INTOSAI

Results of the third survey on environmental auditing (2000)

INTOSAI Working Group on
Environmental Auditing
c/o Netherlands Court of Audit
September, 2001

INTOSAI WORKING GROUP ON ENVIRONMENTAL AUDITING

c/o The Netherlands Court of Audit, September, 2001.

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Contents

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1. Introduction

The protection and improvement of the environment is an important issue in all countries. The INTOSAI Working Group on Environmental Auditing wants to stimulate and support Supreme Audit Institutions (SAIs) in developing and improving their role in the field of environmental auditing. In this paper, we present the results of the third INTOSAI survey on environmental auditing by SAIs.[1] It covers the actual state of the art (2000) in the field of environmental auditing by SAIs. Where possible, the results are compared with those of the first and second survey, conducted by the Working Group in 1993 and 1997. Doing so, trends and developments in this field can be detected.
At the 17th International Congress of Supreme Audit Institutions (INCOSAI) in Korea, 2001, the INTOSAI (International Organisation of Supreme Audit Institutions) Working Group on Environmental Auditing will complete the third period of activities. Time to make up the balance. Therefore, with this survey we also hope to contribute to the evaluation and further development of the strategy, products and activities of the Working Group on environmental auditing itself.

The information gathered by the third INTOSAI questionnaire is also used to update our homepage and to compose a bibliography of SAIs reports on environmental issues. This information is published separately on the Working Groups homepage on Internet: http://www.environmental-auditing.org. A CD-ROM containing this information will be made available at the XVII INCOSAI in Seoul.

The draft of this paper has been sent for written consultation to the Members of the Working Group and the SAIs mentioned in the text. 22 SAIs reacted to the draft.[2] Their comments have been incorporated in the document. At the seventh meeting of the Working Group in Ottawa (Canada) in September 2001, it is approved by the INTOSAI Working Group on Environmental Auditing as a working group document.

2. Definition of environmental auditing

At the 15th INCOSAI in Cairo, INCOSAI adopted a framework definition of “environmental auditing” that reflects consensus among SAIs. Basic principles underlying this definition are:

[1] At the request of the regional Working Groups on environmental auditing of EUROSAI and AFROSAI, a short regional questionnaire was distributed together with the third INTOSAI questionnaire. The results of the regional surveys have been analysed by the EUROSAI and AFROSAI Working Groups. SAIs interested in the outcomes of the regional surveys are kindly requested to contact the respective regional Working Groups.
[2] We received reactions from the SAIs of Austria, Bolivia, Brazil, Cameroon, Canada, Czech Republic, Egypt, Estonia, Hungary, Indonesia, New Zealand, Norway, Papua New Guinea, Paraguay, Peru, Romania, Saudi Arabia, South Africa, Sudan, Sweden, the United Kingdom and the United States of America.

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

The Working Group's activities do not include environmental inspections of a more technical nature, as conducted by organisations in both public and private sectors and as part of the audit of private-sector enterprises.

The framework definition of “environmental auditing” was enclosed with the questionnaire, so the results presented in this paper are based on that definition.

3. Response and methods

This paper is based on the information gathered by means of the third INTOSAI questionnaire on environmental auditing. This questionnaire was sent to all INTOSAI Members in January 2000. By 25 March 2001, the Working Group had received responses from 110 SAIs, making the total response 61%. This is remarkably higher than the response to the first and second questionnaire. For an overview of the SAIs that responded to the questionnaire, see attachment 1. We want to express our gratitude to the SAIs which filled in the questionnaire.

Before presenting the results, we ask your attention for the representativity of the response. We checked the representativity with respect to the INTOSAI-regions, the level of income of the country and the availability of new information technologies at the SAI. The response analysis is presented in Attachment 1. It turned out that the response is not fully representative for the whole INTOSAI community:

- SAIs from ARABOSAI, ASOSAI and EUROSAI are overrepresented and SAIs form AFROSAI and SPASAI are underrepresented;
- SAIs of high-income countries were overrepresented, and those of low-income countries underrepresented;
- SAIs with new information technologies are overrepresented and SAIs lacking these technologies are underrepresented.

The conclusion must be that the results of the survey mainly represent the situation of SAIs with an average amount of resources or more. The involvement of SAIs with fewer resources continues to be a major challenge for the Working Group.

The third questionnaire contained some questions that were included in the first and second questionnaire as well. Doing so, a unique longitudinal database became available. This makes it possible to compare the situation in 2000 with the situation in 1997 and 1994. For the methodological account in detail, see Attachment

1. The third questionnaire and the collective responses of the SAIs to each question are presented in Attachment 2.

4. Governmental environmental policy

In 93% of the countries of the responding SAIs, the government had formulated some sort of environmental policy. This can be a comprehensive green plan, environmental or sustainable development policies and programmes, or a collection of statutes and regulations governing the environment. Eight SAIs reported that their governments had not formulated an environmental policy.
When a government had formulated an environmental policy, the objectives to be achieved and the instruments to be used were nearly always described. Many of these governments also described the targets to be met in specified years and how achievements were to be monitored and reported. Between 1994 and 1997 the SAIs reported progress in (the clearness of) the formulation of the environmental policy. Remarkably, this progress did not continue during the last period (1997-2000). Some SAIs even reported that government policy has become less clear. We are not sure whether this means that fewer governments formulate and monitor their environmental policy properly, or that SAIs have become more critical in this respect.
Gathering information about environmental policy world-wide is becoming easier. More than half of the countries provide information on their environmental policy on the Internet.

The main environmental problems reported by SAIs are fresh water and waste management (including hazardous and non-hazardous waste, waste processing and landfills). Very conspicuous is the high level of unanimity in this respect of SAIs in all INTOSAI-regions: these problems occur among the three most important environmental problems in all regions.
Other frequently mentioned areas of concern are: agriculture, pesticides, land development and forestry (56%, especially in AFROSAI, ASOSAI, OLACEFS and SPASAI), air pollution (45%, especially in EUROSAI and ASOSAI), marine pollution (37%, especially in ARABOSAI and CAROSAI), problems related to eco-systems (36%, especially in OLACEFS) and traffic (33%).

In nearly all the countries concerned, the national government exercises jurisdiction over environmental policy.[3] In nearly two thirds of the countries, the national government shares this jurisdiction with other levels of government - at local, regional, provincial, or federal state level - and/or with non-governmental public bodies (28%). This includes semi-governmental organisations and quasi-autonomous non-governmental organisations (or quangos). In a few countries, other parties also have jurisdiction over environmental policy. This can be a national council or a ministerial committee on the environment. In other countries, non-governmental organisations and societies are involved in the formulation of the environmental policy and programmes. In Portugal for example, citizens also can use the “Constitutional Law” and the “Law of popular action” to sue the government for compensation for the damage caused by the degeneration of the quality of life, public health, rights of the consumers and the preservation of the environment.

[3] An exception is the Europeun Union, where the European Commission is the central body.

Compared to the previous surveys, the number of government levels and parties involved in developing environmental policy is growing. For the environment, this might be a positive development. As a consequence, SAIs performing environmental audits, have to deal with a more complex situation. A clear division of tasks and responsibilities might be an important aspect to audit.

5. Authority of SAIs with regard to environmental auditing

Mandate and powers

The mandates of the majority of the SAIs did not change since 1996. 14% of the SAIs had their mandate extended. Restriction of SAIs mandates did not occur since 1996.

In 2000, most SAIs had some form of power to conduct environmental audits. Five respondents reported that they had no authority in this field. Obviously, these five SAIs could not develop any activities in the area of environmental auditing. In 1997, this situation was about the same.

Range of bodies audited

The range of bodies that SAIs are allowed to audit is shown in Figure 1 below.

Nearly all SAIs are entitled to audit the environmental activities of their national government. Many SAIs can also audit the activities of local, regional, provincial, or federal state governments as well as state-owned enterprises.

In addition, less than half the SAIs are entitled to audit the activities of non-governmental public bodies. An additional 16% can audit them partially, depending on the extent to which they are publicly funded. When SAIs have power to audit private-sector enterprises, this also is often restricted to the public funds received by the enterprise.

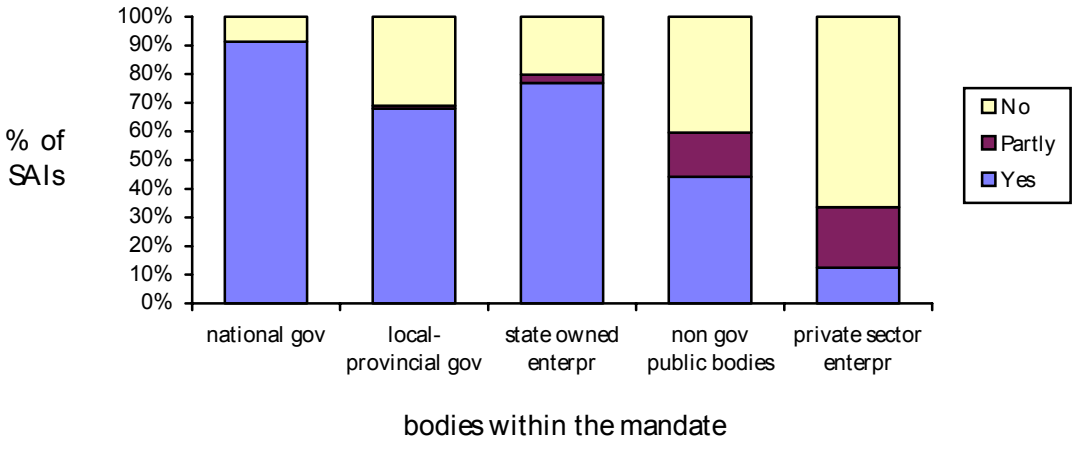

Figure 1. SAI powers with regard to environmental auditing (N valid = 104).

