

## ROYAL AUDIT AUTHORITY NEWSLETCER A Half-yearly publication



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#### Editorial...

We are pleased to bring the 5<sup>th</sup> issue of the **bi-annual** RAA Newsletter.

In this issue, we bring to you a brief account of RAA's initiatives in capacity development. The implementation of comprehensive capacity building programme, *"ISSAI Implementation Initiative"* or *"3i Programme"* that covers core audit disciplines of financial, compliance and performance audits that is already underway. It promises us with strengthened auditing profession, benchmarking of practices and enhanced credibility of our products.

Beside the brief account of various events and developments that have taken place during the period, we have two interesting articles contributed by Bikram Gurung, who shares his views on *"Using Econometrics for Performance Audits"* & from Passang Wangchuk, with his thoughts on *"Corruption Control in Singapore and Bhutan"*.

The editorial team would like to wish all our readers a very happy reading!

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#### ENHANCING PROFESSIONALISM THROUGH GLOBAL INTEGRATION

The International Standards of Supreme Audit Institutions (ISSAI) is the professional standards and best practice guidelines for public sector auditors, officially authorized and endorsed by the International Organization of Supreme Audit Institutions (INTOSAI). The 20th INTOSAI Congress (South Africa, 2010) adopted a comprehensive set of ISSAIs that cover the core audit disciplines of financial, performance and compliance audits. INTOSAI called upon its members to use the ISSAI framework as a common framework of reference for public sector auditing and implement the ISSAIs in accordance with the mandate and national regulations of the respective SAIs. The benefits and values of using the ISSAIs are many and diverse, but include increased and uniform quality of audit, enhanced credibility and professionalism.

The RAA, as signatory to the South African Declaration adopted a comprehensive set of ISSAIs, which represent milestones in strengthening the audit profession, facilitating benchmarking of current practices against internationally recognized best practices, and ensuring increased credibility of the reports of RAA.



The INTOSAI Development Initiatives (IDI) has initiated support for implementation of ISSAIs with a comprehensive capacity building programme called the *"ISSAI Implementation Initiative"* or *"3i Programme"* for the Supreme Audit Institutions in the developing countries. The Programme would roll over a period starting from 2012 to 2014.

The RAA has formed its own Working Group responsible for ISSAI implementation in the organization. The RAA has participated in the Performance Audit Product Development Meeting and the design meeting for Workshop on facilitating ISSAI Implementation which were held in Paro, Bhutan in April 2013 and Financial Audit Product Development meeting in Oslo, Norway in May-June 2013.

RAA'S NEWSLETTER

#### **NEWS/EVENTS**

#### SAI BHUTAN PARTICIPATES IN THE 15<sup>TH</sup> MEETING OF THE INTOSAI WGEA

The Hon'ble Auditor General of Bhutan, Dasho Ugen Chewang accompanied by Bhanu Bhakta Chhetri, Sr. Dy. Auditor General attended the 15<sup>th</sup> Meeting of "INTOSAI Working Group on Environmental Auditing (WGEA)" in Tallinn, Estonia from 3<sup>rd</sup> to 6<sup>th</sup> June, 2013.

The Meeting was attended by around 158 delegates from 70 Supreme Audit Institutions (SAIs) and several international organizations. 15 Heads of SAIs including the Auditor General of Bhutan were present for the meeting.

During the meetings, the participants from various SAIs presented their recent environment audit experiences and shared knowledge that they gained through these exercises.

From SAI Bhutan Bhanu Bhakta Chhetri presented on *"Successes and Challenges in Environmental Auditing in SAI Bhutan."*  The 15<sup>th</sup> Meeting approved seven INTOSAI WGEA documents and WEGA's new work plan for 2011-13 and SAIs signed up for future study projects. The meeting was funded by INTOSAI.



Documents Approved during the Meeting:

- ✓ Addressing Fraud and Corruption issues when auditing Environmental and Natural Resources Management: Guidance for SAIs;
- ✓ Auditing water issues: An examination of SAI experiences and the Methodological tools used successfully;
- ✓ Sustainability Reporting − Concepts, Frame works, & roles of SAIs;
- ✓ Impact of Tourism on Wildlife Conservation;
- ✓ Environmental Issues associated with infrastructure Development;
- ✓ Environmental Data: Resources and options for SAIs; and
- Land Use and Land Management Practices in Environmental perspectives.



