

Government Guide to Sustainability Impact Assessments

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Abstract : Purpose: *Global sustainability is becoming an increasingly important issue, as evidenced by the numerous conferences of the UN and its sister organizations with worldwide participation. The goal is a critical inventory of the desirable goals, as well as the questioning of the current status quo and the procedure. There are obvious gaps that will be briefly discussed.*

Design/methodology/approach: *This paper does not only deal with state sustainability, but shows the approach of this topic by the German state. Not only the basic assumptions and the goals are documented, but these are, as far as possible, checked for their realism or feasibility. Method comparison of the defined procedure by the German Federal Government with the goals set by the UN and the finding of possible deviations.*

Finding: *Research findings are shown within a brief summary to offer an opportunity for further analysis, discussions, or results. The sustainability test is an accepted possibility to measure effects on nature, based on indicators and values. The estimation of legal consequences must be borne in full by all decision makers. Ecology, Society, Technology and Economy have to go hand in hand and people have to be taught their current behavior regarding environment costs money.*

Research/practical implications: *results and implications for practice, applications and consequences are identified. Sustainability and its effects can be evaluated in the short, mid and long term run. All people worldwide are influenced by lived or just not lived sustainability massive in their lives. Avenues of future research should always include sustainability tests and estimations of legal consequences regarding the decisions done by politicians at this matter.*

Originality/value: *This paper deals with sustainability and the associated consequences in the area of legislation, as well as with the verification of the achievement of individual environmental goals*

Keywords: *Sustainability reviews, estimates of legal consequences*

JEL Codes: K32, Q01, Q48, Q58

Introduction – General Conditions and Objectives of the Guideline

With the adoption of the National Sustainability Strategy "Perspectives for Germany" in 2021 and the progress reports based on it, sustainability has been enshrined as a policy goal at the federal level. A number of federal states have also developed strategies that describe goals and measures for sustainable development.

Since the amendment to the Joint Rules of Procedure with effect from 1 June 2009, an assessment of the sustainability impact of draft laws and ordinances of the Federal Government is mandatory at federal level, the so-called Sustainability Impact Assessment (NHP). Within the framework of the impact assessment (GFA), it will be examined to what extent the idea of sustainable development is affected by the respective regulatory project. The aim is to systematically consider sustainability as a policy guiding principle in the legislative process, thereby giving sustainability importance at an early stage in the political process.

The aim of this guide is to develop a possible concrete, practice-oriented procedure for an NHP within the framework of the GFA. This procedure should enable an efficient and effective integration of the NHP into the GFA. The Federal German Guidelines are addressed to the editors of sustainability assessments in the administrations, as well as to the recipients of the results of these examinations in politics as well as to interested organizations, groups and persons at federal or state level. The guideline is based on the existing legal framework of the GFA at the federal level and the National Sustainability Strategy (Böhret, et al, 2001).

I. Sustainability Reviews as Part of Regulatory Impact Assessments

The GFA currently has five steps in its course:

1. Analysis of the control field
2. Target Description
3. Development of regulatory alternatives
4. Review and evaluation of regulatory alternatives
5. Documentation of results

These steps are to be understood as an ideal process of a GFA. The point of reference and benchmark for the evaluation of sustainability within the framework of a HFA integrated in the HFA is the National Sustainability Strategy. The elements of the strategy (mission statement, management rules, goals, indicators) are of different importance in the NHP analysis steps. As the National Sustainability Strategy is being developed on a regular basis, it is expected that the indicators and, if necessary, management rules will be further developed in the future. It has to be pointed out here that sustainability is based on the equilibrium triangle of economy, ecology and social issues and not just environmental protection (Federal Ministry for the Environment).

Figure 1: Sustainability Triangle



Source requested from:

https://computingforsustainability.files.wordpress.com/2010/10/valimaki_never_ending_triangle.jpg

Sustainability, defined by the UN, has a total of 17 fields, some of which are located in the social sphere, such as gender equality, poverty and inequality. In this paper, however, one refers only to the ecology.

