

# Physical Planning and ICZM

Gdansk 2008-06-02



Architect-Planner Klas Klasson

County Administrative Board, Stockholm

# The County Administrative Board

- Providing data for local and regional planning
- Advising 26 Municipalities and National bodies
- Coordination of different national interests
- Working for national interests and resources
- Protecting national interests and assets

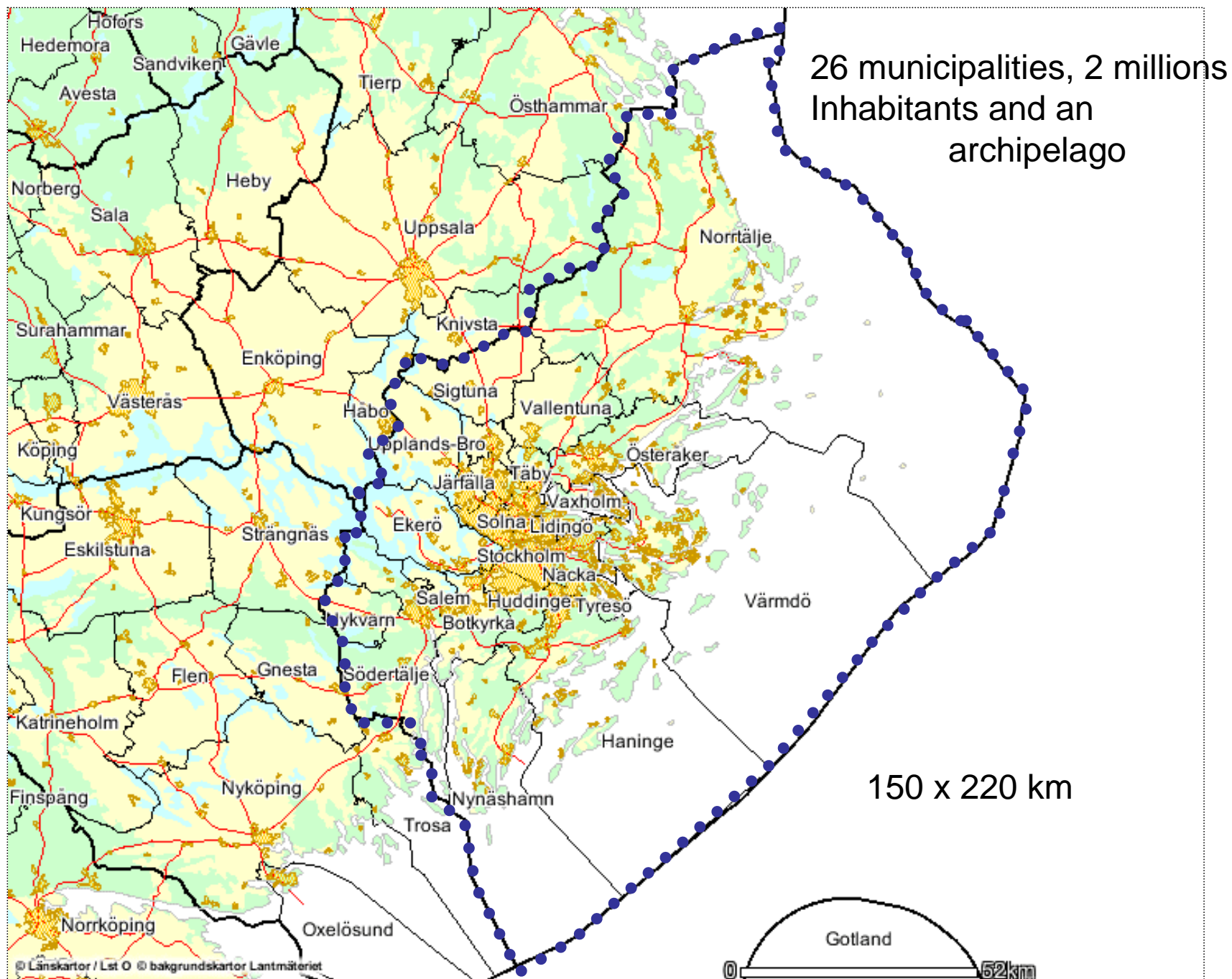


- 9 million people in 244 municipalities
- covering both rural and urban areas...

