Hochschule
für nachhaltige Entwicklung
Eberswalde

Mit der Natur für den Menschen – seit mehr als 185 Jahren.

Socio-economic Monitoring in Protected Areas

Seminar Social Research

3rd December 2020

Martin Balas
(adapted by. W. Strasdas, 26/05/2023)

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Socio-economic Monitoring in Protected Areas

Part 1: Background: (Economic) values and costs of Protected Areas

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Relationship between Tourism and Protected Areas

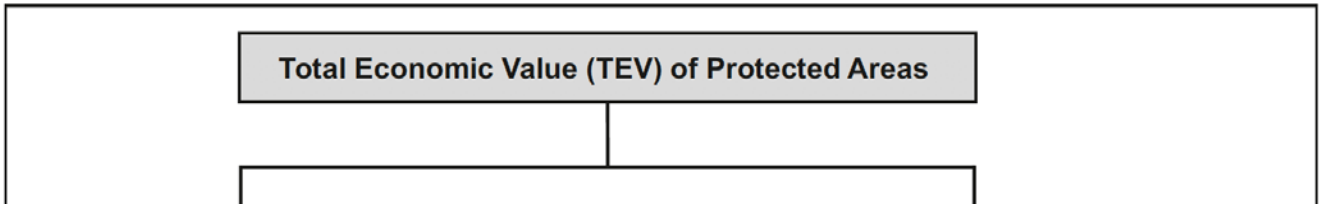
- **Restrictive approach:** reduction of negative impacts, visitor guidance, environmental education
- **Active approach:** provision of landscape-related recreational opportunities, environmental education and experience of nature
- **Development approach:** active promotion and marketing of nature tourism in the region

Relationship between Tourism and Protected Areas

The mutual potential is not sufficiently being used

- Protected areas are often not actively marketed by tourism professionals (regional level, service providers) and are sometimes not even known to guests
- Locals occasionally reject the designation of World Heritage Sites (e.g. Schleswig-Holstein)
- Traditional nature conservation is too restrictive or too passive in its approach to tourism
- Hardly any joint offers are developed

Intro: Total Economic values of protected areas



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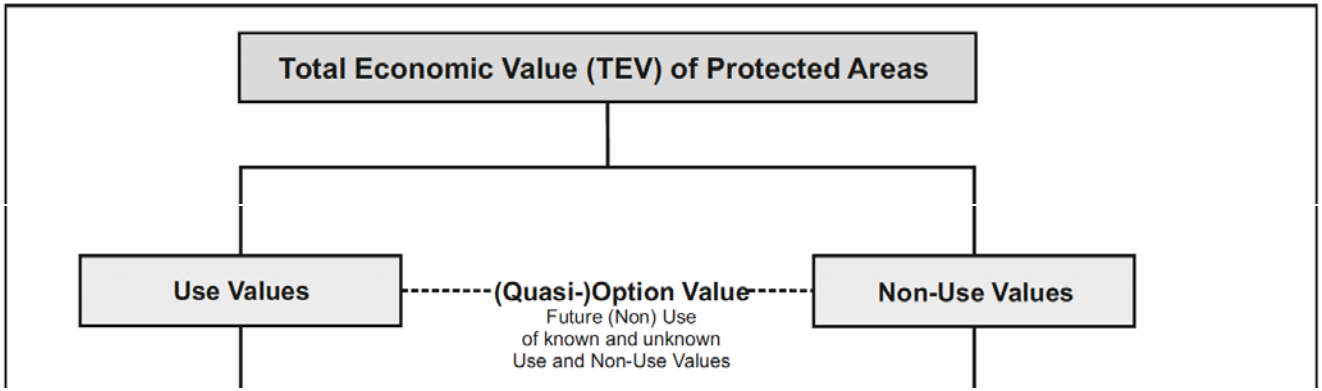

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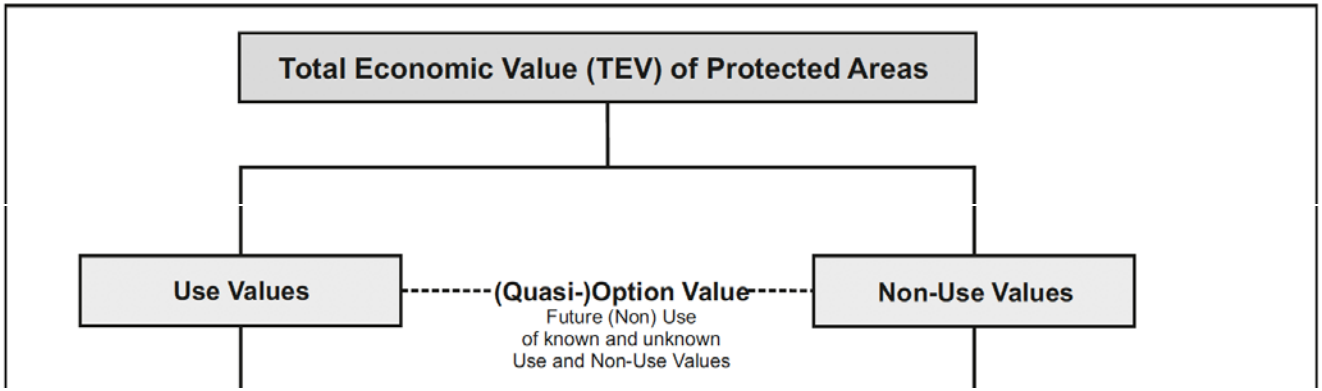

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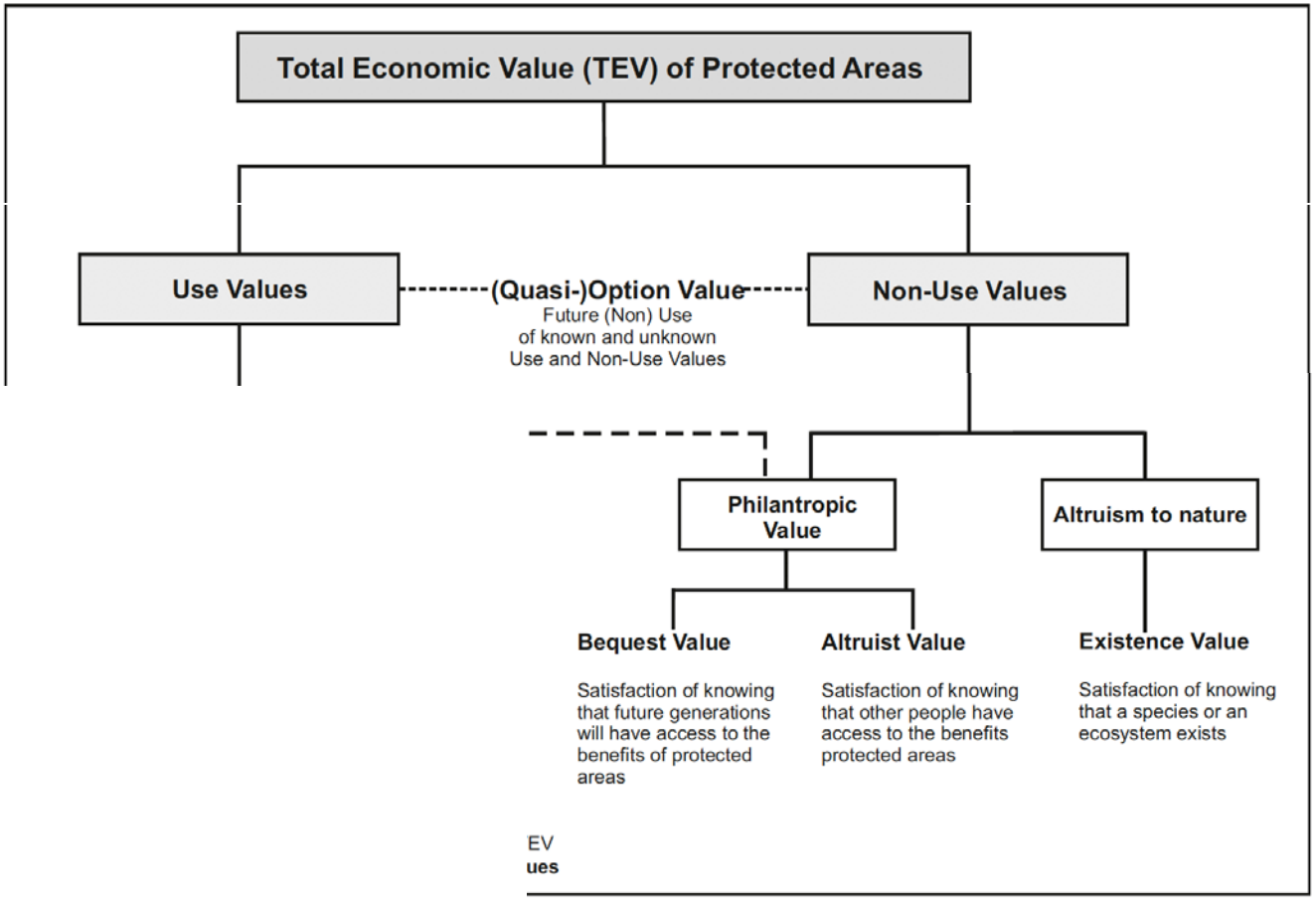
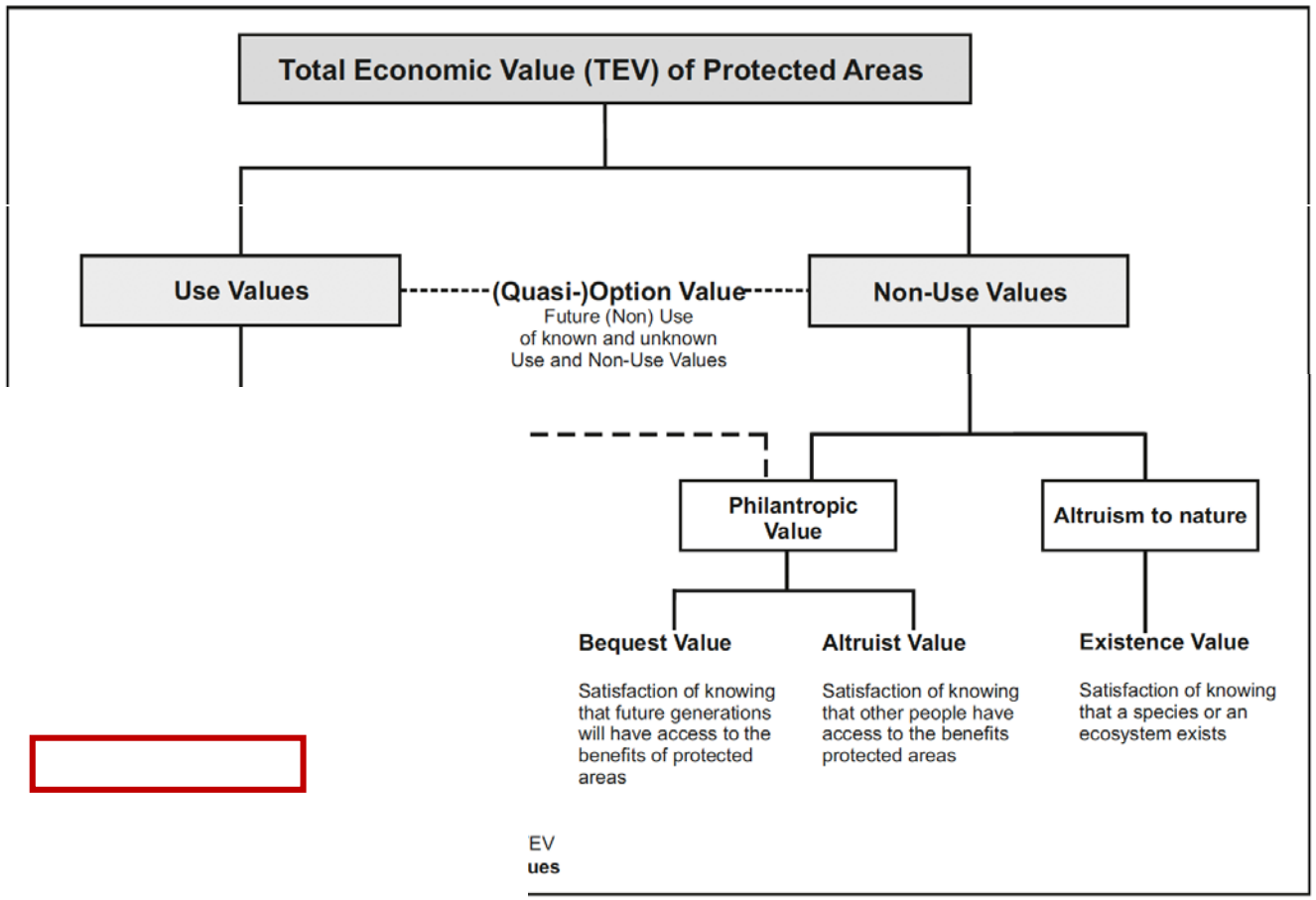


