

Northern ToSIA

Effects of considerations in forestry to reindeer husbandry and/or nature

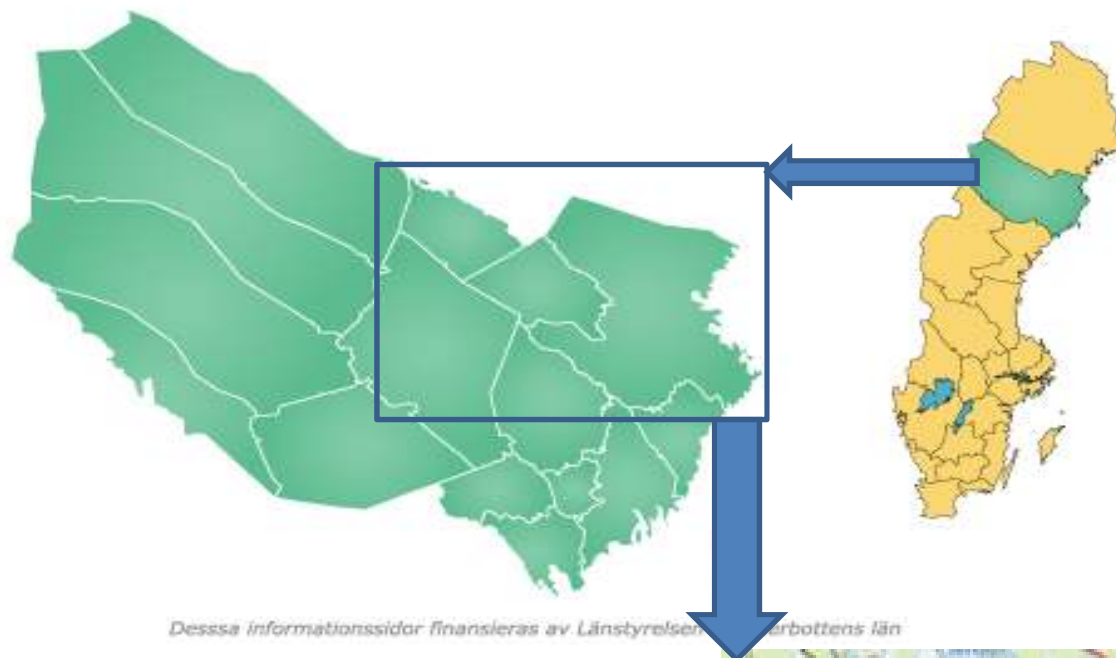


The Malå Case study

Staffan Berg, Torgny Lind, Habib Ramizani, Erik Valinger,
Ann-Kathrin Persson

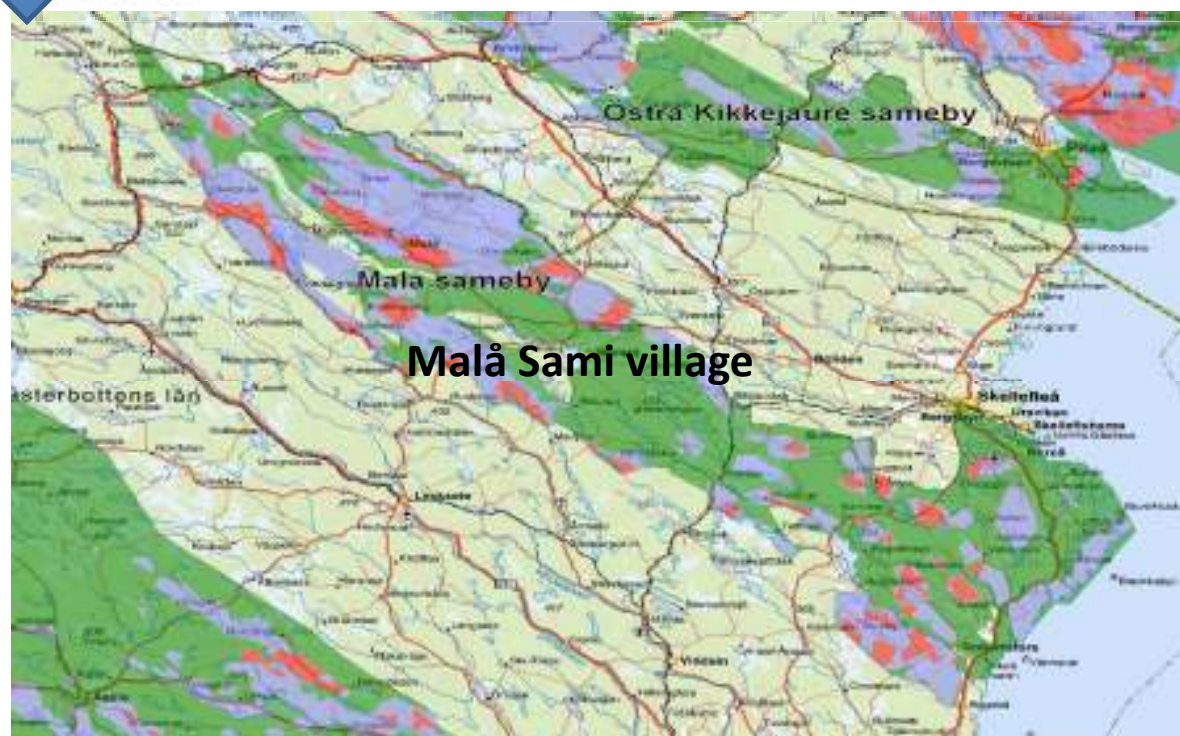
Studied scenarios

- How are economic, environmental and social values affected by increased consideration to:
 - Reindeer husbandry
 - Nature
 - Combined - reindeer husbandry and nature
- Reference
 - Business as usual



