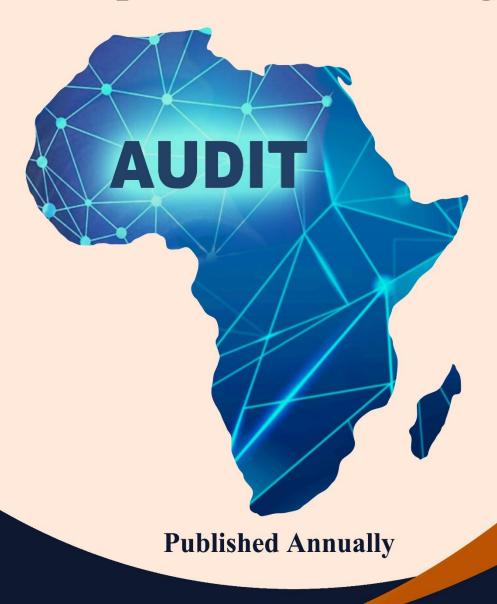
The African Journal of **Comprehensive Auditing**



- Holding the Fifth Extraordinary Meeting Challenges Facing Supreme Audit of the AFROSAI Governing Board.
- Optimize Your Audits with Artificial Intelligence!
- **Institutions during the COVID-19** Pandemic.
- IDI's Issue on Sustainable Developing Goals' Auditing.

The African Journal of Comprehensive Auditing

Issue no. 23 December 2020

The African Journal of Comprehensive Auditing is annually issued in December in three languages, i.e. Arabic, English and French, in order to provide staff of the AFROSAI member SAIs with various technical themes and regional and international news related to audit work.

It is worthy to mention that all articles and ideas published in the Journal do not represent the views of AFROSAI and its Board of Editors but rather express the views of their writers.

The Board kindly invites staff of the AFROSAI member SAIs to furnish it with any articles, ideas and proposals for publication in this journal via the following addresses:

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Executive Procedures Of the African Journal of Comprehensive Auditing Approved by the Fifty-Fifth Governing Board of the Organization in August 2019

- The editor of the article should be one of the technical staff of the AFROSAI SAIs.
- The article relates to the scientific and applied aspects in the areas of supervisory work.
- Adherence to the accepted principles and rules of scientific research when editing the article.
- The editor of the article shall not have the right to object to the nonpublication of what he submits to the journal.
- All articles should be of high quality and should maintain objectivity and impartiality.
- The number of words in the articles to be within 2000 words, provided that it is 16 for the headers of the topics and 12 for the text in the article.

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7	Editorial
9	Section one - Scientific Articles
10	Issues to Consider while Auditing as a Consequence of COVID-19
21	Optimize your Audits with Artificial Intelligence!
34	Section Two - News of AFROSAI bodies, Member SAIs and Regiona and International Organizations
35	AFROSAI Fifth Extraordinary Governing Board
37	AFROSAI General Secretariat
38	News of AFROSAI Member SAIs
50	AFROSAI-WGEA's Contribution
53	SAI Egypt's Experience in the Field of Environmental Audit of Combating Desertification and Drought Activities
65	Visions of some SAIs to Cope with COVID-19 Pandemic
69	Congratulations of New SAIs' Auditors General
77	Lamentation of the Former SAI South Africa Auditor-General
79	African Union Board of External Auditors (AU-BoEA) Meeting
81	COMESA External Audit
82	ASOSAI's Contribution
88	Launching the IDI's Model On Sustainable Development Goals' Auditing

The African Journal of Comprehensive Auditing Issue no. 23 - December 2020

This issue is published in accordance with the Journal's new regulation and executive procedures, which are effective after being approved during the 55th AFROSAI Governing Board held in Senegal on 29 and 30 August 2019 until their adoption during the 15th AFROSAI General Assembly. Although this is the second electronic Journal issue, its release during the Covid-19 pandemic has reinforced the importance of the Journal's electronic publication. This e-version has added liveliness to the Journal as well as provided unrestricted publication space different from that of the printed issues, in addition to providing content with richness and diversity and furnishing a wider atmosphere for knowledge sharing.

In its updated form, the Journal has become an intellectual platform that enhances communication between member SAIs in the African continent acting as a window that reflects the reality of the AFROSAI Supreme Audit institutions, foreshadowing their ambitions and looking forward to AFROSAI's future as a leading organization among regional and international peers on the field of financial audit.

H.E Counsellor/ Hesham Badawy

Editor-in-Chief of the African Journal of Comprehensive Auditing

"Challenges Facing Supreme Audit
Institutions during
COVID-19 Pandemic"



H.E Counsellor/ Hesham Badawy

COVID-19 pandemic has imposed many restrictions and challenges on the Supreme Audit Institutions (SAIs) all over the world forcing them to operate under unordinary conditions in their strive to fulfill their audit mandate. Some of these challenges emanated from the fact that many audited entities were greatly affected by the pandemic, particularly those working in the fields of tourism, hotels, air transport as well as imports and exports. The impacts of this crisis on the auditees varied from partial to total closure. It also caused a maximum of reduction of the workforce in order to rescue the outbreak of the epidemic while committing to safeguard the employees' positions. Furthermore, due to the precautionary measures, the auditees failed to provide the data and documentation necessary for the audit process, in addition to their delay in issuing their financial statements from the regular date.

In this regard, I would like to point out the difficulties facing the auditors in obtaining adequate and appropriate evidence besides their inability to supervise the annual physical inventories. It is worth mentioning that, as long as this pandemic prevails, the field visits to the audited entities will be among the toughest challenges facing SAI auditors.

There is no doubt that the officials' need to deal quickly and effectively with the pandemic as well as to activate the emergency plans together with the crisis- facing committees in order to reduce the pandemic's spread. This may result in difficulties in carrying out certain internal control measures in the audited entities. Moreover, there will be a need for additional funds due to the insufficiency of their inadequate authorized estimated budgets endorsed for such emergency circumstances that led to some economic impacts not only on the revenues and expenditure but also on the values of some assets that faced the impairment risks.

These consequences, caused by the pandemic, resulted in an increase in the external audit risks as well as the uncertainty- sometimes - concerning the accuracy of the financial data that led to revealing numerous weaknesses in the internal control systems in addition to the unreadiness of some respective entities to deal with this epidemic. All this would not have emerged in normal circumstances. The result is burdening the SAI auditors with reassessing those systems and placing the necessary recommendations to take the due corrective actions.

Therefore, it is apparent that SAIs, which dealt wisely and professionally with these unusual circumstances, overcame their imposed constraints and set practical solutions to the challenges they faced. These SAIs benefited from this ordeal through expanding their chances of maintaining the best professional practices, the ethical charter of the external auditing profession as well as the application of alternative auditing measures appropriate to these new circumstances by focusing on using the internet to collect adequate and appropriate evidence, as well as performing analytical procedures which are necessary to verify the soundness of the audited financial data in addition to conducting interactive meetings with the governance officials of the audited entities.

Finally, it is understood that, in order for SAIs to perform their audit role in these difficult circumstances, SAI auditors should be well aware of the information technology besides being flexible with the audited entities through transparent and effective communication while maintaining the quality of the performed audit work. The reason is that SAIs do not choose the conditions under which they operate, but they are required to achieve their highest set objectives in accordance with their constitutions and laws governing their work. Therefore, SAIs must adapt to all the conditions that qualify their auditors using science and continuous training in order to be able to maintain work integrity and preserve public funds.

Section one Scientific Articles

Issues to Consider while Auditing as a Consequence of COVID-19

Presented by

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Member of the Egyptian Society for Accountants and Auditors
Master of Financial Management

COVID-19 pandemic is considered as a major challenge to the preparers and auditors of financial statements, the pandemic continues to spread throughout the world with significant economic impacts on entities, and even countries. This pandemic has caused many restrictions on production, trade and travel bans. These economic impacts undoubtedly have an impact on accounting, financial reporting, auditing of financial statements for entities and working groups.

From the editor's point of view, this article highlights, some of the most important issues and potential impacts that may need further consideration when planning and implementing the audit procedures and expressing the auditor's opinion on the financial statements, taking into consideration that these consequences will differ from one entity to another, thus entities and auditors should consider how it affects their work.

Administration, governance officials, and auditors of financial statement should, at an early stage, study and evaluate the associated risks. Also, auditors of financial statement should exercise professional skepticism, as these circumstances may lead to possible errors in the financial statements, not to mention that the preparation of the financial report is the responsibility of the administration.

*Reading this article is not a substitute for reading the associated standards.

Under the difficult circumstances caused by the pandemic, the auditor should continue to perform audits while adhering to the required auditing standards that may require different considerations from auditors in the current circumstances, the auditor may need to consider developing alternative procedures to collect sufficient and appropriate audit evidence to support his opinion on Financial statements, thus there are many key considerations that auditors of the financial statements must take into consideration. The implementation of current accounting and auditing standards will definitely lead to the following questions:

- 1- How to assess whether the impact of the pandemic is material to the entity, its operations, reporting dates, risk assessment and materiality?
- 2- Have the appropriate risk assessment procedures been implemented?

- 3- What are the necessary adjustments in the financial statements? When will these adjustments take place?
- 4- How to apply appropriate audit procedures?
- 5- What may be the audit implications of any subsequent events?
- 6- What is the financial impact assessment in the accounting estimates?
- 7- What is the impact on going concern procedures?
- 8- Are the disclosures in the financial statements sufficient? Moreover, if it is not sufficient, what effect does this have on the auditor's report?
- 9- Does the travel ban put potential the restrictions on scope performance of the audit? Does this have the an impact on of implementation the audit procedures and the auditor's report?
- 10- What is the auditor's responsibility for disclosures outside the financial statements?

To answer these questions, the following main issues are addressed:

1- Importance of the Event and Risk Assessment

External auditors of financial statements should consider the impact of the event, its importance, and how it affects the identification and risk assessment of material misstatement. Moreover, how does this affect the internal control system?

When applying ISA 315 (revised), identifying and assessing the risks of material misstatement [1], the auditor should consider the impacts of that event upon obtaining an understanding of the entity and its environment, and should discuss with administration whether the impact of the event has been included in their risk assessments, and how was the business risks identified and assessed. There may be a material impact on the risk assessment, and if the administration decides that there is no substantial

financial impact or a reasonably expected impact on the entity, the auditors should exercise professional skepticism when considering this evaluation, and whether the key assumptions should be disclosed in the financial statements to reach this conclusion [7].

