

**EVALUATION OF THE IMPACT
OF THE 1999 NATIONAL STATE OF ENVIRONMENT REPORT**

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April 2005

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Executive Summary

In 1999, several National State of Environment products were developed and disseminated which include a web based National State of Environment Report (NSOER), printed overview documents in Zulu, Sepedi and Afrikaans, a booklet for schools and a video. Since then, several provincial, local and sector-specific reports have been published.

The Department of Environmental Affairs and Tourism (DEAT) initiated this study to determine whether the 1999 NSOER and related products reached target audiences, whether the report fulfilled the need of decision-makers and other users and to determine which of the related products add value to the suite of SOE products. This information will inform DEAT regarding adaptations needed to ensure maximum impact of the NSOER due in 2005.

A structured generic questionnaire was designed based on certain impact criteria to elicit opinions from stakeholders. The respondents were grouped according to their occupation into four user groups: policy maker/decision-maker/government official; lecturer; researcher; and environmental consultant. Most of the questionnaires were returned by Policy makers, with Researchers and Environmental consultants returning the second and third most, respectively.

The NSOER was tested against the following parameters:

- Report visibility;
- Report dissemination;
- Usefulness of the report, per product as well as per user group;
- User friendliness;
- Sufficiency and relevance of content;
- Coverage of issues;
- Comprehensibility and appropriateness of the DPSIR framework as a reporting approach;
- Adequacy of information provided by the Indicators;
- Enabling of informed decision-making;
- Level of involvement in compilation of the NSOER

The related NSOER products, provincial and City SOE reports and sector-specific reports were tested against report visibility and usefulness of the report, per product as well as per user group.

More than 60% of the respondents indicated that they have seen the Web-based, CD-ROM and Printed overview English versions of the NSOER, between 40 and 60% the Provincial SOE reports, about 60% the State of Rivers and National Environmental Indicators reports and almost 30% of the respondents the State of Estuaries report. Response rates could have been influenced by the availability of some of the reports, for example provincial SOE reports that were web-based only, and the lack of sufficient communication/dissemination.

DEAT officials as well as the DEAT website played a major role in the dissemination success of the various SOE products to all the user groups, except amongst the environmental consultant group where DEAT officials were the main point of dissemination.

In order of popularity, the Printed overview English version, Web-based and CD-ROM were the most seen and used NSOE products. Between 40 and 65% of the more than 60% respondents that have seen the reports, used them. Government officials, lecturers and environmental consultants are the main users and refer to their version on a monthly basis.

The layout and style of the CD-ROM and Web-based version were fairly easy to follow, although a higher rating would be more satisfactory. Only half of the respondents are satisfied that terms are adequately explained. The lower ratings relating to layout, style and explanation of terms that the Printed overview English version document received, is of concern.

Relating to content relevance, the policy maker/decision-maker/government official group indicated a balanced spread of themes and chapters being useful in their work environment. Although more than 60% of the respondents agreed that the content of the Web-based version, CD-ROM and Overview document (printed English version) are relevant, objective and accurate, the sufficiency and currency of the NSOE products need attention.

It was suggested that social, biophysical and economical issues, as well as institutional issues, be covered in NSOE reports. Food security, environmental well-being, poverty alleviation, environmental education and literacy, as well as scenarios/environmental outlooks, stood out as issues that should be addressed more.

The respondents indicated that they understand the DPSIR framework which is used as a reporting approach, but some also indicated that it is not appropriate for SOE reporting. About 50% of the respondents indicated that indicators provide adequate information and almost 70% find the indicators useful to track trends over time.

This evaluation found that SOE reports impact positively on the respondents' decision-making ability. The majority of respondents indicated that the NSOER in its current state enables informed decision-making relating to the natural environment.

Less than 20% of the respondents indicated that they were involved in the compilation of SOE reports. The majority of the respondents (almost 70%) do not know whether the public was adequately involved, while 25% indicated that the public was not adequately involved.

LIST OF ACRONYMS

CBO	Community Based Organisations
DEAT	Department of Environmental Affairs and Tourism
DPSIR	Driving force-Pressure-State-Impact-Response
EIS-Africa	Environmental Information Systems in Africa
NEI	National Environmental Indicators
NGO	Non-government organisations
NSOE	National State of Environment
NSOER	National State of Environment Report
SOE	State of Environment

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1 Introduction

1.1 Background

The first National State of Environment Report (NSOER) was published in 1999. Various related publications and formats such as the web-based report, the overview document (published in several languages), a booklet for schools and a video were developed. Since then, several provincial, local authority and sector-specific reports have also been published.

Whether these reports and products reach their target audience and have the desired impact is unsure. Therefore, a study to determine the impact of State of Environment (SOE) reporting in South Africa was initiated during 2002/03 and a draft questionnaire was developed. During 2003/04, the Department of Environmental Affairs and Tourism (DEAT) requested CSIR Environmentek to revisit and complete the survey. The questionnaire was revised and distributed to various stakeholders.

It was considered that findings from a study in 2002 on State of Rivers reporting would contribute towards this survey. During this study the first steps of an impact chain (Christoffersen 2000) was measured. This correlates with work done by Denisov (2000) who emphasised that it is useful to determine whether the stakeholders know about a report, whether they have seen it and whether they have read it, when assessing the impact it has had. There is, however, a growing need to measure the response of decision-makers to various reports and whether the reports have had an impact on decision-making.

1.2 Purpose of the study

DEAT is due to produce the next NSOER for South Africa in 2004/05. Hence, it was necessary to determine whether the 1999 NSOER fulfilled the needs of decision-makers and other users as well as which of the related products¹ added value to the suite of SOE products. This would ultimately inform the manner in which DEAT should adapt the next NSOER in order to maximise the impact.

The aim of this study was thus to:

- Determine whether SOE reporting reach the target audience
- Give guidance to DEAT on how the next NSOER and related products should be adapted to serve stakeholder needs.

1.3 Output

The outputs of this project are:

- A draft questionnaire
- A revised questionnaire distributed to stakeholders
- A report capturing the important findings of the survey

1.4 Outcome

The intended outcomes of this project include a better understanding of what an SOER impact evaluation entails and what can be achieved through such a study by

¹ The SOE products include the Web-based version; CD-ROM, Printed overview document in English; Printed overview document in Zulu, Sepedi and Afrikaans; Booklet for schools; Poster; Brochures; Video and Press reports.

eliciting opinions from stakeholders via questionnaires. The project also evaluate whether the SOE reports and products have the desired impact on the target audiences.

2 Methodology

In an attempt to evaluate the impact of the current NSOER and establish how different sectors as well as local and provincial officials utilise the report, a number of "impact" criteria (refer to criteria in Appendix I) were formulated. These impact criteria arose out of a study conducted by CSIR Environmentek and EIS-Africa to assess State of Environment Reporting in Africa. They were developed in consultation with experts in SOE Reporting from around the world. A questionnaire was developed based on these criteria. Responses were elicited by means of a generic questionnaire and thus, careful attention was paid to both its design and structure.

2.1 Questionnaire design

Due to time and financial constraints it was not feasible to conduct interviews, but rather, a highly-structured and generic questionnaire composed of closed-ended questions was distributed to individuals to elicit responses. The questionnaire was designed to facilitate the easy collection of data pertaining to the NSOER. It was compiled in collaboration with relevant people in DEAT and with the assistance of an expert in questionnaire design and analysis.

The questionnaires were written in English. The closed-ended questions confined the choice of responses, encouraging the individual to respond in terms of the present categories or alternatives. Such a structure facilitates easy comparison of the data collected and enables relationships between answers to different questions to be established (Bless and Higson-Smith, 1995). It is worth noting that the questionnaire was short and well-formulated in an attempt to increase the response rate (refer to Appendix II).

As a result of the lack of direct personal contact, it was imperative to pilot the questionnaire and verify the research techniques employed as well as to ensure that the researcher's and respondent's frames of reference corresponded (Blaxter et al., 1996). The piloting of questionnaires was conducted a month before being distributed to respondents, and was very useful in ensuring that questions were properly understood by that potential defects were anticipated and consequently avoided. All comments and suggestions derived from individuals during the piloting phase were assessed and where necessary, the questionnaire amended. A potential problem that was averted as a consequence of this pilot study was the manner in which some of the questions were phrased; some questions were interpreted differently by respondents which might have biased the findings.

The design of the questionnaire was such that it could be disseminated and filled in by individuals in private. This approach was necessary in order to grant respondents sufficient time to consider and complete all questions (they could work at their own pace). In addition, they were not influenced by the presence, personality and intonation of an interviewer which was essential to avoid bias.

The questionnaire survey was an indispensable tool for purposes of this study and was used to extract primary data relating to individuals' attitudes and perceptions of the SOE report. Consequently, in an attempt to enhance the quality of research data collected for this project, a substantial proportion of time was dedicated to the questionnaire design.

2.2 Questionnaire distribution

Although low response rates tend to be associated with self-administered and mail questionnaires (i.e. on average only 20 to 40 per cent are returned (Bless and Higson-Smith, 1995)), a much larger coverage of the population can be realized with little time or costs. Consequently, this distribution means was adopted for purposes of this study. It is, however, essential when interpreting the findings to bear in mind that non-respondents are usually quite different from respondents and thus, their absence from the sample could constitute an important bias.

A total of 156 questionnaires along with a covering letter compiled by the DEAT authorities (in the hope of increasing the response rate) were posted to 'targeted stakeholders' in August 2003. Targeted individuals included:

- Provincial managers;
- DEAT Capacity Building and Law Reform staff;
- Members of MINTECH Working Group 3; and
- Various other stakeholders.

A poor response rate from this initial distribution (less than 10%) made it necessary to distribute an additional 80 questionnaires in October 2003. These additional questionnaires were e-mailed to specific individuals from diverse backgrounds. They included the following:

- Representatives from local municipalities and provincial practitioners directly involved in SoE;
- Consultants involved in SoE;
- Attendees of a SoE seminar held on the 6th of October 2003; and
- Individuals who had previously requested SoE publications from the DEAT (either telephonically or by email).

The number and occupation of 'targeted' stakeholders who were sent questionnaires is provided in Appendix III. A total of 236 stakeholders were sent questionnaires and overall, the response rate was 12%, which is at par with the 10% to 15% response rate expected from mailed questionnaires. A large majority (i.e. 57%) of the total respondents were policymakers (refer to Table 1 for a breakdown of the respondents occupations).

Table 1: Occupation of respondents to the questionnaire distributed.

Occupation of respondents	Number	Percentage of total respondents
Policymaker/government official	16	57
Lecturer	4	14
Researcher	3	11
Environmental consultant	5	18
Total	28	100

The information collected from the questionnaires was entered into the SPSS statistical package and the trends were analysed. This software was selected for this study because of its effectiveness in analyzing qualitative and quantitative data.

3 Results and Discussion

The way in which the results of the survey is organised is explained in Table 2. The rest of this section is organised using this framework. The first sections, explores the visibility and usability of the National SOE products as well as the provincial, city and other related SOE reports, whereas the remainder of the results are concerned with the National SOE products only.

Table 2: Layout of the results of the survey

Section	Relevant Reports/Products	Parameter	Figure/Table
3.1.1	All	Report Visibility	Figs 1, 2, 3, 4, 5,
3.1.2	NSOER	Report Dissemination	Fig 6
3.1.3	All	Report usefulness by product	Fig 7, 8, 9
3.1.3	All	Report usefulness by user group	Fig 10, 11, 12, 13
3.2	NSOER	User friendliness	Fig 14
3.3	NSOER	Content relevance Sufficiency of content	Fig 15a, 15b Fig 16
3.4	NSOER	Coverage of issues	Fig 17, Table 3
3.5.1	NSOER	Reporting approach: DPSIR	Fig 18
3.5.2	NSOER	Reporting Approach: Indicators	Fig 19, 20
3.6	NSOER	Informed decision-making	Fig 21, 22
3.7	NSOER	Involvement in compilation	Fig 23, 24

In the analysis of the questions, where it proved to add value, the assessment and interpretation of the data are split into the different user groups. The first user group includes policy makers, decision-makers and government officials, the second user group lecturers, the third researchers and the fourth one environmental consultants.

