DEVELOPING ROLE OF SAIs IN SUSTAINABLE DEVELOPMENT AND ENVIRONMENTAL AUDITING

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ABSTRACT

Changing expectations of citizens who are getting more aware of the environment due to the worsening global state of it have brought along a need for an independent and objective oversighting mechanism. This increased awareness about environmental protection has made the assessment of environmental performance essential as well. SAIs, taking this unique responsibility and developing a new approach to auditing, have launched environmental audit programmes both at national and international levels and begun to assist governments in internalizing the sustainability context in their policies. Because well functioning environmental management systems and resulting positive effects on the environmental performance can only be attained through strengthened governmental institutions with high transparency and accountability as well as rigid implementation of the related regulations. In this respect, within the scope of this article, important role of SAIs and their environmental audit reports for improving the environmental management systems of the countries through enhancing transparency and accountability especially on environmental governance is aimed to be explained.

Keywords: Supreme Audit Institution, Environmental Audit, Sustainable Development, Environmental Performance, Working Group on Environmental Auditing (WGEA)

SÜRDÜRÜLEBİLİR KALKINMADA YÜKSEK DENETİM KURUMLARININ GELİŞEN ROLÜ VE ÇEVRE DENETİMİ

ÖZET

Küresel çevrenin gittikçe kötüleşen durumuna bağlı olarak çevresel duyarlılığı artan vatandaşların değişen beklentileri, çevre üzerinde bağımsız ve tarafsız bir denetim mekanizmasına yönelik ihtiyacı da beraberinde getirmiştir. Çevrenin korunmasında artan bu duyarlılık, çevresel performans değerlendirmesini de gerekli kılmıştır. Yüksek Denetim Kurumları bu özel sorumluluğu üstlenerek ve denetime yeni bir bakış açısı getirerek ulusal ve uluslararası düzeyde çevre denetim programları başlatmış ve devlet politikalarında sürdürülebilirlik kavramının içselleştirilmesi için destek vermeye başlamıştır. Çünkü iyi

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işleyen bir çevre yönetim sisteminin ve bunun çevresel performans üzerindeki olumlu etkileri ancak şeffaf ve hesap verebilir güçlü kurumsal yapıların ve ilgili düzenlemelerin sıkı bir şekilde uygulanmasıyla elde edilebilir. Bu açıdan makale kapsamında, Yüksek Denetim Kurumları ve çevre denetim raporlarının, özellikle çevresel yönetimde saydamlık ve hesap verebilirliğin artırılarak ülkelerin çevre yönetim sistemlerinin geliştirilmesindeki önemli rolünün anlatılması amaçlanmıştır.

Anahtar Kelimeler: Yüksek Denetim Kurumu, Çevre Denetimi, Sürdürülebilir Kalkınma, Çevresel Performans, Çevre Denetimi Çalışma Grubu (WGEA)

1. INTRODUCTION

The cause-effect relationship between the level of economic development and the extent of environmental degradation has always been a controversial issue at global level, especially since the 1970s, the decade in which the 1972 Stockholm Conference was held. The fact that the earth has been going under dramatic changes due to the adverse effects of rising environmental challenges such as climate change, biodiversity loss or unsustainable management of natural resources has put great pressure on humanity and specifically on governments to concern about the sustainability of the development. Because the level of seriousness of these adverse effects is closely related to the success of environmental management systems of the governments such that development of policies with an environmentally irresponsible manner and the lack of effective supervision on these policies would cause consequences to the detriment of the environmental outlook and therefore of the sustainability of the next generations.

With the emergence of sustainable development theory following the Brundtland Report (1987), 1980s witnessed that many governments had increased their environmental activities by committing themselves to sustainable development policies and by improving and expanding their environmental departments, agencies, laws, and regulations (INTOSAI WGEA, 2007a). The responsibility of the governments for environmental management has broadened along with the raised public awareness. This broadened responsibility has led to increasing government expenditures on environmental protection and correspondingly to the need for an independent and objective assessment of the performance of environmental policies. This raising awareness about environmental protection has also broadened the audit field of the Supreme Audit Institutions (SAIs), as independent oversighting mechanisms of the countries and therefore they have increased their audit coverage to assess the efficiency and effectiveness of their governments' environmental activities within the new field of audit work, "environmental auditing".

Since environment is perceived as a means of global public funds, integration

of the environmental audits on the agenda of SAIs has been a common act since the early 1990s for both developed and developing countries. The efforts in order to strengthen their human capacity and other capacities in environmental auditing such as budget, training, methodology have been accelerated and most SAIs around the world have begun to conduct environmental audits both at national and international levels. Under the umbrella of the Working Group on Environmental Auditing of the International Organisation of Supreme Audit Institutions (INTOSAI WGEA), member SAIs, since 1992, have made great contributions to the development of the environmental auditing and used it as a major tool to enhance the environmental performance in line with their commitment *"..to use the power of public sector audit to leave a positive legacy for future generations, by improving the quality of the environment, the management of natural resources, and the health and prosperity of peoples around the world"*(INTOSAI WGEA, 2011).