2- Evaluating the Financial Impact

It is necessary to consider the type of financial impact of this significant event on the entity and its operations, and it may include the following effects:

- Depreciation of assets or changes in assumptions of assets' value testing.
- Changes in expected credit losses for loans and other financial assets.
- Doubts about the entity's ability to continue.
- Reduced demand for products or services, and the revenues of the establishment were affected.
- Cost increase.
- Changes in the productive life of assets.
- Potential provisions and liabilities arising from fines.

for auditors of financial As statements, they should look at how to audit the financial impact of the pandemic, the financial effects may include accounting estimates prepared by the entity's administration, The important assumptions used to reach these estimates may be affected, and if the audit client has a large number of financial impacts that contains uncertainties in the estimates, risk assessment process and audit evidence supporting the reasonableness of these accounting estimates and related disclosures affected. may be Consequently, the auditor should focus more on changes that may affect accounting estimates, whether the assumptions used by the management of the entity under audit are appropriate and in the context of the financial statement preparation 540 framework (ISA revised. estimates) (related accounting disclosures). [1] [7]

3- Disclosures in the Financial Statements

Auditors of financial statements should take into consideration how to apply the appropriate audit procedures when assessing whether disclosures in the financial statements and the accompanying notes are financially correct and appropriately describing the entity's prospects and are consistent with the financial reporting framework used, reviewing key management assumptions, and how users of financial statements are affected. The auditor also needs to consider their responsibilities with regard to other information (ISA200 general objectives of the auditor) [1].

If the audit client does not provide sufficient disclosures, the auditor must consider the implications of the audit report, and whether the auditor's opinion needs to be modified, and if the audit client has found that there is no financial impact in the current period, the auditor considers whether the disclosures about the main assumptions which supports this are sufficient, as well as what are the procedures and amendments implemented by the audit client to reflect the impact of that event on the activities and operations of the entity, and the auditor must exercise the professional skepticism.

4- Subsequent Events after the Reporting Period

The entity's administration should consider whether economic uncertainties affect or will affect the accounting results. Management exercises judgment in determining the financial impact of any subsequent events related to the COVID-19 pandemic, the administration of the entity under audit may decide to liquidate the entity or stop trading its shares, this requires changing the basis for preparing the financial statements, and the nature of any material event and the financial

impact may be disclosed (IAS 10, events after the financial period) [2].

As for auditors, they are required to perform procedures to obtain adequate and appropriate audit evidence that all events requiring adjustment of, or disclosure in, the financial statements, occurring between the date of the financial statements and the date of the auditor's report, have been identified and appropriately reflected in the financial statement in accordance with the applicable financial reporting framework (ISA 560. subsequent events) [1].

auditor should consider The administration adjustments or disclosures, including schedules used to distinguish between adjusting and non-adjusting events. In addition, this includes the effect of changes in the environment on the recognition and of measurement account and transaction balances in the financial statements (if adjusting), or other specific disclosures (if non-adjusting).

The auditor requests written representations that all events that occurred after the date of the financial statements have been adjusted or disclosed and these written representations must be dated as close as possible to the date of the auditor's report, but not later than that date.

The auditor's ongoing and regular contact with those charged with governance, especially in the period prior to the date of the financial statements, might help the auditor understand the changes that are made the evolving response to environment, and may help the auditor in assessing what procedures s/he needs to perform to gather sufficient appropriate evidence. If the issues related to Covid-19 are known after the auditor's report date, it must be ensured that the auditor's report is still appropriate, and if they are known on the auditor's report date, this may cause the auditor's report to be (ISA701 Communicating Key Audit Matters in the Independent Auditor's Report, ISA705 revised, Modifications to the Opinion in the Independent Auditor's Report), and more studies are required (ISA 560) [1] [4] [5] [7] [9].

5- Going Concern

The definition of the ongoing entity, the responsibilities of management and the auditors of the financial statements has not changed, and the entity continues to operate unless its management intends to liquidate it or cease trading its shares or has no realistic alternative. The administration must consider whether the entity is still ongoing, must conduct this evaluation and consider all relevant future information for at least 12 months after the date of the financial reporting, and prepare detailed forecasts due to the rapidly evolving nature of the pandemic. The entity may not prepare its financial statements on the basis of going concern if this basis becomes

inappropriate, material uncertainties that cast doubt on the entity's ability to continue must be disclosed (IAS1 financial statement presentation) [2].

As for the auditor, s/he must consider the impact of the event on the continuity of the entity under audit. The auditor's responsibility is to evaluate and conclude the appropriateness of management using the basis of ongoing concern in preparing financial statements and to conclude whether there is a fundamental uncertainty related to the entity's inability to continue. and s/he must professional skepticism when fulfilling this responsibility, as well as ensure that management has considered this appropriately when conducting its assessment of the entity's ability to continue and the adequacy of related disclosures such as the potential impact on future cash flow projections and banking agreements. The auditor should inquire from management and

corporate governance officials in the entity under audit for the available information about the future and determine whether they were appropriately considered as part of the management evaluation, and s/he must apply similar considerations to that of management in assessing the suitability of the going concern basis.

The auditor should obtain sufficient and appropriate audit evidence to determine whether there is material uncertainty about going concern and this should include for example a detailed review of recent forecasts and cash flows, a review of management plans for future business and impact assessments conducted by ISA 570, going concern [1].

If the auditor sees that the entity is continuing and that material uncertainty has been adequately disclosed, a paragraph on material uncertainty related to going concern must be included. If the auditor deems the inappropriate use of the ongoing concern basis for preparing the financial statements or that there are insufficient disclosures in this regard, or that the entity's management does not wish to disclose the material uncertainty, the auditor may need to issue an audit report with a modified opinion (ISA700, ISA705, ISA701) [1] [4] [5] [7] [8] [9].

6- Report on the Group

The auditors of the financial statements should consider how they plan to audit the work of the group component auditors to meet the requirements of the standards (ISA 600, audits of group financial statements) [1], and the implications of the group audit if they cannot obtain information from the group component auditors, subsidiaries and associates entities or joint ventures, and this must include consideration of whether alternative procedures should be used as travel may be restricted. [7].

If the entity under audit is unable to obtain sufficient information, the auditor identifies whether this is material in relation to the group's financial report and influences the auditor's opinion, as he also examines how the event affected risk assessments, materiality and the ability to obtain adequate and appropriate evidence of the group, and if the auditor is not able to do so, the group auditor should consider these effects on the audit report as the auditor's opinion may be modified. [7].

7- The Implications on the Auditor's Report

In such unpredictable circumstances, auditors will focus on the potential impacts for auditor or interim review reports that are used to communicate audit opinions or review conclusions (ISA 700 revised, ISA 701, ISA 705 revised, ISA 706 revised). [1] [7].

In addition to the abovementioned matters, the auditor may consider the implications of the audit report. These implications include: the main audit issues to be disclosed in the audit report, a separated section on the material uncertainty related to going concern, the existence of uncertainties related to accounting estimates and depreciation of assets, and to consider whether there is a conflict material between other information and financial statements. It is expected to see more modified audit opinions. [7].

There are other matters that auditors should take into consideration, for example:

- Physical Inventory Observations:

Apply alternative audit procedures or use technological methods to ensure stock availability and its condition, as actual physical inventory attendance may not be practical (ISA501 audit evidence - specific considerations for selected items) [1] [5].

- Lease Contracts: The disclosed information must be sufficient to enable the users of the financial statements to understand the effects of changes in lease payments on the financial position and results of the entity's business (IFRS16 lease) [3] [6].

- External Confirmation:

Obtaining the required information in electronic form, controlling the selection, preparing, and distributing electronic requests for confirmations, arranging the return of responses directly to the auditor, checking the validity of the received response and documenting the measures taken to verify the validity of respondents (ISA 505, external confirmation) [1] [5].

-Written Management Representations:

Additional written representations from management, the auditor should have the flexibility to include "specific" representations if this inclusion is important from the auditor's point of view, applying professional skepticism and looking at representation reliability (ISA580 written submissions) [1] [5].

- Understand and Test the Internal Control System: New controls may be implemented or revised upon access to information technology to enable the remote workforce, and material changes must be disclosed.
- Government Aid and Grants:
 Ensuring accounting treatments and disclosing of government grants.

Given the current situation, and given that management and auditors alike have an obligation to report financial statements in accordance with accounting standards, auditing standards and requirements, their role will remain critical and there should be commitment despite the challenges and doubts raised by the event, and in all cases, the auditor should practice professional skepticism.



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Optimize your Audits with Artificial Intelligence! PRESENTED BY

Evrad LELE TIAM

SUPREME STATE AUDIT OFFICE OF CAMEROON

"The creation of artificial intelligence is perhaps the greatest event in human history", famous physicist, Stephen Hawking is on record to have said. Indeed, innovative technologies fascinate and continue to transform the world. Their application in our daily lives is now ubiquitous.

The smartphone, in its interactive applications such as Siri, voice or visual recognition, is an illustration of the common use of artificial intelligence. We take to the road, for unknown itineraries, thanks to GPS. Drones or Unmanned Aerial Vehicles (UAVs) enable us to explore with precision the most inaccessible spaces. When we take a picture, the artificial intelligence algorithm identifies and detects the person's face and brand when we post it on social media, etc.

There no longer seems to be any area where artificial intelligence (AI) is not involved. Today, virtual avatars replace humans, while autonomous vehicles succeed in reproducing traffic on open roads, without a driver.

The ability of technology to automate processes and exceed the bounds of the human mind has already brought about profound changes in a number of areas, including auditing. Indeed, technology will automate much of the tasks performed by auditors to date. Ultimately, the progress of AI will kill the profession of auditing, as it exists today¹. Moreover, the Big Four (Deloitte, PWC, EY and KPMG) have met to anticipate the future impacts of the block chain and AI on the profession². However, for the moment, technology is gaining ground as an invaluable ally for auditors. The use thereof can contribute significantly to optimize their work. However, this is not always obvious to most audit professionals.

This article examines how AI is revolutionizing the auditing profession by expanding the scope of evidence collection and analysis. It describes the main applications of AI in auditing and discusses the benefits and challenges it brings to public sector auditors.

1-https://www.accaglobal.com/my/en/member/ discover/cpd-articles/audit-assurance/blockchain-audit.html

What is Artificial Intelligence?

