

# Swedish goals for climate



# Sweden's environmental objectives

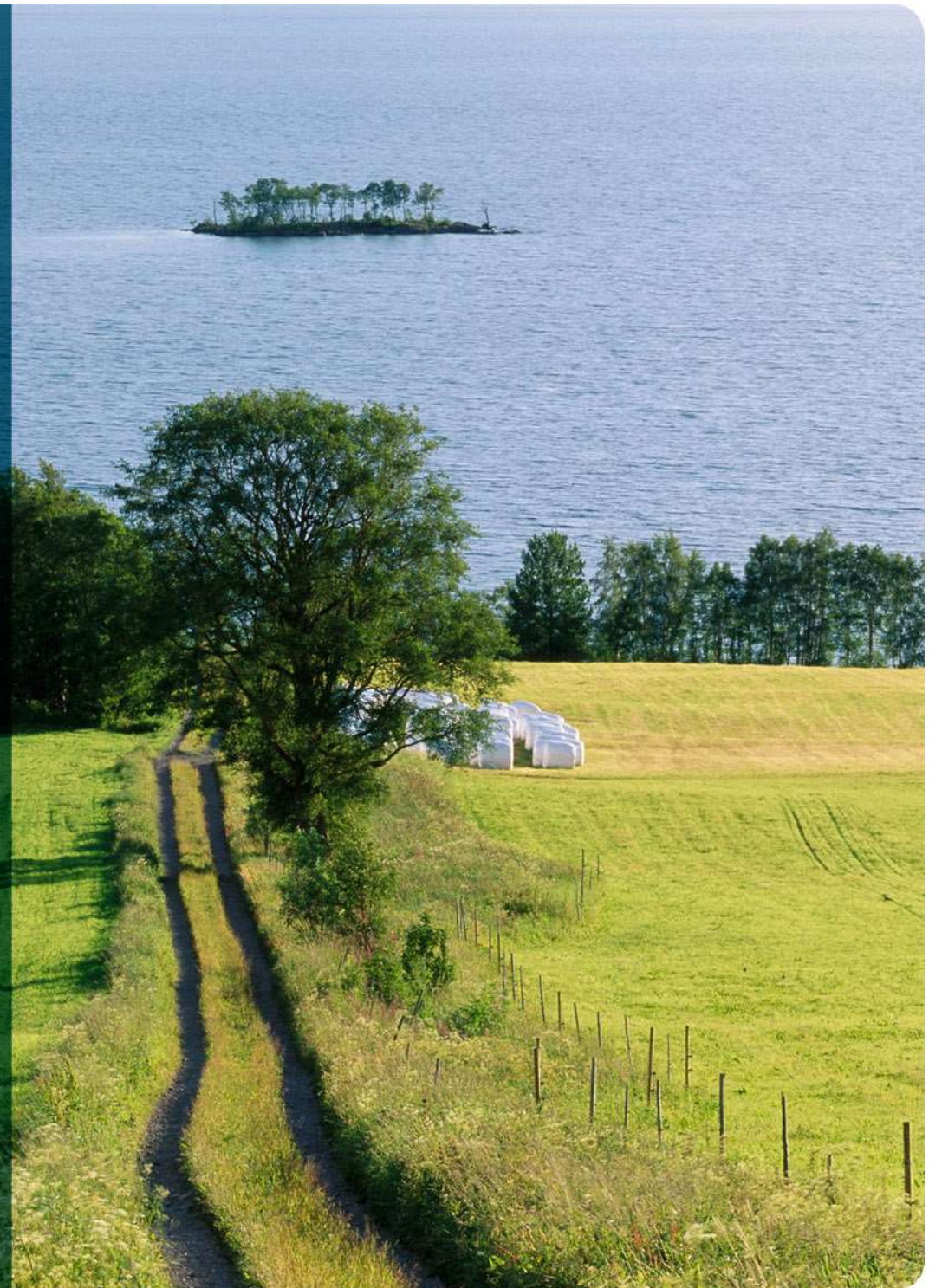
The Swedish Parliament has set a number of environmental objectives to promote sustainable development.

These goals guide environmental efforts in Sweden. They point the way to a sustainable society.



