

# Northern ToSIA

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

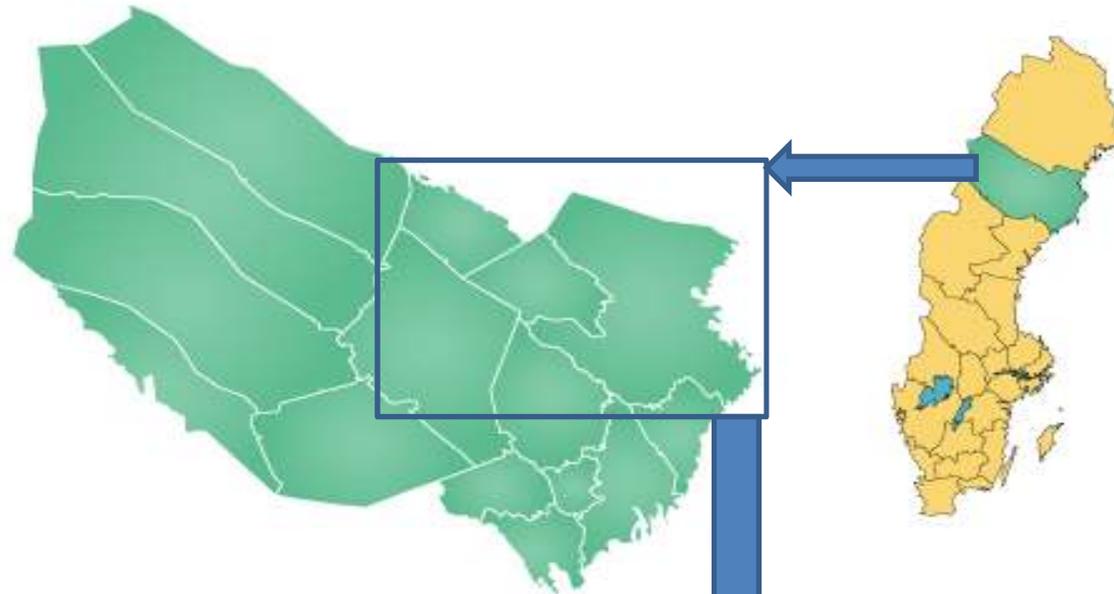


## The Malå Case study

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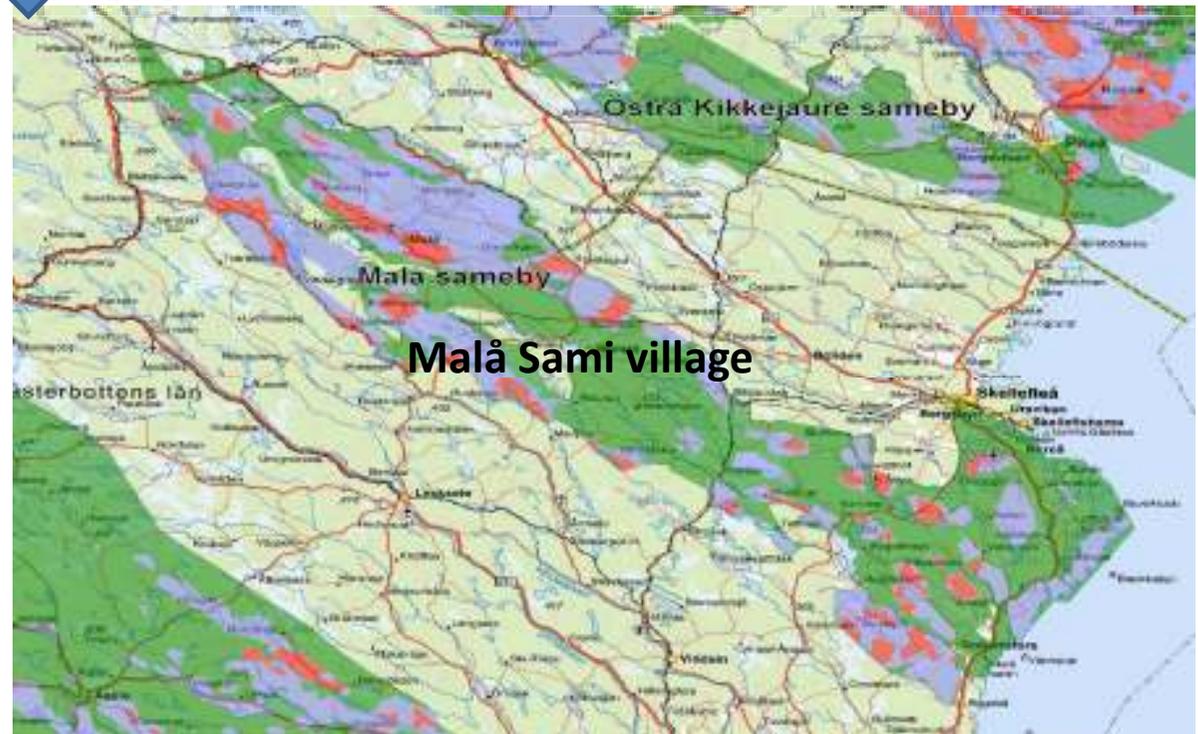
# Studied scenarios

