

Impacts from tourism in protected areas



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The basic understanding and knowledge about the area

- What kind of area?
 - The ecological qualities?
 - The cultural heritage qualities?
 - The social qualities?
 - What are the conservation goals?
- What are the potentials for new infrastructure, new activities etc.?

The main points ..

- General knowledge about (possible) environmental impacts has only limited interest.
- The local, site specific situation is the interesting level!
- Therefore, a need for
 - local knowledge,
 - local understanding,
 - local adaptation of both tourism development and of environmental monitoring.

Environmental Effect!

Environmental Consequens?

- Any type of use (e.g. tourism activity) will have an environmental effect, and a social effect.
- These effects can be negative, neutral or positive.

- The question is:

When are these effects problematic, og why?

There are two important levels:

Two basic levels (EFFECTS):

- **Environmental effects of use** = the measurable biological and/or physical-chemical effects of use, e.g. wear and tear on the ground, disturbance of animals, pollution, ruining cultural objects, etc.
- **Sociale effects of use** = the measurable effects for humans and society, e.g. satisfaction, irritation, health, changed environmental attitudes, economical outcome, new employment etc.

One higher level (IMPACTS):

- **The consequence of the effect knowlegde=SO WHAT?**
Meaning: What should the consequence be for the actual management of the area, site, species, object etc?

From Effect to Impact/Consequence

When certain types of use is desired in the area:
What kind of use is desired, what kind of effects
is **acceptable**, in what amount, where, and why?

So:

- **Measuring EFFECTS** is about science.
- **To judge the CONSEQUENCES** when we know the effects is about combining science and **politics** (NB: Conservation goals shall give guidelines!)

An example: Svalbard



“Environmental impact from human traffic. Recording and assessment of disturbance on vegetation, cultural heritage and animal life” (interdisciplinary, Projectleader Dagmar Hagen, NINA)

Management of Svalbard – goals and contradictions



**Political
goals**

**Industry
(economic
activity)**

**Protect
nature
values**

Tourism is a
wanted activity at
Svalbard

Tourism has an
effect on the
environment (and
on the visitors)

**MANAGEMENT
CHALLENGE**

**WHEN IS THE EFFECT A PROBLEM?
HOW TO DEVELOP THE BEST MANAGEMENT
STRATEGIES?**



Other relevant types of effects from human use:

- Garbage, litter
- Pollution
- Diseases (through water etc.)
- Technical installations / infrastructure
- Disturbed people?



*Influence/
use*



Value



Site



Vulnerability

Vulnerable vegetation

- **Resistance**

- ability to remain unaffected to external changes

- **Resilience**

- ability to recover after disturbance



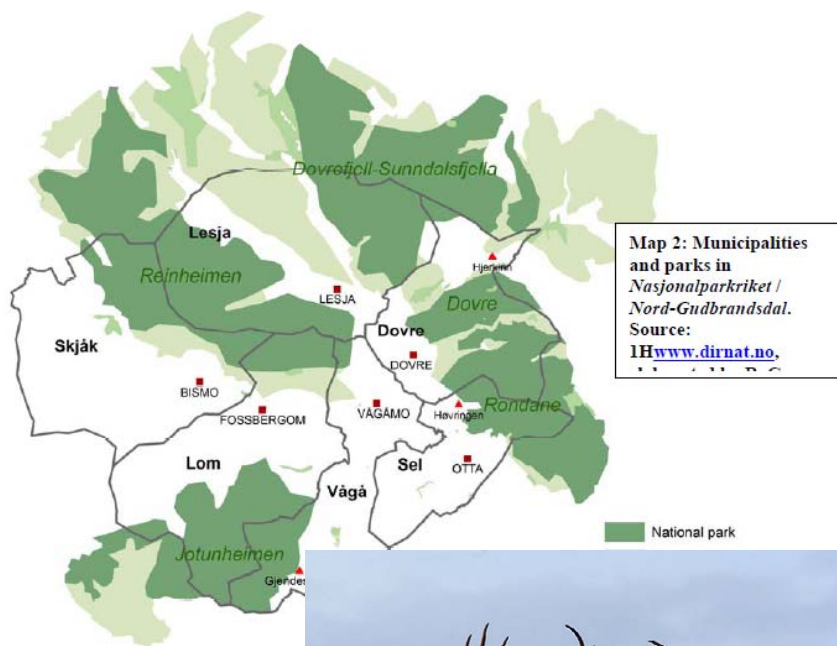
Low resistance + low resilience → "worst case"

Animal life

Disturbance; what is that?

- When individuals run or fly away?
 - Not necessarily...
- Ecological approach:
 - When their living area is seriously reduced and/or when reproduction is seriously reduced
 - → a threat against the population!
- Often complicated to study the influence of (different kinds of human activity on animal life).

New project: How human activity influences wild reindeer



- In 3 national parks
- 4 year study
- Wild reindeer: very area demanding
- Complicated to measure human activity in such areas



Human use → environmental effect

Different types of human activity and behaviour give different types of effects.

→ We need detailed knowledge about the human presence and activity, in order to record the actual effect

This is often complicated to measure.

Concluding remarks