Artificial intelligence (AI) enables machines to learn by "experience" and perform tasks as a human being would. According to the Larousse Encyclopedia, it is "a set of theories and techniques used to make machines capable of simulating human intelligence."

The origins of AI can be traced back to Greek mythology³, where stories mention a mechanical man capable of mimicking human behavior. Incidentally, the development of AI actually emerged during World War II, when scientists began to expand smart weapons.

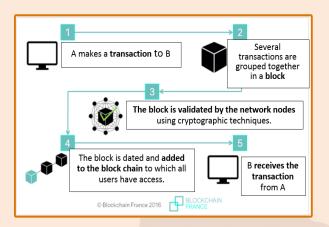
Under his impetus, new high-performance tools were developed. Among the new technologies, the block chain⁴ is probably the best known. This is a revolutionary trend that is gaining momentum, especially since the emergence of crypto-currency⁵ and bitcoin in particular. Organizations tend to gradually implement this innovative technology within their systems.

²⁻ Huybrechts, Corentin, "Transformation of the profession of external auditor through the impact of digital", p. 79.

³⁻ Myth of Hephaestus, god of fire, ironworks, metallurgy and volcanoes. He invented golden maids. Creatures with a human appearance, but made of metal. Half mechanical and half magical beings.

⁴⁻By definition, the block chain is "a technology for storing and transmitting information, which is transparent, secure and operates without a central control body" (Block chain France);

⁵⁻ According to Larousse, crypto-currency is defined as "a virtual means of payment that can be used essentially on the Internet, relying on cryptography to secure transactions and the creation of units, and circumventing any control by regulators and central banks. [...]";



<u>Figure 1</u>: Descriptive diagram of the Block Chain stages (source: Block Chain France).

The current managerial environment is dominated by the language of ICTs. A recent study showed that 88% of respondents used AI-based technologies. As for the minority of those who did not use AI during the survey, they were planning to do so within two years⁶.

These are the conditions under which auditors will have to carry out their work in the future. There is every reason therefore to contemplate the impact of AI on the auditing profession and whether auditors can use it to optimize the quality of their work.

APPLICATIONS OF ARTIFICIAL INTELLIGENCE IN AUDITING

The development of artificial intelligence solutions is a boon to audit professionals, who will be able to optimize the size and quality of evidence analysis.

Concretely, AI could be used to enhance the quality of audits, in particular, by:

- strengthening the assurance function; improving data management and access to information;
- assisting in risk mapping;
- reducing the risk of errors in audit opinions;
- fraud detection.

Strengthening the Assurance Function:

The purpose of audit is to provide reasonable or high assurance that the subject under consideration (activity, operations, financial statements, etc.) is implemented in all its significant aspects in accordance with a given benchmark.

⁶⁻ https://narrativescience.com/resources/resource-library/articledetail-page/outlook-on-artificial-intelligence-in-the-enterprise-2016

However, given the volume of data to be reviewed and the time constraints involved, auditors generally use a sampling approach. And for good reason: the volume of data managed by organizations has increased by 700%⁷. This explosion in the volume of data managed is likely to exceed the auditing traditional capabilities based on methods. Indeed. the sampling definition of a representative sample of data is all the more difficult as the latter are heterogeneous and represent a volume never before observed. These sampling difficulties tend to increase, as the volume of data stored is likely to increase fourfold by 2025⁸.

Analytics⁹ is an important lever to overcome sampling difficulties and shore up the assurance function. For example, in the case of assessing the coherence and completeness of data, the sampling method consists of

making a representative selection of the population surveyed and then extrapolating the outcomes of these audits to the entire population. The outcomes are then highly dependent on the quality of the selected sample. The use of analytical technologies makes it possible to carry out these audits on the entire population, thus enhancing the precision and "interpretability" of the outcomes, which are no longer dependent on the initial sample.



Figure 2: Analytics approach

https://images.app.goo.gl/tnzRJopf1ztEA

Dgh6.

⁷⁻Based on the outcomes of the Third Edition of the Dell EMC "Global Data Protection Index", March 2019.

⁸⁻ Based on estimates from the IDC survey, "Data Age 2020: The evolution of Data to Life-Critical".

⁹⁻ Analytics is the analysis of data in order to learn from it (https://www.data-vibes.com/11/definition-de-lanalytics).

As a result, AI makes it possible to meet an assurance requirement, helps to improve audit implementation time frames and reduces the burden.

Improving data management and access to information

AI has a tremendous ability to collect, process, analyze and organize countless masses of scattered and unstructured data (ranging from an entity's financial or accounting data to comments made on social media) with a view to converting them into organized and usable information within seconds.

Moreover, the use of drones, for example, could literally revolutionize the quality of stock inventories. Indeed, these technological tools, through their sheer ability to digitize data, are capable of revolutionizing our performance in terms of the volume, accuracy and frequency of inventories of materials or equipment subject to audit. In the private sector, some audit firms have

stolen a march on their rivals to roll out such solutions¹⁰.



<u>figure 3</u>: Use of drones to gather information(<u>https://images.app.goo.gl/r</u>
<u>Sb5snuGnxWorJLZ9</u>)

Finally, AI and robotic science could be used for the implementation of audit ing processes such as physical inspection, site visits, especially in cases related to mining audits and or exploration of landlocked or hazardous access sites. For example, the European Court of Auditors used satellite images to facilitate audits on agricultural activity carried out on plots of land and crop¹¹ classification.

^{10- &}quot;The impact of Digital and Artificial Intelligence on audit and finance professionals: harnessing the opportunities of disruptive technologies », ACCA and EY, Brussels, January 2019.

¹¹⁻ ECA (2019), the European Court of Auditors is envisaging the use of new imaging technologies for monitoring purposes https://www.eca.europa.eu/fr/Pages/News ltem.aspx?nid=12475).

Thanks to the programming of robots, they can perform more laborious work and thus overcome human limitations. In addition, they do not wear out easily. The time thus freed up can be used by auditors to fine-tune the risk mapping of their entities through "risk sensing."

Assistance in risk mapping of audited structures:

Some AI solutions are an important lever to optimize the targeting of audits. They help, for example, to extract and analyze contractual clauses on almost unlimited volumes. These analyses enable permanent and systematic audits to be carried out, leading to the identification and reporting of any anomalies in real time.

This ability to identify unusual variations and data discrepancies assists the auditor in executing the audit plan in high-risk areas. It ensures greater efficiency in the use of resources,

inasmuch as the auditor focuses on matters that deserve attention and, conversely, limits the auditor's efforts in transactions with low exposure to risks of fraud or error.

Reducing the risk of errors in audit opinions:

The greatest risk to an auditor is the loss of credibility or confidence in the outcomes of his or her work. By helping the auditor to broaden the range and quality of the use of evidence, AI helps to tweak the plausibility check of audit findings.

Simply put, AI will enable us to work smarter, improving the value added by the human members of the team. It also seems likely that with much of the work automated¹², auditors will be able to move up the value chain, spending more time providing strategic analysis and solving more complex problems.

¹²⁻ Especially in the case of recurrent audits.

In the future, AI could free the auditor from all low value-added tasks. For example, by suggesting an audit plan based on contextual analysis, by generating the corresponding work programme or by interacting with the auditee's artificial intelligence to determine its financial, business or budgetary performance, etc., the auditor could be freed from the need to perform these tasks. AI is a treasure trove of possibilities.

Fraud detection:

Machine Learning¹³, which is experiencing significant growth, will be an indispensable aid in the detection of fraud and money laundering as well as in the processing of "Big Data" to identify discrepancies that would be unsuspected by the naked eye.

With its ability to analyse historical data and use risk scenarios to predict threats, machine learning can be used to design an accounting fraud forecasting model to more accurately calculate the likelihood of future anomalies, thereby improving audit accuracy¹⁵.



Figure 4: Big Data.

Applications based on this technology are emerging within the audit profession. Examples of commercially available audit software include MindBridge's "AI Auditor", which studies the cash flows between accounts

¹³⁻ Stanford University defines Machine Learning as "the science of enabling computers to act without being explicitly programmed".

¹⁴⁻ They refer to a massive volume of data from all sources, which no conventional database management tool can really work with (https://www.lebigdata.fr/definition-big-data).

¹⁵⁻ This is seen in the construction of autonomous cars, where algorithms have been developed to enable them to make decisions on the basis of an ethical framework. Therefore, reports and other materials can be consulted to identify any possible breaches of ethical protocol.

to assess fraud risk, or SageTea's "Auditors Deep Learning Dashboard" and Lemay.ai's "AuditMap", which enable auditors to integrate risk into their control processes to facilitate the planning and conduct of audits.

THE MAJOR CHALLENGES OF ARTIFICIAL INTELLIGENCE IN AUDITING

Ensuring data quality will be critical to the success of AI. The auditor can only take full advantage of AI if all parties involved work to ensure the integrity and quality of the information entered into the databases.

A new form of audit will then have to emerge, capable of checking the code and infrastructure of the block chain¹⁶ and smart contracts. Likewise, the source data will have to be carefully checked since, once coded, they will be irremediable. Thus, as organizations

deploy AI technologies, auditors will need to assess the inherent risks and vulnerabilities¹⁷. This will require the development of auditors' technical capacities to enable them to offer this product line and adapt to the information systems environment.

In this regard, it is worthy to note that the implementation of AI technologies requires significant costs because they complex equipment. involve addition, their maintenance involves huge costs. These devices incorporate software that requires frequent updating to meet the innovations and needs of a constantly changing technological environment. Moreover, it is not uncommon for an expensive acquisition to become completely obsolete fairly quickly.

¹⁶⁻ Some experts estimate that these new block chain-based systems will dominate other technologies within the next three to five years.

https://www.journaldunet.com/economie/finance/1185858a-cause-de-la-blockchain-les-auditeurs-vont-changer-demetier/

¹⁷⁻In particular, in April 2019, the European Commission published a document setting out the main principles to be respected to ensure the development of "reliable" AI. (*EU guidelines on ethics in AI*). One of these principles refers to the "auditability" of solutions. Specifically, it is about ensuring the auditability of the algorithms, data and processes they use.

In addition, it should be underscored that in the event of a serious breakdown, the protocol for recovering lost codes or reinstalling a system can be very time consuming and expensive.