3.1 Varying levels of use

3.1.1 Visibility

The varying levels of use of the reports and products are depicted in this section. The percentage of the respondents that have seen the National SOE products, the Provincial and City reports and other SOE related reports are portrayed in Figures 1, 2 and 3, respectively.

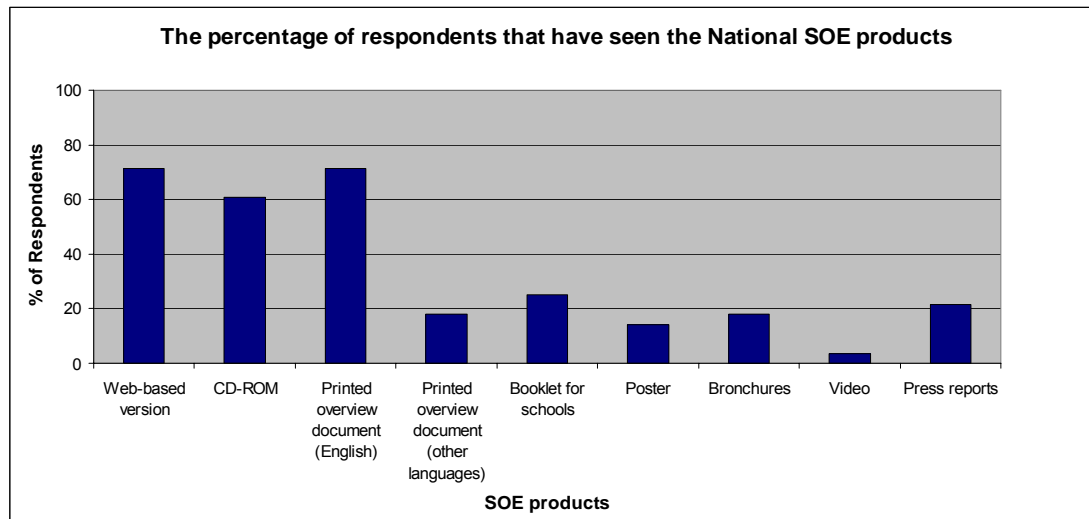


Figure 1. The percentage respondents that have seen the various 1999 NSOE reporting products.

More than 60% of the respondents indicated that they have seen the Web-based, CD-ROM and Printed Overview English versions of the NSOER products. Except for the Booklet for schools and the Press reports, which just over 20% of the respondents have seen, less than 20% have seen the other products.

A low percentage of the respondents indicated that they have seen the Printed Overview Document in Other Languages², the Booklet for Schools, the Poster, the Brochures, the Video and the Press Reports. This could be attributed to the insignificant number of NGO's, private sector and school teachers that responded to the questionnaire. These groups were, however, adequately covered by the distribution list, for example, 25% of the questionnaires were sent to schools. Due to the low response rates, these products will not be analysed and discussed in detail in this report. Some of these results are captured in Appendix V.

² Zulu, Sepedi and Afrikaans

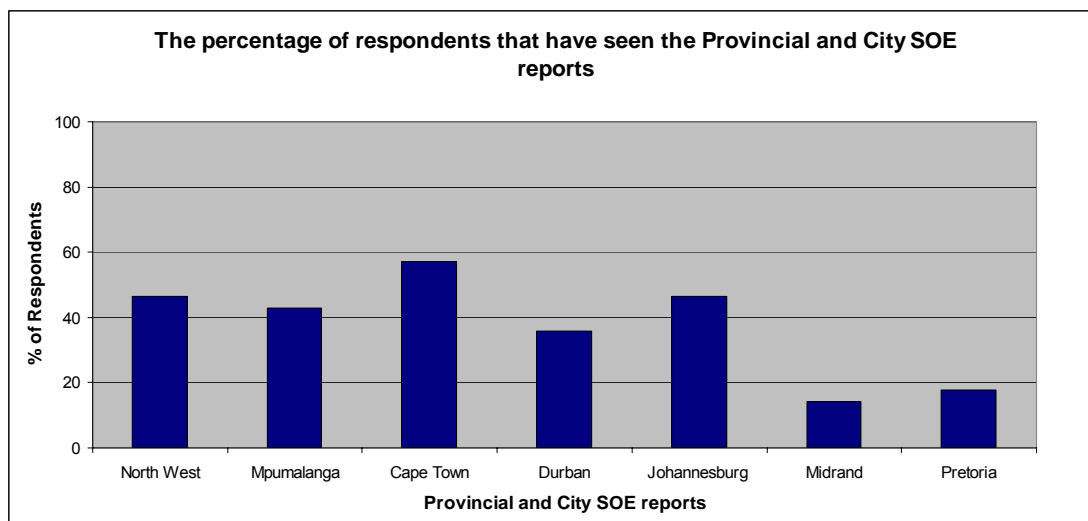


Figure 2. Percentage of respondents that have seen other SOE reports.

In terms of the Provincial SOE reports, 40 to 50% of all respondents reported to have seen them.

The City of Cape Town SOE report was the most seen City SOE report (almost 60% of the respondents), while less than 20% of the respondents indicated that they had seen the Midrand and Pretoria SOE reports. All of these reports were released in 1999 and thus had the same dissemination time. The percentages for Midrand and Pretoria reports are very low compared to the rest. Possible reasons include the following: they are only web based; an internet search for the reports brings up only references to these reports on Norwegian sites (GRID-Arendal server); Pretoria website was off the air for a long time. The high percentage for Cape Town could possibly be attributed to the fact that City of Cape Town has released their report annually. The respondents to the questionnaire were geographically well presented in the Midrand and Pretoria area.

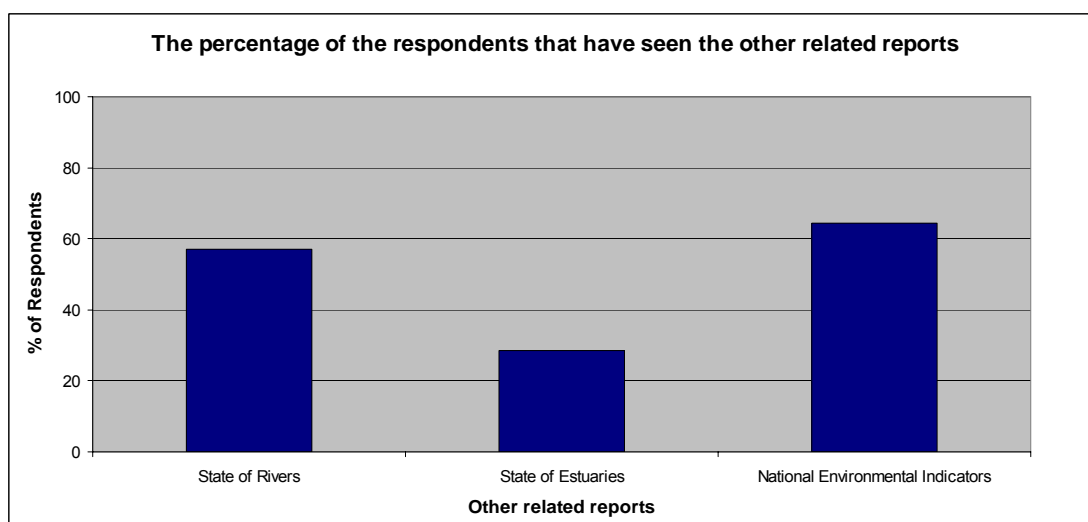


Figure 3. Percentage of respondents that have seen other SOE reporting products.

Almost 60% of the respondents indicated that they have seen a State of Rivers report, almost 30% the State of Estuaries report and 64% the National Environmental

Indicators (NEI) report. The above differences could be the result of the number of copies printed. Dissemination strategies for these were not compared.

The respondents to the questionnaire were dominated by the policy maker, decision-maker and government official group. Figures 4 and 5 indicate the respondents that have seen a specific report or product as a percentage of the total respondents. Very few responses from the lecturer, researcher and environmental consultant user groups were received. Possible reasons include the following: the questionnaire was not distributed equally to all user groups; the mentioned user groups did not obtain copies of the relevant products; there was a lack of interest/time.

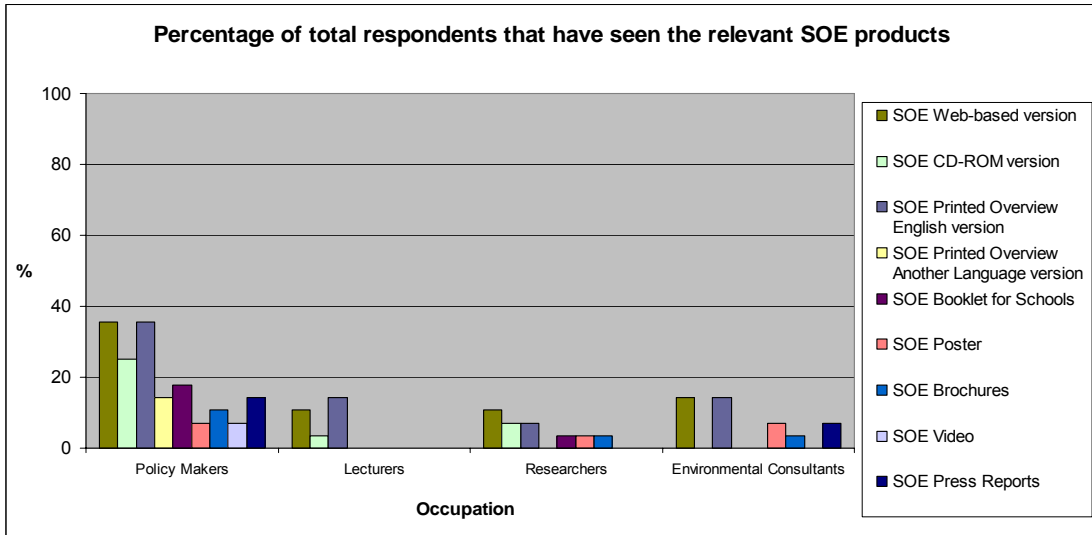


Figure 4. Percentage of the total respondents, grouped according to their occupation that indicated that they have seen the relevant SOE products.

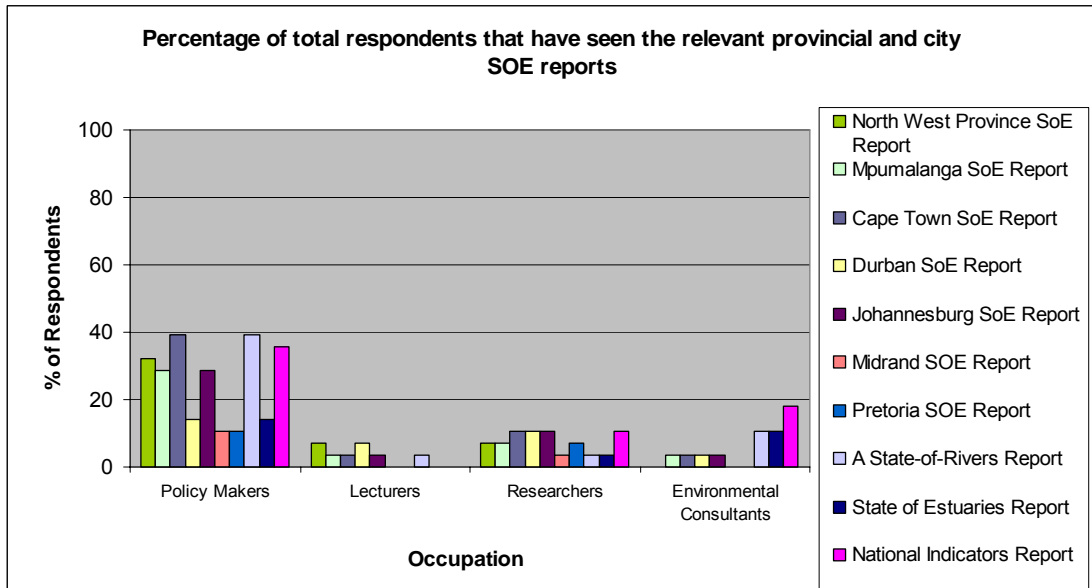


Figure 5. Percentage of the total respondents, grouped according to their occupation that indicated that they have seen the relevant SOE reports.