- 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*

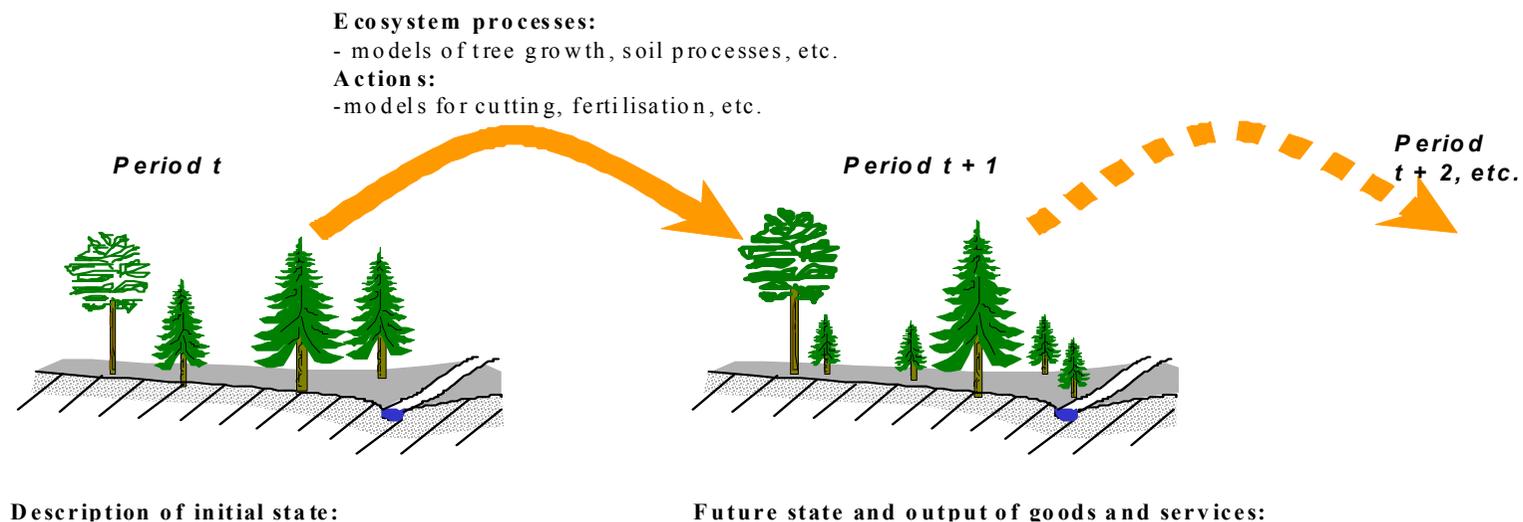


# Material

- 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 m<sup>3</sup>
- 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