II. Review and Evaluation of Regulatory Alternatives from a Sustainable Perspective

Goals should be formulated as clearly and measurably as possible. Aligning with the well-known SMART criteria can make sense and improve the target formulation. If "soft" goals are defined, they should be specified as far as possible. The National Sustainability Strategy formulates long-term, cross-policy goals and management rules as benchmarks for sustainable policy. They are at least partially relevant for almost every regulatory field. As a result of this step, key goal conflicts between the regulatory project and the sustainability strategy are identified, or else the fundamental compatibility of the regulatory project with sustainable development is established.

The core of the current HFA is the review and evaluation of regulatory alternatives. For the assessment of sustainability effects of the regulatory alternatives, a two-stage procedure can be carried out. First of all, the fundamental concern of the target or indicator areas of the sustainability strategy can be assessed in a preliminary examination, before the potential concern is substantiated in a main audit. The preliminary exam consists of three and the main exam consists of five steps. On the whole, the last three steps appear to be crucial: "Analyzing the causes of the actual state" and "Estimating the effects of the regulatory alternatives" or "Comparing the alternatives" (Umweltbundesamt, 2018).

III. The Sustainability Report of the German Federal Government

It has to be stated that although the German Federal Government compiles and publishes a Sustainability Strategy every year, it is ultimately kept completely general and superficial, using exclusively qualitative objectives without mentioning individual, neutrally measurable core factors. The author has these reports of recent years and they are mainly characterized by benevolent objectives, but de facto exclude a later verifiability of achievement of goals, since they are completely imprecise or unspecific. This includes phrases such as "We are committed to the 2030 Agenda ...", "Implementation concerns all policies", "Implementation requires common action", "No one should be left behind" and "Progress for sustainable development is possible".

Ultimately, the Sustainability Report is a typical result of politics, which in case of emergency does not specify individual values and wants to be reviewed. If you were malicious you would have to dismiss it as a Letter of Intent. In any case, it contradicts the 2nd point of the GFA (target setting) and the 5th (result check).

