

# German Sustainability Indicator for Species Diversity

- composition, aggregation and  
approaches for a visualisation -

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# R&D-Project „Sustainability indicator for nature conservation“

Federal Agency for  
Nature Conservation



Conservation agencies and  
institutions of the federal states

Associations, NGO's



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# Main task

Indicator for the  
**state and quality of nature and landscape**

- as a consequence of  
**(non)sustainable land use**  
in main habitat types

- as a precondition for the  
conservation of  
**biodiversity**



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# Background – National strategy of sustainability

- priorities, aims and measures
- 21 sustainability indicators
- 8 indicators concerning environment
- indicator for species diversity
- closes an existing gap

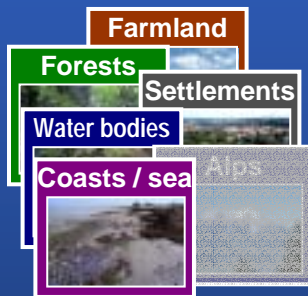


# Approach



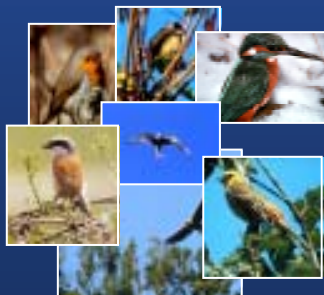
**Highest level of aggregation:**  
nature and landscape  
in Germany

**1 Total  
Indicator**



**Intermediate level  
of aggregation:**  
main habitat types

**5 Sub-  
Indicators**

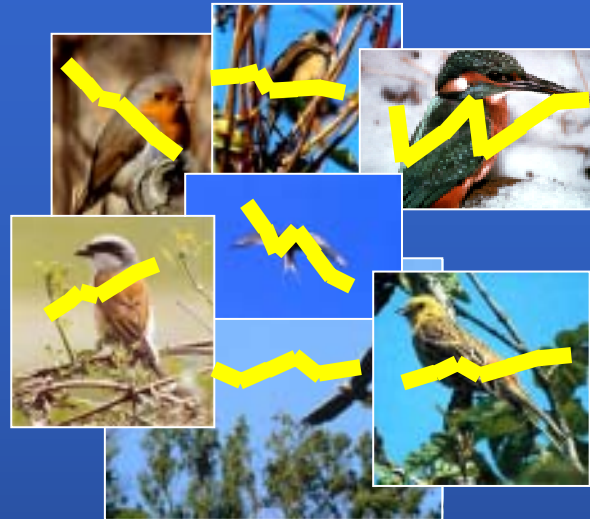


**Basic data:**  
Population size of  
indicator species

**51 Basic  
Indicators**



# Aggregation



**Reference values** to compare the population sizes of different species



**Target values**



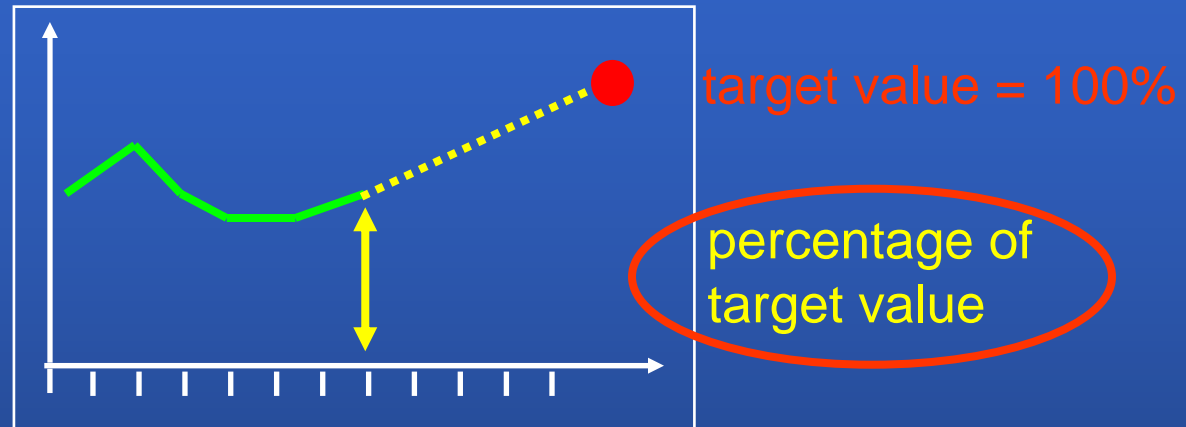
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# Target values