, 85; MUNASINGHE 1992, 229; JOB et al. 2009a, 18; PASCUAL et al. 2010, 195

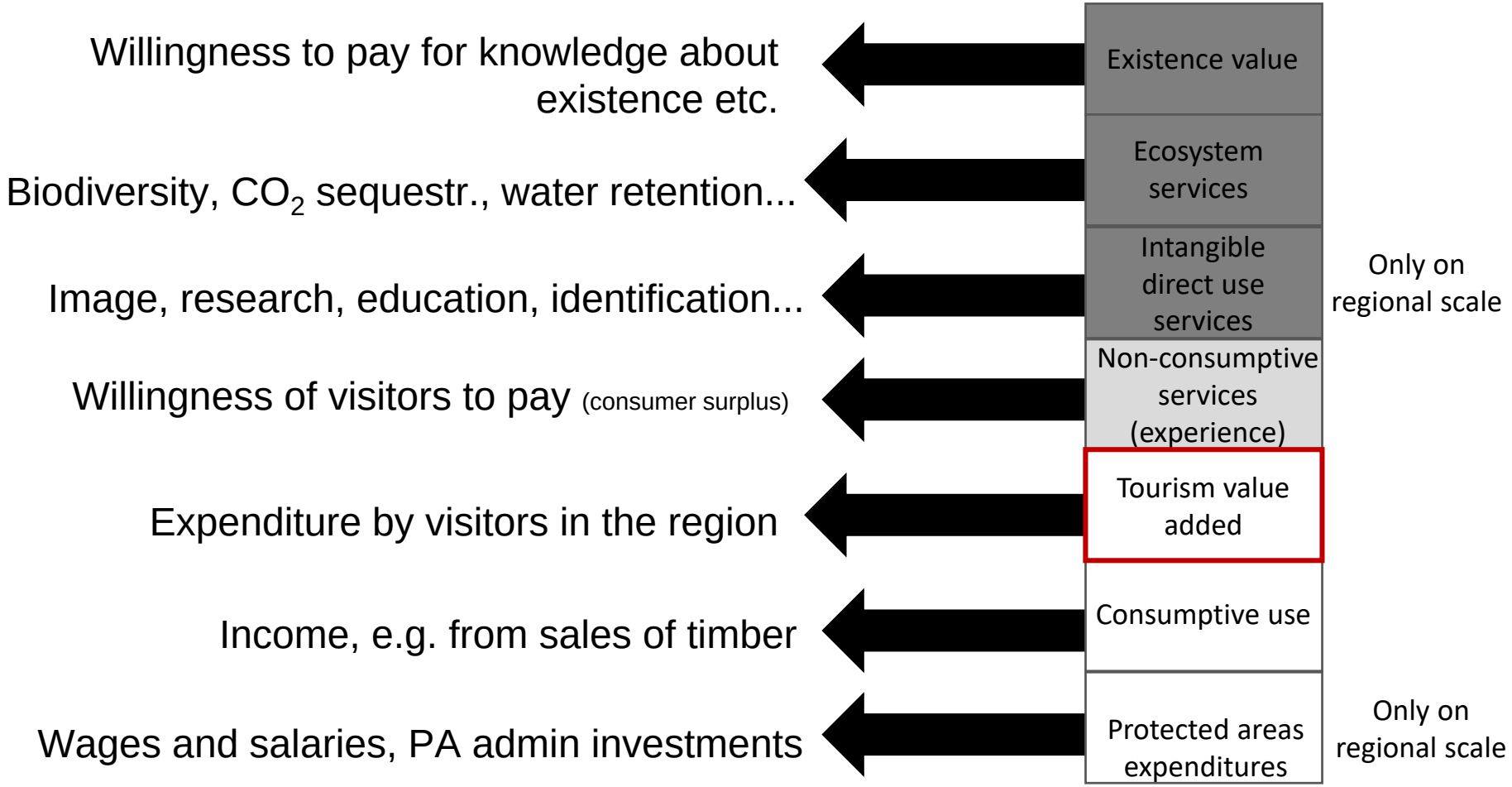
Intro: Total Economic values of protected areas



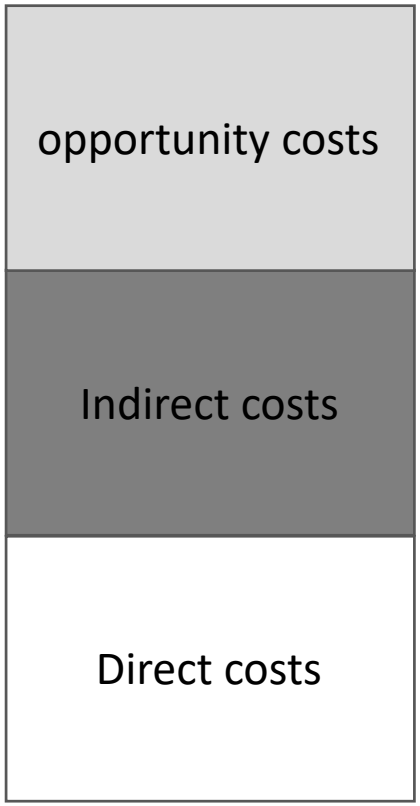
, 85; MUNASINGHE 1992, 229; JOB et al. 2009a, 18; PASCUAL et al. 2010, 195

Intro: Total economic values of protected areas

The visit of a PA creates all kinds of values



Intro: costs of protected areas



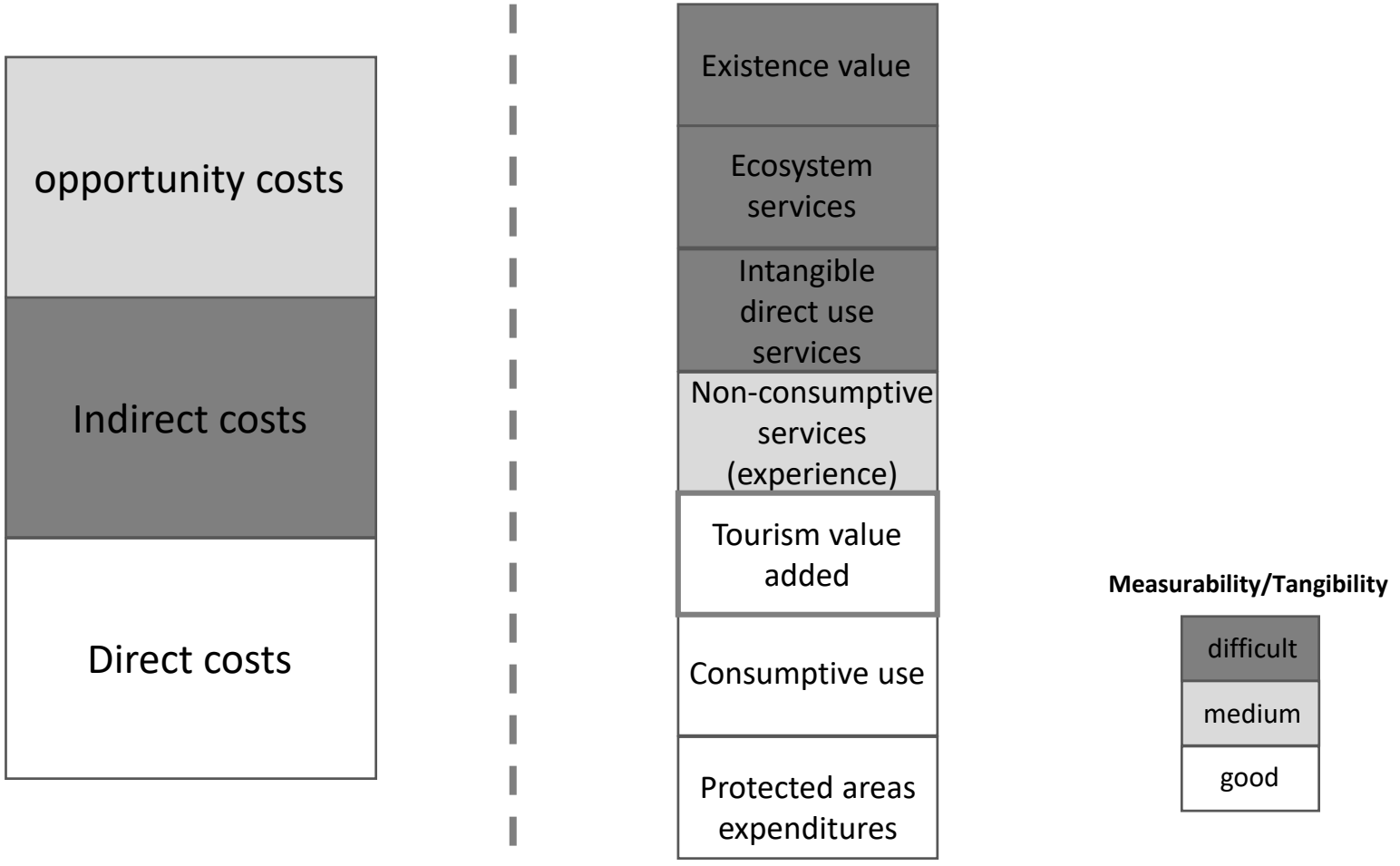
Lost income from alternative land use options (e.g. forestry)

damage created outside the PA caused by activities from the PA (e.g. bark beetle, elephants...)

