new audit approaches, through exploring use of new technologies and improved procedures.

Specifically, in the first place, CNAO has introduced a practice that is “oriented by audit institutions, participated by private sector auditing firms, and jointly supervised by relevant management departments” in which CNAO is responsible for unified guidance and overall coordination to strengthen coordination among audit institutions at different levels. For example, after earthquakes struck Jinggu and Ludian, Yunnan Province, CNAO carried out real-time audits in the first instance, requiring local audit institutions at all levels to actively implement real-time audits on earthquake relief and post-disaster recovery and reconstruction. Experienced professionals in post-disaster reconstruction real-time audit were sent on-site to work out an audit work plan with the local audit institution and establish a routine work contact mechanism to strengthen regular guidance of real-time audit.
Local audit institutions at all levels, according to the staged key work in earthquake relief and post-disaster recovery and reconstruction, conducted real-time audits on funds and supplies for relief, rehabilitation and reconstruction projects, funds management and other audit priorities. Meanwhile CNAO, facing a shortage of manpower, has engaged private auditors and external experts in disaster prevention and mitigation management audits to realize a whole-process real-time audit. In this process, CNAO has strengthened its cooperation with discipline inspection and supervision, finance, development and reform, housing construction and other relevant departments to form an oversight synergy. For example, in the post-Lushan Earthquake rehabilitation and reconstruction audit, a joint inspection team consisting of the above departments was formed to conduct a centralized inspection of the worst-hit areas and to handle the problems discovered in an efficient and effective manner.

In the second place, a whole-process real-time audit features earlier audit involvement and combination of concurrent and ex-post audit. It enables an audit institution’s act of dynamic and continuous whole-process audit on budget execution, final accounts and related construction and management activities and investment performance of the construction project from commencement to completion according to law. It has four main characteristics: The first is prevention. Its biggest highlight is to install in advance external monitoring at all stages of project construction such as preparation, implementation and delivery. It focuses not only on the project construction result, but also on important work steps and matters in progress for early detection of tendencies and problems in project construction and management activities, and then make audit recommendations to promote regulated management and eliminate the defects that cannot be rectified timely and effectively even detected in ex-post audit, thus playing a preventive role in project construction implementation for the next stage. The second is timeliness. The whole-process real-time audit is synchronized with the subject matter, making mid-course corrections.

It can detect problems through real-time monitoring of in-progress important steps and matters as early as possible; in a timely manner report the audit findings to the project construction management entity; urge timely and effective rectifications of the problems detected in audit. The third is sustainability. Ex-post audit is generally one-time and is somewhat limited in terms of the time available to conduct the audit and the audit objective. The whole-process real-time audit runs throughout the project construction including stages of preparation, implementation and delivery upon acceptance, featuring a long cycle and frequent on-site visits. Through continuous audits on project construction and management activities based on the project schedule with progressive audit objectives, it can ensure project construction to yield the expected goals and benefits. The fourth is extensiveness. The whole-process real-time audit is as across-the-board type of oversight. In addition to the authenticity and legality of revenues and expenditures, it also looks at the implementation of major policies and measures, construction progress, fund management, project construction quality, ecological and environmental protection, project final accounts, investment performance, among others. Focusing on both the process and the result, it contains broader and more comprehensive contents.

In the third place, CNAO has actively explored new technologies and methods for audit. It has increased the technical content and technological support of auditing and improved the quality and efficiency of audit by closely combining new practices with modern engineering construction, information and intelligence technologies and promoting the application of new technologies and methods such as non-destructive detection and geographic information systems. For example, using non-destructive testing equipment such as geological radar and steel scanner, auditors discovered such problems as jerry-building and hidden quality and safety hazards without damaging the construction works by auditing completed works and underground works. For another example, CNAO discovered problems such as false reports of quantities and illegal land acquisition by auditing the quantities of construction projects with new technologies such as ArcGIS, RS and GPS.
The auditors also found problems of subcontracting of the project to unqualified construction entities and fraudulent access to compensation payments through data analytic techniques such as verification, clustering and correlation analysis of data. Recently, CNAO is exploring to further enhance the quality and efficiency of disaster prevention and mitigation management audit with new technologies and methods such as BIM and AI.

The audit effect should ultimately be reflected in rectification, so without solving the problems revealed, the audit could be useless. In line with the principle that “the one responsible for auditing shall be responsible for urging rectification”, CNAO has established a mechanism to follow up the real-time audit and timely urge audited entities to make due rectification and disclose the findings that have not been rectified, falsely rectified or insufficiently rectified. For example, in the post-Lushan Earthquake rehabilitation and reconstruction audit, the audit institution established an audit findings checklist and a rectification checklist, and monitored the rectification by sub-item tracking and overall review, so as to implement rectifications in place. Besides, the audit institutions at all levels in the disaster area were required to combine the post-earthquake rehabilitation and reconstruction real-time audit with the real-time audit of major national policy measures, and make key return visits and retrospect major problems and problems under rectification in each staged real-time audit to maximize audit effectiveness and promote the rectification of all problems discovered.

Audit is a powerful tool to ensure the safety of disaster relief funds and promote the implementation of reconstruction tasks. CNAO has gained a lot of learning in response to major natural disasters and public emergencies, and formulated some disaster prevention and mitigation management audit methods and oversight models with Chinese characteristics. Further, the post-disaster emergency phase features high suddenness and devastation. In specific situations, the conflict between shortage of manpower and heavy workload as well as the need for further standardization of relevant audit practices have also put forward higher requirements for audit work, requiring CNAO to continuously strengthen study and research, and explore the application of new technologies and methods.
The audit of risk and disaster management remain the top priority with same audit methodologies and approaches.

**How SAI Bhutan works with Stakeholders to response the disaster and risk management in Bhutan?**

Besides global Covid-19 pandemic, Bhutan is vulnerable to myriad natural disasters including earthquakes, floods, glacial lake out-burst floods (GLOF), landslides, and forest fires. Compounding exposure to natural hazards are the underlying vulnerabilities of Bhutan, including poor construction techniques, rapid urbanization and low levels of understanding in disaster management practices. Despite these challenges, the Royal Government of Bhutan (RGOB) has made substantial progress in disaster risk management (DRM). The 2013 Disaster Management Act was established under National Disaster Management Authority and Disaster Management Committees in all 20 dzongkhags (Districts). With constant support from the RGoB, World Food Programme (WFP) has been present in Bhutan since 1974 supporting a range of food security, nutrition and DRM goals. The WFP Country Strategic Plan (CSP) identifies disaster risk management as a core area of focus for 2019-2023 with the Strategic Outcome 2: Government has strengthened capability to address food security and nutrition challenges and prepare and respond to crises.

The priority actions for Government, UN agencies and other developmental partners to respond to identified gaps in disaster management. The Roadmap has six focus areas: Disaster Awareness; Data Preparedness; Governance; Co-ordination; Resourcing; and Sector Preparedness. Under each of these sectors, a set of actions with corresponding timeline, budget, outcome and partners are articulated. In response to six focus areas: SAI Bhutan needs to design the procedures and plan the audit methodology to address the issues, how the following areas were initiated:

- Disaster Awareness;
- Data Preparedness;
- Governance; Co-ordination; and
- Resourcing; and Sector Preparedness.

SAI Bhutan continuously engage the stakeholders at the National Level to implement the disaster & risk management to fulfill it mandates by way of auditing and reporting and also providing the constructive recommendations.
Additional Theme-3

Covid-19 Pandemic: Digital Innovation
The Role of Internal Audit in the Ambiguity Era

SAI Kuwait

About the Author

Mr. Ali A Hayati (MBA, CCM, CPIA, CCGO)
Auditor- Internal Audit Department - State Audit Bureau, Kuwait

A pandemic is the extensive spread of infectious diseases over many countries and continents, resulting in significant mortalities and morbidities (Hiscott et al., 2020). For more than one year, the world has existed in uncertainty and vagueness because of the coronavirus disease. The COVID-19 pandemic has had numerous negative consequences across the globe. The unexpected and rapid spread of the disease worldwide affected countries in different ways; economically, politically, and socially. Countries enforced stringent measures such as lockdowns, travel restrictions, prohibition of celebration and social gatherings, closure of borders, closure of learning institutions, and curfews to control the rapid spread of COVID-19. PCR testing to detect the virus intensified to detect, manage, and control the spread of the disease. All these efforts were enforced with the primary objective of controlling the rapid spread and protect the human population. Although the primary role of these stringent measures was humane, the economy suffered negatively. Organizations and corporate sectors experienced adverse effects of the pandemic, including reduced functioning, uneventful closure, and losses amounting to millions (Hiscott et al., 2020). Consequently, the open organizations were forced to lay off their staff resulting in loss of jobs and income and high unemployment rates, further worsening the economy. High rates of fraud heightened during the pandemic. The following article discusses the role of internal audits during the pandemic.