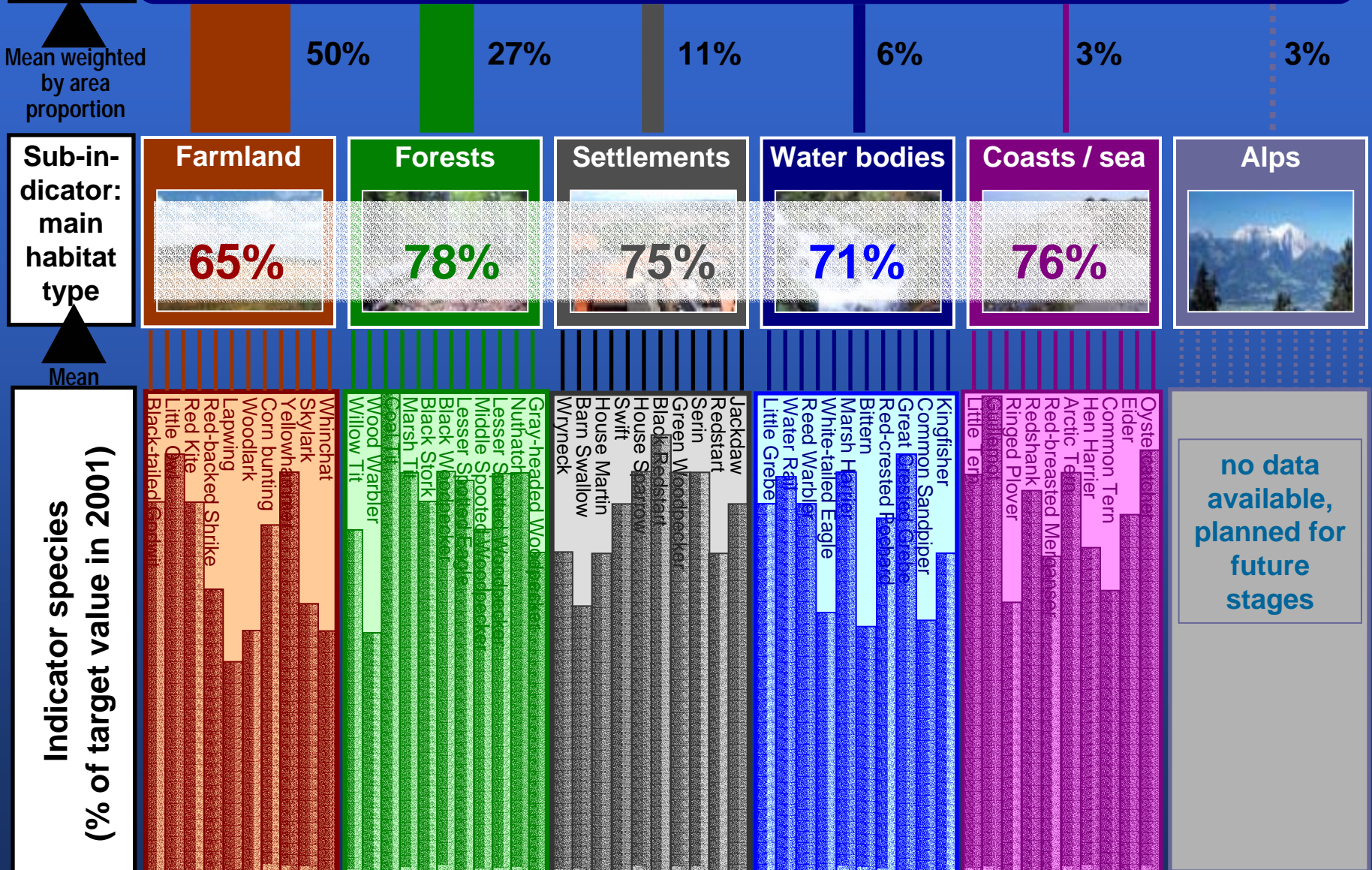
- **Target value** of the population size in 2015  
(← 30 experts / Delphi-technique)