In the previous paragraph, we saw that a growing number of governmental and non governmental bodies is involved in environmental policy. In this situation, it is an advantage for the SAI to have access to all responsible bodies. This is not always the case. In most of the countries where the national government

exercises jurisdiction over environmental policy, the SAI also has powers at the national-government level. Where local, regional, provincial, or federal state governments are involved in environmental policy, about 17% of the SAIs lack powers at these levels. In a few countries, there are public bodies that share jurisdiction over environmental policy. In nearly 30% of these countries, the SAI lacks the power to audit these non-governmental public bodies with regard to environmental activities.

A posteriori audits

Nearly all the SAIs with any power to conduct environmental audits are entitled to conduct regularity (or financial) audits. Many SAIs are also entitled to conduct performance (or value-for-money) audits on environmental issues. SAIs with a mandate for regularity audits only, can perform environmental audits by following the money spent on environmental projects. Another option is to follow the money spent on projects with important consequences for the environment.

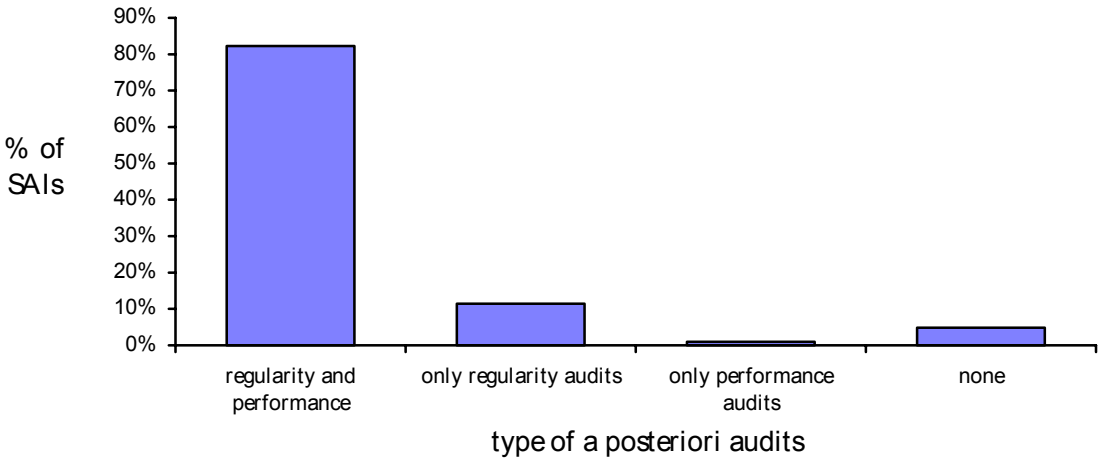

Figure 2. Type of a posteriori audits that SAIs are entitled to conduct (N=105)

A priori (preventive) powers

A priori (preventive) powers are much less common than the mandate to carry out a posteriori (retrospective) audits. Three out of five SAIs have no a priori powers. One third of the SAIs have the authority to conduct a priori audits, for example approving expenditures in advance. The number of SAIs with this type of mandate is growing slowly. Nearly 20% of the SAIs have the power to give a priori advice, such as expert advice during the preparation of environmental legislation or regulations.

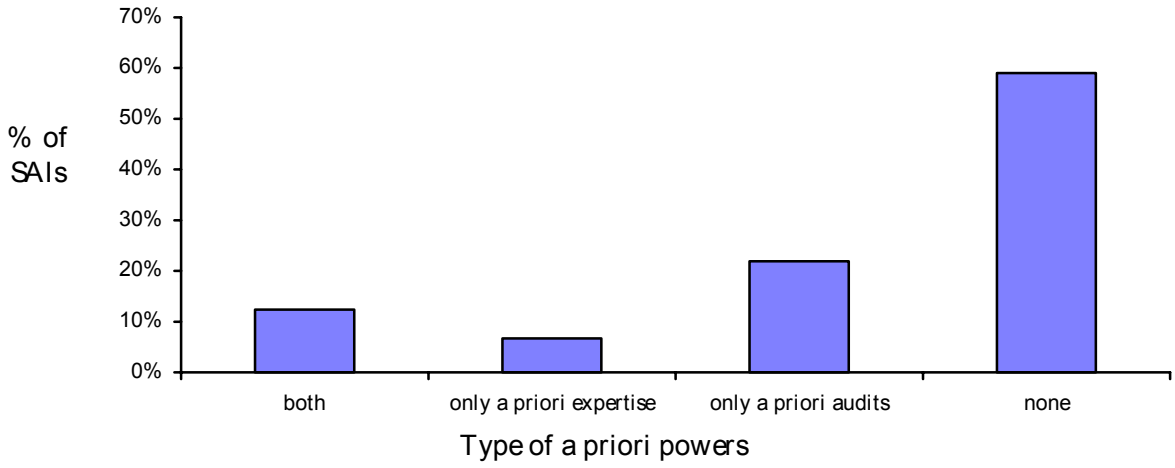

Figure 3: Type of a priori audits that SAIs are entitled to conduct (N=105)

Explicit mandate with regard to environmental auditing/The fourth E

The introduction of the fourth E is a way in which the powers of a SAI can be described. Combined with the E's of Efficiency, Economy, and Effectiveness, this fourth E stands for Environment. 15 of the SAIs entitled to conduct environmental audits reported that their mandate made specific reference to environmental auditing. These SAIs were: Albania, Cameroon, Canada, Chili, El Salvador, Ghana, Italy, Korea, Peru, Philippines, Poland, Romania, Russian Federation, Slovakia and Sudan. The number of SAIs with an explicit mandate did not grow since the second survey. The majority of the SAIs had a general mandate which therefore empowers them to conduct environmental audits.

Advising and assisting the government

A new subject in the third survey concerns the development of the role of SAIs in advising and assisting their governments. SAIs may have useful expertise. When the government is considering new legislation it may wish to make use of this expertise. The same might be the case when the government is developing its environmental policy, building monitoring systems, etc. Challenges to pick up this advisory role can be the wish to contribute to the improvement of the public administration in general and to environmental policy in particular. The Working Group had the idea that until now, SAIs had not been very active in this field. However, the results are surprising, since many SAIs are involved in such practises.

In the questionnaire, three subjects to advise on were mentioned, while other subjects could be added. Nearly half of the SAIs do advise their government departments in the field of environmental auditing on one or more of these subjects. They mainly advise on the formulation of environmental legislation or environmental policy and/or programmes. They also advise on environmental indicators, performance measures, monitoring-systems or other kinds of policy-information to evaluate environmental policy and on the capacity needed to develop and implement environmental policy or programmes. Sometimes, SAIs also advise on other subjects, such as financial systems and control procedures, losses and spillage's, or the delivery structure and systems (for environmental outcomes).

Other SAIs stated that they do not advise directly, but indirectly. They played an advisory role in individual audits. One way to do so is by including recommendations in the audit reports. Another type of indirect advice is the Parliaments handling of the audit reports. As a consequence the ministries may effectuate necessary changes. Several SAIs mentioned that their audit reports are followed by modification of ministerial and institutional procedures to correct shortcomings pointed out in the SAIs reports. The indirect advisory role can also include the transfer knowledge by offering manuals or publishing in professional journals.

About one third of the SAIs actively assist government departments in one or more of the following areas:

- developing environmental indicators, performance measures, monitoring-systems or other kinds of policy-information;
- developing environmental management systems;
- producing environmental reports;
- other types of assistance. Two examples are given. One SAI carried out a government assignment concerning the development of State agencies. Another SAI participated in workshops and seminars, reviewed workshops organised by the environmental council of the country and exchanged information.

Next to a lack of mandate, a reason for not actively assisting the government is the conflict of interest that might occur. Giving advice can have implications for the position of the SAI, especially in terms of independence. One SAI wrote: “We are very conscious of conflict of interest situations which is why we would not hand a department a set of performance indicators and say they should use them”. Other SAIs do not detect problems in this respect: “The SAI would assist actively, if we had sufficient human and financial resources”.