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PHOTO: HÅKAN HJORT/JOHNÉR



# The Riksdag has adopted 16 objectives for environmental quality in Sweden



Reduced Climate Impact



Clean Air



Natural Acidification Only



A Non-Toxic Environment



A Protective Ozone Layer



A Safe Radiation Environment



Zero Eutrophication



Flourishing Lakes and Streams



Good-Quality Groundwater



A Balanced Marine Environment,  
Flourishing Coastal Areas and Archipelagos



Thriving Wetlands



Sustainable Forests



A Varied Agricultural Landscape



A Magnificent Mountain Landscape



A Good Built Environment



A Rich Diversity of Plant and Animal Life

ILLUSTRATIONS: TOBIAS FLYGAR



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# The environmental objectives system

– promoting cooperation at several levels

- **National environmental quality objectives**

Eight national lead agencies

- **Other government agencies** with responsibilities within the environmental objectives system

- **Regional environmental objectives**

County administrative boards

- **Local environmental objectives**

Local authorities (municipalities)

The business sector, stakeholder organisations and the public are crucial to achieving the objectives.



# Generational goal

“The overall goal of Swedish environmental policy is to hand over to the next generation a society in which the major environmental problems in Sweden have been solved, without increasing environmental and health problems outside Sweden’s borders.”

**RIKSDAG DECISION ON THE ENVIRONMENTAL OBJECTIVES**



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PHOTO: ELLIOT ELLIOT/JOHNÉR

# “Bullet points” of the generational goal

- Ecosystems are on the way to recovery
- Biodiversity and the natural and cultural environment are conserved
- Human health is subject to a minimum of adverse impacts from factors in the environment
- Materials cycles are resource-efficient and, as far as possible, free from dangerous substances
- Natural resources are managed sustainably
- The share of renewable energy increases and use of energy is efficient
- Patterns of consumption of goods and services cause the least possible problems for the environment and human health