In this article, the concept of sustainable development and developing role of SAIs in enhancing it will be elaborated with certain aspects. In this framework, a general outlook of the global environment and emergence of sustainable development theory will be explained at first instance. Then, the evolution of environmental auditing by SAIs due to the rising need for enhanced transparency and accountability in environmental policies, and main contributions of this kind of audit in the improvement of environmental performance will dealt with. Focusing also on the importance of the international collaboration among SAIs through conducting environmental audits, the article ends with main concluding remarks.

2. SUSTAINABLE DEVELOPMENT APPROACH AS A TOOL TO FIGHT AGAINST ENVIRONMENTAL CHALLENGES

2.1. Growing Challenges on Global Environment

The earth has been going under dramatic changes, some of which are directly human related disasters while some occur within the nature's own movements. It is possible that different regions of the world have been experiencing more or less the similar environmental problems as well as there may be specific challenges with respect to the diverse geographical, economic and social features. However, no matter the environmental challenges are global or regional, it is a real fact that when nature's resources such as trees, habitat, earth, water and air are consumed faster than nature can replenish them, environmental degradation becomes unavoidable (ASOSAI, 2009).

Rapid economic development along with the bursting industrialization and urbanization levels has been paving the way for the adverse effects of rising environmental degradation which may occur in many forms such as overexploitation

of natural resources which leads eventually to environmental issues such as water scarcity, deforestation, desertification and loss in biological diversity (ASOSAI, 2009). In the summary of the Report "Environmental Outlook to 2030" (OECD, 2008a), the most urgent environmental challenges which are complex and mainly global in nature and the impacts of which are expected to be more apparent in the long run are stated as "climate change, biodiversity loss, the unsustainable management of water resources and the health impacts of pollution and hazardous chemicals". These environmental issues are referred in the Report as "red light issues" meaning that they are not well managed, are in a bad or worsening state, and require urgent attention (OECD, 2008a). One of the most important threat to humanity is the water scarcity that will worsen due to unsustainable use and management of the resource as well as due to climate change; the threat gets more clear when the projection that "the number of people living in areas affected by severe water stress is expected to increase by another 1 billion to over 3.9 billion by 2030" is considered. Global emissions of greenhouse gases, as an another global threat, are projected to grow by a further 37% by 2030, and 52% by 2050 which will result in an increase in global temperature over pre-industrial levels in the range of 1.7-2.4° Celsius by 2050, leading to increased heat waves, droughts, storms and floods, resulting in severe damage to key infrastructure and crops. Growing urbanization and uncontrolled increase in world population will require a 10% increase in farmland worldwide with a further loss of wildlife habitat due to expanding infrastructure and agriculture, as well as climate change[1]. This means that in the near future, a considerable number of today's known animal and plant species are likely to be extinct, deteriorating at the same time the improvements of the economic growth and human well-being. As an important red light issue, health impacts of air pollution are also projected to increase worldwide, with the number of premature deaths linked to ground-level ozone quadrupling (OECD, 2008a).

These projections on the future status of the environment reveal that the environmental degradation will be increasingly irreversible within the next few decades. Without any new policy actions, pressures imposed on nature will result in gradually worsening living standards and in the long run, such degradation on a global scale, if not addressed, would mean extinction for humanity (ASOSAI, 2009).

2.2. The Concept of Sustainable Development

Sustainable development is rather a new concept that has gained global acceptance and understanding due to extensive discussions about the need for enhancing the harmony between the environment, society and economy. environment and development. In fact it is known that most of the degradation facing the world is not a result of sudden and catastrophic events; rather, it is the result

1 See "Summary of Environmental Outlook to 2030" (OECD,2008a) for further details.

of an accumulation of less sudden events. However, global progress on developing the concept of sustainable development has been rapid since the 1980s[2]. Having no unique definition, the term "sustainable development" was first popularized by the Report of the World Commission on Environment and Development (in short Brundtland Commission), entitled "Our Common Future (1987)" which is also known as the "Brundtland Report". The Report defines sustainable development as "the development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (WCED, 1987). The respective report also points to the following two key concepts of sustainable development:

- The concept of 'needs', in particular the essential needs of the world's poor, to which overriding priority should be given; and

- The idea of limitations imposed by the state of technology and social organization on the environment's ability to meet present and future needs (WCED, 1987).

"1972 Stockholm Conference on the Human Environment" and "1980 World Conservation Strategy of the International Union for the Conservation of Nature" constituted the roots of the Brundtland Commission whose work was committed to the unity of environment and development (Adams, 1990). 1972 Stockholm Conference focused for the first time on the conflicts between environment and development and 1980 World Conservation Strategy put forward arguments for environmental conservation to assist specifically the sustainable development and utilization of species, ecosystems, and resources. Following them, the Brundtland Commission made its note in history that human economic actions should be in harmony with the environmental development rather than achieving development at the expense of environmental degradation through exhausting natural resources and polluting the environment.