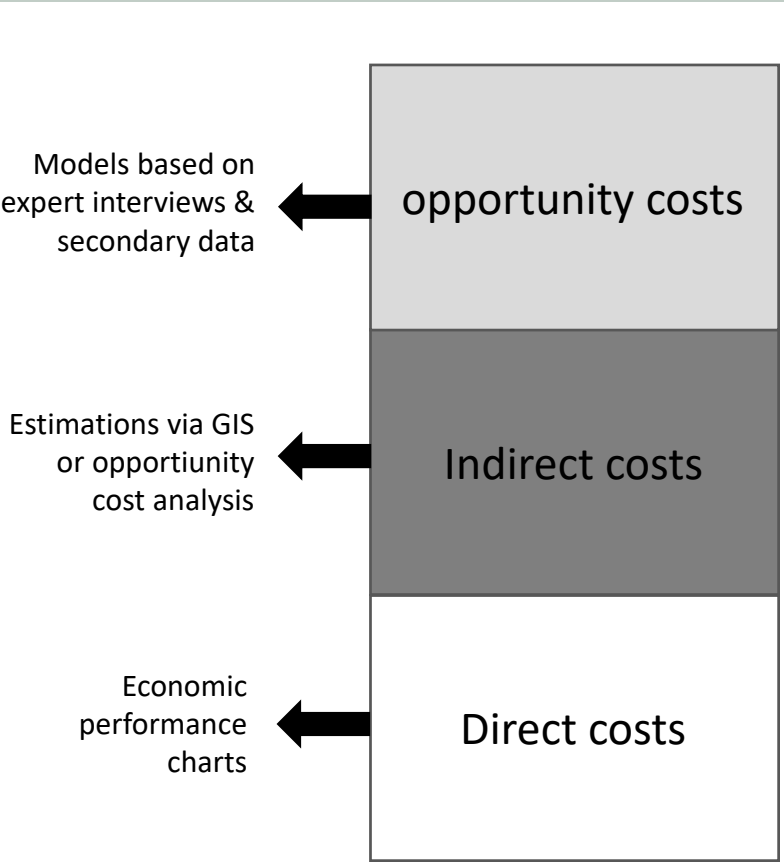
Expenditures for setting up, maintaining and managing the PA (staff, visitor facilities, etc.)

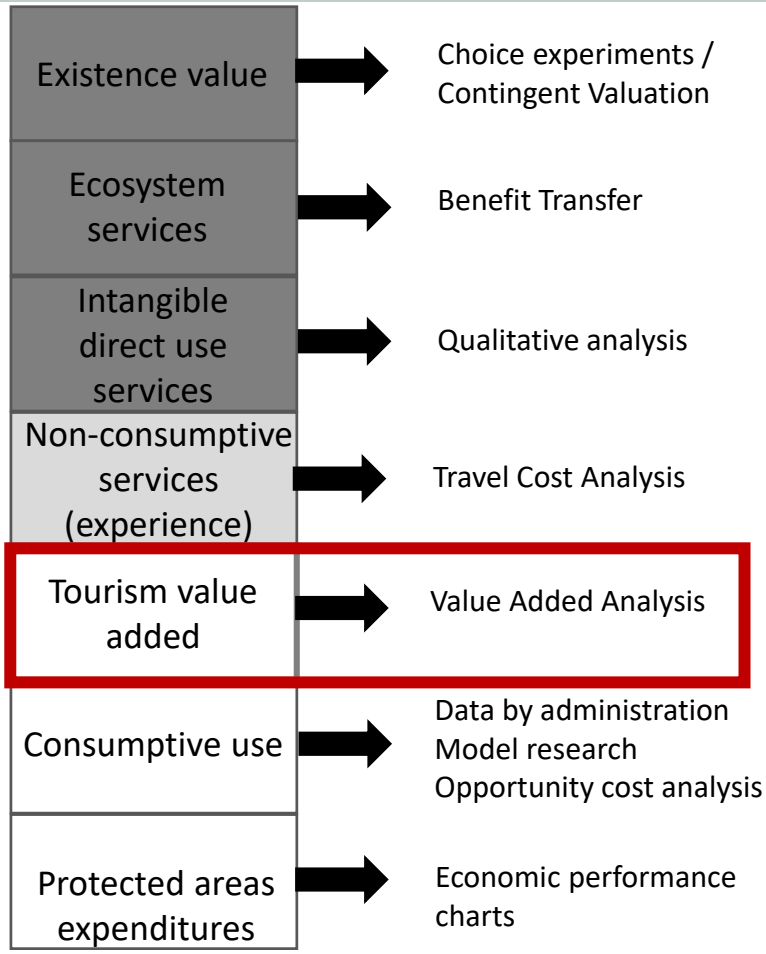
Based on DIXON/SHERMAN 1991, WELLS 1992 , MUNASINGHE 1992, KÜPFER 2000, JOB et al. 2003

Intro: Economic valuation of protected areas



Intro: economic valuation of protected areas

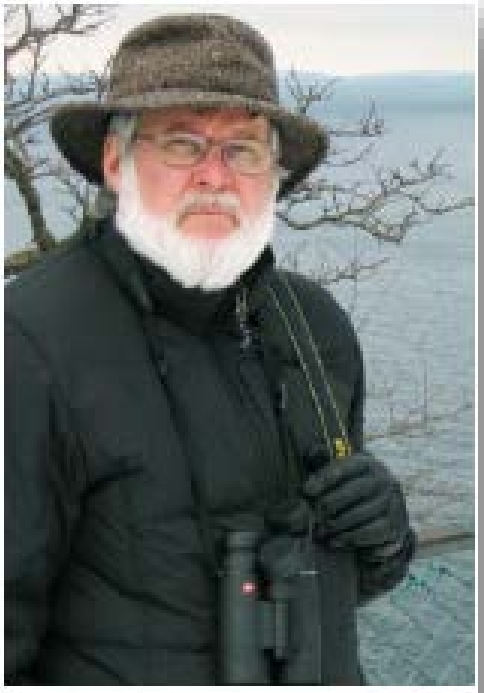




Economic Monitoring of PAs – WHY?

*"**Any phenomenon that is not measured and reported does not exist politically.** Governments, societies, communities and individuals place more value on that which is documented.*

*All management is dependent upon information. The better the quality of information; the better the opportunity for good management. **Information about the visitors and their activities enables managers to deal with the challenge of changing volumes of tourism**."Canadian biologist Prof. Eagles*



Paul F. J. Eagles

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Socio-economic Monitoring in Protected Areas

Part 2: Tourism and Protected Areas

Seminar Social Research

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Socio-economic Monitoring in Protected Areas

Part 3: System of SEM in Protected Areas

Seminar Social Research

3rd December 2020

Martin Balas

Estimating Economic Effects of Tourism

Development of Visitor Monitoring in Germany

- Until the beginning of the 2000s: only estimates of visitor numbers to national parks
- 2002/03: Pilot study Berchtesgaden National Park
- 2004/05: NLP Müritz, NPs Altmühltal and Hoher Fläming
- Publication of a guide to determining the economic effects of tourism in protected areas
- Since then: studies on 15 of 16 national parks, some of them repeated, all biosphere reserves, three of 104 nature parks
- but: no national monitoring programme

Quelle: JOB et al. 2003, 2005, 2006, 2008, 2009, 2013, 2016; REIN/SCHNEIDER 2009; REIN/BALAS 2015; STEINGRUBE/JESCHKE 2010

Socio-Economic Monitoring of protected Areas

Step 1: Estimating the visitor structure

No. of day trippers	No. of overnight tourists

Several characteristics need to be regarded:

- Visitor types
- Area-wide coverage
- Year-round estimates
- Seasonal patterns
- Weather patterns

Socio-Economic Monitoring of protected Areas

Step 1: Estimating the visitor structure

How to estimate the visitor numbers?