COVID-19 Impacts Lifecycle

The COVID-19 pandemic created a public health crisis with adverse social and economic implications. According to the Martin et al. (2020), the number of needy people surviving with less than $1.90 per day increased by substantially throughout the world. Governments and international aid organizations had to escalate contributions to help needy people to survive the pandemic. The global economy suffered terribly because of stringent measures such as travel restrictions (Hiscott et al., 2020). The International Monetary Fund (IMF) estimated that the global economy would dip downwards by 4.4% in 2020 (Martin et al., 2020). To maximize profits, increase the confidence of stakeholders, and ensure business run, as usual, the organization had to ensure efficient and effective use of its resources.

COVID-19 and Fraud

Fraud is defined as "an illegal act characterized by deceit, concealment, or violation of trust." The Fraud Triangle is a framework used to explain and infer an individual's reasons behind fraud. The framework outlines three concepts, opportunity, rationalization, and incentive, which contribute to fraud. The COVID-19 pandemic significantly influenced the increasing numbers and rate of fraud reported worldwide. Of the 1,712 survey responses collected by the Association of Certified Fraud Examiners (ACFE), 79% of the participants indicated that the pandemic was to blame for the escalation of fraud cases (Rashidian et al., 2012). According to the ACFE report,
During the COVID-19 pandemic, the Association of Certified Fraud Examiners survey indicated that the following were the commonest fraud risk type for the next 12 months:

<table>
<thead>
<tr>
<th>#</th>
<th>Fraud Risk Type</th>
<th>% Of responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Cyber fraud</td>
<td>85%</td>
</tr>
<tr>
<td>2</td>
<td>Identity theft</td>
<td>73%</td>
</tr>
<tr>
<td>3</td>
<td>Payment fraud</td>
<td>72%</td>
</tr>
<tr>
<td>4</td>
<td>Unemployment fraud</td>
<td>69%</td>
</tr>
<tr>
<td>5</td>
<td>Health care fraud</td>
<td>68%</td>
</tr>
</tbody>
</table>

The survey above from Association of Certified Fraud Examiners (ACFE) showed categories of fraud risks that can affect organization operations. With such knowledge, organizations can detect, investigate, and prevent these frauds from materializing.

COVID-19 and Internal Audit Activity

Internal audit is an independent and objective activity that adds value to the organization by providing assurance and interventions to improve governance, risk management, and internal controls. Internal audit plays a fundamental role in protecting organizational assets and properties. The audit is vital in ensuring that organizations are effectively meeting their objectives and goals. The Three-Line Model clarifies the role of internal audit in the third line as independent assurance activity (Hut-Mossel et al., 2017). The Chief Audit Executive (CAE) communicates and reports directly to the governing body about audit findings within the third level. With the COVID-19 pandemic becoming a menace, internal audits can be pivotal in cushioning organizations against risks, including fraud.

Detect High-Risk Areas

According to Dirani et al. (2020), internal auditors (IAs) should be alert to potential risks, which can affect organizations. IAs are supposed to think ahead, weigh on how the pandemic affects organizations and which areas are weak points that should be addressed or be prioritized. Internal audit departments must identify and assess the high-risk areas and topics brought about by the COVID-19 pandemic. Internal auditors should communicate directly with the top management about the identified high-risk areas.

Fraud Investigation

Based on the ACFE report, fraud appetite increased because of the pandemic and its negative consequences. Internal auditors should have adequate facts about possible frauds that might be committed through risk assessment. As mentioned in the standard (1210.A2) of International Standards for the Professional Practice of Internal Auditing, “internal auditors must have sufficient knowledge to evaluate the risk of fraud and how the organization manages it” (NCA Self-Study Committee, 2020) internal audit departments have to be ready to evaluate internal controls for fraud and anti-fraud systems in the organization.
Clear Communication

Internal auditors have to ensure that organizations have a straightforward procedure to share all necessary information, facts, figures, and data regarding their findings. Flexibility and accurate sharing of information with all employees prevent the circulation of fake information that can disrupt business in a pandemic.

Commit to Ethic Management System

All organizations should have an ethical management system or committee that oversees the implementation of rules, regulations, values, and norms that govern the running of the organizations. This system attempts to reduce the rate of corruption and degeneration in the organization. Therefore, internal auditors should ensure that all staff are committed to the organization’s code of conduct to shrink and eliminate unethical behaviors. Internal auditors should work closely with the ethics committee to ensure that employees and employers maintain high ethical standards preventing unhealthy behaviors such as fraud.

Conclusion

The COVID-19 pandemic has both positive and negative implications. Businesses and organizations have to learn from this pandemic and develop measures that cushion them against uncertainties and risks, including fraud. Internal audit departments are responsible for ensuring organizations are prepared for risks such as pandemics and financial constraints. Internal auditing activities should focus on preemptive actions and tasks to protect the organization against opposing forces that disrupt business.

References


Fraud in the wake-report of COVID-19 benchmarking report - Association of Certified Fraud Examiners (ACFE) - December 2020
COVID-19 Pandemic: Digital Innovation

About the Author

Mr. Blaine Jenner A. Bilalat
A Certified Public Accountant, Certified Information Systems Auditor, and the current head of the Data Analytics and Continuous Auditing Unit of SAI Philippines.

The COVID-19 pandemic has not been kind to the world. For more than a year and counting, the pandemic has and continues to incapacitate businesses, industries, and governments, and managed to single-handedly put the entire world’s economy on the worst slumps and downward spirals since World War II. With the arrival of vaccines in many countries, the end of the pandemic may soon be at hand, but the road to recovery may still take a decade should history repeat itself.

Unlike the World War Era however, we in the 21st century now have something that enables us to cope with the adverse effects of the pandemic to our ability to move and progress. That “something” is digital innovation.

Digital Innovation has provided the ways and means to collect relevant data, transform it into useful information, and feed it to the people whose actions determine the fates of entire nations, and do all of it in real-time. This has allowed governments and decision makers to monitor the pandemic as it happens, leading to pre-emptive and corrective actions being made instantly to respond to it.

From the perspective of Supreme Audit Institutions (SAIs), digital innovation has resulted in the introduction of new, creative, and more effective ways of doing audits. The most notable of these is the move from paper-based to digital audits and the obsolescence of sampling methodologies due to the availability of technology nowadays that can enable the auditing of entire populations. The rate by which audit solutions have come out over the last decade is so unprecedented that the speed of modernization for SAIs now boil down to two things: the availability of SAI resources to acquire these technologies; and its effectiveness in acquiring new skills and exploring new disciplines. The boundaries of Information Technology, Accounting, Statistics, Law, and even Social Sciences are starting to fade when it comes to audit practice that auditors of the future may need to become multi-disciplinary to stay relevant and effective.

SAI Philippines knows this well. With the government spending as much and as fast as they can for COVID-19 relief and response, SAI Philippines turned to digital innovation to keep up with the government’s efforts. SAI Philippines launched several enabling projects in the past year geared towards helping make audit work possible and easier for state auditors who are working almost exclusively at home. SAI Philippines is set to do greater things through the use of cloud computing and business intelligence (BI) solutions, thanks to the financial assistance from SAI partners.
Through digital innovation, SAI Philippines is set up to perform financial and compliance audits, especially on the COVID-19 response funds. Monitoring of fund utilization and the compliance of each implementing agency to the requirements of the law pertaining to the use of these funds can be done in near real-time through dashboards, interactive reports, and the use of the BI platform for collaborative and seamless analysis of relevant fund data submitted by these agencies electronically. What usually takes days, weeks, or even months to do using antiquated auditing methods, can now be done in a few mouse clicks through the help of technology.

If there is anything positive that came out of this pandemic, it is that it accelerated and fomented digital innovation. Once the pandemic meets its inevitable end, we may see a new generation of SAIs that are significantly more capable, relevant, resilient, and effective in staying true to their mandates.
COVID-19: Era of Digital Innovations and Creations  
-SAI Bhutan

About the Author

Mr. Tshering Tenzin, Deputy Chief Auditor, working in SAI Bhutan for almost decade. He has Bachelor Degree in Commerce (B.Com) Honors from Delhi University, Post Graduate Diploma in Financial Management (PGDFM), from Royal Institute of Management, Master of Business Administration (MBA), from University of Canberra, Australia. And also a 2011 batch Indian Audit & Accounts Services (IA&AS), reputed and regarded gazetted officer, graduated from Shimla, India. Prior to joining in Head quarter, he was based in eastern and central Regional Audit Offices, which made him a versed in field and rich cross-cultural auditor in SAI Bhutan.

When the coronavirus pandemic took the world by the shocking storm, Bhutan took swift and decisive measures and managed to keep the virus at bay with the blessings of the Triple Gem and farsighted Leadership & visionary king and Government. The people of Bhutan is fortunate to have His Majesty the King personally leading our response to Covid-19. The government, under His Majesty’s guidance, has put in place a package of measures to support the economy. The economic stimulus plan of Nu 30bn, equivalent to 20% of 2018 GDP, is comparable to that of any developed country and more substantial than those of many countries in our development cohort. In addition, loan repayment deferrals and interest waiver for till end of pandemic, individuals and families have access to the King’s Relief Funds while businesses can avail more affordable working capital. During dreadful pandemic, the people of Bhutan was so far safer heaven to live in happily and peacefully.