The Brundtland Report was followed by Declarations signed as a result of the World Environment Summits such as the "United Nations Conference on Environment and Development" (UNCED, 1992) held in Rio de Janeiro in 1992 (the so-called "Earth Summit") and "World Summit on Sustainable Development Conference" held in Johannesbourg, South Africa in 2002 (TCA, 2007: 96). The Earth Summit in 1992 issued certain resulting documents such as Agenda 21, the Rio Declaration on Environment and Development, the Statement of Forest Principles, the United Nations Framework Convention on Climate Change and the United Nations Convention on Biological Diversity[3]. Among them, "Agenda 21" called for all countries to develop national sustainable development strategies as mechanisms

2 Retrieved from http://www.iisd.org/pdf/2011/intro_to_sd.pdf

3 Retrieved from http://www.un.org/geninfo/bp/enviro.html

for translating a country's goals of sustainable development into concrete policies and actions (UN DESA, 2002a). This is also one of the targets stated in the United Nations Millennium Declaration (2000) by reaffirming the support for the principles of sustainable development including those set out in Agenda 21. Ten years later than the Rio Declaration, in 2002, at the World Summit in Johannesbourg, commitment to working towards sustainable development was reaffirmed by more than 180 leaders, and three key outcomes were issued (INTOSAI WGEA, 2007b):

- The Declaration describes the essential requirements for sustainable development such as poverty eradication, changing consumption and production patterns, and protecting and managing the natural resource base for economic and social development.

- The Plan of Implementation describes the steps of achievement in sustainable development at international, national, and local levels.

- The partnerships bring together governments, businesses, and other non-governmental stakeholders (INTOSAI WGEA, 2007b: 3).

The Johannesbourg Declaration (2002) emphasized on "a collective responsibility to advance and strengthen the interdependent and mutually reinforcing pillars of sustainable development—economic development, social development and environmental protection—at local, national, regional and global levels." So that the well-known definition of sustainable development was expanded with the widely used three pillars: economy, society, and environment. As stated by Chai (2009: 47), this observed change over time in focus of sustainable development approach from just environmental dimension to three-dimensional sustainability, integrating three pillars of development, has brought along the need for environmentally responsible use of all of society's scarce resources – natural, human, and capital. Since natural capital as distinct from man made capital is a scarce factor limiting the extent of economic growth, it deserves value assignment and fresh investment for its preservation, restoration and productivity (Awasthi, 1999). That is why sustainable development is perceived as a development model based on the modification of the traditional economic development model and is an inevitable choice by the history (ASOSAI, 2002).

3. ENVIRONMENTAL PERSPECTIVE OF SUPREME AUDIT INSTITUTIONS IN AUDITING

SAIs carry out audits as independent, external public sector audit institutions on behalf of the parliaments and are entitled to hold governments accountable for the public resources spent on all governmental policies as well as policies on

environmental protection. With the evaluation of sustainable development as a multi-objective theory (Roberts, 2006: 515) related to economic, environmental and social issues, governmental policies have begun to be built upon searching the paths of how to maintain the quality of the environment, human well-being and economic security at the same time. Because it has been realized that only with this manner, current and future generations will have equal opportunities without leaving behind a damaged environment due to unsustainable development policies. Correspondingly, it has become inevitable for SAIs to undertake new responsibilities about the environmental protection along with the growing governmental expenditures and increasing interest of public opinion on the status of environmental issues.

3.1. The Need for Enhanced Transparency and Accountability in the Implementation of Environmental Policies

SAIs, as autonomous, independent, and non-political organizations, audit governments to help them improve performance, enhance transparency, ensure accountability and foster the efficient and effective receipt and use of public resources for the benefit of their populations (INTOSAI WGEA, 2007a). As stated in the Lima Declaration of Guidelines on Auditing Precepts, adopted at the IXth INCOSAI, held in Lima (Peru) in 1977;

Audit is not an end in itself but an indispensable part of a regulatory system whose aim is to reveal deviations from accepted standards and violations of the principles of legality, efficiency, effectiveness and economy of financial management early enough to make it possible to take corrective action in individual cases, to make those accountable accept responsibility, to obtain compensation, or to take steps to prevent-or at least render more difficult-such breaches[4].

The developments in the public management, reforms in the budgetary and financial systems, and perception of the need for more democratic and transparent management have been accelerated especially in the second half of the 20th century and constituted the basic dynamics of the developments in public audit (Köse, 2007: 2). In the framework of these developments, traditional audit approach has been left behind and performance audit approach has gained a common acceptance. The disclosure of compliance of government policies with the legislation, and conventions at both national and international level as well as the measurement and promotion of the economic, efficient, and effective use of public funds for environment stand out as the main objectives of this audit approach which is commonly preferred in environmental auditing.

Addressing environmental matters in auditing activities falls within the

4 Retrieved from http://www.intosai.org/blueline/upload/limadeklaren.pdf

mandate of SAIs and this view has gained increasing support for some sound reasons (Carisse et al., 2004: 12). First of all, governments have to be held accountable for the public resources spent on environmental protection in terms of the prudency of their both financial and effective management. SAIs also need to hold governments accountable for compliance to signed international agreements and enacted domestic laws and regulations. In this sense, enhancing accountability in the environmental governance necessitates making appropriate regulations in both national and international legislation, oversigting commitments made with diversified conventions, setting down standards with respect to the activities that are to affect the environment and following best governance practices (Efendi, 2005: 157). Furthermore, since financial responsibility also covers environmental responsibility in the public sector stemming from "the right to environment", SAIs, serving for the responsibility relations between executive and legislature, help fulfilment of the said responsibility in the best possible way through their environmental audits (TCA, 2007).