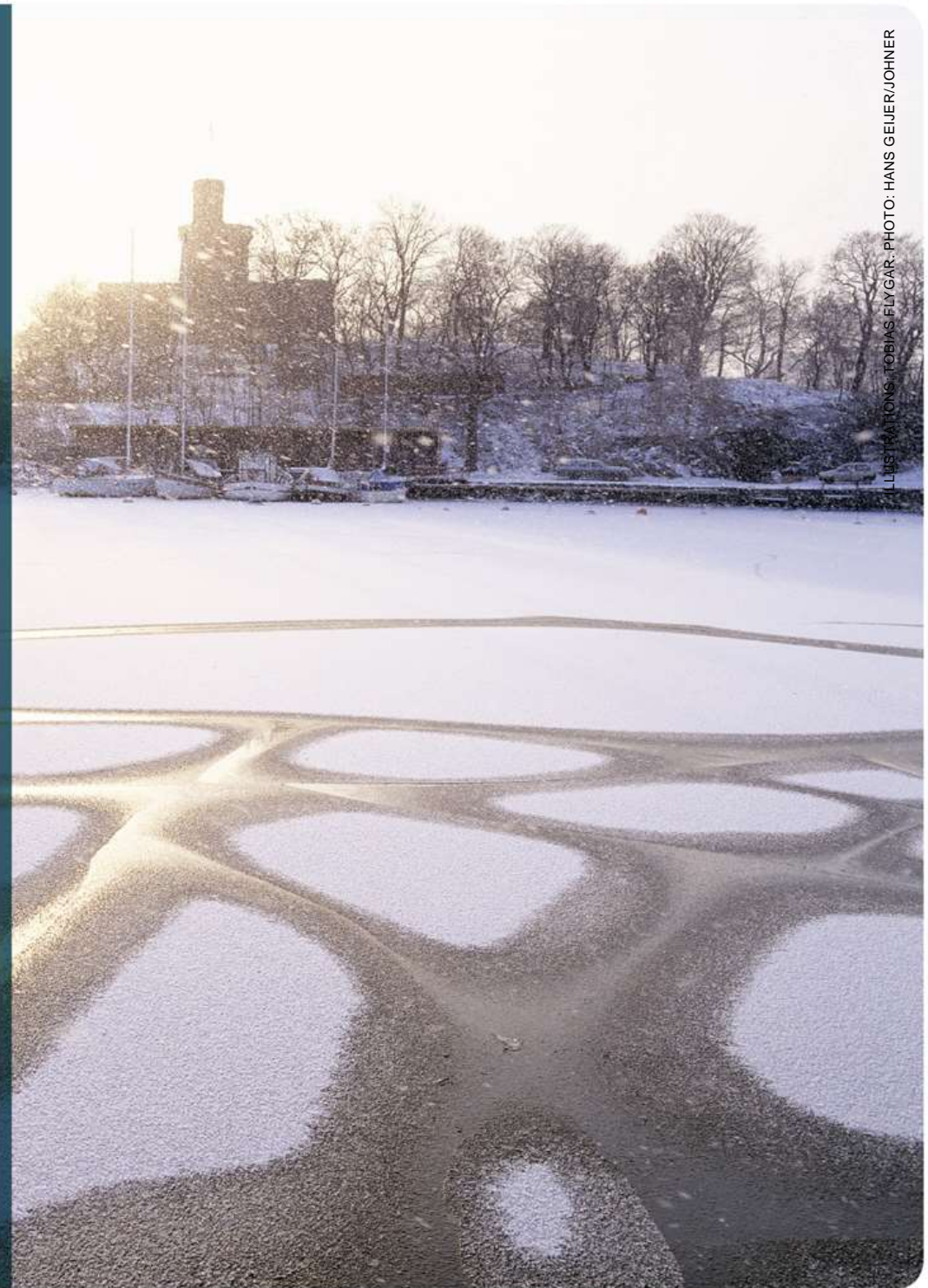
# 1. Reduced Climate Impact



The UN Framework Convention on Climate Change provides for the stabilization of concentrations of greenhouse gases in the atmosphere at levels which ensure that human activities do not have a harmful impact on the climate system. This goal must be achieved in such a way and at such a pace that biological diversity is preserved, food production is assured and other goals of sustainable development are not jeopardized. Sweden, together with other countries, must assume responsibility for achieving this global objective.



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## 2. Clean Air



The air must be clean enough not to represent a risk to human health or to animals, plants or cultural assets.



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### 3. Natural Acidification Only



The acidifying effects of deposition and land use must not exceed the limits that can be tolerated by soil and water. In addition, deposition of acidifying substances must not increase the rate of corrosion of technical materials located in the ground, or water main systems, archaeological objects and rock carvings.



# 4. A Non Toxic Environment



The occurrence of man-made or extracted compounds in the environment must not represent a threat to human health or biological diversity.

Concentrations of non-naturally occurring substances will be close to zero and their impacts on human health and on ecosystems will be negligible.

Concentrations of naturally occurring substances will be close to background levels.



# 5. A Protective Ozone Layer



The ozone layer must be replenished so as to provide long-term protection against harmful UV radiation.



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# 6. A Safe Radiation Environment



Human health and biological diversity must be protected against the harmful effects of radiation.



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# 7. Zero Eutrophication



Nutrient levels in soil and water must not be such that they adversely affect human health, the conditions for biological diversity or the possibility of varied use of land and water.



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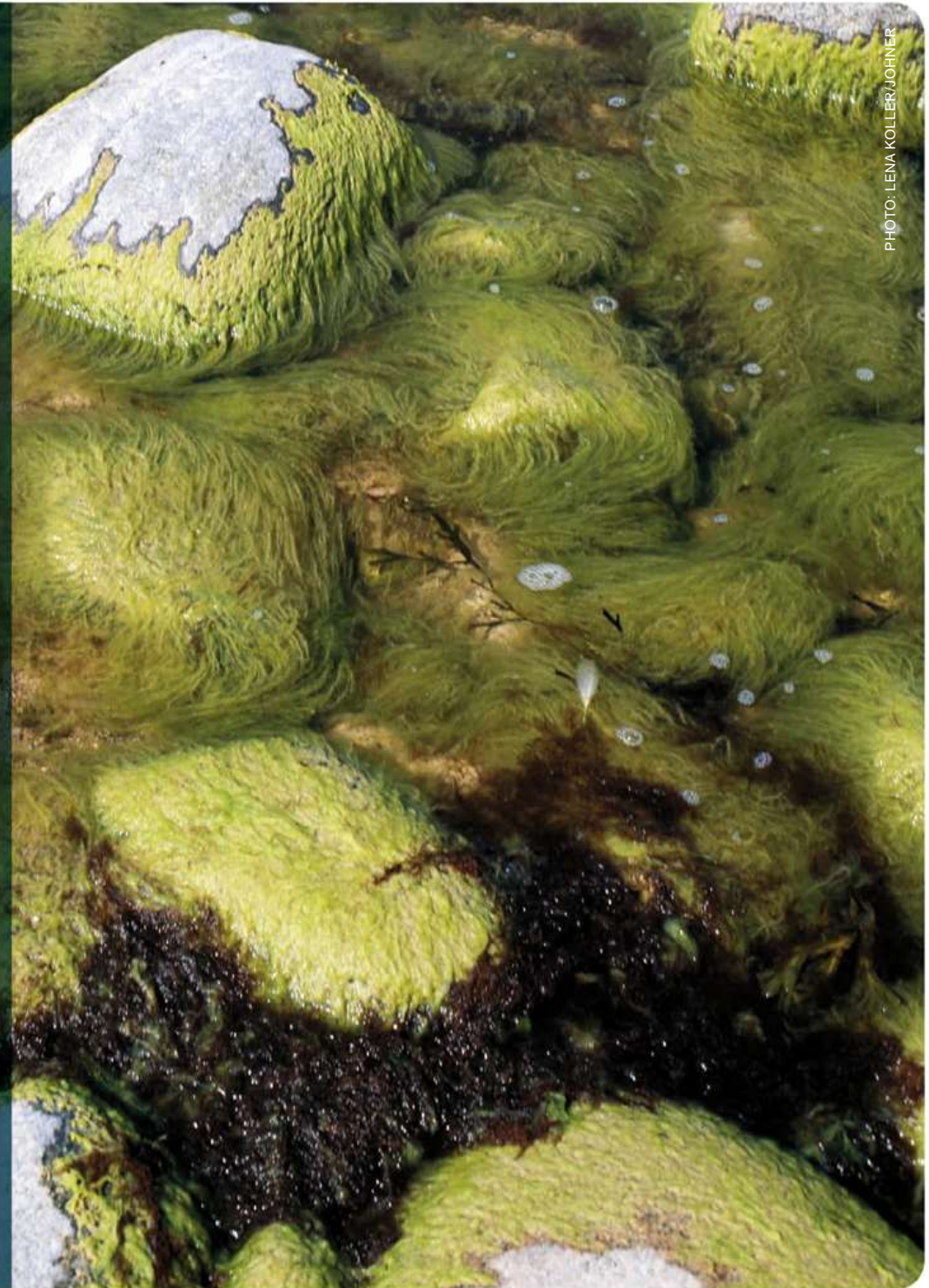