The way of life and doing has changed dramatically after arrival of CoVid-19 in this world. The right technology and tools, working remote is possible and practical. Companies and indeed the civil service reconsider and accept the ways & style of working and working from home and flexible working was more acceptable and common norms in times to come.

Covid-19 had also accelerated the adoption of digital solutions with value of digital solutions across multiple areas such as remote working and online education and increasingly using their mobile banking apps for money transfer and other day to day transactions. There are reports that more Bhutanese in urban areas have signed for online services with increased investments into digital across different sectors which had become common platform of younger generations to come.

Digital Disruption and Innovation for Speed and Scale

• The Government had provided ICT equipment to support Ministry of Health (MoH) in the roll out of COVID-19 emergency IT solutions enabling real-time data collection to effectively monitor and respond to the coronavirus pandemic,
• Partnering with the Judiciary of Bhutan to initiate e-litigation to ensure access to justice and uninterrupted essential social service during the pandemic,
• Working with the Parliament of Bhutan in developing a Comprehensive Plan on Parliament Functionality during emergencies and
• Supporting the establishment of Bhutan Innovation Hub and in identifying a strategic direction for the country’s innovation eco-system and contribute towards building a future-ready Bhutan.
Governance – Strengthening health systems including through digital transformation

Introducing mobile cardiotocography to accelerate the health outcomes of all mothers and children, in partnership with Ministry of Health (MoH). Initiative was to provide remote services to pregnant women and minimize exposure to infections including COVID-19.

Supplementing MoH’s efforts to equip frontline health workers and waste handlers providing collection services from quarantine facilities with essential safety gears.

Supporting procurement and establishment of incinerators to manage hazardous waste, capacity building of medical waste handlers and exploring partnerships with the private sector to ensure safer and more efficient medical waste management.

Besides, Government had initiated many innovations after lesson learnt from COVID-19 pandemic, and notable initiatives taken up are;

Health

- Closely follow up and ensure COVID-19 vaccine,
- Implement Accelerated Mother and Child Health Outcome Policy (the breastfeeding allowance)
- Start MBBS in Bhutan,
- Professional development for nurses through Diploma, Bachelors and Master’s program,
- Nursing and allied health division under the Ministry of health Education,
- Professionalize ECCD,
- Have trained facilitators with competency in child psychology, teaching and nutrition

Reform curriculum

- ICT as third language, mandatory subject for Classes PP to XII,
- All schools will be equipped with at least one computer-lab each by March 2021.
- Develop teacher competency,
- Promote the two teacher training colleges into Centers of excellence
- Formalizing TVET education,
- Diploma, Bachelors and Masters for TVET,
- percent scholarships to TVET,
- Institute selection criteria to encourage top performers for teaching Economy,
- Identify new areas of investment to generate at least Nu 15 billion annually to offset loss of tourism revenue.
- Explore investors in green energy and technology

Launch 21st Century Economic Roadmap

- Seal leakages by way of enhancing import substitution
- Formation of time bound Asset reconstruction company (ARC) to manage and realize the non-performing assets or bad assets from financial institutions.
- To make our financial sector more resilient to crisis,
- Free up liquidity to finance economically productive activities.
- To restructure most affected businesses.
- To safeguard the interest of owners of the assets.
- To act as a central agency to deal with NPA. (Model for asset securitization is already developed).
Public Service Delivery

- One-stop-shop for critical services in all districts,
- Strengthen and professionalism 1010,
- Operationalize Youth Facilitation Station in the four regions.

Waste management

- Complete construction of 9 drop-off centers in Thimphu Thromde and 19 similar centers for Thimphu Dzongkhag
- Install three incinerators at Gelephu, Phuentsholing and Mongar to manage waste from COVID-19 centers
- Procure 9 electric waste collection vehicles mainly for biomedical waste, wet waste and hazardous waste Digital way
- Piloting to Collect Citizen Biometric Data by January, 2021
- Fiber connection for 1000 Agencies/ Offices by June, 2021,

Environment

- Develop a clear way forward to transform the transport sector by replacing fossil fuel based transport systems to electric cars, buses and trains- In line with our national objective of remaining carbon neutral, greening the transport sector shall be a priority going forward,
- Establishment of Bhutan Climate Fund Legislation and policies
- Revise and approve Sustainable Hydropower Development Policy
- Introduce Health Bill in Parliament System reform Strengthen government performance management system
- To ensure highest accountability on public agencies to deliver their mandates efficiently and effectively. Initiate BSR rate revision to reflect the market reality, and
- To study and revise the schedule rates of materials and services used in the construction sector.

These were additional initiatives and innovation initiated rigorously by the Government for the country and its subjects in addition to the annual plan and activities.
COVID-19 Pandemic: Digital Innovation

SAI Saudi Arabia

About the Author

Ms. Manal Alduhaymi, General Court of Audit of Saudi Arabia

Ms. Alduhaymi is an International Relations Officer, at the General Court of Audit (GCA) of Saudi Arabia. Manal holds a bachelor’s degree in Law from the University of Westminster in London, and joined the GCA in 2017 as a legal researcher. Formerly, Manal had legal experiences when she was working for Norton Rose Fulbright as well as Pinsent Masons. Manal has had a comprehensive experience of the GCA various functions among which, auditing in Performance Audit sector and Compliance Audit sector. Manal is also an integral assistant to the PFAC leadership in performing the committee’s duties and responsibilities.

Covid-19 Pandemic has silenced all remaining doubts about the necessity of digital transformation to business longevity. In a restrictive period, the vast majority of interactions took place virtually. With rare exceptions, working digitally is the only way to continue operations through mandated lockdowns and restricted activity. The only option was to either go digital or go down. The pandemic is a reality check for institutions that have been hesitant to embrace digital transformation and now find themselves woefully unprepared. This article will show the efforts of General Court of Audit (GCA) in assisting and developing the ICT resilience and providing solutions to the SAIs in need to shift their business continuity remotely. As it will also look closely into GCA’s digital innovation and digital transformation in the whole GCA operations.

It is not odd that the International Organization of Supreme Audit Institution (INTOSAI) members assist their peer SAIs to operate at their highest level possible. Consequently, the GCA of the Kingdom of Saudi Arabia—under the leadership of its president, Dr. Hussam Alangari—has established a Saudi Fund for SAI Improved Performance (Saudi FSIP). GCA has allocated 2 million U.S. dollars for this fund from 2020 to 2022.

Initially, the fund allocated to support SAIs in the least developing countries and the INTOSAI Development Initiative (IDI), in their efforts to develop and implement SAI-led strategic plans. However, given the challenges posed by remote audits during the pandemic, the Saudi FSIP expanded its scope to offer emergency grants to SAIs in developing countries within Asia to enhance their resilience through improved ICT infrastructure and trainings.

The initial feedback of SAIs that have received assistance from the Saudi FSIP has been extremely positive. These SAIs found that the grant from GCA bolstered their continuity of operations and enhanced their ICT infrastructure. GCA hopes that this support will also encourage SAIs to review and strengthen their emergency plans for business continuity. GCA has appreciated the opportunity to successfully collaborate with individual SAIs in the Asian region and will continue to look for opportunities to assist the global SAI community.

As a consequence, in order for GCA to lead for example in this prominent changes in the word-wide operations and the necessity to adopt remote working and transform digitally. GCA has augmented their digital innovation and enabled a digital transformation through business development and digital solutions through establishing a ‘Digital Transformation Unit. A unit that leads by example for other entities in the field of digital innovation.
The digital transformation unit aims to achieve distinction in the management of digital transformation projects; it will also aim to form an effective and influential role in achieving the strategic objectives of the GCA, and complete the path to reach a high level of quality and development.

This recent development will strengthen the GCA's efforts to preserve public fund and build capabilities in enabling the use of business intelligence model. The most eminent task of this unit is to plan initiatives and actions for digital transformation in the GCA; it will also provide support to the developments of business models to transform digitally and intelligently. Furthermore, it will also provide heavy analytical data and artificial intelligence tools using the procedures of governance and supervise the implementation of digital projects in the GCA.

Thus, it is apparent that digital transformation will accelerate the implementation of digital business, which as a result provide digital services and solutions to internal and external beneficiaries. Hence, GCA encourages Supreme Audit Institutions to ultimately focuses on their digital innovations and invest their efforts in transforming their operation digitally, as it will result in enhancing the achievement of their strategic goals and provide best outcomes to its stakeholders.
Other Articles
SAIs strategically responding to changes in their Environment: The SPMR Journey in ASOSAI

-INTOSAI DEVELOPMENT INITIATIVE SPMR Team

What do key stakeholders expect from your SAI in a few years? What threats will emerge and what opportunities will present themselves? It is impossible to fully know although you can predict some aspects with quite a lot of certainty. What do you do to make sure you minimize threats and embrace opportunities? To tackle such issues, 12 SAIs in ASOSAI have strengthened their strategic management processes through the IDI Initiative on Strategy, Performance Measurement and Reporting (SPMR).