Auditors in SAIs should ensure that the actions of public agencies responsible for environmental goods and services and environmental protection are well coordinated. In fact, auditors are responsible in their environmental audit reports basicly for strategic evaluation of:

- legislation establishing national environmental management systems,
- government agendas that include actions needed to promote sustainable development, and
- government environmental policies, plans, and programs (Campelo, 2004:1).

As Rongbing (2011:6) puts forward, beside traditional regulatory tools such as imposing taxes, directions etc., carrying out environmental audits which has been an important part of government auditing has a unique role to overcome "government failure" in the field of environmental management. In many countries there are parliamentary committees or commissions linked to the SAIs (TCA, 2007). The main purpose of those committees' is to review the audit reports in detail by taking the observations, findings and suggestions of SAIs into consideration and to present their own comments and suggestions to the parliamentarians on the audited management activities. Parliament committees are seen as important means for strengthening the role of SAIs and improving public accountability. For instance, the existence of a Commissioner of the Environment and Sustainable Development within the Office of the Auditor General of Canada makes it necessary for each of the administrative departments to submit a 'Green Report' on the environmental performance of their activities (Rubenstein, 2001 cited in Lima and Magrini, 2010: 111) while in Colombia, the local SAI must report annually

to Congress on the situation of the country's natural resources and environment (Colombia, 2007 cited in Lima and Magrini, 2010: 111). In this sense, through the enhanced transparency and accountability in the environmental policies, SAIs could contribute significantly to the environmental regulation and therefore to the effective implementation of sustainable development strategy.

3.2. Evolution of Environmental Auditing and Its Interaction with Sustainable Development Approach

Environmental auditing, having not a unique definition, has different implications for the public and private sectors. The first mandatory compliance audits were introduced in the U.S. chemical and steel industries in the late 1970s as a major tool for the management of their environmental resources and checking compliance of their business activities with environmental legislation as well as defining the extent of their liabilities toward the environment (Desgagn´e and Gabel,1997: 331). The need for the corporations and governments to be responsible for the impacts of their activities, processes and products on the environment and subsequently on human health paved the way for environmental audits to be perceived as a popular means of assessing environmental performance and remains it as an evolving discipline (Desgagn´e and Gabel,1997: 331).

For the private sector, environmental auditing refers to an internal audit, for example, to assure corporate executives and investors that all relevant regulatory requirements are being satisfied (Quevedo, 1995 cited in Leeuwen, 2004: 163). The United States Environmental Protection Agency (EPA) defined environmental audit as "a systematic, documented, periodic, and objective review by regulated entities of facility operations and practices related to meeting environmental requirements" [5]. With the introduction of Eco-Management and Audit Scheme (EMAS) in 1993, which is a European Standard designed to help an organization manage and improve its environmental performance through voluntary participation, and the publication of ISO 14001 in 1996 which is an international Standard for environmental management systems (EMS), the importance of environmental audits for more and more companies has increased dramatically.

On the other hand, within the context of SAIs' work, environmental auditing has a different understanding which extends the evaluation of environmental performance from the organizational level to the governmental level and eventually at national and global level. The increasing concern that organisations affecting the environment should be accountable for their actions has led to growing expectations that the representations made in these environmental reports should be subject to independent audit (INTOSAI WGEA, 2001: 5). As a result of the implications of this expectation for SAIs, the subject was taken up by INTOSAI and INTOSAI established

5 Retrieved from http://www.epa.gov/compliance/resources/policies/incentives/auditing/auditpolicy51100.pdf

the Working Group on Environmental Auditing (WGEA) in 1992, the same year with the UN Earth Summit that was held in Rio de Janeiro.

In 1995, at the Fifteenth INTOSAI Congress, held in Cairo, whose one of the main themes was environmental auditing, a framework definition of environmental auditing was established reflecting the consensus among SAIs. According to this definition:

- Environmental auditing is not significantly different from normal auditing as practised by SAIs;
- Environmental auditing may be included in financial, compliance, or performance audits. Performance audits normally cover the three Es of Economy, Effectiveness, and Efficiency. The adoption of a fourth E - Environment – depends very much on an SAI's mandate and its government's environmental policy;
- The concept of sustainable development may be part of the definition, provided that it is part of government policy and/or the programme to be audited (INTOSAI WGEA, 1997: 1).

Based on these underlying principles, environmental auditing of SAIs is widely accepted as a methodological, objective, impartial and technical process to evaluate the use, administration, protection and preservation of the environment and natural resources, considering the fundaments of sustainable development and observance of the principles on oversight by government institutions, as well as the activities of private parties that manage or exploit natural resources (OLACEFS, 2002 cited in Lima and Magrini, 2010: 111).

