



Bundesministerium
für Umwelt, Naturschutz,
Bau und Reaktorsicherheit

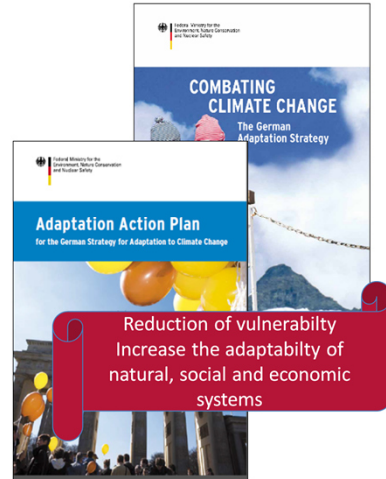
Impacts of Climate Change in Germany

First Monitoring Report of the German Strategy for Adaptation to Climate Change (DAS)

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Adaptation to Climate Change in Germany

- **German Adaptation Strategy**
adopted by Federal Cabinet
under the lead responsibility of
the Environment Ministry in
2008
- **Action Plan in 2011** adopted
by Federal Cabinet
- **Progress report** at the end of
2015





Elements of the Progress Report

Evaluation

Implementation APA I

Activities of the Federal States

Activities of other stakeholders

EU und international affairs

Action Plan II

New findings from climate research

Monitoring Report

Vulnerability Study

Monitoring Report



- ▶ „Curtain Raiser“ for a nationwide overview on key impacts and activities
- ▶ Based on existing data (description of pats and status quo)
- ▶ Establishment of impact and response indicators for all spheres of activity (nation-wide; harmonised)
- ▶ Design of a documentation system and organisational structure suitable for regular updates of the report

Monitoring Report

The Indicator has to be closely
associated with climate change

Impact
Indicators

Response
Indicators

total

Building sector

6

3

9

Water r

tion

Availability of data

2

3

5

Soil

10

3

13

Biological diversity

2

3

5

Agriculture

Reasonable costs

3

2

5

Woodland and forestry

6

6

11

Fishery

6

6

13

Energy industry (conversion, transport and supply)

-

-

2

Financial services industry

4

4

8

Transport, transport infrastructure

Nationwide data

4

4

4

Trade and industry

2

2

2

Tourism industry

All action fields and
cross/sectional themes to be
covered

Spatial, regional and physical
development planning

Civil protection

1

4

5

total

Overarching indicator

1

4

5

No replacement of sectoral or
theme specific reporting systems

Indicator Factsheet

Information on the institution who hold the data

Verf.	
Mitw.	
Letz.	
Aktu.	
Nächste Fortschreibung:	

I Beschreibung

Interne Nr.	Titel:
Einheit:	Kurzbeschreibung des Indikators:
	Berechnungsvorschrift:
Interpretation des Indikatorwerts:	

II Einordnung

Handlungsfeld:	
Indikationsfeld:	
Thematischer Teilaspekt:	
DPSIR:	

III Herleitung und Begründung

- Referenzen auf andere Indikatoren-systeme:
- Begründung:
- Schwächen:
- Rechtsgrundlagen, Strategien:
- Ziele:
- Berichtspflichtigen:

IV Technische Informationen

Datenquelle:	
Räumliche Auflösung:	
Geographische Abdeckung:	
Zeitliche Auflösung:	
Beschränkungen:	
Verweis auf Daten-Factsheet:	

Verfügbare Informationen:	
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VI Umsetzung – Aufwand und Verantwortlichkeiten

Aufwands- schätzung:	Datenbe- schaffung:	
	Daten- verarbeitung:	
	Erläuterung:	
Datenkosten:		
Zuständigkeit:	Erläuterung:	

VII Darstellungsvorschlag

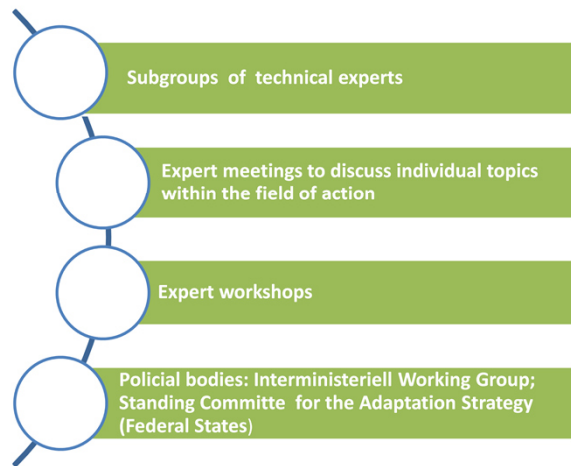
Information on the indicator short description, unit, calculation, data interpretation