RAA'S NEWSLETTER

#### AUDITOR GENERAL ATTENDS THE 22<sup>ND</sup> UN/INTOSAI SYMPOSIUM IN AUSTRIA

The Hon'ble Auditor General of Bhutan attended the 22<sup>nd</sup> UN/INTOSAI Symposium convened in Vienna, Austria at the Vienna International Center, from 5<sup>th</sup> to 7<sup>th</sup> March, 2013. The theme was "Audit and Advisory by SAIs: Risks and Opportunities, as well as Possibilities for Engaging Citizens".

At the Symposium, top representatives of supreme audit institutions (SAIs) of the member countries of INTOSAI gave their presentations. The presentations dealt with the following sub-themes in detail:

- Audit and Advisory by SAIs: Requirements and Opportunities for Government Auditing;
- Risks and Opportunities of Audit and Advisory by SAIs;
- Effectiveness and Transparency of Audit and Advisory through the Participation of Citizens.

At the end of the Symposium, the participants approved high-level conclusions and recommendations taking up and resuming the main points, expertise, and ideas of the participants and lecturers.

On his return from the Symposium, the Hon'ble Auditor General conducted Audit Sensitization Programme at Bhutanese Missions & Embassies. The Pending audit issues pertaining to the Embassies and Missions were also discussed during the Meeting. Such meetings were held at Permanent Mission of Bhutan, Geneva, Royal Bhutanese Embassy, Brussels and Royal Bhutanese Embassy, Bangkok.

The officials of the Embassies and Missions were briefed on the Roles of RAA in Promoting Accountability and Transparency in the use of Public Resources. It also highlighted common audit findings in Missions and Embassies.

The Auditor General was accompanied by Dorji Wangchuk, Assistant Auditor General, Policy, Planning and Annual Audit Report Division.



#### MoU SIGNED FOR STANDARD OPERATING PROCEDURES ON JOINT AUDIT OF GOI ASSISTED HYDROPOWER PROJECT IN BHUTAN

The Agreement on 'Standard Operating Procedures on Joint Audit of Gol Assisted Hydropower Project in Bhutan' was signed on February 1st, 2013 between the RAA represented by Jamtsho, Deputy Auditor General and Office of Comptroller and Auditor General of India, represented by Sri L. V. Sudhir Kumar, Director General of Audit, Central and Kolkata. This was pursuant to the requirement of the bilateral agreement between the RGoB and the GoI/ project authority.

The agreement contains 23 Clauses and all the joint auditing works between the two offices will be dealt as per the agreement.



#### Some Highlights of the Agreements:

- A joint audit to be carried out by the RAA and the Office of the Director General of Audit, Central, Kolkata;
- The type of audit will primarily be financial audit. However, the performance audit will be integrated based on the understanding and agreements.

- The RAA shall play a lead role in the overall coordination of the audit and the coordinating activities shall be carried out in continuous consultation of the DGA. In the event where the coordination along with the project management is required within the jurisdiction of India, such activities will be carried by DGA in consultation with Bhutan;
- The audit plan will be prepared jointly by auditors from RAA and DGA, Central, Kolkata;
- The audit shall be carried out in accordance with the Bilateral agreement signed between RGoB and GoI, DPR, Various contract agreement, BSR, PRR, and any other applicable laws;
- The audit shall be carried out in accordance with the guidelines /circulars on the service conditions issued by Ministry of External affairs, GoI for the employee on deputation from India;
- The audit shall be conducted in accordance with the Generally Accepted Auditing Standards and in line with the international best practices of auditing;
- Discussion and deliberation on audit issues shall take place in continual process until the audit is complete and the report issued.

The SOP came into force from February 1, 2013. It shall be applicable for the existing projects and other GoI Assisted Hydropower Projects.

#### **3I PROGRAMME - MANAGEMENT WORKSHOP HELD AT PHNOM PENH, CAMBODIA**

Jamtsho, Deputy Auditor General and Tashi Tobgay, Assistant Auditor General participated in the three day Management Workshop for IDI-ASOSAI 3i Programme. It was held in Phnom Penh, Cambodia from February 27<sup>th</sup> to March 1<sup>st</sup>, 2013 with administrative support from the National Audit Authority of Cambodia.