PHOTO: LENA KOLLER/JOHNER

# 8. Flourishing Lakes and Streams



Lakes and watercourses must be ecologically sustainable and their variety of habitats must be preserved. Natural productive capacity, biological diversity, cultural heritage assets and the ecological and water-conserving function of the landscape must be preserved, at the same time as recreational assets are safeguarded.



# 9. Good Quality Groundwater



Groundwater must provide a safe and sustainable supply of drinking water and contribute to viable habitats for flora and fauna in lakes and watercourses.



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# 10. A Balanced Marine Environment, Flourishing Coastal Areas and Archipelagos

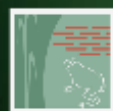


The North Sea and the Baltic Sea must have a sustainable productive capacity, and biological diversity must be preserved. Coasts and archipelagos must be characterized by a high degree of biological diversity and a wealth of recreational, natural and cultural assets. Industry, recreation and other utilization of the seas, coasts and archipelagos must be compatible with the promotion of sustainable development. Particularly valuable areas must be protected against encroachment and other disturbance.





# 11. Thriving Wetlands



The ecological and water-conserving function of wetlands in the landscape must be maintained and valuable wetlands preserved for the future.



# 12. Sustainable Forests



The value of forests and forest land for biological production must be protected, at the same time as biological diversity and cultural heritage and recreational assets are safeguarded.



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# 13. A Varied Agricultural Landscape



The value of the farmed landscape and agricultural land for biological production and food production must be protected, at the same time as biological diversity and cultural heritage assets are preserved and strengthened.



