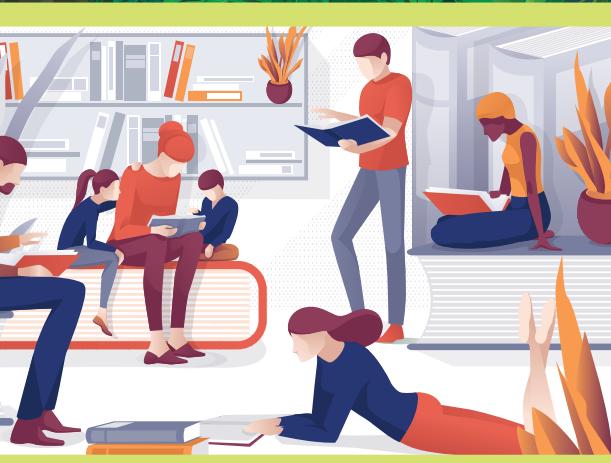


Guidelines for Conducting Integrated Environmental Assessments



GUIDELINES FOR CONDUCTING INTEGRATED ENVIRONMENTAL ASSESSMENTS

Foreword

UN Environment is pleased to provide new Guidelines for Conducting Integrated Environmental Assessments. With the leadership of the Assessment Methodologies, Data and Information Group under the Global Environment Outlook, the participation of several of its members in the drafting and review process as well as a core group of authors, these Guidelines are now available for application by Integrated Environmental Assessment Practitioners and for consultation by the Integrated Environmental Assessment user community.

This document is the result of UN Environment Member State requests in both Governing Council and the UN Environment Assembly and is meant to provide guidance for a wide range of different types of Integrated Environmental Assessments. These can range from global to regional to rapid response assessments and emerging issues assessments. The Guidelines should be considered a 'living document' since they will be used and improved throughout on-going assessment processes.

We hope that Practitioners and Users alike will find the Guidelines informative and user friendly. We look forward to your thoughts and suggestions for improving them.

Pierre Boileau

Head, Global Environment Outlook programme

April 2019

Acknowledgements

Overall coordination: Pierre Boileau (Head of Global Environment Outlook Unit, UN Environment)

Project management: Elaine Baker (GRID-Arendal at the University of Sydney) and Yannick Beaudoin (GRID-Arendal)

Core group of contributors:

Elaine Baker (GRID-Arendal at the University of Sydney), Yannick Beaudoin (GRID-Arendal), Pierre Boileau (UN Environment), Hilconida P. Calumpong (Silliman University), Arthur Dahl (International Environment Forum), Francesco Gaetani (UN Environment), Andres Guhl (Universidad de los Andes), Jennifer Hamilton (University of Sydney), Peter Harris (GRID-Arendal), Clever Mafuta (GRID-Arendal), Franklin Odhiambo (UN Environment), Ojijo Odhiambo (UNDP), Kimberly A. Puglise (NOAA, National Centers for Coastal Ocean Science), Luis Rodriguez (CSIRO), Tina Schoolmeester (GRID-Arendal), Alan Simcock (Joint Coordinator, Group of Experts of the Regular Process, World Ocean Assessment I), Simone Targetti Ferri (UN Environment), Eddah Kaguthi (UN Environment)

Substantive input and review: Global Environment Outlook Assessment Methodologies, Data and Information Working Group (AMDG):

Prof. Graciela Metternicht, Mr. Wabi Marcos, Dr. Ousséni Arouna, Dr. Sandra De Carlo (co-chair), Prof. Fei Wang, Dr. Liu Chuang, Dr. Ahmed Abdelrehim, Dr. Christian Flachsland, Prof. Reza Maknoon, Mr. Domenico Gaudioso, Mrs. Francesca De Crescenzo, Prof. Adama Mariko, Dr. Arturo Flores Martinez, Ms. Qurat ul Ain Ahmad, Prof. Rosario Gómez, Mrs. Maria Andrzejewska, Mr. Nicolas Perritaz (co-chair), Dr. Mathis Wackernagel, Mr. Marra Dourma, Ms. Nataliia Husieva, Mr. William Sonntag, Dr. Gary Foley, Mr. James Donovan, Mr. Thuy Nguyen Van, Ms. Blanca Ruiz Franco.

Graphic Design: Kristina Thygesen (GRID-Arendal).