The workshop was attended by the top managements members from eligible SAI's. It aims to raise awareness related to ISSAI Implementation; provide a platform for sharing experiences in ISSAI Implementations; provide for discussions on strategic considerations for implementation and the risks and challenges; explain ISSAI Compliance Assessment Tools (iCATs); and to discuss & get commitment from the 20 SAIs for implementation of ISSAIs. At the end of the workshop, representatives of 20 SAIs, ASOSAI and the IDI signed the Statement of Commitments which detailed the roles and responsibilities of each SAI, ASOSAI and the IDI in implementing ISSAIs

SAIs participating in IDI's 3i Programme						
$\checkmark$	Afghanistan	$\checkmark$	Bangladesh			
$\checkmark$	Bhutan	$\checkmark$	Cambodia			
$\checkmark$	China	$\checkmark$	India			
$\checkmark$	Indonesia	$\checkmark$	Iran			
$\checkmark$	Kyrgyz Republic	$\checkmark$	Lao PDR			
$\checkmark$	Malaysia	$\checkmark$	Maldives			
$\checkmark$	Mongolia	$\checkmark$	Myanmar			
$\checkmark$	Nepal	$\checkmark$	Pakistan			
$\checkmark$	Philippines	$\checkmark$	Sri Lanka			
<b>√</b>	Thailand	✓	Vietnam			

The IDI and ASOSAI are collaborating to deliver a comprehensive capacity development programme called ISSAI Implementation Initiative (3i Programme) to support SAIs in developing countries in the ASOSAI region in the implementation of Level 2 and Level 4 of ISSAIs.

## THE7<sup>TH</sup>PERFORMANCEAUDITINGSEMINAR& THE22<sup>ND</sup>MEETINGOFINTOSAI-WGITA

With invitation from the International Organization of Supreme Audit Institutions (INTOSAI), Tempa Gyeltshen, Assistant Auditor General and Chimi Dorji, Assistant Auditor General attended the 7<sup>th</sup> Performance Auditing Seminar hosted by the National Audit Office of Lithuania on 22<sup>nd</sup> & 23<sup>rd</sup> April 2013, followed by the 22<sup>nd</sup> meeting of the INTOSAI Working Group on IT Audit (WGITA) on 25<sup>th</sup> & 26<sup>th</sup> April, 2013.

Nearly 100 participants from 48 countries attended the Seminar. The main topic of this year's Performance Auditing Seminar was "*The Role of* 

Supreme Audit Institutions (SAIs) in Promoting IT Management Efficiency in the Public Sector."



The participants discussed the issues of audit control, more effective IT management in the public sector, and cyber security and presented some of more interesting IT technology audits.

Following the IT Performance Auditing Seminar was a two-day meeting of the INTOSAI WGITA. The meeting was part of the Work Plan 2011-2013. There were presentations from many SAI Countries and sharing of experiences.

The Working Group also finalized the Work Plan for the years 2014-2016. Five projects have been included in the work plan. An interesting highlight of the new Work Plan is the focus on developing the 5,300 series of ISSAIs on IT Audit.

#### SEMINAR ON "SAIS: MEETING HIGHER EXPECTATIONS" HELD IN SRI LANKA

On the invitation of the Auditor General's Department of Sri Lanka (AGDSL), two officials from RAA, Jamtsho, Deputy Auditor General and Rinzin Lhamo, Deputy Chief Audit Officer participated in the two-day seminar on the theme *"SAIs: Meeting Higher Expectation"*. The sub theme of seminar also includes:

- Stakeholders expectations;
- SAI responses to increased stakeholders expectations;
- ISSAI Implementation Challenges; and
- Emerging issues in performance auditing.

#### RAA HOSTS PRODUCT DEVELOPMENT MEETING IN PARO

The Product Development Meeting for ISSAI Implementation handbook for Performance Audit was conducted from 18<sup>th</sup> to 26<sup>th</sup> April 2013 at the Tenzinling Resort in Paro. The programme was initiated and funded by INTOSAI Development Initiative (IDI). This was the second part of the ISSAI Certification Programmes. The meeting also developed the course materials for performance audit. The participants from SAI Fiji, SAI Lesotho, SAI Brazil, SAI India, and SAI Bhutan took part in the three weeks long meeting.



The Participants of the Product Development Meeting

#### WORKSHOP FOR "DISCUSSION ON THE FIRST DRAFT OF AUDIT MANUALS AND POLICY DOCUMENTS" HELD IN PARO

A weeklong workshop to discuss on the first drafts of 22 audit manuals and two policy documents was held in Paro from May 11<sup>th</sup> to 17<sup>th</sup>, 2013. 24 Core Groups comprising of around 50 participants attended the meeting. The members of the Review Team comprising of internal expertise of the RAA were also present.

The Hon'ble Auditor General accompanied by Bhanu Bakta Chhetri, Sr. Dy. Auditor General and Jamtsho, Dy. Auditor General attended the fifth day session and shared their insightful thoughts and useful directions which had added enormous value to the manuals that are being developed.