6. Activities of SAIs

Extent of environmental auditing activities

Between 1997 and 1999, a large number of SAIs actually used their powers to conduct environmental audits. During this period, 57% of the responding SAIs conducted one or more audits concerning environmental issues. Even if the government had not formulated an environmental policy - making things extra difficult for the SAI concerned - the SAIs of Israel and Paraguay saw opportunities for conducting environmental audits.

In 1999, SAIs involved in environmental auditing spent an average of 12 % of their time on environmental audits. In most of them, environmental audit work took up one to ten percent of their total time. In ten SAIs, it took up 11 to 20%, and five SAIs spent more than 20% of their time on environmental auditing. Compared to 1996, 25% extended their activities, while 18% of the SAIs decreased their time spent on environmental audit work.

The SAIs of Honduras and Chile gave attention to environmental aspects in all their reports. Other SAIs that spent a relatively large proportion of their capacity[4] on environmental auditing in both 1996 and 1999 are those of Austria, Canada, Lithuania and the Slovak Republic.

[4] at least 15 % of the audits were environmental in both 1996 and 1999.

63 of the responding SAIs have published one or more environmental reports between 1997 and 1999. 62 of them provided detailed information on their reports. In total, the 62 SAIs produced 564 audit reports on environmental issues in these 3 years. This is equivalent to an average of 9 environmental reports per SAI. However, there were major differences among the SAIs: the number of reports per SAI varied from one to 36. Figure 4 shows the breakdown. Seven SAIs published more than 20 reports: Argentina, Canada, Egypt, Germany, Hungary, Paraguay and Poland.

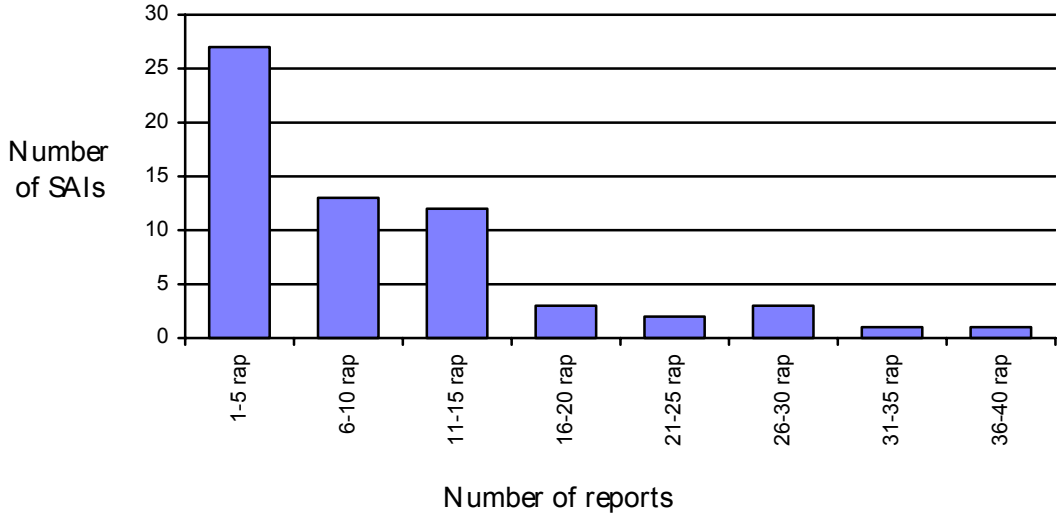

Figure 4. Number of reports per SAI, 1997-1999 (N=62)

To detect the development in the volume of environmental audit work, we compared the results of the third survey with those of the first (in 1994) and second (in 1997).[5]

Table 1. Developments in the volume of environmental audit work conducted by SAIs

	1993	1996	1999
All responding SAIs:*			
% SAIs that have conducted one or more environmental audits in the past three years	42 %	60%	57 %
N valid	58	80	110
SAIs that published one or more environmental reports only:**			
average % of time that the active SAIs have spent on environmental audits	6,9 %	10,6 %	12,2 %
Total number of reports published in the past three years	306	589	564
average number of reports per active SAI	7,8	9,8	9,1
N valid	71-83	74-88	97-109

* assessed, for the methodology, see Attachment 1.

- ** to estimate time and number of reports, all answers of all respondents to the questionnaires are used.

The development of volume of environmental audit work since 1994 is presented in table 1.

[5] For the methodology , see Attachment 1.

In the period 1993-1996, we detected a firm growth of environmental audit activities. In the period 1996-1999, the results are not so easy to interpret.
Firstly, the number of SAIs active in the field of environmental auditing did not change much. The composition of the "active group" did not remain the same: some SAIs entered, while other SAIs left the group. The amount of time spent on environmental auditing increased slightly between 1996 and 1999. This implies that environmental auditing has become a stable part of the total body of audit work of SAIs.
Secondly however, after a strong growth in the period 1994-1996, the number of environmental audit reports stabilised or dropped slightly between 1997 and 1999.
These figures might reflect a shift from quantity to quality. A signal for this explanation is the shift from regularity to performance auditing that took place during the last 3 years (see below). This type of environmental audits might require more resources. We have to realise that the scope of audits may vary dramatically. In the future, it would be interesting to develop other ways to measure the body of environmental audit work and the impact of our audits than just counting time spent and reports published.

The large number of environmental audits reflect the growing body of experience of SAIs. 62 of the responding SAIs provided the INTOSAI Working Group with information on their work, published between 1997 and 1999: the titles, the year published, the type of audit, and the environmental issues dealt with in their reports. A bibliography based on this information is available on our homepage. The following text in this paragraph concerns these 62 SAIs.[6]

Environmental issues audited
Respondents indicated that they focused on several issues in their environmental audits. In the period 1997-1999, the SAIs paid the greatest attention to internal environmental management by public authorities or departments and to fresh water. Also much attention was paid to waste, nature and recreation, and agriculture. Table 2 shows the number of reports published on each of these issues. Many other issues were audited as well, see Attachment 2.
Since the second survey, SAIs gave growing attention to internal environmental management. On the other hand, the attention for acidification decreased strongly. Also environment and human health, traffic, minerals/ natural resources and fresh water and waste (though both still toppers) got less attention.

[6] In addition to the reports published by these 62 SAIs, a few reports published in 1997 by other SAIs are included. These reports were mentioned in the second survey.

Table 2. Environmental issues most frequently audited by SAIs 1997-1999, and in 1994-1996.

Environmental issue	Nr. of reports 1994-1996	Nr. of reports 1997-1999
- internal environmental management by public authorities or departments	81	162
- fresh water: drinking water, water quality, rivers, lakes	147	131
- waste: waste in general, hazardous waste, non-hazardous waste, waste processing and landfills	126	103
- nature and recreation (including conservation and improvement of natural and/or cultural heritage, management of national parks and forests, recreation and tourism)	83	102
- agriculture, pesticides, land development, forestry	85	85
- industrial pollution	70	81
- pollution prevention	73	74
- environment and human health	110	72
- air pollution	65	72

* A report may be listed in more than one category.

Audits planned for the future

The number of SAIs active in the field of environmental auditing seems to be stable in the near future. Over half of the responding SAI planned to perform one or more environmental audits during the next three years, which is comparable with recent years. Several SAIs have plans to perform an environmental audit for the first time. Environmental issues that SAIs most often plan to audit are fresh water, waste, nature and recreation, internal environmental management and agriculture.

Types of audit

The vast majority of environmental audits published between 1997 and 1999 include some form of performance auditing. In total, 304 of the reports on environmental issues were of performance audits and 169 reports contained a combination of regularity and performance audits. 87 Reports were regularity audits. Most SAIs published both regularity and performance reports.

Performance audits cover a wide range of audit-types. The type of environmental performance audit most frequently conducted by SAIs was that of the implementation of environmental programmes. Second in frequency is the audit of the compliance by government departments and others with national environmental legislation and regulations. These two types of audit were most often performed during the period 1994-1996 as well. The evaluation of impacts or effects of existing national environmental programme was important in both periods as well. A new development seems to be the growth of two other types of performance audits: the audit of government environmental management systems and the audit of environmental effects of non-environmental programs.

Despite the aim of the INTOSAI Working Group to promote the audit of compliance by the government with international obligations and commitments, this type of audit was completed less often during the last period than before. As we will see below, co-operation between SAIs in this type of audit is growing. However, the preparation of joint or co-ordinated audits takes more time than usual.

Table 3. Types of performance audits, most frequently conducted by SAIs, 1997-1999 and 1994-1996

Special types of performance audits (including audit reports in which regularity and performance audits are combined)	Nr. of reports 1994-1996	Nr. of reports 1997-1999
The implementation of environmental programmes	247	264
Compliance with national environmental laws and regulations by government departments, ministries, and/ or other bodies to which your mandate gives access	167	212
Government environmental management systems	117	156
Evaluation of the impact or the effects of *existing* national environmental programmes	108	108
Environmental effects of non-environmental programs	64	94
Compliance by the government with international obligations and commitments agreed to by the government	104	57

***** A report may be listed in more than one category.

Barriers to developing and conducting environmental audits

Positive is the finding that SAIs mentioned fewer obstacles now than they did in the previous survey. However, for many SAIs conducting environmental audits is still not a simple matter. 85% of the SAIs encountered one or more barriers in developing and executing environmental audits. The barrier that SAIs most often encounter is the lack of skills or expertise within the SAI. Half of the SAIs mentioned this obstacle. This might be a reason to the INTOSAI and/or regional Working Groups to organise training activities in the future. Other frequently reported barriers are:

- an insufficient state monitoring and reporting system;
- insufficient data on the state of the environment;
- insufficient established environmental norms and standards;
- insufficient formulation of environmental policy by the government;
- the mandate of the SAI is not adequate.