In conducting environmental audits, the extent of the mandate of SAIs is also a debatable issue that leads to different opinions. However, official statement of the WGEA is that a specific mandate is not needed (INTOSAI WGEA, 2007c) although specific mandate, being not a common issue for SAIs, is regarded by several groups as a mechanism that enhances SAIs' initiatives to conduct environmental audits. As the tasks and mandate of SAIs are defined in the Constitutions or Audit Law, their legislative mandate can, but does not necessarily need to refer specifically to environmental auditing (INTOSAI WGEA, 2007a). SAIs, differing in type of their mandate on environmental auditing, may conduct environmental audits through a general mandate that can be applied to all sectors of the government including the environmental sector or may have a specific mandate for environmental auditing, which gives them an extra responsibility (Leeuwen, 2004: 166). So it can be concluded that no matter what the scope of the mandate is, all SAIs can build suitable audit approaches and methodologies in order to conduct audits of the implementation of environmental commitments (INTOSAI WGEA, 2007b: ix).

It is a common expectation that there must be a close relationship between the environmental audit works of SAIs and the level of environmental performance of the countries. This expectation highly depends on the fact that the work of environmental auditors provides an invaluable source of independent, legitimate, and credible information that assesses the efficiency and effectiveness of environmental policy at the national level. Because existence of regulatory systems does not count for much without the effective oversight of the implementation of these systems. As one of the main oversight institutions of a country, the SAI provides various potential benefits to the audited entities such as the detection of compliance problems before the problems can pose serious threats, cost savings through increases in operating efficiency and reduced environmental risks (Stafford, 2006: 173). As Dr. Toepfer, former Executive Director of the UNEP, declares, recommendations and information provided by the SAIs can make an important contribution to UNEP's overall mandate of keeping the global environmental situation under review. In his own words:

Simply put, sustainable development can not be achieved without good governance, and good governance, in turn, is greatly furthered by the valuable work of SAIs. Therefore, SAIs can play a vital role in informing and supporting efforts to achieve sustainable development (Toepfer, 2004: 1).

Approaching from a different standpoint, auditors in SAIs, being aware of the main environmental problems threatening the world, can also understand the complexities in international and domestic environmental governance and develop a great insight for tackling with the problems and weaknesses in the implementation process by proposing concrete recommendations. In this respect, auditors' competence and interest in the field of environment is of vital importance for the developments in environmental auditing.

3.3. Selection of Topics in Environmental Auditing and Main Audit Objectives

The concept of sustainable development is differently interpreted by each country, depending on the national and regional circumstances and priorities of that country. Therefore, the strategies and priorities identified are expectedly unique in national levels (INTOSAI WGEA, 2007a). By assessing the capacity of the country to create a strategy and adequacy of the existing sustainable development strategy in terms of its clarity and expected benefits, SAIs have an important role in enhancing the implementation of sustainable development initiatives.

SAIs differ in terms of their audit subjects as well as audit objectives since the scope of their environmental audit mandate as well as main environmental challenges are different from each other. There are many factors that may affect the choice of topics for environmental audits of each individual SAI which can be stated as follows:

- the natural geography of the country;
- influences of neighbouring countries;
- other national interests (for example, security, poverty eradication, economic development);
- the strong presence of specific industries, including natural resource extraction;
- urgent environmental problems, which may vary from basic needs such as sanitation and water supply to climate-change mitigation;
- the need in smaller developed and lower income countries to involve more external support to build governance and accountability;
- varying levels of capacity of the national government, including the role of an independent audit institution;
- a perception that environmental protection and management can only occur after a country becomes more prosperous; and,
- the various states of security or political stability (INTOSAI WGEA, 2007a).

The steps that need great attention is not only choosing the appropriate topic based on these diversified factors, but also defining the appropriate audit objectives related to the field. Audit objectives, determined by SAIs in the design of audit, more or less define the framework of the possible audit conclusions and recommendations that are proposed for the audited entities. The task of SAIs, in a sense, is to offer as good as possible a basis for decision making so that the government and other decision makers would be able to achieve the governance targets (Pollitt and Summa, 1997: 328). Although SAIs may have differentiated orientations while they conduct environmental audits, followings depicted in Table 1 below are the main audit objectives that are mostly followed and aimed to be evaluated as stated in the 6th Survey with 106 respondent SAIs:

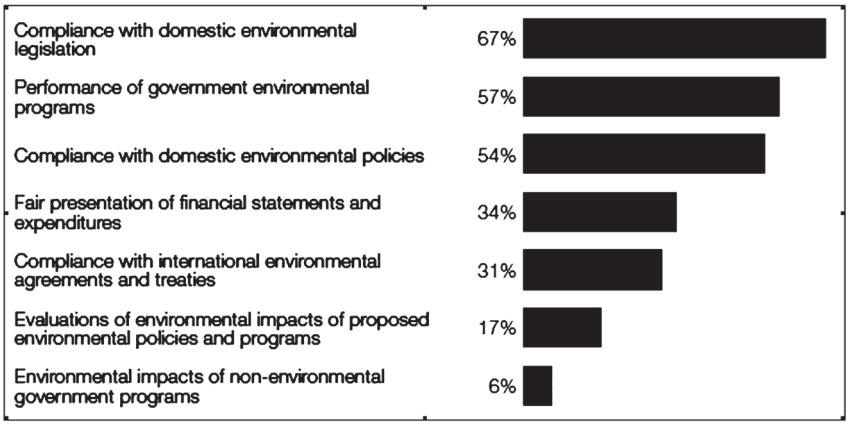

Table 1: Main Audit Objectives Defined in Environmental Audits

Source: INTOSAI WGEA (2009), "The Sixth Survey on Environmental Auditing".