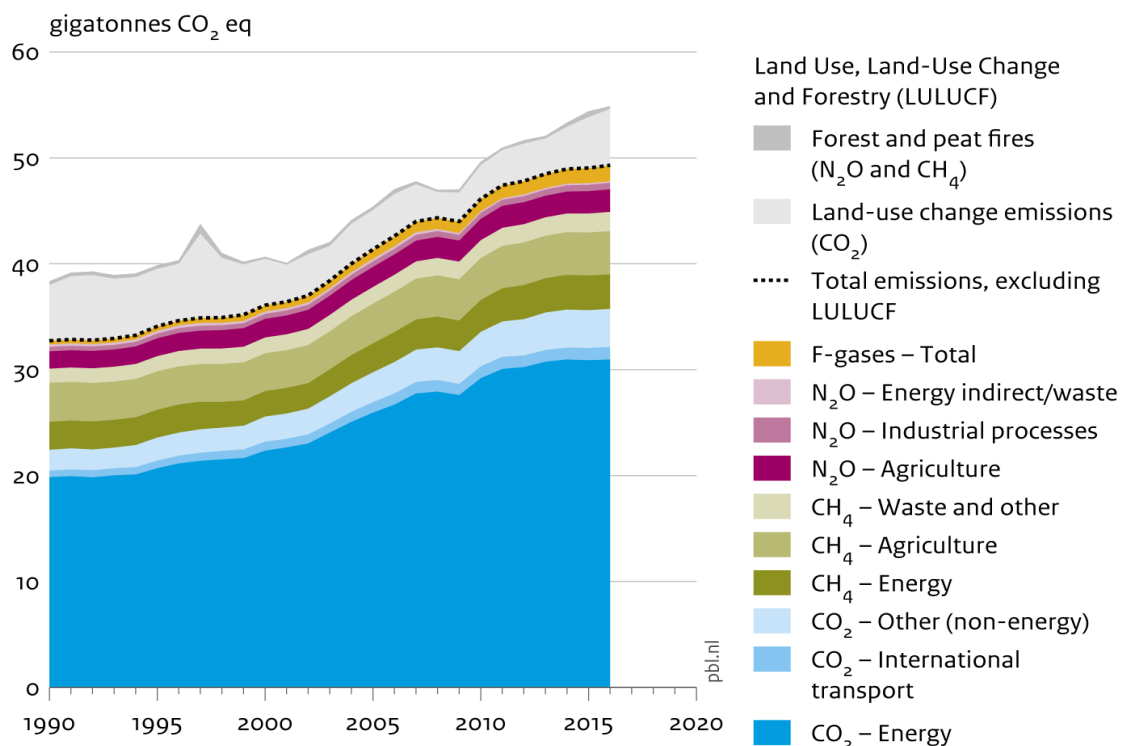
IV. Core Goals and Results

4.1 Selected Core Goals

There are practically no relevant core objectives set by the Federal Republic. On the Home Page of the Federal Ministry for the Environment, the last report listed is the Climate Action Program 2020, based on the Cabinet decision of 3 December 2014 (as of 18 October 2018). Relevant numbers are not really published. Instead, there are sweeping statements such as "feeling committed to the 2030 Agenda for the Paris Climate Change Agreement". In fact, the emission of climate-damaging emissions is the only area that is specifically named and over-testable. There are numerous data available and can be displayed precisely as the following graphic shows.

Figure 2: Global greenhouse gas emissions, per type of gas and source, including LULUCF. Infographic, 28-09-2017.

Global greenhouse gas emissions, per type of gas and source, including LULUCF



Source: EDGAR v4.3.2 (EC-JRC/PBL 2017); Houghton and Nassikas (2017); GFED 4.15 (2017)

Source requested from: PBL Netherlands Environmental Assessment Agency. <http://www.pbl.nl/en/infographic/global-greenhouse-gas-emissions-per-type-of-gas-and-source-including-lulucf>

Due to the above negative development, the Federal Government has issued the following targets for emissions (fields of action in the left column: energy industry, buildings, transport, industry, agriculture, subtotal, other and total):

Figure 3: Climate Protection Plan 2050: Emissions of the fields of action included in the target definition

Fields of Action	1990	2014	2030	
	in mil. to. CO ₂	in mil. to. CO ₂	in mil. to. CO ₂	Reduction in % compared to 1990
Energy Industry	466	358	175-183	62-61
Building	209	119	70-72	67-66
Transport	163	160	95-98	42-40
Industry	283	181	140-143	51-49
Agriculture	88	72	58-61	34-31
Subtotal	1209	890	538-557	56-54
Others	39	12	5	87
Total	1248	902	543-562	56-55

Values: in million tonnes of CO₂ equivalent

Source: self created after: Umweltbundesamt (2019).

<https://www.umweltbundesamt.de/daten/klima/klimaschutzziele-deutschlands>. Retrieved at 19.10.2018.

4.2 Achieved Results

In exceptional cases, stations report on missed destinations. The German Renewable Energy Association writes: "According to the EU Directive 2020, the share of renewable energies in total energy consumption should be 18 percent. However, Germany will only achieve a share of 16 percent, according to the Federal Association of Renewable Energies. The reason is above all the increasing consumption in heating systems and in traffic. If the trend continues, move the 18 percent target far and wide. Of the 28 EU Member States, only five countries miss the targets (Bundesverband Erneuerbare Energie (2017))".