Socio-Economic Monitoring of protected Areas

Step 1: Estimating the visitor structure

Example National Park Lower Oder Delta

Personal interviews

1. Visitor counting
2. Short interviews
3. Long interviews

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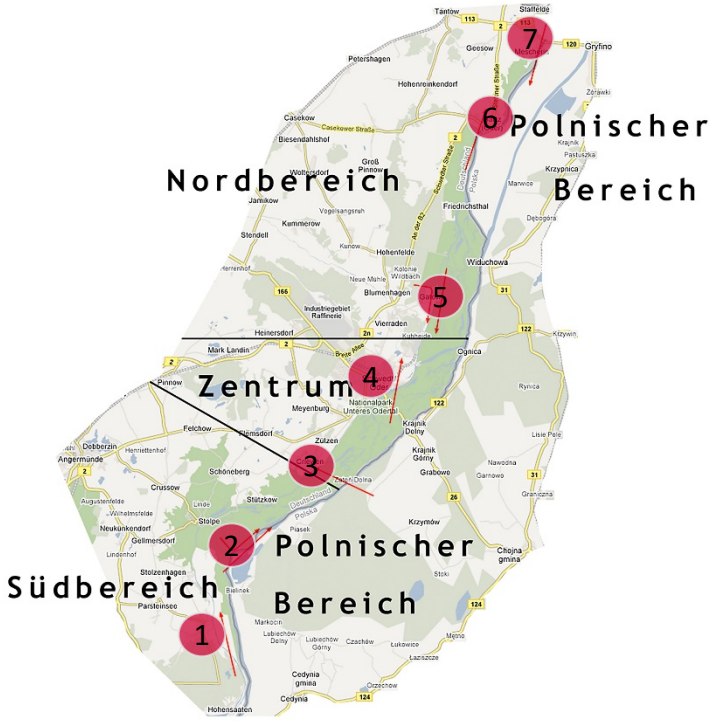
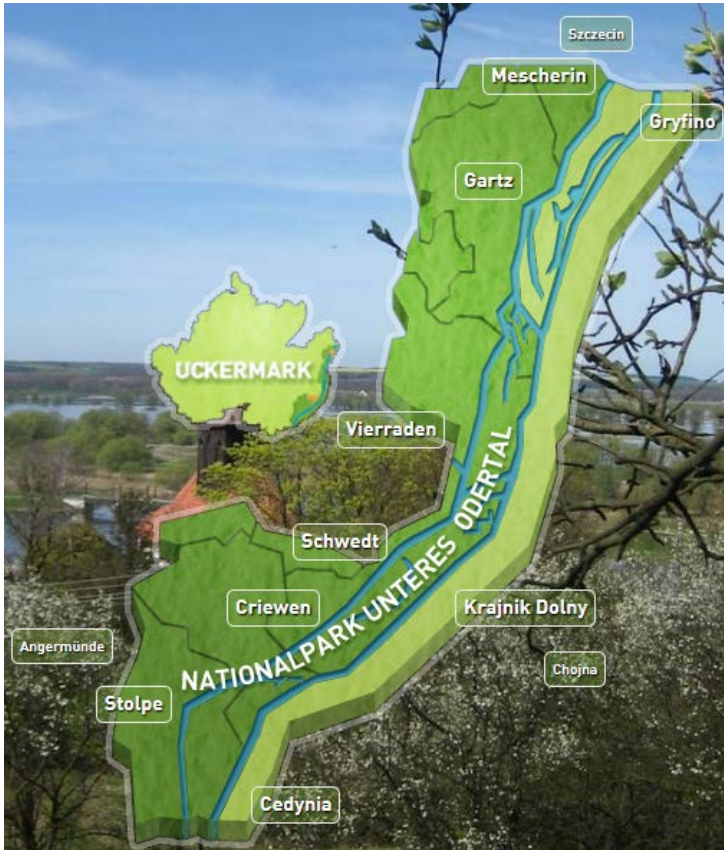
Socio-Economic Monitoring of protected Areas

Step 1: Estimating the visitor structure

Example National Park Lower Oder Delta





Socio-Economic Monitoring of protected Areas

Step 1: Estimating the visitor structure

Example National Park Lower Oder Delta

Division of the counting period into three seasonal sections

1. Low season A (5 days) und Low season B (5 days)
2. Winter season (5 days)
3. Summer season (5 days)

Division into weekdays and weekend days

1. Week day (WT): Monday to Friday
2. weekend (WE): Saturday, Sunday and public holidays

Socio-Economic Monitoring of protected Areas

Step 1: Estimating the visitor structure

Example National Park Lower Oder Delta

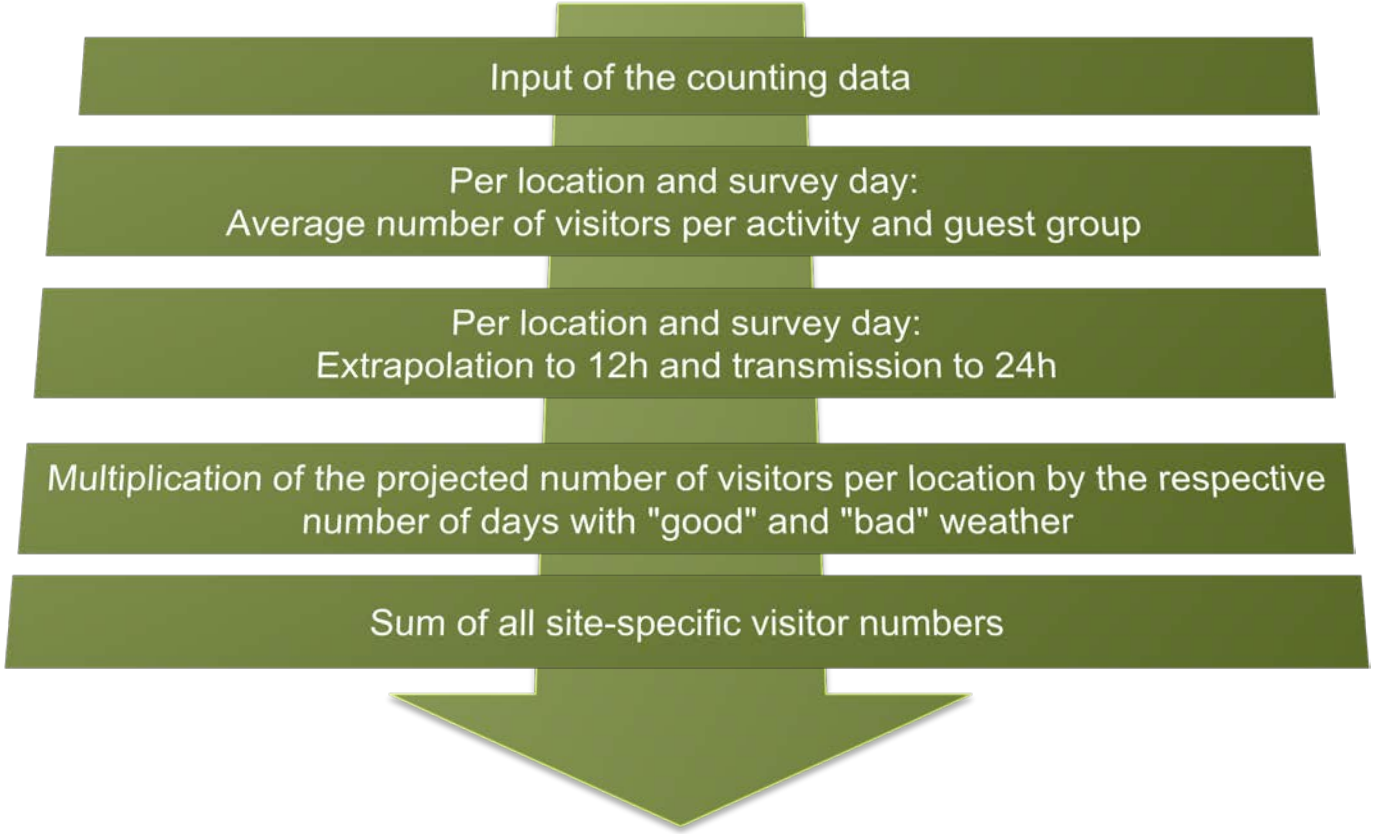
Weather as an influence factor

criteria: Temperature, precipitation, sunshine duration

- Using weather data and normalisation of these factors (via z-transformation)
- Determining the number of "good" weekdays per season, "good" weekend days etc.
- Weighting of the count data using this number

Socio-Economic Monitoring of protected Areas

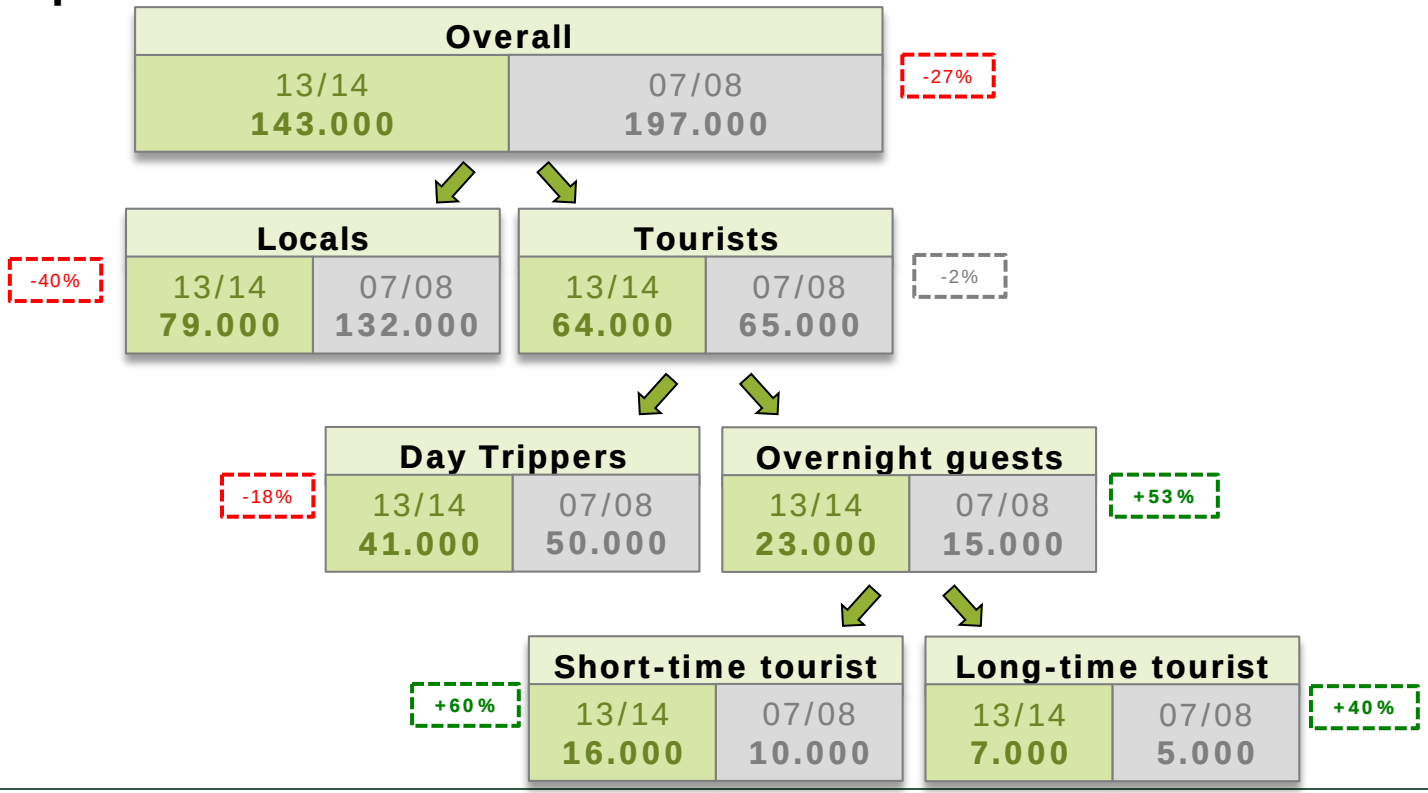
Step 1: Estimating the visitor structure



