

**INTOSAI**

**Guidance on  
Conducting Audits  
of Activities  
with an  
Environmental  
Perspective**

INTOSAI Working Group on  
Environmental Auditing

**INTOSAI Working Group on Environmental Auditing**

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## **Foreword**

At the XVth INCOSAI in Cairo 1995, it was decided that, using the INTOSAI Auditing Standards as a basis, the INTOSAI Working Group on Environmental Auditing should develop a guide containing guidelines and methodologies for the conduct of environmental audits.

At the XVIth INCOSAI in Montevideo 1998, an exposure draft of the guide was presented. In the period after 1998, an amended draft was developed, using the suggestions and comments of the members of the INTOSAI Working Group on Environmental Auditing. At its 47<sup>th</sup> meeting in Seoul, October 2000, the INTOSAI Governing Board agreed to make the booklet an official INTOSAI-document, and subsequently that it should be brought forward to the XVIIth INCOSAI in Seoul, October 2001. Following the official INTOSAI procedure, the draft booklet was then sent out to all INTOSAI-members for comments, whereof about 25 reacted.

The purpose of this guide is to provide SAIs with a basis for understanding the nature of environmental auditing as it has so far developed in the governmental sphere. This basis is intended to provide a starting point from which each SAI can create its own approach to the satisfactory discharge of environmental auditing responsibilities within the context of each SAI's jurisdiction and mandate. It is therefore a very important tool for the further development of the practice of environmental auditing by SAIs.

I am honoured to present this guide to the XVIIth INCOSAI. The development of the guide was co-ordinated by the Office of the Controller and Auditor General of New Zealand. I would like to thank especially Mr. Terry McLaughlin and Mr. Martyn Pinckard for the dedicated and professional way they prepared this booklet. I also would like to express my gratitude to the members of the INTOSAI Working Group on Environmental Auditing and other SAIs who contributed to this guide by sharing their experiences and commenting on the draft versions.

I hope this booklet will be an inspiring and helpful tool for all SAIs interested in the further development of environmental auditing.

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The Hague  
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## **PREFACE**

Over the past 20 years global awareness of environmental issues has grown rapidly – with particular emphasis on matters such as ozone depletion, the destruction of rain forests, and global warming. The greatly increased knowledge and experience of environmental issues acquired during this period have led to a rethinking of the role and responsibilities of both governments (at national and local level and their associated agencies) and industries. Some of the crucial changes to have taken place are:

- ◆ The expansion of environmental regulation by state and local authorities.
- ◆ The increasing cost of environmental protection for both the private and public sectors. The resources spent by both sectors on pollution control have increased, and both businesses and government bodies are looking for more cost-effective ways of dealing with compliance issues.
- ◆ Environmental awareness among financial institutions – both national and international. The pressure and scrutiny brought to bear by these institutions provide governments and businesses with the impetus to give environmental issues closer consideration.
- ◆ Following the United Nations Conference on the Environment in Rio de Janeiro, governments and corporations around the world have shown more concern about sustainable development<sup>1</sup>.

The increasing concern that organisations affecting the environment should be accountable for their actions has led to requirements for the consequences of those actions to be reported. In turn, the expectation has grown that the representations made in these environmental reports should be subject to independent audit. As a result of the implications for SAIs of this expectation, the subject was taken up by INTOSAI.

To develop its response to the subject INTOSAI established a working party that was responsible for producing the material for consideration in conjunction with Theme I: Environmental Auditing addressed at XV INCOSAI, Cairo 1995. This guide has been prepared in response to recommendation 1 on sub-theme IC adopted by XV INCOSAI:

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<sup>1</sup> The INTOSAI working group is currently preparing a paper addressing sustainable development and how the concept can be addressed by environmental auditing.

## **Guidance on Conducting Audits of Activities with an Environmental Perspective**

“The INTOSAI Working Group on Environmental Auditing should develop, using the INTOSAI Auditing Standards as a basis, guidelines and methodologies for:

- ◆ The conduct of environmental audits; and
- ◆ The development of technical criteria by SAIs.”

The term “environmental auditing” is a convenient label generally used to describe one of a plethora of activities – such as management audits, product certification, governmental control measures and many other activities – which bear little or no relation to an external audit. SAIs also often carry out activities that, by definition, do not qualify as audits, but which contribute to better government. In this guide the term “environmental auditing” is used solely in the context of the independent external audit.

At XV INCOSAI (Cairo), it was agreed that environmental auditing is, in principle, not different from the audit approach as practised by SAIs and that it could encompass all types of audit. In this context, audit attention may be devoted to, for example, the disclosure of environmental assets and liabilities, compliance with legislation and conventions – both national and international – as well as to measures instituted by the audited entity to promote economy, efficiency and effectiveness.

The purpose of this guide is to provide SAIs with a basis for understanding the nature of environmental auditing as it has so far developed in the governmental sphere. This basis is intended to provide a sound starting point from which to create an approach to the satisfactory discharge of environmental auditing responsibilities within the context of each SAI’s jurisdiction and mandate.

The three sections of this guide respectively:

- ◆ Consider the application to environmental audits of the INTOSAI *Auditing Standards*.
- ◆ Offer practical assistance in developing methods and practices for carrying out environmental audits – particularly performance audits, supported by examples.
- ◆ Suggest an approach to establishing the technical criteria to be used as the benchmarks for an environmental audit.

## **CONTENTS**

	<i>Page</i>
<b>1 Applying INTOSAI Auditing Standards</b>	<b>8</b>
Introduction	8
Basic Postulates	8
General Standards	14
Field Standards	16
Reporting Standards	20
<b>2 Developing Methods and Practices</b>	<b>21</b>
Introduction	21
Taking Account of Environmental Issues in a Regularity Audit	21
Performance Auditing and the Environment	22
(i) Auditing Government Monitoring of Compliance With Environmental Laws	24
(ii) Auditing the Performance of Government Environmental Programmes	27
(iii) Auditing the Environmental Impacts of Other Government Programmes	29
(iv) Auditing Environmental Management Systems	31
(v) Evaluating Proposed Policies and Programmes	34
<b>3 Establishing Technical Criteria</b>	<b>37</b>
Introduction	37
Framework Approach	37
Financial Audits	38
Compliance Audits	39
Performance Audits	39
Minimising the Risk to the SAI	40
<b>Annexes</b>	
<b>1 Examples from Performance Audits</b>	<b>43</b>
<b>2 Framework for Establishing Technical Criteria</b>	<b>51</b>

## APPLYING INTOSAI AUDITING STANDARDS

### Introduction

- 101 The INTOSAI Auditing Standards<sup>2</sup> reflect a consensus of best practices among SAIs. As such, it is clear that the standards codify generally accepted professional practices which are applied in carrying out an independent external audit, which may also encompass the audit of activities with an environmental perspective.
- 102 It follows from what was agreed at XV INCOSAI that an SAI should – to the full extent appropriate – take the INTOSAI Auditing Standards into account when planning, conducting, and reporting on an environmental audit.
- 103 In order to explain how the INTOSAI Auditing Standards might apply to environmental auditing, and to identify relevant issues or risks resulting from their application, this section of the guide sets out:
- ◆ A summary of the essential requirements of each basic postulate and auditing standard.
  - ◆ Particular issues or risks to be addressed.
  - ◆ Possible strategies or responses to these issues or risks.
- 104 This guide does not constitute an INTOSAI Auditing Standard. As its title suggests, it has been prepared to provide *guidance* on conducting audits of activities with an environmental perspective.

### Basic Postulates

*The SAI should consider compliance with the INTOSAI auditing standards in all matters that are defined material.*<sup>3</sup>

- 105 A matter may be judged material if knowledge of it would be likely to influence a stakeholder or other user of the statement or audit report in which it is contained. Materiality is often considered in terms of value, but the inherent nature or characteristics of an item or group of items may also render the matter material. For example, compliance with national and international agreements, as well as certain aspects of performance auditing, may have a

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<sup>2</sup> Revised edition issued in June 1992.

<sup>3</sup> *Auditing Standards*, paragraphs 8-11.

significance to users or stakeholders that is quite different from its materiality by value.

- 106 Furthermore, the importance attributed to the environment and sustainable development by nations often increases significantly over time. Matters which were not significant originally may well become significant.
- 107 Each SAI should establish a policy on which postulates and standards should be followed in carrying out environmental auditing to ensure that the work and products are of high quality.

*The SAI should apply its own judgement to the diverse situations that arise in the course of government auditing.<sup>4</sup>*

- 108 The terms of the audit mandate of the SAI override any accounting or auditing conventions with which they are in conflict. However, the SAI should recognise the global nature of environmental matters and seek the removal of incompatibilities in its own circumstances, where these may inhibit the adoption of desirable standards.
- 109 The nature of environmental audits may also necessitate increased co-operation between auditors. Concurrent, co-ordinated, or joint audits of specific matters may need to be undertaken. Situations may also arise where the country which is the subject of the audit is not a signatory of the relevant international accord. While this may be a sensitive issue, it is suggested that the SAI consider stating this fact in its report.