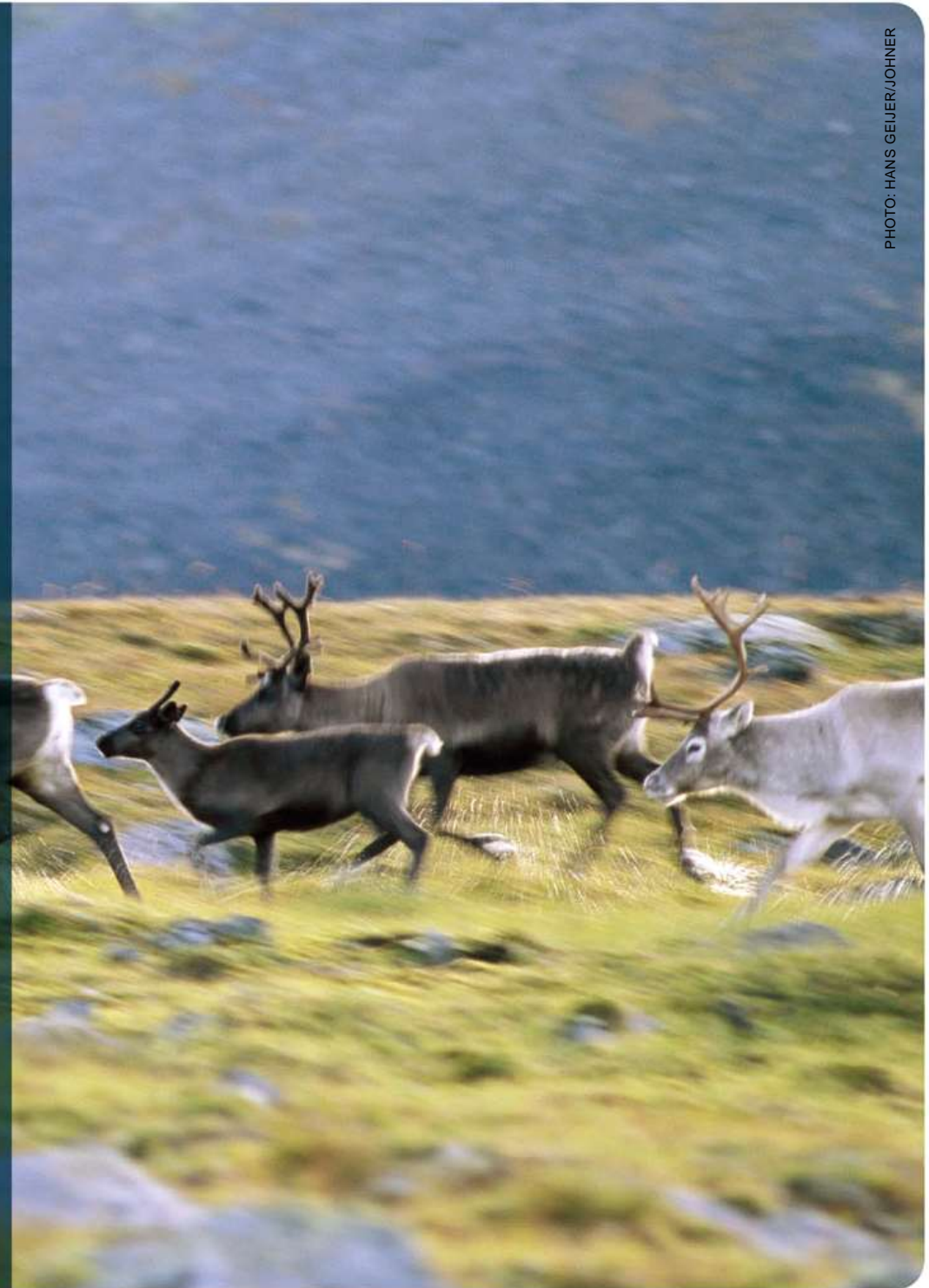
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# 14. A Magnificent Mountain Landscape



The pristine character of the mountain environment must be largely preserved, in terms of biological diversity, recreational value, and natural and cultural assets. Activities in mountain areas must respect these values and assets, with a view to promoting sustainable development. Particularly valuable areas must be protected from encroachment and other disturbance.




# 15. A Good Built Environment



Cities, towns and other built-up areas must provide a good, healthy living environment and contribute to a good regional and global environment. Natural and cultural assets must be protected and developed. Buildings and amenities must be located and designed in accordance with sound environmental principles and in such a way as to promote sustainable management of land, water and other resources.



# 16. A Rich Diversity of Plant and Animal Life

 Biological diversity must be preserved and used sustainably for the benefit of present and future generations. Species habitats and ecosystems and their functions and processes must be safeguarded. Species must be able to survive in long-term viable populations with sufficient genetic variation. Finally, people must have access to a good natural and cultural environment rich in biological diversity, as a basis for health, quality of life and well-being.



# What the objectives mean in practice

For each environmental quality objective, there are **specifications** that flesh out its practical implications.