**Staying relevant in a world that is continuously evolving**

What is the longest period that went by where nothing unexpected happened which impacted on the organization you work in? Either presenting itself as a shiny opportunity or as a threat lurking and manifesting itself. Most likely not a very long time. The important question is how do organizations face uncertainties? Do they make or break you?

On the one extreme, you would have tech companies that are at the forefront of embracing uncertainty and innovation which they also must in their context to remain relevant and stay in business. SAIs are a different type of organization and not subject to the same fast-paced developments. But the environment SAIs are operating in is still subject to change. It is therefore critical for any SAI, within their own context, to ensure they remain relevant and provide value to its stakeholders.

Traditionally the core function of SAIs has been to conduct audits. Which it still is, but so many nuances have emerged and are being put into practice: new audit approaches such as real-time audits, citizen participatory audits and approaches to account for big data and new technology just to mention some. SAIs are increasingly engaging in research. Performance audits and IT audits have become more prominent for many SAIs. This demonstrates clearly how the role of SAIs is not static but is being redefined, including how an SAI can contribute to positive changes in the public sector and finally provide value to its citizens. And it will influence the expectations from key stakeholders which may view the SAI in a different light compared to a few years back.

To ensure relevance within new realities the SAI needs to look both outwards and inwards. Inclusiveness is key and SAIs need to continuously be in touch with their stakeholders and apply foresight to identify opportunities and threats, on which they then can react. Additionally, the SAI needs to have a thorough overview of its internal capacities in terms of strengths and weaknesses to know which strengths to leverage on and which weaknesses to address.

It is important to note that it will not be relevant for all SAIs to embrace all emerging trends. It is a matter of prioritizing within each SAI’s context and opportunity space.

And therefore, you should engage in strategic management. To become flexible and robust organizations having strong processes in place. To plan for certainties, take advantage of opportunities, minimize threats, prioritize, monitor implementation, and change course if necessary.

**SPMR Initiative in ASOSAI**

The criticality of strategic management has led IDI to develop its initiative on Strategy, Performance Measurement and Reporting (SPMR). To respond to the needs of SAIs the SPMR initiative presents a fresh and broader scope holistically looking at strategic management. Within the initiative, SAIs are supported through a whole strategic management cycle to ensure the different elements all work together like a fine-tuned machinery.
The global roll-out of the initiative started in 2019 and IDI has since 2019 supported 12 SAIs in the ASOSAI region to strengthen their strategic management processes.

**Illustration 1: participating SAIs in the global roll-out of SPMR first round**

The SPMR initiative could not have been implemented without the support and collaboration from several key stakeholders.

IDI would therefore like to take this opportunity to express our gratitude to all stakeholders who have supported the implementation of this initiative in the ASOSAI region. The initiative has been delivered in collaboration with the ASOSAI Capacity Development Administrator (SAI Japan). The Swiss State Secretariat for Economic Affairs (SECO) has co-founded the initiative. Ms. Dechen Pelden from the Royal Audit Authority of Bhutan and Mr. Jerrick Hernandez from the Guam Office of Public Accountability have functioned in their valuable role as resource persons and supported the implementation. The Office of the Auditor General of Norway has provided peer support. And finally, the immense efforts from the participating SAIs were key for the initiative’s success.

The SPMR Team within the Commission on Audit of Philippines are sharing some reflections on how the SPMR has provided value for their SAI.

“The journey of the Commission on Audit (SAI Philippines) under the IDI SPMR initiative has been a great eye-opener in making us realize where we are and what we still need to do to achieve our intended outcomes as an audit institution.

The practical application of the SPMR initiative in SAI Philippines was not only a valuable “on-the-job training” in the formulation and implementation of its Strategic Plan, but also provided our institution with the needed mentoring and expert guidance from the IDI resource persons towards the direction of our destination – a trustworthy and respected audit institution contributing to a better life for every Filipino.”

SAI Philippines  SPMR Team
The SPMR approach

The SPMR initiative presents an outward-looking perspective acknowledging that SAIs do not operate in a vacuum but are an important and integral part of the public financial management system in any country. Fundamental questions to ponder have been why does an SAI exist and what should an SAI aim at achieving? Is it for instance good enough if an SAI produces high-quality audit reports but the recommendations are not being implemented? It is a good result at some level. On the other hand, it is an implication that the SAI does not effectively contribute to positive changes in the public sector. Then it is a question of whether the SAI could do more? Acknowledging that there can be external impediments to why recommendations are not being implemented the IDI approach supports the notion that the SAI should identify which positive changes in the public sector the SAI can contribute to. And in the next step identify concretely how the SAI can facilitate such changes.

As is evident the approach strongly aligns to the objectives presented in INTOSAI-P 12 The Value and Benefits of Supreme Audit Institutions – making a difference to the lives of citizens.

This outward-looking perspective is visualized in the SAI Strategic Management Framework (SSMF). SSMF illustrates the value chain of how an SAI can affect change and ultimately make a difference in the lives of citizens.

Illustration 2: SAI Strategic Management Framework (includes only some examples of outcomes and outputs)

An SAI would first and foremost define its outcomes which are the positive changes in the external environment the SAI can considerably contribute to. Outcomes are largely outside the SAIs direct sphere of control and something the SAI can contribute to, though their achievement also relies on the actions of other stakeholders. The next step is to define the outputs. These are the direct products of the SAI that will contribute to the defined outcomes. Outputs are mostly under the direct control of the SAI. Then the SAI need to ensure the capacities are in place to produce the outputs by identifying the systems, processes and skills needed and the capacity gaps that should be addressed.
Through this initiative, the SAIs have identified their outcomes - outputs - capacities within their context and this results framework forms the backbone of the SAIs strategic plan. The results framework builds on a thorough analysis of strengths, weaknesses, opportunities, and threats.

To date the initiative has supported the ASOSAI SAIs in most of the key steps of a strategic management cycle. The initiative was kicked off with a critical first step on assessing the current situation. This was done by conducting a holistic SAI Performance Measurement Framework (SAI PMF) assessment and a stakeholder analysis. From this information the SAIs could identify most of their key strengths and weaknesses rooted mostly in the SAI PMF assessment and opportunities and threats rooted both in the stakeholder analysis and SAI PMF assessment. This information was analyzed together and used as a basis to develop the SAIs strategic plans. To ensure implementation of the strategic plan the SAIs have developed their operational plans which ensures that the strategic priorities are broken down into the day to day activities. And reporting templates have been revisited and revised to ensure reporting on own performance.

It is critical to note that a strategic plan and an operational plan are not set in stone. Sometimes the SAI would need to change its path either through smaller adjustments in its operational plan or larger adjustments of its strategic plan. A key part of the initiative has therefore been to support the SAIs in developing/revising their framework to monitor implementation largely through well-defined performance indicators, implementing a process for managing risks and concretely defining how change management applies to their SAI. These were all cross-cutting topics and are key tools to support implementation and decision making.

In the midst of delivering this initiative, the COVID-19 pandemic came out of the blue turning the world upside down and altering the environment SAIs operate in. This exacerbated the need for SAIs to have robust strategic management processes in place to be able to change direction when needed. The 12 ASOSAI SAIs had a unique opportunity to react to the implications caused by COVID-19 since they were already in a process of developing their strategic plans. Which illustrates how a threat can also present an opportunity. And many of the strategic plans are reflecting the new realities, to ensure the SAIs remain relevant or even better increase their relevance.

If you would like to read more about the SPMR approach we are referring you to the SAI Strategic Management Handbook which can be downloaded:  Here

**What comes next?**

All processes and products the SAIs have worked on through this initiative will most likely not be perfect from the start. Perhaps they will never be perfect, and they are not meant to be perfect. This demonstrates the importance of a culture of continuous improvement and continuous monitoring and evaluation to enable this. In the years to come the SAIs would naturally need to tweak their products and processes. Participating in the initiative also entails that the SAIs have become better equipped to implement such processes for continuous improvement.

The key steps within the initiative which are outstanding is a knowledge-sharing workshop which will most likely take place in 2022. And to close the loop it is envisioned that the SAIs at the end of their strategic planning cycles conduct a repeat SAI PMF assessment. With the purpose of evaluating the implementation of the current strategic plan and will feed into developing the next strategic plan. Hopefully all SAIs will then be able to demonstrate stronger performance as a consequence of actively applying strategic management to manage their performance.
Improving the efficiency of budget expenditures is one of the most important tasks facing state and local government bodies. The current stage of development of Kazakhstan is characterized by the setting of large-scale national socio-economic tasks, the solution of which should be carried out on the basis of qualitative transformations and improving the efficiency of the state in various spheres of the economy. This is the goal of the current administrative reform, the essence of which is to create an effective system of public administration, as well as the budget reform, which provides for the transition to the formation and execution of budgets at all levels based on the set goals of the state policy and the expected results of their achievement. In this regard, decisions should be based on improvement and the necessary assessment of the effectiveness of using of the budget.