Actually achieved results from the past are consistently not listed by the Federal Environmental Agency. The reasons can only be speculated, as the responsible politicians of all parties usually decorate themselves with positive results obtained to have a proof of their success. Since this is not the case, it can only be assumed that the development so far is not positive or can not be positively "sold" to the public and thus to the media and voters. Concretely achieved results, preferably in the area of emissions and climate, are therefore at least in the public, not findable. So this is a massive research gap. This fact confirms, at least indirectly, the following statements of the Federal Environment Agency:

"With the climate protection plan 2050 of November 2016, the German government has confirmed and further specified its ambitious national climate protection targets: Germany is sticking to its existing national target of reducing its greenhouse gas emissions by at least 40% by 2020. As early as December 2014, the Federal Government had passed the climate protection action program 2020 in order to close the foreseeable gap in target achievement with additional measures. The implementation of the Klimaschutz 2020 action program has been reviewed since 2015 in annual climate protection reports. According to the current projection report on the future development of greenhouse gas emissions, this goal will not be achieved by 2020 until now (Umweltbundesamt, 2018).

In the Climate Action Plan 2050, the Federal Government also confirmed the reduction targets of at least 55% by 2030 and of at least 70% by 2040. The Climate Protection Plan also anchors the mission statement of becoming largely greenhouse gas neutral by 2050. The Federal Government has also specified in the Climate Action Plan the climate target for 2030 for the sectors energy, industry, buildings, transport and agriculture, described the necessary development paths, agreed first implementation measures and a process for monitoring and further developing policies and measures (Umweltbundesamt 2018). "Here, however, the question arises why one does not achieve short-term goals, but at the same time believes that long-term goals can still be achieved. After all, the Federal Environment Agency calls but the source groups, so that it is clear to which causes you have to start (ohne Verfasser, Heise-Verlag (2017)).

4.3 Reasons for the actual Status Quo

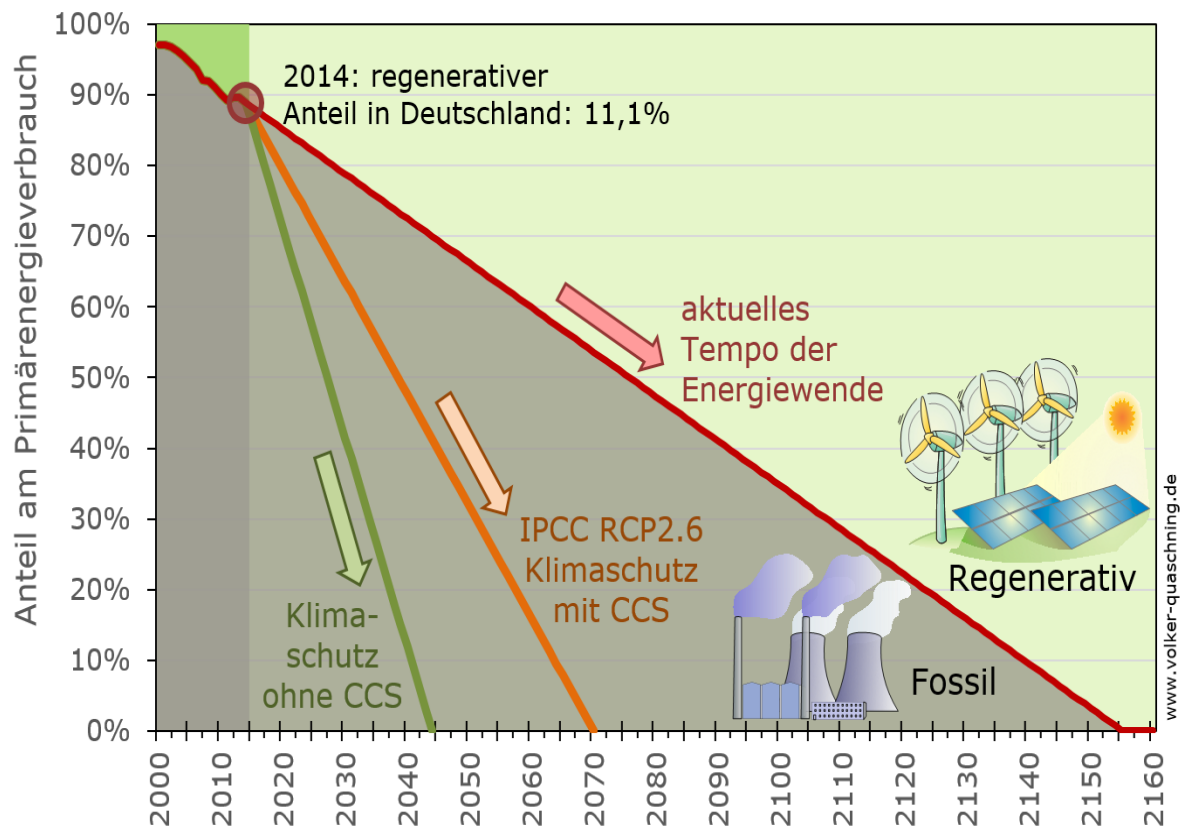
The current status quo on climate protection must also be determined, as there are no public statements on this. So this is a real research gap. The following causes or facts could form the basis: for whatever reason, no key figures were specified, but only qualitative values; the achieved values differed considerably from internal

