

VALUING ECOSYSTEM SERVICES IN ESIA

What does it mean?

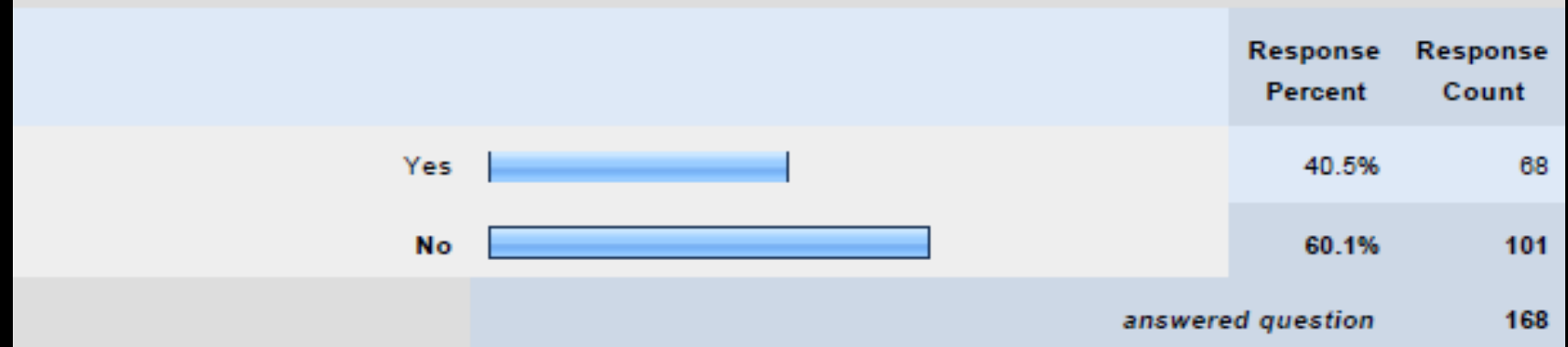
February 7, 2013

Florence Landsberg, WRI




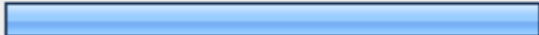
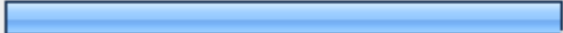
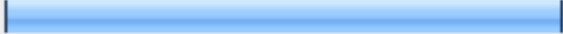