- = estimation of the population size that should be reached in 2015 under the **conditions** that
- guidelines of sustainable development and
  - existing nature conservation laws are put into action rapidly



# Total Sustainability Indicator for Species Diversity



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# Approaches for Visualisation and Presentation of the Indicator

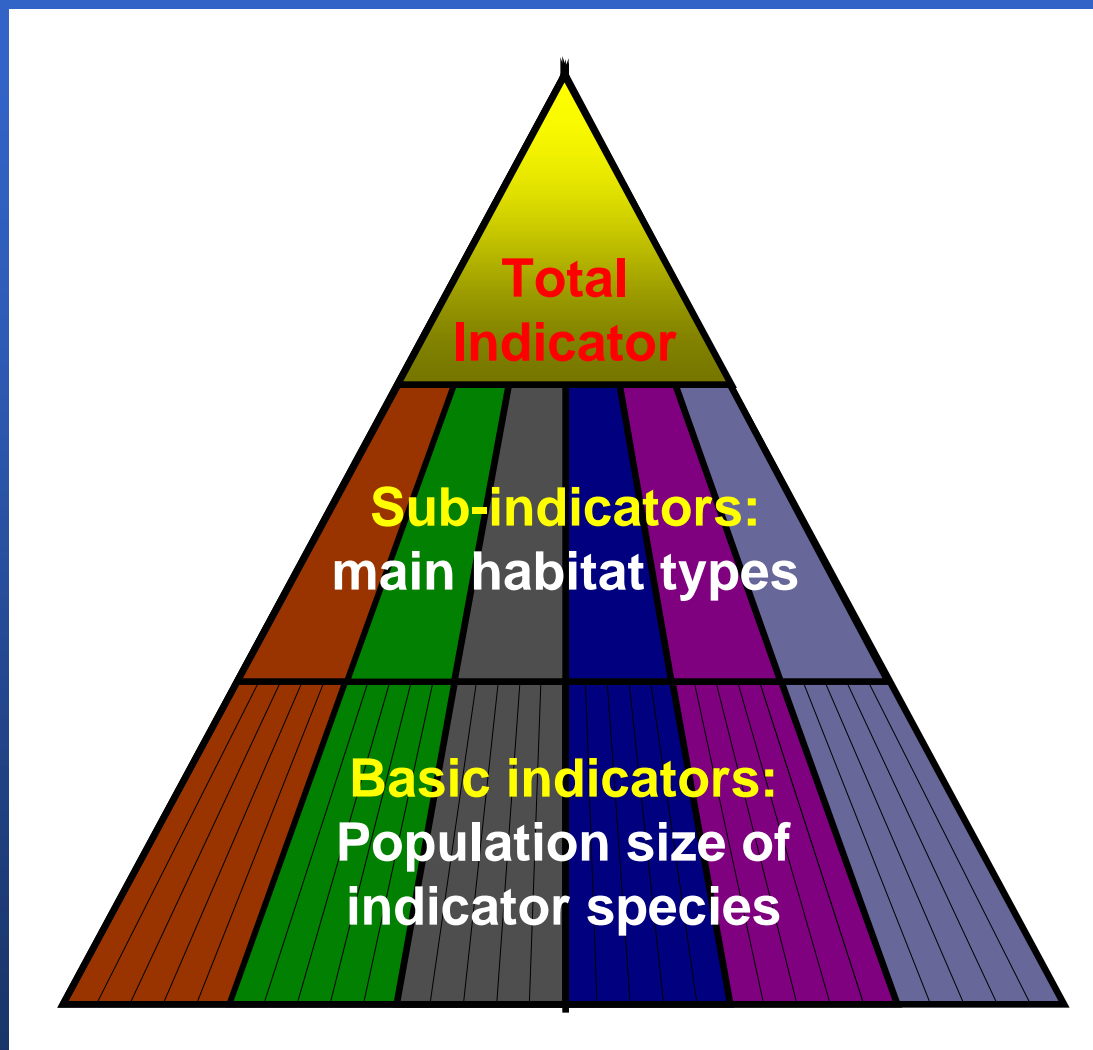
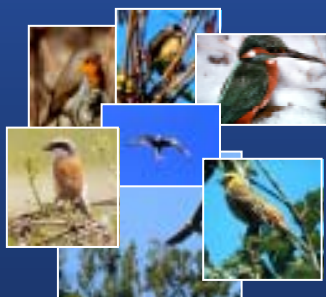
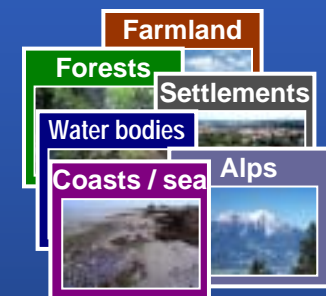