Technical Documentation

Work Phases

- ▶ A systematic approach to narrowing down the 'Adaptation' Theme
- ▶ Prioritizing the themes to be covered
- ▶ Drafting indicator ideas and und specifying the indicators
- ▶ Political agreement of the DAS Indicators
- ▶ Preparing the Monitoring Report
- ▶ Political agreement of the Monitoring Report

Participation



The Indicator System underlying the Monitoring Report was created and agreed politically in an interdepartmental process with the participation of numerous experts from the competent sectors of agencies at National and State level as well as from scientific and private institutions.

This process took nearly 6 years and involved more than 400 people.

This slide illustrates the basic work phases and the corresponding participation process but I will not bore by going into the details.

Work Phases

The DAS Indicator System and the Monitoring Report were produced in the course of the following work phases:

1. A systematic approach to narrowing down the 'Adaptation' Theme

The project started with structuring efforts intended to clarify what actually was to be indicated. The essential Impacts and Responses presently under discussion were collated and grouped step by step into 'sub-themes' and so-called 'Indication Fields' for all Action Fields and Cross-sectional Themes of the DAS. The input for this systematic classification came from the assessment of the DAS, the research of relevant literature and from discussions among experts. This work produced a well-structured general overview of 'indicanda' (objects to be indicated) considered suitable on principle within individual Action Fields.

2. Prioritising the (sub-)themes to be covered

In view of the wealth of indicanda, it proved necessary to incorporate a selection process within the structure. At the level of indication fields, this selection was based on criteria. The process included the identification of themes that were considered of particular importance for indication and reporting. Further research into the indicators and data sources already under discussion was then focused strictly on these indication fields.

In some DAS Action Fields and Cross-sectional Themes criteria-based prioritisation was carried out within mini-group sessions, in others it was determined by means of several bilateral talks with experts.

3. Drafting indicator ideas and und specifying the indicators

Ideas for indicators were then formulated by scrutinising potential data sources for the prioritised Indication Fields. The indicator ideas were documented extensively. On this basis, further discussions were held among experts in order to clarify the following points:

- ▶ whether the indicator ideas promise a high enough indication value with regard to the subject of climate change and adaptation;
- ▶ whether the use of extant data sources is realistic and which restrictions might have to be expected;
- ▶ how to fine-tune proposals further, also with regard to data sources available, down to the proposal of tangible technical indicators.

Indicator fact sheets were created with regard to those technical indicator proposals which were fine-tuned in discussions. The indicator fact sheets were then progressed in technical exchanges with the experts. They were also used as a basis for the final technical agreement of indicators.

4. Political agreement of the DAS Indicators

The DAS Indicators were agreed among government departments at Federal as well as Länder level. The inter-departmental agreements were negotiated via the IMA and the negotiations with the Länder was carried out via the AFK. This process extended over two phases: initially, the indicator sets for the individual Action Fields and Cross-sectional

Themes were agreed in four consecutive steps. It was of particular relevance for the agreement process to decide whether the most important themes and action areas were illustrated sufficiently within the relevant DAS Action Field and Cross-sectional Theme, whether the thematic priorities were clearly defined and also whether the indicators were politically relevant. The revised version of the entire set of indicators was finally submitted to the IMA.

The following documents were submitted for agreement:

- ▶ an introduction to the explanation of the objectives for the DAS Indicators, the documents submitted and the standard commenting procedure;
- ▶ the background papers for each Action Field as well as the indicator fact sheets for the indicators pertaining to the relevant Action Field and Cross-sectional Theme;
- ▶ a commentary sheet for each Action Field and Cross-sectional Theme.

In total, it took approx. 20 months to achieve political agreement on the DAS Indicators.

The comments contained in the commentary sheets received were compiled in one document each per DAS Action Field and Cross-sectional Theme and were responded to individually. Following this exchange of communications, revisions were carried out. As a result, ten indicators had to be deleted from the Indicator System and one additional indicator was incorporated. The revised Indicator System consisting of 103 indicators was submitted to the IMA for final approval. At this stage, the individual departments verified whether their comments had been implemented appropriately. The approved set ended up containing 102 indicators, because the indicator incorporated after the first approval phase was subsequently deleted.