Additional assistance : Tomas Marques (UN Environment)

Table of Contents

1 BACKGROUND AND INTRODUCTION	9
1.1 TYPES OF ENVIRONMENTAL ASSESSMENTS	12
1.2 INTEGRATED ENVIRONMENTAL ASSESSMENTS AND THE 2030 AGENDA FOR SUSTAINABLE DEVELOPMENT.....	13
2 INTEGRATED ENVIRONMENTAL ASSESSMENT PLANNING	14
2.1 ESTABLISHING THE MANDATE AND DETERMINING THE INTENDED AUDIENCE	14
2.1.1 Defining the theory of change for your assessment.....	17
2.2 PLANNING FOR SOCIAL AND GENDER ANALYSIS	18
2.3 ENSURING THE INDEPENDENCE OF THE ASSESSMENT	19
2.4 IMPACT AND COMMUNICATIONS STRATEGY.....	20
2.4.1 Communication and Outreach Strategy	20
2.4.2 Targeting transformative impact.....	21
2.4.3 Understanding the target audience.....	23
2.4.4 Wording and messaging	23
2.4.5 Building an impact strategy.....	24
2.5 DEFINING THE SCOPE AND SCALE OF AN ASSESSMENT	27
3 CHOICE OF INTEGRATED ENVIRONMENTAL ASSESSMENT METHOD, PROCESS DESIGN AND ORGANISATION	29
3.1.1 Choice of method based on mandate.....	31
3.1.2 Choice of method based on timeframe for the Integrated Environmental Assessment.....	32
3.1.3 Choice of method based on type of information available	34
3.2 ORGANIZING THE INTEGRATED ENVIRONMENT ASSESSMENT.....	36
3.2.1 Oversight of assessment process – expert advice	36
3.2.2 Stakeholder consultation and participation.....	38
3.2.3 Integrated Environmental Assessment Structure and Functional Needs .	40
3.2.4 Creating a Community of Practice	42
3.3 SELECTING PRACTITIONERS.....	42
3.4 FUNDING AND TIMING OF THE INTEGRATED ENVIRONMENTAL ASSESSMENT	43
3.5 EXTERNAL REVIEW OF THE INTEGRATED ENVIRONMENTAL ASSESSMENT	44
4 INTEGRATED ANALYSIS OF ENVIRONMENTAL TRENDS AND POLICY RESPONSES	47
4.1 INTRODUCTION.....	47
4.2 DPSIR FRAMEWORK DEFINITION	47
4.2.1 Drivers.....	49
4.2.2 Pressures.....	49
4.2.3 State.....	49
4.2.4 Impacts.....	50
4.2.5 Responses	51
4.3 THE DPSIR AS A FRAMEWORK FOR POLICY AND DECISION MAKING.....	51
5 ASSESSMENT OF POLICY EFFECTIVENESS.....	52
5.1 DETERMINING THE NEED AND SCOPE OF THE ASSESSMENT	54
5.1.1 A Question of Scale.....	54
5.1.2 Global scale policy effectiveness assessment.....	54
5.1.3 Regional and National scale policy effectiveness assessment	55
5.1.4 Thematic scale policy effectiveness assessment	55

5.1.5	The framework for policy assessment: Determining performance indicators and monitoring methodology	56
5.2	CONSIDERATIONS WHEN CONDUCTING POLICY EFFECTIVENESS ASSESSMENT.....	56
5.2.1	Developing overall conclusions	57
5.3	METHODS FOR ASSESSING POLICY EFFECTIVENESS	57
5.3.1	The 3Es – Expenditure, Efficiency, and Effectiveness	57
5.3.2	Other methods	59
5.3.3	Cost benefit/ cost effectiveness Analysis.....	59
5.3.4	Input/output analysis.....	60
5.3.5	Range of policies that could be assessed	60
5.3.6	Monitoring and evaluation of policy effectiveness	60
5.3.7	Multi criteria approaches	61
5.4	POLICY IMPACTS – HOW TO ASSESS POSITIVES AND NEGATIVES	61
5.5	SCIENCE POLICY	62
6	METHODS FOR CONDUCTING AN ASSESSMENT	64
6.1	METHODS FOR APPLYING THE DPSIR FRAMEWORK	64
6.1.1	Assessment goal setting as the core of the DPSIR framework.....	64
6.2	DRIVERS AND PRESSURES.....	65
6.3	METHODOLOGIES FOR DETERMINING THE STATE OF THE ENVIRONMENT.....	66
6.3.1	Indicator based, data driven assessments.....	66
6.3.2	Use of confidence statements and ratings.....	68
6.3.3	Desktop assessments	71
6.3.4	Assessments based on expert elicitation (See Annex 3 box A3.2)	71
6.3.5	Indigenous, local and traditional knowledge supporting expert elicitation	
	73	
6.4	HOW TO ASSESS IMPACTS	73
6.4.1	Measuring impacts on ecosystem services and human well being.....	74
6.4.2	How to assess Responses	75
6.5	USE OF INDICATORS.....	75
6.5.1	Proxy Indicators	79
6.6	INNOVATIVE FRAMEWORKS, PROCESSES AND TOOLS.....	79
6.6.1	Innovation in assessment framework design	80
6.6.2	Social spaces for effective synthesizing of assessment content	81
6.6.3	Using Global Information Systems for reporting.....	83
6.6.4	Data Management.....	83
6.7	UNCERTAINTY, RISK, BALANCE AND ETHICS IS PREPARING INTEGRATED ENVIRONMENTAL ASSESSMENT'S.....	85
6.7.1	Practitioners act as independent experts.....	85
6.7.2	Information used in assessments must be accessible to users.....	85
6.7.3	Strive for a balanced view	86
6.7.4	Characterizing and communicating uncertainty	86
6.7.5	Characterizing and communicating risk	86
6.7.6	Handling the full range of views	87
6.7.7	Ethics in authoring and evaluating material for Integrated Environmental Assessments	87
7	COMPILING AN ENVIRONMENTAL OUTLOOK	88
7.1	PURPOSE OF THE OUTLOOK	88
7.2	IDENTIFICATION AND DOCUMENTATION OF MEGATRENDS.....	89
7.3	CONSIDERING EMERGING ENVIRONMENTAL ISSUES IN OUTLOOKS	90