SAIs without experience in environmental auditing mention the lack of skills and expertise most frequently. They might find comfort to know that this is also felt by many of the experienced SAIs. However, the barriers do not withdraw them from performing environmental audits. One respondent wrote: “The above are not barriers to our ability to do environmental audits as such. They are weaknesses which we frequently identify as a result of our environmental audits or are the reason to carry out capacity-building studies.” The most frequent problem for experienced SAIs is the insufficient state monitoring and reporting system. To make an advantage of this barrier, some SAIs regard the quality of the state monitoring and reporting system as an audit object.

7. International accords and co-operation between SAIs

The INTOSAI Working Group on environmental auditing wants to stimulate co-operation between SAIs. Moreover, the Working Group wants to stimulate auditing international environmental agreements and the exchange of information between SAIs. The results show that this is also the desire of many SAIs. This will

make it possible for SAIs to examine common issues with other SAIs and to share ideas on specific audit topics.
More than three-quarters of the SAIs have indicated that they are interested in co-operation with another SAI on an audit of an international environmental accord in the near future. The same number of SAIs is interested in co-operation with another SAI on an environmental audit. In addition, over half of the SAIs is interested in performing an audit of an international environmental accord, but independent of other SAIs. To make it easier for SAIs to find audit partners, a list of interested SAIs per region is published on our homepage.

A growing number of SAIs already has experience with co-operation in the field of environmental auditing. In many cases, the co-operation includes a joint or co-ordinated audit. Often the subject is related to an environmental agreement. Some inspiring examples are given (year of publication in brackets).

The following examples of co-operation in auditing an international or multilateral environmental agreement are noteworthy:

- Eight SAIs surrounding the Baltic Sea are performing a joint audit of the Helsinki Convention. This is a convention on the protection of the marine environment of the Baltic Sea (2001);
- Eight other European SAIs are performing a co-ordinated audit on three marine agreements to prevent pollution of the sea by ships: MARPOL, OPRC and Bonn (2001);
- In the south-east of Europe SAIs from Bulgaria, Croatia, Romania, Slovak Republic and Slovenia are performing a parallel audit on the Convention on co-operation for the protection and sustainable use of the River Danube (2001);
- Norway, Iceland and Denmark have performed a concurrent audit of the OSPAR Convention, which deals with pollution of the sea by land based sources (2000);
- The SAIs of Colombia and Venezuela worked together on the audit of a bilateral agreement on the River Táchira Project (2000);
- The SAIs of Poland and Czech Republic co-operate in three bilateral audits. Subjects are three conventions on water pollution and air pollution (2000).

The following examples of co-operation in environmental auditing but not of an international environmental agreement are noteworthy:

- The SAIs of Peru and Brazil , through the exchange of technical professionals, performed a management audit that included a management project in the Amazonian forest area (report 1998);
- The SAIs of MERCOSUR countries plus Bolivia and Chile are working together on an environmental audit on the availability of drinking water in big cities and they are active in exchanging their experience in the field of environmental auditing (2000 and 2001).

Also other forms of co-operation appear:

- 38 % of the responding SAIs is actively involved in the exchange of audit information or audit experiences with regard to environmental auditing. An example is the bilateral exchange of audit information and co-operation between the SAIs of Albania and Poland.
- Several SAIs from the Arab States participated in the ARABOSAI Seminar on environmental auditing organised in Algaria in October 2000. During that siminar audit experience with regard to environmental auditing was exchanged;
- 26 SAIs of ASOSAI participated in a seminar on environmental auditing, held in Korea in 1999;
- The SAI of Peru organised an international training course on environmental auditing together with the German Foundation for Development. 25 foreign participants, who belonged to nine Latin American countries were attending;
- The members of OLACEFS actively exchange experiences with environmental auditing, having hold meetings in Brasilia and Lima.

To audit an international environmental agreement, co-operation between SAIs is not a necessary condition. Several SAIs audited the compliance of their government to international agreements on their own:. Some examples of audits of world-wide conventions are given.

- The SAI of Canada audited the Basel Convention on hazardous waste, the Montreal Protocol and the Vienna Convention on ozone depletion, the Convention on biological diversity and the Convention on climate change (reports 1997 and 1998);
- The SAI of the United States audited the Kyoto Protocol on climate change and the North America free trade agreement (report 1999);
- The SAI of New Zealand audited the multilateral agreements management, accountability and reporting of four international accords: CITES on the trade of rare species, Ramsar Convention on wetlands, Montreal Protocol on ozone depletion and UNFCCC on climate change;
- The Netherlands Court of Audit audited the compliance of the national government with international agreements on wetlands (Ramsar-Convention) (1999). Moreover audits are planned for compliance to European Directives with regard to fertilizer (2001) and crop protection (2001/2002). Also an audit to the Kyoto Protocol on climate change is in preparation (2001/2002).

The audits of international agreements are not equally spread over the various INTOSAI regions. Maybe the expertise that SAIs developed during these audits, can be of help to SAIs that still lack the experience with this type of audit. Many of the accords audited are signed by many other countries. So the audit of accords offers the unique posibility of multiplication. The INTOSAI Working group on environmental auditing (or the regional working groups) may consider to support the set-up of these activities in other regions where it is needed from a global perspective, but where it is not happening.

8. The use of new information technologies

The questionnaire contained some questions on the use of new information techniques, such as email and Internet. To compare the results of the respondents to the third questionnaire with those of the whole INTOSAI Membership, we also made use of the information in address-list of the INTOSAI secretariat.

Email

The number of SAIs with email facilities is growing fast. In 2000, 119 SAIs, that is nearly two-third of all SAIs, had an email-address. Among the respondents, this was even 90% in 2000, twice as many as in 1997.

SAIS homepages on the Internet

Like the availability of email, the number of SAIs with a homepage is growing. In 2000, 65 SAIs (that is 36% of all SAIs) have their own homepage on the Internet. Of the responding SAIs, this was 56%, while another 21% had a homepage in preparation. Three years ago only 12% of the SAIs had a homepage. On their homepage SAIs can provide information to everybody who might be interested: citizens, national and international institutions and of course other INTOSAI members.

In the third questionnaire, 57 SAIs provided information on the contents of their own homepage. They show a wide variety of subjects. The main part of the information on SAIs' homepages deals with the SAI in general. Information on environmental auditing specifically is scarce, so it has to be found among the general information on the homepage.

Nearly all homepages contain information on the organisation of the SAI. More than half of the SAIs with a homepage publish the results of their audit work on their homepage: the full text of audit reports, the summaries or pressnotes, or both. This means that a lot of information on the results of environmental audits can be found there.

About half of the homepages of SAIs give information on the authority (control-area) of the SAI, the audit strategy or strategic vision of the institution, the audit capacity or resources available, international co-operation and audit methodology.

In addition to the SAI's homepages, the homepage of the INTOSAI Working Group on environmental auditing provides some information in "country documents". At the moment, such information is available for about 120 countries. Given the results of the questionnaire, it seems to be useful to continue this part of the Working Group's homepage.[7]

Access to the Internet

Access to the Internet means access to a huge and fast growing amount of information world-wide. Most of the respondents in 2000 had access to the Internet. We have to keep in mind however, that SAIs with email and/or

[7] Some of the regional Working Groups on environmental auditing have homepages on this subjects as well. These homepages were not included in the survey.

a homepage are highly overrepresented in the response to the questionnaire. We estimate that in 2000, about 50 to 60% of all INTOSAI members have access.[8]
The spread of new information technologies is higher than average in EUROSAI, OLACEFS and ASOSAI. It is lower than average in AFROSAI, SPASAI and CAROSAI. However, in all INTOSAI regions, there are SAIs without email and without access to the Internet.

The conclusion is that the importance of new information technologies is growing rapidly. However, it is not yet so widespread yet that we can stop using traditional sources of information.

9. Activities and strategy of the INTOSAI Working Group

Between INCOASI XV (Cairo, 1995) and INCOSAI XVI (Montevideo, 1998) the INTOSAI Working Group on Environmental Auditing developed various products. To evaluate the results of our work, we asked SAIs for their opinion about these products.