Finally, it is important to note that technology will automate many of the tasks performed so far by auditors, and this is not just good news if auditors do not prepare for it now.

AI is very effective in performing repetitive and tedious tasks. For the auditing profession, it is easy to identify aspects that are directly relevant, such as inventory taking, review of accounting anomalies, review of contracts, risk mapping, review of transaction compliance, etc. AI can handle all of these tasks more easily than humans. It is faster, more efficient and more accurate and allows for a 100% review of transactions. According to some studies, up to 40% of transaction accounting tasks could be automated or eliminated by 2020¹⁸.

18- Axson, D.A.J. (2015).

In addition, the ability of AI to identify otherwise undetectable patterns, which is particularly useful for fraud detection or root cause analysis, is far su perior to that of humans¹⁹. Thus, while the automation of tasks requiring professional judgment is still imperfect, the automation of tedious tasks is well underway.



Controversies are emerging around the idea that intelligent or smart machines will supersede humans. But this may not be an easy ride. While it is unrealistic to challenge the contributions of AI, it should be admitted that society is still far from reaching a point where AI can replace human judgment.

^{19- &}quot;Artificial intelligence and audit activities", Yves Genest, FCAR, 2019.

Software will be able to assume responsibility for part of the checks carried auditors out bv more effectively. In particular, the block chain, a self-validating record of entries on account of an automatic check, will replace the actors who hitherto checked the accounts by carrying out the checks in their stead. But the trusted third party is not doomed to disappear²⁰. Firstly, because the auditor's role is not only to verify the entry, but also to ascertain the context of the expenditure and the stakes involved in the transactions²¹.

The idea is therefore not to replace the human being by the machine, but to widen the role of the latter. Human beings are unsurpassed in their ability to make qualitative judgements that generate value for the organizations audited.

20- Simon PADGETT, Cryptocurrency and block chain audit manager, PwC Vancouver (Canada), 'Block chain has the capability to eradicate audit, but there is always scope for error and fraud. The uncertainty of human interference before, during and after a transaction means that you will always need an external audit.'

However, it is absolutely necessary to prepare for the digital revolution now, by exploring AI and understanding the changes it should bring about in our organizations and our profession, in order to be able to make the most of it. Otherwise, technology will get the better of the auditor and we will conclude like Hawking that it could also be "the worst thing in our civilization".

^{21- &}quot;The entry may be valid from an accounting point of view but there may be a problem with the nature or destination of the expenditure", Julien MALDONATO.

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Section Two

News of AFROSAI Bodies, Member SAIs and Regional and International Organizations

AFROSAI Fifth Extraordinary Governing Board

Upon the invitation of the AFROSAI General Secretariat, the Fifth Extraordinary AFROSAI Governing Board (GB) meeting was held virtually on the 4th of November 2020, headed by Mr. Junias Etuna Kandjeke; President of SAI Namibia and the Governing Board Chair.

The meeting was attended by the following Governing Board members:

- H.E. Mrs. Mbah Acha Rose Fomundam; President of SAI Cameroon and AFROSAI Secretary General.
- H.E. Mr. Mamadou Faye; President of SAI Senegal, First Vice-President of the AFROSAI Governing Board, and Chair of the AFROSAI Capacity Building Committee.
- H.E. Counsellor / Hesham Badawy; President of SAI Egypt, Second Vice-President of the AFROSAI Governing Board, Chair of the Board of Editors of the African Journal of Comprehensive Auditing and Honorary Second President of AFROSAI.
- H.E. Mr. Gilbert Ngoulakia; President of SAI Gabon and Honorary First President of AFROSAI.

Their Excellences Presidents and honorable representatives of the SAIs of Algeria, Morocco, Côte d'Ivoire and South Africa.

The representative of SAIs Mozambique, Burundi and Sierra Leone did not attend the said Governing Board meeting. H.E. Ms. Nancy Gathungu, President of SAI Kenya and Chair of the AFROSAI Committee for Knowledge Management and Sharing attended the GB meeting as an observer.

The GB meeting discussed and approved the following issues:

- 1. Challenges related to the organization of SAI Senegal to the 15th AFROSAI General Assembly in light of Covid-19's repercussions.
- 2. SAI Egypt Hosting the 25th INCOSAI in 2025.
- 3. The status of the ongoing activities of the Task Force responsible for reviewing the AFROSAI statutes as well as the AFROSAI Strategic Plan Task Force during the period from 2021 to 2026.
- 4. AFROSAI General Budget for the year 2021.
- 5. Updating the activities of AFROSAI and its member SAIs in light of Covid-19's repercussions by the linguistic sub-groups.

AFROSAI General Secretariat

The General Secretariat of AFROSAI of Supreme Audit Institution of Cameroon organized the Third Meeting of the Task Force on the Review of the Statutes of AFROSAI, which was held virtually on the 6th of October 2020. The first meeting of the task force was held in Ghana on 4-5 August 2019, and the second meeting was held in Senegal on 26-27 August 2019 on the sidelines of the 55th AFROSAI Governing Board. That meeting reviewed the outlines regarding the amendments proposed by the General Secretariat of the Statutes of AFROSAI.



News of AFROSAI Member SAIs



SAI Algeria

1. SAI Algeria was elected as a member of the INTOSAI Governing Board for a period of six years (2019-2025) during the 23rd INCOSAI held in Moscow-Russian Federation in September 2019, and it was also elected as a member of the ARABOSAI Governing Board during the organization's General Assembly held in Qatar in March 2019 for a period of six years as well.



2. SAI Algeria organized a training program in January 2020 with SAI Netherlands within the framework of a cooperative partnership.

The program's sessions focused on:

- Studying the tools necessary to master the mechanisms of performance audit.
- Auditing the Sustainable Development Goals.
- Ensuring a healthy life and promoting the well-being of all people at all times.

- 3. SAI Algeria organized a virtual training meeting on the topic "Public Policies' Evaluation" in cooperation with the ARABOSAI during the period from 14 to 17 December 2020. The most important objectives of this meeting were:
 - a. Enhancing the professional capacities of the participants to keep pace with INTOSAI's directives in the field of public policies' evaluation activities.
 - b. Explaining the dimensions and importance of public policies' evaluation in improving public performance and enhancing accountability and transparency in public facilitation.
 - c. Enhancing co-operation and exchanging beneficial experiences and applications in the field of evaluation among SAIs participating in the meeting.
 - d. Achieving the requirements of sustainable development in the field of training among the member SAIs.

SAI Egypt

1. SAI Egypt hosted a workshop on "The Role of Regional Organizations in Evaluating and Following up SAIs' Performance" in the period from 2 to 6 February 2020 within the framework cooperation between ARBOSAI and AFROSAI-E. The workshop aimed at enhancing the awareness of member SAIs about the value and benefits of the frameworks of performance measurement, reporting, as well as exchanging experiences among various institutions.



- 2. SAI Egypt participated in the 74th INTOSAI Governing board meeting, held virtually on the 10th of November 2020 as Chair of the INTOSAI Working Group on Fight Against Corruption and Money Laundering (WGFACML). Among the outcomes of the meeting were the adoption of the establishment of the INTOSAI Global Expert Team (IGET), chaired by SAI the United Arab Emirates, among its members SAI Egypt, as well as endorsing the guidelines issued by the WGFACML.
- 3. On the 24th of November 2020, SAI Egypt virtually hosted the 14th INTOSAI WGFACML meeting, chaired by H.E ASA President and Chair of the WGFACML. That meeting reviewed the achievement of the working groups concerned with preparing the guidelines related to fighting corruption and money laundering. The working groups work plan was adopted, and three new members joined the working group to make a total of 34 members.



- 4. SAI Egypt participated in all the virtual meetings that it was invited to and held by different working groups and committees at the level of the three organizations: INTOSAI, AFROSAI and ARABOSAI in 2020 in the fields of professional and audit standards, environment, sustainable development goals (SDGs), public debt, information technology, extractive industries, capacity building and strategic planning.
- 5. SAI Egypt participated in numerous webinars and workshops organized by various regional and international entities as a form of compensating the total cease of holding events and conferences physically and their replacement by the video conference technology, the topics of which include:
 - Public financial administration and domestic resource mobilization during

- COVID-19 pandemic (organized by: AFROSAI and the German International Cooperation Agency GIZ).
- Virtual auditing, technological challenges and their solutions (organized by: INTOSAI).
- SAIs' Audit of donor's funds (organized by: INTOSAI).
- How to employ the external public audit in order to enhance accountability (organized by: the International Budget Partnership, INTOSAI Development Initiative (IDI) and the World Bank).
- The transformation of the INTOSAI to work through the Internet (organized by: INTOSAI).
- How to make innovative Supreme Audit Institution flexible, rapid and adaptable (organized by: INTOSAI Development Initiative IDI).

- The impact of COVID -19 pandemic on the world's economy and achieving the Sustainable Development Goals (organized by: Arab Organization for Administrative Development and ARABOSAI).
- Mechanisms for cooperation and coordination with relevant institutions to face COVID–19 (organized by: ARABOSAI).
- Sustainability of public finances and supporting the public sector to face recovery (organized by: the World Bank and ARABOSAI).
- How SAIs operate in conflict situations and in fragile or complex cases, and how to face the consequences of COVID-19 pandemic on audit work (organized by: the World Bank and ARABOSAI).

- Exchanging of information on Supreme Audit Institutions and Anti-Corruption agencies (organized by: the World Bank).
- Linking the relationship between
 Supreme Audit Institutions and
 donors a workshop (organized by:
 ARABOSAI and IDI).

SAI Libya

In light of SAI Libya's chairmanship of the AFROASI-A Technical Secretariat succeeding SAI Tunisia, and on the sidelines of the ARABOSAI General Assembly meetings held in Qatar, on the 12th of November 2019, H.E. Mr. Khaled Shakshak, President of SAI Libya, met with the presidents and representatives of some African SAIs attending the General Assembly; namely (Algeria, Morocco, Tunisia, Somalia, and Djibouti). The meeting included SAI Libya's presentation on its vision regarding the AFROSAI-A during the period 2020-2022 as well as several initiatives aiming to activate the group's work.