...on the area of 415 000 km<sup>2</sup>

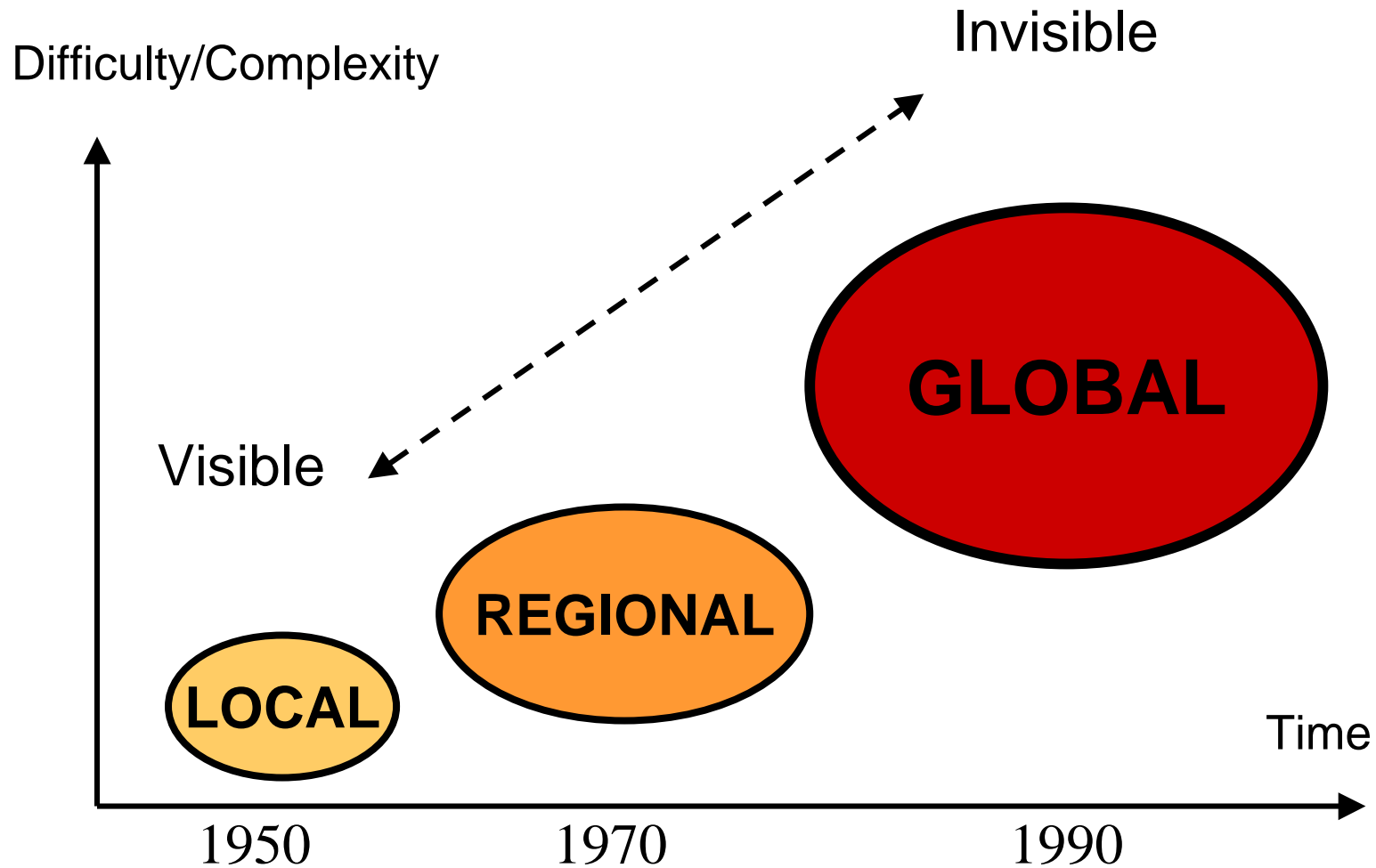
Gothenburg

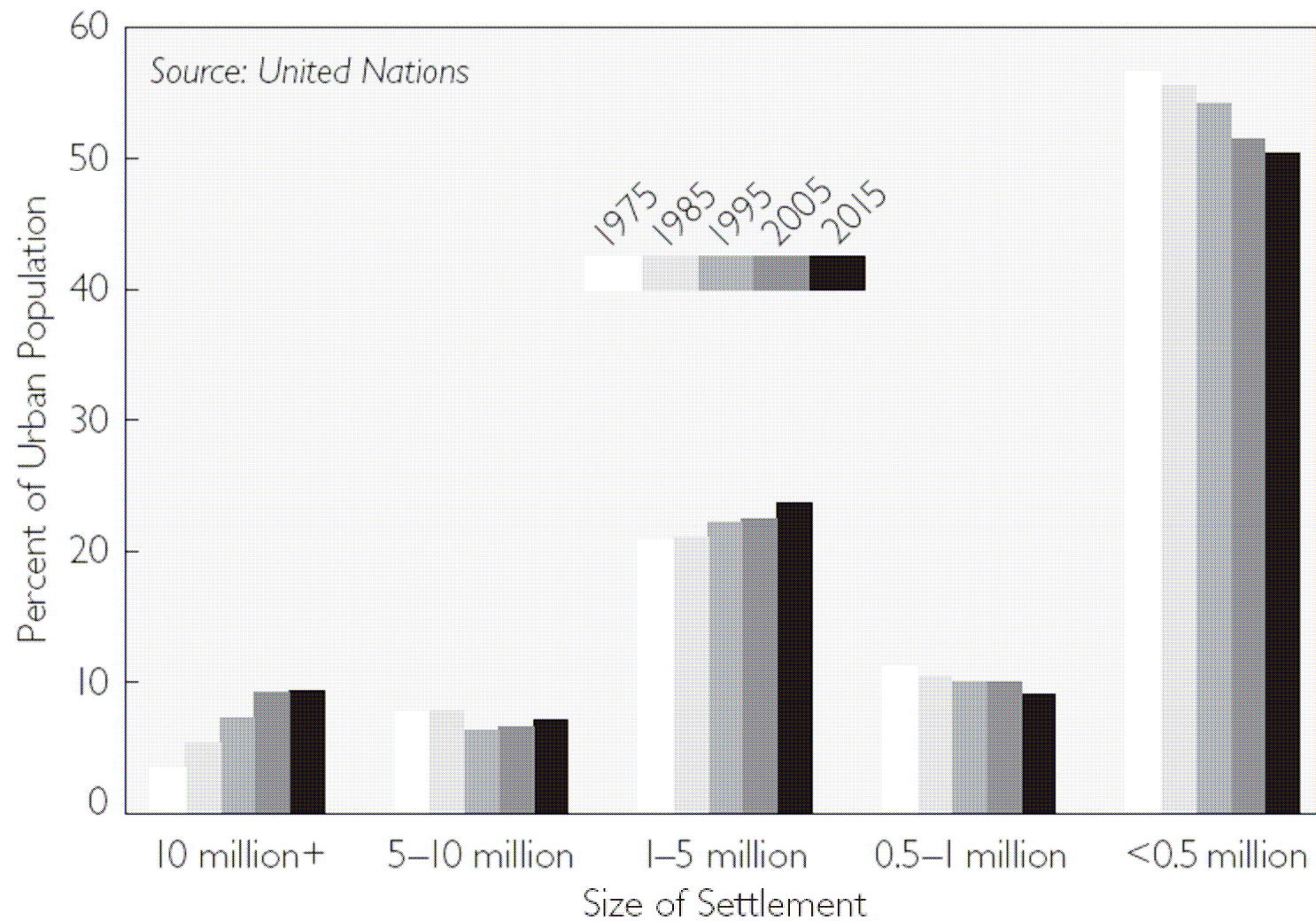






# The problems of pollution and destruction of natural resources

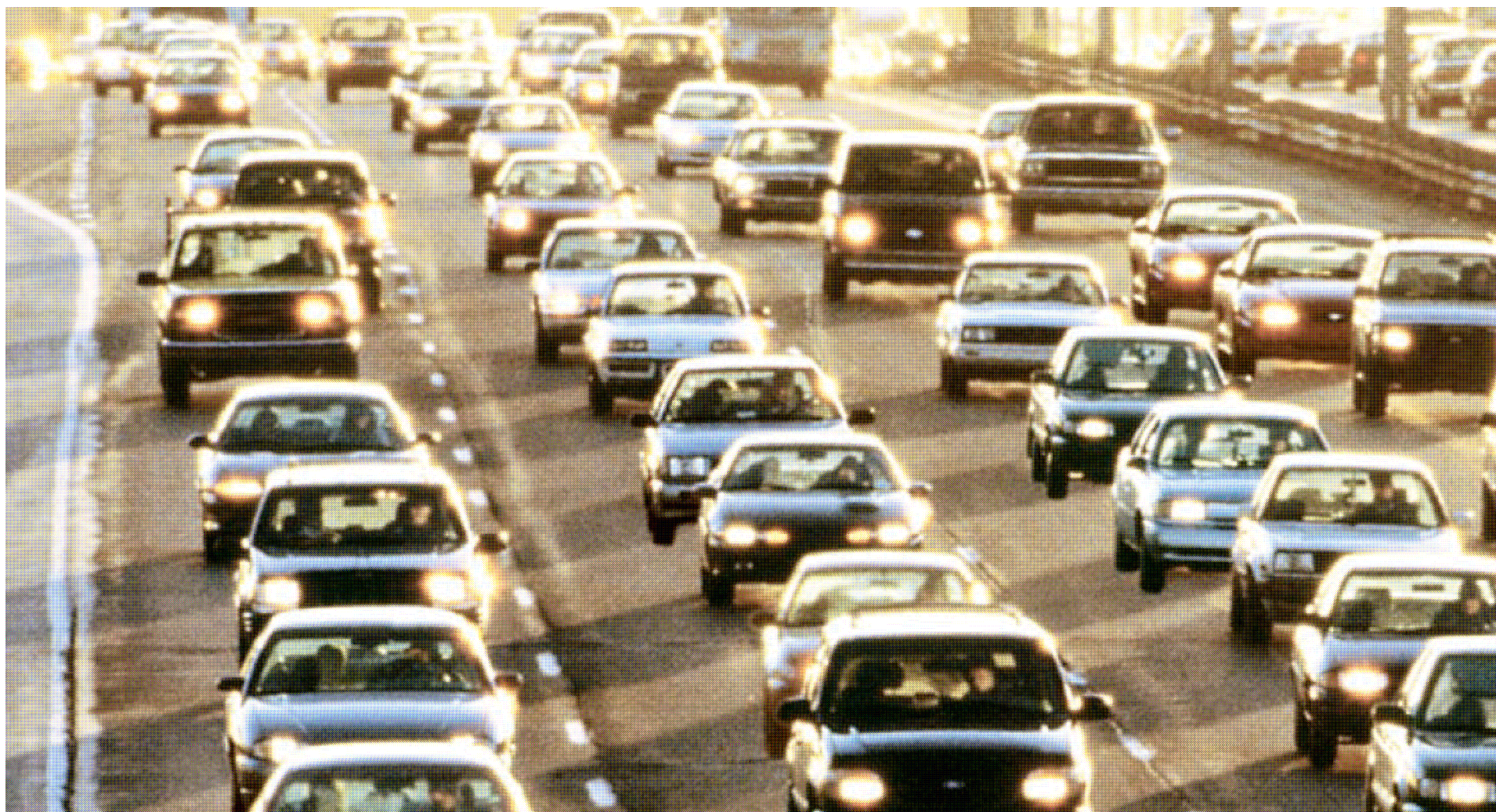




**Figure I–2. Urban Population by Size Class of Settlement**







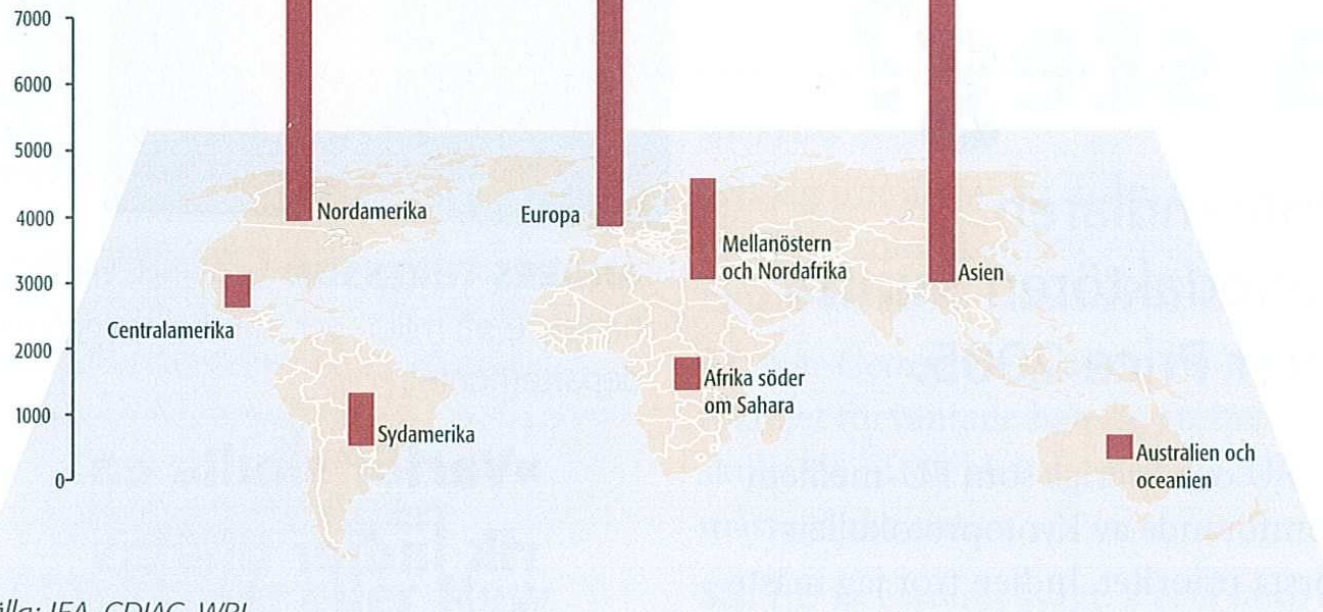


# Why not EIA:s on life styles??



Illustration: S. Willis/San José. Courtesy to Mercury News.

### Koldioxidutsläpp 2002, miljoner ton

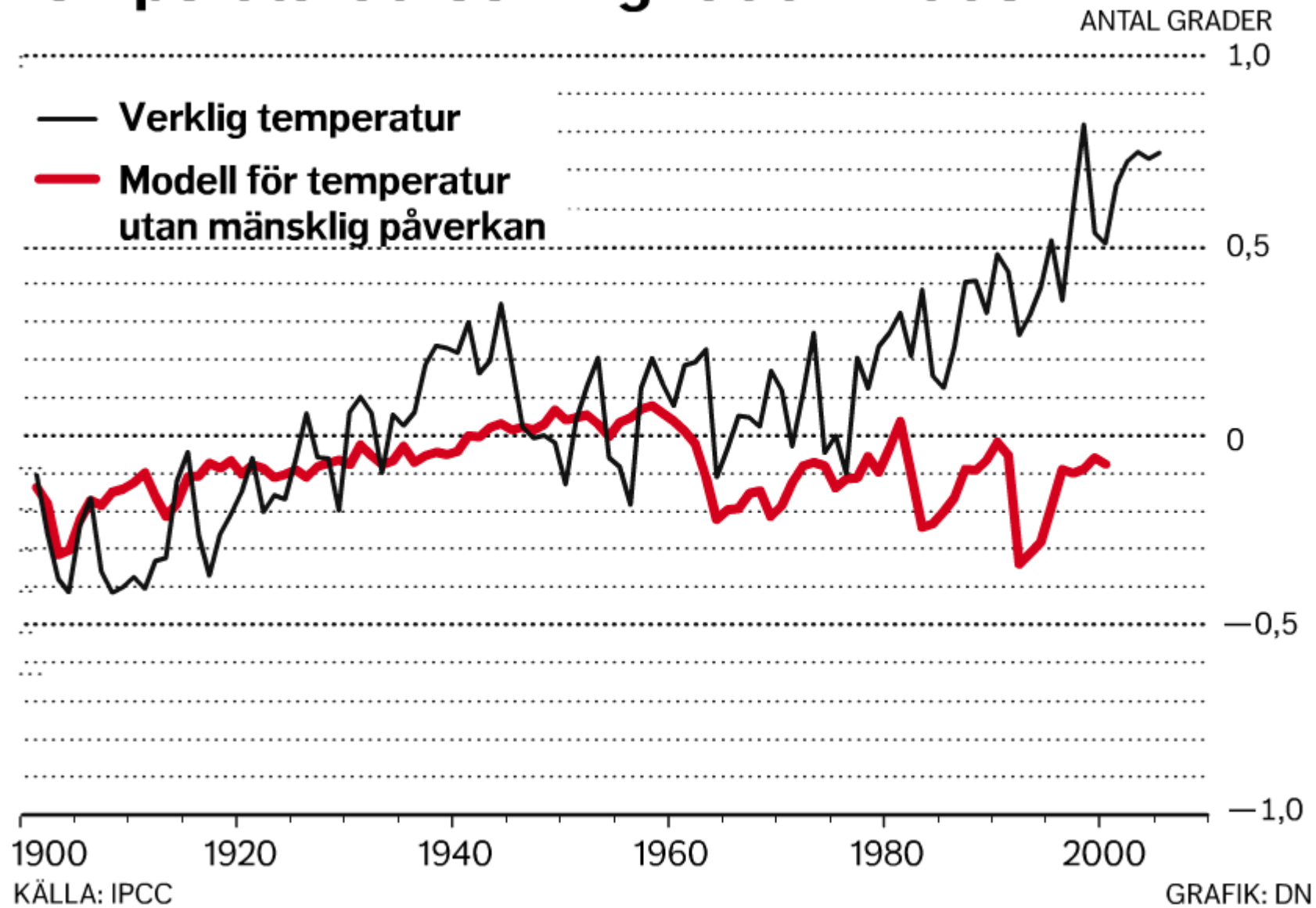


Källa: IEA, CDIAC, WRI.