*With increased public consciousness, the demand for public accountability of persons or entities managing public resources has become increasingly evident so that there is a greater need for the accountability process to be in place and operating effectively.<sup>5</sup>*

- 110 This postulate concerns all entities that have an impact on the environment. They may be categorised into three groups:
- ◆ Entities whose operations directly or indirectly affect the environment, whether that be positive or negative – such as by rehabilitation or (conversely) pollution and utilisation.

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<sup>4</sup> *Auditing Standards*, paragraphs 15-19.

<sup>5</sup> *Auditing Standards*, paragraphs 20-22.

## **Guidance on Conducting Audits of Activities with an Environmental Perspective**

- ◆ Entities with powers to make or influence environmental policy formulation and regulation – whether internationally, nationally or locally.
- ◆ Entities which have the power to monitor and control the environmental actions of others.

111 These different impacts may complicate the accountability arrangements and SAIs should be aware of the need to also consider the holistic impact on the environment and address the accountability process itself where necessary. Each SAI should consider the most appropriate approach bearing in mind its own mandate.

***Development of adequate information, control, evaluation and reporting systems within the government will facilitate the accountability process. Management is responsible for the correctness and sufficiency of the form and content of the financial reports and other information.<sup>6</sup>***

112 At the highest level, the government is responsible for determining what information it needs to ascertain whether its environmental objectives are being realised, how the achievement of its objectives is to be measured, and how often it wants the information.

113 The entity and its management are directly responsible for the correctness and sufficiency of information on the entity's impact on the environment, be it with regard to financial performance, assets or liabilities, compliance with legislation, or other prescriptions for its performance. This obligation applies to entities in all three groups listed in paragraph 110.

114 Situations are likely to arise in practice, however, where there is a lack of relevant legislation providing for the disclosure of relevant environmental information, or where there is a lack of disclosure for some other reason. In such situations the SAI should report the shortcoming and may also have to consider the possible effects on its audit opinion.

115 The SAI may also need to give some attention to the fact that environmental damage or restoration can imply real costs for the organisation concerned. With the growth of environmental regulation this will increasingly be likely.

116 When SAIs promote improvements to legislation or other prescriptions, they should encourage audited entities to

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<sup>6</sup> *Auditing Standards*, paragraphs 23-24.

report impartially on their own environmental performance, albeit a violation or lack thereof.

*Appropriate authorities should ensure the promulgation of acceptable accounting standards for financial reporting and disclosure relevant to the needs of government, and audited entities should develop specific and measurable objectives and performance targets.<sup>7</sup>*

- 117 Much developmental work is still required before acceptable accounting standards for financial reporting and disclosure are likely to be in place for environmental matters. For example, it may not be achievable at present to place a value on virgin forest or a well-stocked fishing ground. Similarly, the liability associated with the restoration of environmental damage may not be easily quantifiable or may be dependent on unreliable and inaccurate estimates.
- 118 SAIs should work with accounting standards setting organisations to help ensure that proper accounting standards are developed, while the audited entities should also be encouraged to set measurable and clearly stated environmental objectives. However, an SAI should avoid the possibility of appearing to have a conflict of interest as a result of both setting the standards and auditing against them.

*Consistent application of acceptable accounting standards should result in the fair presentation of the financial position and the results of operations.<sup>8</sup>*

- 119 Consistent application of accounting standards and of disclosure for environmental matters, particularly when reviewing several accounting periods, will have to be phased in as new standards which relate to the environment are set. This is likely to be an on-going process for some time and SAIs should pay particular attention to the achievement of fair presentation.
- 120 Audit issues related to financial statement items affected by environmental matters, particularly liabilities, contingencies, commitments or asset impairment provisions, are often complex. Environmental costs, liabilities (including contingent liabilities) and assets should be recognised, valued and reported on in accordance with generally accepted accounting practice.

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<sup>7</sup> *Auditing Standards*, paragraphs 25-27.

<sup>8</sup> *Auditing Standards*, paragraphs 28-29.

*The existence of an adequate system of internal control minimises the risk of errors or irregularities.<sup>9</sup>*

- 121 Adequate internal control is equally of critical importance in the context of environmental auditing. Internal control is, in the first instance, the responsibility of the audited entity, although the auditor should submit proposals where controls are found to be inadequate or non-existent. This is more likely to be the case with regard to environment-related matters than with many others and the SAI should be prepared for this.
- 122 It is important to recognise that, in order to encourage audited entities to institute effective systems of internal environmental control, the SAI should avoid using the findings and conclusions on their internal environmental controls to put the entities in a negative light.

*Legislative enactments would facilitate the co-operation of audited entities in maintaining and providing access to all relevant data necessary for a comprehensive assessment of the activities under audit.<sup>10</sup>*

- 123 Where this is compatible with the mandate of the SAI, it may be necessary to review the provisions and requirements which apply to its responsibilities in respect of maintaining and gaining access to relevant environmental data and information. Where this is not the case, the SAI should report the fact and endeavour to rectify the situation.

*All audit activities should be within the SAI's audit mandate.<sup>11</sup>*

- 124 The full scope of government auditing – regularity (financial and compliance) and performance – also applies to environmental auditing.
- 125 During an audit of financial statements, environmental issues may include the following:
- ◆ Initiatives to prevent, abate or remedy damage to the environment.
  - ◆ The conservation of renewable and non-renewable resources.

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<sup>9</sup> *Auditing Standards*, paragraphs 30-31.

<sup>10</sup> *Auditing Standards*, paragraphs 32-33.

<sup>11</sup> *Auditing Standards*, paragraphs 34-44.

## **Guidance on Conducting Audits of Activities with an Environmental Perspective**

- ◆ The consequences of violating environmental laws and regulations.
  - ◆ The consequences of vicarious liability imposed by the state.
- 126 Compliance auditing with regard to environmental issues may relate to providing assurance that governmental activities are conducted in accordance with relevant environmental laws, standards and policies, both at national and (where relevant) international levels.
- 127 Performance auditing of environmental activities may include:
- ◆ Ensuring that indicators of environment-related performance (where contained in public accountability reports) fairly reflect the performance of the audited entity.
  - ◆ Ensuring that environmental programmes are conducted in an economical, efficient and effective manner.

***SAIs should work towards improving techniques for auditing the validity of performance measures.<sup>12</sup>***

- 128 Environmental auditing adds a special challenge to the expanding role of auditors and their responsibility to improve and develop new techniques and methodologies to assess whether reasonable and valid environmental performance measures are used by the audited entity. This is a good example of where auditors should avail themselves of techniques and methodologies of relevant other disciplines.

***SAIs should avoid a conflict of interest between the auditor and the entity under audit.<sup>13</sup>***

- 129 The SAI needs to maintain both the fact and perception of its independence and objectivity in carrying out and reporting the results of environmental audits.

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<sup>12</sup> *Auditing Standards*, paragraphs 45-46.

<sup>13</sup> *Auditing Standards*, paragraphs 47-49.

## **General Standards**

- 130 The general auditing standards include standards which apply both to the auditors and to the SAIs and include the aspects of independence, competence and due care.

***The auditor and the SAI must be independent.**<sup>14</sup>*

- 131 The auditor and the SAI must be, and must be seen to be, independent and objective in carrying out environmental audits. They should be fair in their evaluations and in reporting on the outcome of audits.

- 132 The auditor and the SAI should therefore not become involved in (for example) the actual calculation of environmental costs and benefits. They should restrict themselves to auditing the calculations and reporting on the fairness, or otherwise, of the financial statements as a whole.

***The auditor and the SAI must possess the required competence.**<sup>15</sup>*

- 133 The wider the SAI's mandate and the more discretionary in nature, the more complex becomes the task of ensuring quality of performance across the whole mandate. This applies directly to environmental auditing and may often be addressed by making use of teams or by obtaining special expertise from experts in the field.

- 134 SAIs and their auditors and others who carry out environmental audits should demonstrate at least the following level of expertise and attributes:

- ◆ Adequate knowledge in all respects of auditing and capability of performing financial, compliance and performance audits.
- ◆ Adequate knowledge of environmental auditing acquired by training and practical experience.
- ◆ An independent and unbiased approach.
- ◆ Adequate human relations and communication skills.

- 135 Specialists may be involved in various stages of developing accounting estimates to assist management, which may include the following:

- ◆ Identifying situations where estimates are required.
- ◆ Gathering the necessary data on which to base estimates.

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<sup>14</sup> *Auditing Standards*, paragraphs 53-81.

<sup>15</sup> *Auditing Standards*, paragraphs 82-87.