Ecosystem services in EA: 2010 practices

4. Have you ever seen ecosystem services addressed in Environmental Assessments?

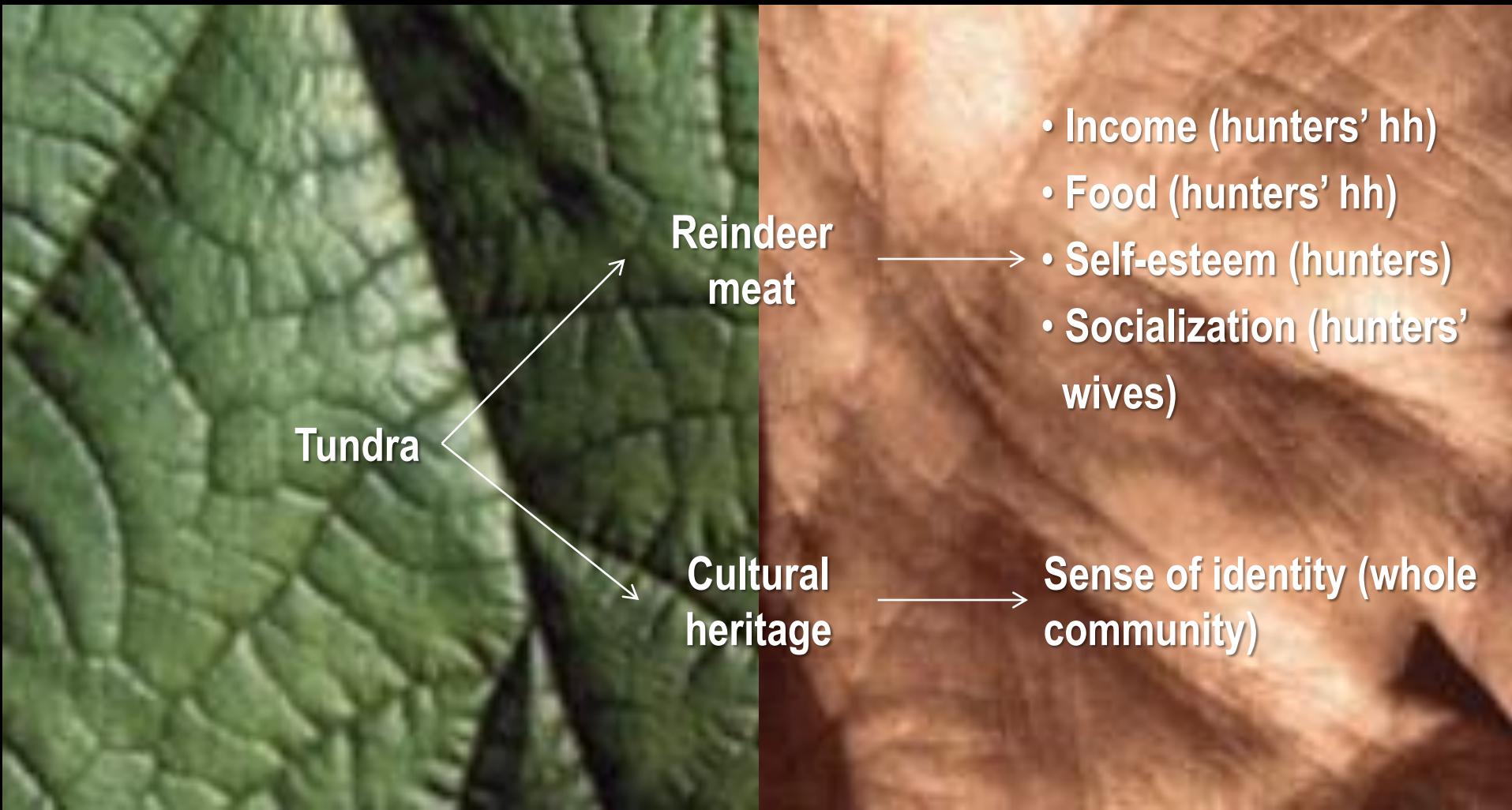


12. What are the barriers to a wider use of ecosystem services in Environmental Assessments? Check all that apply.

		Response Percent	Response Count
Lack of understanding of what ecosystem services are		78.6%	92
Lack of understanding of the added value of addressing ecosystem services in Environmental Assessments		78.6%	92
Lack of guidance on how to address ecosystem services in Environmental Assessments		85.5%	100
Absence of requirements from clients in the ToR		68.4%	80
Absence of regulatory requirements		70.9%	83
Lack of data on ecosystem services		70.9%	83
	<i>answered question</i>		117

Ecosystem services: definition

Direct and indirect contributions of ecosystems to human well-being



Valuing ecosystem services in ESIA: what does it entail?

Scoping



Baseline



**Impact
Analysis**



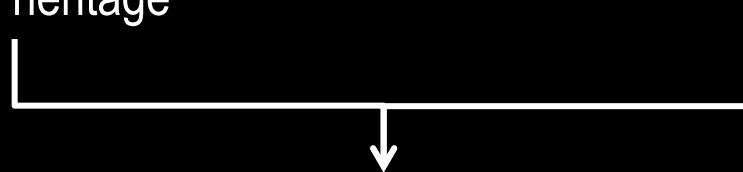
Mitigation

1. Scoping for ecosystem services

Select environmental impacts based on socio-economic criteria

Impact on ecosystem service
could lead to change in
livelihood, health, safety or
cultural heritage

Affected stakeholders highly
dependent on ecosystem
service



Ecosystem service to be
addressed in later stages of
ESIA process

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2. *Baseline for ecosystem services*

Establish current benefits affected stakeholders derive from ecosystem services

CURRENT ECOSYSTEM SERVICES

Reindeer meat
Cultural heritage



CURRENT BENEFITS TO AFFECTED STAKEHOLDERS

- Income (hunters' hh)
- Food (hunters' hh)
- Self-esteem (hunters)
- Socialization (hunters' wives)
- Sense of identity (whole community)

3. *Impact analysis for ecosystem services*

Predict environmental impacts in terms of changes in benefits to affected stakeholders and...