### Totala utsläpp per världsdel

*Trots att per capita-utsläppen är låga i de folkrika länderna i Asien är de totala utsläppen stora. Beroende på om man räknar framtida minskningsåtaganden per land eller per capita blir det stora skillnader i vem som får bära bördan. De befolkningsmässiga giganterna Indien och Kina vägrar att förhandla om egna sänkningar innan USA och EU börjat minska sina utsläpp.*

# Temperaturutveckling 1900–2005





# Today

on fossile fuels

(Kol, olja, naturgas)

• 80,7%

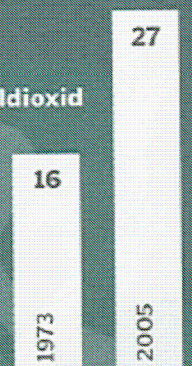
of the world's  
energy supply

• 8,4%  
Kärn- och  
vattenkraft

• 10%  
Biobräns

• 0,5%  
(C  
O

Utsläpp av koldioxid  
i atmosfären,  
i Gigaton

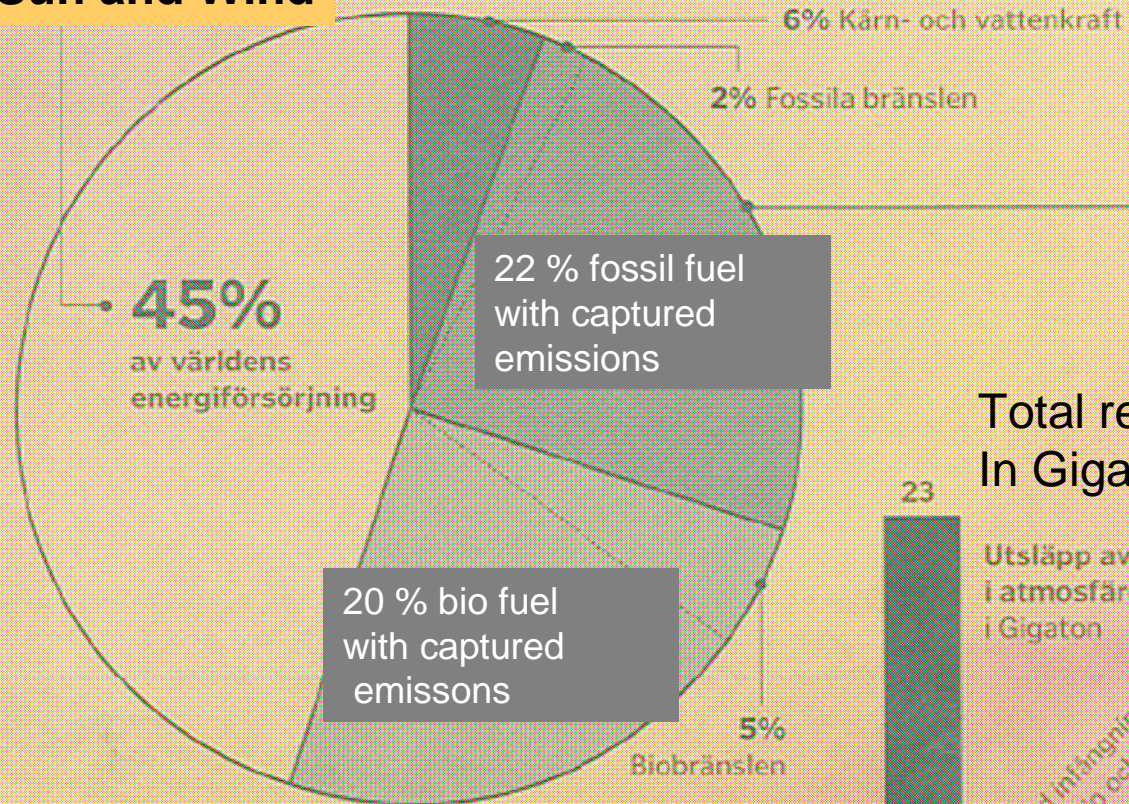


Källa: År 2005 ur statistik från OECD

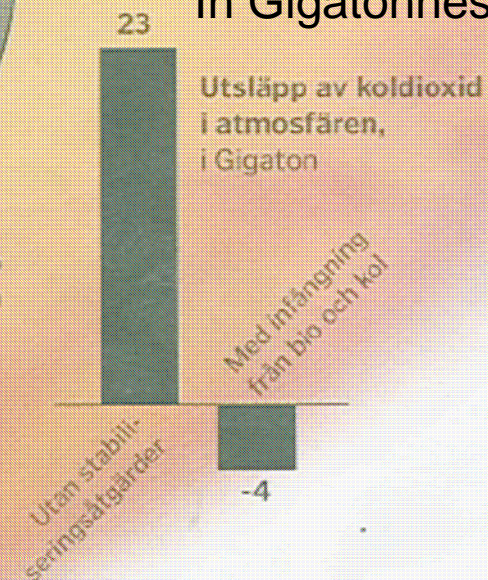


# 2100:<sup>\*</sup>

## Sun and Wind



## Total release of Co2 In Gigatonnes



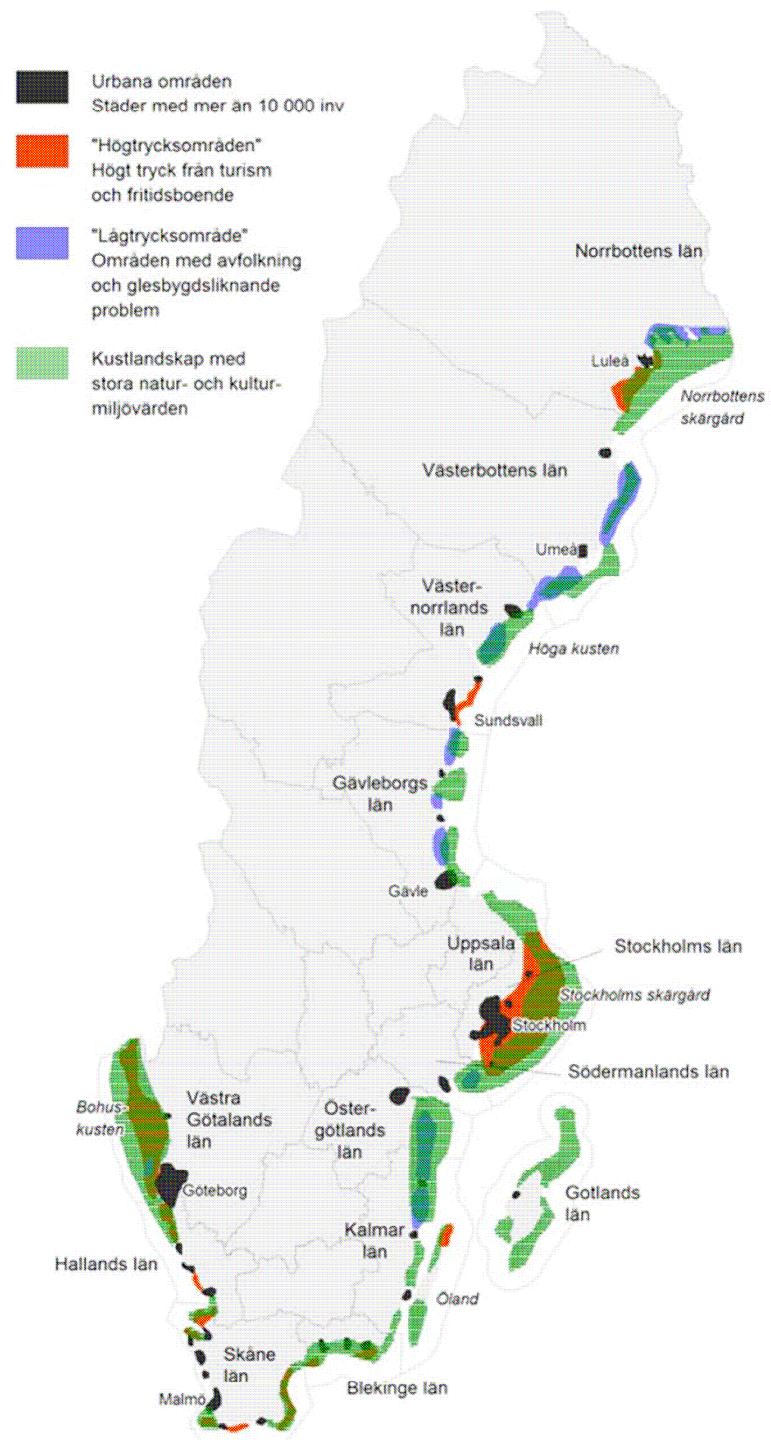
Källa: Christian Azar et al

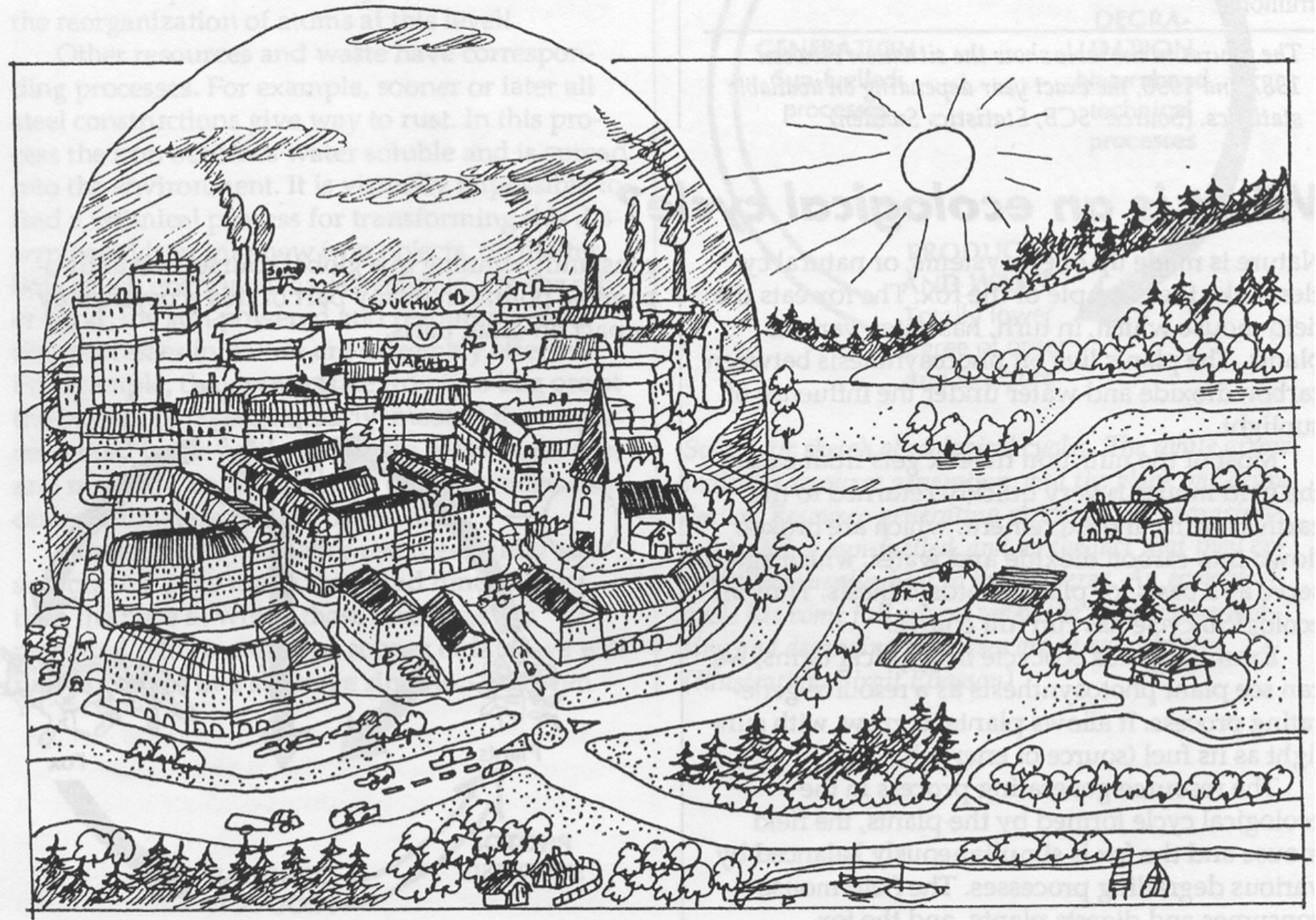
\*Diagrammet beskriver ett framtidsscenario som bygger på storskalig koldioxidinfångning från både kolkraft och biobränsle. Det är en kostnads-effektivt lösning som leder till lägre halt koldioxid, 350 ppm, än idag.



Capturing of CO<sub>2</sub> from both fossil and bio fuel emissions, compressed to liquid and pumped down to fill old oil or gas layers