SAI Morocco

- 1. On the 29th of December 2020, SAI Morocco organized a webinar on the topic "The Role of Supreme Audit Institutions in Preventing and Combating Fraud in the Public Sector" attended by more than 120 participants from the Francophone African Countries. The webinar consisted of five presentations; the first was presented by the SAI Morocco on "The Roles and Responsibilities of Different Effective Entities in the Field of Preventing and Detecting Fraud in the Public Sector". This was followed by the presentations by experts from SAIs France, Tunisia, Côte d'Ivoire and Morocco introducing the experiences of their institutions in preventing and combating fraud.
- 2. SAI Morocco organized a training meeting on the topic "Auditing the Sustainable Development Goals" in co-operation with the ARABOSAI during the period from 21 to 24 December 2020.



SAI Sudan

SAI Sudan organized a virtual scientific meeting in co-operation with the ARABOSAI during the period from 18 to 22 January 2021 within the framework of the ARABOSAI's Work Plan 2020. The meeting discussed the subject of "Big Data and its Impact on Reporting" in its strive to understand and be aware of the Big Data concept as well as how to deal with it in auditing.

This was achieved through:

- Defining Big Data
- Advantages of Big Data
- Scope of Big Data
- Auditing Big Data: analyzing data using techniques appropriate to its volume and changing speed.
- Impacts of Big Data on Reporting: determining risks and using big data in auditing.

The meeting was attended by 28 participants representing 19 SAIs from the ARABOSAI and AFROSAI-E. The representatives of 9 SAIs (Egypt - Morocco - Sudan - Kuwait - Jordan - Algeria - Palestine - Tunisia - Saudi Arabia) presented their SAIs' experiences regarding the meeting's topic.



Several trainers and experts representing the SAI Sudan as well as other entities participated in delivering the meeting's scientific material, they were:

- Experts from SAIs Indonesia and SAI India (members of INTOSAI WGITA).
- An expert from SAI Norway.
- An expert in cyber security from SAI Australia.
- Experts in IT audit from AFROSAI-E.
- Experts in Mathematics from Khartoum University.

SAI Tanzania

SAI Tanzania won for the fourth time the Best Performing Audit Report Prize for 2019 among the AFROSAI-E member SAIs. This prize aims at measuring and evaluating the region's performance audit best practices. The prize is presented mutually from SAI Sweden and the AFROSAI-E to the SAI that issued and presented a good quality performance audit report.

The winning report entitled "Performance Audit Report on Water Projects' Management in Rural Areas" tackled a series of responsibilities starting from those of the ministry until those on the administrative local level. It also included clearly analyzed and added value observations and recommendations that relied on integrated and comprehensive results. All this convinced the international independent audit team to unanimously grant the prize to the SAI Tanzania.



To read the report click here

SAI Zimbabwe

During the MOU signing Ceremony held on the 5th of February 2020, SAIs Zimbabwe and Sweden extended their co-operation agreement for two years. The Auditors General of both Offices signed the MOU, H.E Mrs. Mildred Chiri of Zimbabwe and H.E. Mrs. Helena Lindberg of Sweden. SAI Zimbabwe has been receiving support from SAI Sweden since the early 1990s, however, their Co-operation Agreement started in 2017 in the areas of management, leadership and performance audit. The field of communication has been added to the new agreement that covers the years 2020-2021. This should lead SAI Zimbabwe to implement the intranet project to completion and thus enabling internal communication within its office.



AFROSAI-WGEA's Contribution

The Working Group Activities in 2020

When SAI Nigeria took over chairmanship of the working group from SAI Cameroon in October 2019, the first goals we set out to accomplish were to attract more membership and make the group even more vibrant. We immediately sent out letters seeking the support of existing members and encouraging new members to join the working group. Our strategies are yet to yield the desired result, as most members are still not remarkably effective in the activities of the working group; however, our meetings have become more interactive.

In 2020, the pace of our activities was slowed down by the coronavirus pandemic but our commitment to embrace

digitally transformative processes enabled us remain operative and effective even in the midst of a lockdown or restrictions to physical meetings and audit inspections.

We represented the group meetings organised at the global level to facilitate the exchange information and experience among SAIs and by 6th-8th October virtually held the 10th AFROSAI WGEA Meeting. The focus of the meeting was to assess the level of implementation of our current work-plan which expired in December 2020 and brainstorm ideas for a new Strategic Plan for the 2021-2023 period. The meeting drew many participants and was a huge success.

We also launched our website (www.afrosaiwgea.africa), set up a dedicated email address (info@afrosaiwgea.africa) and created social media accounts (Twitter: @afrosaiwgea.africa/ Facebook: @afrosaiwgea.africa) for the regional group, with plans ongoing for our first newsletter.

By the 25th of October 2020, the chairperson of the working group and head of SAI Nigeria, Mr. Anthony Mkpe Ayine retired from the federal civil service and Mr. Aghughu Adolphus was appointed by the President of Nigeria to direct the activities of the group. Mr. Aghughu's appointment was later confirmed on the 17th of February 2021 by the parliament as the substantive Auditor-General for the Federation.

After several meetings and brainstorming, our new work-plan for the 2021-2023 period was adopted during the second meeting of the

steering committee on the 9th of March, 2021 paving the way for its implementation. We look forward to carrying out joint audits, trainings and programmes that will further enhance our work in the region.

In addition, we are working to strengthen our cooperation with the INTOSAI, AFROSAI-E and other regional groups and remain committed to exploring ideas and practice that will improve our environment.

The AFROSAI-WGEA Tenth Annual Meeting

The Secretariat of AFROSAI-WGEA in SAI Nigeria organized the tenth annual meeting of the working group, which was held virtually during the period (6-8 October 2020), where 30 participants from 10 auditing bodies the General Secretariat and **INTOSAI** and AFROSAI-E the organizations participated in the meeting. Among the most

important topics discussed in the meeting is updating the activities of the SAIs and paving the way forward for the AFROSAI working group projects on environmental auditing in the global pandemic era.

The meeting included reviewing the current work plan to evaluate it and draw up a new strategic development plan for the next three years for the group.

The Auditor General of the Supreme Audit Organization of Nigeria and the Chair of the AFROSAI-WGEA also called on the region's SAIs to work together to conduct environmental audits that would enhance the preservation of biodiversity and alter the harmful impacts of global warming and climate change.

The group has also contributed to capacity building, effective practice of environmental auditing, disseminating information, and improving the quality of the audits within the framework of the sustainable development goals.

SAI Egypt's Experience in the Field of Environmental Audit of Combating Desertification and Drought Activities

Preface

SAI Egypt pays a great attention to the environmental monitoring of the activities combating desertification and drought. As the world is witnessing a rapid growth in its population disproportionately with the sharp decline in its natural resources, water and arable land which negatively affected the global food security threatening millions of poor people as well as climate change associated with high temperatures and scarcity of rainfall causing the soil to dry out with a threaten to its fertility, threatening Egypt's best fertile lands of the Valley and Delta causing the deterioration of its productivity due to the exposure to multiple dredging and erosion resulting from surface irrigation as well as irrigation with water mixed with high salinity agricultural drainage water.



Overcoming the disappearance of vegetation from governorates that depend on rainfall and groundwater can be achieved through the establishment of natural reserves and the provision of processed fodder, which addresses the phenomenon of overgrazing instead of vegetation consumption.

Egypt's Vision for 2030 with regards to desertification from the perspective of achieving the Sustainable Development Goals included indicators to measure environmental performance up to 2030 with regards to water resources' sustainability, achieving water security as well as environmental protection laws and regulations, concerning (the percentage of the consumed water resources, average per capita of freshwater resources (renewable), the percentage of nontraditional water resources used to total water resources used, the percentage of treated wastewater to total wastewater, the percentage of non-conforming industrial waste on the Nile River to total industrial waste, the percentage of treated sewage according to national standards that is, discharged in the Nile River, the percentage of progress achieved towards the compliance with signed international agreements, the percentage of the losses in water transmission networks, the percentage of the losses in water treatment plants for determining (withdrawals, volume of fresh water, the adequacy of renewable freshwater to the population needs, relying on the exploitation of the non-traditional water resources, the efficiency of the country's exploitation of its wastewater resource, prevention of industrial wastes affecting specifications of the Nile's water, compatibility of wastewater discharged in the River Nile with national standards, Egypt's commitment to international agreements in the following fields: desertification, climate change, biological diversity, hazardous materials and wastes,

marine pollution by calculating the percentage of agreements that have entered into force, the efficiency of water transmission networks, the efficiency of water treatment plants) respectively.

SAI Egypt reviews the environmental policies, programs and activities related to combating desertification and drought (land degradation) which include financial audit, and checking the efficiency, economy, effectiveness of those policies, activities and programs in order to check the actual implementation of laws and regulations governing those environmental policies and programs of the unit or audited entity under audit to ensure the soundness of financial transactions and to express the opinion on the soundness and accuracy of its data in preparing an environmental report on combating desertification and drought activities.

Furthermore, SAI Egypt reviews the environmental studies carried out by the concerned ministry or entity, in addition to, the assessment of the environmental impact of those programs and activities, in compliance with the provisions of Law No. 4 of 1994, as amended by Law No. 9 of 2009 regarding the environment, which obliges the entity to assess the environmental impact of entities new projects as mentioned by the law through evaluating the performance of some reclaimed and cultivated land development and service projects by increasing the agricultural area and contribute to solve the problem of unemployment and the transmission of population density from the land of the Delta to the new reclaimed land as well as increasing the country's production from various agricultural and industrial sources and increasing the country's export potential as well as establishing a basic base for the development and reconstruction of deserts by linking them to the Nile Valley and Delta, developing this project with all its aims of developing and creating agricultural, industrial, touristic and urban communities.

The following are examples of evaluating the performance of some projects of developing and servicing reclaimed and cultivated lands:

East Owainat Project

This project is one of the most important national development projects in the field of reclamation and cultivation of desert lands. The project's land is irrigated by groundwater and is located in the South West of the Arab Republic of Egypt in the New Valley Governorate.

The project's supervising authority is the General Authority for Reconstruction Projects and Agricultural Development (affiliated to the Ministry of Agriculture and Land Reclamation)

as well as the Groundwater Sector (affiliated to the Ministry of Water Resources and Irrigation).



Project Goals:

- Adding new areas of agricultural land.
- Increasing the country's production of various agricultural and industrial sources as well as increasing the country's potentials in export.
- Relieve the population's pressure on major cities and urban centers.
- Provide new work opportunities.
- Attracting new investors to start new development projects in the region.