The budget process in the Republic of Kazakhstan is a centralized budget planning with a fairly strict regulation of expenditures of the republican budget using a detailed budget classification. Given that the implementation of the budget process is a complex, painstaking work, the need to improve the control of the effectiveness of the use of budget funds is an important element of effective public administration. That is why, in many countries, the audit of the efficiency of the use of budget funds is one of the most important types of public audit and control and has been used for the last decades.

Why is the question of the efficiency of spending public funds relevant?

The activities of the state should have a significant impact on certain key economic and social indicators. The result of an effective public sector is the right spending and efficient allocation of resources. Government spending in developing countries usually accounts for a significant share of GDP. Consequently, even small changes in the efficiency of public spending can have a large impact on GDP and on the achievement of government goals.

The experience of recent years has shown that proper budget planning supports the foundations of modern public administration: transparency, integrity, openness, participation, accountability, and a strategic approach to planning and achieving public goals. Thus, in accordance with the rating of the efficiency of public spending made by experts of the World Economic Forum in 2018, the Republic of Kazakhstan ranked 65th out of 136 countries in this indicator. At the same time, the established development trend is aimed at further reducing this indicator. In quantitative terms, it was 3.3 points. (1 = extremely inefficient; 7 = extremely efficient). For example, from the CIS countries - Azerbaijan on the 17th place (4.7 points), Tajikistan on the 34th place (3.9 points), the Russian Federation on the 57th place (3.4 points). The rating data show that Kazakhstan still has a lot to do to improve the efficiency of using budget funds.

In the Republic of Kazakhstan, the supreme audit body of public audit and financial control - the Accounts Committee for Control over the Execution of the Republican Budget-deals with issues of public audit and control over the effectiveness of the use of budget funds. In November 2015, the Law of the Republic of Kazakhstan "On Public audit and Financial Control" was adopted to implement the Concept of Implementing Public audit in the Republic of Kazakhstan, approved by the Decree of the President of the Republic of Kazakhstan in September 2013, which provided for the legal mechanism for implementing the public audit system, defined the types, directions, subject matter and basic indicators of public audit, including performance audit, and defined the status and powers of the Accounts Committee.

In accordance with this Law, the Accounts Committee has broad powers to conduct an audit of the effectiveness of the use of budget funds. This is an audit of the effectiveness of: planning and execution of the republican budget, the implementation of documents of the state planning system in terms of the execution of the republican budget, the implementation of development strategies and development plans of national management holdings, national holdings, national companies whose shareholders are the state. In addition, reports of state bodies, state institutions, quasi-public sector bodies and recipients of budget funds are subject to audit.
One of the main functions of the Accounts Committee in the audit of the effectiveness of the use of public funds is a preliminary assessment of the draft republican budget. The budget is evaluated according to two criteria: reliability and justification of expenditures, with the provision of appropriate recommendations. The assessment is based on preliminary data on the draft budget and is submitted to Parliament at the same time as the draft budget to assist Parliament in its review.

Annually, the Accounts Committee prepares an opinion to the Report of the Government of the Republic of Kazakhstan on the implementation of the republican budget. At the same time, the effectiveness of the use of the republican budget funds is evaluated in the following areas:

- Assessment of the effectiveness of the implementation of state programs;
- Assessment of the effectiveness of the use of budget funds allocated to central state bodies;
- Assessment of the effectiveness of asset management of quasi-public sector entities;
- Analysis of the effectiveness of the implementation of public-private partnership projects.

Since 2011, Kazakhstan has carried out measures to reform the accounting and financial reporting system in the public sector. As a result, since 2013, all government agencies have switched to the accrual method in accordance with regulations based on IPSAS. As a continuation of the reforms, the preparation of the annual consolidated financial statements of the republican budget and its inclusion in the annual reports on the implementation of the republican budget began in 2019. Since January 2020, the Accounts Committee for the first time began to audit the consolidated financial statements of the Republican budget (CFS of the RB). The main purpose of the audit is to confirm the reliability and objectivity of the information consolidated at the level of the republican budget on the property status and financial results of the state for the reporting period. In this direction, the Accounts Committee has developed and approved procedural standards for external public audit and financial control, taking into account the requirements of international standards, as well as adopted other legal acts of a methodological nature.

In general, it should be noted that the improvement of the budget process in the Republic of Kazakhstan with the direct participation of the Accounts Committee has led to a reduction in inefficient expenditures and a reduction in budget adjustments by two (2) times over the past few years.

The audit of budget efficiency conducted by the Accounts Committee shows that to improve the efficiency of budget use, it is necessary to: improve the quality of budget preparation, taking into account performance indicators by managing the number of programs, the volume of data and improving the quality and relevance of performance indicators used in different industries; provide a more complete picture of government obligations, including disclosure of guarantees, contingent liabilities, PPPs and concessions; ensuring competitiveness in procurement (reducing the grounds for public procurement from a single source and state tasks, unifying procurement of quasi-sector entities); changing approaches to the development of design and estimate documentation: to fix the requirements for mandatory state expertise of new projects implemented at the expense of budget funds and funds of quasi-public sector entities; to introduce the practice of building facilities using design solutions for similar and already implemented projects with their binding to the territory; review the cost parameters in the construction standards, including by excluding the costs of work (services) that are unclaimed due to the automation of processes; develop quality characteristics for construction materials that are included in projects; optimize the standards of costs for the maintenance of objects built with the use of innovative and saving technologies; change the approaches to borrowing: timely development of loans (minimizing the fee for reserving external loans); expansion of alternative sources of financing (PPP, extra-budgetary funds); attraction of loans exclusively for projects focused on the economic effect (leveling the facts of cancellation of loans due to the inexpediency of further implementation of the project).

Also, it is advisable to review the current system of budget monitoring, comparing the timing of the evaluation of the effectiveness of the implementation of program documents and the activities of state bodies, the preparation of a report on budget execution and the publication of reporting statistics in order to ensure their synchronization.
In conclusion, I would like to note that the activities of the Accounts Committee in the issue of conducting an audit of the effectiveness of the use of budget funds are constantly supported by the state authorities in the person of the President of the country, the Parliament in the further improvement and development of this area of public audit.
Lessons learned from the BAI’s audits related to the prevention and control of infectious disease

- SAI Korea

About the Author

Minjung KIM
(Division1, Bureau of Land, Transport and Maritime Affairs Audit)

Introduction

The occurrence of quarantinable communicable diseases is rare, but it can cause disastrous results if not controlled at an early stage, which means that the health authority’s early response is of the utmost importance. With growing concerns over the possible importation of overseas infectious diseases in recent years, such as the Novel Coronavirus and the Middle East Respiratory Syndrome (MERS-CoV), it has become critical for the government to prepare effective response measures to protect its people.

Accordingly, the Korean government upgraded its system to prevent and control infectious diseases by formulating the “Measures to Reform National Infection Prevention and Control System” in September 2015. Also, the related budget was increased from KRW 40.7 billion in 2015 to 349.4 billion (through a supplementary budget in 2015), and the annual budget on average from 2016 to 2018 was KRW 95.5 billion.

In this context, the Korean government has been giving its best to respond to the COVID-19 pandemic by establishing an advanced quarantine system, the “K-Quarantine Model,” which consists of three stages: Testing, Tracing and Treatment (3T). This model aims to balance daily life with containment efforts by (1) providing convenient testing anytime and anywhere, (2) enhancing containment of virus spread through rapid tracing of those who were in contact with an infected person, and (3) providing rapid treatment through sufficient availability of healthcare workers and treatment facilities.

As a result, Korea ranked second in the index for efficient response to COVID-19 among the 33 OECD member countries and is regarded as one of the top countries whose economic growth rate remains high while containing the spread of the virus; Korea has limited the COVID-19 damage to a 1% GDP contraction in 2020 while the United States and European Union GDP shrank by 3.9% and 7.2%, respectively, in 2020. The OECD stated in August 2020 that Korea has been successful in minimizing the economic impact from the COVID-19 crisis with swift and effective measures to contain the virus, and the WHO also stated in October 2020 that Korea has showed the possibility of effective control of COVID-19.

From 2010 to 2019, the Board of Audit and Inspection (BAI) has conducted four audits relating to infectious diseases to find the obstacles in securing an effective management system and suggest measures for improvement. The audits checked if the infrastructures for quarantine (including the Smart Quarantine Information System, negative pressure ambulances, etc.) were being operated effectively and examined whether the infectious disease prevention system was being systematically operated. The BAI’s audits are considered to be one of the components of the government’s effective and agile responses to COVID-19.