The Working Group has prepared the following products:

a. The booklet "How SAIs may co-operate on the audit of international environmental accords", adopted by INCOSAI XVI in Uruguay;

b. Study on Natural Resource Accounting, distributed at INCOSAI XVI in Uruguay;

c. Draft Standards and guidelines on environmental auditing, sent in October 2000 for comments and to be presented to INCOSAI XVII in Korea, 2001. Since the draft was distributed after the survey was held, the opinion of SAIs on this product is left aside.

d. Video "Green auditing a global challenge", shown, distributed and presented at INCOSAI XVI in Uruguay;

e. Report on the second survey on environmental auditing, distributed and presented at INCOSAI XVI in Uruguay;

f. Homepage of the Working Group on the Internet. It can be found at: www.environmental-auditing.org;

g. Bibliography of environmental audit reports of SAIs on the Internet. It can be found at www.environmental-auditing.org, under "countries and reports". SAIs that have no access to Internet can ask for an electronic copy of the bibliography on the subject of their interest.

About two thirds of the SAIs are familiar with our products. The best known products are the booklet "How to co-operate" and the Homepage. A little less known are the Report on the second survey and the Study on natural resource accounting. The products of the Working Group are less known by members of the CAROSAI region, members that do not perform environmental audits and members without access to the Internet. They are better known by members of other regions, members actively involved in environmental auditing and members connected to the Internet. Members not involved in regional working groups are just as aware of the products of the Working Group as members that are involved.

[8] Among the respondents, the access to the Internet is highly correlated with and a little lower than the availability of email. (Most SAIs without email lack access to the Internet and most but not all SAIs with email have access to the Internet as well).

The quality of the products of the Working Group is satisfactory. The majority of the SAIs, familiar with a particular product, have a positive opinion about it. Moreover the majority of the SAIs either uses the product or indicated that it they plan to use it in the future.
The opinion of these SAIs on the usefulness of the products was most positive on the Homepage, the booklet "How to co-operate" and the Bibliography of audit reports. The products most frequently used by SAIs are the Homepage, the Bibliography of audit reports, the video "Green auditing" and the Report on the second survey.

The results make clear that the Working Group can be more active in distributing the products. Many SAIs appreciate the use of new information technologies. However, in all INTOSAI regions there are SAIs that are not able to use new information technologies (see previous paragraph). So next to Internet, other ways to distribute information are important as well.
We asked the respondents without access to the Internet (17 SAIs) which means of communication they would prefer. Information on PC-diskette and printed on paper are appreciated the most, followed by information on CD ROM. Some SAIs prefer information via a contact person or via other means like fax and email.

At INCOSAI XVI in Uruguay, the Working Group on Environmental Auditing presented its new strategy. This strategy includes a focus on forming regional working groups on environmental auditing. In this respect, good progress is being made. The great majority of the responding SAIs support the regionalisation strategy and are or want to be involved in it. Nearly half of the responding SAIs have already joined a regional working group on environmental auditing. Many other SAIs are considering becoming a member and/ or are interested in participating in one or more activities of the regional Working Group. Only 13 % of the responding SAIs are not interested in a regional Working Group or in activities on a regional basis.
At the moment, regional Working Groups are set up in OLACEFS, EUROSAI, AFROSAI, ASOSAI and ARABOSAI. The results of the survey show that in each of these regions, a sufficient number of SAIs (10 or more SAIs per region) is interested in a regional working group and/or participation in activities on a regional basis.
From the CAROSAI and SPASAI-region, the number of respondents was too low to come to a conclusion. However, most of the responding SAIs expressed interest.

10. Conclusion and discussion

The period 1994-1996 can be characterised as a period of growth for environmental auditing: a growing number of governments formulated their environmental policy, more SAIs got the authority for environmental auditing and the volume of environmental audit work itself increased quickly. This quantitative growth did not continue in the period 1997-1999. This period can be characterised as a period of stabilisation or even a small decline. According to the responding SAIs, (the clearness of) the formulation of the environmental policy by their governments stabilised or even diminished in some countries. Perhaps SAIs have simply become more critical.

By performing environmental audits, SAIs may have become more aware of room for improvement in the way the policy is formulated by their government.
The number of SAIs active in the field of environmental auditing remained more of less the same, some new SAIs entering, some other SAIs leaving the group. During the last period, small changes occured in the number of reports published and the time spent on environmental auditing. The results of the third survey might be interpreted as a shift from quantity to quality, as we saw a shift from regularity to performance audits. Nevertheless it is important to stay alert and to continue developing our activities in this field.

A growing number of parties are involved in environmental policy. This illustrates the complexity of the field. For SAIs it is important that their mandate is adjusted to this development. Ideally a SAI should have access to all government levels and parties responsible for environmental policy. A positive development is that several SAIs (14%) had their mandate extended during the last three years.

The main task of SAIs is and remains a posteriory audits. Within environmental auditing, performance auditing is very important. However, we should not ignore the role of financial audits. For SAIs with a limited mandate, "following the money" can be a good strategy to explore their role in environmental auditing.
In a new development, although it is a still small part of the work of SAIs, some SAIs are now advising and assisting their governments. SAIs have different opinions on this type of activity. Some are already active in this field while others are carefully trying to find a way to share their knowledge with the government or the departments. Other SAIs have the opinion that a SAI should not advise of assist their governements since this might lead to a conflict of interest. Indirectly many SAIs advise their government by publishing reports.

The results of the third survey give input and support to various aspects of the strategy of the INTOSAI Working Group:

The first aspect is the regionalisation strategy, we decided to follow in INCOSAI XVI in Montevideo, 1998. The establishment of regional working groups takes time. We are glad to report that until now, it seems to be successful in five INTOSAI regions. The interest of SAIs in these regions is big enough to support this strategy in these regions. Many SAIs already participate or are interested to do so in the near future.

A second aspect is the exchange of information and the use of new information technologies to realise this. The survey shows that we should continue this way. The exchange of information is important to many SAIs and the homepage of the Working Group is the most appreciated of our products. At the same time we have to realise that not all SAIs have access to Internet. Moreover the acquaintance with our products is satisfying but can be further improved. This means that we should invest more in other means of communication to make our products known by all SAIs that might be interested in them. In the mean time, the first step is taken recently by preparing a CD-ROM for all participants of INCOSAI XVII in Seoul. We also will ask attention for our products during INCOSAI XVII. Other ways of sharing our knowledge might be to prepare articles for international journals read by SAIs or the organisation of training courses. Maybe the regional working groups can contribute to this aim as well.

Another aspect in our strategy is to further the co-operation between SAIs and the audit of international environmental accords. Contrary to the ambitions of the Intosai Working Group, the number of audits of environmental accords decreased during the last 3 years. We hope that the recently taken initiatives for co-operation will change this. Many inspiring examples of co-operation between SAIs are given in the survey. Several of these projects are structured around an international environmental accord. The regional Working Groups have played a role in several of these joint projects. It might be interesting to exchange the experiences of these projects in the near future. Moreover the interest of SAIs in co-operation in the field of environmental auditing is high.

The Working group hopes that the results of the third survey will further the discussion on environmental auditing in the individual SAIs and in the Working Groups of INTOSAI and the regions.

Attachment 1: Response and methods
Attachment 2: The third questionnaire and responses of the SAIs to each question

Attachment 1

Response and methods

1. Overview of the SAIs that responded to the questionnaires

The third questionnaire was sent to 180 SAIs. Four of them could not be reached for practical reasons (a temporary breakdown of mail delivery). We received responses to the third questionnaire on environmental auditing from Supreme Audit Institutions of the following countries:

Albania [2,3]	Ethiopia [1,2,3]	Macedonia [2]	Slovak Republic [1,2,3]
Algeria [1,2,3]	European Union [1,2,3]	Malaysia [1,2]	Slovenia [2,3]
Antigua and Barbuda [2,3]	Fiji [2,3]	Maldives [3]	South Africa [1,2,3]
Argentina [2,3]	Finland [1,2,3]	Malta [1,2,3]	Spain [3]
Australia [1,3]	France [1,3]	Mauritius [2,3]	Sri Lanka [3]
Austria [1,2,3]	Germany [1,2,3]	Mexico [1,3]	Sudan [3]
Azerbaijan [3]	Ghana [2,3]	Morocco [1,2,3]	Suriname [1,3]
Bahrain [1,2,3]	Greece [1,2,3]	Namibia [2,3]	Swaziland [1,2,3]
Bangladesh [1,2,3]	Grenada [3]	Nepal [1,2,3]	Sweden [1,2,3]
Barbados [3]	Guyana [2,3]	The Netherlands [1,2,3]	Switzerland [1,2,3]
Belgium [1,2,3]	Honduras [1,3]	The Netherlands Antilles [2]	Syrian Arab Republic [3]
Belize [3]	Hungary [1,2,3]	New Zealand [1,2,3]	Thailand [2,3]
Bolivia [2,3]	Iceland [1,2]	Nicaragua [2]	Togo [2,3]
Brazil [1,2,3]	Indonesia [1,2,3]	Norway [1,2,3]	Tonga [2,3]
Burkina Faso [2]	Iran [3]	Oman [1,2,3]	Trinidad and Tobago [2,3]
Cameroon [1,3]	Iraq [1,2,3]	Pakistan [1,2,3]	Tunesia [2,3]
Canada [1,2,3]	Ireland [1,2,3]	Panama [2]	Turkey [1,2,3]
Cape Verde [1,2,3]	Israel [1,2,3]	Papua New Guinea [1,2,3]	Tuvalu [1,2,3]
Chile [1,2,3]	Italy [1,2,3]	Paraguay [2,3]	Uganda [1,3]
Colombia [1,2,3]	Japan [1,2,3]	Peru [1,2,3]	Ukraine [3]
Costa Rica [1,2,3]	Jordan [2,3]	Philippines [1,2,3]	United Arab Emirates [1,2,3]
Croatia [2,3]	Kiribati [2]	Poland [1,2,3]	United Kingdom [1,2,3]
Cyprus [1,2,3]	Korea, Republic of [1,2,3]	Portugal [2,3]	United States of
Czech Republic [1,2,3]	Kuwait [1,2,3]	Puerto Rico [3]	America [1,2,3]
Denmark [1,2,3]	Latvia [2,3]	Qatar [1,2,3]	Uruguay [2,3]
Egypt [1,3]	Lebanon [3]	Romania [1,3]	Venezuela [1,3]
El Salvador [3]	Leshoto [3]	Russian Federation [2,3]	Viet Nam [2,3]
Eritrea [3]	Libyan Arab Jamahiriy [3]	Saint Lucia [1,3]	Yemen [1,2,3]
Estonia [1,2,3]	Liechtenstein [3]	Saudi Arabia [1,2,3]	Zambia [1,2,3]
	Lithuania [2,3]	Seychelles [3]	Zimbabwe [1,2,3]

On the first questionnaire, held in 1993, the total response was 83 SAIs. In 1997 the total response was 88 SAIs. The third questionnaire was responded to by 110 SAIs. After each country is stated which questionnaires were answered by the SAI.

2. Response analysis

Table A. Number of responding SAIs in 2000, 1997 and 1993.

	Number of SAIs	% of SAIs (in 1993 and 1997: N=175, in 2000: N = 180*)
Total response 1993	83	47%
Total response 1997	88	50%
Total response 2000	110	61%
Response in 2000, 1997 and 1993	56	31
Response in 2000 and 1997	24	13
Response in 2000 and 1993	11	6
Response only in 2000	19	11
Response in 1997 and in 1993	2	1
Response only in 1997	6	3
Response only in 1993	13	7
Never	49	27
Total	180	100

* including two SAIs that participate in regional working groups without being a member of INTOSAI. One of them responded the questionnaire in 1993, 1997, and 2000; the other one in 2000.

In total 110 SAIs responded to the third questionniare (61%). Many SAIs that answerd the previous questionnaire(s), also answerd the third one. Reactions of the non-respondents gave us the impression that SAIs not involved in environmental auditing are overrrepresented in the non-response group.

Table B. Number of responding SAIs per INTOSAI region.*

INTOSAI region	Response 1993	Response 1997	Response 2000	Total number of members in 2000	Response 2000 in %
EUROSAI	27	30	34	41	83 %
AFROSAI	10	14	21	49	43 %
ARABOSAI	11	12	17	19	90 %
CAROSAI	3	3	8	14	57 %
OLACEFS	11	12	13	20	65 %
ASOSAI	24	23	25	32	78 %
SPASAI	5	6	6	13	46 %
not affiliated to an INTOSAI region	3	3	4	12	33 %
Total	83	88	110	180	61%

* Based on the actual membership of regions in 2000. The total number of SAIs affiliated to INTOSAI regions does not add up to 83, 88, 110 or 180 since some INTOSAI Members are affiliated to two regions.

Table B shows that the response varies by INTOSAI region. The responses from AFROSAI and SPASAI were lower than average, and those from ARABOSAI, ASOSAI and EUROSAI were higher than average. The response from countries not affiliated to an INTOSAI region was also below average.
We also checked the representativity of the response for the level of income of the country and the availability of new information technologies at the SAI. Tables C and D show the results in detail.

Table C. Number of responding SAIs per level of income in their country.

Level of income**	Response 1993 abs	Response 1997 abs	Response 2000 abs	Total number of Members in 2000	Response 2000 in %
Low-income	14	14	18	57	32%
Middle-income	42	51	63	87	72%
High-income	27	23	29	35	83%
Unknown	0	0	0	1	0%
Total:	83	88	110	180	61%

** World Bank classification in the year the questionnaire was held.

*** Level of income of one Member not known

Table D. Number of responding SAIs with/ without new information technologies in 2000*

New information technologies	Response 2000
SAIs with email	99 of the 119 SAIs with email (83%)
SAIs without email	11 of the 61 SAIs without email (18%)
SAIs with own homepage	62 of the 65 SAIs with homepage (95%)
SAIs without own homepage	48 of the 115 SAIs without homepage (42%)
Total:	110 of the 180 Members (61%)

* Source: address-list of the INTOSAI secreatariat and third questionniare. Comparable information of 1997 and 1993 not available.

As to level of income, the SAIs of high-income countries were overrepresented, and those of low-income countries underrepresented. That is hardly surprising because of the differences in the resources they have at their disposal. The same difference in response is reflected in table D. The response from SAIs with new information technologies at their disposal is much higher than the response of SAIs lacking these facilities.

The conclusion must be that the responses received are not fully representative of the entire INTOSAI Membership. The results of the survey mainly represent the situation of SAIs with an average amount of resources or more.

3. Methodological account

The results presented in this paper are based on the information gathered with the third INTOSAI questionnaire on environmental auditing. The answers on each question are given in Attachment 2.

A selection of the questions in the first and second questionnaires was also included in the third questionnaire. Doing so, a unique longitudinal database came available. This makes it possible to compare the situation in 2000 with the situation in 1997 and 1993. For these questions, the results of the third survey are compared with the results of the first and second survey. The outcomes are included in Attachment 2 as well. Attention is needed for the way we tried to give a proper and comparable estimate of the situation in 1993 and 1997.

One difficulty is that each questionnaire was answered by a different group of SAIs. Luckily there is a big overlap in SAIs responding to the various questionnaires (see table A). This improves the comparability of the results of the three surveys. 80 SAIs answered both the second and the third questionnaire. To get a proper assessment of the situation in 1997 (comparable with 2000), the results of this "core group " of 80 SAIs are used. After defining the trend (this is difference between 1997 and 2000) in the "core group", this trend is applied to the situation of the total response in 2000. To illustrate this method, we give an example of a computation of question A1: "Does your SAI have an email address?".

In the total response group, 90% of the SAIs had an email address in 2000. In the "core group", this was 93% in 2000 and 50% in 1997. So the trend between 1997 and 2000 is 93 - 50 = 43%. This means that the percentage of SAIs with an email address in the "core group" increased by 43% between 1997 and 2000. To assess the comparable situation in 1997, we adjusted the situation in 2000 for the total response, with the trend in the "core group": 90 – 43 = 47%.

To assess the situation in 1993 (comparable with 1997), we used the results of the "core group" of the 57 SAIs that answered the first and the second questionnaire. The method used is the same.

Attachment 2

The third questionnaire and responses of the SAIs to each question

Not every question was applicable to each respondent. Nor did every respondent provide an answer to every question in the questionnaire. The number of valid responses therefore varies from question to question, and the information presented does not always represent the total number of respondents.

PART I

A. Contact information

1. Does your SAI have an e-mail address?

Answer	% 1997	% 2000
Yes	47 %	90 %
No	53 %	10 %
N valid	80	110

2. Does your SAI have a homepage on Internet?

Answer	% 1997	% 2000
Yes	12 %	56 %
No	89 %	44 %
N valid	80	110

3. Availability of new information technologies by INTOSAI region. Global % and absolute numbers per INTOSAI-region

Answer	Intosai %	Afrosai	Arabosai	Asosai	Carosai	Eurosai	Olacefs	Spasai
All INTOSAI Members:								
SAI with email	66 %	17	14	26	8	38	15	7
SAI with own homepage on Internet	36 %	2	8	18	3	29	10	2
N valid	180	49	19	32	14	41	20	13
Respondents to third questionnaire:								
SAI with email	90 %	15	13	22	7	34	13	5
SAI with own homepage on Internet	56 %	2	8	17	2	28	10	2
N valid	110	21	17	25	8	34	13	6

B. Governmental Environmental Policy

The Working Group is interested in the existence and implementation of governmental policies and programmes on the environment in your country, since it is an important starting point for the environmental audits of SAIs.

3. Has your government formulated an environmental policy (for example a comprehensive green plan, environmental or sustainable development policies, programmes or a collection of statutes and regulations governing the environment)?