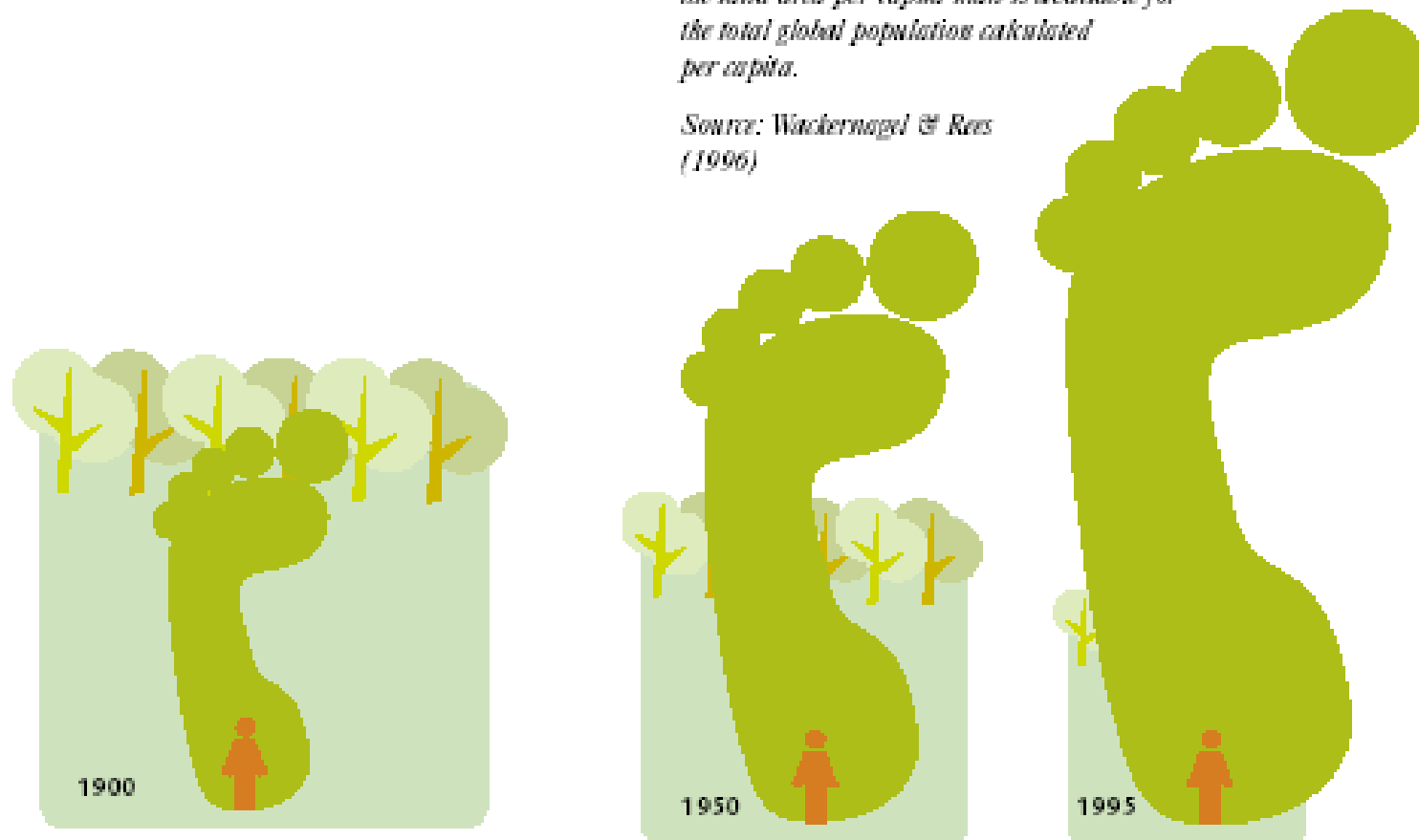


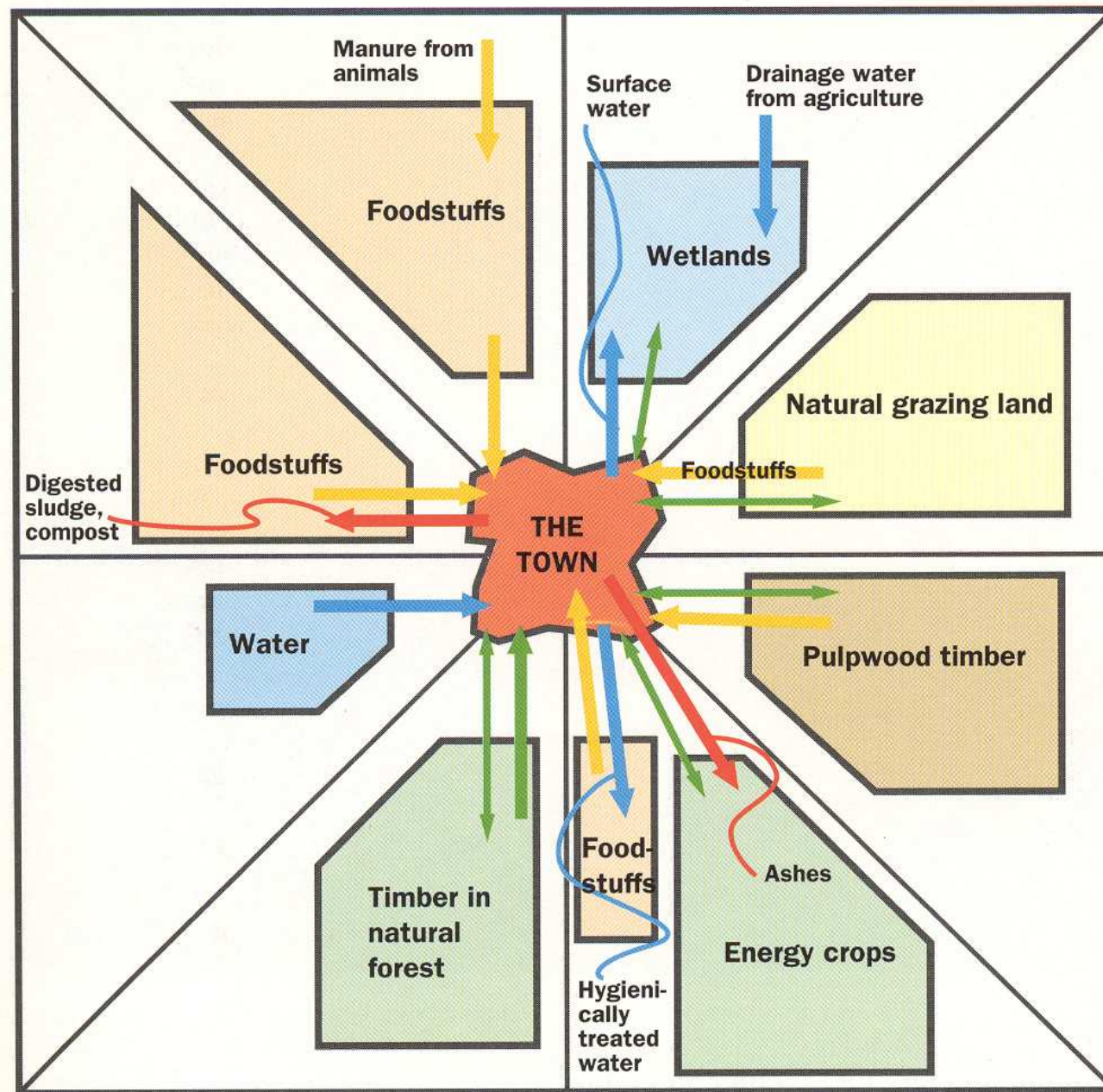


# The ecological footprint

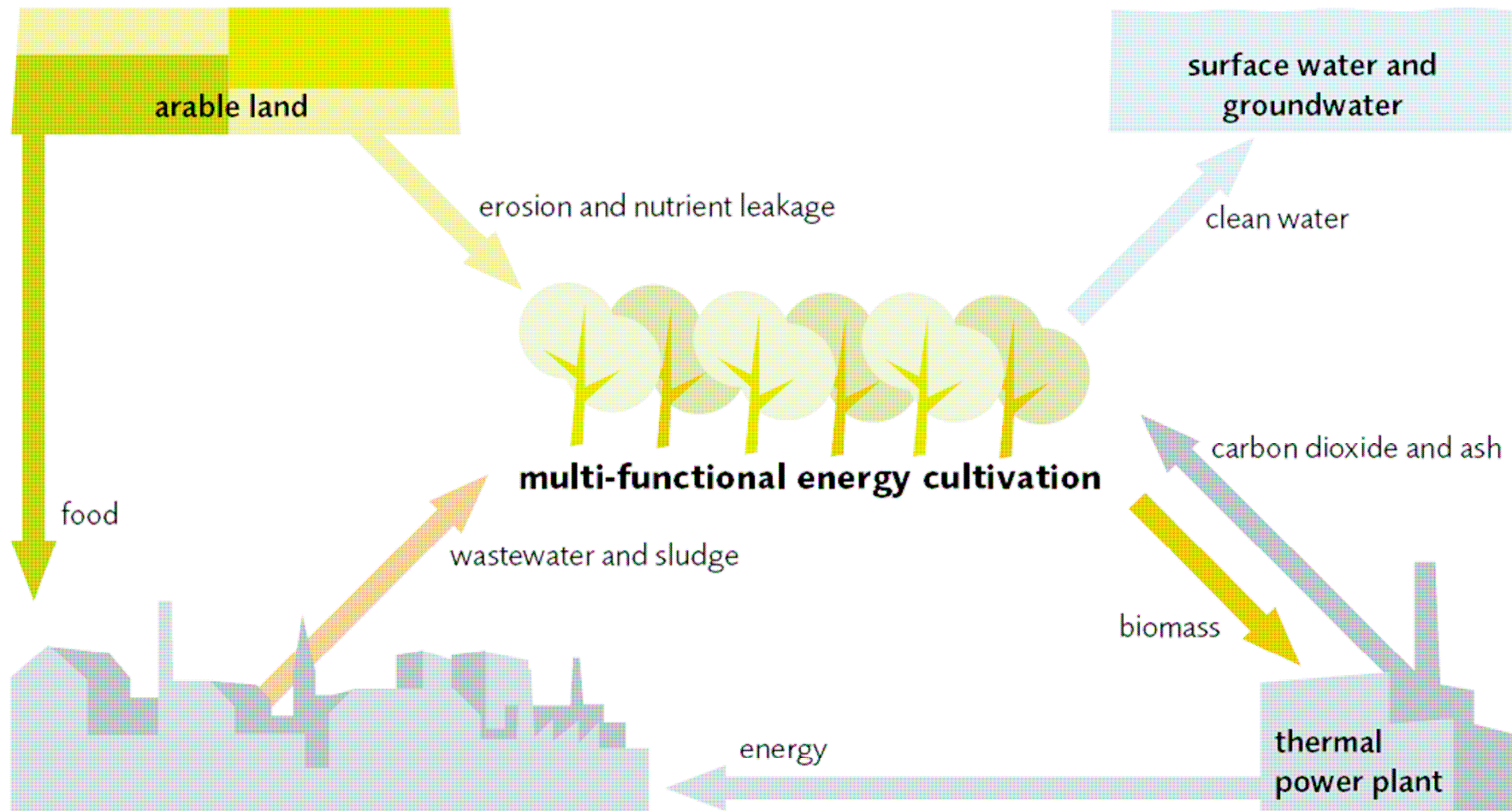
*basis of the global population. So, to sum up: the wealthy proportion of the world's inhabitants consume about three times the land area per capita than is available for the total global population calculated per capita.*

*Source: Wackernagel & Rees (1996)*

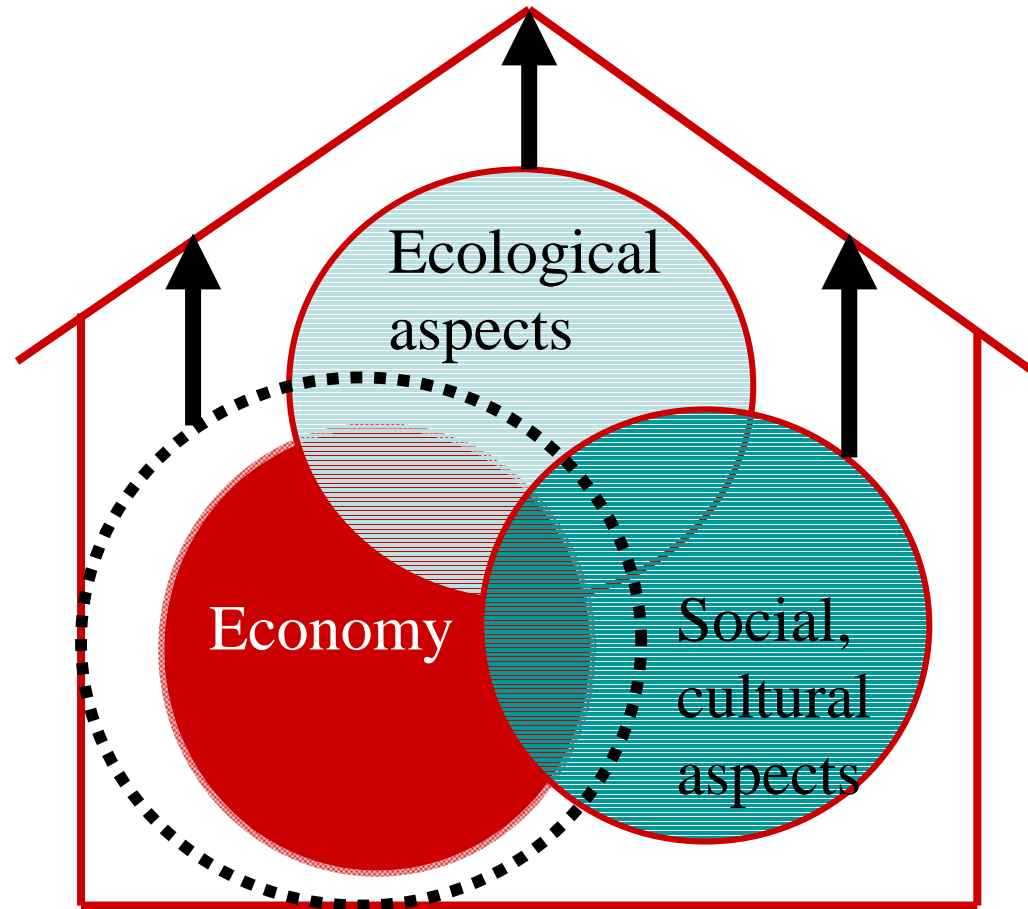




*The new arenas for adapting to ecological cycles. Examples of the types of areas