PROJECT
ENVIRONMENTAL
IMPACTS ON TUNDRA

Air pollution
Water abstraction
Water pollution
Change in habitat



CHANGES IN
ECOSYSTEM SERVICES
Reindeer meat
Cultural heritage



CHANGES IN BENEFITS TO
AFFECTED STAKEHOLDERS

- Income (hunters' hh)
- Food (hunters' hh)
- Self-esteem (hunters)
- Socialization (hunters' wives)
- Sense of identity (whole community)

3. *Impact analysis for ecosystem services (ctd)*

... assess significance of impacts for affected stakeholders

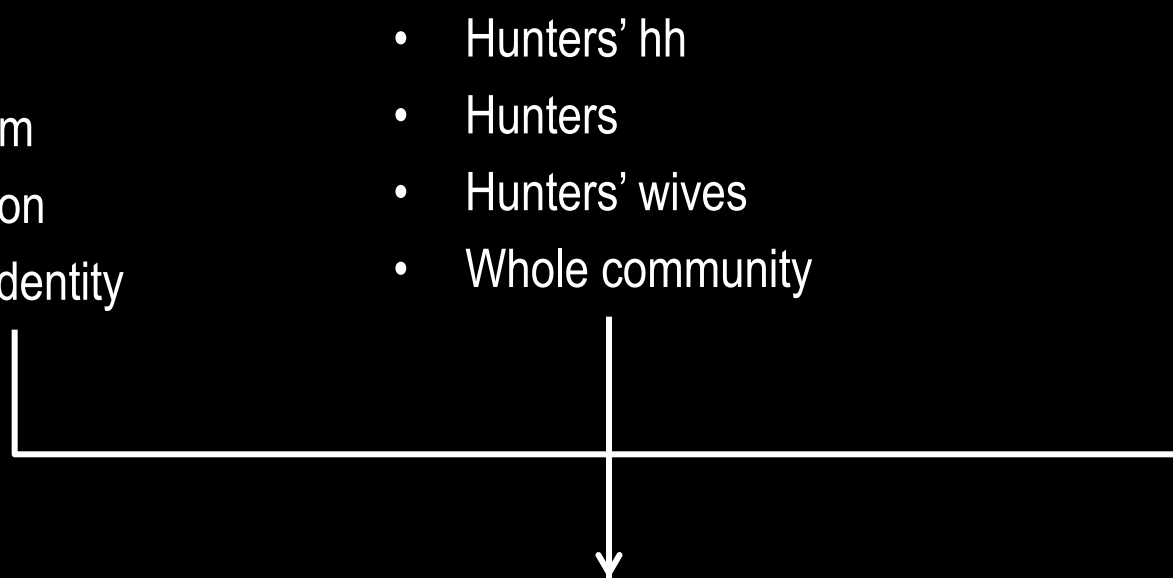
IMPACT MAGNITUDE

- Income
- Food
- Self-esteem
- Socialization
- Sense of identity

SENSITIVITY OF RECEPTORS

- Hunters' hh
- Hunters
- Hunters' wives
- Whole community

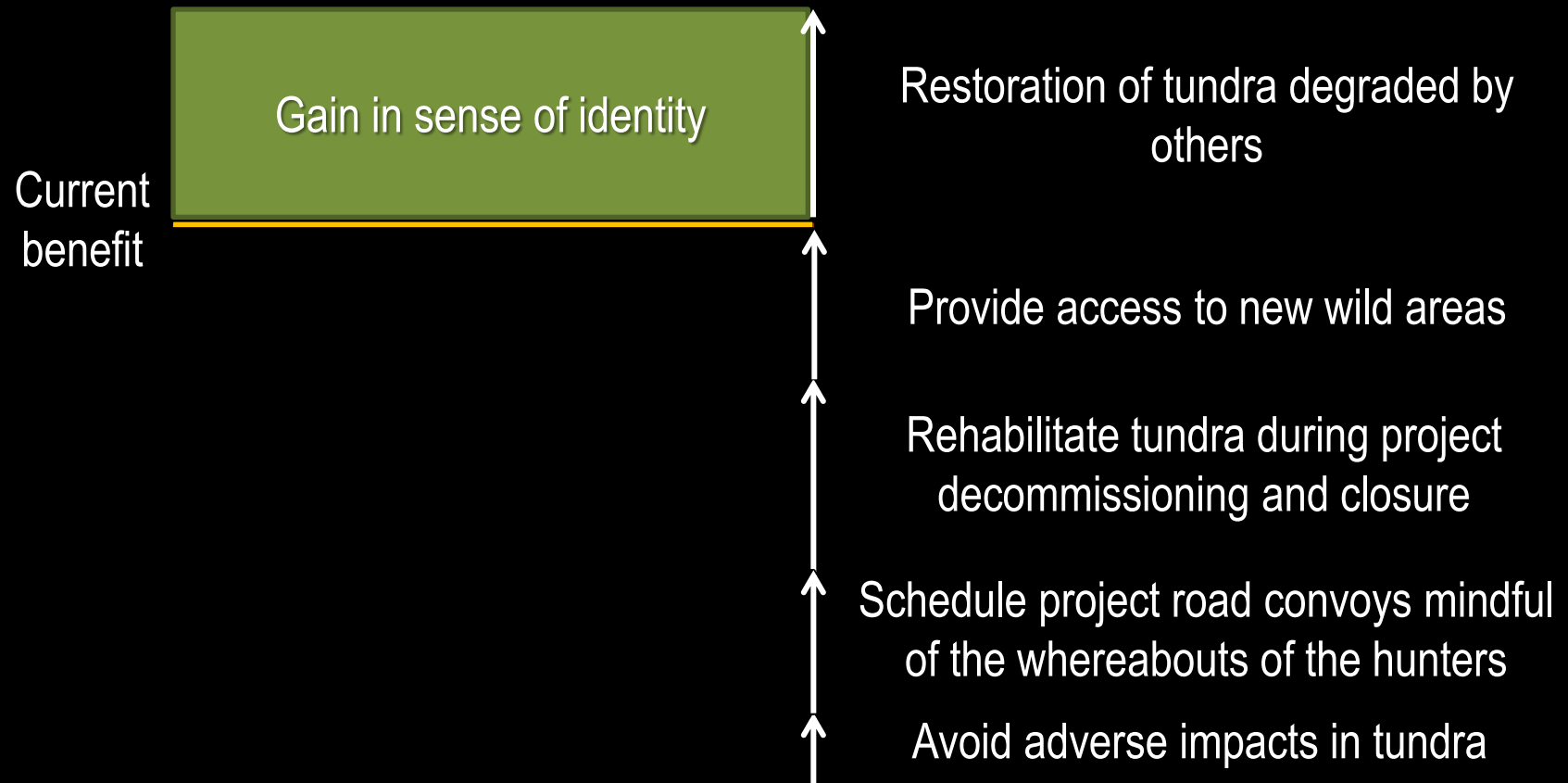
LIKELIHOOD OF OCCURRENCE



IMPACT SIGNIFICANCE

4. Mitigation stage

At least maintain the benefits affected stakeholders derive from ecosystems impacted by the project






Valuing ecosystem services in ESIA: what for?

Additional collaboration between social and environmental practitioners will go a long way in:

1. Unveiling social impacts
2. Better understanding the socio-economic dimensions of environmental impacts
3. Improving mitigation of social impacts

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"In general, (ecosystem services) gave me like "new glasses" for looking at a project I thought I knew very well. "

Social practitioner who road-tested the
Ecosystem Services Review for Impact
Assessment