Socio-Economic Monitoring of protected Areas

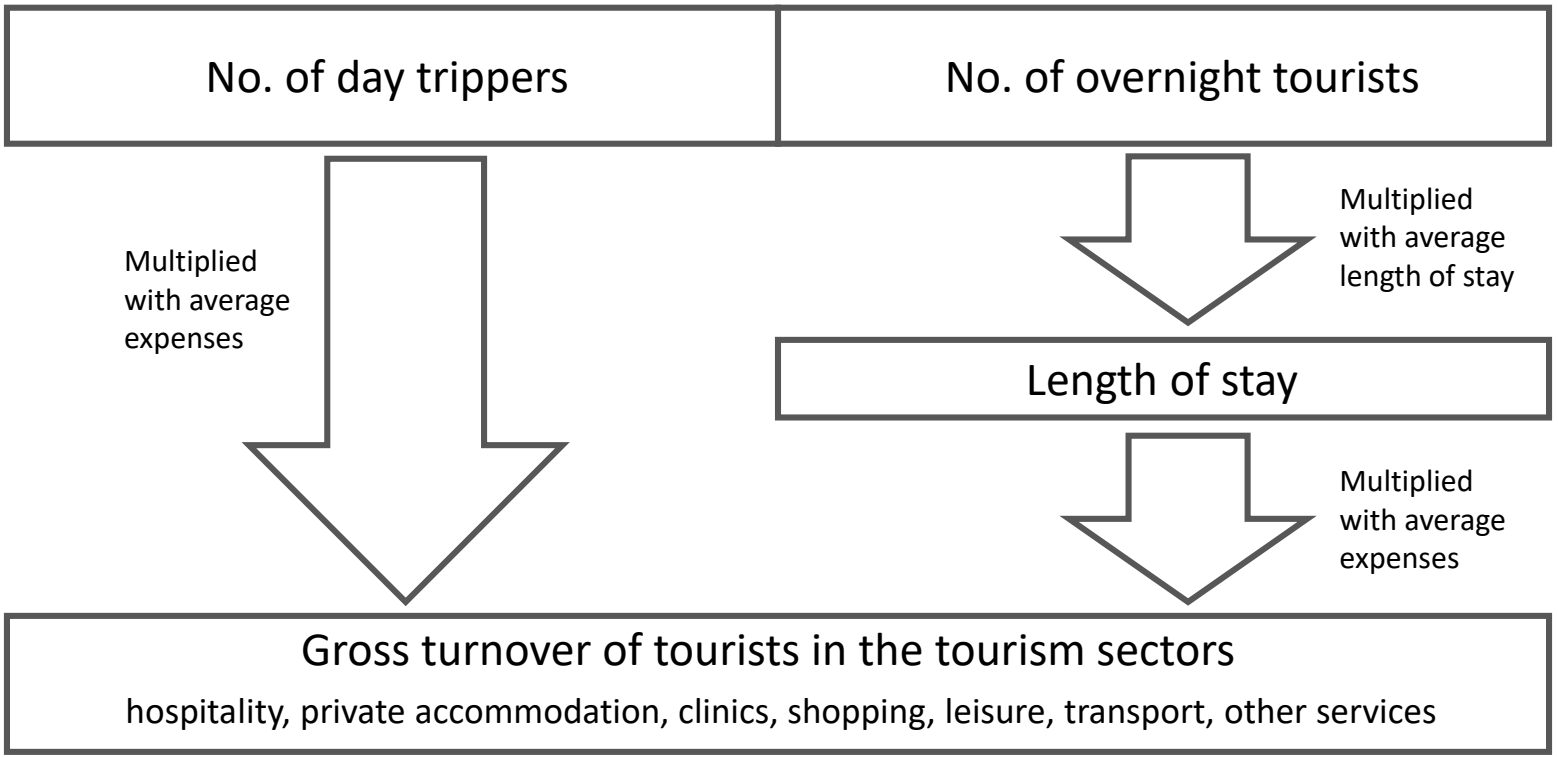
Step 1: Estimating the visitor structure

Example National Park Lower Oder Delta



Socio-Economic Monitoring of protected Areas

Step 2: Estimating gross turnover



Socio-Economic Monitoring of protected Areas

Step 2: Estimating gross turnover

How to estimate turnovers?

Socio-Economic Monitoring of protected Areas

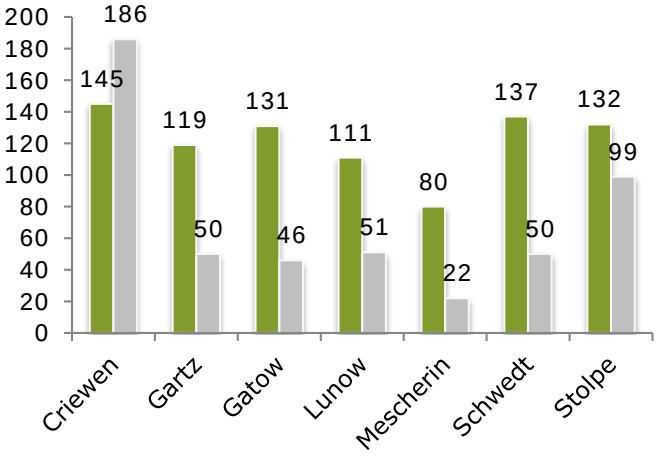
Step 1: Estimating the visitor structure

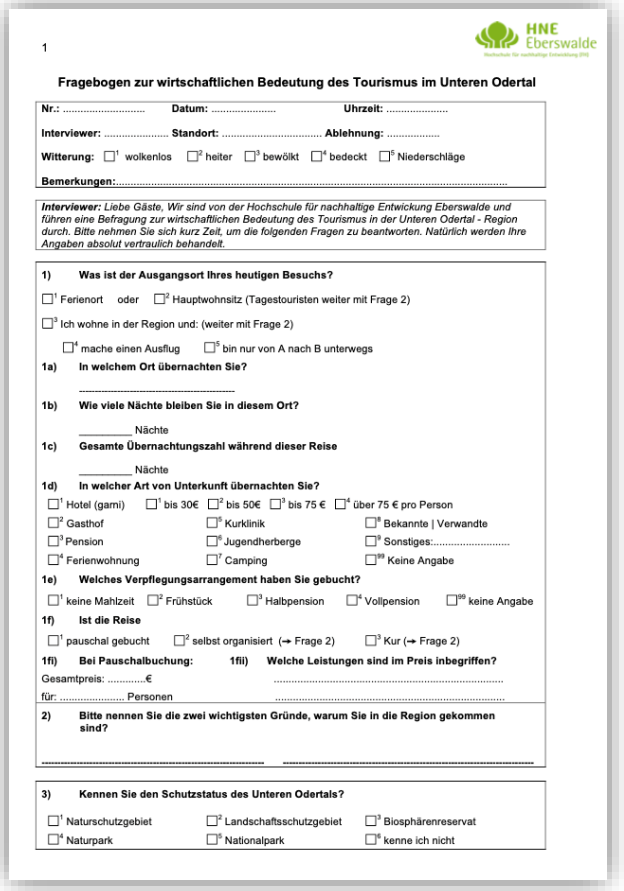
Example National Park Lower Oder Delta

Long interviews

Long interviews

13/14	07/08
855	**504**





1

HNE Eberswalde

Fragebogen zur wirtschaftlichen Bedeutung des Tourismus im Unteren Odertal

Nr.: ..... **Datum:** ..... **Uhrzeit:** .....

Interviewer: ..... **Standort:** ..... **Ablehnung:** .....

Witterung: ☐[1] wolkenlos ☐[2] heiter ☐[3] bewölkt ☐[4] bedeckt ☐[5] Niederschläge

Bemerkungen:.....

Interviewer: *Liebe Gäste, Wir sind von der Hochschule für nachhaltige Entwicklung Eberswalde und führen eine Befragung zur wirtschaftlichen Bedeutung des Tourismus in der Unteren Odertal - Region durch. Bitte nehmen Sie sich kurz Zeit, um die folgenden Fragen zu beantworten. Natürlich werden Ihre Angaben absolut vertraulich behandelt.*

1) Was ist der Ausgangsort Ihres heutigen Besuchs?

☐[1] Ferienort oder ☐[2] Hauptwohnsitz (Tagestouristen weiter mit Frage 2)

☐[3] Ich wohne in der Region und: (weiter mit Frage 2)

☐[4] mache einen Ausflug ☐[5] bin nur von A nach B unterwegs

1a) In welchem Ort übernachten Sie?

.....

1b) Wie viele Nächte bleiben Sie in diesem Ort?

_____ Nächte

1c) Gesamte Übernachtungszahl während dieser Reise

_____ Nächte

1d) In welcher Art von Unterkunft übernachten Sie?

☐[1] Hotel (garni) ☐[1] bis 30€ ☐[2] bis 50€ ☐[3] bis 75 € ☐[4] über 75 € pro Person

☐[2] Gasthof ☐[5] Kurklinik ☐[8] Bekannte | Verwandte

☐[3] Pension ☐[6] Jugendherberge ☐[9] Sonstiges:.....

☐[4] Ferienwohnung ☐[7] Camping ☐[99] Keine Angabe

1e) Welches Verpflegungsarrangement haben Sie gebucht?

☐[1] keine Mahlzeit ☐[2] Frühstück ☐[3] Halbpension ☐[4] Vollpension ☐[99] keine Angabe

1f) Ist die Reise

☐[1] pauschal gebucht ☐[2] selbst organisiert (→ Frage 2) ☐[3] Kur (→ Frage 2)

1fi) Bei Pauschalbuchung: **1fii) Welche Leistungen sind im Preis inbegriffen?**

Gesamtpreis: .....€ .....

für: ..... Personen .....

2) Bitte nennen Sie die zwei wichtigsten Gründe, warum Sie in die Region gekommen sind?

....

3) Kennen Sie den Schutzstatus des Unteren Odertals?