surrounding an urban area that will be needed in a future society in tune with ecological principles.*



# The three pillars of sustainability





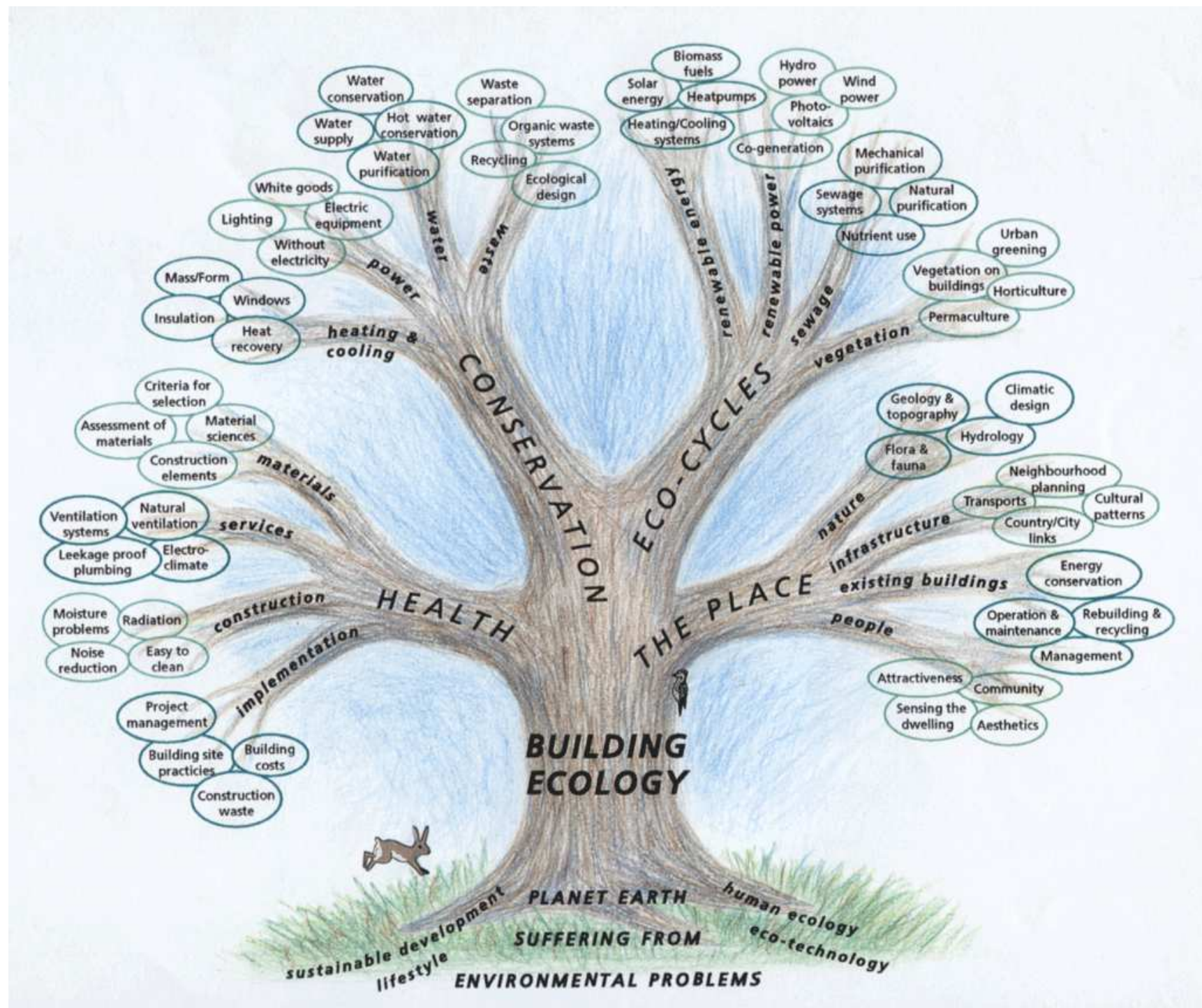
Planning for sustainable  
futures requires a holistic  
approach



# Plan for Sustainability

- **Participatory** approach
- Enhance **local ownership** through local affiliation and involvement
- Involve **stakeholders** through cooperation, financing alternatives
- Involve **Sustainability goals and vision** through Ag 21 and environmental action