The values in Table 1 shows the % of SAIs that consider the corresponding audit objective to be in top three in their audits. As these values reveal, compliance with domestic environmental legislation, performance of government environmental programs and compliance with domestic environmental policies stand out as the most commonly considered audit objectives in the audits conducted by the respondent SAIs. In fact, an SAI may determine only one or a group of them as its audit objective, or it may follow all of these audit objectives during the conduction of the audit. This choice totally depends on the mandate of the SAI and the nature of the environmental issue that will be focused on.

3.4. A Brief Overview of Environmental Audit Process

Audit process is more or less the same for all audit projects in terms of the steps followed, being independent of the audit topic, either environmental issues or any other topic, and audit type, whether it is a financial, compliance or performance audit. Auditors should define an audit strategy prior to the audit to implement during the whole process since the success of this strategy will affect to a large extent the audit efficiency and effectiveness (Wanga et al., 2011: 2110).

Following the determination of the audit topic and respective assignment to the auditors, an audit process normally consists of four steps (ASOSAI, 2009) which are:

- Planning for the audit
- Conducting audit

- Audit reporting
- Follow up review

In the planning step, auditors should make necessary preparations for the next implementation stage of the audit. These preparations consist of, in the first instance, collecting the background information about the topic and setting the audit scope in terms of the aspects of the subject matter and responsible bodies. Then audit objectives and audit criteria as well as the audit methodology are decided. The decisions on these issues depend to a large extent on the possible approaches followed in environmental auditing which are shown in Figure 1 below:

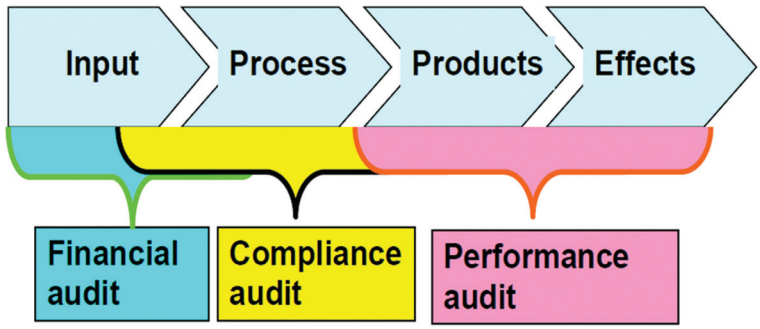

Figure 1: Possible approaches in environmental auditing

Source: Retrieved from the presentation titled as "Introduction to best practice in auditing and the ISSAIs", in EUROSAI WGEA Seminar (2011), available at www.eurosaiwgea.org

Financial audit dealing with environmental issues generally focus on the "Input" stage by correcting the financial statements prepared for environmental purposes while compliance audit stresses on the "Process" stage and aims to reveal the compliance of policy implementation with environmental requirements and all related national or international legislations and conventions. On the other hand, performance audit rather deals with the products and effects of environmental measures in place. In environmental audits, three pillars of the sustainable development may be looked for in the policies to declare that whether they are:

•**economic**; meaning that all the resources are used in appropriate time, in right quantity and quality and at the most convenient prices;

•**efficient;** meaning that the best ratio between inputs used and outputs achieved is attained and

•**effective**; meaning that set goals and expected results are achieved[6].

6 The definitions are retrieved from the presentation titled as "Examples of evaluating the 3Es in waste and water management audits in Slovenia" in EUROSAI WGEA Seminar (2011), available at www.eurosaiwgea.org

In the framework of these principles, evaluation of programmes to see whether they worked as intended, of outcomes to examine whether the goals are attained and of impacts to realize the contribution of the policies to intended goals may constitute the main objectives of the audit.

Audit criteria, which are also to be defined in the planning phase, are the benchmarks against which the subject matter will be compared[7]. Narrowing down the scope of the audit to define the best related criteria without deviating from the essence of the subject matter is one of the important rules of the planning step. For the environmental audits, existence of the environmental policies of the government is of vital importance since SAIs derive audit criteria from policy documents of the government, such as laws and regulations, action plans, strategies, programmes, international agreements that are ratified by their country, or any other formal government documents (TCA, 2007).

Defining audit methodology comprising the procedures to obtain audit evidence is another important aspect of the planning phase. Among these procedures, some are perceived as traditional while some emerge as new auditing methods (INTOSAI WGEA, 2001; INTOSAI WGEA, 2007b). Inspection in terms of examining records or documents in paper or electronic form, reviewing the activities of related executive bodies such as committees, working groups, task forces, or similar groups, interviews with the representatives of the auditees and other stakeholders and field visits can be stated as examples for traditional methods. In addition to these, using questionnaires to seek information from knowledgeable people within and outside the entity, using external consultants, receiving external confirmation from a third party, such as a bank or debtor, comparative analysis to establish benchmarks and best practice and carrying out analytical procedures have been recently used commonly by the auditors in defining their audit methodology.