- Establishing a fundamental base for the development and reconstruction of deserts and linking it with the Nile Valley and Delta.
- Developing this project with all its objectives of creating and upgrading agricultural, industrial, touristic and urban communities.

The most important findings:

- The total area exceeded the maximum permissible limit in light of the available aquifer.
- The number of wells permitted to be drilled in the project exceeded the licensed wells, which affects the safety of the aquifer in the region.
- Till the 31st of December 2019, the percentage of the total cultivated areas to 94% of the reclaimed areas were cultivated until the 31st of December 2019.
- Some investors did not install counters to measure the discharge of the well's water.

- Some investors cultivate large areas of land that are voracious for water (Alfalfa) and thus violating the restrictions set for the use of groundwater in the project.
- The General Administration for Collection at the Central Department of Ownership and Disposal of the General Authority for Reconstruction projects and Agricultural Development didn't take the necessary measures towards collecting the rest of the price allocated to some investors.
- Some companies didn't abide with their commitment to cultivate the areas allocated to them which necessitate taking legal procedures against them.

Based on the above, SAI Egypt recommended the following:

➤ The General Authority for Reconstruction Projects and Agricultural Development should take the necessary procedures towards coordinating with the

project's relevant authorities, companies and investors to rehabilitate and enhance the efficiency and maintenance of the roads implemented in the project to improve a convenient transportation of individuals and agricultural products to local markets and ports.

- The need to form a committee including both the General Authority for Reconstruction Projects and Agricultural Development and the Ministry of Water Resources and Irrigation to execute a field inventory of all the wells implemented by each company separately to determine the commitment of these companies to drill the authorized wells according to the project's plan in order to maintain the best region's groundwater utilization and take legal action against the offending companies.
- ➤ The General Authority for Reconstruction Projects and

- Agricultural Development should form a technical committee to execute a field inventory of all the project's disposed areas either through the selling or renting systems (Usufruct System) whose owners proved to lack seriousness.
- Projects and Agricultural Development should take legal actions against companies that violate the specified regulations and standards as they cultivate water voracious crops that affect the safety of the aquifer in the region.
- Reconstruction Projects and Agricultural Development should take the necessary measures to collect the debts owed by the companies and investors in the project's lands either through selling or renting systems as well as take the legal procedures in case they continued not to pay those debts.

Youth Graduates Project

The General Authority for Reconstruction Projects and Land Reclamation Sector are implementing the national project for developing and serving the youth graduates' land at the level of all governorates of the Arab Republic of Egypt in the desert lands aiming to reclaim and allocate them to youth graduates and other categories.



Project Goals:

- Increasing the agricultural area.
- Contributing to solve the unemployment problem for graduates by giving some of them the opportunity to own reclaimed land and a house.

- Establishing new communities with integrated services through providing an opportunity for different majors and graduate degrees holders to obtain new lands.
- Investing the energies of young people in developing reclaimed lands in order to reach the highest productivity through their rapid understanding of advanced technology.
- Transforming the population density from delta lands to new reclaimed lands.

The most important Findings:

- Some graduates have been resettled after adjusting their status as investors at investment price.
- The status of buyers of different user categories has been codified at investment price.
- The existence of shortage differences in some areas delivered from the General Authority for Reconstruction Projects for the Land Reclamation Sector in addition to the absence of records of delivery and receipt of land's minutes in other areas.

- The inaccuracy of the arrears statement and in light of not including the installments' data that have not been obtained since the beginning of the collection. In addition to the failure to collect some of the premiums of the original beneficiaries who sold to the investors violating in this regard the contractual clauses, according to which the contract shall be terminated in case of two consecutive late payments.
- The prevalence of violation cases of construction, agriculture as well as those of graduated and beneficiaries to the conditions and rules of the land and housing regulation usage in addition to the conversion of some land plots to fish farms.
- The lack of accurate cadastral maps of the released areas to the Land Reclamation Sector by the Authority which led to:
 - Insufficient pieces of land on actual delivery.

- The beneficiaries of some areas were harmed due to the annexation of some of their land areas to the investors' lands.
- Re-dealing on the interspersed lands (the excluded) for a number of pieces in accordance with the regulations set in this regard and the difficulty of pricing those lands.
- Allocating some land areas more than once.

The aforementioned findings indicate the absence of a correct, accurate and reliable database between the Authority (landowner) and the Land Reclamation Sector (the executor).

- The existence of uninhabitable housing in some areas having cracks that need to be removed.
- Land beneficiaries face some problems like for example:
 - Poor roads, lack of sewage networks in some villages, and high groundwater levels.

- Lack of health services and poor public services in some areas.
- Non-issuance of final land contracts despite the payment of the full price of land and housing.
- Frequent malfunctions of irrigation stations and some of them stopped working.
- The unlawful infringement on some lands.

Based on the above, SAI Egypt recommended the following:

- ➤ The rapid collection of arrears in order to preserve the public funds.
- The need to find a mechanism for conducting reconciliations of reclaimed lands and finding a solution for problems of delivery and receipt records.
- The need to determine the responsibility and take the necessary measures concerning infringements on state properties as well as violations of construction on

- agricultural land or fish farming or changing plant cultivation activity.
- Considering, coordinating and solving the irrigation problems in order to preserve productive lands which will effectively contribute to bridging the food gap and minimizing the required foreign currency spent on importing strategic crops.
- Working on the completion of remaining infrastructure and reclamation works to benefit from the investments that have been spent.
- Monitoring all the infringements' cases and taking all necessary legal procedures as well as implementing all removal resolutions regarding all violations to preserve agricultural land.

The Egyptian Countryside Project

The project is a continuance of the reclamation agricultural projects under a new name that is the Egyptian Countryside using the internal investment system major as developer of a land development and reclamation project. Also, restructuring reclaimed land plots for a sound follow-up of implementation and setting up new mechanisms.



- Establishing integrated societies that include, in addition to the agricultural activity, the industries associated to it.

- Achieving sustainable integrated development that attracts investors, small farmers and youth.
- Maximizing the benefit of groundwater resources.

Findings:

- There is still a decrease in the sold and delivered areas on the level of all the project's areas.
- The contracted areas were little because of:
 - Insufficient water ration available to cultivate the entire area.
 - Well water salinity.
 - The extent of well sustainability according to their depth.
 - Lack of electric energy due to its high cost and relying on unsustainable sources such as diesel and solar energy.
- Lack of communication networks.
- Deterioration of the desalination plants for drinking water.

- Presence of encroachment on some lands.
- Decrease of the cultivated areas in the project.
- Investors and beneficiaries' violation to contract terms related to the period of reclamation, cultivation and the quality of crops or waterintensive trees.

Based on the above, SAI Egypt recommended the following:

- PExerting more efforts to solve all problems and obstacles facing the company either regarding the infrastructure or well-services areas so that it could achieve its establishment objectives.
- Coordination between the company and the authority for the best way to utilize the replaced spaces.
- Adhering to setting a timetable for completing the contracting procedures, as well as removing all obstacles and removing infringements on the company's land.

- ➤ Studying the reasons that prevent the exploitation and cultivation of all the allocated and sold areas.
- The necessity to adhere to the contractual terms and conditions related to the proportions and quality of crops.

illustrated, the Egyptian Countryside Development Company has not achieved its most important goal, which is the establishment of new urban communities in separate places nation —wide. Furthermore, the company has not prepared the project's general plan to determine the of planned percentage cultivation, which is considered a very small area despite the passage of nearly five years since the establishment of the company.



There have been good responses regarding the observations mentioned in SAI Egypt's reports, taking into consideration the of reports undertaking the legal procedures, the coordination for completion of the required works forming committees against violations as well as limiting errors resulting from the siting and surveying process. Also, restructuring the configuration of the reclaimed pieces to follow-up the implementation for review with the Egyptian General Authority for Survey Geological and Mining Projects and to include the observations that are not yet covered by the Protocol. However, there are many difficulties facing SAI Egypt in the field of environmental auditing, including: inadequate environmental information systems to assist in

planning the environmental auditing the delay of process, some companies in the development of the accounting systems used to help in soundly measuring the natural changes in resources and in the environment that affects the proper evaluation as well as that of performance, in addition to, the difficulty of measuring some of the expenses and environmental returns quantitatively or financially.

Visions of some SAIs to Cope with COVID-19 Pandemic

SAI Botswana

"This has been emotionally challenging for me; however, the experience has taught me to minimize the pressure I place on myself and face each day's challenges as they arise."

The pandemic has significantly affected SAI Botswana operations. The management postponed implementing the operational plan due to the lockdown from April to mid-May 2020, and to reduce the number of people in offices, the



Malebogo Sanah Mogapi, SAI Botswana

management has implemented flexibilities, such as telework, shift work and reduced hours. Due to in-person meeting restrictions, managers have been more receptive to virtual events. Empathy has increased, and some deadlines have been relaxed as the institution learns how to deal with the new normal situation.

The whole experience has been challenging, and with several employees working in shifts, it has been difficult to coordinate project and audit team efforts. There has been much anxiety among employees, prompting empathy and motivation. Effectively planning and performing duties has been hard due to frequent lock downs,

so we do what we can with the time we have. There are many uncertainties surrounding the pandemic. As such, this has been emotionally challenging for me; however, the experience has taught me to minimize the pressure I place on myself and face each day's challenges as they arise.

To be a good leader in this crisis, adaptability and having an open mind are essential, not to mention listening and learning from the people around you and having a willingness to try new things. Empathy is also essential through assisting others with transitioning to the new normal and checking in with team members as much as possible. Integrity remains paramount, especially as we find ourselves working with a higher degree of independence during the crisis.

SAI Egypt

SAI Egypt was able to face the challenges imposed by the Covid-19 pandemic on carrying out its audit mandates through developing some audit work techniques and processes. SAI Egypt set some methodologies and ways to face these challenges and continuing to implement its mandate. It agreed with its audited entities on utilizing the electronic communication methods in transferring



documents' copies as well as holding meetings using e-programs that transfer data. SAI Egypt's Central Department for Training and Continuous Learning assigned its trainers to prepare and hold virtual training programs using electronic communication devices, co-operating with other professional entities either locally, regionally or internationally in benefiting from their virtual training programs as well as participating in virtual webinars and workshops. This, in addition to enhancing SAI Egypt's electronic platform's efficiency through providing scientific materials, furnishing the SAI members with technical advice, providing research papers and professional guidance issued electronically to the members by SAI Egypt or by the local, regional or international professional organizations.