**Guidance on Conducting Audits of Activities  
with an Environmental Perspective**

- ◆ Developing assumptions as to the most likely outcome.
  - ◆ Determining the amount of an estimate (which may include, for example, determining the costs of remedial action planned by the entity) and considering the financial statement disclosure.
- 136 If the SAI employs external experts, it must exercise due care to assure itself of their competence and ability for the particular tasks involved. The SAI remains responsible for ensuring that the auditing standards are applied. Obtaining advice from an external expert does not relieve the SAI of responsibility for the opinions formed or conclusions reached on the audit.
- 137 Because environmental expertise is an emerging speciality involving individuals with diverse educational and professional backgrounds and experience, it may be particularly difficult for the auditor to obtain reasonable assurance about the expert's reputation of competence and to be satisfied that the expert's work is appropriate for audit purposes. The auditor should therefore at least consider the following:
- ◆ The educational background of the expert.
  - ◆ The length of time the expert has practised.
  - ◆ The relevancy of the expert's work experience.
  - ◆ Accreditation by a professional body.
- 138 The auditor will need to carry out appropriate procedures to be satisfied that the work carried out by an expert is satisfactory for the purposes for which it is intended and to gain an understanding of the following matters:
- ◆ The nature and purpose of the expert's report.
  - ◆ The assumptions and methods used.
  - ◆ The expert's objectivity and the risk that this may be impaired.
- The auditor and the SAI must exercise due care and concern in complying with the INTOSAI auditing standards. This embraces due care in specifying, gathering and evaluating evidence, and in reporting findings, conclusions and recommendations.<sup>16</sup>***
- 139 This standard applies equally to environmental auditing and may present particular difficulties in establishing standards for acceptable audit evidence on which to base findings, conclusions and recommendations.

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<sup>16</sup> *Auditing Standards*, paragraphs 88-95.

- 140 Other general standards which are applicable in an environmental auditing context, are the following<sup>17</sup>:

*The SAI should adopt policies and procedures to recruit personnel with suitable qualifications.*

*The SAI should adopt policies and procedures to develop and train SAI employees to enable them to perform their task effectively and to define the basis for the advancement of auditors and other staff.*

*The SAI should adopt policies and procedures to prepare manuals and other written guidance and instructions concerning the conduct of audits.*

*The SAI should adopt policies and procedures to support the skills and experience available within the SAI and identify those skills which are absent; provide a good distribution of skills to auditing tasks and a sufficient number of persons for the audit; and have proper planning and supervision to achieve its goals at the required level of due care and concern.*

*The SAI should adopt policies and procedures to review the efficiency and effectiveness of the SAI's internal standards and procedures.*

### **Field Standards**

- 141 The purpose of field standards is to establish the criteria or overall framework for the purposeful, systematic and balanced steps or actions that the auditor has to follow. These steps and actions represent the rules of research that the auditor, as a seeker of audit evidence, implements to achieve a specific result.

*The auditor should plan the audit in a manner which ensures that an audit of high quality is carried out in an economic, efficient and effective way and in a timely manner.*<sup>18</sup>

- 142 The auditor should collect information about the audited entity. This should, where applicable, also include relevant environmental information such as:
- ◆ The legal mandate of the entity.

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<sup>17</sup> *Auditing Standards*, paragraphs 96-128.

<sup>18</sup> *Auditing Standards*, paragraphs 132-134.

## Guidance on Conducting Audits of Activities with an Environmental Perspective

- ◆ The entity's approach to environmental issues, including its policy and objectives and the existence of an environmental management system.
- ◆ Laws and regulations governing the entity's environmental responsibilities or its role in determining those of others. This aspect would include identifying legal requirements imposed on the entity – or those which it imposes on others – such as reporting requirements, emission limitations arising from its activities, or responsibilities to restore degradation which it has caused.
- ◆ The existence of environmental assets and liabilities and any changes which may have occurred in them during the financial period under review. Examples of such liabilities are the costs of decommissioning a refuse disposal site operated by a local authority, or to providing for such costs during the useful life of the site.

143 The objective and scope of the environmental audit should be clearly defined. In addition to the financial, compliance and performance aspects usually encountered, there may be an expectation (whether explicit or implicit) of the provision of additional environment-related audit assurance. For instance, the SAI may be expected specifically to attest to the entity's assertions about the effectiveness of its environmental management systems or its environmental disclosures.

*The work of the audit staff at each level and audit phase should be properly supervised during the audit, and documented work should be reviewed by a senior member of the audit staff.<sup>19</sup>*

144 The specific needs of environmental auditing may require additional procedures to be carried out. For the assurance required it may also be advisable to make use of a specialist in the SAI to carry out a review of the planning and field work from an environmental perspective.

*The auditor, in determining the extent and scope of the audit, should study and evaluate the reliability of internal control.<sup>20</sup>*

145 In order to address environmental issues in a structured manner, management should ideally design and document the key elements of its environmental management system. This may embrace the following aspects, amongst others:

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<sup>19</sup> *Auditing Standards*, paragraphs 136-140.

<sup>20</sup> *Auditing Standards*, paragraphs 141-144.

**Guidance on Conducting Audits of Activities  
with an Environmental Perspective**

- ◆ Identifying applicable legislative and regulatory requirements.
- ◆ Establishing and maintaining policies and procedures to provide reasonable assurance that the entity complies with those requirements.
- ◆ Evaluating and monitoring the entity's compliance with external requirements, environmental policies and procedures.
- ◆ Specifying reports that satisfy legal, regulatory or other requirements.

146 The auditor should study and evaluate the internal control measures instituted by management for environmental matters and determine the extent of reliance that can be placed on them. The extent of the study depends on the objectives of the audit and the degree of reliance intended.

*In conducting audits a test should be made of compliance with applicable laws and regulations. Audit steps and procedures should provide reasonable assurance of detecting errors, irregularities, and illegal acts that could have a direct and material effect on the financial statements.<sup>21</sup>*

147 The subject-matter for an environmental compliance audit is normally management's assertion that it has complied with all relevant rules. This assertion may be given explicitly or implicitly – i.e. simply by default.

148 Non-compliance with applicable laws and regulations is often tested with two perspectives in mind. On the one hand, the entity may (for example) be undertaking activities which are not in terms of its mandate. While the financial statements may fairly present the state of affairs and the results of these operations, the SAI may be expected nevertheless to report on such a deviation in the interests of public accountability.

149 On the other hand, there may be a high risk of a material misstatement in the financial statements, such as through the omission of a provision or liability in respect of future expenditure to restore environmental damage and/or to provide for a penalty for non-compliance.

*Competent, relevant and reasonable evidence should be obtained to support the auditor's judgement and*

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<sup>21</sup> *Auditing Standards*, paragraphs 145-151.

*conclusions regarding the organisation, programme,  
activity or function under audit.*<sup>22</sup>

- 150 Material misstatements in the financial statements of an environmental nature are more likely to be of omission or understatement, rather than of overstatement. Most of the related evidence available to the auditor is therefore likely to be persuasive rather than conclusive. Audit evidence is likely to be obtained as a result of enquiry, audit procedures or management representations other than those directed specifically at account balances or to classes of transactions.
- 151 The audit evidence sought would therefore need to focus on matters of the following nature:
- ◆ Liabilities that are not based on contractual obligations.
  - ◆ Accounting estimates that do not have an established historical pattern.
  - ◆ Recent or evolving environmental laws and regulations.
- 152 In addition, where environmental liabilities are quantified, they will often be based on estimates. This will consequently affect the procedures that the auditor is likely to apply in obtaining adequate audit evidence. The approach applied should comply with that used when auditing other accounting estimates – including assessing the reasonableness of the assumptions, recalculating and evaluating the method followed, and reviewing the qualifications and experience of the person responsible for preparing the estimate.

*Auditors should analyse the financial statements to establish whether acceptable accounting standards for financial reporting and disclosure are complied with.*<sup>23</sup>

- 153 Given the nature of likely environmental misstatements in the financial statements, the auditor should analyse the statements from an environmental perspective to identify areas which should be followed up. Of particular importance is likely to be the appropriateness of accounting policies and the existence and disclosure of contingent liabilities.

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<sup>22</sup> *Auditing Standards*, paragraphs 152-158.

<sup>23</sup> *Auditing Standards*, paragraphs 159-162.

## Reporting Standards<sup>24</sup>

- 154 Written audit reports should be submitted to the management of the audited entity as well as to its governing body, with reference to the particular circumstances of the SAI. Depending on the nature of the audit, the report may include an opinion on the financial information or on various other matters – such as compliance with the mandate of the audited entity, performance or (the subject of this guide) environment-related activities.
- 155 It may be necessary to pay particular attention to the wording in reports on the completeness of environmental assets and liabilities as well as on the audit assurance given about accounting estimates.

*At the end of each audit the auditor should prepare a written opinion or report, as appropriate, setting out the findings in an appropriate form; its content should be easy to understand and free from vagueness or ambiguity, include only information which is supported by competent and relevant audit evidence, and be independent, objective, fair and constructive.*

*With regard to regularity audits, the auditor should prepare a written report, which may either be a part of the report on the financial statements or a separate report, on the tests of compliance with applicable laws and regulations. The report should contain a statement of positive assurance on those items tested for compliance and negative assurance on those items not tested.*

*It is for the SAI to which the auditor belongs to decide finally on the action to be taken in relation to fraudulent practices or serious irregularities discovered by the auditor.*

*With regard to performance audits, the report should include all significant instances of non-compliance that are pertinent to the audit objectives.*

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<sup>24</sup> Auditing Standards, paragraphs 163-191.