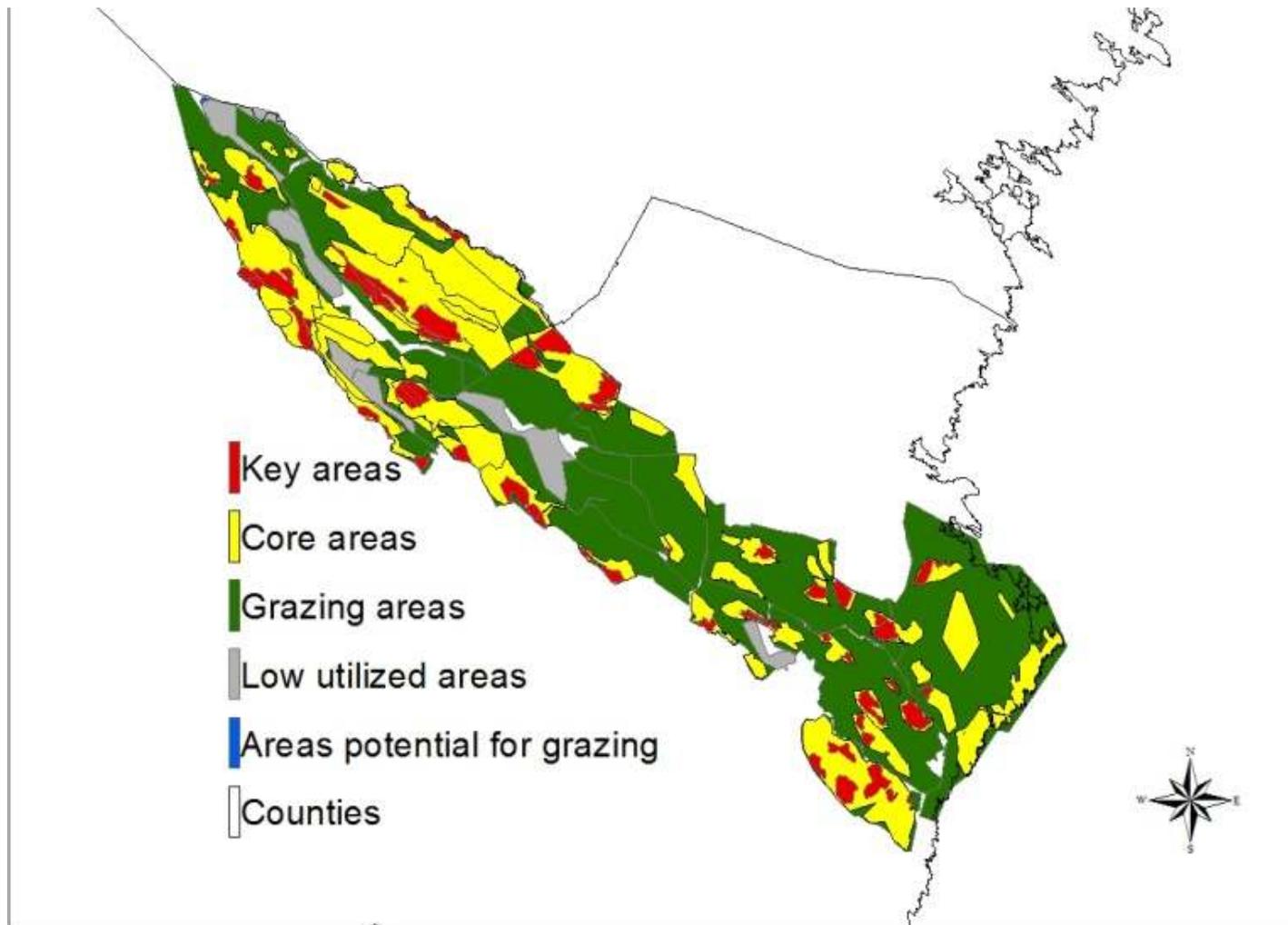
- The forest policy with adjustments proposals of current forest practices for large forest owners by the National Association of Swedish Sami was adopted