Localisation of the study

Dessa informationssidor finansieras av Länsstyrelsen i Norrbottens län

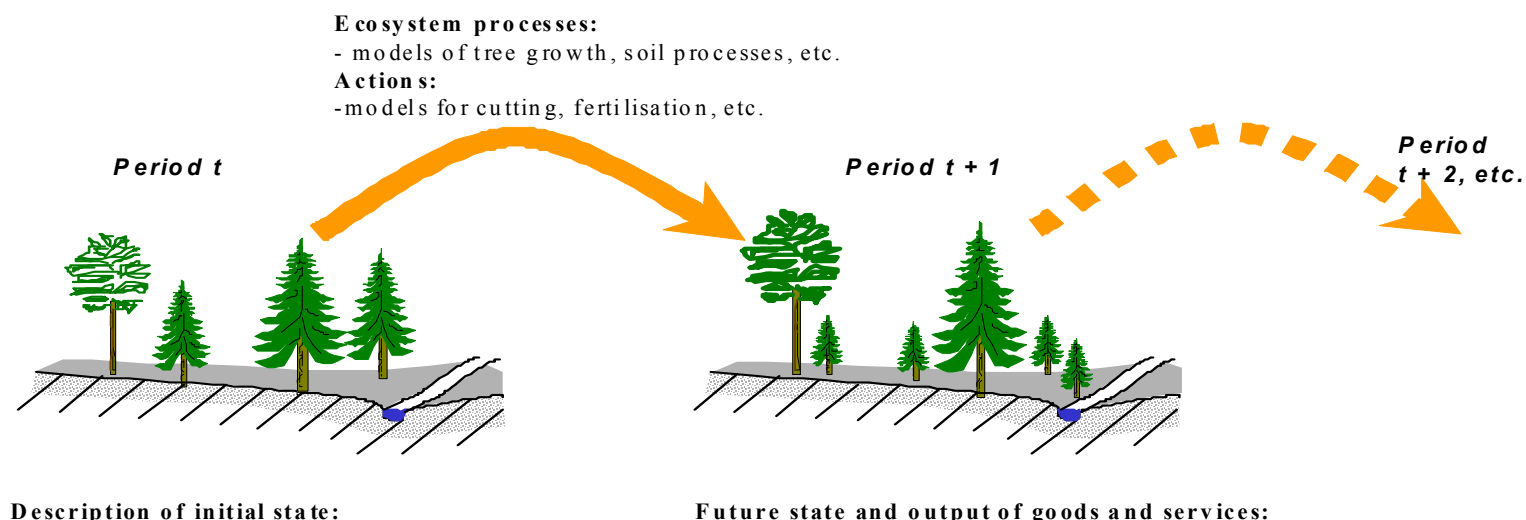


Material

- The studied area is about 750 000 ha
- 530 00 ha productive forest
- Half of the forest area is owned by small private forest owners and half by companies and the state
- The forest sector is important for the local economy in the area
- The annual cuttings is about 1,3 mill m³
- 6200 adult reindeers during winter

Method

- Swedish National Forest Inventory data from 2003 to 2007 and reindeer husbandry plan
- The different forest management practices in the scenario analyses were forecasted using the forest simulator (RegWise)