The SOE Web-based version and the SOE Printed Overview English version were the most seen, followed by the SOE CD-ROM version.

3.1.2 Dissemination

The success of various modes of distribution of the reports is indicated in Figure 6.

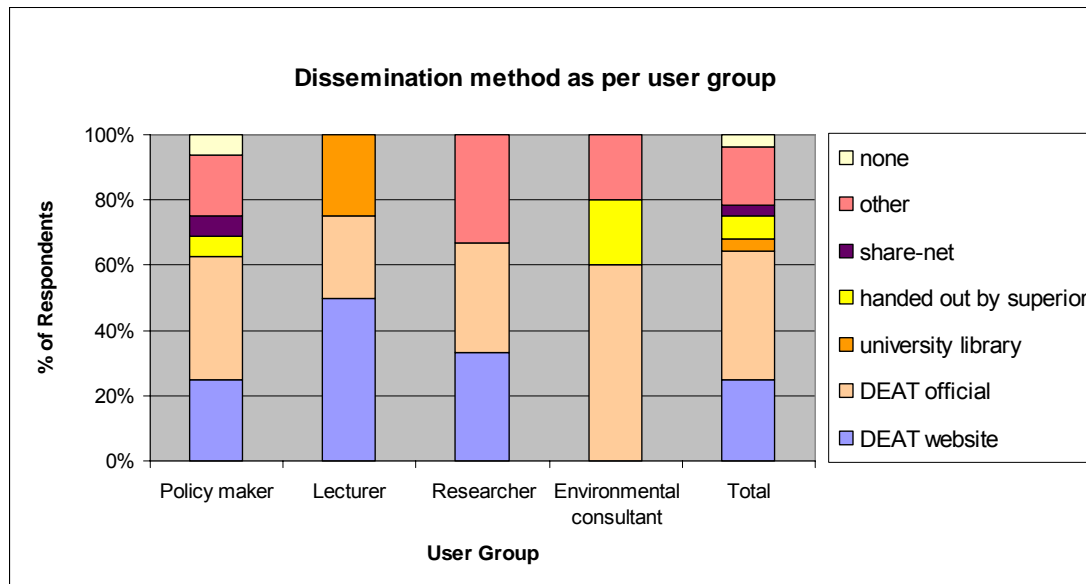


Figure 6. Dissemination method per user group.

DEAT officials as well as the DEAT website played a major role in the dissemination success of the various SOE products to all the user groups. Less than 4% of the respondents preferred not to answer this part of the questionnaire, but they did not indicate that they were unable to obtain a copy. It is noted that no environmental consultants made use of the DEAT website. DEAT officials were the main point of dissemination for this user group.

3.1.3 Usability

The following figures (Figure 7, 8 and 9) indicate the usefulness of some of the NSOE reporting products. Figures 10 to 13 report on the usefulness per user group.

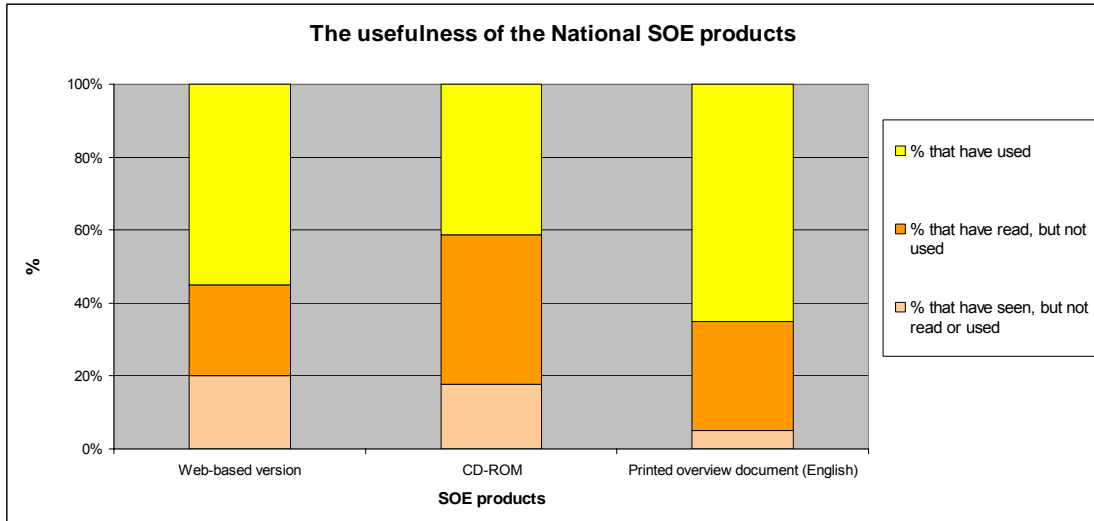


Figure 7. Graph showing the usefulness of the Web-based version, CD-ROM and Printed overview English version. Those that have seen only, read or used the products is expressed as a percentage of the respondents that have seen the relevant product.

The Printed overview English version and web-based version of the SoE report were used the most. More than 60% of the respondents had access to the web-based, CD-ROM and Printed overview English version document (Figure 1) and about 50% of those have used them. As stated, the response to the other products was low compared to the abovementioned three products and will not be discussed in detail.

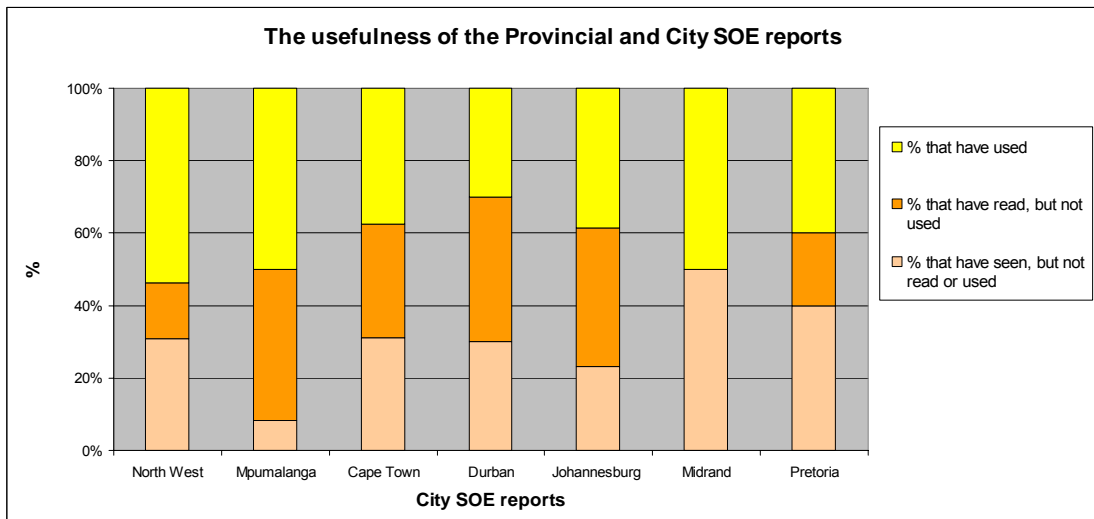


Figure 8. Graph showing the usefulness of the Provincial and City SOE reports, expressed as a percentage of the respondents that have seen the relevant report.

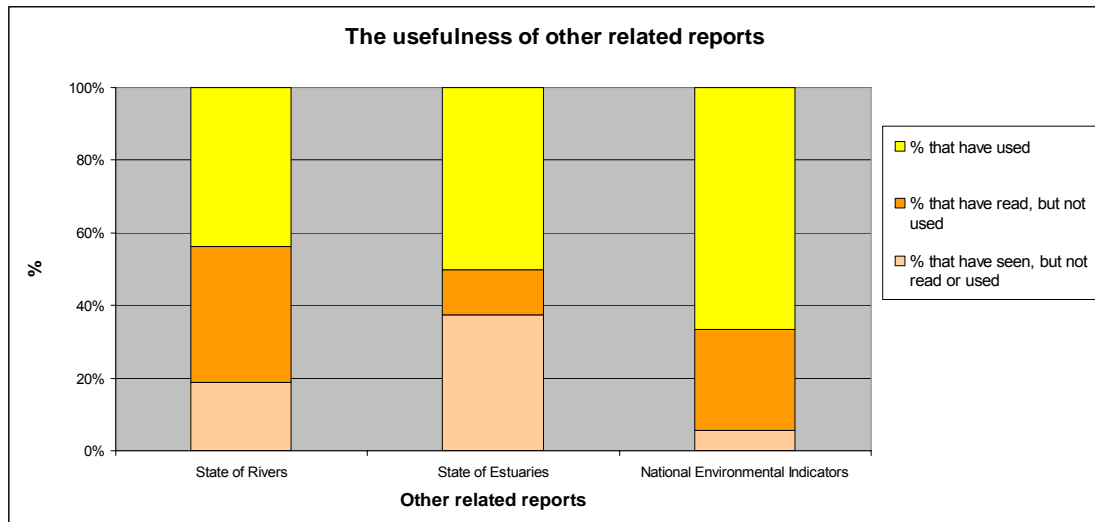


Figure 9. Graph showing the usefulness of the related reports: state of rivers, state of estuaries and national environmental indicators reports, expressed as a percentage of the respondents that have seen the relevant report.

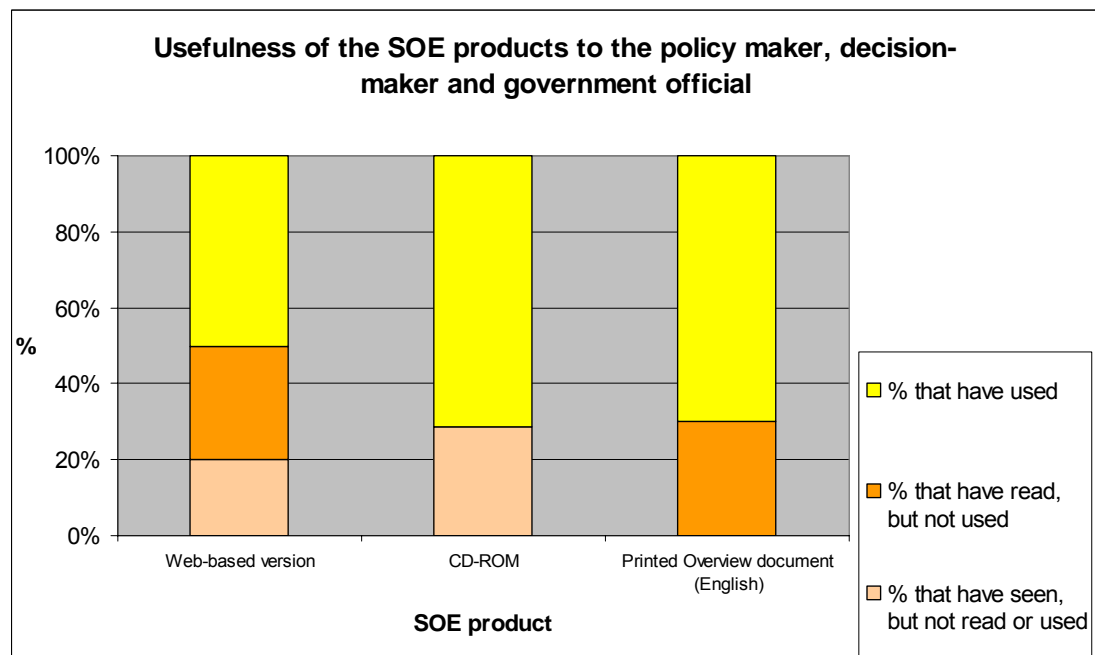


Figure 10. Graph showing the usefulness of the SOE products to the Policy maker user group. This group includes the decision-maker and government official, expressed as a percentage of the respondents that have seen the relevant product.