## 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

-

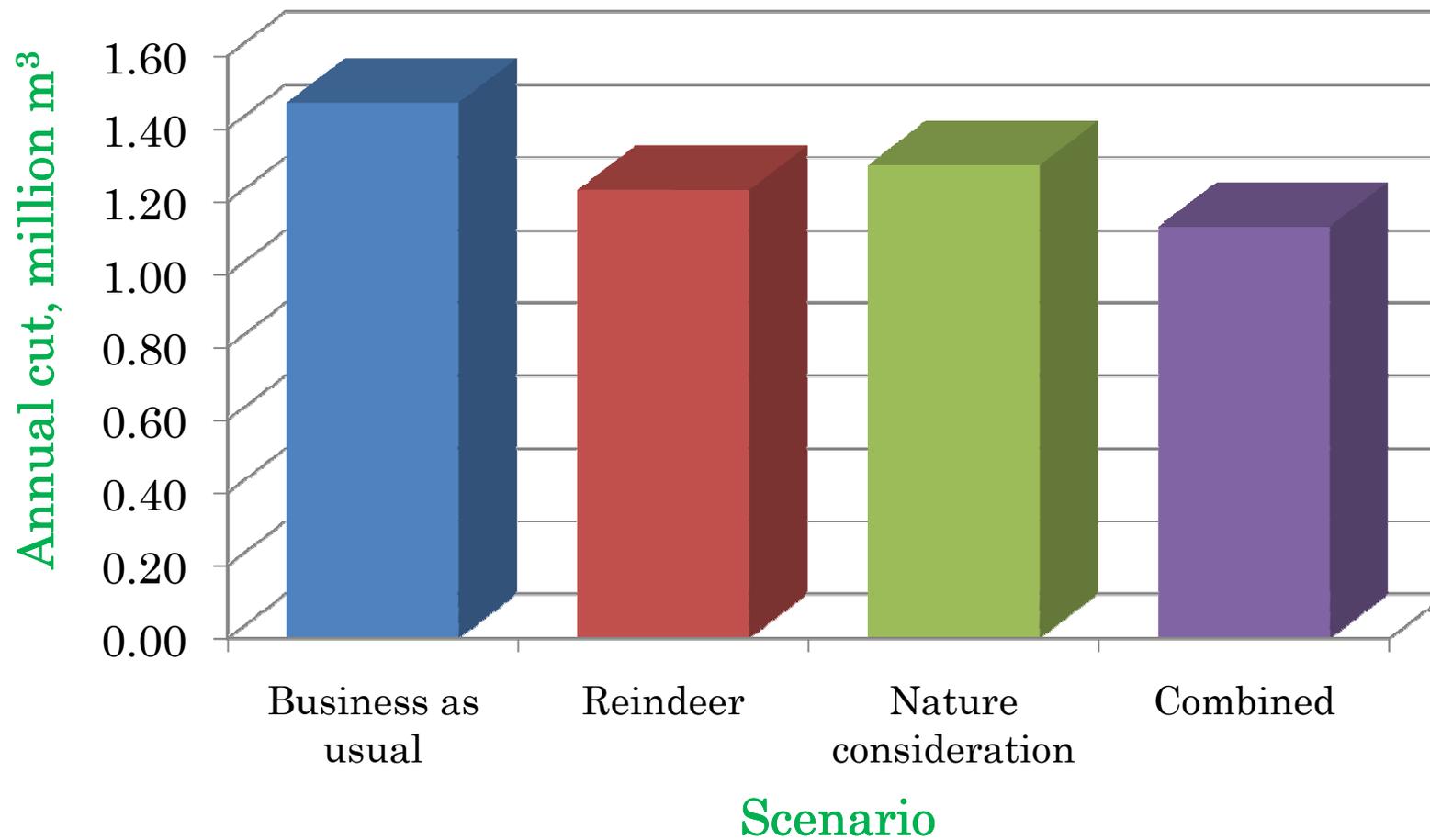
## reindeer husbandry and nature