Answer	% 1993	% 1997	% 2000
Yes	83 %	95 %	93 %
No	17 %	5 %	8 %
N valid	58	78	107

4. Does the environmental policy of your government describe:

Answer	% Yes 1997	% Yes 2000
a. the objectives to be achieved?	92 %	90 %
b. targets to be met in specified years?	66 %	68 %
c. the instruments to be used?	79 %	78 %
d. how achievements will be monitored and reported?	71 %	67 %
N valid	73	104

5. In your country, who exercises jurisdiction over environmental policy?

Bodies that take policy decisions	% Yes 1997	% Yes 2000
a. national government	97 %	99 %
b. local, regional, provincial or federal state governments	53 %	61 %
c. non-governmental public bodies (including semi-governmental organisations and quasi-autonomous non-governmental organisations or quangos and environmental regulators)	22 %	28 %
d. others	6 %	12 %
N valid	79	107

C. Roles and responsibilities of your SAI towards environmental auditing

6. To which authorities does the mandate of your SAI give access, with regard to environmental auditing?

The range of bodies audited	% Yes 1997	% Yes 2000
a. national government	91 %	91 %
b. local, regional, provincial or federal state governments	66 %	69 %
c. state-owned enterprises/ state-owned companies	79 %	80 %
d. non-governmental public bodies (including semi-governmental organisations and quasi-autonomous non-governmental organisations or quangos and environmental regulators)	54 %	60 %
e. Private-sector enterprises or organisations	32 %	34 %
N valid	74-76	103-104

***** If "Partly yes", please choose "Yes" and explain your answer (for example private sector enterprises only as far as they receive subsidies).

7. What types of audits does your SAI, with regard to environmental auditing, have the authority to carry out?

The types of audit and a priori tasks	Yes % 1997	Yes % 2000
A posteriori (retrospectively):		
a. Regularity audits (financial audits)	92 %	94 %
b. Performance audits (value-for-money)	83 %	84 %
A priori (preventive):		
c. a priori audits (for example audit in advance of expenditure)	28 %	34 %
d. a priori expertise (for example expert advise during the preparation of environmental laws or regulations)	18 %	19 %
N valid	79	105

8. Does the mandate of your SAI specifically make reference to environmental auditing?

Answer	% 1997	% 2000
Yes	16 %	14 %
No	84 %	86 %
N valid	77	105

PART II: Additional questions

1. Name of the country

A. State of the art of environmental auditing by SAIs

2. Has the mandate of your SAI, with regard to environmental auditing, changed since 1996?

Answer	% 1997	% 2000
Yes, the mandate has been extended	21 %	14 %
Yes, the mandate has been restricted	3 %	0 %
No, no important changes have been made to the mandate	77 %	86 %
N valid	73	108

3. Does your SAI advise government departments on one or more of the following aspects?

Answer	% 2000
Advise on the formulation environmental legislation or environmental policy and/or programmes	23 %
Advise on the capacity needed to develop and implement environmental policy or programmes	18 %
Advise on environmental indicators, performance measures, monitoring-systems or other kinds of policy-information to evaluate environmental policy	23 %
Advise on other subjects	19 %
N valid	108

4. Does your SAI actively assist government departments in one or more of the following aspects?

Answer	% 2000
Assist in developing environmental indicators, performance measures, monitoring-systems or other kinds of policy-information	16 %
Assist in developing environmental management systems	13 %
Assist in producing environmental reports	15 %
Assist in other respects	15 %
N valid	108

5. Did your SAI complete one or more environmental audits?

Answer	1991-1993	1994-1996	1997-1999
Yes	42 %	60 %	57 %
No	58 %	40 %	43 %
N valid	58	78	110

6. Number of environmental audits conducted by the SAI between 1997-1999

Number of reports published:	1997-1999 % of SAIs
No environmental reports	43
1 report	11
2-5 reports	14
6-10 reports	12
11-15 reports	11
16-20 reports	3
21-25 reports	2
26-30 reports	3
31-35 reports	1
36-40 reports	1
N valid	109

6.a. Types of environmental audits conducted by SAIs, 1994-1996 and 1997-1999

Type of report	Number of reports 1994-1996	Number of reports 1997-1999
regularity audits	117	87
performance audits	257	304
combination of both	215	169
N valid	589	560

6. b. Special types of performance audits, conducted by SAIs, 1994-1996 and 1997-1999

Special type of performance audits (including audit reports in which regularity and performance audits are combined)	Number of reports 1994-1996	Number of reports 1997-1999
A. audit environmental policies	61	63
B. audit the implementation of environmental programmes	247	264
C. evaluate impact or effects of *existing* national environmental programmes	108	108
D. evaluate impact or effects of *proposed* national environmental programmes	43	28
E. audit environmental effects of non-environmental programmes	64	94
F. audit compliance with national environmental laws and regulations by government departments, ministries, and/ or other bodies to which your mandate gives access	167	212
G. audit compliance by the government with international obligations and commitments agreed to by the government	104	57
H. audit government environmental management systems	117	156
Total number of reports	589	560

* A report may be listed in more than one category. The number of reports in the last column does not therefore correspond to the total number of reports.

6.c. Type of environmental issues audited by SAIs, 1994-1996 and 1997-1999

Environmental issue	Number of reports 1994-1996	Number of reports 1997-1999
1. salt water, marine pollution	29	25
2. fresh water: drinking water, water quality, rivers, lakes	147	131
3. air pollution	65	72
4. soil pollution, contaminated sites	74	59
5. energy	29	25
6. waste: waste in general, hazardous waste, non-hazardous waste, waste processing and landfills	126	103
7. noise reduction	23	18
8. nature and recreation (including conservation and improvement of natural and/or cultural heritage, management of national parks and forests, recreation and tourism)	83	102
9. eco-systems: biodiversity, ecological infrastructure, eco-systems management	57	57
10. agriculture, pesticides, land development, forestry	85	85
11. disaster management and emergency preparedness	30	33
12. pollution prevention	73	74
13. industrial pollution	70	81
14. acidification	72	18
15. minerals and natural resources such as mining, gas, oil, etc.	64	40
16. fish	32	31
17. traffic, mobility, transport	61	32
18. environment and human health	110	72
19. climate change and ozone layer depletion	20	16
20. internal environmental management by public authorities or departments	81	162
21. radioactivity	21	15
22. other subjects	72	38
Total number of reports	589	560

A report may be listed in more than one category. The number of reports in the last column does not therefore correspond to the total number of reports.

7. What percentage of the total number of your reports (or audits) could be considered environmental in nature or have an environmental component? Please make an estimate for the years 1996 and 1999.

7. Developments in the volume of environmental audit work conducted by SAIs

	1993/1994	1996/1997	1999/2000
% SAIs that have conducted one or more environmental audits in the past three years*	42 %	60 %	57 %
N valid	54	80	110
Average % of time that responding SAIs have spent on environmental audits**	3,1	6,0	5,9
Average % of time that active SAIs have spent on environmental audits**	6,9	10,6	12,2
N valid	71	74	97
Total number of reports published by SAIs in the past three years**	306	589	564
Average number of reports per responding SAI**	3,7	6,7	5,2
Average number of reports per active SAI**	7,8	9,8	9,1
N valid	83	88	109

*assessed

** to estimate average time and number of reports, all answers of all respondents to the questionnaires are used.

8. If any, what barriers does your SAI experience in developing and executing environmental audits?

Answer	1997	2000 %
No barriers experienced	18 %	15 %
The mandate of the SAI is not adequate	22 %	26 %
Insufficient established environmental norms and standards	49 %	35 %
Insufficient data on the state of the environment	41 %	37 %
Insufficient state monitoring and reporting system	51 %	39 %
Lack of skills or expertise within the SAI	*	50 %
Insufficient formulation of governmental environmental policy, such as goals not measurable, absence of a strategy, insufficient regulatory framework	*	26 %
Other barrier(s)	30 %	11 %
N Valid	62-72	106

* Not included in the questionnaire 1997.

B. Activities and strategy of the INTOSAI Working Group

9. During the period 1996-1998 (from Cairo to Montevideo) the INTOSAI Working Group on Environmental Auditing developed the products listed below. The Working Group would like to hear your opinion about these products.

9.a. Did your SAI know about the existence of this product?

Product	Yes %	No %	N valid
a. Booklet “How to co-operate on the audit of international accords with an environmental perspective”, adopted by INCOSAI XVI in Uruguay	72 %	28 %	102
b. Study on Natural Resource Accounting, distributed at INCOSAI XVI in Uruguay	61 %	39 %	98
c. Draft Standards and guidelines on environmental auditing, sent in 2000 for comments and to be presented to INCOSAI XVII in Korea, 2001*	N/A.	N/A.	N/A.
d. Video “Green auditing a global challenge”, shown and distributed at INCOSAI XVI in Uruguay	66 %	34 %	100

Product	Yes %	No %	N valid
e. Report on the second survey on environmental auditing, distributed at INCOSAI XVI in Uruguay	62 %	38 %	97
f. Homepage of the Working Group on the Internet	69 %	31 %	100
g. Bibliography of environmental audit reports of SAIs on the Internet	63 %	37 %	99

* Since the draft was not spread when the survey was held, the opinion of SAIs on this product is left aside.