☐[1] Naturschutzgebiet ☐[2] Landschaftsschutzgebiet ☐[3] Biosphärenreservat

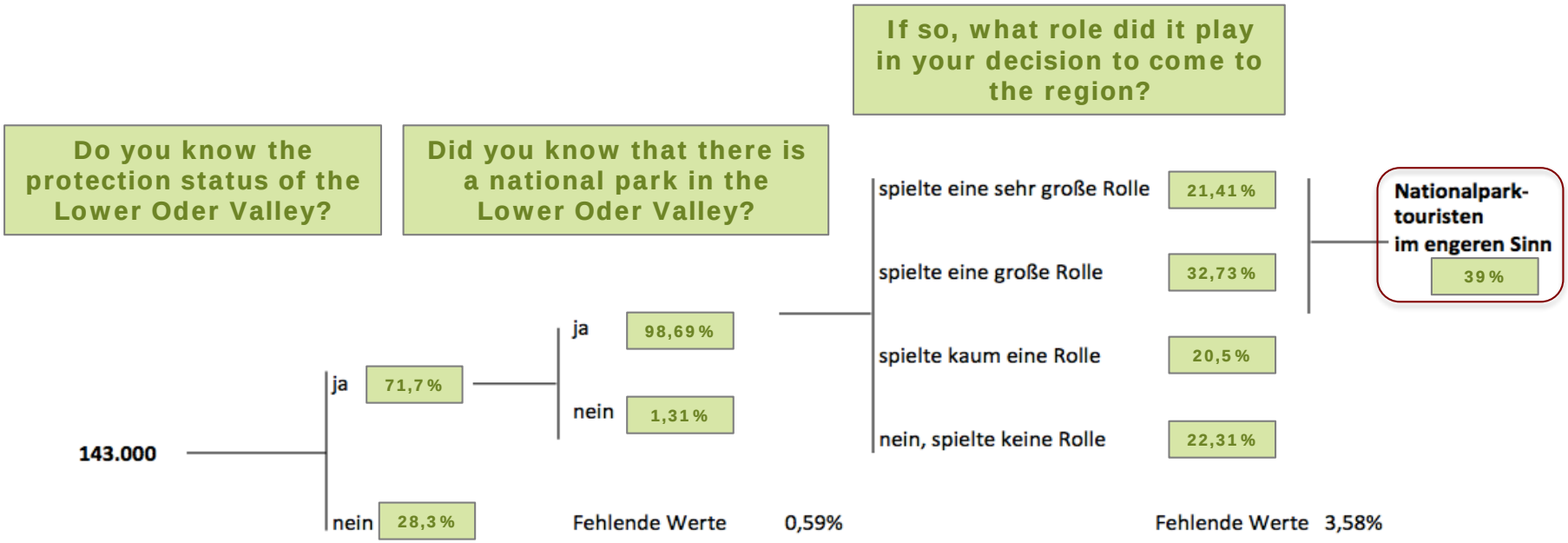
☐[4] Naturpark ☐[5] Nationalpark ☐[6] kenne ich nicht

Socio-Economic Monitoring of protected Areas

Step 1: Estimating the visitor structure

Example National Park Lower Oder Delta

National Park affinity (key element)

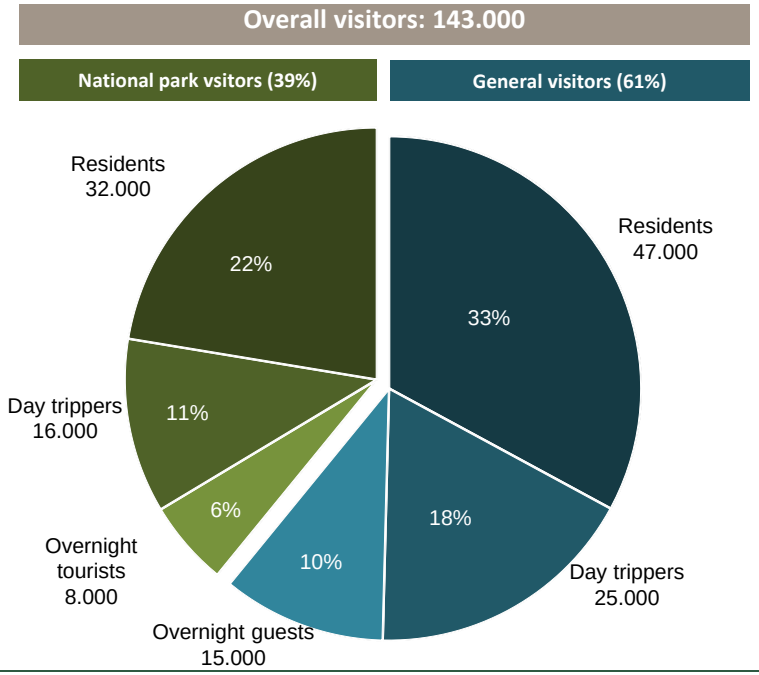


Socio-Economic Monitoring of protected Areas

Step 1: Estimating the visitor structure

Example National Park Lower Oder Delta

National Park affinity (key element)



Socio-Economic Monitoring of Protected Areas

Step 1: Estimating the visitor structure

Example National Park Lower Oder Delta

Asking for expenses

9) Wie viel haben Sie für sich und Ihre Mitreisenden ausgegeben?

	Nichts	Ø Ausgaben pro Tag bezogen auf die bisherigen Aufenthalts-tage pro Person	Betrag	Anz. Tage	Anzahl Personen
a) **Unterkunft** (nicht für Tagestouristen)	☐-99	€			
b) **Verpflegung in Gastronomie**	☐-99	€			
c)i) **Lebensmittel**	☐-99	€			
c)ii) **Einkäufe mit Einzelposten unter 50€ (Sonstiges)**	☐-99	€			
c)iii) **Einkäufe Einzelbeträge über 50€** (separat nennen)	☐-99	€ ..... €			
d) **Sport/Freizeit/Unterhaltung/Kultur** (Führungen, Eintritte etc.)	☐-99	€			
e) **Verkehrsmittelnutzung während des Aufenthalts** - Linienbusse/Taxi etc. - Ausflugsbus/Schiff etc. - Parkgebühren	☐-99	€ ..... € ..... €			
f) **Kurmittel (Bäder/Massagen etc.) Arztkosten**	☐-99	€			
g) **Kongress-/Tagungs-/Seminargebühren etc.**	☐-99	€			
h) **sonstige Dienstleistungen**	☐-99	€			

Socio-Economic Monitoring of protected Areas

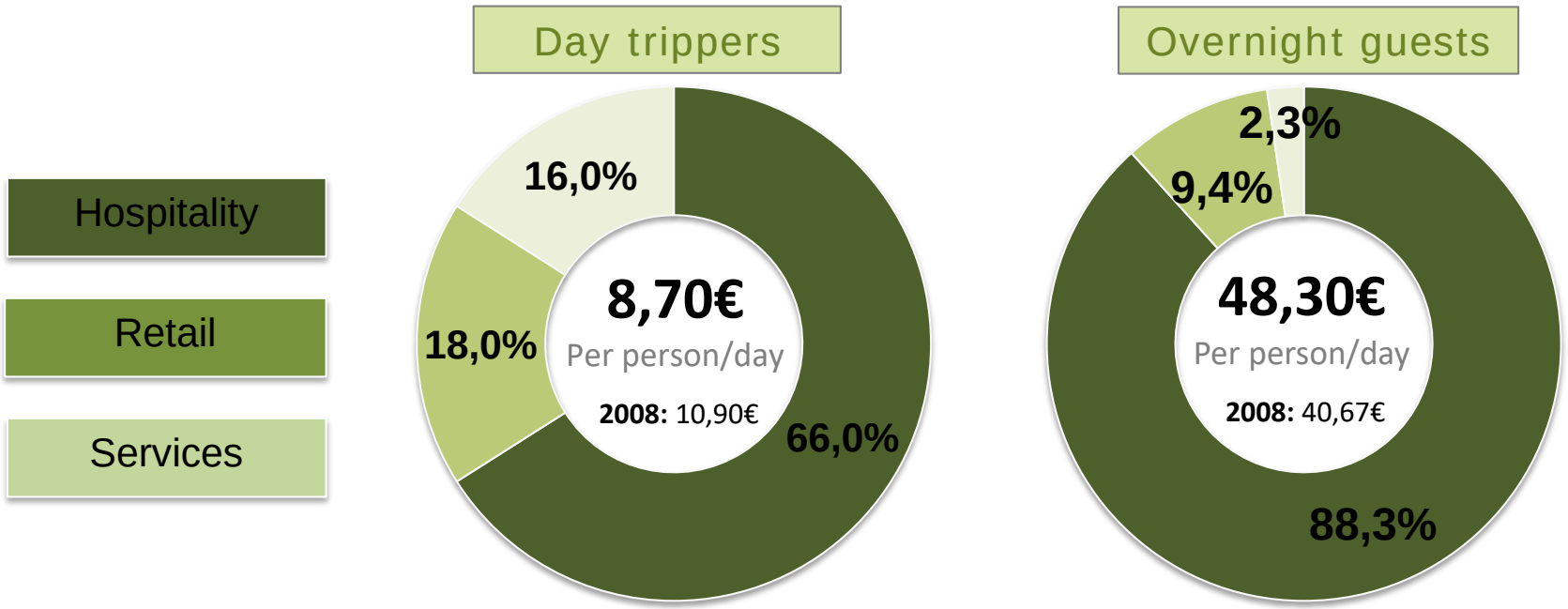
Step 2: Estimating gross turnover

	Segment	Days of stay		Daily expenses		turnover
National Park visitors	Overnight guests (including VFR)	8.000	x	50,90 €	=	407.000 €
	Day trippers	16.000	x	8,90 €	=	143.000 €
	Residents	32.000	x	11,90 €	=	380.000 €
		=				=
	TOTAL	56.000				**930.000 €**
General visitors	Overnight guests (including VFR)	15.000	x	46,90 €	=	704.000 €
	Day trippers	25.000	x	8,50 €	=	213.000 €
	Residents	47.000	x	5,90 €	=	277.000 €
		=				=
	TOTAL	87.000				**1.194.000 €**