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PHOTO: MAGNUS FOND/JOHNÉR

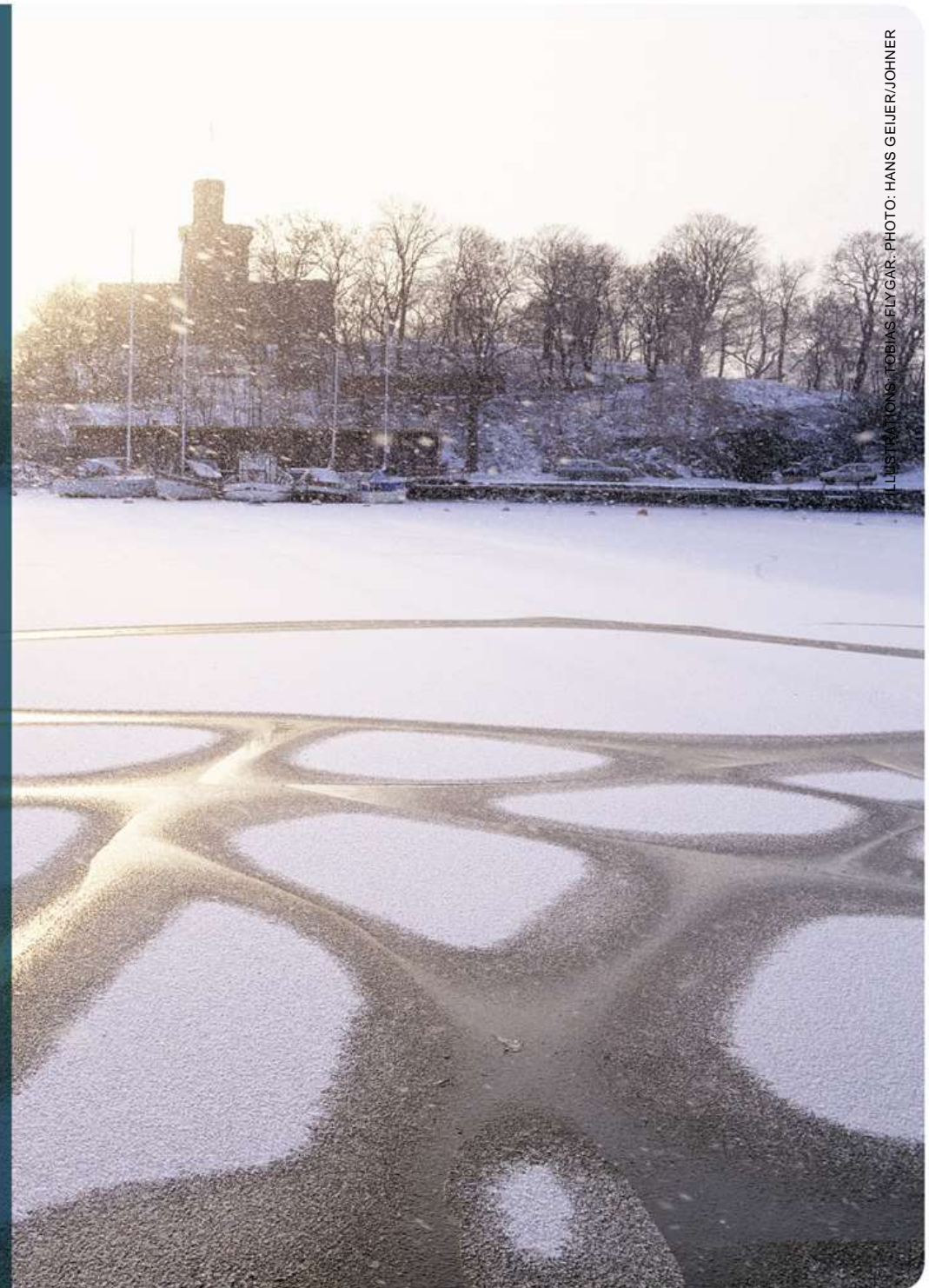
# 1. Reduced Climate Impact



In accordance with the UN Framework Convention on Climate Change, concentrations of greenhouse gases in the atmosphere must be stabilised at a level that will prevent dangerous anthropogenic interference with the climate system. This goal must be achieved in such a way and at such a pace that biological diversity is preserved, food production is assured and other goals of sustainable development are not jeopardised. Sweden, together with other countries, must assume responsibility for achieving this global objective.



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# 1. Reduced Climate Impact

The Swedish Parliament has adopted two specifications for this environmental quality objective, concerning

1. Temperature ( $2^{\circ}$  C)
2. Concentration (400 ppm)



# Milestone target:

Emissions of greenhouse gases in Sweden are to be 40 % lower in 2020 (compared with 1990) for non-ETS sectors.