5. Preparing the Monitoring Report

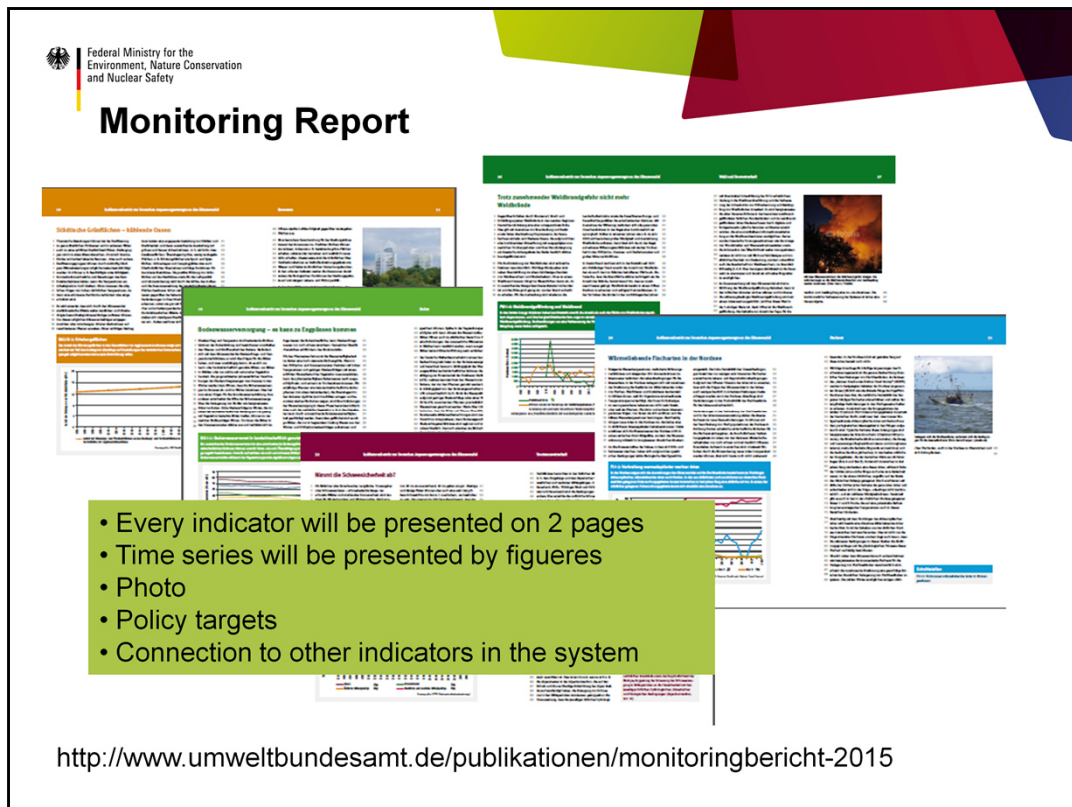
The Monitoring Report was prepared on the basis of the Indicator System in its technically and politically agreed form. Prior to writing the text, the final layout was determined in line with the requirements for the UBA's Corporate Design. The amount of text to accompany the illustration of the indicators was determined by the layout. The explanatory text for the indicators was formulated with a close focus on target groups by a team of just two individuals on behalf of the contractor. This team had the requisite background knowledge of how the indicators were developed. The resulting, virtually homogeneous text was then reviewed by technical experts and some minor amendments were made.

6. Political agreement of the Monitoring Report

The procedure for the political agreement of the Monitoring Report was basically the same as for the political agreement of the Indicator System. For the political agreement process, the Monitoring Report was submitted in its layout form. The individual Länder were not involved in this process. A significant number of Federal Ministries (BMBF, BMEL, BMF, BMFSFJ, BMG, BMI, BMUB, BMVI, BMVg, BMWi), some of which were represented at the highest department level, submitted text commentaries / agreements.

All the comments received were collated in a master file and responded to individually. Any amendments to the text were incorporated – sometimes in consultation with the commentators. Overall, the feedback on the Monitoring Report was very positive and constructive. Any amendments were essentially of a minor editorial nature. Major text

amendments were made only with regard to very few illustrations of indicators. From a technical point of view, this resulted in a further enhancement of the illustrations. The final outcome is the print-ready Monitoring Report published in April 2015.