insgesamt **2.124.000 €** pro Jahr

Socio-Economic Monitoring of protected Areas

Step 2: Estimating gross turnover



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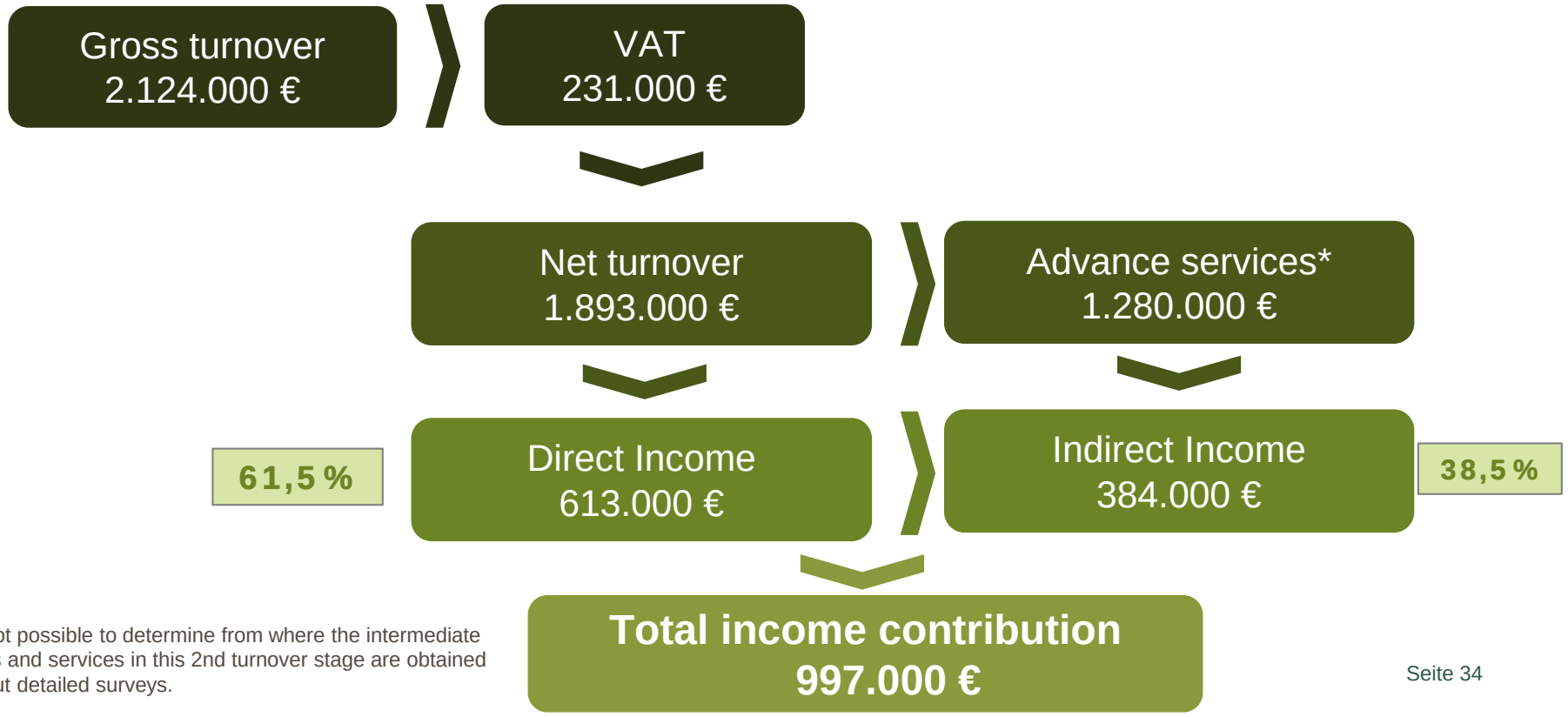
Socio-Economic Monitoring of protected Areas

Step 5: Estimating indirect effects and overall income

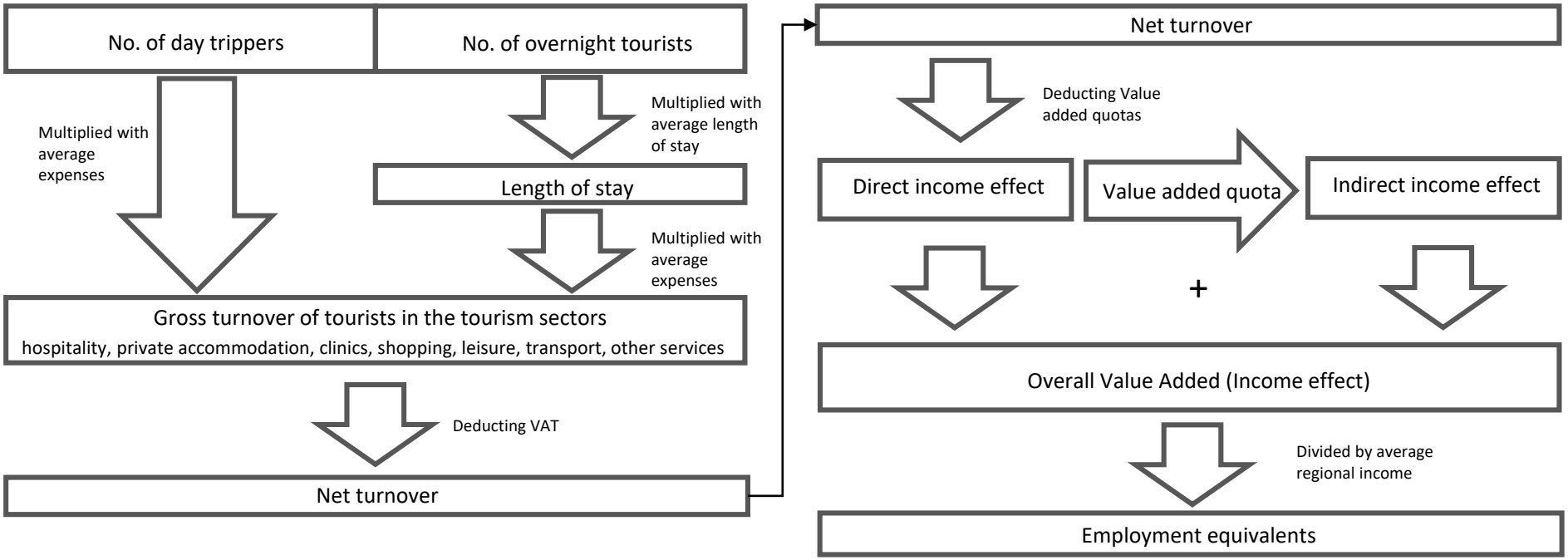
Example National Park Lower Oder Delta



* It is not possible to determine from where the intermediate goods and services in this 2nd turnover stage are obtained without detailed surveys.

Socio-Economic Monitoring of protected Areas

Step 6: Estimating employment equivalents



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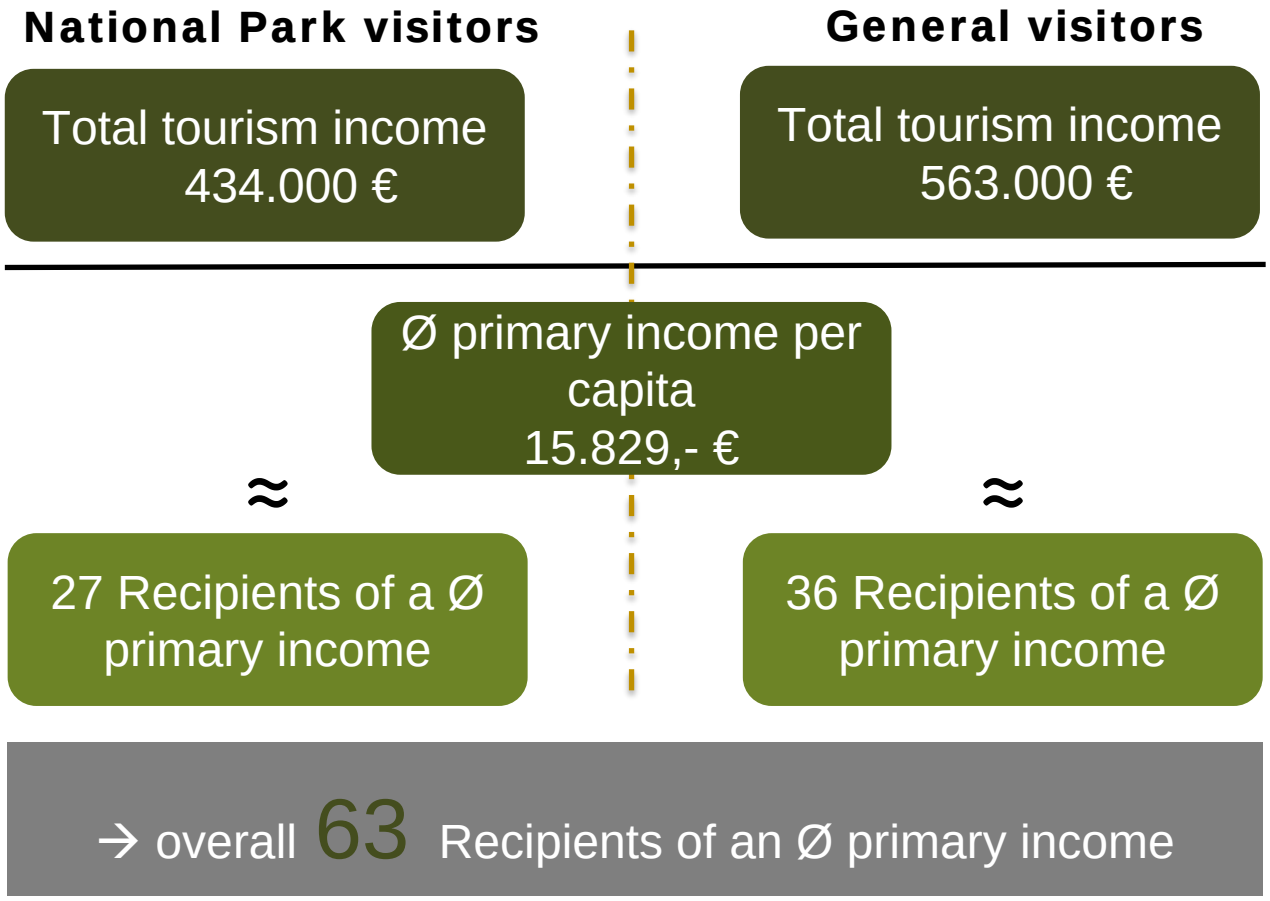
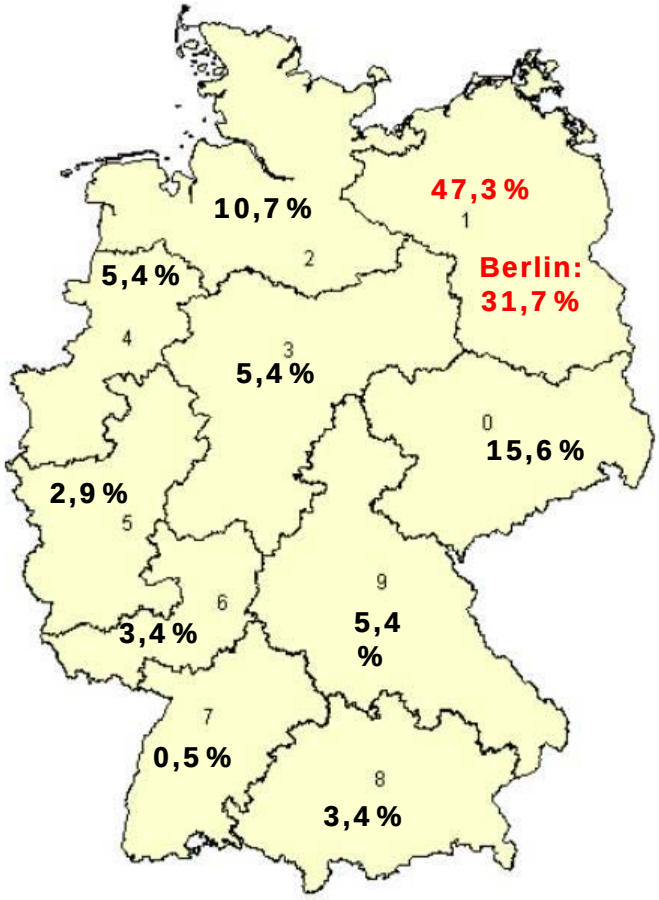
Socio-Economic Monitoring of protected Areas