Following the planning step, *implementation phase of the audit* begins during which the auditors collect sufficient, competent and reliable audit evidence in order to form audit opinion. This is in line with the essence of auditing[8] that corresponds to the measurement of a subject matter against a set of criteria by obtaining sufficient, appropriate audit evidence.

In the third *"Audit reporting"* step, a draft report is prepared in first place and audit findings along with the proposed recommendations are elaborated on with the representatives of audited entities. Regarding the results of these meetings

7 Retrieved from the presentation titled as"Introduction to audit criteria in environmental auditing: Audit approaches based on ISSAIs" in EUROSAI WGEA Seminar (2011), available at www.eurosaiwgea.org

8 Retrieved from the presentation titled as "Introduction to best practice in auditing and the ISSAIs", in EUROSAI WGEA Seminar (2011), available at www.eurosaiwgea.org

and incorporating the replies received from the auditees, audit report is finalized, approved by the senior management of SAIs and sent to the senior management of the audited entities with the recommendations.

In the *follow-up review phase,* it is examined whether the proposed recommendations are regarded by the auditees in their subsequent policies and necessary measures are taken in response to the audit opinion. This is an effective way for SAIs to measure the impacts of their environmental audits on the government policies and programmes.

3.5. International Aspect of Environmental Auditing

Most environmental problems are perceived as transboundary in nature. That is why it is very usual for countries to come together and put their efforts collectively on the emerging environmental problems through many international aggrements and conventions. This transboundary nature of the environmental problems and initiatives for collective efforts bring along with the necessity of a strong coordination and cooperation among the SAIs from different regions (Köse, 2007: 275).

The International Organisation of Supreme Audit Institutions (INTOSAI) was founded in 1953 with 34 original member countries as a result of the need for stimulating the coordination and cooperation among SAIs in all areas related to the public policies as well as the environmental governance. INTOSAI is today perceived as the leader of the external government audit community with 189 full members and 4 associated members all around the world. As an autonomous, independent and non-political organisation, it has provided an institutionalised framework for SAIs to apply internationally accepted audit standards, improve public sector auditing within the framework of these standards, promote development and transfer of knowledge and experience among SAIs and enhance professional capacities and influence of them in their countries (INTOSAI, 2010). INTOSAI achieves this mission through several mechanisms such as *committees*, *task forces* or *working groups* to encourage SAIs to share the experience, results from participation in national and international environmental audits and ideas on harmonization of methodology, audit documents, enhancement of qualification in performing sustainable development audits. INTOSAI has also established collaboration mechanisms such as meetings, training workshops and knowledge sharing through case studies and detailed audit reports for perpetuating best practices.

Within INTOSAI, there are seven Regional Working Groups, one of which is Working Group on Environmental Auditing (WGEA), created in 1992. The WGEA aims to improve the use of audit mandate and audit instruments in the field of environmental protection policies by;

- Assisting SAIs in acquiring a better understanding of the specific issues involved in environmental auditing,
- Facilitating exchange of information and experience among SAIs and
- Publishing guidelines and other informative material for their use[9].

The WGEA has developed numerous guidance documents to support auditing specific environmental topics and to improve audit methodology. These audit guidances, with other tools developed by WGEA such as meetings and workshops, provide a unique opportunity to improve audit practices and share audit findings, challenges and best practices experienced by different countries on different environmental topics. They also set a reference for all SAIs and thereby enhance the harmonization in the international cooperative audit projects carried out by different SAIs. At this point, it is worth noting that international conventions and aggrements on diversified issues especially such as climate change, biodiversity, waste and water managements are regarded as the top issues on the agendas of SAIs for cooperative audits. Since environment is perceived as a global public fund and all countries have significant responsibilities to protect it, launching these kind of international initiatives is of vital importance for the sustainability of the government.

4. THE ROLE OF ENVIRONMENTAL AUDITING IN ENHANCING ENVIRONMENTAL GOVERNANCE

SAIs play an outstanding role in providing environmental policy assessments and assisting the parliaments about pursuit of public interest and questioning the accountability related to the use of public resources on environment. What makes SAIs' environmental audits more valuable is moving beyond compliance and begin auditing Environmental Management Systems (Rika, 2009: 316). In fact, environmental auditing has a guiding role for decision makers in enhancement of the environmental management systems and development of sound environmental policies. By providing public with accurate and reliable information on the performance of environmental policies, SAIs are supposed to pave the way for conscious decisions to be taken by especially the policymakers.

Independent audit, providing assurance on the reliability of environmental matters, also has a significant role in making corporations and governments sensitive to the environmental results of their actions (Sylph, 2005, p.1 as cited in Chiang, 2010: 914). Policymakers need to define policy targets clearly and shift toward more

9 Retrieved from http://www.environmental-auditing.org/Home/AboutWGEA/MissionandMandate/tabid/102/Default.aspx

rigorous environmental protection efforts at the global, regional, national, state/ provincial, local, and corporate scales (Emerson et al., 2010: 6).