7.4	ESTABLISHING THE OUTLOOK	90
7.4.1	Scenario development	92
7.4.2	Consideration of Barriers and Enablers to Progress	93
7.4.3	Assessment of existing scenarios	93
7.5	INTERPRETATION AND PRESENTATION OF FINDINGS	94
7.6	RISK ANALYSIS AND SURPRISES	94
7.7	UNCERTAINTY ANALYSIS.....	95
7.8	DATA, KNOWLEDGE AND CAPACITY GAP ANALYSIS	96
7.8.1	Data collection	96
7.8.2	Social Analysis.....	96
7.8.3	Gender analysis	96
7.8.4	Data Gap Analysis	97
8	DEVELOPING SUMMARIES FOR AN ASSESSMENT REPORT	98
8.1	WHAT IS A SUMMARY FOR POLICY MAKERS?	98
8.1.1	Steps to developing a Summary for Policy Makers.....	99
9	EVALUATING THE ASSESSMENT	101
9.1	IMPORTANCE OF EVALUATION	101
9.2	INDEPENDENCE OF EVALUATION	102
9.3	POSSIBLE FORMS OF EVALUATION.....	102
9.4	TERMS OF REFERENCE FOR EVALUATION.....	104
9.5	RESOURCES FOR EVALUATIONS.....	106
9.6	FINALIZING THE EVALUATION.....	107
9.7	COMMUNICATION.....	107
9.7.1	Innovative assessment processes that enable change	108
ANNEX 1: APPLYING THE DPSIR FRAMEWORK	110	
ANNEX 2: CONCRETE EXAMPLES AND CASE STUDIES.....	117	
ANNEX 3: EXAMPLES OF METHODS FOR EXPERT ELICITATION.....	118	
ANNEX 4: APPLYING THE GUIDELINES TO SPECIFIC TYPES OF ASSESSMENTS	125	
RAPID RESPONSE ASSESSMENTS ASSESSMENT OF EMERGING OR FRONTIER ENVIRONMENTAL ISSUES IN A TIME SENSITIVE MANNER	125	
APPLYING THE GUIDELINES TO A GLOBAL ENVIRONMENT OUTLOOK TYPE ASSESSMENTS	127	
ANNEX 5: SOURCES OF LOW CONFIDENCE.....	145	
ANNEX 6: ADDITIONAL RESOURCES	146	
REFERENCES.....	147	
ACRONYMS AND ABBREVIATIONS.....	153	
ADDITIONAL GLOSSARY.....	154	

Glossary

Some key terms used in the text below are defined here. The remaining sections of the glossary can be found here [link to glossary at the back of the document]

Advisory Bodies – Groups of individuals with particular expertise or responsibility in areas of interest in the Integrated Environmental Assessment. These groups may have policy, technical or scientific expertise and will guide the Secretariat and Practitioners on key questions and decision points during the Integrated Environmental Assessment process.

Assessment Findings – These can include: facts, data and information that establish the state of the environment; options for action that address the identified environmental challenges; pathways which might be chosen to achieve particular environmental objectives in the future.

Commissioning Entity – The body that establishes the mandate for the Integrated Environmental Assessment. This typically includes the definition of the timeline for the Integrated Environmental Assessment and the provision of funding to carry out the assessment.

Data: Consists of facts, numerical observations and statistics that describe some aspect of the environment and society, such as water quality and demographics (Abdel-Kader 1997). A basic component of indicator data needs to be processed so that it can be used to interpret changes in the state of the environment, the economy or the social aspects of society (Segnestam 2002).

Environmental Assessment - The entire process of undertaking an objective evaluation and analysis of information designed to support environmental decision making. It applies the judgment of experts to existing knowledge to provide scientifically credible answers to policy –relevant questions, quantifying where possible the level of confidence. It reduces complexity but adds value by summarizing, synthesizing and building scenarios, and identifies consensus by sorting out what is known and widely accepted from what is not known or not agreed. It sensitizes the scientific community to policy needs and the policy community to the scientific basis for action. (UNEP 2010)

Grey Literature – According to the Scientific Advisory Panel of the sixth Global Environment Outlook report, these are documents that have not gone through peer review for publication. They are also products which are created and distributed in order to disseminate knowledge (ideas, facts, opinions) rather than to sell for a profit, and are thus not distributed by commercial publishing organizations.

预览已结束，完整报告链接和二维码如下：

https://www.yunbaogao.cn/report/index/report?reportId=5_9977