## DEVELOPING METHODS AND PRACTICES

### Introduction

- 201 An SAI may undertake environmental audits under its mandate to carry out regularity (financial and compliance) audits or performance audits as defined in the INTOSAI Auditing Standards:
- ◆ Paragraphs 202-208 set out how environmental issues may be addressed within regularity audits, and how professional financial accounting and auditing standards may apply<sup>25</sup>.
  - ◆ For performance audits, paragraphs 209-266 identify and discuss five different types of environmental focus.

### Taking Account of Environmental Issues in a Regularity Audit

- 202 Governments are increasingly recognising that the costs arising from environmental policies and obligations – such as the cost of pollution abatement equipment or the cost of decontamination of land – may be significant. These policies and obligations may also introduce material liabilities, or contingent liabilities where the costs depend on the possible occurrence of a future event. Environmental impacts can also significantly affect the valuation of land, buildings, plant and equipment.
- 203 These environmental costs, liabilities and impacts on asset values affect both the preparation and audit of financial statements. Some Governments will have made specific commitments about their disclosure. The difficulty can be that the audited entity might not distinguish environmental costs from expenditure associated with its ongoing activities.
- 204 The regularity auditor will need to assess the completeness and accuracy of the figures reported. To do so, the auditor will need a sound understanding of the environmental issues, operations and activities which could affect the audited entity's financial position, in the long as well as the short term.

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<sup>25</sup> The INTOSAI environmental working group is currently preparing a discussion paper about the specific issues of addressing environmental audit within the context of this mandate.

- 205 Established professional national and international accounting and auditing standards set out the principles underlying the treatment of costs, assets and liabilities in financial statements which would apply to the treatment of environmental costs and liabilities. The SAI can apply these standards in judging the need for disclosing environmental impacts on costs, liabilities and assets in Government financial statements.
- 206 The SAI may need to audit estimates of the extent of such costs and liabilities<sup>26</sup>. The auditor:
- ◆ Should consider both the actual and potential costs and impacts of environmental issues.
  - ◆ Will need to confirm existing and likely changes to the legislative or other requirements, the technology to be applied, and the costings used in the estimates.
  - ◆ Will need to reach a judgement on the reliability of the assumptions used for predicting future costs, liabilities and asset values, and the accuracy of the calculations.
- 207 The SAI may also place emphasis on ensuring the full disclosure of all assumptions used.
- 208 Many of the values placed on environmental impacts require highly complex calculations – such as the likely future costs of decontaminating nuclear sites. The SAI may seek to rely on the work of third parties in making these audit judgements, in which case it will need to take particular care to satisfy itself of the qualifications and independence of the experts involved. (See also paragraphs 138-140.)

### **Performance Auditing and the Environment**

- 209 Performance audit, in the context of an audited entity's performance in carrying out Government environmental programmes and activities, may where applicable, be concerned with:
- ◆ the **economy** of administrative practices;
  - ◆ the **efficiency** of utilisation of human, financial and other resources employed on the programme or activity; and
  - ◆ the **effectiveness** of the programme or activity in achieving its objectives and its intended impact.<sup>27</sup>

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<sup>26</sup> The INTOSAI environmental auditing group is currently preparing a paper that considers the issues of conducting environmental audit on a more "restricted" or traditional financial/regulatory mandate.

<sup>27</sup> *Auditing Standards*, paragraph 40.

- 210 A performance audit with an environmental focus can often be classified as one of five specific types:
- (i) audits of Government monitoring of compliance with environmental laws;
  - (ii) audits of the performance of Government environmental programmes;
  - (iii) audits of the environmental impact of other Government programmes;
  - (iv) audits of environmental management systems; and
  - (v) evaluations of proposed environmental policies and programmes.

211 Since the SAI may not be able to audit every entity involved, it will need to carefully design a methodology that will allow it to draw supportable conclusions about how a given function or activity is implemented nationally. All the available audit techniques like interviews, document/file searches etc may be a necessary part of the approach. It may also consider using some or all of the following:

◆ **Field Visit**

- Staff may need to visit a variety of national, regional and local government agencies and possibly non-federal organisations to ascertain how Government funds have been spent; how well environmental regulatory activities are working; and where improvements can be made.
- This technique is particularly useful if the SAI needs to obtain a detailed understanding of how an activity is working in a limited number of locations.

◆ **Standardised Questionnaire**

- A questionnaire that is carefully prepared, tested, and applied consistently may be useful if a large number of entities must be contacted.
- Where lower-level governmental entities are given delegated environmental regulatory responsibilities, the SAI may develop a questionnaire to ascertain their progress in implementing a given activity; the problems that may be impeding their efforts; and recommended actions that would help to improve their performance.

◆ **Statistical Sampling**

## **Guidance on Conducting Audits of Activities with an Environmental Perspective**

- In certain instances, the SAI may need to examine environmental issues concerning hundreds, or even thousands, of entities such as toxic waste sites, chemical storage facilities, and drinking water supply systems.
- The necessary information about these entities may not exist in a database or other usable form. In that event, one of the SAI's alternatives may be to gather the information from a statistically valid sample of the entities in question, and then use the information to draw conclusions about the characteristics of the overall population.

*## See Example No. 1##*

### *(i) Auditing Government Monitoring of Compliance With Environmental Laws*

212 In many countries, a lead environmental department (or other agency of the executive government) is charged with ensuring that environmental laws are properly implemented by public and/or private entities. These laws may charge the environmental department with such activities as:

- ◆ issuing permits that limit the quantity or concentration of pollutants discharged;
- ◆ monitoring dischargers' compliance with such permits;
- ◆ monitoring environmental conditions to help identify other potential breaches of regulations;
- ◆ helping in the interpretation of regulations, and providing other assistance to regulated entities to assist in their compliance efforts; and
- ◆ taking enforcement actions when violations occur.

213 In some cases, these environmental regulatory responsibilities may be delegated by the federal (national) government to lower levels of government. In addition, other types of executive government departments (such as transportation or agriculture) may also exercise certain environmental regulatory responsibilities. The SAI is often charged with examining how well these other departments exercise their environmental responsibilities.

*## See Example No. 2##*

214 Audits of systems for monitoring compliance with environmental laws typically begin with clear and explicit audit criteria, which are often contained in specific

## **Guidance on Conducting Audits of Activities with an Environmental Perspective**

statutory requirements or in the lead environmental department's regulations implementing those statutory requirements<sup>28</sup>. The SAI then develops a methodology that assesses the performance of the department (or other pertinent parties) against the established criteria.

### *## See Example Nos. 3 & 4##*

- 215 The data needed to support findings and conclusions may be centrally located and readily available. More usually, important information may need to be collected from diverse locations and (perhaps) from numerous governmental and non-governmental entities.
- 216 The latter is frequently the case in countries with federal systems, where the national government provides funding and delegates responsibility to agencies of their state/provincial governments. These agencies may be responsible for writing permits for dischargers, taking enforcement action when violations occur, and performing other day-to-day regulatory responsibilities.
- 217 Whatever the method or methods used, the SAI may usefully obtain agreement on its methodology from the lead department being audited and (perhaps) from at least some of the other audited entities. Obtaining agreement would be particularly worthwhile in relatively complex audits that require a major resource commitment. Agreement would also greatly reduce the risk that the audit results will be criticised as “unrepresentative” when they are presented.
- 218 The SAI may be able to use information from a centralised database in assessing compliance with statutory or regulatory requirements, or in evaluating the effectiveness of corrective measures. Such data can be an efficient primary source of information for audit findings – reducing the time and resources needed to perform data collection and analysis, and alleviating the need for expensive field visits to diverse locations.

### *## See Example No. 5##*

- 219 The conclusions drawn from database information is only as good as the quality of the information itself. The audited entity has primary responsibility for ensuring that it has management information systems in place to collect data on

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<sup>28</sup> Other possible criteria may include technically developed standards or norms, expert opinions, and performance of similar entities.

## **Guidance on Conducting Audits of Activities with an Environmental Perspective**

its operations and performance. But an SAI should be aware that environmental regulatory compliance data has proven to be particularly susceptible to error in many countries, given the relative newness of regulatory efforts in this area.

- 220 For example, some SAI audits have detected major flaws in the databases used to track environmental compliance. It is therefore essential to understand and, if possible, to establish the reliability of the data used for testing compliance. In relying on such databases, some SAIs routinely disclose in their reports the extent to which the databases' accuracy has been independently verified.
- 221 The quality and completeness of environmental data characterising environmental conditions (e.g. pollutant levels of bodies of water; trends in fish populations) may be even more problematic than data on environmental regulatory compliance. While gathering data on environmental conditions is typically the responsibility of the audited entity and not the SAI, the SAI may nonetheless need the information to understand the extent of the problem and the effectiveness of measures to control it.
- 222 Unfortunately, in most countries, such data is often incomplete or of poor quality. However, these constraints need not necessarily preclude the SAI from providing useful analysis and information.