Reindeer husbandry

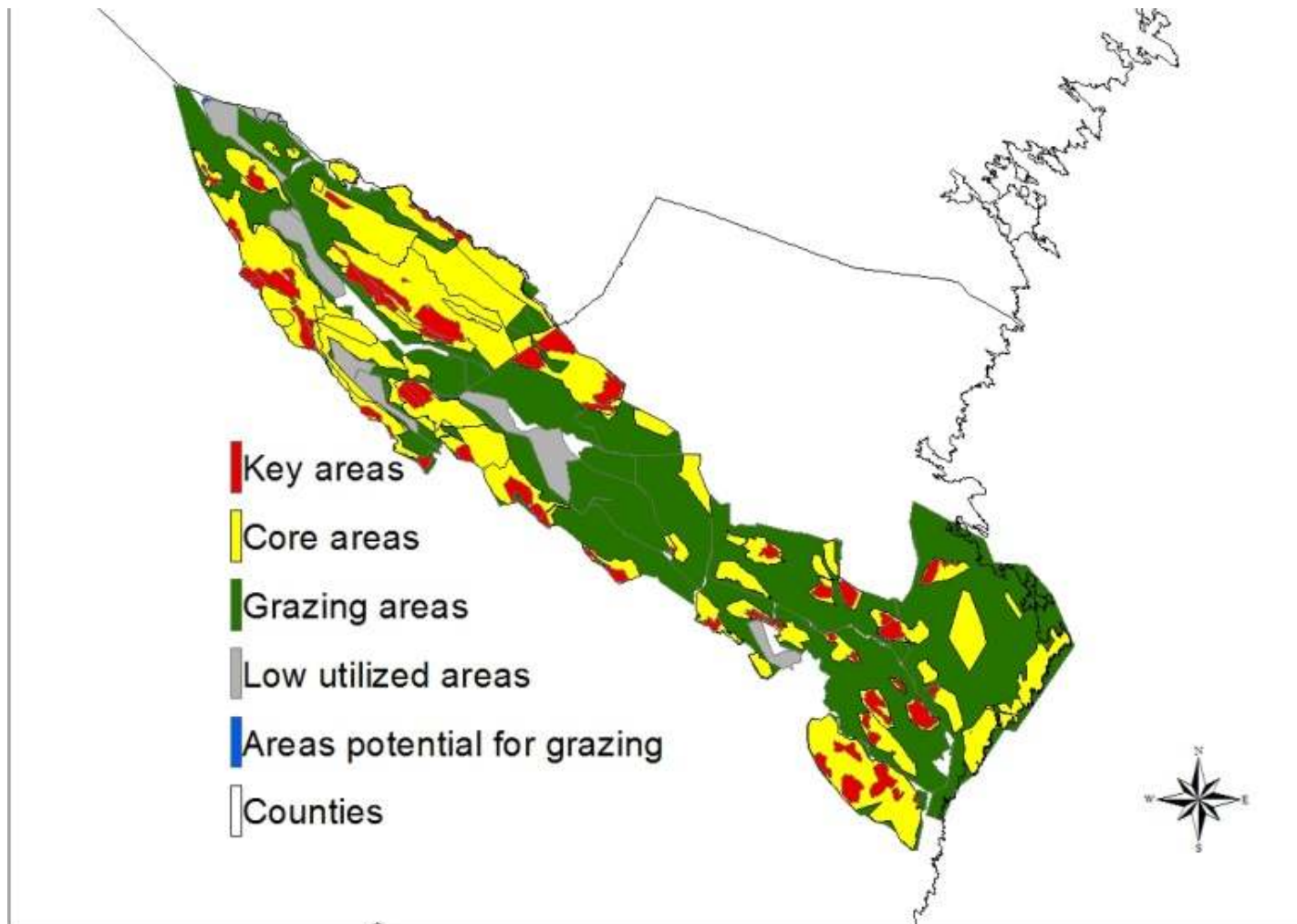
- The forest policy with adjustments proposals of current forest practices for large forest owners by the National Association of Swedish Sami was adopted

Examples of adjustments:

- more careful soil scarification
- less lodgepole pine
- higher proportion of natural regeneration