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# Information pyramid



Policy  
Mass media  
General public

Sector policies  
Stakeholders  
Interested public

Science /  
research  
scientific  
institutions



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# Approaches for Visualisation and Presentation of the Indicator

## Trends



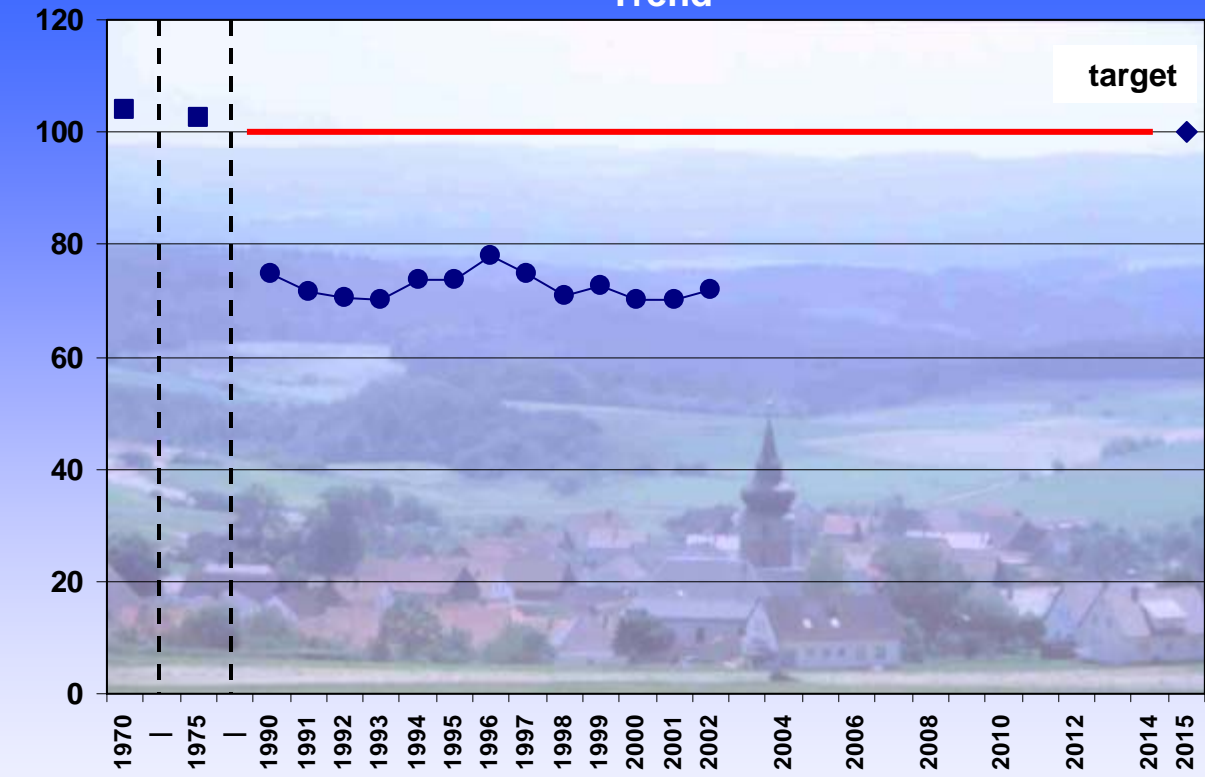
- ☐ Sustainability strategy
- ☐ Sustainability Indicator
- ☐ Main habitat types
- ☐ Indicator species

**Indicator trends**

- ☑ **Total Indicator**
- ☐ Farmland
- ☐ Forests
- ☐ Settlements
- ☐ Water bodies
- ☐ Coast / Sea
- ☐ Alps
- ☐ Indicator species
- ☐ Contact
- ☐ Impressum



## Sustainability Indicator for Species Diversity - Trend -



■ Historical Values     ◆ target value 2015  
u [Infos for interpretation](#)     ● If this trend continues, the aims presumably will not be achieved!