plans; the reality is so negative / bad that politics does not dare to introduce it to the public; There is no realistic alternative (technical, economic, ecological, socio-political) that one could present. Even the goal of reducing CO2 emissions is presented only to a limited extent based on figures. The decarbonisation process (lower carbon turnover) is the central objective of the Climate Action Plan 2050 (Bundesministerium für Umwelt (BUMB), 2016). The following graphic shows the time problem with the 3 curves

1. Current pace (we continue to progress as before),
2. Climate change using CCS technology (carbon dioxide capture and storage) and
3. Achieving climate targets without CCS (if CCS is not used, other, even faster, technologies that do not release carbon at all, such as hydro, wind, and solar) must be used.

At the current pace of the energy transition, this will take 140 years in Germany. According to the IPCC scenario RCP2.6 (representative concentration pathways), the global energy transition must be completed in 2070, when carbon dioxide is to be extracted from the atmosphere with expensive CCS processes and then disposed of underground (Quaschnig, 2015). This makes it very clear that the current approach will not achieve the envisaged goal of the Paris Climate Change Agreement without massive additional efforts. A corresponding legislation in Germany, which makes the achievement likely, is currently missing. This finding comes after intensive examination of the existing publications of this paper.

Figure 4: Pathways to decarbonisation and climate protection in Germany



Source: https://www.volker-quaschnig.de/grafiken/2015-12_Dekarbonisierung-D/Dekarbonisierung-D_large.png

V. Conclusion

The German sustainability strategy is generally based on the balanced triangle of ecology, economy and social issues. At the core of the current HFA is the review and evaluation of regulatory alternatives. The Sustainability Report is a typical result of politics, which in an emergency does not specify individual values and wants to be reviewed. The Climate Action Plan 2050 will set clear numerical targets at least until 2030. Actually achieved results from the past are consistently not listed by the Federal Environmental Agency. The self-defined climate protection goals by 2020 will not be achieved. Since there is no public opinion on the current status quo of the climate protection goals, a real research gap has to be mentioned here. The process of possible decarbonization

reveals three different scenarios, but the development of the reduction at current pace must be rejected as too slow. The extent to which the faster sinking model curves are realistically achievable cannot currently be finally answered.

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List of Figures

Figure 1: Sustainability Triangle	36
Figure 2: Global greenhouse gas emissions, per type of gas and source, including LULUCF. Infographic, 28-09-2017.....	37
Figure 3: Climate Protection Plan 2050: Emissions of the fields of action included in the target definition	38
Figure 4: Pathways to decarbonisation and climate protection in Germany	39

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