- Combination of the earlier presented



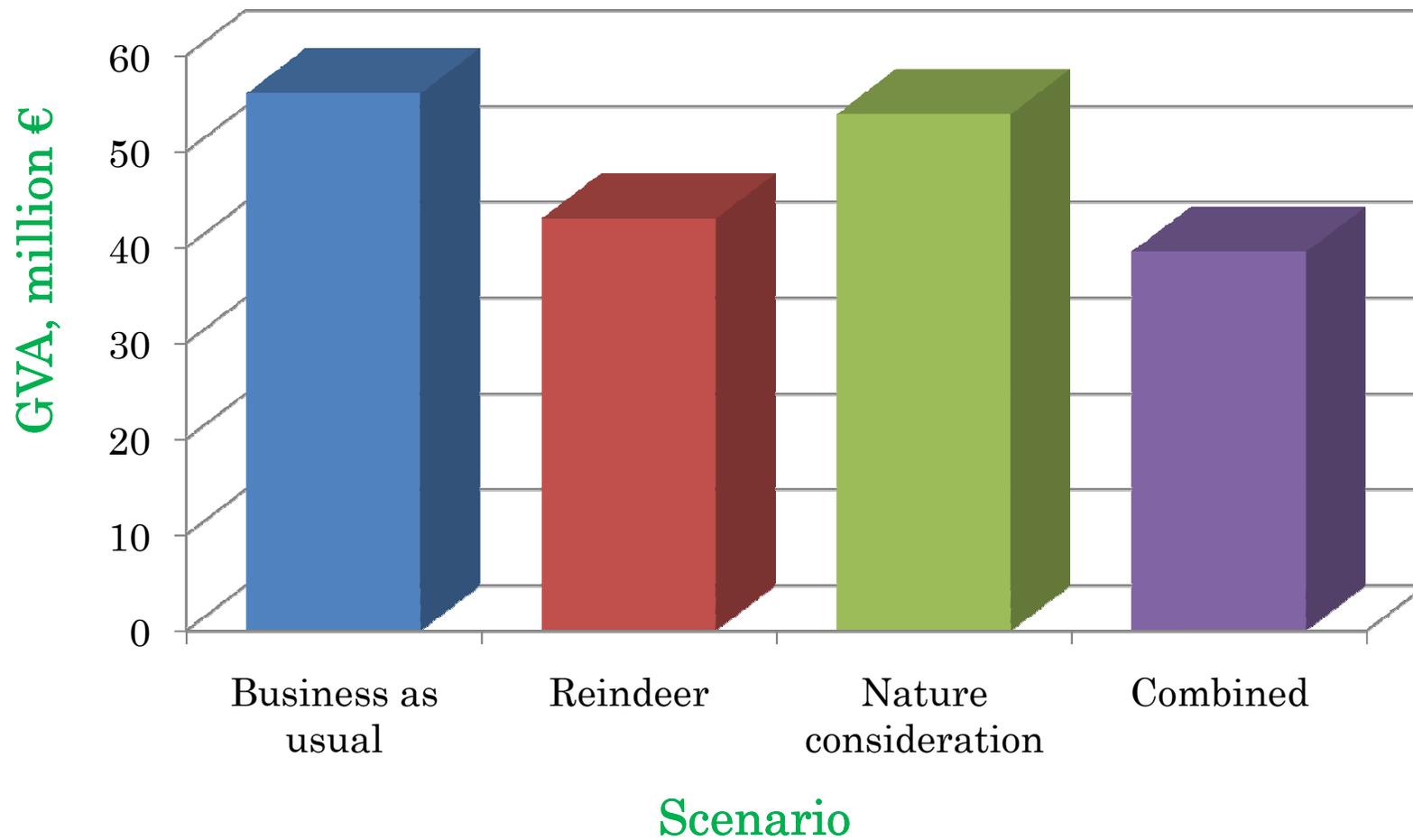


# Annual cut (mean 2009-2034)

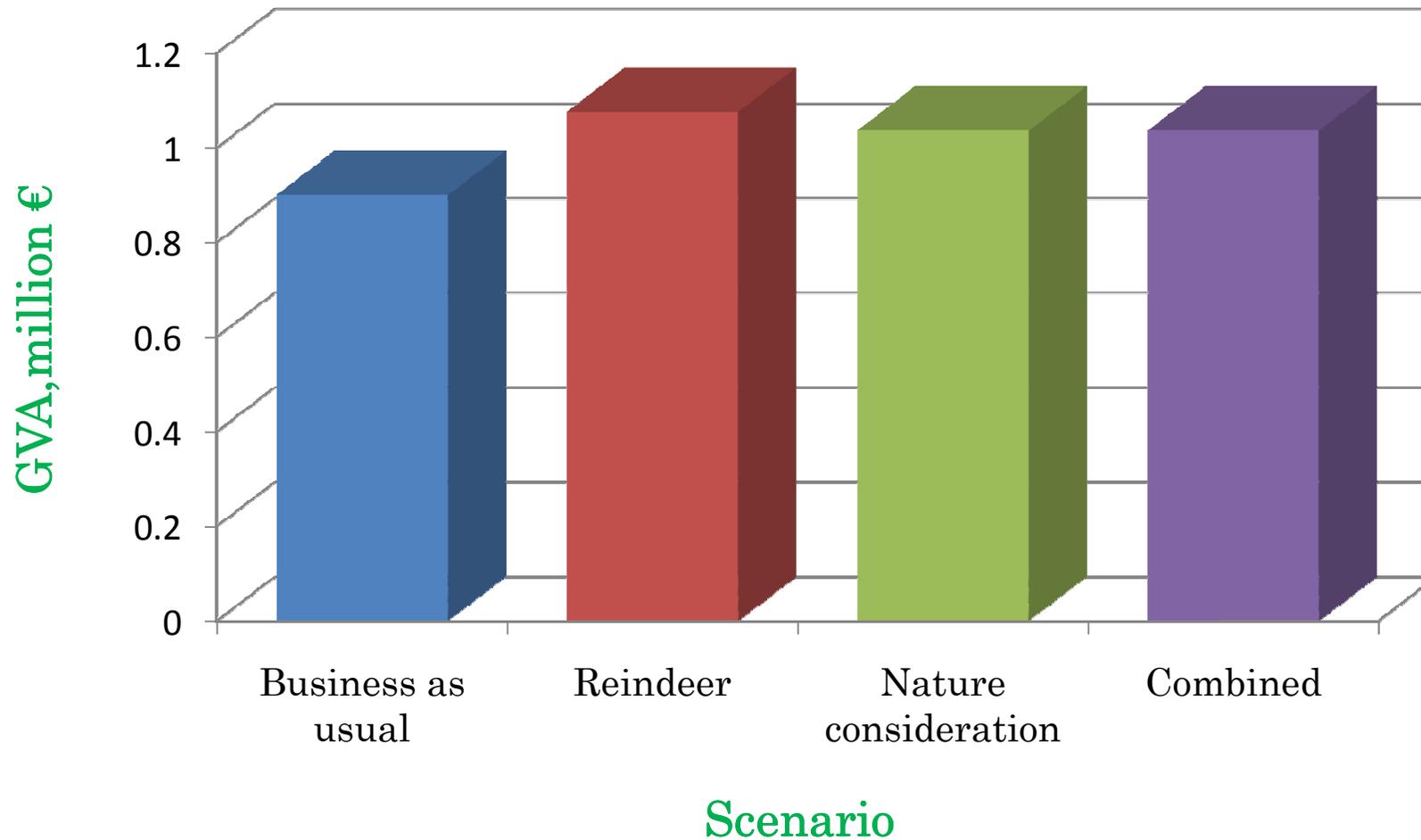