☐ Sustainability strategy

☐ Sustainability Indicator

☐ **Main habitat types**

☐ Indicator species

**Indicator trends**

☐ Total Indicator

☐ Farmland

☐ Forests

☐ Settlements

☐ Water bodies

☐ Coast / Sea

☐ Alps

☐ Indicator species

☐ Contact

☐ Impressum



## Main Habitat Types of Germany



Further Informations on main habitat types:

Description of **sub-indicators**

**Change of the indicator value**

**Species selection** and **Weighting**



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☐ Sustainability strategy

☐ Sustainability Indicator

☐ Main habitat types

☐ Indicator species

### Indicator trends

☐ Total Indicator

☑ **Farmland**

☐ Forests

☐ Settlements

☐ Water bodies

☐ Coast / Sea

☐ Alps

☐ Indicator species

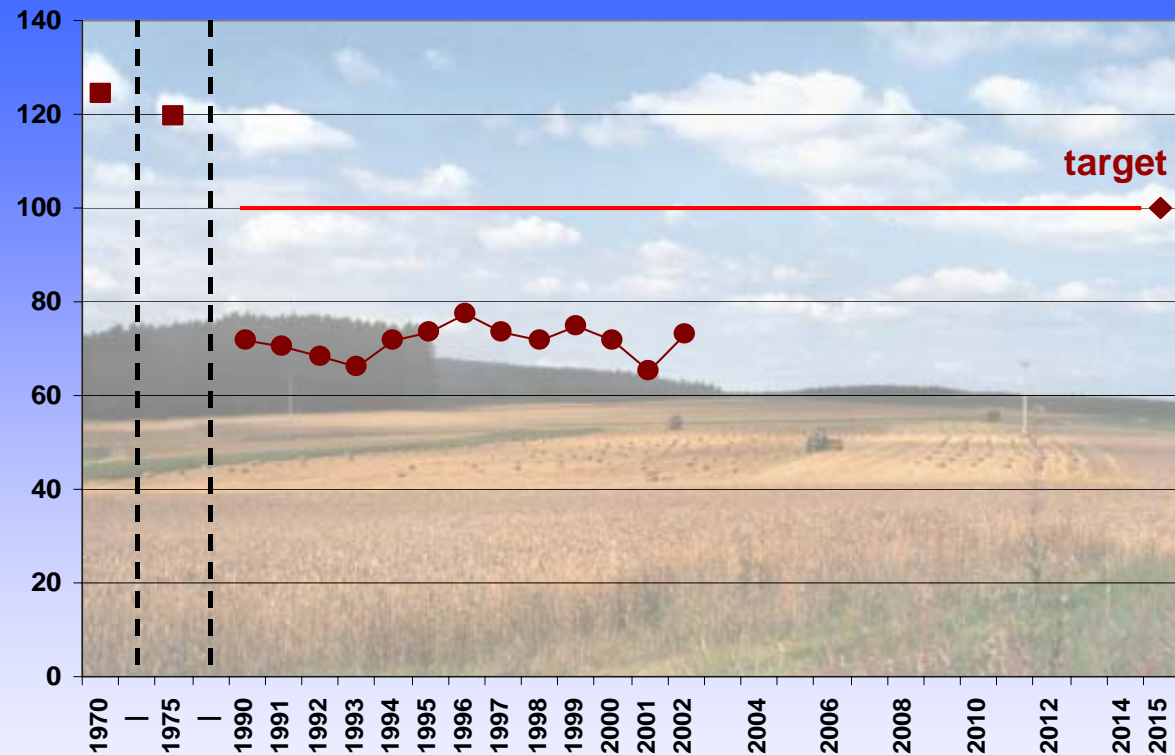
☐ Contact

☐ Impressum



## Sustainability Indicator for Species Diversity - Sub-indicator Farmland -

Index [%]



■ Historical Values    ◆ target value 2015

Infos for interpretation



If this trend continues, the aims presumably will not be achieved!