*## See Example Nos. 6 & 7##*

- 223 Frequently, the absence of reliable environmental data may itself become a central message of the SAI's report. In such cases, the SAI may recommend that more complete data be obtained to help the lead environmental department ensure that limited funds are targeted to address the most pressing problems.
- 224 Some audit reports, for example, have recommended that the lead environmental department:
- ◆ develop better data on the health effects of pollutants;
  - ◆ take certain steps to better manage the limited data that is available; and
  - ◆ develop the technical information ("environmental indicators") needed to judge whether its regulatory activities are adequately protecting the environment.

(ii) *Auditing the Performance of Government Environmental Programmes*

- 225 A Government may be enabled by statute or other authority to carry out (or fund other entities to carry out) a range of other programmes or activities to achieve objectives whose principal aim is to protect or improve the environment. Such a programme or activity:
- ◆ May be the responsibility of a government department with a particular interest in the environment – such as a Department for the Environment having a programme to conserve sites of particular ecological importance.
  - ◆ May be the responsibility of , for example, a Department for Agriculture through a programme for assisting farmers to adopt practices which minimise pollution.
- 226 Environmental programmes can typically be identified from Government plans and annual reports. Sometimes, a Government assembles its environmental programmes in a single Environmental Plan and Report. Where such a plan does not exist, the SAI can assist accountability through reporting the various Government policies and programmes that do exist. To do this, the SAI may consider the major environmental concerns affecting its country and then identify and list the programmes established by the Government to address them.
- 227 An SAI may find it useful to identify the international agreements on environmental matters to which the Government has agreed, and then identify what programmes have been established to achieve them.

*## See Example No. 8##*

- 228 An SAI should take care in selecting and scoping an audit of a Government environmental programme, taking account of the performance risks that the audit would address, their materiality, and their auditability. For this purpose the auditor will need to have a firm grasp of the programme's objectives and the instruments used to address them.
- 229 An SAI may also consider whether to focus its attention on one main policy instrument or on many different policy instruments. A practical difficulty of the latter is in judging how far the results of the various instruments can be combined to identify the total impact of the audited entity.

*## See Example No. 9##*

- 230 When planning its audit, the SAI should consider:

## Guidance on Conducting Audits of Activities with an Environmental Perspective

- ◆ The risks and materiality of the Government programme or activity, taking account of the resources involved, the importance of the environmental problem to be addressed, and the magnitude of the intended effect.
- ◆ The intended and achieved overall results of the programme or activity.

231 Where few resources are involved but the potential impact of the programme or activity is significant, the scope of the audit may be better directed to the effectiveness of the programme or activity in achieving that impact than to the economy of the administrative practices employed or the efficiency of utilisation of the resources involved. The SAI may also be able to narrow the scope of its audit to areas where there is evidence that the planned targets are not being met.

### ## See Example No. 10##

232 The auditor will also need to confirm the management arrangements for the programme, in order to identify who is to be held accountable and to identify any limitations on the audit where matters are beyond the control of the audited entity.

233 Consideration of the scope and methodology of the audit should address the availability of audit criteria, particularly where the programme is not subject to statutory requirements. The SAI may identify ways to compare the programme's arrangements to best management practice or against practices used for similar environmental programmes in the same country or elsewhere. The SAI may also report the programme's achievements over time – against the programme's own targets, or targets or benchmarks set by experts<sup>29</sup>.

234 In selecting an audit the SAI should give particular attention to the availability of sufficient, relevant and reliable data. To arrive at firm conclusions on the effectiveness of a programme, the SAI may well need good quality data going back over long periods.

235 The auditor should bear in mind that environmental programmes may be aiming for impacts which:

- ◆ are individually small-scale but cumulatively large-scale;
- ◆ take a long time to have a noticeable effect; and

<sup>29</sup>

Refer section 3 of this guide; INTOSAI – *How SAIs May Co-operate on the Audit of International Environmental Accords*; and INTOSAI – database on environmental audit work.

**Guidance on Conducting Audits of Activities  
with an Environmental Perspective**

- ◆ are affected by significant external factors – such as weather conditions and other activities that also have an impact on the same environment.

*(iii) Auditing the Environmental Impacts of Other Government Programmes*

- 236 In addition to programmes whose principal aim is to protect or improve the environment, all activities affect the environment in some way through their use of resources or their consequences for the area in which they are conducted. Government activities are no exception.
- 237 Some Government programmes have significant impacts – which may be both positive and negative, intended and unintended. For example, the primary objective of road building is to facilitate movement of people or goods. But building a road has a secondary and direct impact through its land use and its effect on the ecology of the area and the landscape, whilst use of the road also has an impact on air and noise pollution.
- 238 Similarly, the purpose of military activities is to maintain the capability required to defend national territory and contribute to wider security interests and the promotion of peace. However, military activities have a range of environmental impacts, from use of significant quantities of non-renewable resources, to pollution from use or storage of military hardware and consumables.
- 239 The environmental impacts of the activities can be highlighted as part of a wide-ranging performance audit – of the economy, efficiency and effectiveness of a Government activity – or as a narrowly defined study focusing solely on the environmental impacts.
- 240 As a starting point for identifying the impacts of Government activities on the environment, an SAI can usefully familiarise itself with any commitments the Government has made to identifying these impacts for itself and taking them into account in its policy appraisal. Best practice suggests that organisations should embrace environmental concerns in their strategic policy objectives, and in their appraisal of new and existing activities. Some Governments have adopted such an approach and have also ensured that Government activities are subject to the same environmental laws and regulations as non-governmental activities.

- 241 The SAI's audit should start with the Government's own assessment (if any) of the likely environmental impacts. The SAI may review the adequacy of:
- ◆ the description of the programme or activity, its environment and the baseline conditions;
  - ◆ the completeness of the range of key impacts identified;
  - ◆ the data used to assess the likelihood of the impacts and their expected scale; and
  - ◆ any proposals for measures to counter the impacts.

*## See Example No. 11##*

- 242 The SAI may wish to test for itself what impacts a Government activity may have on the environment, their likely scale, and any values that can be placed on their costs and benefits. Discussions with experts and literature searches can identify commonly used evaluation methodologies. Where evaluation is not possible –such as putting a value on the loss of a landscape or particular environmental feature – it may be helpful to identify and seek the views of key stakeholders (e.g. residents groups in the area affected by the activity, key environmental interest groups, and non-governmental organisations in the field) and academics specialising in relevant evaluation methodologies.

*## See Example No. 12##*

- 243 The SAI must consider at the outset what data will be available for measuring the impact of a Government activity. Where the Government has carried out an environmental impact assessment, it should identify the data available when the assessment was prepared and any plans to collect further data. Where it has not been identified, the SAI will need to consider the availability of sufficient, relevant and reliable information.
- 244 Environmental regulations may apply to Government activities which have secondary impacts on the environment. In these cases the Government department or agency charged with monitoring compliance with the regulations will have primary responsibility for testing compliance, not the SAI. However, the SAI may consider it appropriate to audit compliance against the regulations in agreement with the regulator.
- 245 Where the regulations do not strictly apply to the activity concerned the SAI may consider using them as an appropriate benchmark, although the validity of this approach should be considered carefully.

- 246 From the outset the Government may identify measures which counter or reduce environmental impacts. The SAI's audit may address whether these measures:
- ◆ have been put in place and are in accordance with best practice or best available technology not entailing excessive cost (BATNEEC); and
  - ◆ have had the preventive effect intended, and, if not, what actions the Government has taken instead.

*## See Example No. 13##*

- 247 In some cases the counter-measures may need to be suitable for preventing or dealing with low-risk but major-impact occurrences, such as unintended releases of radioactive substances. Accident and incident procedures may be rarely used, but they need to be kept operable, in case of need. Where such procedures are important, an SAI's audit may review
- ◆ the procedures;
  - ◆ the training of any staff involved;
  - ◆ the frequency of testing the procedures; and
  - ◆ whether any arrangements required with third parties (suppliers, emergency services, etc) are up-to-date.

- 248 When undertaking a narrowly defined study focusing solely on environmental impacts, the SAI will need to consider carefully how to provide a fair reflection of the impacts against the costs and benefits of the programme's primary objective.

*(iv) Auditing Environmental Management Systems*

- 249 Organisations are introducing environmental management systems to ensure that they are systematically setting policies for continual improvement in environmental performance and are achieving the policy objectives. Voluntary accreditation schemes have been introduced nationally, regionally, and internationally to enable organisations to obtain external confirmation of the adequacy of their environmental management systems and recognition that they are operating such systems.
- 250 The International Standard for Environmental Management Systems, ISO 14001, identifies the following features of best practice:
- ◆ Setting an environmental policy.
  - ◆ Planning— taking account of environmental aspects and legal and other requirements; and setting

## **Guidance on Conducting Audits of Activities with an Environmental Perspective**

- objectives and targets and introducing environmental management programmes.
- ◆ Implementing and operating— establishing structures and responsibilities, training staff and communicating the main requirements; documenting the environmental management systems; operating the systems; and preparing emergency plans.
  - ◆ Checking and taking corrective action— monitoring and measurement; identifying non-compliance and taking action; and auditing the environmental management system.
  - ◆ Management review of all aspects of the system.
- 251 In Europe it is expected that ISO 14001 will become accepted as a route to achieving accreditation under the European Union’s Eco-Management and Audit Scheme. Supporting International Standards ISO 14010-14012 have been set for those seeking to act as accreditors.
- 252 Typically, the accreditation schemes have been established for commercial and industrial organisations. Nevertheless, the management systems involved are also applicable to Governments.
- 253 At XV INCOSAI it was agreed that for SAIs to seek to become accredited verifiers under these voluntary schemes was inappropriate. However, if an SAI has a sufficient performance audit mandate it may choose to audit Government environmental management systems.
- 254 In considering whether to undertake an audit of environmental management systems an SAI should identify existing Government policy towards establishing them. In some countries introduction of environmental management systems throughout the Government is required by law. In such cases a Government mechanism for ensuring compliance with the requirement may already be established, and the SAI should take this into account when planning its audit.