2. Objective and focus

The conventional infectious disease surveillance system had focused on entry screening. The old-fashioned strategy to respond to the infectious disease had been focused on entry screening at the airports and harbors as the incubation period of conventional diseases had been relatively short (e.g. five days for cholera) and the travel time was not too short to reveal the symptoms at the border control stage. As the novel infectious viruses tend to have a longer incubation period (e.g. 21 days for Ebola virus and 14 days for MERS-CoV) and become more contagious, the government’s response strategy faced limitations. As such, the Korean government upgraded its system to prevent and control infectious diseases, and the BAI conducted four audits focusing on the overall response measures against quarantinable communicable diseases from 2010 to 2019.
3. Major findings and recommendations

A. Effective Utilization of Health Care Workers and Medical Facilities

The KCDC is responsible for stockpiling and managing vaccines and antiviral drugs to cope with novel infectious diseases, and regarding this, the BAI found several problems. One of the problems was that the KCDC stockpiled smallpox vaccines that had not been approved by the Ministry of Food and Drug Safety. In addition, the KCDC purchased the H1N1 vaccine securing doses for only 2.5 million people, half of the originally planned amount as of April 2009. This was due to the KCDC requesting a smaller amount of budget for the vaccine purchase than the actual amount they needed. In this regard, in 2010, the BAI demanded the KCDC to purchase necessary vaccines and antiviral drugs at an appropriate level, manage the stockpiles of them, and ensure the quality of the stockpiles.

Since the outbreak of MERS-CoV in 2015, the KCDC had implemented a plan to recruit more epidemiological investigators to effectively prevent disease transmission early on. In 2016, the BAI found, however, that the epidemiological investigators worked eight hours (from 9am to 6pm) a day at major airports. For the rest of the day, the airports operated without epidemiological investigators, despite the fact that around 40% of all flights arrived between 6pm to 9am the following day. In response, the BAI demanded the KCDC to come up with measures that year to maintain a 24-hour quarantine system for all major airports.

In 2016, the Ministry of Health and Welfare purchased 30 negative pressure ambulances to prevent infection during the transfer of patients. Among 30 institutions receiving the ambulances, however, quarantine centers and local public healthcare centers in charge of patient transport were excluded, while 16 ambulances were assigned to some general medical institutions that were not equipped with infectious disease treatment beds. As a result, only three patients were transferred by negative pressure ambulances to medical institutions by the year 2018. The BAI requested the health authorities to take corrective measures, such as relocating the ambulances to appropriate medical institutions, to ensure that the ambulances are effectively and efficiently used to transport patients with infectious diseases.

<table>
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<tr>
<th>Year</th>
<th>Audit Theme</th>
<th>Audit Focus</th>
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| 2010 | Prevention and Control of Contagious Diseases | • H1N1 vaccine acquisition and distribution status  
• Reporting system of infectious diseases and follow-up measures of medical institutions |
| 2016 | Status of MERS-CoV Prevention and Response | • Government’s overall response against MERS-CoV |
| 2017 | Operation of KCDC | • Periodical audit on the Korea Center for Disease Control and Prevention (KCDC) |
| 2019 | Prevention and Control of Quarantinable Infectious Diseases | • Operation of improved infectious disease prevention system  
• Blind spots in the management of quarantinable infectious diseases |
B. Strict Operation of Quarantine and Prevention System to Control Infectious Diseases

To prevent the inflow of emerging infectious diseases and to protect people from domestic and global health threats, the KCDC designated “quarantinable disease risk areas” and conducted quarantine inspections on passengers (both nationals and foreigners) traveling from high-risk areas. In 2016, however, Southeast Asian countries, such as Vietnam, were not designated as risk areas for the Zika virus, nor were Lebanon and Bahrain designated as risk areas for MERS-CoV. In this regard, the BAI demanded the KCDC to timely update the designation of risk areas using information on the occurrence of infectious diseases.

For cases where passengers experience suspected symptoms of infectious diseases during the quarantine phase, officials at the National Quarantine Station (NQS) should notify the list of suspected passengers to the local public healthcare centers so as to keep the suspected cases under surveillance. However, the BAI found that 639 people were omitted from the tracing list from January 2017 to September 2018, and with regards to this, the BAI demanded the KCDC and the NQS to be strict on monitoring and tracing suspected cases.

Since the outbreak of MERS-CoV in Korea in 2015, the KCDC operated the Smart Quarantine Information System which links to passport information, immigration records and information of individuals from “quarantine inspection required areas,” to find and monitor those entering South Korea after either staying in or passing through “quarantinable disease risk areas.” Since April 2017, the KCDC was able to find and trace those entering Korea via a third country after visiting quarantinable disease risk areas through roaming records of mobile carrier companies, but did not utilize such information. As a result, only 3.2% of entrants arriving from quarantinable disease risk areas via a third country received a quarantine inspection in 2018. In this regard, the BAI demanded the KCDC to effectively and efficiently utilize the Smart Quarantine Information System.

The medical institutions are required to report confirmed and suspected infectious disease patients to the local public healthcare centers and/or the KCDC, but they only requested medical expenses for the treatment of infected patients to the National Health Insurance Service (NHIS) without reporting to the health authorities. From 2016 to 2018, 400 out of 681 patients with the Zika virus were not reported to the health authorities. Through various audits, the BAI has repeatedly asked the KCDC to thoroughly supervise medical institutions, for instance, by checking whether patients suspected of infection have been reported using data of medical expenses paid by the NHIS to medical institutions.

C. Government’s Response to MERS-CoV

Since the first MERS-CoV case was confirmed in South Korea on May 20, 2015, a total of 186 cases were reported, of which 36 cases resulted in death. Despite the high fatality rate (almost 20%), the government delayed disclosing information such as transmission routes of confirmed patients and the hospitals affected by MERS-CoV. This only instigated fear among people and caused an economic recession that resulted in a KRW 4 trillion drop in GDP in 2015. The BAI conducted an audit to assess the government’s overall response to MERS-CoV and to analyze the factors contributing to the initial spread.

The KCDC downplayed the severity of the virus despite the WHO issuing eight separate alerts regarding MERS-CoV. The KCDC did not conduct a diagnostic test until 34 hours after receiving a report on the first suspected case. Even worse, patient #14 (superspreader) and other patients who had come into contact with patient #1 were missing from the contact tracing list. They should have been quarantined, but had visited other hospitals even though they had fever symptoms, resulting in a massive secondary transmission (one patient infected up to 83 people). Although the KCDC knew that its initial response failed, they did not take immediate proactive and corrective actions and/or measures to prevent the widespread of the virus. The KCDC refused to disclose the names of the hospitals exposed to MERS-CoV until June 7. It was also found that the list of 678 people who had come into contact with patient #14 was provided to the KCDC on June 2, but was not shared with the municipal/provincial public health centers until June 7. Due to the delay in the contact list being released, 40 out of 687 people were diagnosed with MERS-CoV (though they were not recognized as close contacts), and of them six died.
To treat patients with respiratory infectious diseases (from 2006 to 2010), the KCDC provided financial support to 19 hospitals to operate 599 infectious disease specialty sickbeds, including 119 negative pressure beds. Among the 119 negative pressure beds, 79 beds were put in multiple-occupancy rooms. However, in cases where more than two beds were in the same room, only one bed was utilized for patient accommodation in order to prevent contamination between patients in the same room. When introducing negative pressure beds, it was not required for hospitals to have an infectious disease specialist. As such, three out of 19 hospitals installed negative pressure beds without specialists who can treat patients with infectious diseases. Altogether, this caused inefficiencies in utilizing the negative pressure beds.

The BAI recommended the Ministry of Health and Welfare and the KCDC to implement comprehensive preventive measures for infectious disease, to disclose accurate information such as the contact lists for tracing and the names of hospitals affected by the infectious diseases, as well as to prepare improvement measures to utilize resources and facilities in an effective and efficient manner.

4. Conclusion

The BAI’s audit activities related to the infectious diseases from 2010 to 2019 have helped the health authorities to secure necessary resources and facilities, as well as to improve the quarantine and prevention systems; the BAI’s audits are considered one of the components of the government’s effective and agile responses to COVID-19. The BAI will continue to support quarantine operations while monitoring the health authorities’ work in the field. It will also continue to cooperate with other Supreme Audit Institutions by sharing audit methods and experiences in supporting the governments’ response to prevent the spread of infectious diseases.
New Heads Of SAIs
Mr. Dasho Tashi is the 3rd Auditor General of the Royal Audit Authority (RAA) appointed by His Majesty the King under the Constitution of the Kingdom of Bhutan on 14 October 2020.

Mr. Dasho Tashi was born on 05 November 1970 and comes from Thimphu. He has graduated from Sherubtse College, Kanglung, Trashigang in 1993 with Bachelors of Commerce degree and has joined the civil service on 01 July 1994 as a Trainee Officer in the RAA. While in RAA, he has held various significant posts, as the Chiefs of Human Resource Division, Performance & System Audit Division & the Thematic Audit Division. Dasho was instrumental in setting up the foundations for conducting Performance Audits in the RAA including Environmental and IT Audits.

Dasho Tashi has pursued further studies and obtained an Advanced Diploma in Management Accounting (1999) from the Chartered Institute of Management Accountants in London. He is also the first Bhutanese to be certified as an INTOSAI/IDI Training Specialist, which had paved the way for many other auditors to make their mark and contribute to the international audit community.