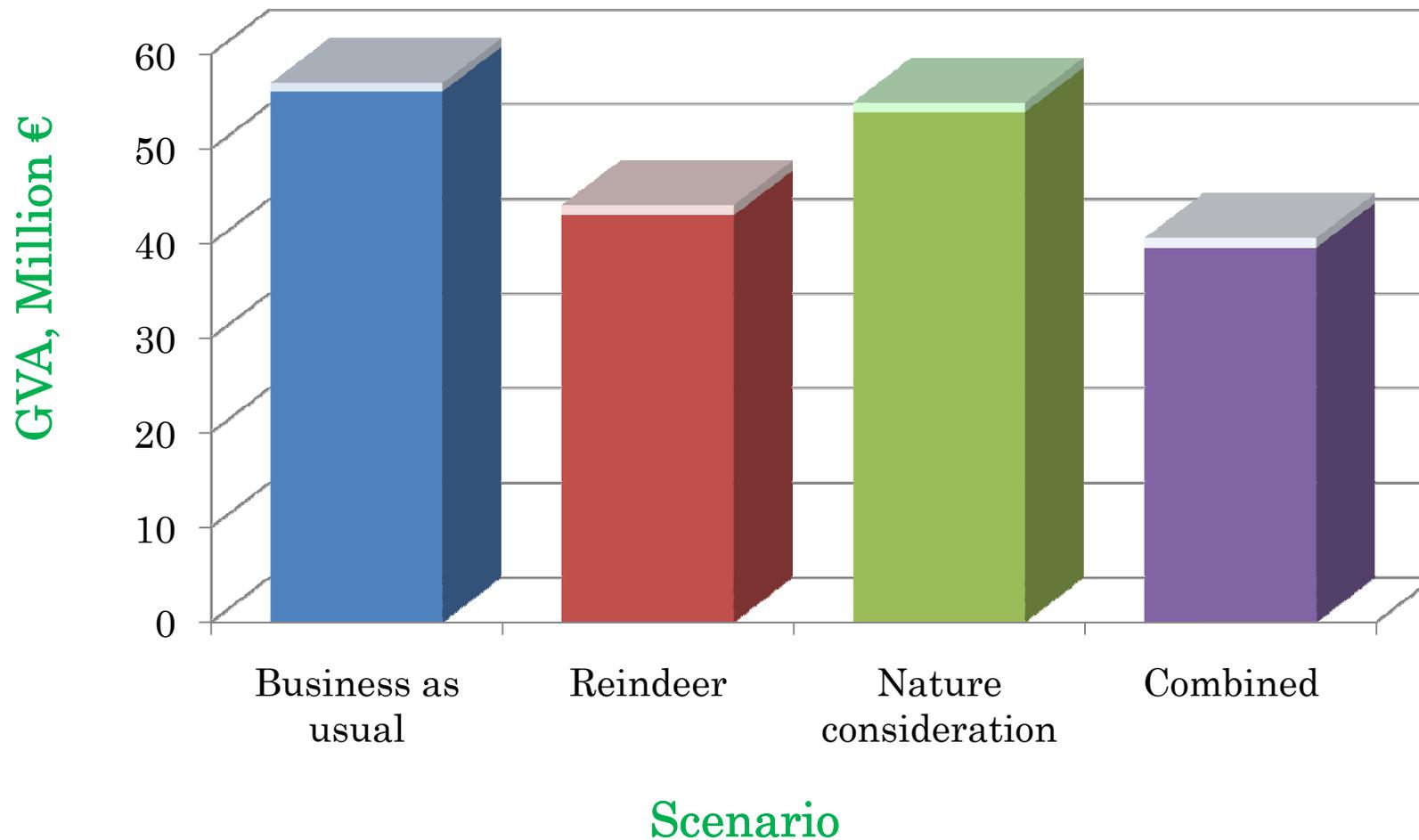
# GVA from forest



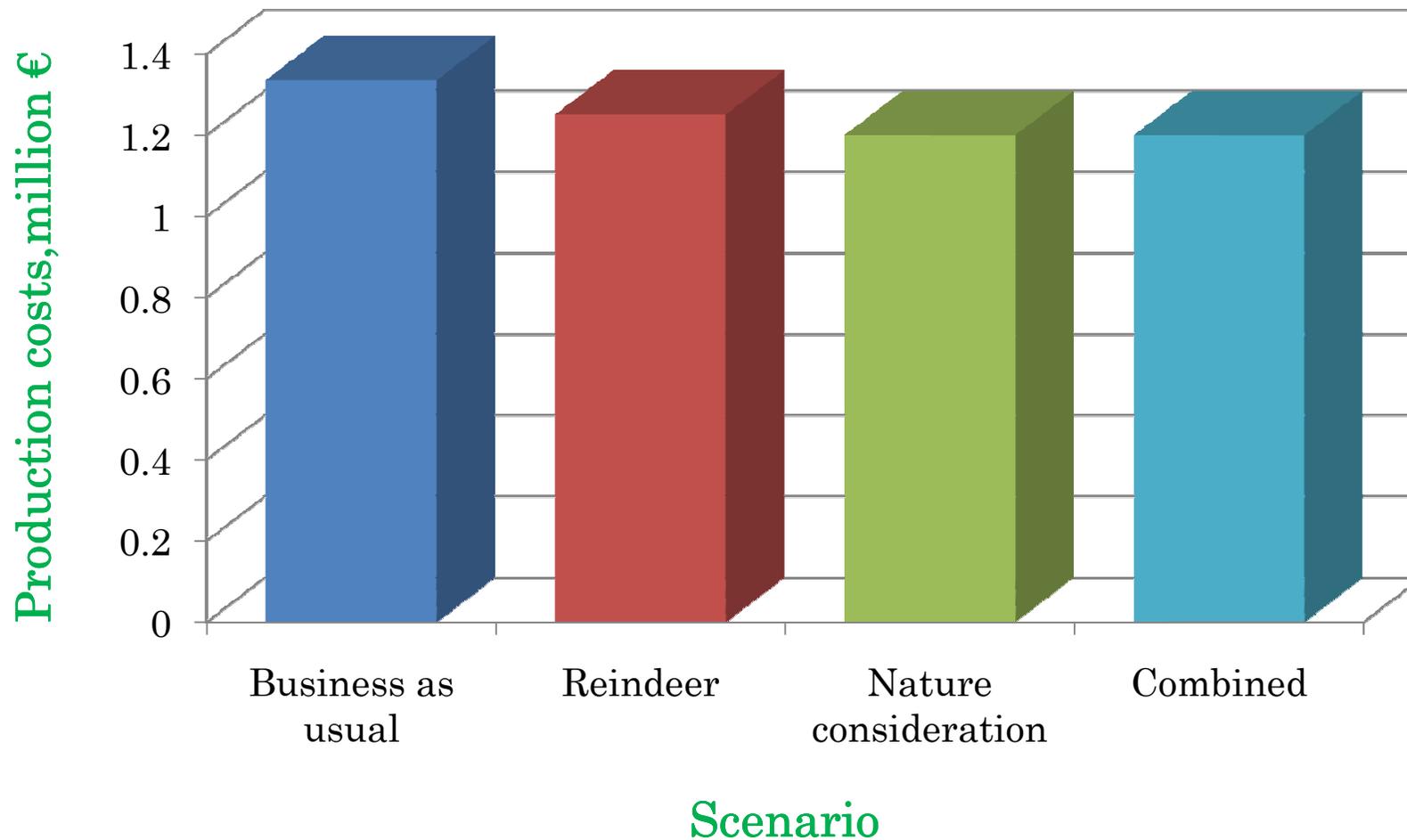
# GVA from reindeer