- stronger cleaning and thinning
- less fertilisation
- more old-growth



Reindeer husbandry



Nature

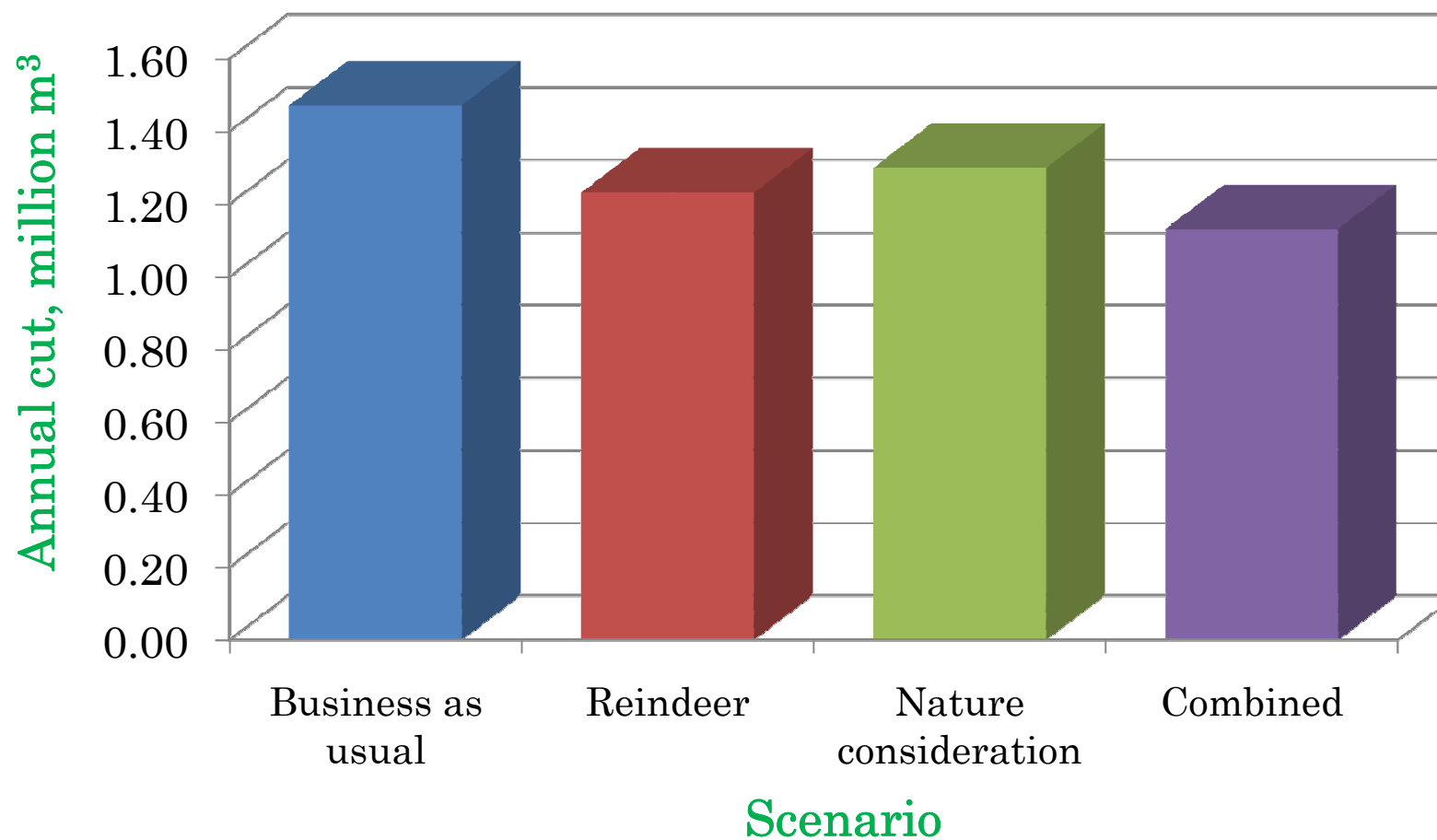
- To keep the biodiversity in the forest landscape
 - larger set-aside areas
 - border zones around water and mires
 - no fertilisation
 - larger proportion of old growth
 - more old trees