At the end the first draft of around 14 audit manuals and two policy documents were finalized and submitted to the Internal Review Team for necessary review and comment. After finalizing the draft, the RAA will hold discussion with its stakeholders, send the documents for further review by peer SAIs and independent consultants and conduct pilot test on its applications. The development of audit manuals and policy documents is an initiative undertaken by the RAA with financial assistance from Austrian Development Cooperation, Government of Austria and it is expected to be completed by 2015.

## CAPACITY BUILDING INITIATIVES IN RAA

Over the last few years, the RAA has initiated series of activities for the capacity and professional development of auditors. Besides, trainings on various auditing techniques and skills, RAA is currently developing the "Audit Resource" Management System (ARMS)" which would computerize the whole auditing processes, right from planning to followup. Further, RAA is also in the process of project documents preparing and gathering feedbacks from its employees. The following is a brief piece on the progress & development of the ARMS Project:

#### Development of Audit Resource Management System (ARMS) in RAA

#### **Brief Background**

Audit Information Management System (AIMS) was developed in 1997, mainly to enable the Royal Audit Authority (RAA) to automate the issuance of audit clearance certificates and store audit histories. The system also maintains information on audit observations and audit recoveries against individuals. However, the system does not cater to all audit functions and operations. Therefore, the development of new system "Audit Resource Management System (ARMS)" was conceived as envisaged by the present Auditor General in 2009 to overcome all shortcomings of the present system and cater to all audit functions. The concept was then proposed to Asian Development Bank (ADB) for support and in December 2010, the proposal was accepted and approved by ADB.



Servers for ARMS project being installed

The development of ARMS is included in the RAA's Strategic Plan 2010-2015 under Strategy 3.7 of Programmatic goal number 3 which is 'To reduce audit cost". **Objectives** 

The objectives of ARMS are as follows:

- To enhance efficiency and effectiveness of delivery of audit services;
- To manage work flow of all audit functions and operations;
- To reduce cost of audit;
- To document audit working papers electronically;
- To ensure that commitments are achieved by monitoring the progresses in the field; and
- To facilitate and keep track of performances of divisions, teams and individual auditors.

#### **Development of ARMS:**

This system is being developed catering to all audit functions and operations. The system will computerize the entire auditing process from planning to follow-up. The system will be webenabled which can be accessed from the field using the internet. The system will have features to monitor work progresses in the field and track performances of individuals, teams, divisions, and departments. Electronic documentation of audit working paper will also be possible in the system. Currently, ten Information Technology personnel are developing the ARMS system in-house.

The ARMS system will be divided into eleven sub systems as shown below:

- i. Audit Management Planning
- ii. Audit Management Execution
- iii. Audit Management Reporting
- iv. Audit Management Follow-up
- v. Quality Assurance
- vi. Human Resource Management
- vii. Training
- viii. Inventory Management
- ix. Attendance
- x. General Administration
- xi. System Administration

#### **Expected Benefits**

The web-enabled ARMS is intended to enhance RAA's efficiency and effectiveness in providing audit services. It will help the RAA to efficiently plan and schedule audit assignments, monitor the progresses of audits in the field and track disposition of the large number of audit observations. Implementation of the ARMS will potentially improve the audit management processes and produce better quality audit reports.

#### **Expected outcomes**

- Enhanced effectiveness and efficiency of delivery of audit services;
- Improved quality & timely delivery of audit services;
- Reduced time & cost of audits;
- Improved documentation of audit working papers;

TRANSFER

Achievement of strategic goals.

Chekey Gyeltshen, Assistant Auditor General, has been transferred to the National Assembly of Bhutan. He was promoted to the Executive Level w.e.f. April 1<sup>st</sup>, 2013 after being selected in an open competition for the post of Director at the National Assembly of Bhutan.

He joined the Royal Audit Authority in 1989 as a Sr. Auditor after completing his Post Graduation Certificate in Administration & Management from the Royal Institute of Management, Thimphu. During his tenure in RAA, he held various important portfolios, he headed the erstwhile Performance & Thematic Audit Division (PTAD), the Corporations & Financial Institutions Division (CFID), and he also served as the Assistant Auditor General for the Office of Assistant Auditor General (OAAG) in both Samdrupjongkhar & Phuentsholing. Prior to his transfer he headed the General Governance Division (GGD).