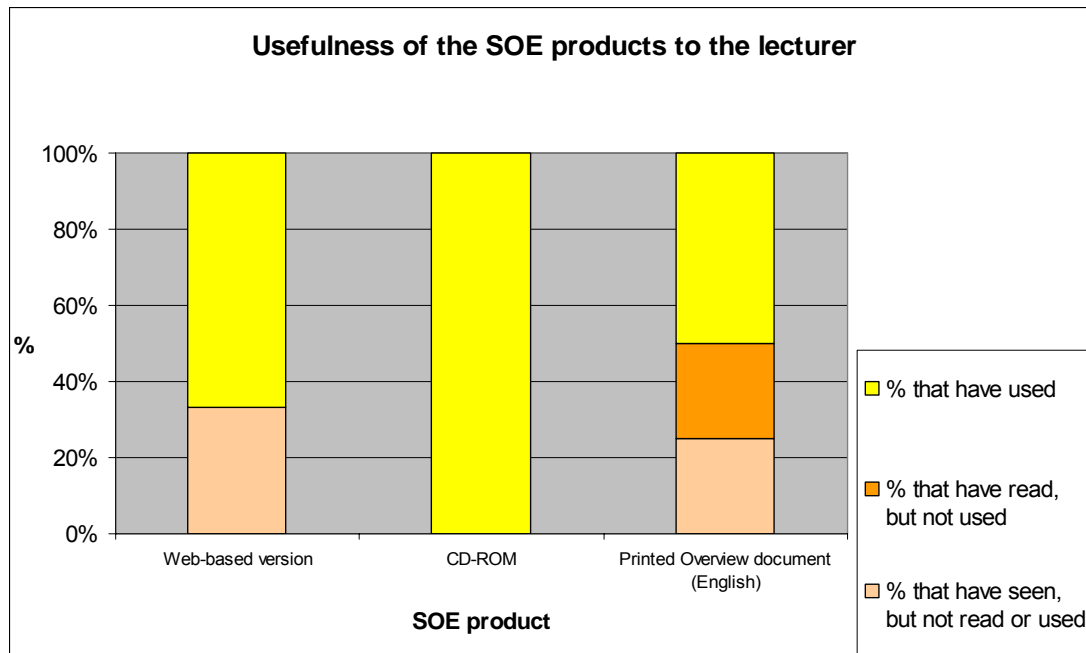


Figure 11. Graph showing the usefulness of the SOE products to the Lecturer user group, expressed as a percentage of the respondents that have seen the relevant product.

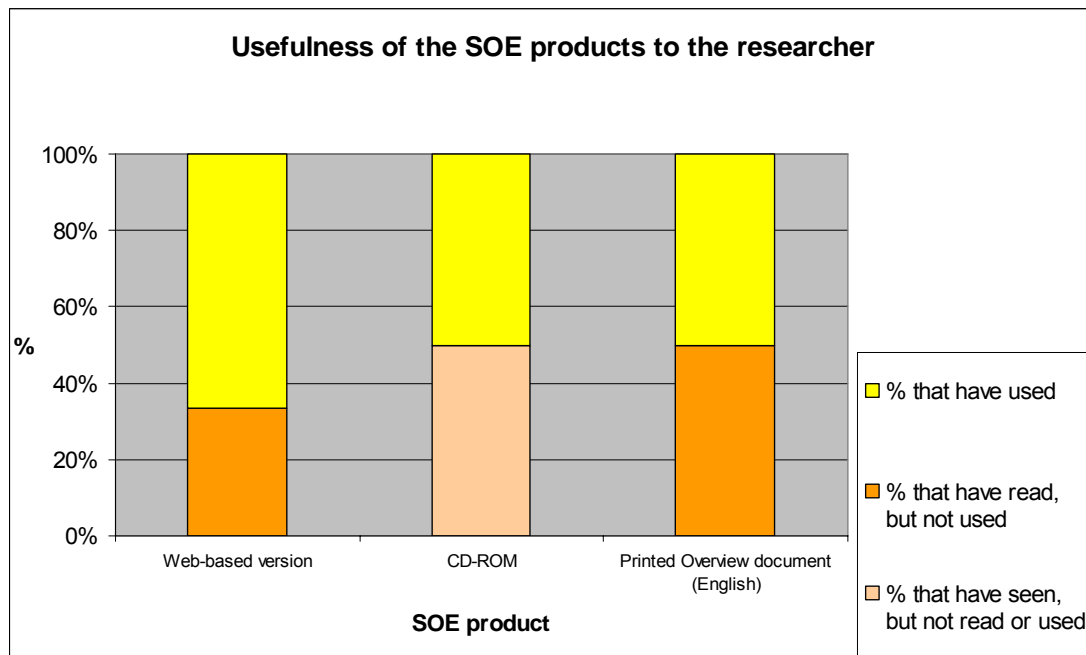


Figure 12. Graph showing the usefulness of the SOE products to the Researcher user group, expressed as a percentage of the respondents that have seen the relevant product.

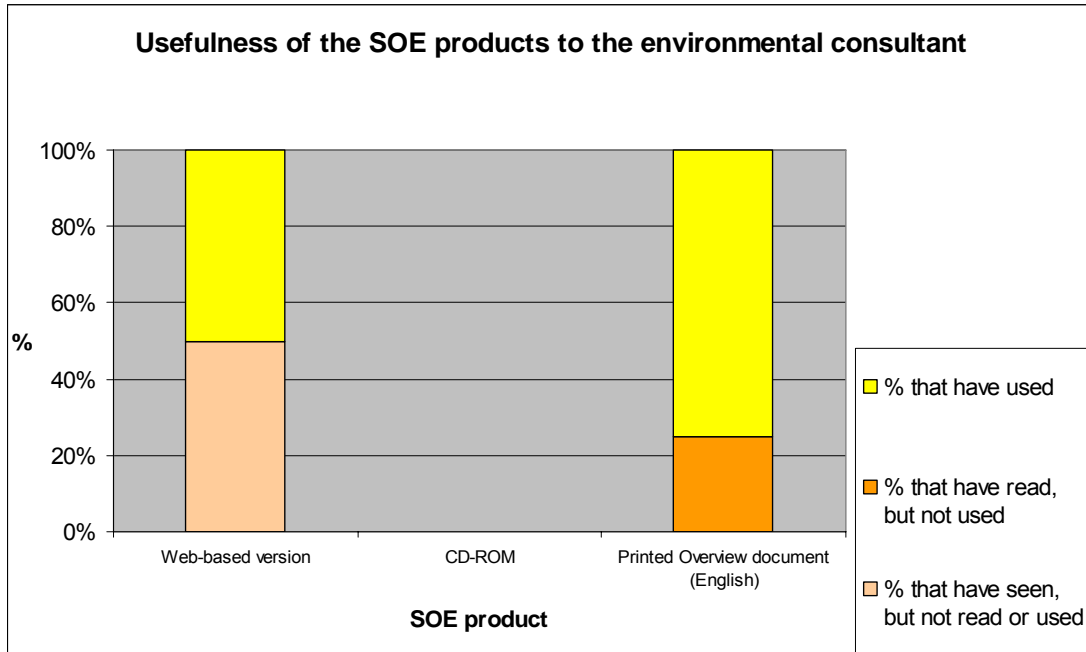


Figure 13. Graph showing the usefulness of the SOE products to the Environmental consultant user group, expressed as a percentage of the respondents that have seen the relevant product.

Between 40 and 70% of all user groups (Policy makers, 50%; Lecturers, 68%; Researchers, 68%; and Environmental consultants, 50%) that have seen the Web-based version of the SOE report have used it. Similarly, 70% of the Policy makers, all the Lecturers and 50% of the Researchers have used the CD-ROM. None of the Environmental consultants have seen the CD-ROM. Between 50 and 75% of all user groups have seen the Printed English version of the Overview document have used it: Policy makers, 70%; Lecturers, 50%; Researchers, 50%; and Environmental consultants, 75%.

Most respondents that refer to their version of the SOE product do so on a monthly basis. The others refer to it on an annual basis.

Varying levels of use

In order of popularity, the Overview document (printed English), Web-based and CD-ROM were the most seen and used NSOE products. Between 40 and 65% of the more than 60% respondents that have seen them, have used them. Government officials, lecturers and environmental consultants are the main users and refer to their version on a monthly basis.

The response to the Provincial and City SOE reports was fair to good (35 – 60% of respondents) except for the Midrand and Pretoria reports (below 20%). Between 30 and 55% of respondents use these reports. The response to the State-of-Rivers and National Environmental Indicators reports were good. Between 45 and 67% use them.

Availability could have played a role in some of the response rates: web-based only and lack of sufficient communication/dissemination.

The policy-maker/decision-maker/government official group dominated the respondents.

Successful dissemination methods include DEAT officials and the DEAT website.

3.2 User friendliness

The user friendliness of a document can be determined through several parameters, including presentation, language use, layout, style and whether terms are explained. The latter three were used in this study.

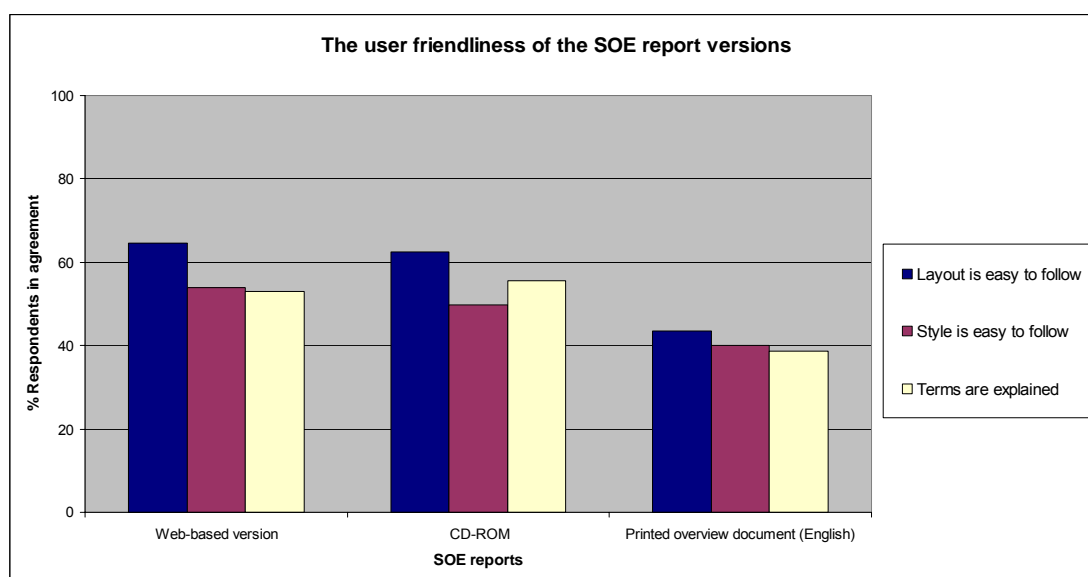


Figure 14. The user friendliness of some of the SOE products as expressed through layout, style and explanation of terms.

These results were obtained from a Likert scale and the value of this graph lies within the relative values and not so much the percentage respondents in agreement. The latter will differ according to the values allocated to each category, being strongly agree, agree, neutral, disagree and strongly disagree.

The Web-based version and CD-ROM received more or less the same rating, while the respondents perceived the Printed Overview English version to be less user friendly. The user friendliness of all these products should be improved.

Suggestions by respondents to improve the layout and presentation:

- Use simple language that is easy to understand
- Improve the style of the SOE products: keep up to date with current trends
- Make use of more white space
- Use more graphs and pictures

User friendliness

The layout and style of the CD-ROM and Web-based version are fairly easy to follow, although a higher rating would be more satisfactory.

Only half of the respondents are satisfied that terms are adequately explained.

The Overview document (English printed version) received lower ratings than the CD-ROM and Web-based version in terms of layout, style and explanation of term. This is a concern.