**## See Example No. 14##**

- 255 In countries where there is no requirement to introduce Government-wide environmental management systems the SAI may consider working either with the Government or independently to:
- ◆ establish how far the systems have been introduced piecemeal;

**Guidance on Conducting Audits of Activities  
with an Environmental Perspective**

- ◆ identify the most appropriate models for such systems; and
- ◆ evaluate the benefits to be gained from establishing them.

**## See Example Nos. 15 & 16##**

256 The SAI may decide to audit complete environmental management systems for individual Government departments. Alternatively, the audit may focus on one or more elements across a range of departments, agencies or other organisations within the SAI's remit. The latter approach can be helpful for dealing with relatively small-scale matters where there is nonetheless scope for significant improvements across the Government. The audit can identify different practices from which to draw practical recommendations.

257 An important consideration for the SAI in deciding on the scope of its audit is the scale of the likely impact that the environmental management system(s) is(are) expected to cope with. Some Government departments may be largely administrative, and their key impacts may be limited to relatively low-level uses of resources such as energy and water; paper and other office consumables, and transport; and to recycling and disposal of office waste. Other Government departments or agencies may undertake industrial processes which have a significant impact on the environment through pollution.

**## See Example No. 17##**

258 Best-practice environmental management systems require organisations to set themselves targets for continuous improvement in performance and to monitor achievements. The systems themselves do not establish what are appropriate standards of performance, nor do they always require full auditing and reporting of performance. These are matters for the entities' management.

259 An SAI may consider whether it should audit and report on the actual performance targets set by the Government. For such an audit the SAI could usefully how the Government's targets compare with practices elsewhere and with the Government's commitments to international agreements.

**## See Example No. 18##**

260 An SAI may also consider whether Government monitoring of departments' environmental management systems and reporting of environmental performance make them

sufficiently accountable to the legislature and the public for meeting key performance targets. The SAI could undertake an audit to identify the level of performance and reasons for non-achievement of targets.

(v) *Evaluating Proposed Policies and Programmes*

261 According to the Netherlands Court of Audit’s 1995 survey of SAIs, few conduct evaluations of proposed environmental policies or programmes. In its subsequent discussion paper presented at XV INCOSAI , the Court of Audit added that SAIs were generally reluctant to have their role extended into this area. This reluctance is understandable because in such situations – where the audit criteria themselves (i.e. environmental statutory requirements) may become the subject of the evaluation – risks may be posed to the SAI if its conclusions are not perceived to be based on fact, or if they appear to reflect a particular ideology.

262 Nonetheless, in certain situations it could occur that SAIs may be called upon to provide information on proposed policies or programmes to their legislatures. This may occur, for example, where a national legislature re-focuses its attention from the question, “Is the programme operating in conformance with its statutory requirements?” to the more basic question, “Do the underlying statutory requirements themselves need modification to make the programme more cost-effective or to improve it in other ways?” Under these circumstances, it may request the SAI to analyse alternative proposals under consideration.

**## See Example Nos. 19 & 20##**

263 Generally, such work poses both challenges and risks. In particular, analyses of proposed policies or programmes may sometimes require skills outside those normally associated with auditing disciplines. For example, assessments of the cost and benefits of proposed environmental regulations often require the skills of an economist. In such situations, the SAI may need to hire individuals with the requisite skills, or it may find it more cost-efficient to seek the services of an outside consultant.

264 A third alternative may be to convene a panel of experts. Such panels, which may include experts from industry, government, and environmental organisations, have been used by some SAIs to help in identifying environmental audit priorities, developing audit approaches on specific issues, and collecting information.

265 Even with these added skills, the nature of such analyses does carry additional risks to the SAI, particularly if it is viewed as taking sides in debates over matters of policy. The SAI may consider the following alternatives to minimise such risks if it is asked to provide information on alternative policy directions:

◆ **Provide factual information rather than judgements**

It is less controversial, and more in line with the traditional roles of SAIs, to provide factual and analytical information on the impacts of alternative policy directions rather than recommend a specific alternative action.

◆ **Identify consensus among experts**

A consensus of expert opinion on a complex or controversial proposal can provide valuable support for an SAI's conclusions and recommendations.

◆ **Evaluate and comment on analysis of other organisations**

It is often risky for the SAI to evaluate proposed policy alternatives if its analyses involve speculative assumptions about such matters as future rates of economic growth, or about technical factors such as how ecosystems respond to various pollution-related stresses. However, other organisations often perform these analyses, and typically report their methodologies and underlying assumptions along with their findings. Rather than having to defend its own assumptions (and potentially leaving itself open to the criticism that its assumptions were made subjectively), the SAI may find it more useful to evaluate these other studies' assumptions, findings, and conclusions.

- ◆ **Decline the request**  
In unusual circumstances, the SAI may find it necessary to decline the request if the risk is viewed as unacceptable. As a practical matter, however, the SAI can usually find ways to at least partially satisfy the information need without undue risk.

## ESTABLISHING TECHNICAL CRITERIA

### Introduction

- 301 A key concern for SAIs in carrying out environmental audits is determining the technical criteria against which the audited entities' disclosures or performance will be assessed. An SAI faces significant risk if it uses criteria which are wrong or considered to be biased. It therefore needs to take care to ensure that the chosen criteria will be generally accepted as relevant, complete, and understandable.
- 302 This section sets out some of the factors that an SAI should consider when deciding on the technical criteria for an environmental audit. It suggests potential sources of criteria for each type of audit and how the SAI might minimise the risk of adopting inappropriate criteria.

### Framework Approach

- 303 Consistent with the framework approach adopted at XV INCOSAI to defining "environmental auditing", a framework basis is considered to be the best way to guide an SAI in establishing the technical criteria needed to carry out an environmental audit. The essential elements of the framework are summarised in Annex 2.
- 304 The two axes of the establishment framework are:
- ◆ The type of audit to be performed.
  - ◆ The purpose and sources of the criteria.
- 305 The types of audit are (as already identified):
- ◆ Regularity Audit, comprising:
    - Financial Audit; and
    - Compliance Audit.
  - ◆ Performance Audit.
- 306 The purpose and sources of the criteria are determined by the type of audit and, hence, the broad audit objective. So far as authoritative sources of criteria are available they should be used in preference to non-authoritative sources.
- 307 While different types of audit are recognised they do not necessarily have to be carried out separately. A

compliance audit in particular could form part of either a financial audit or a performance audit.

- 308 Sources of criteria are of two kinds:
- ◆ **Authoritative** – which gives the auditor certainty as to the acceptability of the criteria as a sound basis for an audit.
  - ◆ **Non-authoritative** – which gives rise to a risk for the auditor about the acceptability of the criteria as a sound basis for an audit (see paragraphs 325-329).
- 309 A financial or performance audit may need to be based on criteria from both authoritative and non-authoritative sources. A compliance audit ought not to be based on criteria from a non-authoritative source on the assumption that the audited entity is not obliged to comply with them.

## **Financial Audits**

### *Purpose of the Criteria*

- 310 The purpose of the criteria for the environmental aspects of a financial audit is **to enable the auditor to establish whether the reporting entity has appropriately recognised, valued and reported environmental costs, liabilities (including contingent liabilities), and assets.**

### *Authoritative Sources of Criteria*

- 311 An authoritative source of criteria is one which falls within the meaning of “generally accepted accounting practice” (or its equivalent term) in the jurisdiction in which the entity is reporting.
- 312 Sources could include:
- ◆ Mandatory standards issued by an authoritative standard-setting body.
  - ◆ Standards issued by some other recognised body.
  - ◆ International standards issued by a recognised body.

### *Non-authoritative Sources of Criteria*

- 313 Subject to an assessment of the risk, a non-authoritative source of criteria can be any source that the auditor considers appropriate for the purpose.
- 314 Such a source could include:
- ◆ Guidance issued by a relevant professional body.
  - ◆ Academic literature.

## **Compliance Audits**

### *Purpose of the Criteria*

315 The purpose of the criteria for an environmental compliance audit is **to enable the auditor to establish whether the entity has conducted the environmental activity in compliance with all applicable obligations.**

### *Authoritative Sources of Criteria*

316 The term “obligation” for this purpose has its ordinary meaning of something with which the audited entity must comply. It may be a direct legal obligation or an obligation arising from a duty to comply with the policy of a superior executive authority.