He has a Bachelor's Degree in Commerce from Sherubste College, Kanglung and has also pursued Chartered Accountancy at the Silsoe College in Bedford under the Cranfield University, England, UK. IMPLEMENTATIONOFINTERNATIONAL STANDARDSOFSUPREMEAUDITINSTITUTIONS(ISSAI)INITIATIVES-PROGRAMME

#### 1. Brief Background

#### **1.1 INTOSAI**

The International Organization of Supreme Audit Institutions (INTOSAI) was found in 1953 in Cuba with the objective to exchange ideas and experiences in the field of public audits among the Supreme Audit Institutions around the world. Its motto being 'Experientia mutual omnibus prodest' i.e. mutual experience benefits all. The official working languages include Arabic, French, German, English and Spanish. The organization has 188 countries/states from seven regional working groups.

#### **Regional Working Groups:**

- 1. **OLACEFS:** The Organisation of Latin American and Caribbean Supreme Audit Institutions (1965);
- 2. **AFROSAI:** African Organisation of Supreme Audit Institutions (1976);
- 3. **ARABOSAI:** Arab Organisation of Supreme Audit Institutions (1976);
- 4. **ASOSAI:** Asian Organisation of Supreme Audit Institutions (1978);
- 5. **PASAI:** Pacific Association of Supreme Audit Institutions (1987);
- 6. **CAROSAI:** Caribbean Organisation of Supreme Audit Institutions (1988); and
- 7. **EUROSAI:** European Organisation of Supreme Audit Institutions (1990).

#### **1.2. ISSAI**

The International Standards of Supreme Audit Institutions (ISSAI) was endorsed in 2010 during the 20<sup>th</sup> INCOSAI (INTOSAI Congress) held in Johannesburg, South Africa. The ISSAI comprised of updated and comprehensive sets of international standards, guidelines and best practices for public sector auditing that will add considerable value for its members while delivering its audit mandate.

The INTOSAI members were encouraged to refer ISSAI framework as a common frame for reference and implement it in accordance with their respective mandate and national legislation. The members are also expected to measure their performance and auditing guidelines against the ISSAIs. (Benefits)

#### 1.3. The ISSAI Framework

The ISSAI framework consists of standards and guidelines endorsed by INCOSAI and following are the four levels of official pronouncements of ISSAIs:

#### Level 1 (ISSAI 1 & 2) - Founding Principle

It contains the founding principles of INTOSAI, the Lima Declaration, calls for the establishment of effective Supreme Audit Institutions and provides guidelines on auditing precepts.

#### Level 2 (ISSAI 10 to 40) - Prerequisites for the functioning of Supreme Audit Institutions

It highlights INTOSAI's pronouncements on the necessary preconditions for the proper functioning and professional conduct of SAIs. These include principles and guidance on independence, transparency and accountability, ethics and quality control.

## Level 3 (ISSAIs 100-999) - Fundamental Auditing Principles

This level expresses the essence of public sector auditing by highlighting on the common pronouncements of INTOSAI's members of the generally recognized professional principles that underpin effective, independent auditing of public sector entities.

## Level 4 (ISSAIs 1000-5999) - Auditing Guidelines

The Auditing Guidelines translate the fundamental auditing principles of level 3 into more specific, detailed and operational guidelines that can be used on a daily basis in the conduct of auditing tasks.

## 2. ISSAI Implementation initiative at the Global Level

IDI- the INTOSAI Development Initiative is actively initiating to support ISSAI implementation in five English speaking INTOSAI regions. Accordingly launched a comprehensive capacity development programme called the ISSAI Implementation Initiative (3i programme) in 2012.

#### 2.1 Programme Objectives:

The first phase of the 3i Programme covers level 2 ISSAIs and level 4 ISSAIs in financial, performance and compliance audit and aims to:

- To assess needs at regional and SAI level regarding ISSAI implementation at level 2 and level 4 (financial, performance and compliance audit) of the ISSAI framework.
- Create capacity for implementation of level 2 and level 4 ISSAIs in

financial, performance and compliance audit through global public goods and ISSAI facilitators at global, regional and SAI level.

- Facilitate startup of SAI level implementation by providing support for assessing implementation needs at SAI level to develop ISSAI Implementation strategies, ISSAI based cooperative audits and other startup activities that SAIs may undertake based on their strategy.
- Create an active knowledge community through a web based knowledge portal for ISSAI implementation networks and wider outreach.

# 2.2. 3i Results framework 1. Development of Global Public Goods



#### 2.3. Expected Outcome:

- Development of iCATs for level 2 ISSAIs and financial audit,
- Performance Audit and Compliance Audit ISSAIs at level 4.
- ISSAI Implementation Handbooks for Financial, Performance and Compliance Audit.