SAI Gambia

"Effective leadership is essential in critical moments, especially in a prolonged crisis, such as the COVID-19 Pandemic. Strong leadership skills are key, as fragmented leadership leads to fragmented organizations."

The COVID-19 Pandemic helped us adjust communication styles-realizing frequent communication can improve understanding. The crisis has also strengthened team bonds and has illustrated the importance of caring for team welfare.



Abdourahman Badjie, SAI Gambia

My team needs me now more than ever! Staying strong is keeping them strong. I try to lead by example and delegate to empower others. Empowerment provides energy to take action and divert attention from negative pandemic impacts. During the crisis, I remind my team to follow the health and safety guidelines as well as the work at hand. Worrying too much about the COVID-19 Pandemic is exhausting, and there is little we can do about it. Team unity is vital to facilitate focusing on what truly matters; personally and professionally.

Effective leadership is essential in critical moments, especially in a prolonged crisis, such as the COVID-19 Pandemic. Strong leadership skills are key, as fragmented leadership leads to fragmented organizations. It is important to note that a crisis is temporary.

Congratulations of SAIs' New Auditors-General

SAI KenyaMs. Nancy Gathungu



Congratulations to Ms. Nancy Gathungu who was sworn in to take over the position of SAI Kenya's Auditor-General on the 17th of July 2020 for a period of eight nonrenewable years succeeding Mr. Edward Ouko whose tenure ended in August 2019.

The Auditor-General pledged to build on her predecessor's legacy and ensure that the office continues gearing audit services towards meeting the needs of the people, expectations of stakeholders and responding appropriately to the constantly changing environment and emerging risks.

Ms. Gathungu said her tenure will be anchored on four pillars; independence, credibility, relevance and accountability which will be the guiding principles in their work to enable them to sustain professionalism and maintain the reputation of the office of the Auditor General as it serves the Kenyan people.

SAI Mauritius

Mr. Charanjivsingh ROMOOAH



Congratulations to Mr. Sunil Charanjivsingh Romooah who was appointed as the new President of SAI Mauritius on the 1st of August 2019. Mr. Romooah obtained the Bachelor degree in Law as well as the Master's degree in Financial Sciences. He is also a fellow of the British Association of Chartered Certified Accountants (ACCA). Mr. Sunil has an experience of more than 34 years in public service and has occupied several positions from Assistant Accountant-General to Deputy Accountant-General to Accountant-General.

SAI Mozambique Mrs. Lucia Maximiano do Amaral



Mrs. Lucia Maximiano do Amaral SAI Mozambique President

Congratulations to Mrs. Lucia Maximiano do Amaral who was appointed as the new President of SAI Mozambique succeeding Mr. Machatine Paulo Marrengane Munguambe whose tenure lasted for around 11 years. Mrs. Lucia do Amaral graduated from Eduadro Mondlane University in Maputo - Mozambique and resumed her studies in the field of law. She occupied several positions before her recent appointment as President SAI Mozambique including the Educational Director of Legal and Judiciary Training Center of the Ministry of Justice, and a Consultant at Mozambique's embassies in France and Russia.

SAI NigerProfessor/ Oumarou Narey



Congratulations to Professor/ Oumarou Narey who SAI Niger welcomed as its new President, He has been an ex-member of the Constitutional Court. During his speech after assuming the new position, Mr. Narey assured that the jurisdiction of his SAI is very extensive as it covers the accounts of all public sector entities and political parties as well as the declaration of assets and accounts of bodies receiving public subsidies. In return, the human and financial resources of SAI Niger are insufficient in spite of its extensive scope of work. He also clarified that SAI Niger aspires through the Strategic Plan (2020-2024) to achieve several goals including enhancing audit quality, promoting stakeholders' confidence, and turning SAI Niger into an exemplary institution in the field of reinforcing gender equality. To achieve these goals, SAI Niger had to face challenges related to covering its jurisdiction in light of human, material, logistic and financial resources' scarcity, in addition to enhancing the relations with stakeholders. Hence, Mr. Narey will strive to develop some governance tools (communication strategy, strategic human management plan, and code of ethics, etc.), implement the aforementioned strategic plan, and apply the financial independence of SAI Niger.

SAI Nigeria

Mr. Aghughu Adolphus



Mr. Aghughu Adolphus

Auditor General of SAI Nigeria

Congratulations to Mr. Aghughu Adolphus Arhotomhenla who occupied the position of SAI Nigeria's Acting Deputy Auditor General on the 26th of October 2020, and was appointed as Auditor-General on the 17th of February 2021. He obtained the Bachelor degree of Science (with Honors) in Economics in 1986, and then he got the Master's degree of Science in Economics in 1997. His insatiable quest for knowledge led him in 2017 to enroll at the School of Postgraduate Studies until he obtained the Doctorate degree in Environmental Resources Management.

He started his career life as a teacher in 1980-1982, and later worked as an accountant in the period from May 1988 to 1992 before joining SAI Nigeria in June 1992.

Mr. Arhotomhenla was the focal person for the SAI Nigeria during the Cooperative Environmental Audit Initiative embarked upon by AFROSAI-WGEA entitled "Depletion of Chad Lake" as well as the Co-operative Audit Initiative on "Integrating Environmental Risks in an Audit Process at the Local Government Level" carried out by AFROSAI-E.

He is a fellow of the Certified National Accountants of Nigeria (CNA), a member of the Nigerian Institute of Management (NIM), and a fellow of the Chartered Institute of Taxation of Nigeria.

SAI South Africa Ms. Tsakani Maluleke



Congratulations to Ms. Tsakani Maluleke who was appointed as Auditor-General of SAI South Africa from the 1st of December 2020 for a period of 7 years in accordance with South Africa's Constitution. Her appointment succeeded the deceased Mr. Kimi Makwetu who passed away on the 11th of November 2020.

Ms. Tsakani Maluleke is the first woman to hold the position of South Africa's Auditor-General in its 109-year history. She was also the first female Deputy Auditor-General.

Her background as a Chartered Accountant (CA) spans more than 20 years with an experience in both the private and public sectors, and in fields as diverse as auditing, corporate advising, development financing, investment management and skills' development agencies.

Ms. Tsakani served in the Presidential Broad-Based Black Economic Empowerment Advisory Council (BBBEE), where she successfully led a subcommittee that developed recommendations for Broad-Based Black Economic Empowerment. As Chairperson of the CA Charter Council, she led the first BBBEE sector charter, which focused on key transformation initiatives that improved access for black people to join the profession. As SAI South Africa chairs the Capacity Building Committee (CBC), Ms. Taskani Maluleke is the Chairperson.

SAI TanzaniaMr. Charles Edward Kichere



Mr. Charles Edward Kichere
Tanzania Comptroller and
Auditor-General

Congratulations to Mr. Charles Edward Kichere who was sworn in on the 4th of November 2019 for assuming the position of the Comptroller and Auditor-General of SAI Tanzania succeeding Professor/ Mussa Assad whose tenure (five years) ended in the same month. Prior to his appointment, Mr. Kichere served as the Regional Administrative Secretary for Njombe. He also served as the Commissioner-General for the Tanzanian Revenue Authority. Formerly, he was the Internal Auditor for each of Tanzania National Roads Agency, Unilever Tea Kenya Ltd. and Unilever Tea Tanzania Ltd.

Mr. Kichere promised, during the National Assembly Session held prior to his appointment ceremony, to reinforce the relations between the Parliament and the Office of the Auditor-General.

SAI Zambia

Dr. Dick Chellah Sichembe



Congratulations to Dr. Dick Chellah Sichembe whom SAI Zambia welcomed as its new Auditor-General on the 18th of December 2019.

Dr. Sichembe is an experienced Chartered Accountant and Economist. He has over 20 years' extensive experience in public sector accounting, having occupied various senior positions in the public service till the highest rank; the Accountant-General. During his tenure as Accountant-General, he had an effective role in auditing many public finance-relevant laws.

He is a fellow of both the UK's Association of Chartered Certified Accountants (ACCA) and the Zambia Institute of Chartered Accountants (ZICA). He also holds a Master's Degree in Corporate Strategy and Economic Policy from Maastricht University in the Netherlands and a Doctorate's degree in Business Administration majoring in Finance from Binary University of Malaysia.

South Africa Auditor-GeneralMr. Kimi Makwetu



Mr. Kimi MakwetuFormer South Africa AuditorGeneral

The decease of Mr. Kimi Makwetu did not just affect his colleagues in SAI South Africa, but it surpassed it to include the entire AFROSAI and INTOSAI communities. Mr. Makwetu was one of the AFROSAI representatives in the INTOSAI Governing Board in addition to his presidency to both the INTOSAI Capacity Building Committee (CBC) and AFROSAI-E.

Mr. Makwetu was well known inside AFROSAI and INTOSAI Communities of his dynamism, deep insight, and decisive analysis in discussed issues. These words were taken from the lamentation letter send by Mrs. / MBAH ACHA Rose FOMUNDAM, AFROSAI Secretary-General, to the South African Auditor-General Office, in which she added that throughout his term has managed to obtain all expected results in different situations and all tasks assigned to the office. Many SAIs carried out Mr. Makwetu lamentation.

In the lamentation presented by INTOSAI Capacity Building Committee (CBC) to Mr. Makwetu, his colleagues recalling some of his famous words which show how he was passionate about capacity building and his aspiration for the profession, including:

"We know that the path towards building professional capacities is a challenge, but we know that we are not alone in this journey, we know that we can depend on advice and mutual support in the spirit of friendship and unity of goals. This is the core of INTOSAI" (INTOSAI Capacity Building Committee Annual Meeting, Cape Town, October 2016).

"In our capacity as institutions keen on making the world a better place, I have no doubt that we are ready to compromise, stand together and learn from each other, as we have a massive value to add to Agenda 2030" (SAIs Leaders Meeting in the United Nations, New York, July 2018).

"Passion is very important in the roles we play in the government. Working with limited budgets, mostly in difficult conditions, and our attempts to enhance the lives of our citizens through our work, is a challenge, and we will see ourselves in this ambition only when we have passion to create a better future" (Nanjing Audit University, Nanjing, April 2019).

"Even in the midst of COVID-19 crisis, transparency and accountability in the field of governmental spending for the benefit of citizens cannot retreat" (Johannesburg, September 2020 during the launch of the First Report of South Africa Auditor-General Office on COVID-19).