317 Authoritative sources could therefore include:

- ◆ National laws – Acts of the legislature and any regulations, rules, orders etc made under an Act and having the force of law.
- ◆ Supranational laws – such as legislation enacted by organs of the European Union.
- ◆ International agreements – such as treaties with other jurisdictions and United Nations Conventions.
- ◆ Binding standards (including techniques, procedures, and qualitative criteria).
- ◆ Contracts.
- ◆ Policy directives.

## **Performance Audits**

### *Purpose of the Criteria*

318 The purpose of the criteria for an environmental performance audit is **to enable the auditor to form an opinion on either or both of:**

- ◆ **The validity of the performance indicators used by the entity when publicly reporting its performance in conducting the environmental activity.**
- ◆ **Whether the entity has conducted the environmental activity in an effective, efficient, and economical manner consistent with –**
  - **the applicable governmental policy; and**
  - **any other factors affecting the conduct of the activity over which the entity had no control.**

### *Authoritative Sources of Criteria*

- 319 In what is still a developing field of management and audit, authoritative sources of criteria may be few or non-existent. Possible sources could include:
- ◆ Performance indicators of effectiveness, efficiency, or economy that are –
    - prescribed by law; or
    - specified in the official governmental policy for the activity; or
    - otherwise mandatory on the entity.
  - ◆ Generally accepted standards issued by a recognised body.
  - ◆ Codes of professional practice issued by a recognised body.

### *Non-authoritative Sources of Criteria*

- 320 As with a financial audit, subject to an assessment of the risk, a non-authoritative source of criteria can be any source that the auditor considers appropriate for the purpose.
- 321 Such a source could include:
- ◆ Performance indicators or measures used by similar entities or other entities engaged in similar activities.
  - ◆ Academic literature.
  - ◆ Outside experts.
  - ◆ The SAI itself.

### **Minimising the Risk to the SAI**

- 322 The special risk that an SAI faces in conducting an environmental audit is that the criteria it has used are:
- ◆ inapplicable; or
  - ◆ inappropriate; or
  - ◆ biased.
- 323 Criticism of the SAI on any of those grounds could come from a number of directions – the most likely of which are the audited entity and bodies or persons having a professional interest in the subject of the audit.
- 324 The best defence to criticism from the audited entity is, of course, to obtain the entity's agreement to the criteria before the audit is begun. However, in seeking agreement the SAI must take care to ensure that its independence is not compromised as a result of omitting or modifying criteria against its better judgement. If the entity refuses to

## **Guidance on Conducting Audits of Activities with an Environmental Perspective**

agree to any criteria, the SAI has to be especially certain that the criteria it is using are defensible.

- 325 The greatest area of risk for the SAI will come from using non-authoritative sources of criteria. For example, when drawing on academic literature, the auditor should take all reasonable steps to search out everything that is available and verify the credentials of the authors.
- 326 The same approach should be applied to outside experts. If practicable, a panel of expert advice is better than advice from one person. In addition, expert advisers should be seen to be free of possible conflict of interest with the audited entity. Conflict could be perceived as a result of, for example, a past unsatisfactory association with entity, publicly expressed views that are contrary to those of the entity, or association (past or present) with a ‘competing’ entity. (See also paragraphs 138-140.)
- 327 The final test for the chosen criteria is that (like all audit criteria), they are objective rather than subjective. Matters for subjective judgement are the preserve of those who have ‘political’ responsibility for the outcome.
- 328 The auditor’s judgement should be exercised so as to match the criteria chosen for the audit with the objective characteristics that the performance indicators being used by the audited entity should have:

### **Relevance**

- ◆ A performance indicator is **relevant** when it:
  - Reflects a statutory or other performance obligation, or a performance objective agreed between the entity and its stakeholder(s). That is, the indicator relates to achieving a particular function or task or output or outcome that the entity is expected to achieve
  - Provides information about achieving a particular function or task or output or outcome that meets the needs of someone who can reasonably be expected to use it – a stakeholder in the entity (such as the responsible minister, members of the legislature, taxpayers and others who contribute to the entity’s resources); an analyst; a representative of the news media.

### **Understandability**

- ◆ A performance indicator is **understandable** when it is clearly expressed so that:
  - Its meaning is unmistakable.
  - Its rationale is recognisable.

### **Reliability**

- ◆ A performance indicator is **reliable** when it:
  - Faithfully represents a measurable characteristic of performing the function or task or output or outcome.
  - Is made up of information that can be independently verified against appropriate evidence.
  - When necessary, is capable of consistently producing results that are comparable over time.

329 Not every performance indicator has to be relevant to, or understood by, of every user.

330 The audit criteria should ensure the **completeness** of the performance indicators used. When an entity is managing and reporting on its performance, it should use as many performance indicators as are required to reflect (as appropriate):

- ◆ All of its significant activities.
- ◆ All material aspects of each significant activity.
- ◆ All of its statutory or other performance obligations and agreed performance objectives.

## ANNEX 1 EXAMPLES FROM PERFORMANCE AUDITS

### AUDITING GOVERNMENTAL MONITORING OF COMPLIANCE WITH ENVIRONMENTAL LAWS

#### *Example No. 1*

In some cases, the SAI may need to use a combination of methods to obtain the required information. In the United States in 1993, in an audit entitled *Drinking Water: Key Quality Assurance Programme Is Flawed and Underfunded* (GAO/RCED-93-97), GAO staff used a written survey to gather basic information from all 50 states, such as the frequency in which inspections of drinking water supply systems were conducted, and the kind of information sought by inspectors.

However, to gather more detailed information about states' performance, and about the underlying causes of performance problems, GAO staff selected four states for detailed review. In each of the four states, GAO first interviewed key state and water system staff. GAO then examined 50 randomly-selected inspection reports contained in the states' files to obtain first-hand information concerning the safety and reliability of the water systems.

#### *Example No. 2*

In 1990, the United States General Accounting Office (GAO) undertook an audit of a programme, authorised by statute, which aims to ensure the safety of public drinking water supplies. The GAO performed a detailed examination of how the Environmental Protection Agency (EPA) and a sample of six states were implementing key programme requirements. These requirements addressed:

- whether public water systems adequately monitor their supplies to ensure they are free of contamination;
- whether state regulatory agencies detect and report to EPA violations of water quality standards;
- whether these state agencies enact fines or other penalties against violators;
- how effectively EPA oversees the entire programme.

**Guidance on Conducting Audits of Activities  
with an Environmental Perspective**

GAO made a series of recommendations to ensure that water system operators are properly trained and certified; to improve states' ability to detect violations; and to ensure that states and EPA impose fines or other penalties against violators when required by regulations.

***Example No. 3***

Estonia's State Audit Office (SAO) audited the Ministry of Environment's adherence to the Law on Sustainable Development. This law requires long-term programmes to be established to deal with environmentally sensitive issues so that economic activities are balanced against environmental and social concerns. After examining the programme plans prepared by the Department, the SAO concluded that the main objectives of these programmes were not always sufficiently specified; budgets covering the programmes as a whole had not been prepared; financing schedules and sources were not specified; and issues relating to the progress and effectiveness of the programmes were not sufficiently elaborated. The SAO recommended that the Ministry establish more precise objectives, as well as corresponding time schedules and sources of financing. The SAO also recommended that the Ministry of Finance should accelerate the development of rules for drafting, approving and financing state programmes. *The activities of the Ministry of Environment in drafting and implementing programmes on environmental protection. (No. 10-12/31)*

***Example No. 4***

In 1997, the European Court of Auditors examined the implementation, by the Commission and the Member States, of the Community's urban waste water treatment Directive. This Directive aims amongst other things, for the progressive reduction and control of urban generated water pollution to commonly accepted levels for all European countries. The Court has audited in the same context the grants paid to the Member States which were used to finance related programmes and projects. Within this context, approximately 40,000 sewage stations have to be constructed or improved to meet the new quality standards imposed by this legislation.

***Example No. 5***

In its report entitled *Superfund: Backlog of Unevaluated Federal Facilities Slows Cleanup Efforts* (GAO/RCED-93-119), the GAO used data from the Environmental Protection Agency's (EPA) Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) to provide comprehensive information on the status of hundreds of federal hazardous waste facilities. Based on this information, GAO concluded that EPA had completed only 500 of 823 required evaluations of potential contaminated facilities, and that the clean-up of potentially dangerous sites had become seriously backlogged.

***Example No. 6***

In its report *Water Pollution: Greater Environmental Protection Agency (EPA) Leadership Needed to Reduce Non-point Source Pollution* (GAO/RCED-91-10), the GAO found that monitoring data on the extent of pollution from agricultural run-off and other diffuse sources, while incomplete, was nonetheless sufficient to derive meaningful conclusions and budgetary recommendations.

The GAO found that the limited EPA data that was available – coupled with a strong scientific consensus – supported the conclusion that non-point source water pollution accounted for the largest share of remaining water quality problems in the United States. GAO relied on this finding – together with findings that:

- ◆ little progress had been made in addressing non-point source pollution nationwide, and
- ◆ a very small share of the federal resources devoted to water quality problems was targeted toward non-point source pollution.