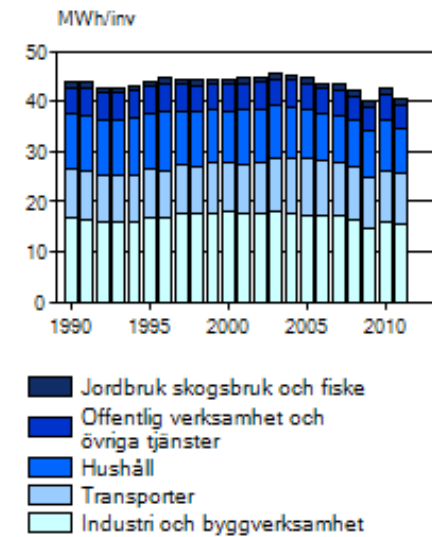


## Example of an indicator:

### *Energy use*

## Energianvändning

### Energianvändning



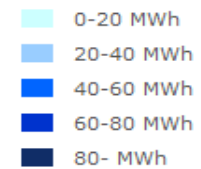
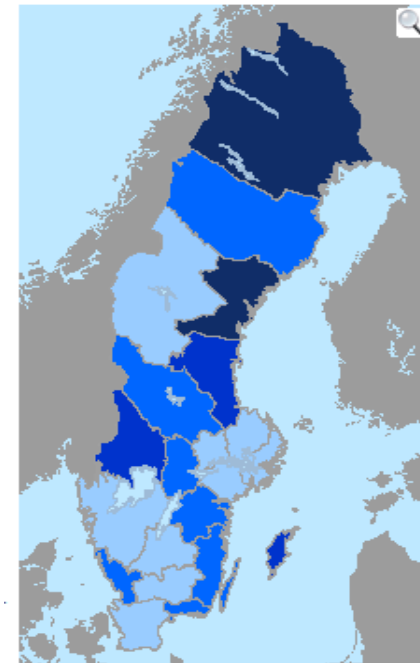
Slutlig energianvändning (MWh) per person i riket (år 1990–2009).

SOURCE: SWEDISH ENVIRONMENTAL PROTECTION AGENCY



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## Energy use



Total slutlig energianvändning per person i varje län år 2009.

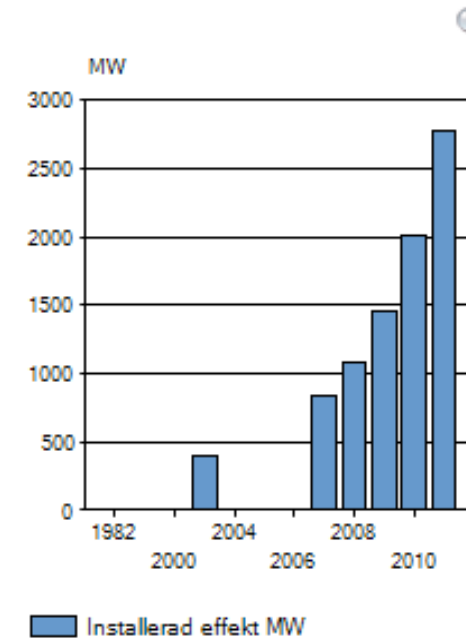
SOURCE: SWEDISH ENVIRONMENTAL PROTECTION AGENCY



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## Electricity from wind power

### Vindkraftsel



Vindkraftsel, installerad effekt i Sverige.  
Källa: Energimyndigheten.  
Vindkraftsstatistik 2011. (ES 2012:02)

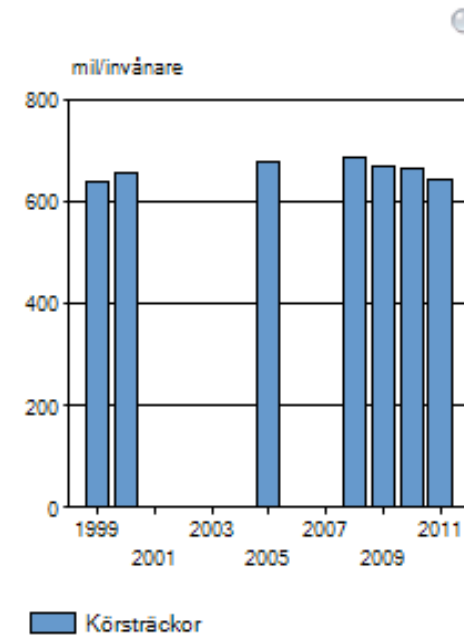
SOURCE: SWEDISH ENVIRONMENTAL PROTECTION AGENCY



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## *Distance driven with passenger cars*

### Körsträcka med bil



Antal körda mil med bil i genomsnitt per svensk och år. I körsträckorna ingår även de mil som blivit körda i utlandet.