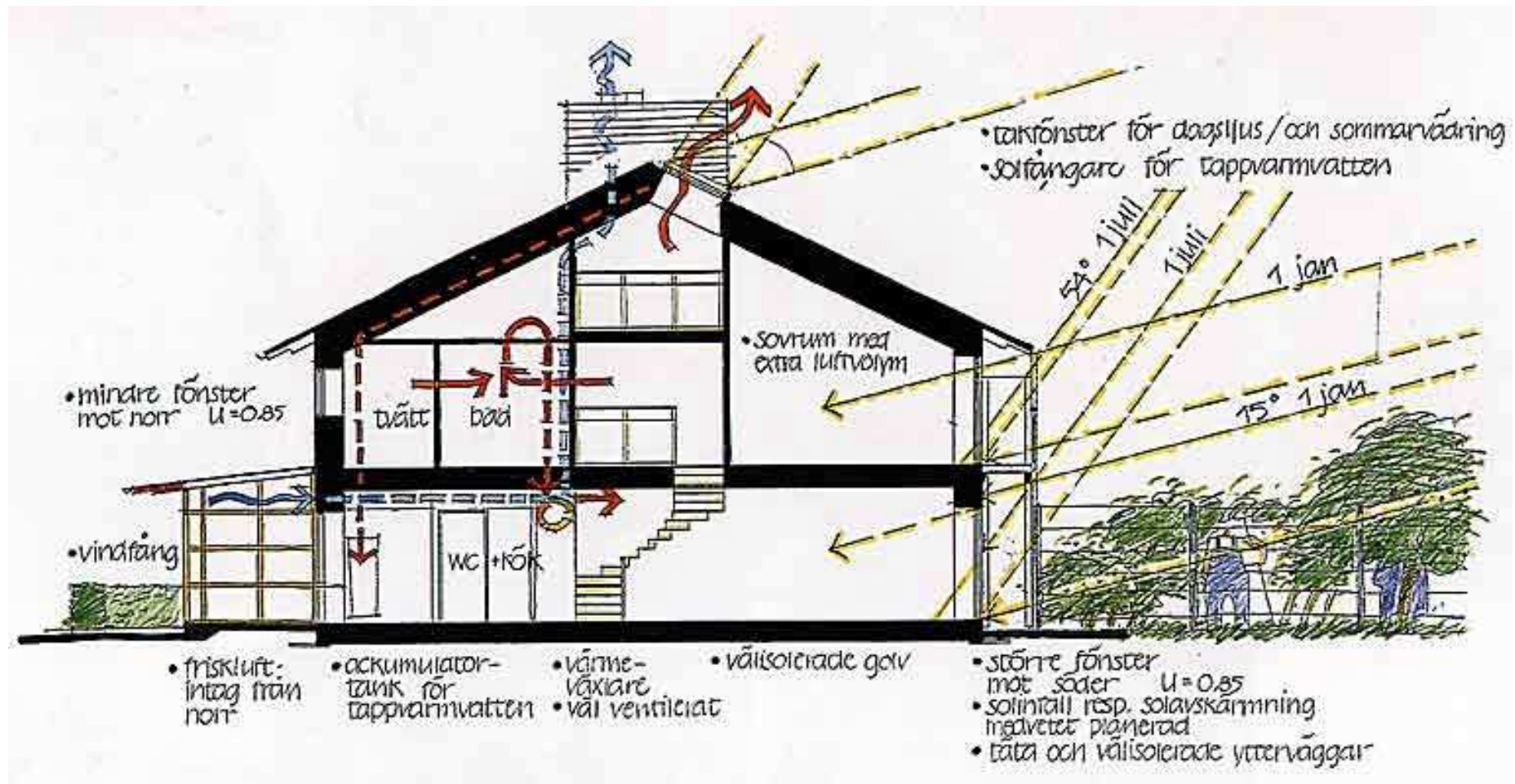










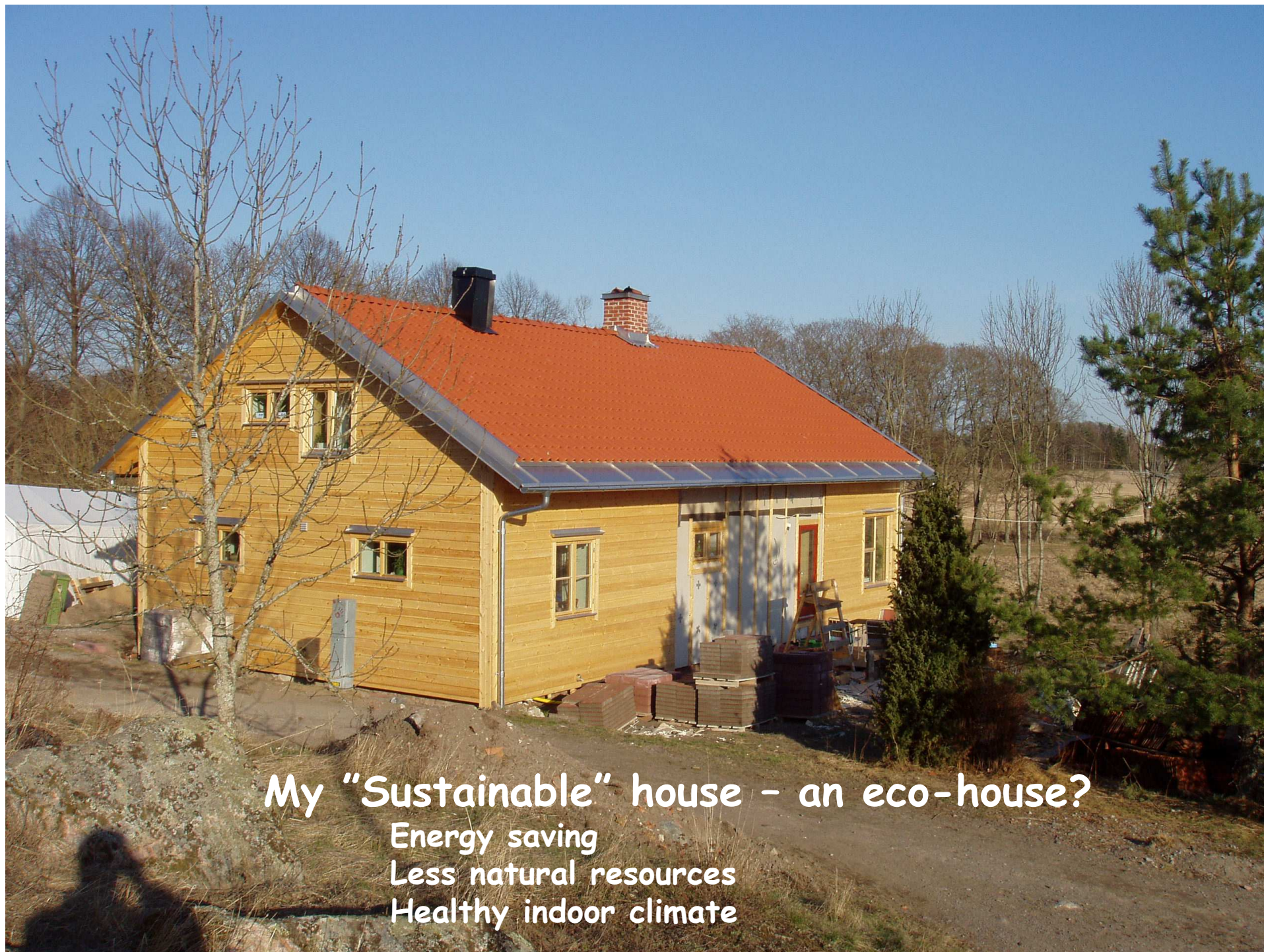


**The power consumption  
per year:**

<b>Heating</b>	<b>125 kWh</b>
<b>Domestic Electricity</b>	<b>.2 770 kWh</b>
<b>Hot water</b>	<b>1 500 kWh</b> (50 % of 3 000 kWh, the rest from solar panel)
<b>Fan/ventilation</b>	<b>175 kWh</b>
<b>Solar Pump</b>	<b>40 kWh</b>
<b><i>TOTAL</i></b>	<b><i>4 610 kWh = av. 50kwh/sqm</i></b>

A swedish standard villa  
of 120 sqm = 20 000 kwh  
or 170 kwh/sqm/year





My "Sustainable" house - an eco-house?