- ISSAI Certification Programmes for financial audit, performance audit and compliance audit
- A pool of at least 180 ISSAI facilitators for financial audit, performance audit and compliance audit in the five English speaking regions of INTOSAI.
- ISSAI compliance assessments carried out in at least 30 SAIs in English speaking regions.
- ISSAI implementation strategy for at least 30 SAIs in English speaking regions.
- ISSAI implementation rollout as per strategy in at least 30 SAIs in English speaking regions.
- Knowledge creation, sharing and management on ISSAI implementation through the 3i Community Portal.

#### Model Audit Plan Outline Training

The Offices of the Assistant Auditors General, Bumthang, Phuentsholing, Smadrupjongkhar & Tsirang conducted trainings on the "Implementation of Model Audit Plan Outline" of the RAA.

The training was on the planning stage of auditing which includes understanding the entity and environment, defining audit scope and objectives, determining overall and specific audit materiality, risk assessment, control & operating testing, developing audit criteria & audit programme. The training focused more on practical application than theoretical aspects.

The following In-house experts from RAA conducted the trainings:

- Ugyen Dorji, AAG, OAAG (T)
- Rinzin Lhamo, SAO, OAAG (S)
- Penjor, AO OAAG (P)
- Tshomo, AO, OAAG (B)
- Sonam Wangdi, AAO, CFID

#### ARTICLES

In this edition, RAA's Bikram Gurung, Audit Officer shares his views on using Econometrics for Performance Audits & Passang Wangchuk, Assistant Planning Officer writes his thoughts on Corruption Control in Singapore and Bhutan.

### USING ECONOMETRICS TO ANALYSE DATA IN PERFORMANCE AUDITING

The past decade has seen an unprecedented development of performance auditing in

What is econometrics?

"Its main object shall be to promote studies that aim at

a unification of the theoretical-quantitative and the

empirical-quantitative approach to economic problems

and that are penetrated by constructive and rigorous

thinking similar to that which has come to dominate

the natural sciences. But there are several aspects of the

quantitative approach to economics, and no single one

of these aspects taken by itself, should be confounded

with econometrics. Thus, econometrics is by no means

the same as economic statistics. Nor is it identical with

what we call general economic theory, although a

considerable portion of this theory has a definitely

quantitative character. Nor should econometrics be

taken as synonymous [sic] with the application of

mathematics to economics. Experience has shown that

each of these three viewpoints, that of statistics,

economic theory, and mathematics, is a necessary, but

by itself a sufficient condition for a real understanding

of the quantitative relations in modern economic life. It

is the unification of all three that is powerful. And it is

Ragner Frich (1933), Econometrica

this unification that constitutes econometrics".

Bhutan, with the Royal Audit Authority gearing focus its from transactional audits to a performancebased auditing. These types of audit are also quickly gaining popularity amongst different stakeholders. The common challenge today faced by the performance auditors in Bhutan is the complexity of the data and in

analysing them. The use of econometrics can be an avatar in this field. From

analysing huge data sets to interpreting them, knowledge of econometrics can in fact help auditors to interpret these data properly and accurately, increasing the credibility of the reports in the eyes of the stakeholders and the public at large.

#### The use of econometrics

Econometrics concerns itself with the application of mathematical statistics and the tools of statistical inference to the empirical measurement of relationships postulated by an underlying theory.

Often model building is the core for any econometrics analysis. So what is a model anyway? It is usually easy to understand that 'model' is simply the abstract of the real world. The proposition that one variable is caused by another, or varies with another or more is an interesting point where one can look at the behaviour of the variable in interest. Such models can help us interpret complex behaviour, such as the example cited here. 'If government increases or decreases the budget on expenditure on

> referral cases, by how much will the diseases be controlled or vice versa.' Therefore, an econometric model is not really bundles of complex equations, but is a cleverly designed set of ideas of the relationships. These ideas should be represented in a set of mathematical equations because of the preciseness and accuracy of mathematical properties.

The first question that comes into our

mind is how can this science be used in auditing? Since auditing is viewed as synonymous to checking and verifying accounts, it may seem confusing to most, but econometrics is used to analyse economic activities after all, so how can a legal government auditing institute use such academic science to analyse its findings? The answer is, maybe perhaps, as more and more activities add up with unexpected data and less valuable time at our disposal, this science can be used effectively to come to a logical conclusion about the relationships about any behaviour. In fact, every activity has its economic aspects and so these techniques can be used but care must be For example, instead of simply taken. observing and writing down that construction of farm roads has benefited the people of some village x, the use of econometrics can help us say exactly by how much. Another example would be that while government expenditure has been increasing overtime on referral cases, econometrics can tell us whether diseases are correlated to budget or not, and if so how is it correlated. Such is the power of econometrics. Such studies benefit the society at large.