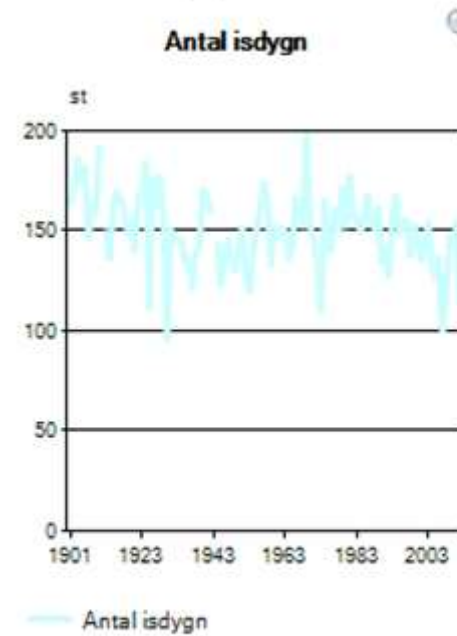
SOURCE: SWEDISH ENVIRONMENTAL PROTECTION AGENCY



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## Number of days with ice

### Antal isdygn - Jämtlands län



Isperiodens längd på Storsjön i Jämtlands län (1901-2012)

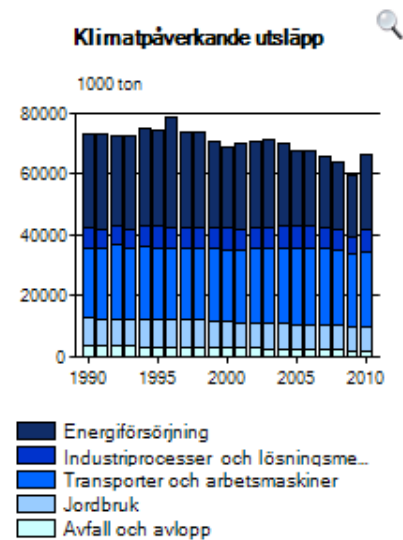
SOURCE: SWEDISH ENVIRONMENTAL PROTECTION AGENCY



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# Emissions of greenhouse gases in Sweden

## Klimatpåverkande utsläpp



Klimatpåverkande utsläpp i Sverige, i koldioxidekvivalenter och fördelade på samhällssektorer. Koldioxid, metan, dikväveoxid (=lustgas) och sex fluorerade gaser är medräknade i utsläppsmängden. Koldioxidekvivalenten är olika för olika gaser beroende på effekten av klimatpåverkan.

Greenhouse gas emissions in 1000 tonnes of carbon dioxide equivalents.

SOURCE: SWEDISH ENVIRONMENTAL PROTECTION AGENCY



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## Steg på vägen

Fördjupad utvärdering av miljömålen 2012

RAPPORT 6500 • JUNI 2012





## Key to symbols

Yes

YES: The environmental quality objective will be achieved with policy instruments already decided on and with measures implemented before 2020.

Close

CLOSE: The environmental quality objective is close to being achieved. Plans now exist for policy instruments that will be decided on before 2020.

No

NO: It is not possible to achieve the environmental quality objective by 2020 on the basis of policy instruments already decided on or planned.



## Will the environmental quality objectives be achieved?

- |       |                               |    |  |
|-------|-------------------------------|----|--|
| No    | Reduced Climate Impact        | No | Good-Quality Groundwater   |
| No    | Clean Air                     | No | A Balanced Marine Environment,<br>Flourishing Coastal Areas and Archipelagos |
| No    | Natural Acidification Only    | No | Thriving Wetlands  |
| No    | A Non-Toxic Environment       | No | Sustainable Forests  |
| Yes   | A Protective Ozone Layer      | No | A Varied Agricultural Landscape  |
| Close | A Safe Radiation Environment  | No | A Magnificent Mountain Landscape   |
| No    | Zero Eutrophication           | No | A Good Built Environment   |
| No    | Flourishing Lakes and Streams | No | A Rich Diversity of Plant and Animal Life                                    |

## *The regional and local level*



# Want to know more?

Further information is available  
on the Environmental Objectives  
Portal:  
[miljomal.se](http://miljomal.se)



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PHOTO: LARS P:SON/JOHNÉR

## The climate vision

*Sweden shall have a sustainable and resource efficient energy supply and zero net emissions of greenhouse gases by the year 2050.*



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*Sweden shall have a sustainable and resource efficient energy supply and zero net emissions of greenhouse gases by the year 2050.*