Energy saving

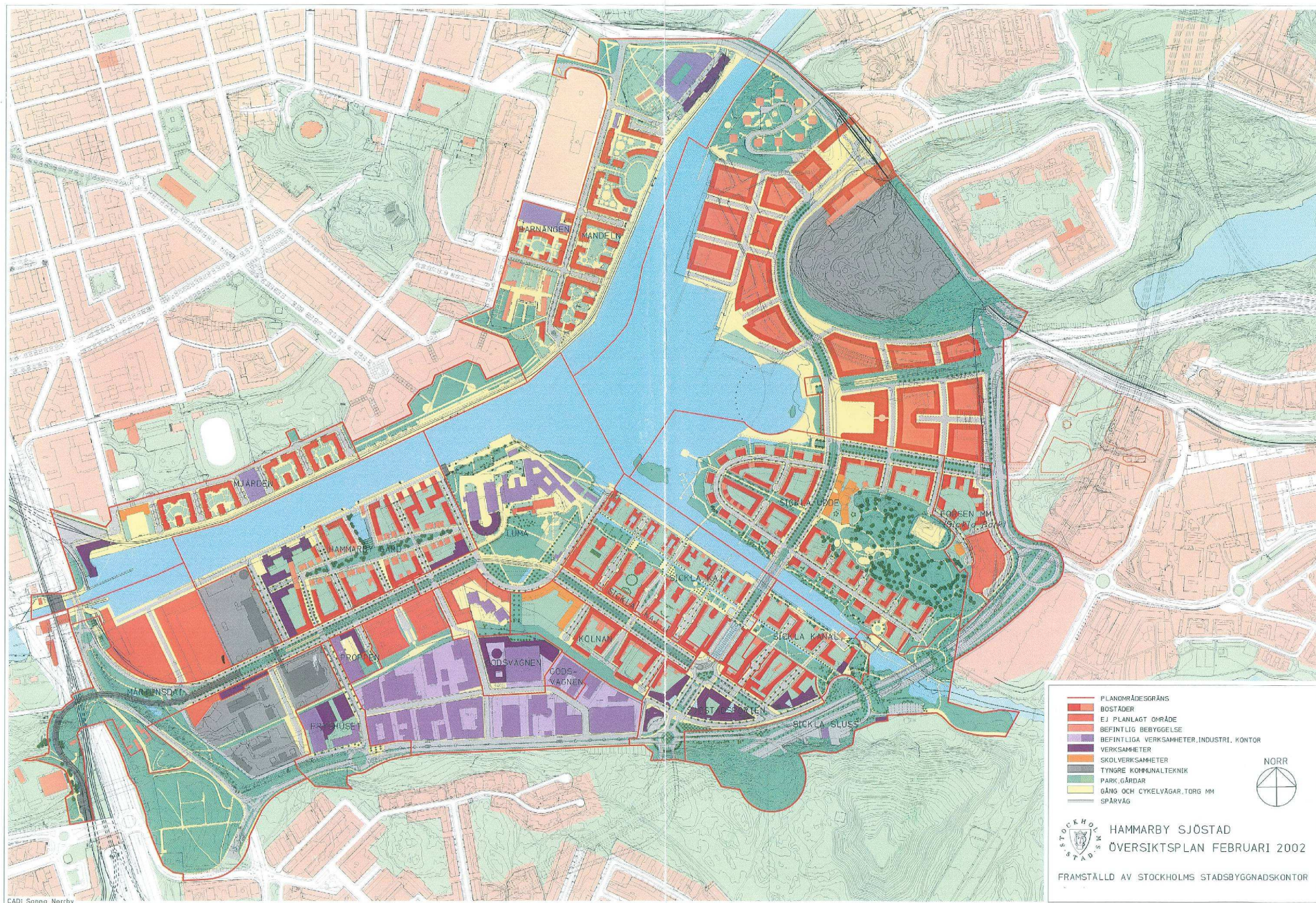
Less natural resources

Healthy indoor climate









PLANOMRÅDESGRÄNS

BOSTÄDER

EJ PLANLAGT OMRÅDE

BEFINTLIG BEBYGGELSE

BEFINTLIGA VERKSAMHETER, INDUSTRI, KONTOR

VERKSAMHETER

SKOLVERKSAMHETER

TYNGRE KOMMUNALTEKNIK

PARK, GÄRDAR

GÅNG OCH CYKELVÄGAR, TORG MM

SPÅRVÄG

NORR

STOCKHOLM

STAD

HAMMARBY SJÖSTAD

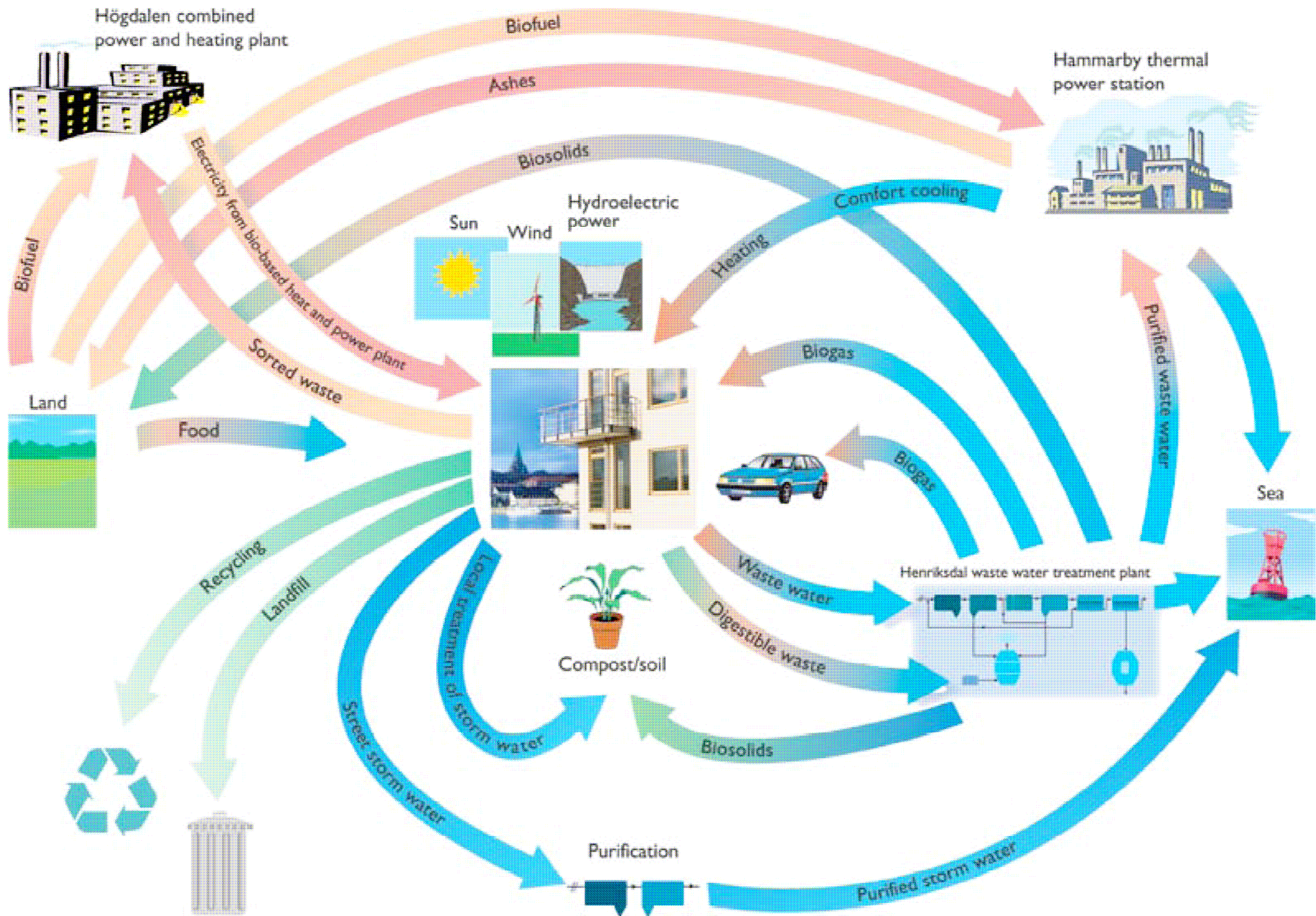
ÖVERSIKTSPLAN FEBRUARI 2002

FRAMSTÄLLD AV STOCKHOLMS STADSBYGGNADSKONTOR











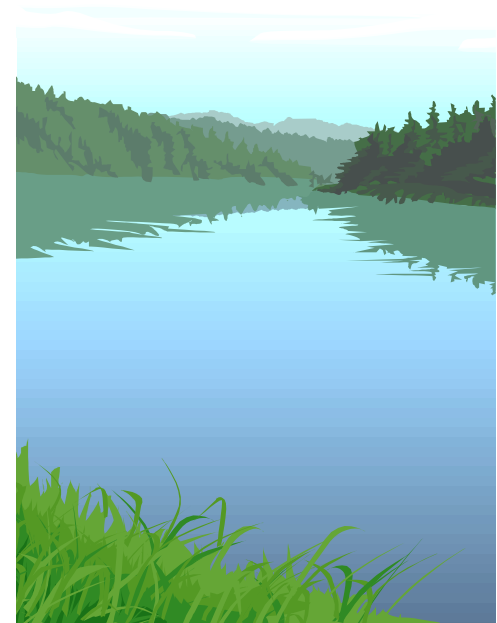
# Why Planning?

- *Planning is a way to manage and optimize resources for development*
- *Planning is a means to organise and manage the future*

***Use planning to master the future  
rather than being the victim of it!***

# The **Concept** of Planning

- To organise and manage the *future* through.....
- *Mapping* the **Present** and *Plan* the *future*



# The **Use** of Physical Planning

- **A way to.....**
  - optimize the use of land
  - optimize the use of resources
  - balance resources for development
  - plan for new settlements





# The Swedish way

- The Building and Planning Act (1987):
  - The **Local Municipality** is responsible for all physical planning
  - The **Local Municipality** must have an updated Comprehensive Physical Plan covering all their territory

Detailed Local Plan + Building Permission

# The Swedish Municipal comprehensive plan

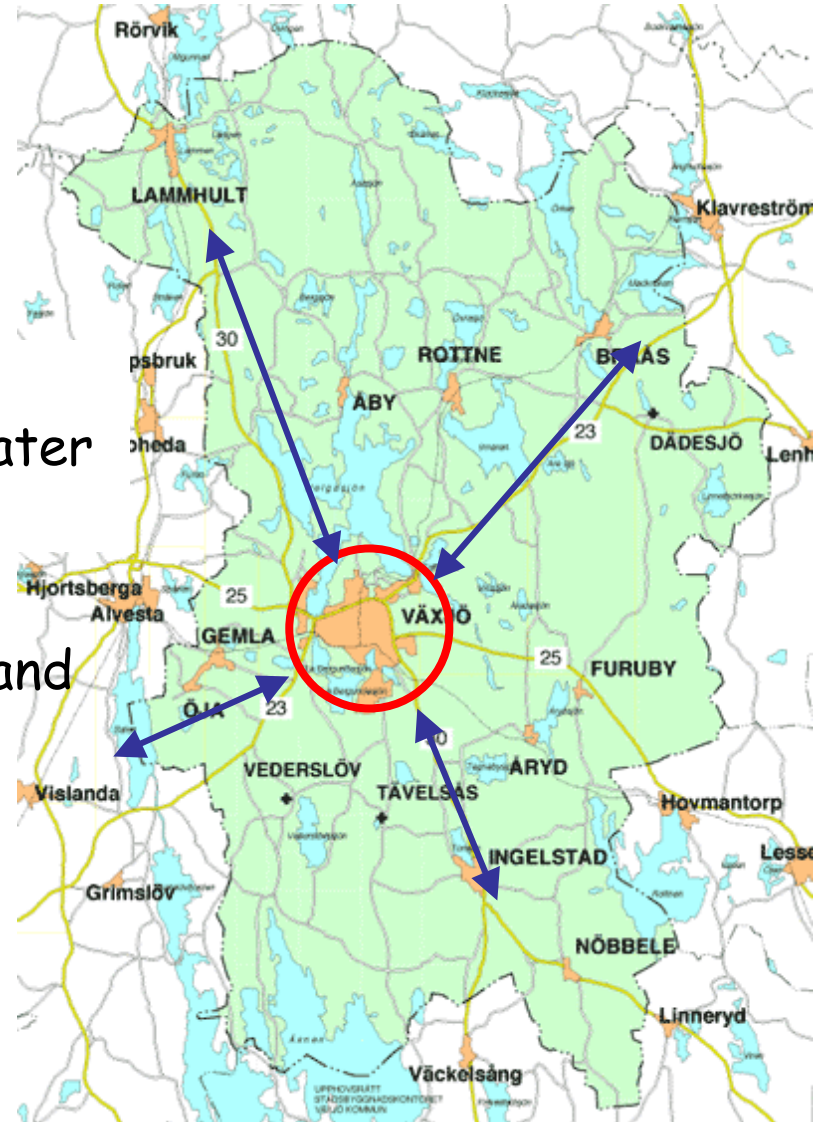
A long term strategic plan for 10-15 years

A land use mapping and visions for the future utilisation of land, water and settlements.....

Covering the town, its hinterland and the linking framework.....

Sector integration and Multidisciplinary approach

(an inland municipality)





# Latest SEA regulation:

Screen and check if the plan is expected to have a **significant impact** on environment

and if not...