husbandry



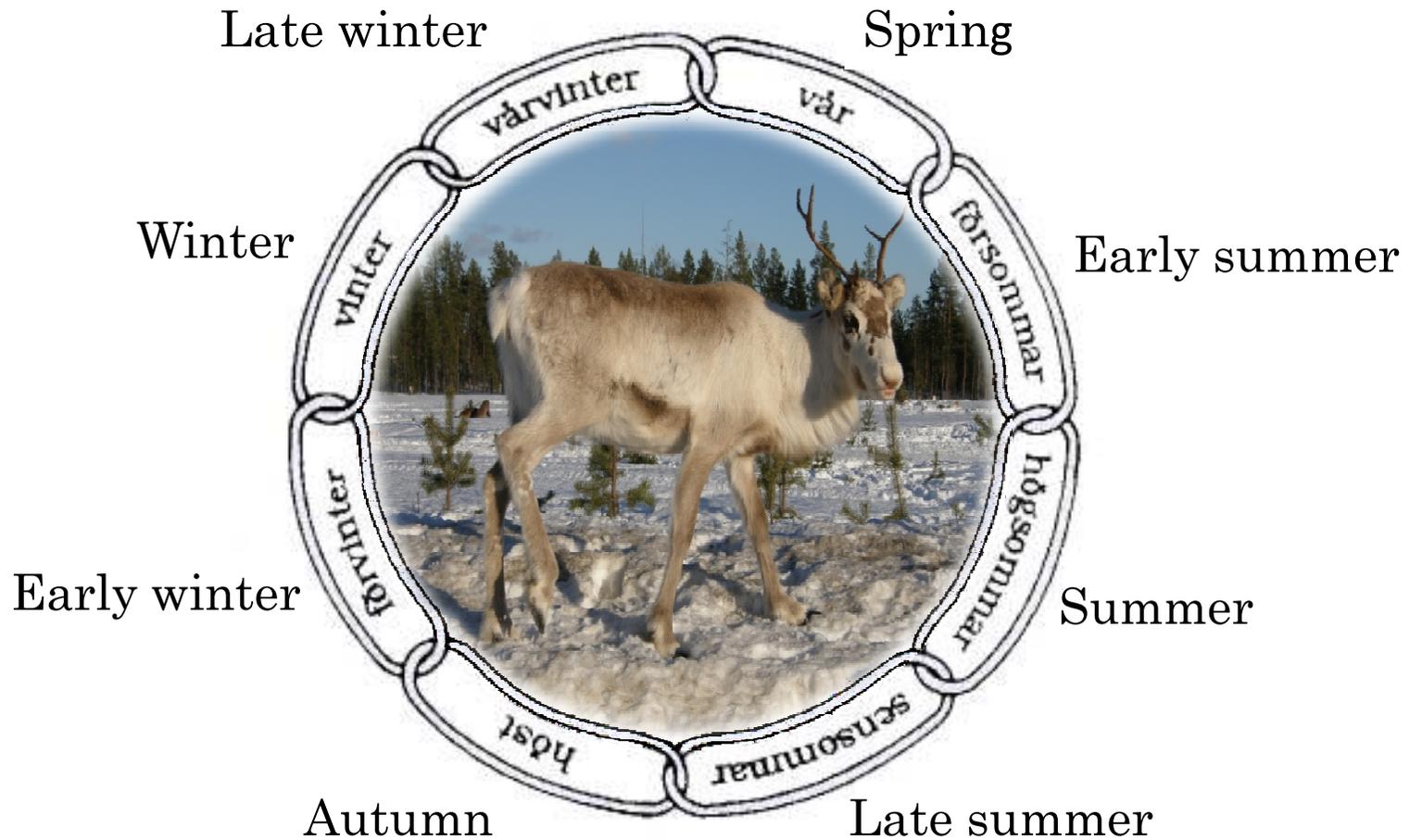
# Forest and reindeer husbandry



# Total production costs for reindeer husbandry