Step 6: Estimating employment equivalents



Socio-Economic Monitoring of Protected Areas

Overnight guests



Day trippers

- 96% of day tourists come from postcode area 1
- 59% come from the eastern Uckermark (postal codes 62 and 63)
- A further 26% come from Berlin (postcode 10 - 13)

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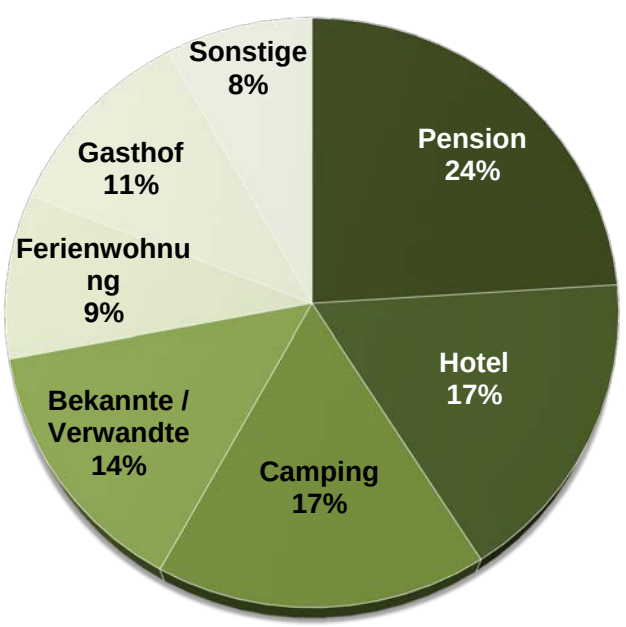
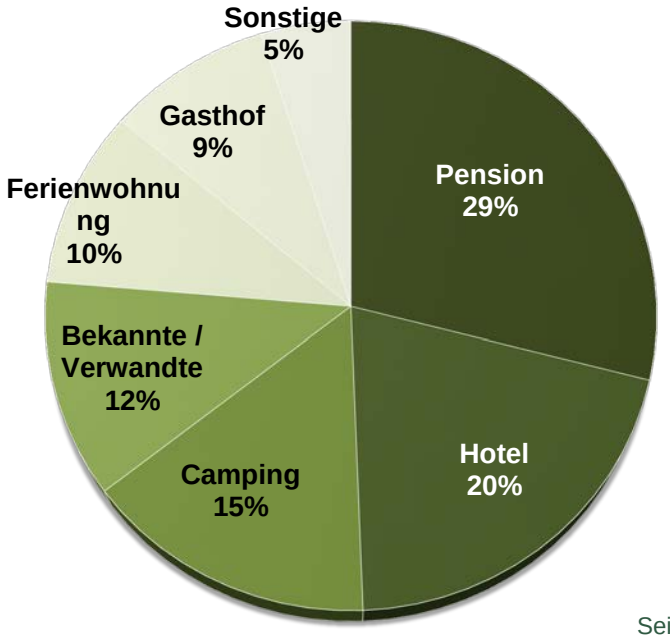
Socio-Economic Monitoring of Protected Areas

- The majority of tourists spend the night in a pension, hotel or go camping. However, the length of stay is rather below average.
- Hardly any difference to 2007/08.

2007/08



2013/14



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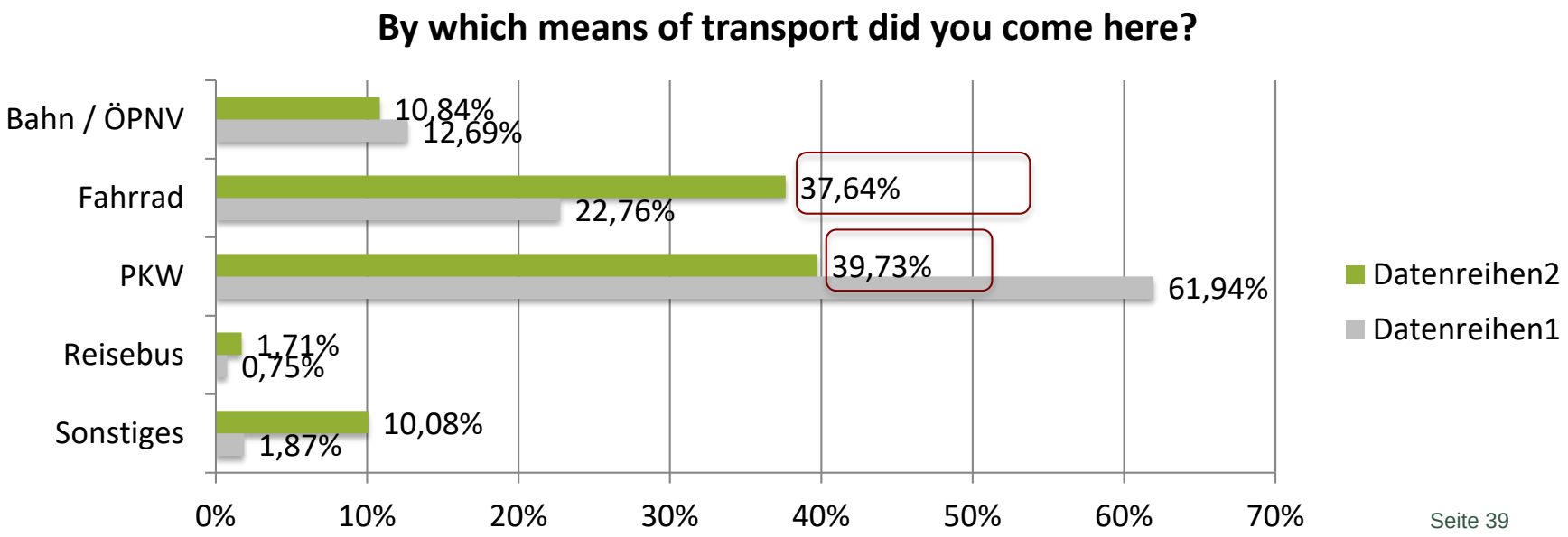
- Significantly more tourists arrive by bicycle (38% / 23%).
- This is encouraging: the proportion of tourists travelling by car has fallen by 22%.
- Rail travel has fallen slightly - but more because of the bicycle



Socio-Economic Monitoring of protected Areas

Strengths and Weaknesses of this method

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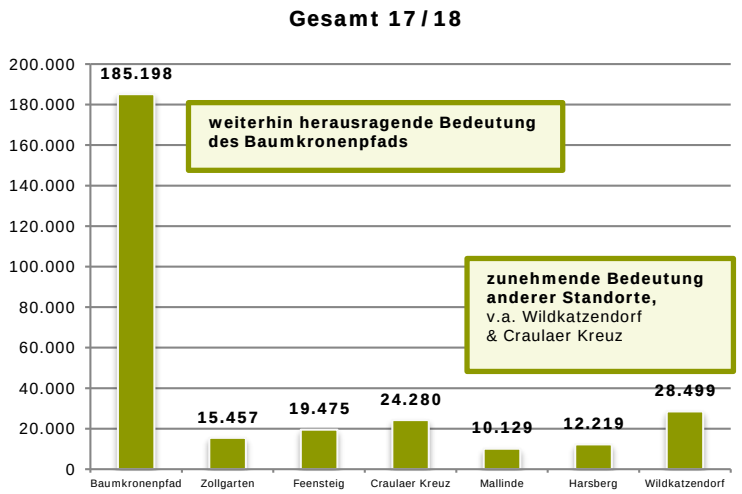
1. Estimating visitor numbers

Deviations in the seasonal allocation

- **Season does not always reflect the actual visitor rhythm** - assumption-driven
- **Breakdown** creates small number of days per season (5 days) - actually number of survey days would have to be increased, also due to further weather-related breakdown



Acquisition and quality of interviewers

- **Low overall motivation:** Interviewers sometimes need to be replaced
- Partly **incomplete surveys**, also partly due to complex survey procedure and "stressful situations“

Weather

- **Binary allocation „good / bad“ is problematic** - especially because of the extrapolation, which is dependent on this allocation

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1. Estimating visitor numbers

Counts / Short interviews

- The **counting of residents** remains very unclear - we suspect a mixed handling within the studies
- Beforehand, it is necessary to **clarify the actual crowding of visitors**, sometomes more interviewers need to be employed to handle one location

Conclusion: High costs and time-consuming in terms of administration

Calculations / Extrapolation

- **Time-consuming data preparation**: digitalization necessary
- **complex calculations** that are still theory-driven

Conclusion: We found that real visitor numbers are more accurate than our calculations

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2. Visitor Structure

Gesamt	Anwohner	Tages-touristen	Kurzzeit-Übernachtung	Langzeit-Übernachtung	Übernach-tung gesamt	Nicht zuorden-bar
295.000	7.000	164.000	72.000	31.000	103.000	21.000
100 %	2 %	56 %	24 %	11 %	35 %	7 %

Short interviews:

- All types of visitors can be identified and differentiated according to target groups (hikers, cyclists, day visitors, residents, etc.)

Long interviews:

- High sample creates high-quality data (about 900 surveys)
- Combination of short and long interviews is cost-efficient

Calculations of tourism expenditures:

- Detailed information on different types of expenditures

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2. Visitor structure

Short interviews

- **Detailed query** of accommodation categories seem questionable, especially price categories, but also type of accommodation

Long interviews

- **Time-consuming data preparation**: digitalization necessary
- **Very long survey;** could be reduced up to 50%
- Actual **expenditures might vary** – demand related sensitive information might create errors of judgement – is there studies on that?

Calculations of tourism expenditures:

- **Rounding up** to thousands of visitors vs. specific calculation on visitor numbers
- **Needed clarifications on terms**: calculations are based on visitor numbers (or visitor days), not overnight stays -> might reduce real expenditures