3.3 Content relevance and sufficiency

3.3.1 Content relevance

Figure 15a indicates the themes and chapters which the respondents indicated to be the most useful in their work. Figure 15b indicates the usefulness of the themes and chapters to the decision-making group.

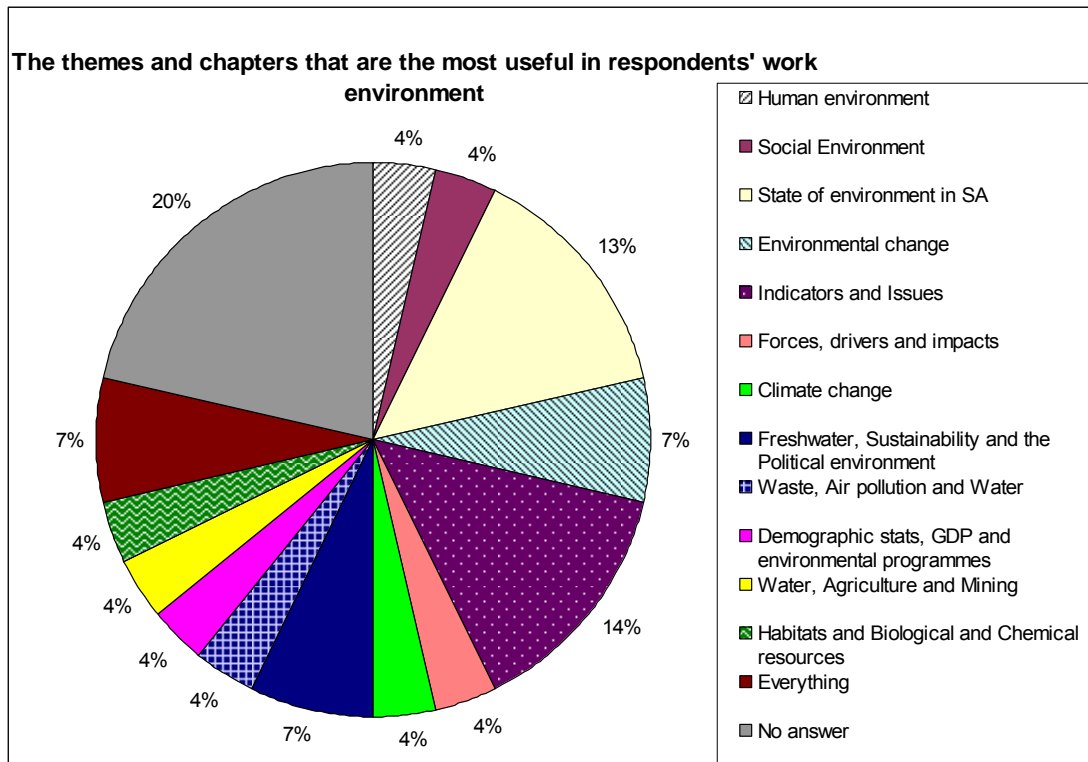


Figure 15a. The Themes and Chapters which the respondents indicated as being the most useful in their work environment.

The following list links the same data with the user groups:

- Human environment (lecturers)
- Social environment (Policy makers)
- State of environment in SA (Policy makers and Environmental consultants)
- Environmental change (Policy makers)
- Indicators and Issues (Policy makers, Researchers, Environmental consultants)
- Forces, drivers and impact (Policy makers)
- Climate change (Researchers)
- Freshwater, sustainability and the political environment (Policy makers, Researchers)
- Waste, air pollution and water (Policy makers)
- Demographic statistics, GDP, and environmental programmes (Policy makers)
- Water, Agriculture and Mining (Lecturers)
- Habitats and Biological and Chemical resources (Policy makers)

Some Policy makers and Lecturers indicated that all the sections were useful to them.

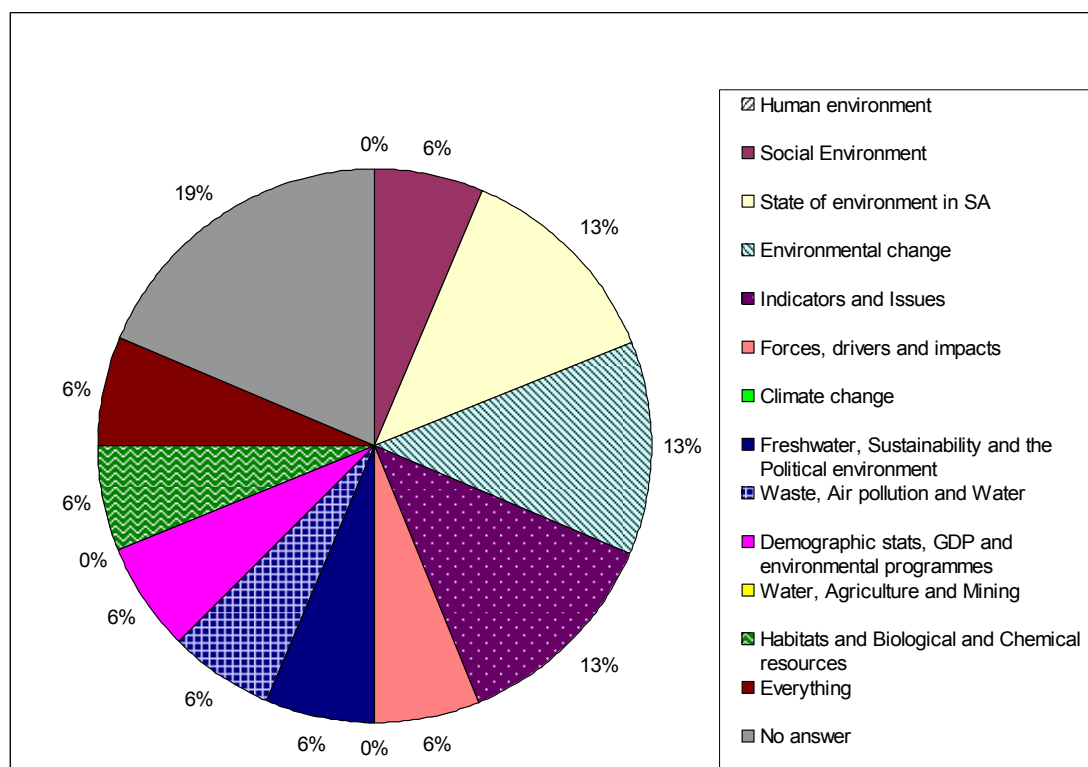


Figure 15b. The Themes and Chapters which the policy maker/decision-maker/government official group indicated as being the most useful in their work environment.

Content relevance

The policy maker/decision-maker/government official group indicated a balanced spread of themes and chapters being useful in their work environment.

The lecturer group focuses on human environment and water, agriculture and mining.

Indicators and issues; climate change; and Freshwater, sustainability and the political environment dominated the Researchers' response.

3.3.2 *Content adequacy*

Similarly to Section 3.2 on user friendliness, the respondents had to mark whether they strongly agree, agree, are neutral, disagree or strongly disagree with statements about the NSOE products. In analysing this feedback, a weighing system was used: strongly agree counted 100, agree 66, neutral 33 and both disagree and strongly disagreed scored 0. By calculating the mean a percentage of respondents in agreement has been derived. This can also be called the degree of agreement.

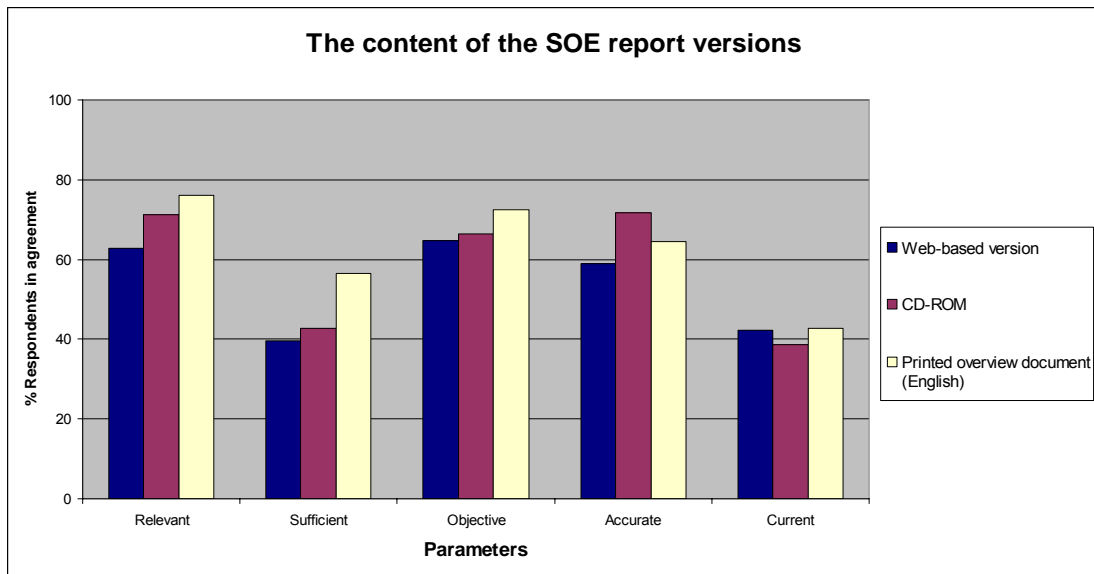


Figure 16. The content of some of the National SOE products are analysed by using the following parameters: relevance, sufficiency, objectivity, accuracy and currency.

The respondents were quite happy that the information of all three products, the web-based version, the CD-ROM and the Printed overview English version, were relevant, objective and accurate. There were mixed feelings as to whether the information was sufficient and current. The disagreement that the three products are current could be due to the fact that this survey was conducted a few years after the release of the NSOE reporting products. The information was thus, at the time of the survey, not current anymore. Both the Web-based version and CD-Rom scored low on containing sufficient information for the users' application.

The following suggestions, mainly by responding individuals, to improve the content of SOE products were received:

- Revise often
- Focus on the important indicators – use less information/indicators (less is more)
- Link the content to development planning
- Display information more readily by making use of relevant maps
- Include more studies in SOE reporting
- More information on climate change needed

Content adequacy

The content of the Web-based version, CD-ROM and Overview document (printed English version) are relevant, objective and accurate: 60% and more of the respondents were in agreement.

The sufficiency and currency of the NSOE products need attention.

3.4 Coverage of issues

Almost 86% responded to the question asking whether linkages and interactions between the social, institutional, economic and biophysical issues are adequately addressed. Of those respondents, 67% indicated that they feel it is adequately addressed and 33% that it is not adequately addressed.

The respondents also had to indicate whether the social, institutional, economic or biophysical issues need to be further emphasised. Their responses are captured in Figure 17.

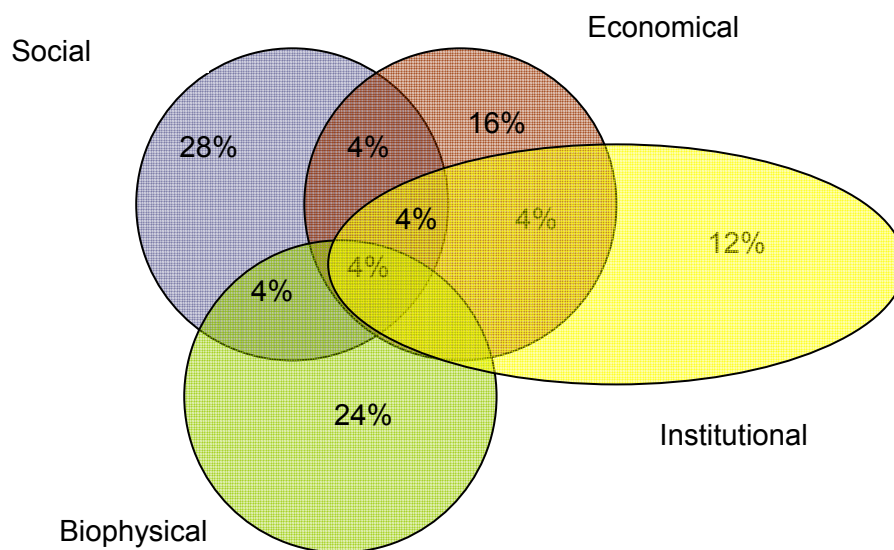


Figure 17. Diagram indicating which of the Social, Economical, Institutional and Biophysical issues should be further emphasised in National SOE reporting. It also shows where more than one issue were indicated.