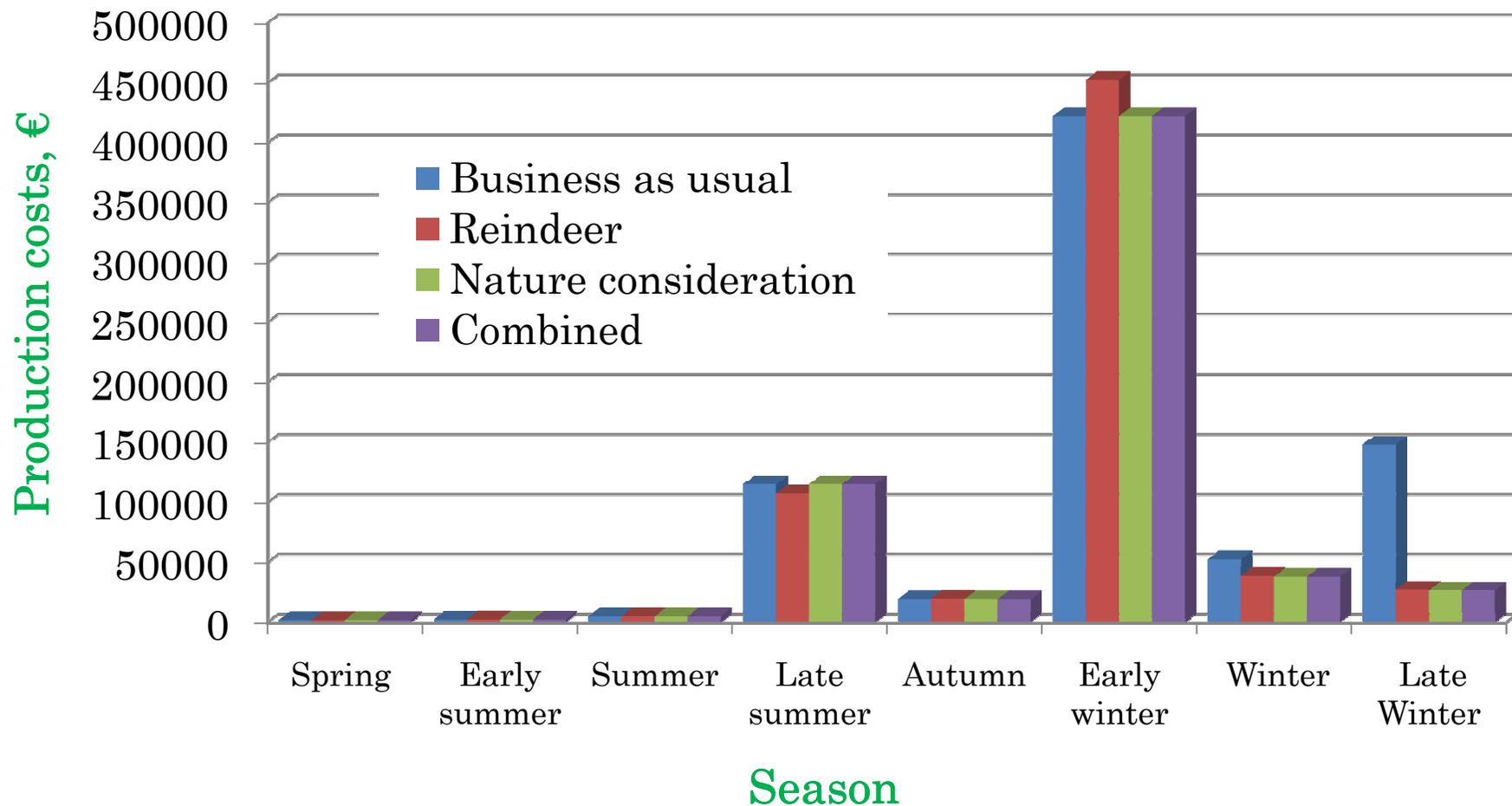


# The eight seasons of reindeer husbandry





# 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