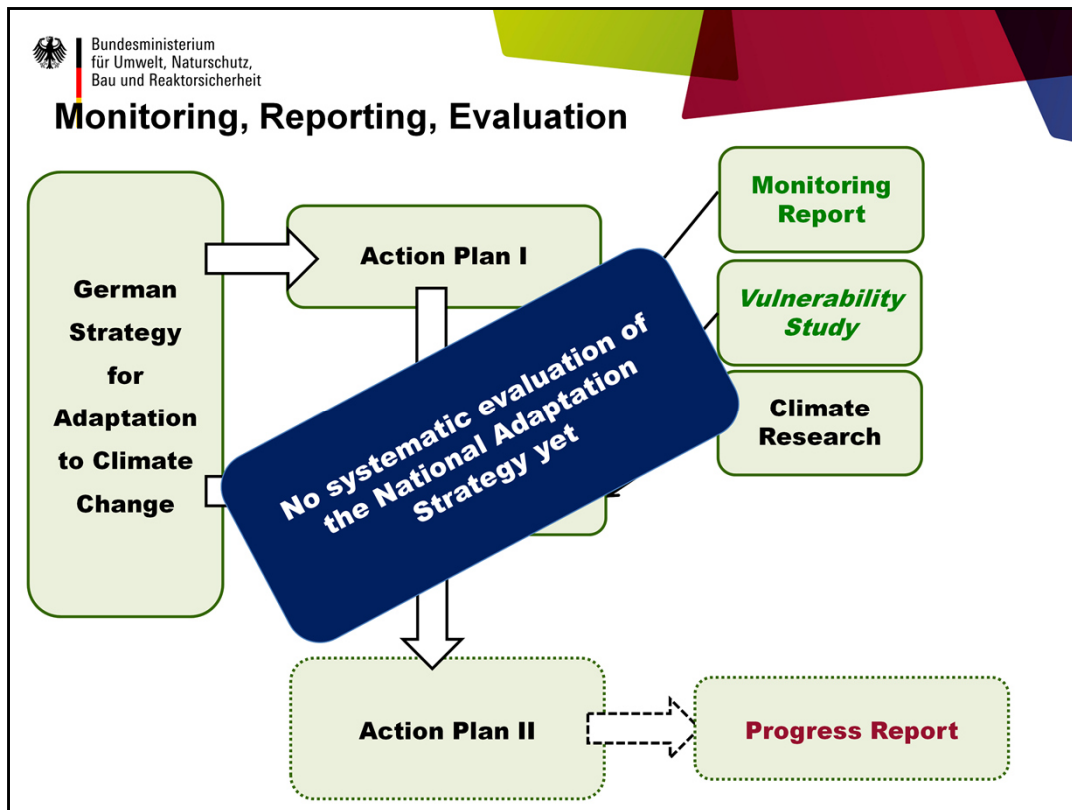


The Monitoring report is a report of the Inter-ministerial Working Group on Adaptation. It is addressed to political decision makers and the public. The challenge was to make it easy to read and understand but also to meet scientific standards regards technical content and factual differentiation.

The report runs up to 256 pages. It is divided into an introductory part explaining the report's objectives and the Indicator System as well as an illustration of climate trends in Germany (both average and extreme climate changes).

The main part of the report illustrates the impact and response indicators.

With this slide I would like to give you an impression how the indicators are presented in the report. Every indicator is presented on two pages. PHOTO/ The time series are illustrated by figures. We also give a hint on the relating policy targets and show the connection to other indicators of the system.



When it comes to monitoring, reporting and evaluating the adaptation policy this is what we do at present .

We monitor the impacts of climate change as well as the established adaptation processes within the different fields of activities at national level.

The monitoring report will be updated every 4 years.

We have a vulnerability study outlining future „hot spots“ of climate change but it is not yet decided what the format for future vulnerability studies will be. But I can say that we are determined to continue this activity on a permanent basis (the monitoring activities are shown in green)

Why we are doing it ? Simply to derive the needs for adaptation

The progress report is if you want to say a synthesis of an evaluation of what has been done and the consolidation of these experiences with new findings resulting in a new action plan.

Why we are doing this? Simply to determine future necessary and suitable actions.

We are not yet at a stage to systematically evaluate the whole process of the German Adaptation Strategy . At present we are discussing possible methods and approaches but I get the feeling there is