Prior to his appointment as the Auditor General, Mr. Dasho has served with the His Majesty’s Secretariat as Zimpon Wom (Deputy Chamberlain to His Majesty the King of Bhutan) from July 2009 till October 2020.

Mr. Dasho enjoys gardening during leisure and is an avid environmentalist with great love for plantations and conservation efforts. Mr. Dasho has three children.
29th Assembly of the INTOSAI Working Group on IT Audit (WGITA) – 4 November 2020

Due to the prevailing COVID-19 Pandemic, the 29th assembly of INTOSAI WGITA was restricted to presentation of country papers by member SAIs on IT Audit related issues virtually in form of a webinar which was held on 16 October 2020. SAI Hungary, the nominated host of 29th WGITA assembly, also conducted a webinar on “Strengthening Digital Awareness – IT Audit-Learning Audit Guidance” on 4 November 2020 as part of this assembly meeting. CAG of India, as the WGITA Chair inaugurated both the events.

Mr. Girish Chandra Murmu, CAG of India and WGITA Chair while elaborating the work done by WGITA as a Global forum for IT Audit and the technology and digital driven governance and service delivery in India, emphasized the need for continuously up skilling the public auditor to maintain relevance to the stakeholders.

About 6 SAIs presented their experiences in the Webinar on 4 November 2020.

74th Meeting of the INTOSAI Governing Board – 12 November 2020

As many as 33 delegations of Supreme Audit Institutions (SAIs) met virtually on the occasion of the 74th meeting of the INTOSAI Governing Board on 10 November 2020. The meeting was chaired by the SAI of the Russian Federation and moderated by the host of the meeting, the General Secretariat of INTOSAI. The virtual gathering was supported by simultaneous interpretation into six languages. The Governing Board reached important decisions regarding the safeguarding of INTOSAI’s operations during the COVID-19 pandemic and the way forward. Among them are the following:

- Approval of the following themes of the XXIV INCOSAI hosted by the SAI of Brazil:
  - Theme I "The work of Supreme Audit Institutions in the context of public calamities" and
  - Theme II "Global voice, global outcome, far reaching impact"

- Approval of the SAI of the USA as Chair of Theme I and the SAI of Brazil as Chair of Theme II

- Taking note of the creation of the INTOSAI Digital University (U-INTOSAI) hosted by the SAI of the Russian Federation
• Taking into consideration the SCEI's recommendations regarding the continuity of INTOSAI's operations
• Approval of the amendments of the INTOSAI Handbook for Governing Board Meetings to endorse the procedures that had to be changed due to the COVID-19 pandemic
• Approval of the endorsement versions of ISSAIs 200 and 2000 and of the GUIDs 4900, 5250, 5330
• Approval of the appointment of Ms. Aicha Benbelhassen from the SAI of Tunisia as a member of the FIPP
• Taking note of several CBC products, including the occasional guide "The future-relevant value-adding auditor"
• Approval of the Guidelines of Standards for the Social Control of Public Funds developed by the Working Group on the Fight Against Corruption and Money Laundering
• Approval of an expert team led by the SAI of the UAE consisting of SAIs and representatives of the UNODC
• Approval of the SAI of the UAE's continued cooperation with the UNODC on behalf of INTOSAI

Photo: C&AG of India presenting KSC Report to the INTOSAI GB in the 74th INTOSAI GB meeting held on 10 November 2020.
17th meeting of the INTOSAI Compliance Audit Subcommittee (CAS) - 23 November 2020.

The 17th meeting of the INTOSAI Compliance Audit Subcommittee (CAS) was held virtually on 23rd November 2020. Representatives from 17 SAIs participated in the meeting, apart from AFROSAI – E and IDI. Owing to the current pandemic situation, which has disturbed the planned audit programmes and thrown up challenges to compliance with audit mandate of the SAIs, it was decided to hold the annual CAS meeting virtually, to facilitate sharing of experiences by CAS members about how they are coping with the challenging situation and the approach being followed in auditing COVID-19 initiatives of their governments. To that effect, the theme of the virtual meeting was ‘Audit of COVID-19 efforts – a compliance audit perspective.'

Photo: C&AG of India, as the CAS Chair, delivering opening remarks for the 17th CAS meeting on 23 November 2020
8th International Training Programme on “Introduction to Environmental Auditing”

Mr. Girish Chandra Murmu, CAG of India inaugurated the 8th International Training Programme on “Introduction to Environmental Auditing which was conducted online on zoom platform from 07 to 11 December 2020 at the International Centre for Environment Audit & Sustainable Development (iCED) Jaipur, which is the Global Training Facility of INTOSAI Working Group on Environmental Auditing (WGEA). The workshop was attended by 68 participants from 36 SAIs.

Photo: C&AG of India, as the CAS Chair, delivering opening remarks for the 17th CAS meeting on 23 November 2020.

Photo: C&AG of India delivering inaugural message for the 8th ITP on 7 December 2020.
As part of the WGITA initiative to hold quarterly webinars on IT Audit Topic under the Work Plan 2020-22, SAI India as Project Co-Lead hosted the 2nd quarterly webinar on the topic “Enterprise-wide Audit Process and Knowledge Management IT System (OIOS Project)” on 15 March 2021. Mr. Girish Chandra Murmu, CAG of India and WGITA Chair inaugurated the Webinar. The members were briefed about the features of “One IAAD One System” (OIOS), the application which is indigenously being developed to provide end-to-end web-based workflow automation of the audit process covering audit planning, programming field audit and reporting.
ASOSAI News
An ASOSAI Knowledge Sharing Seminar on “Audit on Implementation of SDGs” and “SAI’s responses to COVID-19” were held online, from December 1 to 4, 2020. 32 participants from 29 ASOSAI member SAIs and ARABOSAI attended SDGs course and 31 participants from 29 ASOSAI member SAIs and EUROSAI attended COVID-19 course, with facilitation and technical guidance provided by Subject Matter Experts (SMEs) from the SAIs of Bhutan and Philippines. A representative of the Capacity Development Administrator of ASOSAI (SAI Japan) also participated in the seminar for the management of the seminar.

The purpose of the seminar was to share experience and knowledge on Audit on Implementation of SDGs and SAI’s responses to COVID-19. During the seminar, participants made sub-groups to have discussions based on their country reports on the above theme, which were followed by presentation sessions. Although the time was limited due to the online format, participants were able to share their experiences on Audit on Implementation of SDGs and SAI’s responses to COVID-19, and the seminar was successfully concluded on December 4th, 2020.

Presentation slide samples on ASOSAI Seminar provided by SMEs

1. Excerpt from SDGs course - discussion points
2. Excerpt from COVID-19 course - preparation of SAIs in the audit of COVID-19

2.2.4 PREPARATION OF SAIs IN THE AUDIT OF COVID-19

1. Prioritization of investment in technology, promotion of roles of data analytics committee, and actively use/increase the application of advanced technology in conducting audits

2. Revision/formulation of (new) business continuity plan/corporate plan/audit modernization program/inspection policy proposals/performance evaluation manual

3. Holding of remote training, capacity building, and considered different work arrangements

4. Other preparations of SAIs such as participated in international initiatives, creation of task force
Activities In Member SAIs
SAI India

2020 Indo-Kuwait Joint Symposium on Environment Audit

SAI Kuwait hosted the Symposium virtually on the theme of “Environment Audit” and sub-theme “Auditing in Virtual Environment- Opportunities and Challenges” from 24-25 November 2020 due to the COVID-19 pandemic. From SAI India, Ms. P. Madhavi, PD and Mr. Pawan Kumar Konda, Director led by Mr. Manish Kumar, DG participated in the Seminar.

BRICS Virtual meeting on” Audit of Implementation of Public Program Related to Education and Health”

As part of the BRICS SAIs Work Plan 2021-2022 adopted in the 2nd BRICS SAIs Leaders Meeting, SAI India hosted the BRICS SAIs expert level virtual meeting on the cooperation topic “Audit of implementation of public programmes related to Education and Health” on 10-11 March, 2021. Ms. Namita Sekhon, DAI inaugurated the BRICS SAIs virtual meeting.

From SAI India, Mr. Sunil Shreekrishna Dadhe, Director General presented the Report on the “Audit of Implementation of Public Program Related to Education”, giving a background on the state of education in India and presented the scenario of Public Education in India followed by the basic elements on the Audit of Public Programmes for Education. It also focused on the general standards that apply to SAI India’s principles of social sector auditing and principles relating to the basic audit concepts, which shall be considered by auditors prior to commencement and at more than one point during the audit process like ethics and independence, professional judgments, quality control, audit risk, materiality, etc.

Mr. Ashok Sinha, Principal Director presented the report on “Audit of Implementation of Public Program Related to Health” giving an overview of the schemes and programs that the Government of India operates for the welfare of poor, vulnerable and general population and the National Health Policy. It also focused on the critical audit observations made by SAI India during the audit of various Departments public Hospitals, Wellness Centres, Health Research Institutions and Medical Councils responsible for implementation of Health Schemes / Programme.