The GAO was able to recommend that the Congress re-orient the EPA's water quality budget to provide greater emphasis on controlling non-point source water pollution.

***Example No. 7***

In similar fashion, the United Kingdom National Audit Office (NAO) sought to bring together and analyse data on river water quality from regional offices of the National Rivers Authority. This was very difficult due to differences in the bases for the regions' data. However, it did bring out the finding that there was scope for improvement of water quality on a quarter of river lengths, which strengthened other findings regarding the need for maintaining the level of prevention work of the Authority and targeting it at the highest risks. (*National Rivers Authority: River Pollution from Farms in England*, HC 235, 1994-95)

**AUDITING THE PERFORMANCE OF GOVERNMENT  
ENVIRONMENTAL PROGRAMMES**

***Example No. 8***

In 1997, an audit by Canada's Office of the Auditor General (OAG) examined the effectiveness of the regime established by the federal government to control the import and export of hazardous waste shipments. The focus of the audit was on the extent to which Canada has implemented the requirements of the Basel Convention, to which it was a signatory in 1992. (*Control of the Transboundary Movement of Hazardous Wastes – October 1997*)

***Example No. 9***

The United Kingdom NAO examined several policy instruments used by the Department of the Environment to reduce the environmental impact of office and domestic buildings. These included the setting of regulations to be met by the construction industry, grants to householders to help them improve the insulation of their homes, and guidance and assistance to other government departments on how to reduce energy consumption and use more environmentally preferred materials in their buildings. In this case no attempt was made to assess the overall effect of the many instruments examined, although it may have been possible to add up their estimated impact on energy use and CO<sub>2</sub> emissions. (*Buildings and the Environment*, HC 365, 1993-94)

***Example No. 10***

The United Kingdom NAO examined, despite the relatively small amount of public expenditure involved, Government grants which seek to facilitate a transfer of freight from the roads to rail or inland waterway in order to achieve environmental benefits. The grants meet part of industry's costs of investment in equipment for rail and inland waterway freight. The audit found that the grants were not being fully taken up by industry, and that the quantity of freight carried by rail and inland water continued to decrease. It went on to identify reasons for this and suggested ways in which the grants could be administered with greater flexibility to meet industry's needs better and achieve the environmental benefits. (*Freight Facilities Grants*, HC 632, 1995-96)

**AUDITING THE IMPACTS OF OTHER  
GOVERNMENT PROGRAMMES**

***Example No. 11***

The United Kingdom NAO audited how the Department of Transport assessed the environmental impact of road building projects. The Department's assessments were reviewed against the statutory requirements implementing the European directive on Environmental Impact Assessments (85/337/EEC) and against best practice. The examination identified the need to appraise further the global and cumulative effects of road building; improve assessment of certain impacts; and improve the quantification of the costs of environmental impacts. (*Environmental Factors in Road Planning and Design*, HC 389, 1993-94)

***Example No. 12***

As part of an audit of the use of land by the military, the United Kingdom NAO contacted conservation and environmental bodies to identify their views of the environmental impact of the Ministry of Defence's use of army training lands and the measures they take to protect the environment. The examination set out the nature of the competing claims on the use of the land. (*Management and Control of Army Training Land*, HC 218, 1991-92)

***Example No. 13***

In its examination of the impact of road building the United Kingdom NAO assessed the Government's approach to incorporating measures to alleviate environmental damage in the design of new roads. It showed that more research was required on the effectiveness and cost of the range of measures available. (*Environmental Factors in Road Planning and Design*, HC 389, 1993-94)

**AUDITING ENVIRONMENTAL MANAGEMENT SYSTEMS**

***Example No. 14***

In Canada, the OAG looked at a variety of private sector and federal organisations, and developed a questionnaire for assessing Government environmental management systems. (*Environmental Management Systems: A Principle-based Approach*, Volume 2, Chapter 11, 1995)

***Example No. 15***

An audit in 1996 undertaken by the Austrian Court of Audit identified a need to survey the environmental risks associated with the activities of the country's Federal Railway Company. The audit also indicated a need to identify corrective measures; to establish priorities among these measures; and to identify their associated costs. (*Austrian Federal Railway Environmental Strategy (especially in the area of noise reduction) 1996*)

***Example No. 16***

In the United States the GAO has undertaken work to examine the benefits from undertaking systematic and comprehensive environmental performance reviews and the potential for Government to benefit more from this approach. (*Environmental Auditing: A useful tool that can improve environmental performance and reduce costs*, (GAO/RCED-95-37), April 1995)

***Example No. 17***

The United Kingdom NAO examined the performance of several Government departments in maintaining and conserving buildings in current use but which were also of historic interest. The examination drew attention to the need for the Government to play its part in maintaining buildings which are part of the nation's heritage. The examination underlined the importance of undertaking full condition surveys, keeping up-to-date databases on the state of repair of the buildings, and carrying out maintenance to prevent deterioration.

*(Upkeep of Historic Buildings on the Civic Estate, HC 37, 1991-92)*

***Example No. 18***

In the United Kingdom the Government has set targets for energy efficiency for all government departments and agencies. The NAO reported early performance against these as part of a wider study. More recently the Government has itself reported performance against the targets so no further follow-up work has been required. *(Buildings and the Environment, HC 365, 1993-94)*

**EVALUATING PROPOSED POLICIES  
AND PROGRAMMES**

***Example No. 19***

In the United States, the GAO has in recent years has been asked to provide analysis and suggestions on how resources can be better focused on those environmental problems which pose the greatest risk to human health and the environment. One example is its report *Environmental Protection: Meeting Public Expectations With Limited Resources* (GAO/RCED - 91-97), which concluded that the goals of the nation's most important environmental programmes were being largely unmet; and that a major reason was that available funds were not being targeted effectively to address the most serious problems.

The report cited a consensus among nationally recognised environmental experts from business, government, and other groups, obtained at a GAO-sponsored symposium, that the Environmental Protection Agency's (EPA) funding priorities were based more on public misperceptions about the risks posed by different environmental problems than on scientific assessments of these risks. Among other things, the report recommended that the Congress and EPA work together to:

**Guidance on Conducting Audits of Activities  
with an Environmental Perspective**

- ◆ identify opportunities to shift resources from problems of less severe risk to problems whose risks are greater; and
- ◆ initiate activities to educate the public about relative environmental risks.

*Example No. 20*

In 1997, South Africa's Office of the Auditor General completed an audit of the central government's role regarding sea fisheries, which addressed financial reporting, compliance, performance and environmental management systems. The audit team concluded that, especially in the case of financial and performance reporting, national legislation and policies needed to be improved.

ANNEX 2

ESTABLISHING TECHNICAL CRITERIA FOR ENVIRONMENTAL AUDITS

	Type of Audit		
	Regularity		Performance
	Financial	Compliance	
<b>Purpose of the criteria</b>	To enable the auditor to establish whether the reporting entity has appropriately recognised, valued and reported environmental costs, liabilities (including contingent liabilities), and assets.	To enable the auditor to establish whether the entity has conducted the environmental activity in compliance with all applicable obligations.	To enable the auditor to form an opinion on: <ul style="list-style-type: none"> <li>i The validity of the performance indicators used by the entity when publicly reporting its performance in conducting the environmental activity.</li> <li>ii Whether the entity has conducted the environmental activity in an effective, efficient, and economical manner consistent with the applicable governmental policy and any other factors affecting the conduct of the activity over which the entity has no control.</li> </ul>

<p><b>Sources of the criteria –</b></p> <p><b>Authoritative (= “certainty”)</b></p>	<p>i Any source falling within the meaning of “generally accepted accounting practice” (or its equivalent term) in the jurisdiction in which the entity is reporting. Sources could include:</p> <ul style="list-style-type: none"> <li>◆ Mandatory standards issued by an authoritative standard-setting body.</li> <li>◆ Standards issued by some other recognised body.</li> <li>◆ International standards issued by a recognised body.</li> </ul>	<p>i National:</p> <ul style="list-style-type: none"> <li>◆ Laws.</li> <li>◆ Official governmental policies.</li> <li>◆ Binding standards.</li> <li>◆ Contracts.</li> <li>◆ Policy directives.</li> </ul> <p>ii International:</p> <ul style="list-style-type: none"> <li>◆ Laws.</li> <li>◆ Agreements (such as treaties with other jurisdictions and United Nations Conventions).</li> </ul>	<p>i Performance indicators or measures of effectiveness, efficiency and economy that are prescribed by law or in the official governmental policy, or that are otherwise mandatory on the entity.</p> <p>ii Generally accepted standards issued by a recognised body.</p> <p>iii Codes of professional practice.</p>
<p><b>Non-authoritative (= “risk”)</b></p>	<p>ii Any other source that the auditor considers appropriate for the purpose. Sources could include:</p> <ul style="list-style-type: none"> <li>◆ Guidance issued by a relevant professional body.</li> <li>◆ Academic literature.</li> </ul>		<p>iv Performance indicators or measures used by similar entities.</p> <p>v Academic literature.</p> <p>vi Outside experts.</p> <p>vii The SAI itself.</p>