Environmental audit reports of SAIs are perceived as a kind of guidelines by the governmental side since SAIs may make both technical and political contributions in their reports. Recommendations such as the adoption of related regulations, plans and programs as well as more effective monitoring of projects can be given as the examples of these significant contributions. In this respect, it will not be wrong to state that environmental auditing initiatives are considered as a relatively inexpensive environmental protection tool by which severe consequences of environmental deterioration can be competed with cooperatively through the assessments and recommendations of SAIs on the environmental management systems.

However, the impacts of environmental audits, especially those carried out with performance audit approach, can not be measured in general in monetary terms. Since the main aim is to help audited bodies to improve their performance, impacts of reports are generally measured by assessing the "reaction rate" of the governmental agencies (Pollitt and Summa, 1997: 321). In other words, the impacts of environmental audit results may be observed as improvements in environmental performance indicators as well as government programmes and strategies. Followings are some of the expected impacts of audits on the environmental management systems:

- Laws, legislation, and regulations are revised or new ones are introduced to protect the environment.
- The environmental impact assessment process is strengthened.
- Changes are made to funding environmental plans, programs, and projects.
- Improvements are made to disaster management and preparedness.
- Improvements are made for more environmentally sound program delivery.
- Compliance with national laws, regulations, and international agreements is strengthened.
- Systems of accountability related to governing the environment are installed or increased.
- Increased emphasis is placed on performance measurement and reporting on environmental objectives.
- More environment-related training for public servants is made available.
- Improvements are made to gathering and monitoring of environmental data (INTOSAI WGEA, 2007a: 8).

Measures of these expected impacts and therefore environmental audit quality have different aspects in a sense that quality is not only reflected in detecting violations of laws and regulations but also in rapid implementation of the audit

decisions and recommendations by the responsible agencies. Because the higher the acceptance level of the auditees of those proposed recommendations is, the more effective the environmental reports are. This is the most important factor that enhances the credibility of environmental auditing by turning environmental auditing accountability into legal accountability, personal accountability and consequences accountability (Rongbing, 2011: 12).

The results of the 6th Survey on Environmental Auditing reveal that governmental agencies mostly make use of SAIs' outputs on environmental auditing;

to evaluate their capacity to develop and implement environmental policies or programs (67% of SAIs claim that their conducted audits had such impact, either partial or full),

- to develop environmental management systems (63% of SAIs claim that their conducted audits had such impact, either partial or full) and
- to formulate environmental legislation or environmental policy and/or programs (62% of SAIs claim that their conducted audits had such impact, either partial or full) (INTOSAI WGEA, 2009).

To conclude, legitimately and credibly evaluating the efficiency and effectiveness of government policy and obligations, environmental auditors help exploring the general situation of the environment and reducing the deficiencies in the environmental protection measures to a minimum level. Common goal of SAIs that conduct environmental audits is to ensure that audit findings have an impact since audit is not an end; it is rather the path to attain the end.[10] That is why the regarding of audit findings and implementation of recommendations in an effective manner by the related agencies are the most important outputs of the audit process. This is expectedly an effective way to promote the effectiveness of the audited bodies and welfare of the society to higher levels.

5. CONCLUSION

It is today well accepted that main environmental challenges have been increasingly becoming more threatening for the environmental outlook making it an urgent issue for almost all countries to take necessary measures and set effective oversight mechanisms over the environment. There are many economic, social and institutional factors affecting the environmental performance of the countries such as income, population, social awareness, corruption, functioning of the government and so on. Among these factors, the role of the SAIs matters significantly in detecting the deficiencies in the environmental management systems and in

10 Retrieved from http://www.intosai.org/blueline/upload/limadeklaren.pdf

developing concrete and constructive recommendations to continuously improve the competence of responsible units. The tool that SAIs use to attain these goals is carrying out environmental audits and through creating consciousness about the sustainability of the development, assisting governments in developing more environmental-sensitive policies.

Since environmental auditing moves beyond compliance and more specifically focuses on assessing the effectiveness of the environmental management systems, it contributes to the enhancement of transparency and accountability in the functioning of governmental institutions as well as of integration of the sustainability context into the governmental plans, programs and strategies. SAIs, through providing public with accurate and reliable information on the environmental governance, could support the decision-making mechanisms at governmental level leading to conscious decisions to be taken.

Environmental auditing is also provides a common ground for cooperation among SAIs all around the world since most environmental challenges are transboundary in nature and countries have been facing with almost same threats. Therefore, capacity-building in environmental auditing in terms of human, financial and technical capacities, and enhancement of international cooperation activities are of vital importance for SAIs. Conducting environmental audits at international level will not only contribute to the qualification of the audits but also will facilitate the experience sharing among SAIs, making best practices more common in environmental auditing.

To conclude, as independent regulatory authorities, SAIs' environmental audit reports are worthy to be focused on at governmental as well as citizen level to reverse the worsening state of the environmental outlook and to contribute to its rehabilitation. And this is only possible by the improvements of SAIs' capacities in environmental auditing to pave the way for their dealing with environmental challenges in a constructive manner. Only with this manner, collaboration between the governmental agencies and SAIs, through the reasonable solutions and recommendations put forward in the environmental audit reports and corresponding measures taken by the responsible units, could be enhanced to higher levels which will contribute to the sustainability of the development ultimately.

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