In total, 44% of the respondents indicated that they wanted more emphasis on social issues, 32% on biophysical and 32% on economical issues. Only 24% requested more emphasis on institutional issues. Four percent of the respondents indicated that all four issues need to be further emphasised. The desire to link social issues with the three other issues was indicated. A total of 44% indicated that social issues should be further emphasised, with 28% of these respondents indicated a desire to focus on social issues only, while the other 16% indicated a need to focus on the links with other issues.

The respondents were given the opportunity to select from a list of issues those that they would like to see addressed more in NSOE reporting. These results are presented in Table 3.

Table 3. Percentage of respondents that indicated that they would like to see more of certain issues

Issue	Policy maker	Lecturer	Researcher	Environmental consultant	Total
Food security	56	33	0	40	44
Environmental well-being	25	33	67	60	37
Poverty alleviation	25	0	73	60	30
Environmental education and literacy	19	33	33	60	30
Scenarios/environmental outlooks	25	33	0	40	26
Rural development	19	0	33	40	22
Unemployment	19	0	0	40	19
Job creation	19	0	0	40	19
Environmental health	13	0	33	40	19
Environmental justice	13	33	0	40	19
GMOs	6	0	0	0	4
Gender issues	0	0	0	0	0

Food security, environmental well-being, poverty alleviation, Environmental education and literacy and scenarios/environmental outlooks all received a 25% and higher response as issues to be addressed in future reports.

The respondents were also given the opportunity to mention other issues that should be addressed that were not on the list. Individuals proposed the following:

- Sustainable energy
- Environmental management for tourism
- Mining and rehabilitation
- Aquatic system – groundwater
- Urbanisation
- Population growth impacts
- Rural-urban interface (the pressures on the resources and the environment)
- Effectiveness of environmental governance
- Penalties steps against non-compliance

Coverage of Issues

Social, followed by Biophysical and Economical issues should be addressed more in NSOE reports, indicated by 44%, 32% and 32% of the respondents, respectively. Institutional issues were indicated by 24% of the respondents. The linkages between the issues should also be addressed.

Food security, environmental well-being, poverty alleviation, Environmental education and literacy and scenarios/environmental outlooks stood out as issues that should be addressed more.

3.5 Reporting approach

The following three graphs (Figures 18, 19 and 20) portray the opinions of respondents regarding the DPSIR framework and the use of indicators.

3.5.1 DPSIR framework

The comprehensibility and appropriateness of the DPSIR framework as perceived by the respondents are portrayed in Figure 18.

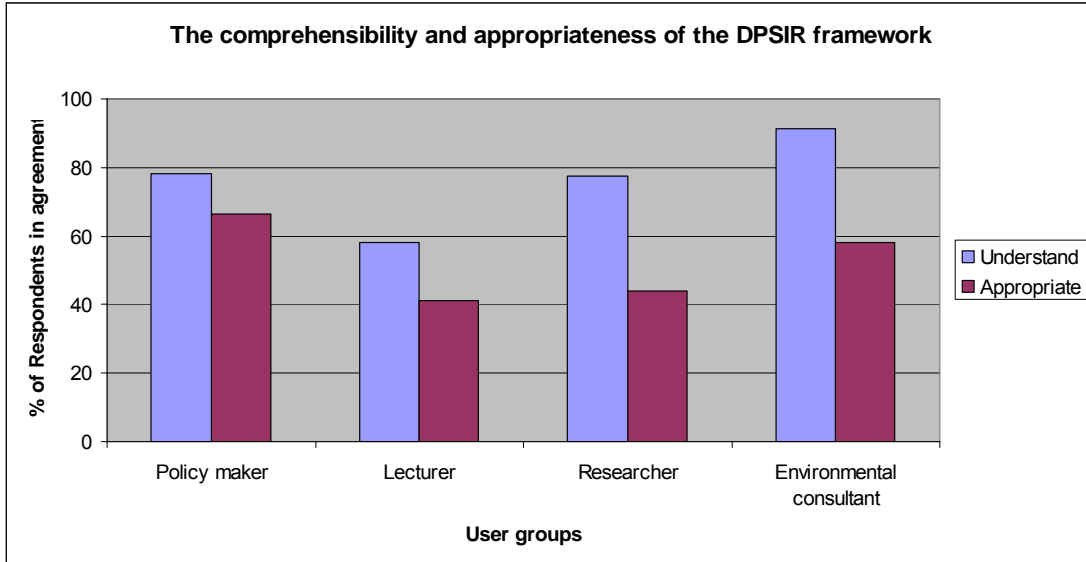


Figure 18. Graph showing the opinion of the respondents, according to user groups, as to whether they understand the DPSIR framework and whether they think the DPSIR framework is appropriate for SOE reporting.

Figure 18 shows that the majority of the respondents within each user group understand the DPSIR framework. Fewer respondents are confident that the DPSIR framework is appropriate to use for SOE reporting. The difference between understanding the DPSIR framework and thinking that it is appropriate is small amongst the Policy makers. This difference is bigger amongst Researchers and Environmental consultants. The data does not offer a reason for this.

3.5.2 Indicators

The Policy maker group was reasonably satisfied that the indicators used in the National SOE report provide adequate information (Figure 19). The other groups of respondents were not as convinced.

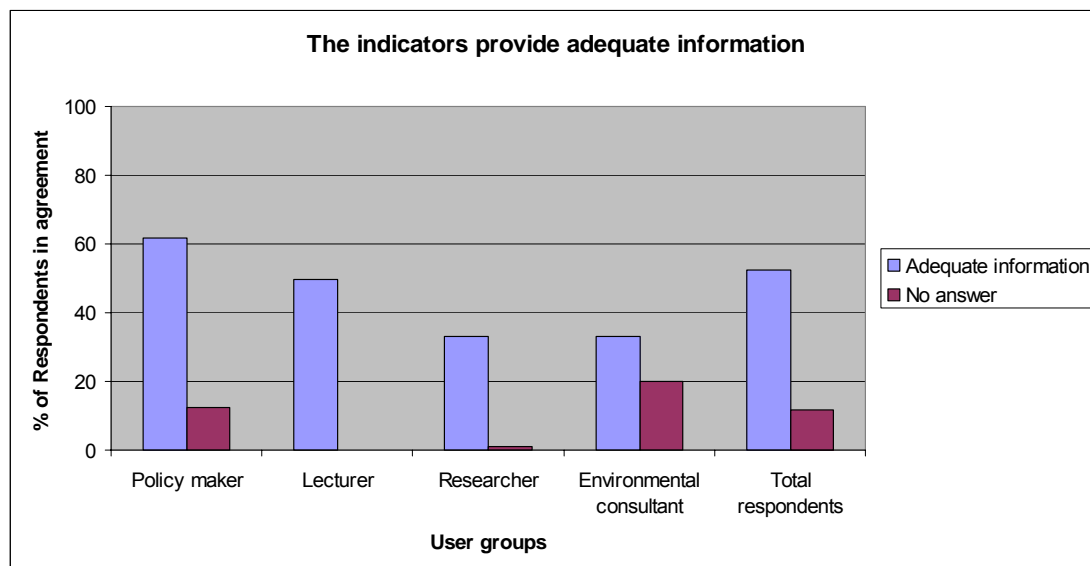


Figure 19. The degree towards which the respondents, as per user group, agreed that the indicators of the National SOE report provide adequate information.

According to Figure 20, the Policy maker and Researcher groups, and the Environmental consultant group to a lesser degree, are of the opinion that indicators are useful to track trends over time.

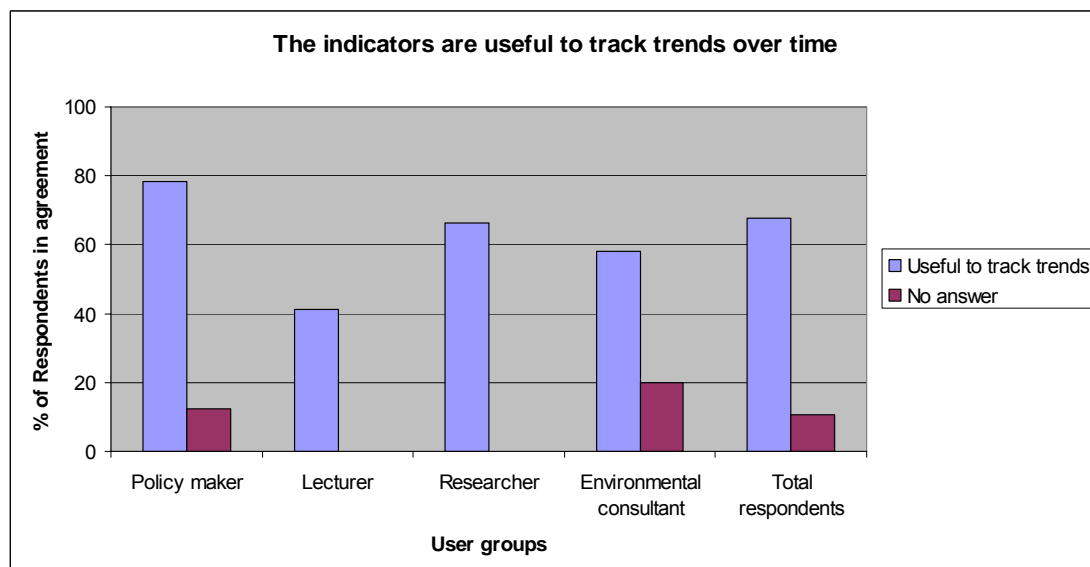


Figure 20. Opinions of the user groups as to whether the indicators are useful to track trends over time.

Reporting approach

The respondents indicated that they understand the DPSIR framework: almost 80% of the government officials and researchers.

Although less respondents indicated that the DPSIR framework is appropriate for SOE reporting, almost 70% of the government officials indicated that it is appropriate.

About 50% of the respondents indicated that indicators provide adequate information.

Almost 70% of the respondents find the indicators useful to track trends over time.

3.6 Informed decision-making

Figure 21 indicate the respondents in agreement that SOE reports enable informed decisions relating to the environment.

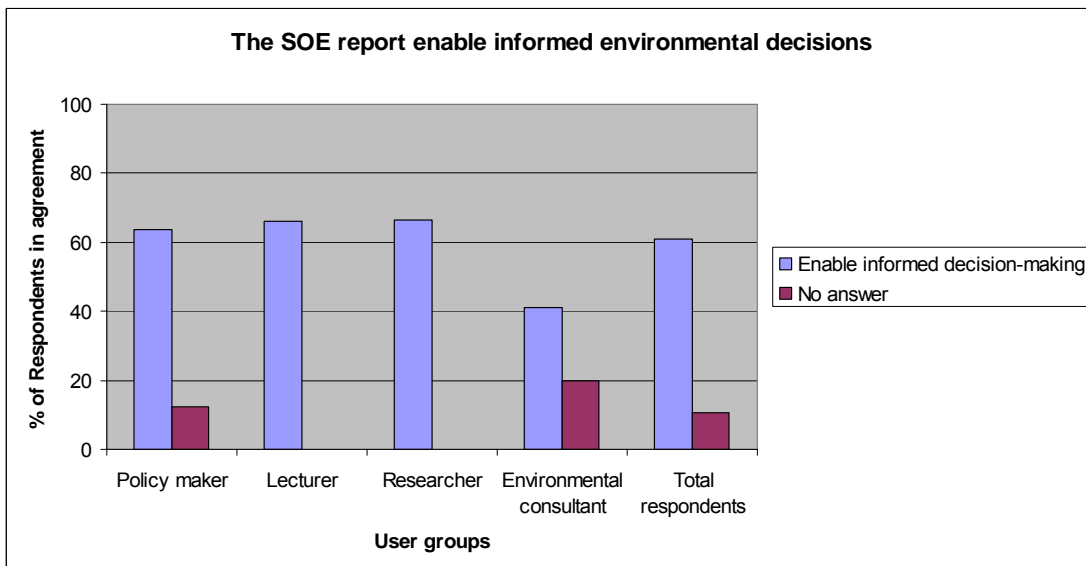


Figure 21. Graph showing agreement of the respondents towards whether the National SOE report in its current state enables better informed decisions concerning issues relating to the natural environment.