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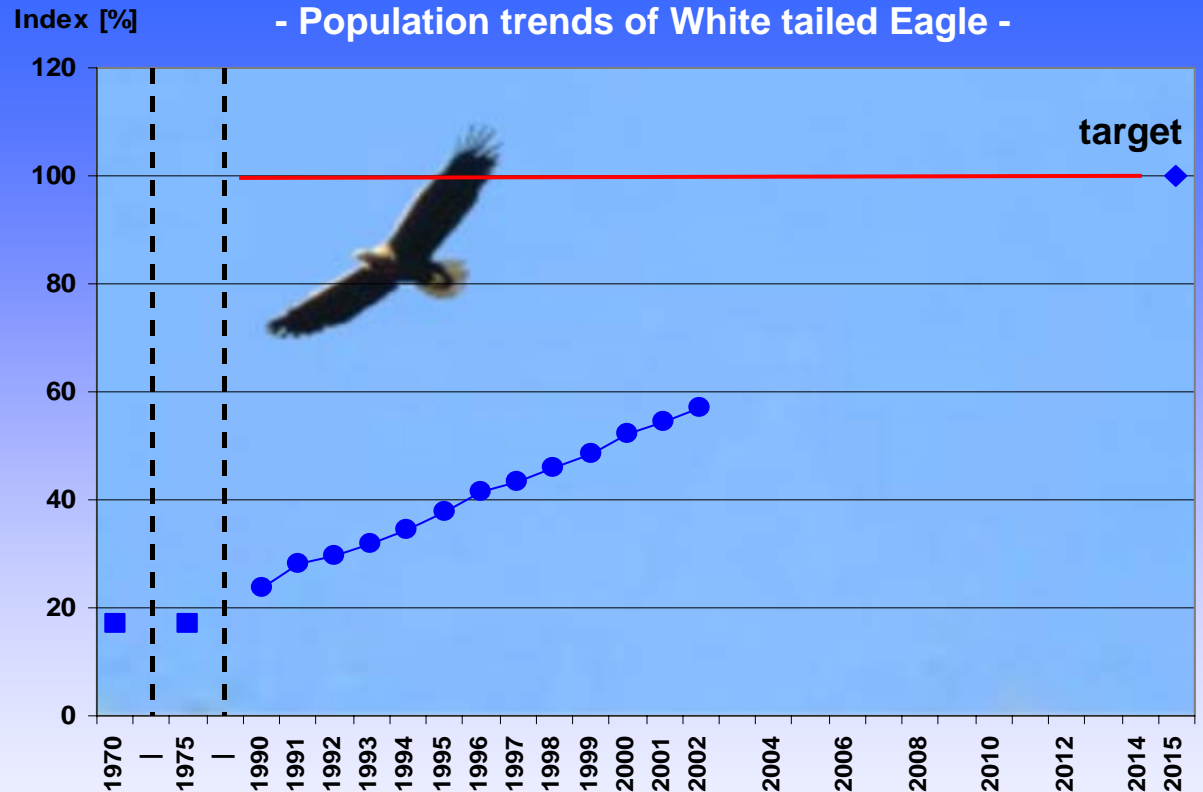
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- ☐ Sustainability strategy
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- ☐ Total Indicator
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- ☐ Impressum



## Sustainability Indicator for Species Diversity - Population trends of White tailed Eagle -



■ Historical Values    ◆ target value 2015

Infos for interpretation

● If this positive trend continues, the aims presumably will be achieved!

Populations of White-tailed eagle and its distribution increased continuously in the last years. It colonizes also in such regions with high populations in former times.

Characteristics of the white-tailed eagle



# R&D-Project „Sustainability indicator for nature conservation“



Project report available from:



Federal Agency for  
Nature Conservation  
<[www.bfn.de](http://www.bfn.de)>

➤ Dr. Ulrich Sukopp <[ulrich.sukopp@bfn.de](mailto:ulrich.sukopp@bfn.de)>



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# Open questions for discussion

- Are visualisation and presentation comprehensible?
- Are more and different target groups/users necessary?
- Does the information have a chance for „political response“?