Combined - reindeer husbandry and nature

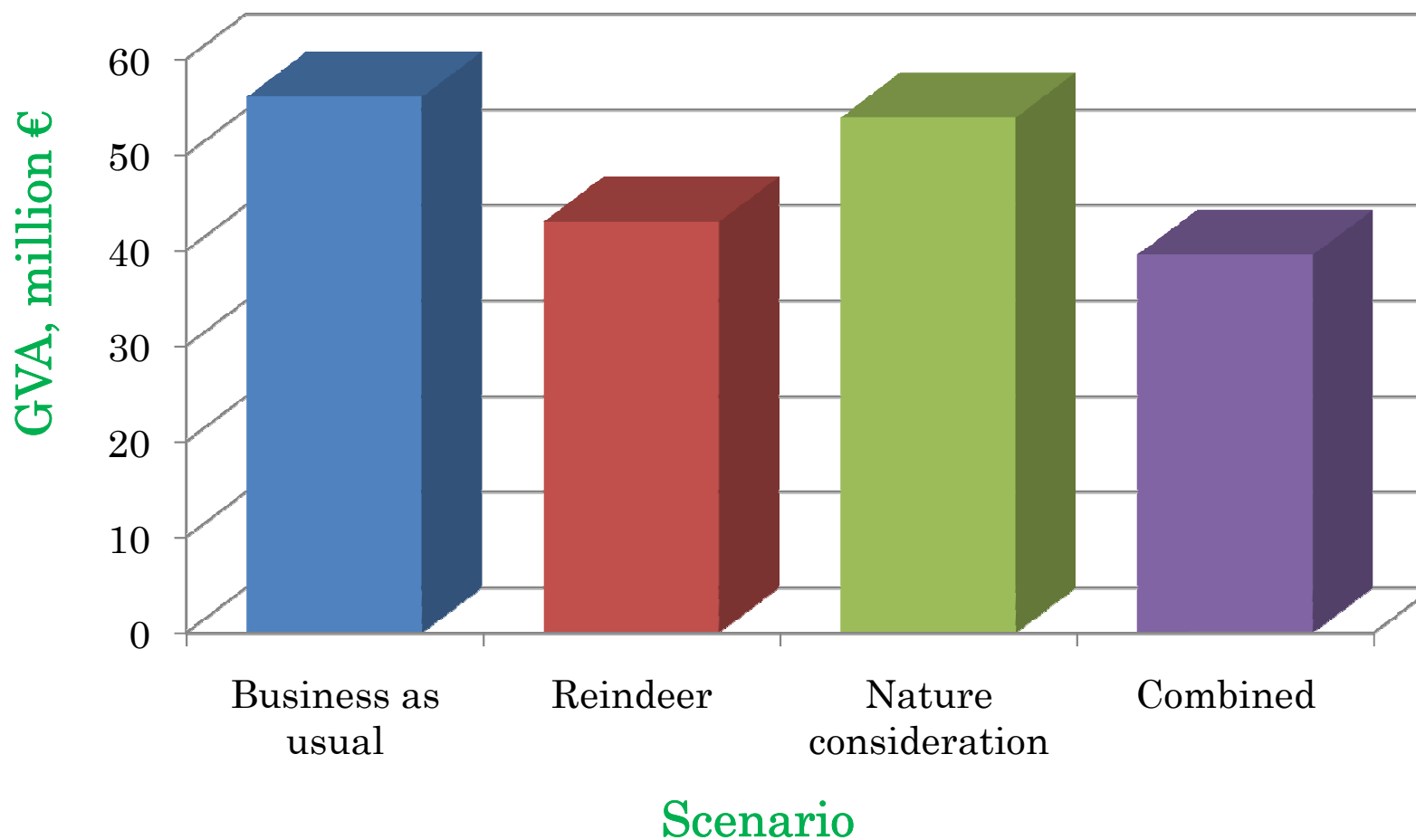
- Combination of the earlier presented



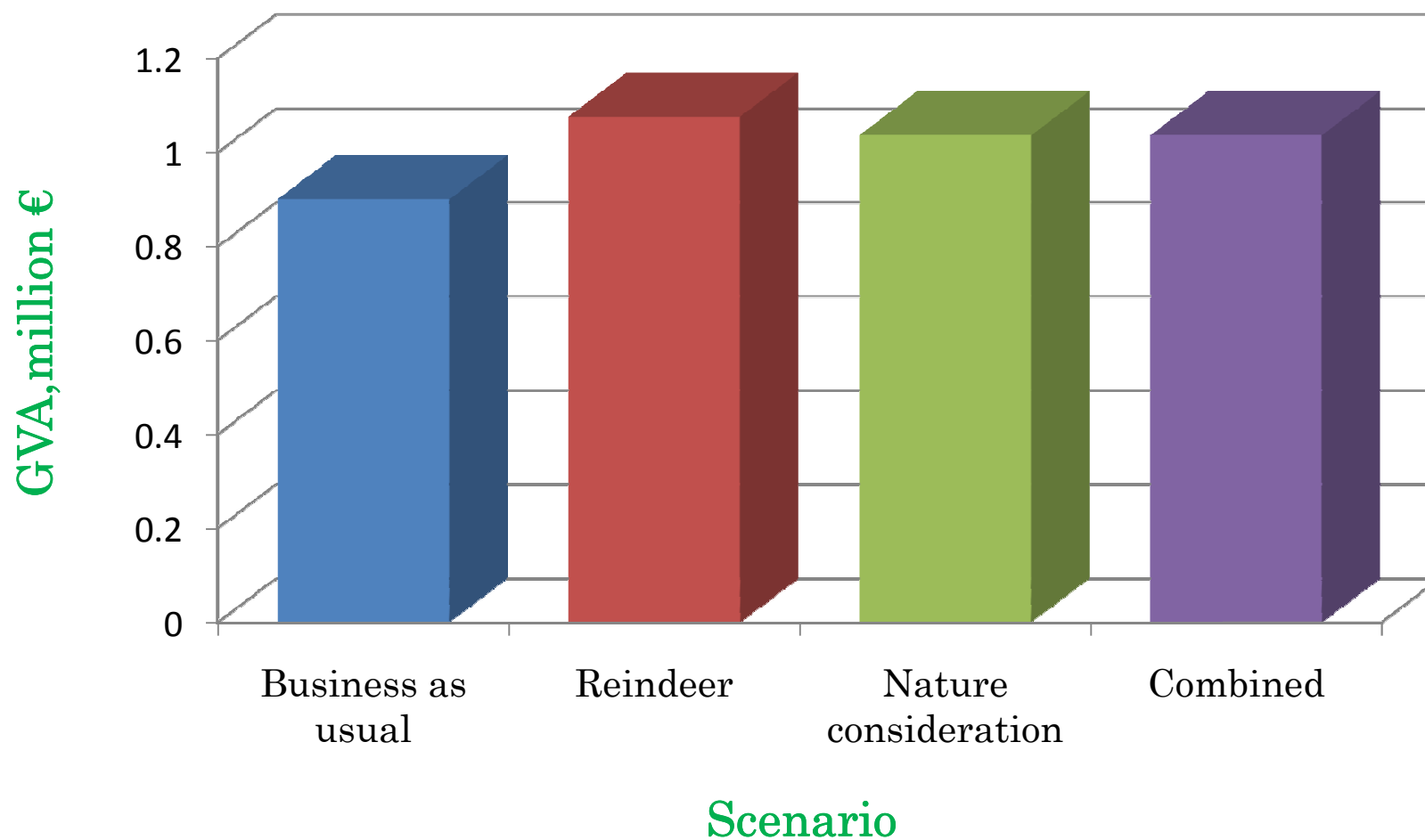
Annual cut (mean 2009-2034)