Application of modern techniques like econometrics has many advantages. Given the data availability, use of econometrics can be a powerful way of analysing data and recommending policy changes to the government. The universal truth that mathematics can help explain complicated exponent can be applied to come to a logical understanding of complex government ventures. Such tools can help increase the quality of reports not only in the eyes of the auditee agencies, but also to the larger intellectual bodies and the general public at large.

The fact that performance auditing is a new concept in Bhutan, it will take time and resources for these types of audits to grow. The flickering hope that this way of auditing might be the answer in a democratic country is sometimes taken by the stakeholders with nostalgia. But it can be said that often government entities are struggling to achieve their targets; these activities are so huge in scope that external overview from audit institutes are essential. Interestingly, today public servants and others alike in Bhutan have started to view performance audits as their friend. This is a welcome gesture and reminds us that our public servants are very informative and they do know what is going on.

#### Conclusion

Use of modern techniques like econometrics can help solve many puzzles while conducting performance audits. The mere fact that there is a relationship between two or more variables is the corner stone of any analysis. As government entities continue to grow, performance auditors are faced with the challenge of collecting, analysing and interpreting complex data. Not only is the government concerned about the types of reports that SAIs produce, but equally interested are the general public. As a think tank and watch dog of the public fund, it is but inevitable that SAIs should be equipped with modern scientific methods of analysing and reporting. One of the advantages of using such methods is that, the relationship between two or more variables are exploited, the trend is forecasted, in other words, the dark mist that hover around many heads will transform into thin air. Such is the power and capability of using these techniques. At length, with econometrics, we will be able to justify our results with confidence. It is evident that the policy makers will need timely feedback while framing policies. Thus. the use of econometrics can be an avatar in this field. From analysing huge data sets to interpreting them. knowledge of econometrics can in fact help auditors to interpret these data properly and accurately, increasing the credibility of the reports in

the eyes of the stakeholders and the public at large.

**Contributed By:** 

Bikram Gurung, Audit Officer, PSAD



## SINGAPORE'S APPROACH TO CORRUPTION CONTROL

Singapore, the wonderful Garden City is located at the southern tip of Malaysian peninsula endowed with strategic locations making itself as one of the world's busiest sea and air routes. It has a total land area of 710 square kilometers which includes around 63 offshore islands inhabited by a total population of 5,312 million with Chinese representing 74.1%, Malay 13.4%, Indians 9.2% and others 3.3%. It has four official languages viz. Mandarin, Malay, Tamil and English where Malay is the National Language.

Singapore was under the British Empire from 1819 to 1942. Thereafter it fell into the hands of Japanese empire renaming it as *"Syonanto"* or 'light of the south'. After World War II, Singapore was again reverted to British rule in 1945. In 1959, self-rule was granted and it was merged as a part of Malaysian federation in 1963. Due to controversial policy issues, it was disintegrated thus becoming an independent country on August 9, 1965.

The city, which has turned into a country, has now become a model city of growth for South East Asian Nations. It has a freemarket model economy structure. The government is able to create corruption-free environment, laws abiding citizens and stable prices of commodities. Its per capita GDP is higher than most of the developed countries (US\$ 65,048 in 2012). Exports like electronics. information technology products, and pharmaceuticals and with growing financial services sector attributes to her growth. The average real GDP growth was recorded to be around 8.6% between 2004 and 2007. Due to global financial crisis, her economy contracted to 1% in the year 2009 and was able to rebound to 14.8% in 2010. It slowed to 4.9% in 2011 and 2.1% in

2012 mainly due to soft demand for exports as a resultant of European recession. With major investments in pharmaceuticals and medical technology production, Singapore strives towards establishing herself as the financial and high-tech hub in South East Asia.

As any third world countries today are battling, Singapore faced early challenges in fighting corruption. After independence, as the pioneer, it faced serious problems, unemployment rate was at 14%, half of its population were illiterate, bribery was the only way to get things done and the unsophisticated population almost resigned to the need to bribe. The country's resource was too scarce that even water was imported from Malaysia and dailv consumption requirements like rice and vegetables were imported from neighboring countries. The problem of corruption was so widespread and there was no role model to eye upon for best practices to tackle corruption. The only advantage it had was its strategic location.