All user groups, except the Environmental consultant group, indicated that the National SOE report in its current state enables better informed decisions concerning issues relating to the natural environment (figure 21). None of the respondents disagreed; although 10% preferred not to answer the question and about 30% indicated that they are neutral. The Environmental consultant group was less confident that the SOE report contributes to their decision-making abilities.

A majority of 71% of the respondents indicated that SOE reports contribute positively to their decision-making ability (Figure 22). Less than 10% of the respondents (7%) said no and 21% preferred not to answer the question.

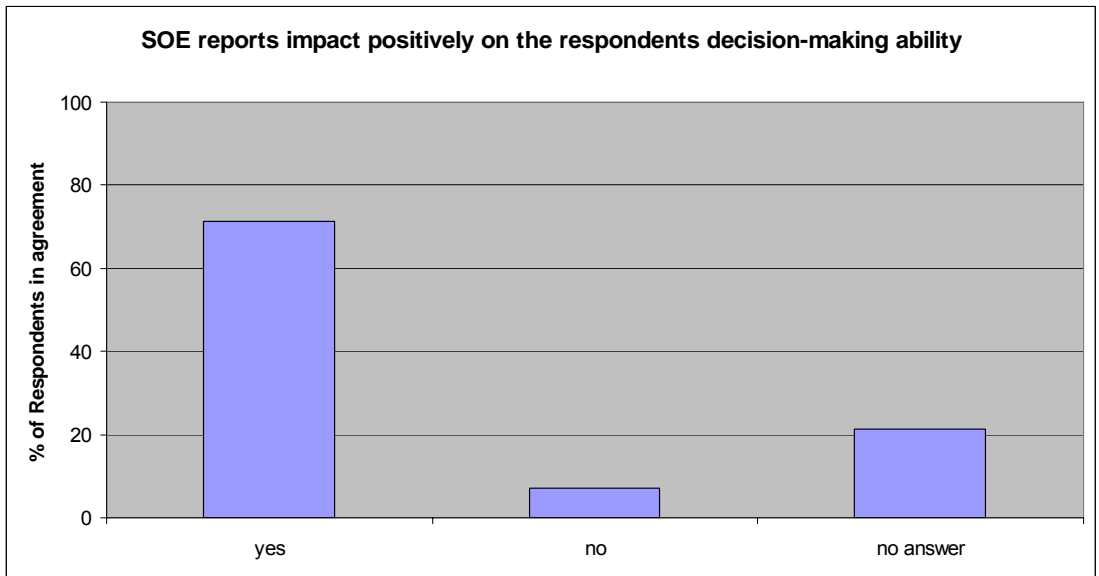


Figure 22. Graph indicating whether the National SOE report impacted positively on the respondents' decision-making ability.

Informed decision-making

The majority of respondents indicated that the NSOER in its current state enables informed decision-making relating to the natural environment.

SOE reports impact positively on the respondents' decision-making ability.

3.7 *Involvement in compilation*

Figures 23 and 24 shows the level of involvement and whether the respondents think that the involvement was adequate, respectively.

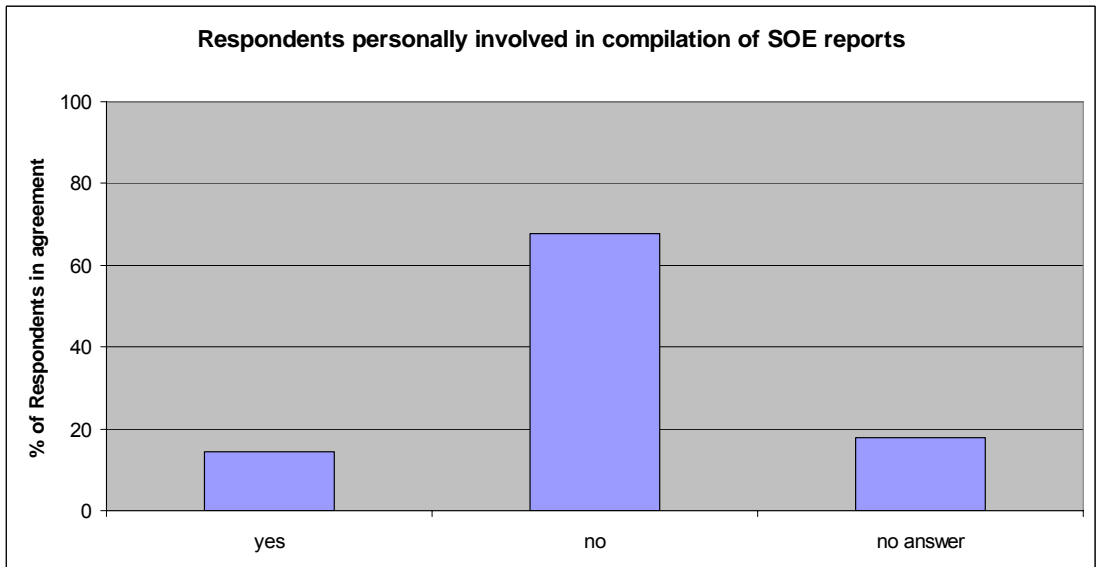


Figure 23. The percentage of the respondents that were personally involved in the compilation of the National SOE report.

Almost 70% of the total respondents were not personally involved in national SOE reporting (Figure 23). This correlates with the almost 70% of total respondents that indicated that they were not sure whether the SOE compilation process involved the public adequately (Figure 24). Less than 10% of the total respondents estimated that involvement was sufficient.

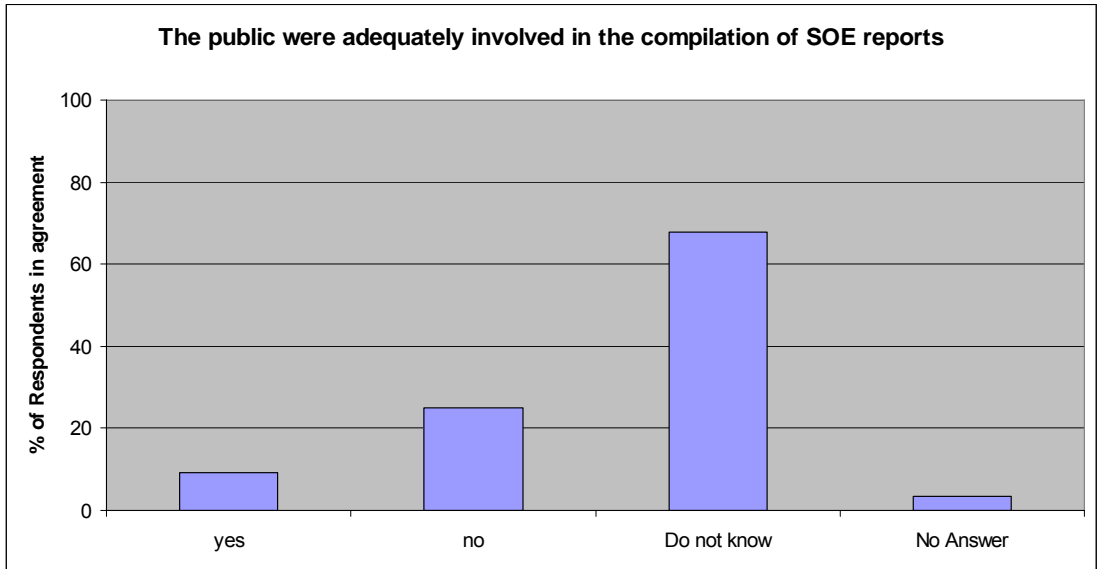


Figure 24. Graph indicating whether the respondents to the questionnaire think that the public were adequately involved in the compilation of the National SOE report.

There was no overwhelming response as to how involvement of the public in SOE reporting could be enhanced. Individuals mentioned workshops, questionnaires and involving NGOs and CBOs.

Involvement in compilation

Less than 20% of the respondents indicated that they were involved in the compilation of SOE reports.

The majority of the respondents (almost 70%) do not know whether the public was adequately involved, while 25% indicated that the public was not adequately involved.

4 Conclusions

Although the sample group was very small, and theoretically not big enough to derive statistical results, significant trends were picked up. The policy-maker/decision-maker/government official group dominated the respondents. Since they are the main target group this could be expected. It is assumed that all those that received questionnaires also received the NSOE reports and products.

The Overview document (printed English), Web-based and CD-ROM were the most seen and used NSOE products. Between 40 and 65% of the more than 60% respondents that have seen them, have used them. All user groups (50% and more of the respondents) have used their versions of the NSOER. Most of the respondents refer to their version on a monthly basis. The response to the Provincial and City SOE reports was fair to good (35 – 60% of respondents) except for the Midrand and Pretoria reports (below 20%). Between 30 and 55% of respondents use these reports. Availability could have played a role in some of the response rates: web-based only and lack of sufficient communication/dissemination. No information on the availability and use of the printed overview versions in other languages are available.

The response to the State-of-Rivers and National Environmental Indicators reports were good. Of all the respondents, between 45 and 67% have used the reports.

The most successful dissemination methods include DEAT officials and the DEAT website.

The layout and style of the CD-ROM and Web-based version are fairly easy to follow, although a higher rating would be more satisfactory. Only half of the respondents are satisfied that terms are adequately explained. The Overview document (English printed version) received lower ratings than the CD-ROM and Web-based version in terms of layout, style and explanation of term. This is a concern.

The policy maker/decision-maker/government official group indicated a balanced spread of themes and chapters being useful in their work environment. The lecturer group focuses on human environment and water, agriculture and mining. Indicators and issues; climate change; and Freshwater, sustainability and the political environment dominated the Researchers' response.

The content of the Web-based version, CD-ROM and Overview document (printed English version) are relevant, objective and accurate: 60% and more of the respondents were in agreement. The sufficiency and currency of the NSOE products need attention.

Social, followed by Biophysical and Economical issues should be addressed more in NSOE reports, indicated by 44%, 32% and 32% of the respondents, respectively. Institutional issues were indicated by 24% of the respondents. The linkages between the issues should also be addressed. Food security, environmental well-being, poverty alleviation, Environmental education and literacy and scenarios/environmental outlooks stood out as issues that should be addressed more.

The respondents indicated that they understand the DPSIR framework: almost 80% of the government officials and researchers. Although less respondents indicated that the DPSIR framework is appropriate for SOE reporting, almost 70% of the government officials indicated that it is appropriate.

About 50% of the respondents indicated that indicators provide adequate information. Almost 70% of the respondents find the indicators useful to track trends over time.

The majority of respondents indicated that the NSOER in its current state enables informed decision-making relating to the natural environment. SOE reports impact positively on the respondents' decision-making ability.

Less than 20% of the respondents indicated that they were involved in the compilation of SOE reports. The majority of the respondents (almost 70%) do not know whether the public was adequately involved, while 25% indicated that the public was not adequately involved.

5 Recommendations related to impact evaluation

An impact evaluation of NSOE reports/products should be done within one year of the release of such a suite of products.

A questionnaire could accompany all reports that are distributed and a follow up questionnaire within a year. This is not only applicable to the NSOER, but also the provincial, city and sector-specific reports.

Questionnaires or a link to an easy accessible web based questionnaire could accompany hard copies of the reports/products.

The evaluation should be done on an ongoing basis – software e.g. excel spreadsheet that automatically update graphics as new data are added.

Responses to questionnaires should be analysed – to monitor or evaluate whether there has been improvement or an increase in the use. Thus, for the next round the same respondents should be sent questionnaires and the sample expanded to include others too!