African Union Board of External Auditors (AU-BoEA)



Mr. Abdelkader Ben Maarouf, President of SAI Algeria and President of the African Union Board of External Auditors (AU-BoEA) for the financial years of 2018 and 2019 chaired a virtual meeting on the 9th of February 2021, in which the 2019 financial statements of the African Union Commission (AUC) were audited and approved as well as those of the six further AU organs; the Pan-African Parliament, African Union Development Agency (AUDA-NEPAD), the African Court on Human and Peoples' Rights (AFCHPR), the African Commission on Human and Peoples' Rights (ACHPR), the African Union Advisory Board on Corruption (AU-ABC), and

the African Peer Review Mechanism (APRM). Mr. Ben Maarouf praised, in his opening speech, the quality of audit work done virtually achieved by the audit teams of 10 African countries led by SAI Algeria despite the difficulties imposed by COVID-19 Pandemic on all countries. He also added that the quality of the findings and recommendations drafted by the BoEA financial auditors will widely contribute to enhance the credibility of the African Union among the African citizens and other stakeholders. For the aforementioned two financial years, the BoEA included SAIs of Algeria, Egypt, Morocco, Nigeria, and South Africa as permanent members, and SAIs of Congo, Tunisia, Namibia, Ghana, and Madagascar, as temporary members. SAI Nigeria has been elected as the new President of BoEA for the financial years of 2020 and 2021.



COMESA External Audit

On the 23rd of September 2020, the COMESA General Secretariat organized a virtual meeting at the level of member states' Auditors-General. This meeting was chaired by the President of the Accountability State Authority (ASA) of Egypt, where Egypt was unanimously elected President. The meeting considered the report of the technical experts of the COMESA member SAIs on their meetings devoted to reviewing and discussing the findings and observations on the four review tools of the COMESA Board of External Auditors (COBEA), which ended with the unanimous recommendation for their approval after examining and studying all findings and observations and dealing with them.

The Auditors-General recommended adopting the four review tools and submitting them to the COMESA policy-making bodies for approval. These four tools are as follows:

- a- COBEA Manual of Financial Review.
- b- COBEA Quality Assurance Manual.
- c- COBEA Rules of Procedures.
- d- COBEA Manual of Standard Operating Procedures.



ASOSAI's Contribution

Renewable Energy in Kuwait

State Audit Bureau of Kuwait



Related Sustainable Development Goals

Goal number 7: Ensure access to affordable, reliable, sustainable and modern energy for all.

Target 7.2 By 2030, increase substantially the share of renewable energy in the global energy mix.

Indicator 7.2.1: Renewable energy share in the total final energy consumption.

Introduction

By 2030, the State of Kuwait aims to produce 15% of the electricity from renewable sources, particularly solar

energy, and wind energy. This goal is generated by the vision of His Highness the Amir in his address to the 18th United Nations Conference on Climate Change in Doha in 2012, as the use of renewable energy sources to generate electricity has become an urgent necessity for the State of Kuwait as a result of exposure to several risks to the development of economic, social and environmental aspects, also, to keep up with the global trend of the use of renewable energy. The projected growth rate of renewable energies will be 19% during the period 2015-2040, the highest growth rate among other energies. Big data is related and

important to renewable energy sector in many aspects, such as predicting weather conditions from historical data, having extra space storage for day-today operations of various solar and extracting wind plants, useful information to analyze and improve production. Big and techniques and tools help to increase the efficiency while reducing the production cost.

Audit Objectives

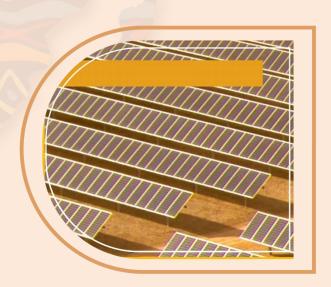
Evaluating the economy, efficiency, and effectiveness of the procedures and policies set by the concerned authorities to implement the plan and vision of the State of Kuwait to achieve the goal of generating 15% of the country's electricity from renewable sources by 2030.

Data collected

The data were gathered from General Secretariat of the Supreme Council for Planning and Development, Kuwait Institute for Scientific Research, The Ministry of Electricity and Water, Kuwait Oil Company, Kuwait National Petroleum Company, Environment Public Authority, and Public Private Partnership Authority.

Methodology

The methodology used to pursue the objective of the audit was a combination of System and result based approach. The audit procedures were carried out by INTOSAI Standards 300, 3000, 3100, 3200, and 5130. In addition, a questionnaire was prepared for several stakeholders (employees, students, and parliament).





The findings of the report concentrated on following aspects:

- 1- The multiplicity of agencies responsible for implementing the goal of generating electricity from renewable sources to achieve the plan and vision of the State of Kuwait to produce 1% of the Kuwait electricity of renewable sources in 2015, and to reach 15% by 2030. However, it was found that the specific objectives of each party were not determined by setting specific rates for these government agencies during specific periods. In addition, the completion of projects related to renewable energy requires coordination efforts that take a long period. Both contribute to delaying the implementation of projects in government agencies.
- 2- Failure to include most of renewable energy projects progress in Kuwait annual plan 2017/2018, hence, the inability of the General Secretariat

- of the Supreme Council for Planning and Development to follow up those projects and issue follow-up reports effectively. Noting that the Secretariat urges the need to implement and achieve renewable projects in time. Additionally, to inform international organizations such as the United Nations of Kuwait's indicators of renewable energy related to the goals of sustainable development.
- 3- The participation of the private sector in the project is not included within the third phase of the project as planned during the period 2015-2025 due to the length of the documentary cycle for the third phase and lack of data. The correspondence the between relevant parties lasted for a long time. One of the specific objectives of the project is to provide infrastructure for private sector participation in generating electricity using renewable energy technologies. Which indicates the existence of financial, operational and

environmental risks that affect the implementation of projects in a timely manner at a reasonable cost with high quality and efficiency. Therefore, affecting the achievement of the vision of Kuwait 15% of the total energy produced from renewable sources, and achieving the specific objectives of the projects such as providing accurate information about the performance and cost of generating electricity from renewable energy technologies for decision makers.

- 4- The objective of the oil sector plan is to reach 15% of the total renewable energy consumed in 2021, in line with plan and vision of the State of Kuwait, and there are no clear sub-targets and clear indicators for the completion of current and future projects in order to reach the desired goal in time.
- 5- There are 4 future projects for the Ministry of Electricity and Water with a total estimated value of KD 124 million dollar with implementation

- period ranging from 18 to 24 months. The quantity of the targeted production capacity of these projects was not shown.
- 6- The value of the index of sustainable development goal 7.2 (the ratio of energy of the consumption from renewable sources) Kuwait reached zero until 2014 by the United **Nations** Sustainable Development goals and Indicators website. The value of this indicator was not recorded while indicators values for other goals were recorded in 2015 and 2016. This indicates that there is no reliable local indicator and database to measure percentage of energy consumption from renewable sources in the country.
- 7- A comparative study of the methodology for achieving the renewable energy goal between the EU countries and the State of Kuwait shows that:

- a. No progressive targets are set for achieving the target of 15% by 2030, while the European Union has set specific progressive target ratios to achieve 20% by 2020, reaching a target of 27% by 2030.
- b. Most of the renewable projects were not included in the country's annual development plan.
- c. There is no independent authority to record, measure, and follow up renewable energy projects in the country.

Which is difficult to follow up the implementation of the target and measuring the percentage of achievement during subsequent periods. Additionally, it negatively affects the achievement of the sustainable development goals and its impact on the status of the State of Kuwait with international indicators organizations.

Lessons Learned

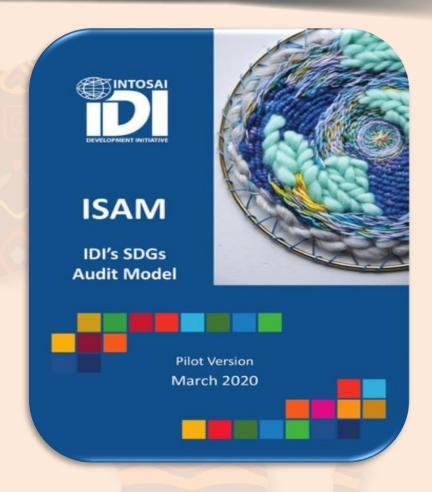
The audit report concluded the importance to look for these main areas in order to achieve the target:

- 1- The need for an independent entity specialized in renewable energy in the country. This will enable the provision of a central database on the performance and cost of generating electricity from renewable energy technologies, accurate measurement indicators, and feasibility studies for decision makers, monitoring the specialized expertise of national cadres, and private sector participation.
- 2- Taking the necessary actions and measures to study the generalization of the experience of installing photovoltaic cells in governmental buildings, such as schools, mosques, ministries buildings considering economic. their social and environmental feasibility, which requires the need for a coordination similar mechanism to manage projects in all entities. Accordingly, it contributes to achieve the vision of Kuwait 2030 in terms of renewable energy and to avoid obstacles in the future.

- 3- Setting quantitative and qualitative goals for renewable energy projects and detailed timeline related to specific achievement rates achieve the plan to produce 15% of power from renewable electric sources. This will contribute to all renewable linking energy projects and effectively measuring and monitoring of completion rates to achieve the goal.
- 4- The need to work on addressing the obstacles that led to the delay to implement most of the projects within the program of renewable energies, as well as study the reasons that led to the failure to include some projects, especially those with a strategic dimension within the annual development plans of the country.
- 5- The need to focus on the indicators of the State of Kuwait related to renewable energy within the

database of sustainable development goals of the United Nations. In order to highlight all the efforts and projects associated with the contribution of raising the index of the weather and energy status of Kuwait. Thus, reflecting positively on its reputation.

Launching the IDI's Model On Sustainable Development Goals' Auditing



The INTOSAI Development Initiative (IDI) decided to continue providing support to SAIs in auditing the Sustainable Development Goals (SDGs) by preparing the INTOSAI IDI Model for Auditing the Sustainable Development Goals, and a pilot version of the model was launched in June 2020.

This template is a guideline for SAIs to conduct high-quality audits of the implementation of the SDGs. The model is classified within the performance audits that focus on auditing the nationally agreed goals associated with the SDGs targets.

To read the report click here