Today it is able to emerge as one of world's top three ranking countries with a score of 9.3 by Transparency International in 2010. Such a huge leap is attributed to the adoption of 3 key inter-related strategies viz. Education, Enforcement and Engineering. Apart from it, four pillars of the Temple of Corruption Control namely; Anti-corruption Acts, Adjudication agency. and Administration are able to gain impetus for Singapore. Such steps are best practices that a country like ours can adopt to fight against the issues related to corruption.

The push towards corruption control was mainly political will. It has testified that political leaders with a sense of altruism, nationalistic and pragmatic can exhibit miracle. It was not a matter of virtue but of necessity that the seed of survival of clean nation and government was sown and nurtured overtime. It created first Corruption Practices Investigation Bureau with moral support extended from the Office of the Prime Minister where it enjoyed psychological advantage to operate without fear or favour. The frugal government was able to embark successfully on concept like "No wastage! No flushing Money down the Drain; We are rich because we don't spend".

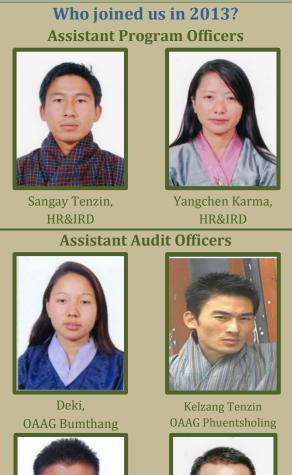
The effective laws were framed covering even the gratifications of any sort to be documented as malpractices. Punishment is deterrent with very strict implementation of penalty for offenders, including the big fishes like Ministers and MPs. Deterrence is the corner stone of penal policy. Effective Adjudication was emphasized with effective legal system where courts are required to be impartial, efficient, transparent and open for scrutiny. Effective administration was also stressed upon to enable sound administrative governance, which will have far-reaching consequences and service excellence on need of standard operating procedures. It may be possible to totally eradicate corruption in any society. However, Singapore is able to create strong anti-corruption ethos, which will steer the engine of transparency and accountability in the effective use of public resources.

While Bhutan also enjoys a good ranking in Transparency International among the South East Asian Nations, we are in the midst of tackling corruption, as our country, still being at the developing stage is mostly deemed vulnerable to the susceptible tides of corruption. We are fortunate to have availed best practices from pioneering country like Singapore and with policy approach in place we are hopeful to embark on systematic approaches in fighting the internal war with corruption. While it may be subject to effort from all citizens, as an individual we must be equipping ourselves with moral courage to fight against corruption. Bhutan will not be free of corruption, if a single person as a bona-fide citizen fails to fight corruption. Bhutan can only be corruption free society, if we, as responsible citizens refrain from corrupt practices and act towards building a clean society!

**Contributed by:** 

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#### **ABOUT RAA**

#### Vision

A premier audit institution promotes value for money in government operations and contributes towards good governance.

#### Mission

To audit without fear, favour or prejudice on the prudent and effective use of public resources and report to the Parliament and stakeholders for enhancing transparency and accountability in the government.

WHO WE ARE	WHAT WE DO	CORE VALUES	MANDATES
The Royal Audit	We have over 1,022	Every auditor	Prior to 2006, the RAA
Authority (RAA) is the	entities and 231 employees	subscribes to Sixteen	derived its mandates
Supreme Audit	to audit and report through	Principle of Oath of	mainly from the <i>Royal</i>
Institution (SAI) in the	a network of four Regional	Good conduct, Ethics	<i>Decrees</i> and the
country, responsible to	Offices and functional	<b>and Secrecy</b> upon	General Auditing
audit and report on the	divisions located in the	their appointment to	Rules and Regulations
economy, efficiency and	Head Office, Thimphu. We	audit and report on	(GARR) promulgated
effectiveness in the use of	carry out performance,	the effective of public	in 1989.
public resources as per	financial, compliance,	resources without	
provisions of the	propriety, regularity and	fear, favour or	Presently, the RAA
Constitution of the	Special audit and report to	prejudice. Our Core	derives its duties and
Kingdom of Bhutan. The	His Majesty the King, the	Values are:	powers from Article 25
Auditor General (AG)	Prime Minister and to the	o Independence	of the Constitution of
heads the Royal Audit	Parliament as required	<ul> <li>Objectivity</li> </ul>	the Kingdom of
Authority for a period of	under the Constitution of	o Integrity	Bhutan and the Audit
five years or until	the Kingdom of Bhutan.	o <i>Commitment</i>	Act of Bhutan 2006
attaining the age of sixty		<ul> <li>Professionalism</li> </ul>	enacted under the
five years, whichever is		o <b>Reliability</b>	provision of the
earlier.			Constitution.

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