More questions around the dissemination and availability of the reports should be asked in the questionnaire.

The results from this study could be tested against non-respondents to ensure that the no-response does not have significant meaning.

The web-based, CD-Rom and Printed overview English version were the most used of all the NSOE reports and should be updated during the 2004/05 NSOE reporting.

Dissemination strategy should be updated to ensure that the target audience are reached.

6 References

Blaxter, L, Hughes, C and Tight, M (1996): *How to Research*, Open University Press, U.S.A.

Bless, C and Higson-Smith, C (1995): *Fundamentals of Social Research Methods: An African perspective*, Juta, Cape Town.

Christoffersen et al. (2000): *Impact of Information on Decision-making Processes*, Issues Paper, GRID-Arendal.

Denisov, N. and Christoffersen, L. (2000): *Impact of Environmental Information on Decision-making Processes and the Environment*, Occasional paper 01 2001, UNEP/GRID-Arendal.

APPENDIX I

CRITERIA FOR ASSESSING THE IMPACT OF SOE REPORTING

How do we measure the success of an SoE report?

- Has there been a change in attitudes, behaviour and/or policy

Content

- Is it relevant? Who is it relevant to?
- Does the content answer questions e.g. relating to policy?
- Is the content linked to socio-economic issues or daily life?
- Is it linked to the priorities and targets of governments, policy makers?
- Has the best available data been used? Has this data been analysed in a meaningful way? Have indicators been used?
- Where was the data obtained? From government sources?
- Have the viewpoints of different interest groups been taken into account?

Approach

- Which approach has been used? e.g. DPSIR, thematic, ecosystems
- Which approach works the best?
- In what context does a certain approach work and in what context does it not work?

Access

- Is it available to the public?
- Have copies been distributed to key groups?
- Are different versions (e.g. different languages, presentation format, media) available for different audiences?

Usability/Presentation

- Have different products been produced for different audiences i.e. researchers, policy makers, workers?
- Are the key indicators presented in a clear, understandable format?
- Which format works best for different people?

Policy options

- Is the mandate for implementing environmental policy adequate?
- Is there enough funding to carry out the mandate?
- Are there any conflicts between environmental policy recommendations and other policies?

Feedback

- Have participatory methods been used?
- Has feedback been received from different groups and has this feedback been taken into account?
- Have a wide range of perceptions and viewpoints been taken into consideration?
- Have questionnaires been sent out?

Periodicity

- Was the timing of the production and publishing/release of the report in line with the planning cycle of the government of the country?

APPENDIX II

GENERIC QUESTIONNAIRE FORMAT USED FOR THE SOE STUDY

Questionnaire no: (for office use only)

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Questionnaire to evaluate the impact of the National State of Environment Report and to establish the accessibility and usefulness of the City State of Environment, Provincial State of Environment, State of Rivers and state of estuaries reports

1. Which of the following have you seen and read/used? (Please tick the appropriate block/s)

	Seen	Read	Used
National SoE Report			
Web-based version			
CD-ROM			
Printed overview document in English			
Printed overview document in another language (Please specify language)			
Booklet for schools			
Poster			
Brochures			
Video			
Press reports			
Provincial SOE Reports			
North West			
Mpumalanga			
City SoE Reports			
Cape Town			
Durban			
Johannesburg			
Midrand			
Pretoria			
A State of Rivers Report			
The State of Estuaries Report			
National Environmental Indicators Report			

Please note that the remaining questions apply only to the National State of Environment Report

2. How did you first obtain a copy of the report? (Please indicate by ticking the appropriate block/s)

Requested a copy from DEAT through their website	
Was handed out by a DEAT official	
From a government information centre	
From a public library	
From a university library	

Was handed out by my superior	
Through Share-Net	
Through the School Environmental Policy Pack	
Other (please specify):	

3. How often do you refer to the following? (Please tick appropriate block/s)

	Never referred to	Daily	Weekly	Monthly	Annually
National SoE Report					
Web-based version					
CD-ROM					
Printed overview document					
Booklet for schools					
Poster					

4. What three themes or chapters of the report are most useful for application in your work environment?

- (i) _____
- (ii) _____
- (iii) _____

5. Please assign values to the blocks provided in Table A and Table B according to the following scale: (Please only answer for those versions of the Report that you are familiar with)

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
2	1	0	-1	-2

Table A: Layout and presentation

	Layout is easy to follow	Style of writing is easy to follow	Terms used are adequately explained
National SoE Report			
Web-based version			
CD-ROM			
Printed overview document			
Booklet for schools			
Poster			
Brochures			

6. What, if any, suggestions do you have to improve the layout and presentation? (Please be specific)

Table B: Content

	Information is relevant for your application	Information is sufficient for your application	Information and analysis is objective	Information is accurate	Information is current (up to date)
National SoE Report					
Web-based version					
CD-ROM					
Printed overview document					
Booklet for schools					
Poster					
Brochures					

7. What, if any, suggestions do you have to improve the content?

8. Are the linkages and interactions between the social, institutional, economic and biophysical issues adequately addressed? Yes No

9. Tick which of the following issues need to be further emphasised in the report:

Social	
Institutional	
Economic	
Biophysical	

10. Which of the following issues would you like to see addressed more in future reports: (Please tick appropriate block/s)

Issues to be addressed	√
Food security	
Genetically modified organisms	
Poverty alleviation	
Rural development	
Unemployment	
Job creation	
Environmental health	
Environmental education and literacy	
Environmental justice	
Gender issues	
Environmental well-being	
Scenarios / environmental outlooks	
Other (please specify):	

11. Please examine the following statements and indicate your opinion by ticking the appropriate blocks:

	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
I understand DPSIR framework					
DPSIR framework is appropriate for this type of reporting					
Indicators presented are easy to understand					
Indicators provide adequate information					
Indicators are useful to track trends over time					
The report (in its current state) enables me to make better informed decisions concerning issues relating to the natural environment					

12. Has the report impacted positively on your decision-making ability?
 Yes No

13. Were you personally involved in the compilation of the report?
 Yes No

14. If yes, please indicate your involvement according to the following (tick appropriate block/s):

Involved in planning stage	
Involved in providing information	
Involved in stakeholder workshops	
Other (specify):	

15. Do you think that the public were adequately involved in the compilation of the National Report?
 Yes No Don't know

16. If no, how could the participation of the public be enhanced in the compilation of future reports?

Personal Details:

Name: _____

Organisation: _____

Area of specialisation: _____

Type of organisation: _____

What is your mother tongue? _____

How long have you been working in your current field? _____

Please tick the appropriate block regarding your occupation:

Occupation	√
------------	---

Occupation	√
Policy maker / decision maker / government official	
Work for an NGO	
Work for the private sector	
School teacher	
Lecturer at a tertiary institution	
Researcher	
Environmental consultant	
Other (please specify):	

Any other comments that you would like to make about the National State of Environment Report:

APPENDIX III

STAKEHOLDER LIST

SoE IMPACT STUDY: STAKEHOLDER LIST 1						
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	and Protection)					
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Evaluation of the Impact of the 1999 National SOE Report: Appendix III

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Evaluation of the Impact of the 1999 National SOE Report: Appendix III

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APPENDIX IV

COMPARING THE FIRST BATCH OF RESPONCES WITH THE SECOND

Since a poor response rate from the initial distribution of questionnaires made it necessary to distribute additional ones, responses were at first analysed separately to ensure that there are no significant differences between the two batches. Figures 25 and 26, compare these two batches: the percentage of respondents that have not seen, seen read and used the relevant NSOE products. There was no significant difference between these two batches of respondents.

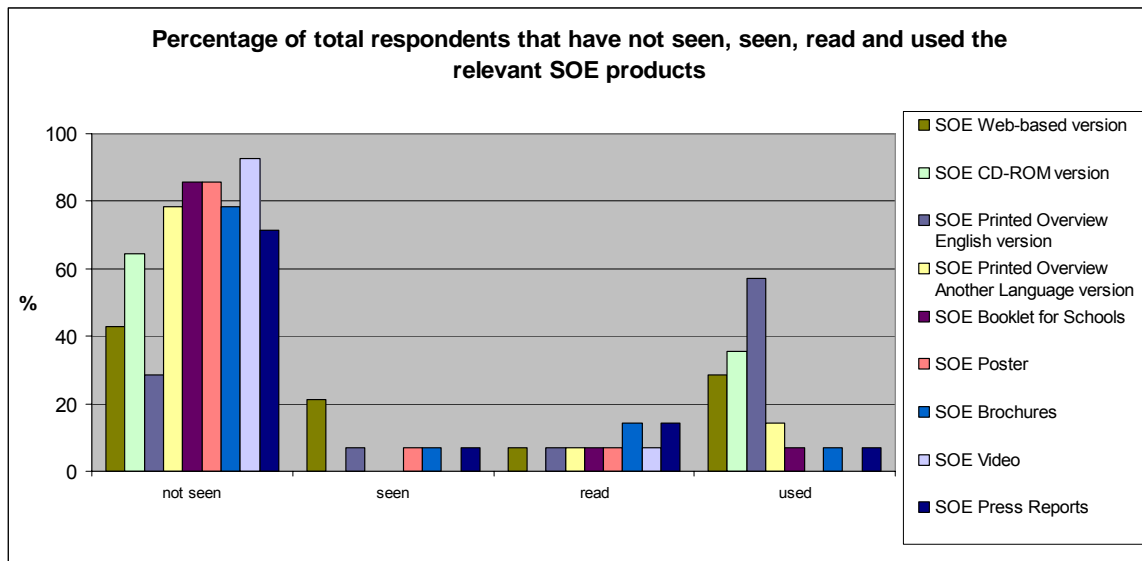


Figure 25. First batch of respondents indicating whether they have not seen, seen, read or used the SOE products.

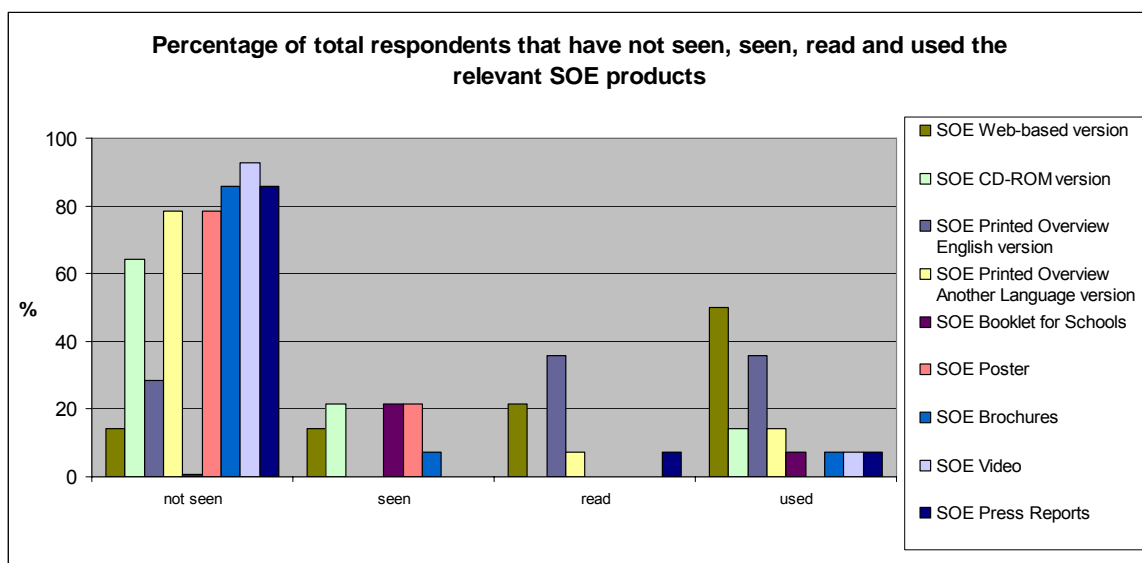


Figure 26. Second batch of respondents indicating whether they have not seen, seen, read or used the SOE products.

APPENDIX V

THE USEFULNESS OF ALL THE NSOE PRODUCTS