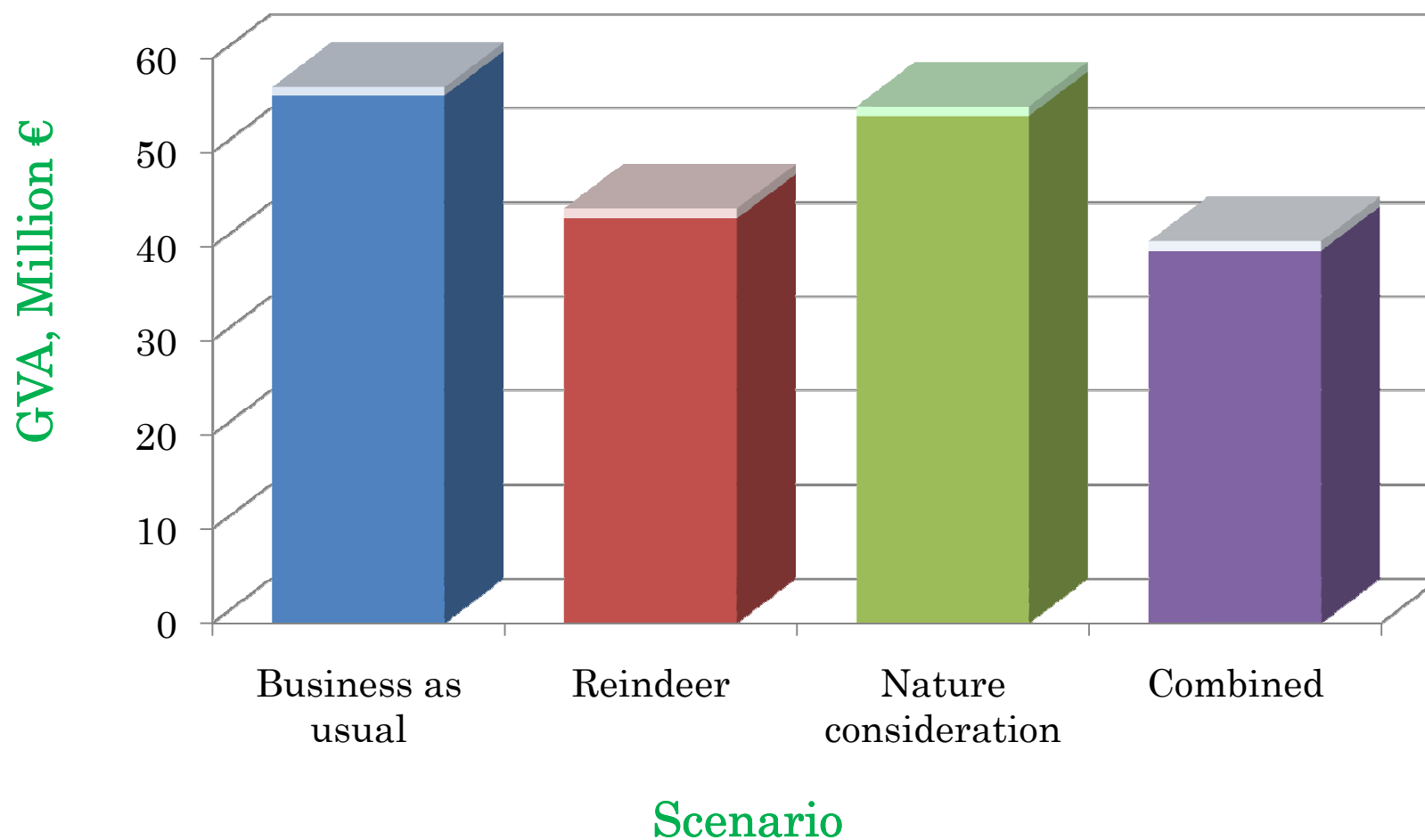
GVA from forest



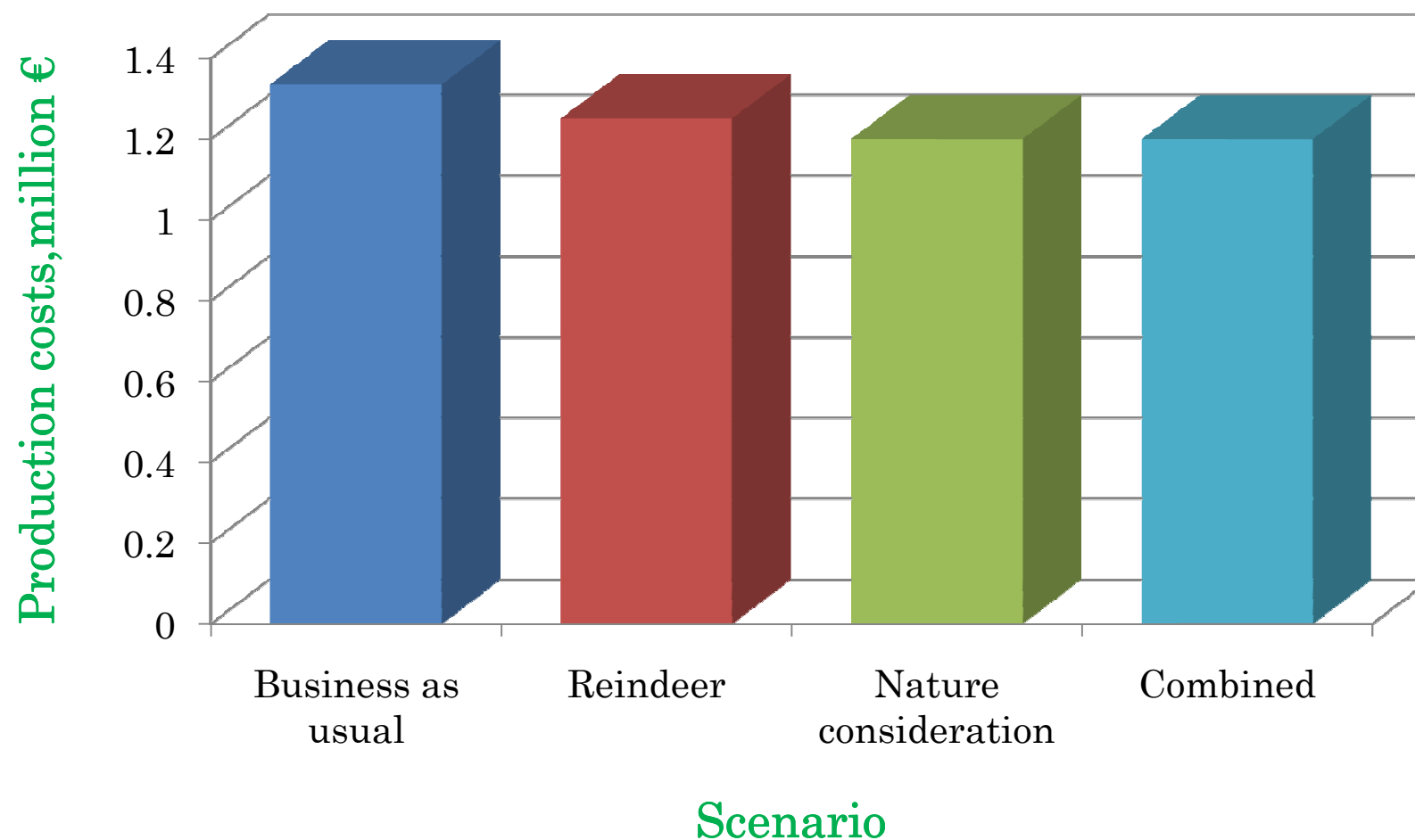
GVA from reindeer husbandry



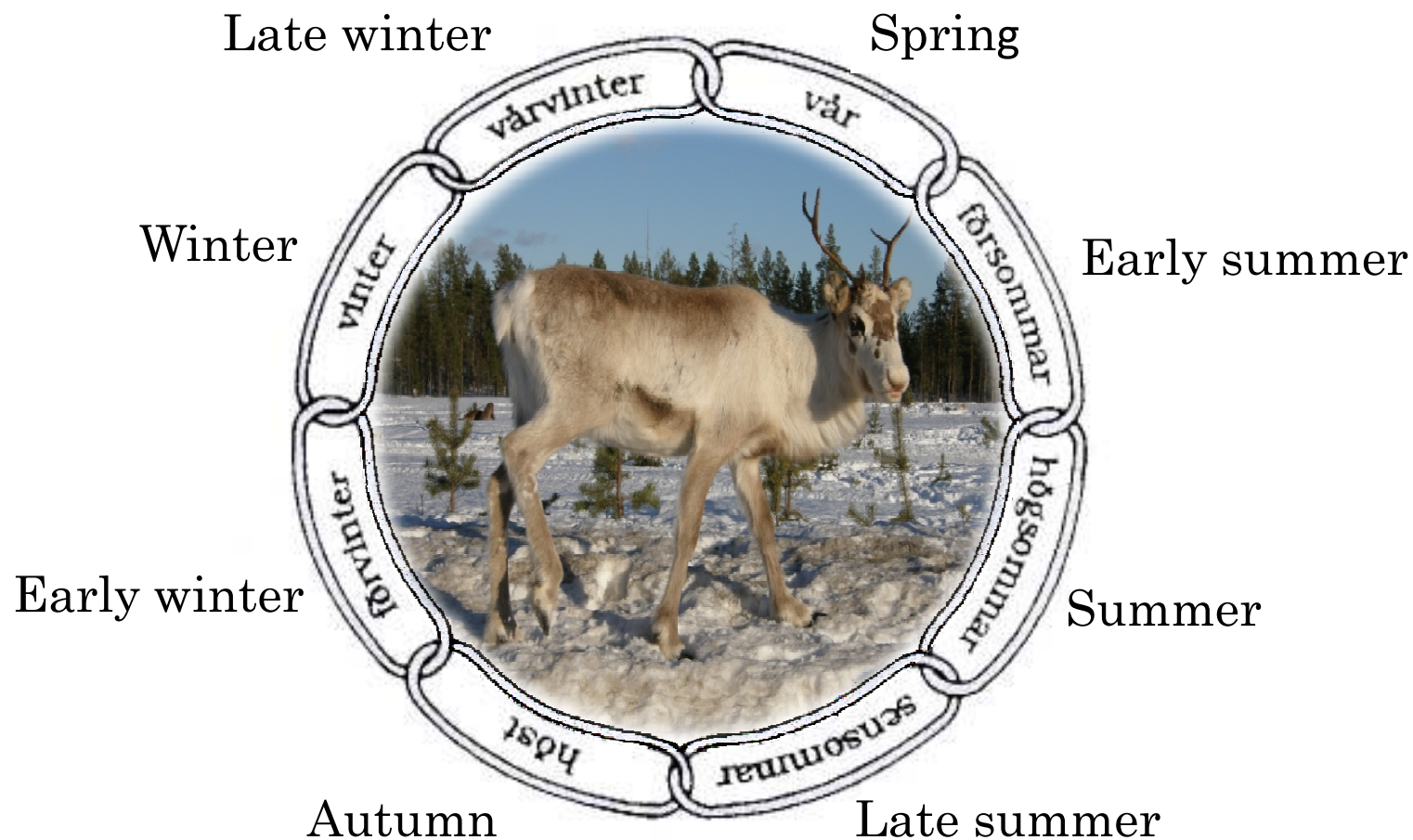
Forest and reindeer husbandry



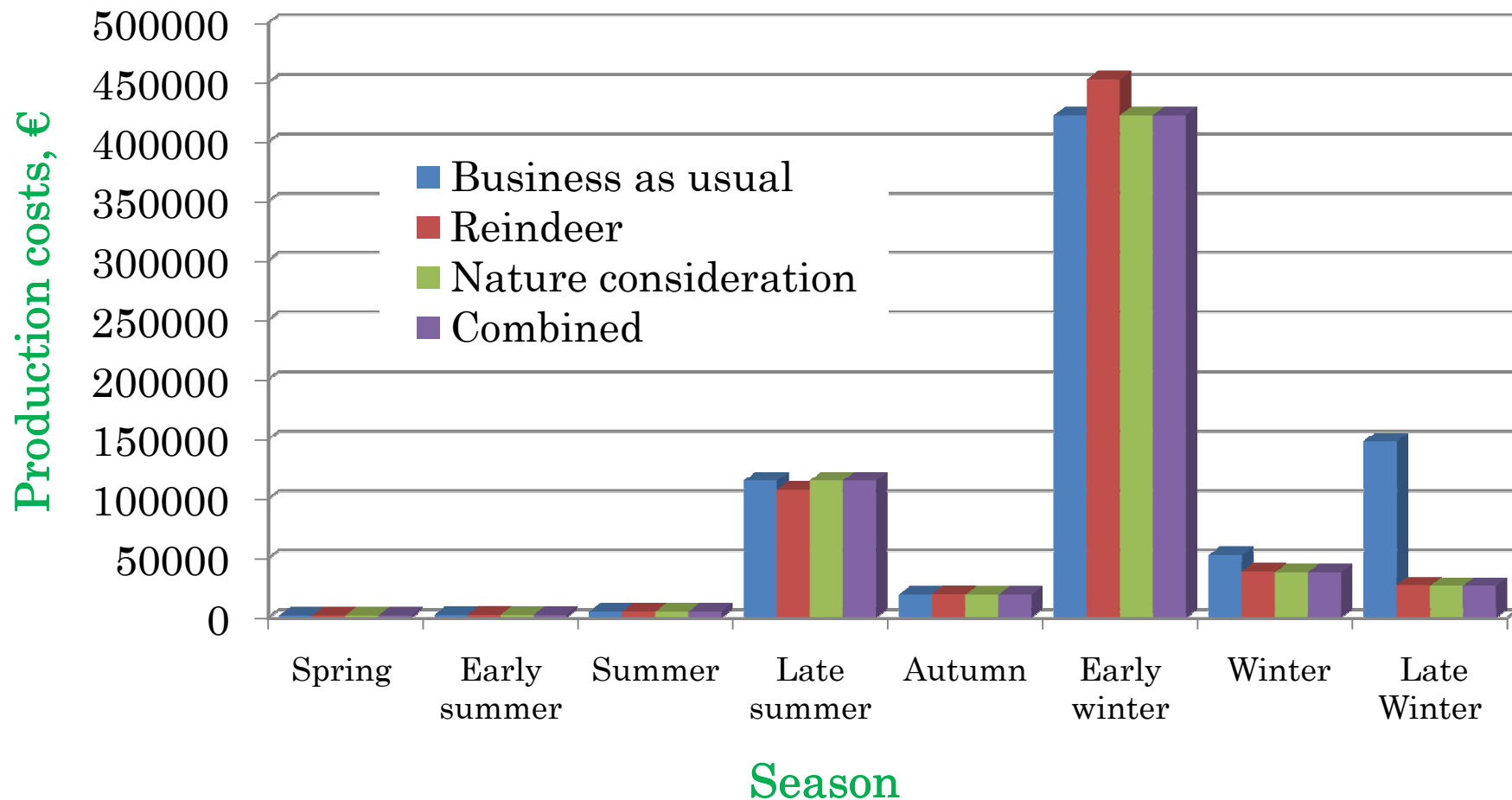
Total production costs for reindeer husbandry



The eight seasons of reindeer husbandry



Production costs for Sami village



Summary

Forest

Adjustments of practices for reindeer husbandry and nature considerations gives:

- ✓ lower annual cuttings
- ✓ lower GVA
- ✓ higher growing stock
- ✓ longer rotation periods with more old growth

Reindeer husbandry

- ✓ GVA depends highly on number of reindeers slaughtered
- ✓ Production costs are high for energy (transport), equipment (vehicles) and winter feeding
- ✓ Crucial for reindeer husbandry is losses of calves by predators and complementary winter feeding