

Summary

In November 2007, the German Federal Government approved a national strategy for biological diversity, which includes countless goals and measures for improving the public's awareness of biodiversity. The Federal Agency for Nature Conservation commissioned a research project to develop an indicator that provides information about achieving the goals. This report presents the indicator's objectives, construction, and assessments.

1. Indicator Objectives and Requirements

The most important requirements for the indicator stem directly from the national strategy. In Chapter B5 "Public Awareness," it states (BMU 2007: 60f.):

"Our Vision for the Future: Biological diversity will be viewed as more than simply a factor that improves the quality of life; it will be considered a prerequisite for a healthy and fulfilled life. It can be seen when people take personal responsibility for their actions.

Our Goals: By 2015, at least 75% of the population should consider sustaining biological diversity a priority. The significance of biological diversity should be firmly anchored in the public's awareness and people should align their actions accordingly, which will drastically reduce the depletion of biological diversity."

The most important indicator requirements and the general framework for its construction include:

- The indicator should present three dimensions of biological diversity: "Knowledge," "Attitudes," and "Behaviors."
- The indicator should be based on representative surveys.
- If possible, data should be collected every year. At the very least every four years.

2. Analysis of Existing Approaches

After reviewing questionnaires on the topic of biological diversity, evaluating previous research and their results, and analyzing different approaches for construction of indicators in other European countries, it can be concluded:

- The requirements formulated in the national strategy can be identified in the theoretical approaches to environmental and natural awareness.
- Some indicators of public awareness discussed on the European scale, such as the number of people who visit nature reserves, do not meet the indicator requirements.
- The term "biological diversity" should be used consistently in questionnaires and other instruments of assessment because it is easier to understand than the term "biodiversity."
- In the first part of the interview, interviewees should be given enough information to even out their level of knowledge on the topic of biological diversity.

3. Construction of the Indicator

Background

Because a review of all relevant population surveys shows that data suitable for the construction of an indicator has not been collected regularly, the Federal Agency for Nature Conservation and the Federal Ministry for Environment, Nature Conservation and Nuclear Safety conducted a separate survey. The first data inquiry for the indicator was carried out within the framework of the Nature Awareness Study in 2009.

Question Set

A questionnaire was developed, tested in a variety of pre-tests and improved by a group of experts. In an effort to ensure the high reliability of the assessment instruments, researchers

selected the most suitable questions and items using statistical techniques for item analysis. The result was a set of questions that included two questions pertaining to knowledge about biological diversity, two questions and five items pertaining to attitudes about biological diversity, and six items pertaining to behavior and/or willingness to act. The box below presents the questions:

KNOWLEDGE

1. Are you familiar with the term "biological diversity?"
2. Could you please tell me what the term "biological diversity" means?
[This open-ended question is a control question for those respondents who have heard the term "biological diversity" and know what it means.]

DEFINITION (read aloud to all respondents)

In the sciences, biological diversity is described as: 1. the diversity of genetic information and genes, 2. the diversity of types of animals and plants, and 3. the diversity of ecosystems and habitats.

ATTITUDES

3. Do you think that the biological diversity on Earth is decreasing?
4. The Federal Republic of Germany is committed to the international Convention on Biological Diversity. Do you think that the public is primarily responsible for sustaining biological diversity?
6. Do you agree with the following statements about biological diversity?
(Five statements about five topics pertaining to biological diversity: personal responsibility, political measures, quality of life, health and well-being, socio-economical aspects, and impact on personal/private domain).

BEHAVIOR / WILLINGNESS TO ACT

5. I will read you a few possible things that you can do to protect and sustain biological diversity. How willing are you...? (Six statements about five topics pertaining to biological diversity: donations, information, social environment, consumption, action). [This question is asked before Question 6.]

The Indicator

Challenges were defined for the dimensions "Knowledge," "Attitudes," and "Behavior/ Willingness to Act" that correspond with the aims of the national strategy for biological diversity. A sub-indicator is created for each of the three dimensions:

The *knowledge indicator* shows the percentage of respondents associate at least one of the three areas "genetic diversity," "diversity in ecosystems," or "diversity in plant/animal types." The *attitude indicator* shows the percentage of respondents that have a positive attitude about biological diversity, which could, for example, be demonstrated by the fact that the respondent believes that biological diversity on Earth is decreasing. The *behavior indicator* shows the percentage of respondents demonstrate a willingness to protect and preserve biological diversity.

Finally, an *overall indicator* is created that shows the percentage of respondents that fulfill all of the previously listed requirements in each of the dimensions.

Define Target Values

Target values were set based on the statement in the national strategy that 75% of the population should consider sustaining biological diversity a priority by 2015; thus, the target values for the sub-indicators and for the overall indicator are set at 75%.

4. Balancing the Indicators

Graphs

The visual representation of the indicators will be published analogous to the Census Bureau's brochure "Sustainable Development in Germany" (2008).

Results

In 2009, 42% of German citizens over the age of 18 are familiar with at least one of the three levels of biological diversity (genes, types, ecosystems); thus, they satisfy the defined requirements in the “knowledge” bracket.

54% demonstrate a positive or very positive attitude towards biological diversity. For example, many agree with the statement that biological diversity improves their sense of well-being and quality of life.

50% of German citizens demonstrate adequate willingness to protect and preserve biological diversity. They are, for example, willing to decrease their consumption of products that pose a threat to biological diversity.

In 2009, the overall indicator is valued at 22%, i.e. 22% of Germans satisfy the defined requirements in all three dimensions. This is much below the desired value of 75%. In an effort to raise people’s awareness of biological diversity, more should be done to increase their knowledge on the subject. The focus can be placed on conveying the meaning of biodiversity, for most people have already heard of biological diversity, even if they are not sure what it means.

Possible Addition: Information about Biodiversity Communication

Adding two additional questions to the indicator question set provides valuable information about the communication about biodiversity:

Additional Questions for the Dimension “Information”

Respondents who indicate that they are familiar with the term “biological diversity” can be asked the following question:

2a. How well do you feel you are informed about the loss of biological diversity?

At the end of the question set, the following additional questions could be posed. The first question serves as a filter:

7. Biological diversity is being discussed more and more on television, on the radio, and in newspapers. Are you personally interested in the information they provide on the subject? [No → End of the question set.]

8. I am going to read you a few topics that are often connected to biological diversity. Please tell me how interested you are in each of them: extremely interested, pretty interested, hardly interested, or not interested.