9.b. Was this product useful to you?

Product	very much %	much %	a little %	not at all %	N valid*
a. Booklet "How to co-operate on the audit of international accords with an environmental perspective", adopted by Incosai XVI in Uruguay	20 %	40 %	34 %	6 %	65
b. Study on Natural Resource Accounting, distributed at Incosai XVI in Uruguay	4 %	42 %	47 %	8 %	53
c. Draft Standards and guidelines on environmental auditing, sent in 2000 for comments and to be presented to Incosai XVII in Korea, 2001**	N/A.	N/A.	N/A.	N/A.	N/A.
d. Video "Green auditing a global challenge", shown and distributed at Incosai XVI in Uruguay	9 %	41 %	43 %	7 %	56
e. Report on the second survey on environmental auditing, distributed at Incosai XVI in Uruguay	9 %	33 %	49 %	8 %	51
f. Homepage of the Working Group on the Internet	20 %	41 %	36 %	3 %	61
g. Bibliography of environmental audit reports of SAIs on the Internet	13 %	44 %	39 %	4 %	54

* Only respondents that know the product are included

** Since the draft was not spread when the survey was held, the opinion of SAIs on this product is left aside.

9.c. Did your SAI make use of this product?*

Product	Yes %	In future %	No %	N valid*
a. Booklet "How to co-operate on the audit of international accords with an environmental perspective", adopted by INCOSAI XVI in Uruguay	29 %	56 %	16 %	70
b. Study on Natural Resource Accounting, distributed at INCOSAI XVI in Uruguay	17 %	63 %	20 %	59
c. Draft Standards and guidelines on environmental auditing, sent in 2000 for comments and to be presented to INCOSAI XVII in Korea, 2001**	N/A.	N/A.	N/A.	N/A.
d. Video "Green auditing a global challenge", shown and distributed at INCOSAI XVI in Uruguay	41 %	41 %	17 %	58
e. Report on the second survey on environmental auditing, distributed at INCOSAI XVI in Uruguay	40 %	40 %	19 %	52
f. Homepage of the Working Group on the Internet	59 %	31 %	9 %	64
g. Bibliography of environmental audit reports of SAIs on the Internet	49 %	46 %	5 %	57

* Only respondents that know the product are included

** Since the draft was not spread when the survey was held, the opinion of SAIs on this product is left aside.

10. At INCOSAI XVI in Uruguay it was agreed to start-up Working Groups on environmental auditing on a regional basis. To what extend are you involved in this regionalisation process?
    Global % and absolute numbers per INTOSAI-region.*

10. Answer	Intosai %	Afrosai	Arabosai	Asosai	Carosai	Eurosai	Olacefs	Spasai
a. SAI participates in (forming) a regional Working Group on environmental auditing	48%	10	7	7	0	22	8	2
b. SAI is considering becoming a member in of a regional Working Group in the near future	27%	6	6	9	1	5	2	1
c. SAI would be interested in participation in one or more activities of the Working Group	18%	3	1	3	4	5	2	0
d. SAI is not interested in a regional Working Group or activities on a regional basis	13%	1	2	2	2	1	1	1
N valid	95	19	15	19	7	31	12	4

* A combination of b and c is possible.

C. New information technologies

The use of new information technologies like email and Internet is growing rapidly. However, during INCOSAI XVI in Montevideo, 1999, several delegates mentioned the fact that not all SAIs have access to these facilities. For SAIs that have access to the Internet, it is not always easy to find the proper information. In order to choose the best strategy for the exchange of information, and to make a better use of the Internet, we are interested in your answers to the following questions.

11. Does your SAI have access to the Internet, for example to visit our homepage?

Answer	2000 %
Yes	84 %
No	16 %
N valid	107

12. If your SAI has no access to the Internet, which means of access to the information and documentation of the INTOSAI Working Group on Environmental Auditing is the most attractive to your SAI?

Answer	2000 Abs.
Electronic information on CD-ROM	7
Electronic information on PC-diskettes	13
Information printed on paper	14
Information on request via a contact-person	3
Other means of communication	2
N valid	17

13. Does your SAI have a homepage on the Internet?

Answer	2000 %
Yes	56 %
Not yet, but in preparation	21 %
No	22 %
N valid	109

14. What kind of information can be found on your homepage?*

	Yes %	No %
a. Information on environmental auditing	29 %	71 %
b. Summary of or press notes on the reports	44 %	56 %
c. Full text of the reports	39 %	61 %
N valid		54-55

* SAIs with a homepage only

15. Which other information can be found on your homepage?*

Answer	On the SAI in general	On env. auditing	N valid
d. Organisation of the SAI	95 %	2 %	57
e. Audit capacity or resources available	46 %	2 %	57
f. Audit strategy of the SAI, strategic vision	53 %	5 %	57
g. Institutional program or projects	29 %	2 %	56
h. Audit program or projects	30 %	7 %	57
i. Information on international co-operation of the SAI	42 %	4 %	57
j. Audit methodology	42 %	5 %	57
k. Authority, control-area and/or information on entities within the control-area	58 %	4 %	57
l. Information on training courses, seminars, etc.	28 %	5 %	57

* SAIs with a homepage only

16. If your government has formulated some kind of environmental policy or programme, is information on this environmental policy or programme available on the Internet? If it has, please provide us with the address of the relevant site.

Answer	2000 %
Yes	55 %
No	22 %
Unknown	15 %
Our government has not (as yet) formulated an environmental policy or programme	9 %
N valid	101

C. International accords and co-opeation by SAIs

17. Does your SAI have experience with one or more of the following particular types of environmental audits or co-operation?

Experience with:	Yes %	No %
Co-operation with another SAI on an audit of compliance by the government(s) with an international environmental accord (including treaties, international agreements, obligations or commitments, etc.)	11 %	90 %
Co-operation with another SAI an audit on an environmental subject but not an accord	10 %	91 %
Audit of compliance by the government with an international environmental accord, but independent of other SAIs	12 %	88 %
The exchange of audit information or audit experiences with regard to environmental auditing between SAIs	38 %	63 %
N valid		104-105

18. Audit(s) or co-operation, as referred to in last question
Number of publications mentioned by the SAI

Number of reports mentioned:	% of SAIs 1997-1999
No environmental reports	80 %
1 report	11 %
2 reports	5 %
3-8 reports	5 %
N valid	110

19. Would you be interested in performing one or more of the following particular types of environmental audits in the near future?

Interested in:	Yes %	No %
Co-operation with another SAI on an audit of an international environmental accord	76 %	25 %
Co-operation with another SAI on an audit on an environmental subject	79 %	21 %
Audit of international environmental accord, but independent of other SAIs	53 %	48 %
N valid		98-102

20. Which are the main environmental problems in your region?

Environmental issue:	% of SAIs that mentioned the issue
1. salt water, marine pollution	37 %
2. fresh water: drinking water, water quality, rivers, lakes	65 %
3. air pollution	45 %
4. soil pollution, contaminated sites	25 %
5. energy	10 %
6. waste: waste in general, hazardous waste, non-hazardous waste, waste processing and landfills	65 %
7. noise reduction	11 %
8. nature and recreation: conservation and improvement of natural and/or cultural heritage, management of national parks and forests, recreation and tourism	28 %
9. eco-systems: biodiversity, ecological infrastructure, eco system management	36 %
10. agriculture, pesticides, land development, forestry	56 %
11. disaster management, emergency preparedness	16 %
12. pollution prevention	24 %
13. industrial pollution	25 %
14. acidification	8 %
15. minerals, natural resources (mining, gas, oil, etc.)	8 %
16. fish	11 %
17. traffic, mobility, transport	33 %
18. environment and human health	28 %
19. climatical change, ozone layes depletion	11 %
20. internal environmental management by public authorities or departments	15 %
21. radioactivity	5 %
22. other subjects	6 %
N valid	102

21. Are any environmental audits planned for the next three years?

Answer:	% of SAIs
No	43 %
Yes	57 %
N valid	100
Audits are planned on the following environmental issues:	Number of SAIs
1. salt water, marine pollution	9
2. fresh water: drinking water, water quality, rivers, lakes	22
3. air pollution	11
4. soil pollution, contaminated sites	6
5. energy	6
6. waste: waste in general, hazardous waste, non- hazardous waste, waste processing and landfills	20
7. noise reduction	5
8. nature and recreation: conservation and improvement of natural and/or cultural heritage, management of national parks and forests, recreation and tourism	14
9. eco-systems: biodiversity, ecological infrastructure, eco system management	6
10. agriculture, pesticides, land development, forestry	13
11. disaster management, emergency preparedness	7
12. pollution prevention	5
13. industrial pollution	8
14. acidification	3
15. minerals, natural resources (mining, gas, oil, etc.)	10
16. fish	4
17. traffic, mobility, transport	10
18. environment and human health	6
19. climatical change, ozone layers depletion	3
20. internal environmental management by public authorities or departments	14
21. radioactivity	6
22. other subjects	4
N valid	98