SAI Palestine

SAACB at SAIs-main stakeholders’ dialogue

Ramallah, 19.01.2021 – the Bureau participated in an online dialogue that comprised SAI heads and main stakeholders. Organized by INTOSAI Development Initiative (IDI), the dialogue intended to share experience and lessons learned, and to identify common understanding of the transparency and accountability initiative and comprehensive use of emergency COVID-19 finance (global cooperative compliance audits).

The Bureau was represented by the economy audit manager Mr. Muyawya Asa’ad and planning, development and capacity building unit head Mr. Yusuf Hantash.

Communication of audit output development workshop
Ramallah, 21.01.2021 – the Bureau, in cooperation with the Swedish National Audit Office, concluded a workshop about communication for the audit output development, and how to use the Bureau’s website as basic communication channel.

**Palestine-Poland twining launched**

Ramallah, 24.01.2012 – actions of the twining project between the Bureau and SAI of Poland has started, which will last 27 months, financed by the European Union and supported by the Polish representative office to Palestine.

The project intends to enhance and develop capacity of staff and support independence of the Bureau as per INTOSAI standards. The project’s main focus is three components; financial audit, tax/customs audit and big data audit.

**Online huge data seminar**

Ramallah, 25.01.2021 – the Bureau participated in the online seminar on big data and influence on reporting. The seminar was part of detailed academic training and research plan, 2020. The seminar was held from January 08-22, 2021 by the National Audit Office of Sudan, in cooperation with ARABOSAI.

The Bureau was represented by programming and database manager Mr. Fadi Aburub and the economy auditor Mr. Mohammad Taha.

**Counselor Tayyem & polish expert meet**

Ramallah, 07.02.2021 – counselor Eyad Tayyem met at his office with the resident Polish expert Mr. Matchi. The latter handed a letter from head of SAI of Poland Mr. Marian Banas, stating the strong relations and cooperation with SAI of Palestine.

Counselor Tayyem emphasized that the Polish project should be in agreement with strategic plan of the Bureau, sustainable knowledge and experience of staff and that project goals shall be fulfilled (financial audit, tax/customs audit, big data audit). The meeting was part of the Palestinian-Polish twining project financed by the European Union, and supported by Polish representative office to Palestine.

Deputy president Mrs. Amal Faraj and project coordinator Mr. Esmat Abu Rabea’ were present at the meeting.

**Quality assurance team meets Swedish expert**

Ramallah, 24.02.2021 – the quality assurance team at the Bureau met the Swedish expert Mr. Anders Herjevik via Zoom, to review the compliance audit quality assurance tool.

Team Mr. Shehadeh Alawneh, team members (Mr. Shaheer Qalalweh, Mr. Faisal Masri, Mr. Abdullah al-Ali, Mr. Yusuf Hantash) and Mrs. Ahd Abu Amsha from PR were present at the meeting.
SDGs workshop with Turkish SAI

Ramallah, 09.03.2021 – the Bureau and the Turkish Court of Accounts had a Zoom workshop on audit practices in the sustainable development goals field.

The workshop, titled ‘experience exchange on preparedness to implement SDGs’, was administered by the counselor Eyad Tayyem and COA head Mr. Sed Ahmet Bas, and deputy president Mr. Amal Faraj was also present.

Counselor Tayyem oversees Swedish project follow up

Ramallah, 10.03.2021 – counselor Eyad Tayyem administered a meeting to follow up progress of the Swedish project over the past two months, and to discuss the 2021 plan with project manager at Swedish National Audit Office Mr. Kameran Khudr.

The Bureau at SDGs meeting

Representatives from the Bureau (Mrs. Saba Barghouthi from performance audit department, Mr. Mohammad esh-Shaer from local government audit department) were at the online training meeting held by ARABOSAI and Central Accounts Bureau of Egypt. The meeting had the title ‘sustainable development goals indicators and standards from environment perspective’, and took place from March 22-25, 2021.

The Bureau at Sustainable Development Seminar

Ramallah, 30.03.2021 – the Bureau –in cooperation with the Swedish National Audit Office- held a workshop on ‘impact measuring of audit reports and tools necessary to initiate a methodological assessment of audit impact and report findings’. All managers, unit heads and planning and development staff were present at the workshop.

SAI Kazakhstan

25th Anniversary of Accounts Committee of Kazakhstan

The Accounts Committee for control over Execution of the Republican Budget of the Republic of Kazakhstan is celebrating 25 years of its formation. Over the years, the Accounts Committee has evolved from a
small structure into an authoritative institution of independent audit and has taken a worthy place in the system of public administration of the Republic of Kazakhstan.

**SAI Azerbaijan**

The “Peer Review” between the Turkish Court of Accounts and the Chamber of Accounts of the Republic of Azerbaijan is over

The peer review was conducted by the initiative of the Chamber of Accounts of the Republic of Azerbaijan and with the support by colleagues from Turkish Court of Accounts according to the Memorandum of Understanding signed between the Turkish Court of Accounts and Chamber of Accounts of the Republic of Azerbaijan on January 5, 2021. According to the above mentioned document Turkish Court of Accounts carried out peer review and assessed the financial, compliance and performance audits conducted by SAI Azerbaijan in line with international standards. Within the implementation of activities determined in the work plan of peer review agreement a number of events including video conference meetings were held. During the meetings, colleagues from SAI Azerbaijan and Turkey mutually shared their knowledge and experience in the field of financial, compliance and performance audits, discussed practical aspects of all three types of audits considered in the mandate of both institutions, and colleagues from Turkish Court of Accounts presented results of the implemented work by mentioning the analysis of ISSAI compliance of audit reports on three audit types.

At the end of the peer review activity, it was concluded that compliance, financial, performance audits by the Chamber of Accounts were carried out in accordance with international audit standards of Supreme Audit Institutions and all three audit types were assessed under six domains and ten indicators of SAI PMF Framework, and as an output of this joint activity “Peer review report” was prepared and submitted to the Chamber of Accounts of the Republic of Azerbaijan.

**SAI Kuwait**

**Alraqaba Magazine**

The State Audit Bureau of Kuwait (SAB) endeavors to cultivate audit thinking and to raise awareness on the importance of SAIs role in the protection of public funds. It also strives to shed light on key audit-related events and scientific research papers that are targeted towards elevating the efficiency of audit work. To that end, SAB issues a specialized annual journal, under the name “Alraqaba Magazine”, which focuses on legal and audit-related topics, research papers, and studies.

As part of SAB’s keenness to extend cooperation with other SAIs and to activate the audit and professional performance therein SAB issued an electronic version of the 16th issue of Alraqaba Magazine through the link below, which was issued in December 2020 in English.

https://www.sab.gov.kw/sabweb/Files/SABMagazinePublishedIssue/index.html

**2019 Annual Book**

The State Audit Bureau of Kuwait issued its 2019 Annual Book. Through this book, SAB illustrates its efforts in the achievement of sustainable development goals. This year’s book adopted a new methodology to produce a product that differs from the previous editions in terms of appearance and content. The content reflects SAB’s role in the achievement of the 17 global SDGs of 2030 agenda as well as their targets from an economic, social and environmental dimension. The 2030 agenda for sustainable development was
designed based on a joint global frame entitled “Transforming our World”.

This orientation reinforces the vital role of the Bureau in the achievement of the SDGs based on Resolution A/69/228 adopted by the General Assembly on 19 December 2014. The resolution focuses on the theme of “Promoting and fostering the efficiency, accountability, effectiveness and transparency of public administration by strengthening supreme audit institutions”. It additionally enforces public funds protection as well as participation in the achievement of SDGs through the adoption of effective strategic policies and the activation of their supervisory role by auditing and measuring the preparedness of governments and their institutions to reach the goals of sustainable development in an efficient manner.
## Email / Webpage Addresses Of Member SAIs

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<thead>
<tr>
<th>SAI</th>
<th>Email address</th>
<th>Webpage</th>
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Electronic communication between Supreme Audit Institutions is increasing rapidly. In view of this, a list of e-mail and World Web Site Address of ASOSAI members (as available with us) have been compiled and shown in the above table. It is requested that addresses of those SAIs that do not in appear in the table may please be intimated to the Editor for incorporating in the future issues of the Journal. Please also let us know in case there are any modifications to the addresses listed above.

Other Important Email/webpage Addresses

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## Tentative Schedule of ASOSAI Capacity Development Activities for 2021-2022

**As of the end of May 2021**

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<td>First half of 2021 (Continued from October 2020)</td>
<td>Instructors’ design meeting for ASOSAI Pilot Capacity Development Program on “Audit on Implementation of Sustainable Development Goals (SDGs)”</td>
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<td>(Continued from November 2020)</td>
<td>eLearning Course of “IDI-KSC-ASOSAI Cooperative Audit of SDG Implementation”</td>
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<td>Activities for “Transparency, Accountability &amp; Inclusiveness of the use of emergency funding for COVID-19 - Global Cooperative Compliance Audits (TAI Audits)”</td>
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<td>During the second half of 2021 (TBD)</td>
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<td>ASOSAI Seminar on “Improvement of Audit Process for More Effective Audit”</td>
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