Justify it and  
integrate environmental aspects

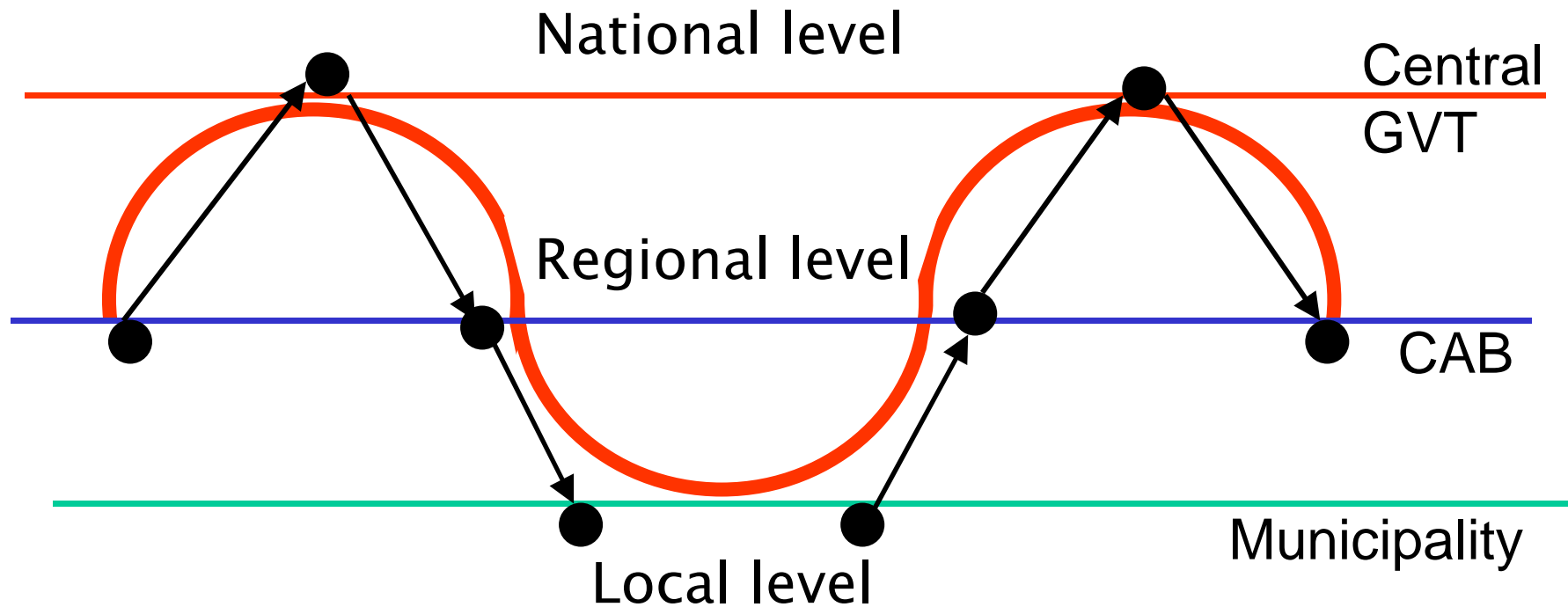
# Standard Planning Process

1. Agree on a Vision, clarify the goals
2. Consultation on proposals
3. Display and get final approval
4. Legal adoption



# The national planning snake

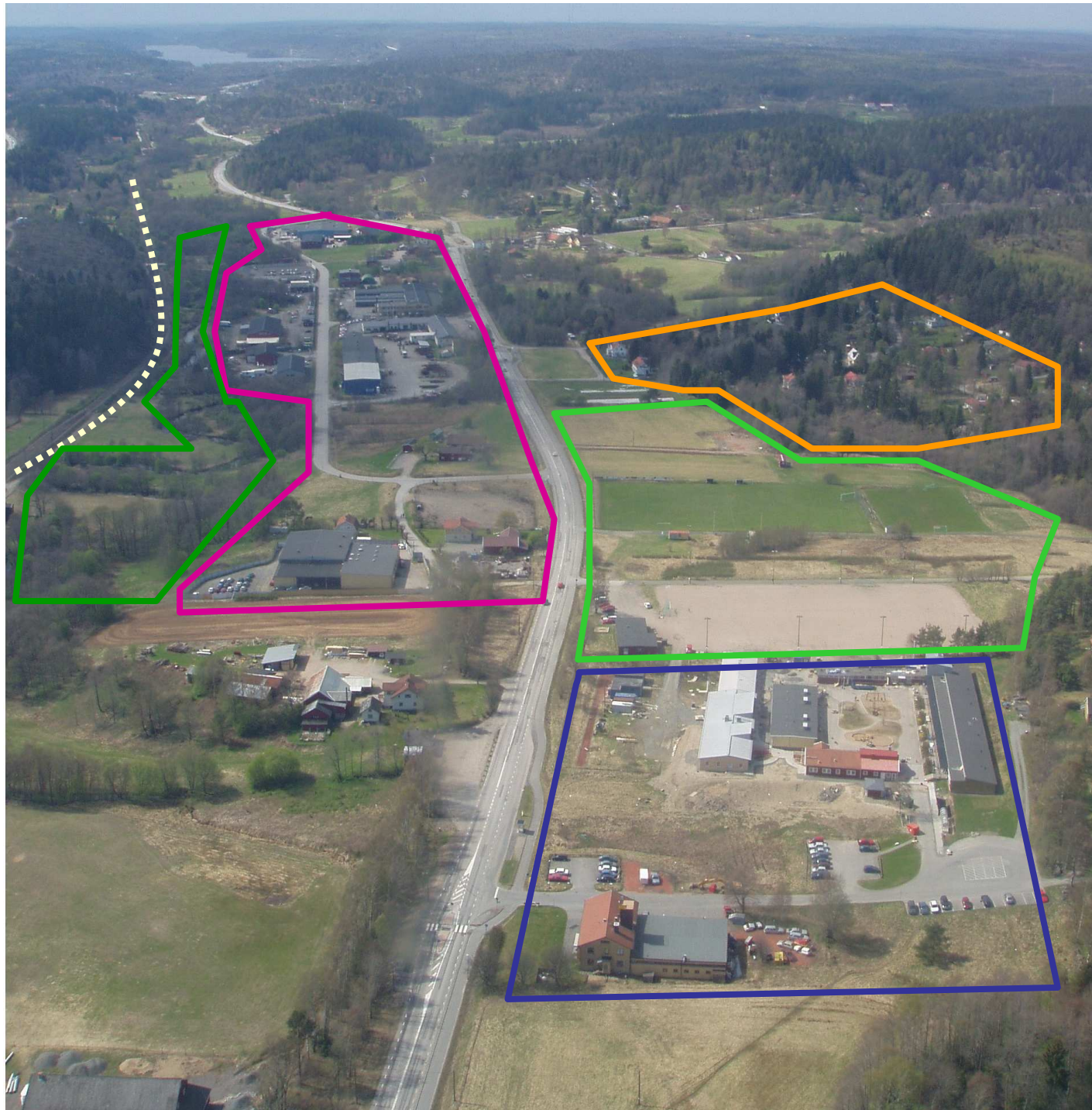
- discussions between different levels



## Planning for management of natural resources







The rural setting  
and the planning  
for urbanisation.





- 9 million people in 244 municipalities
  - covering both rural and urban areas...
- ...on the area of 415 000 km<sup>2</sup>

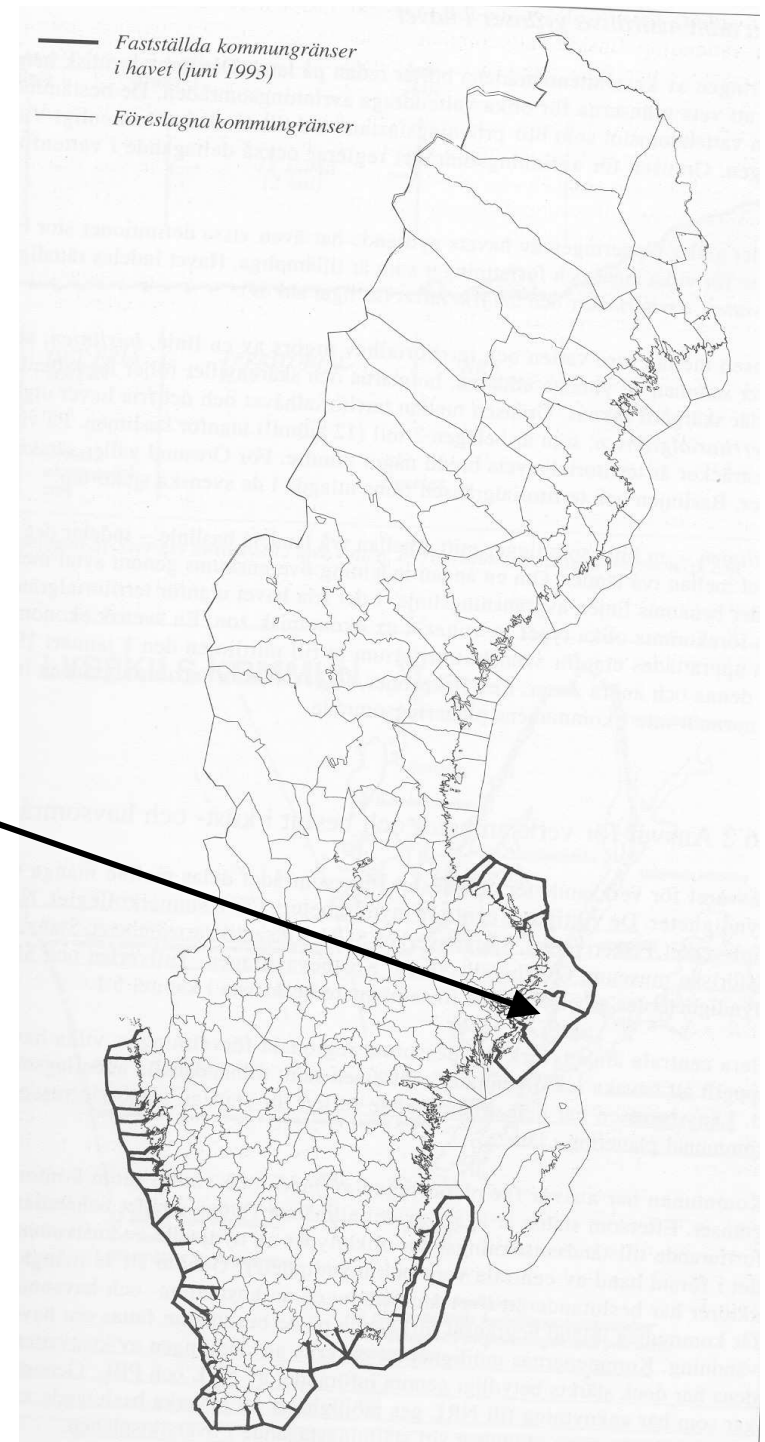
Gothenburg

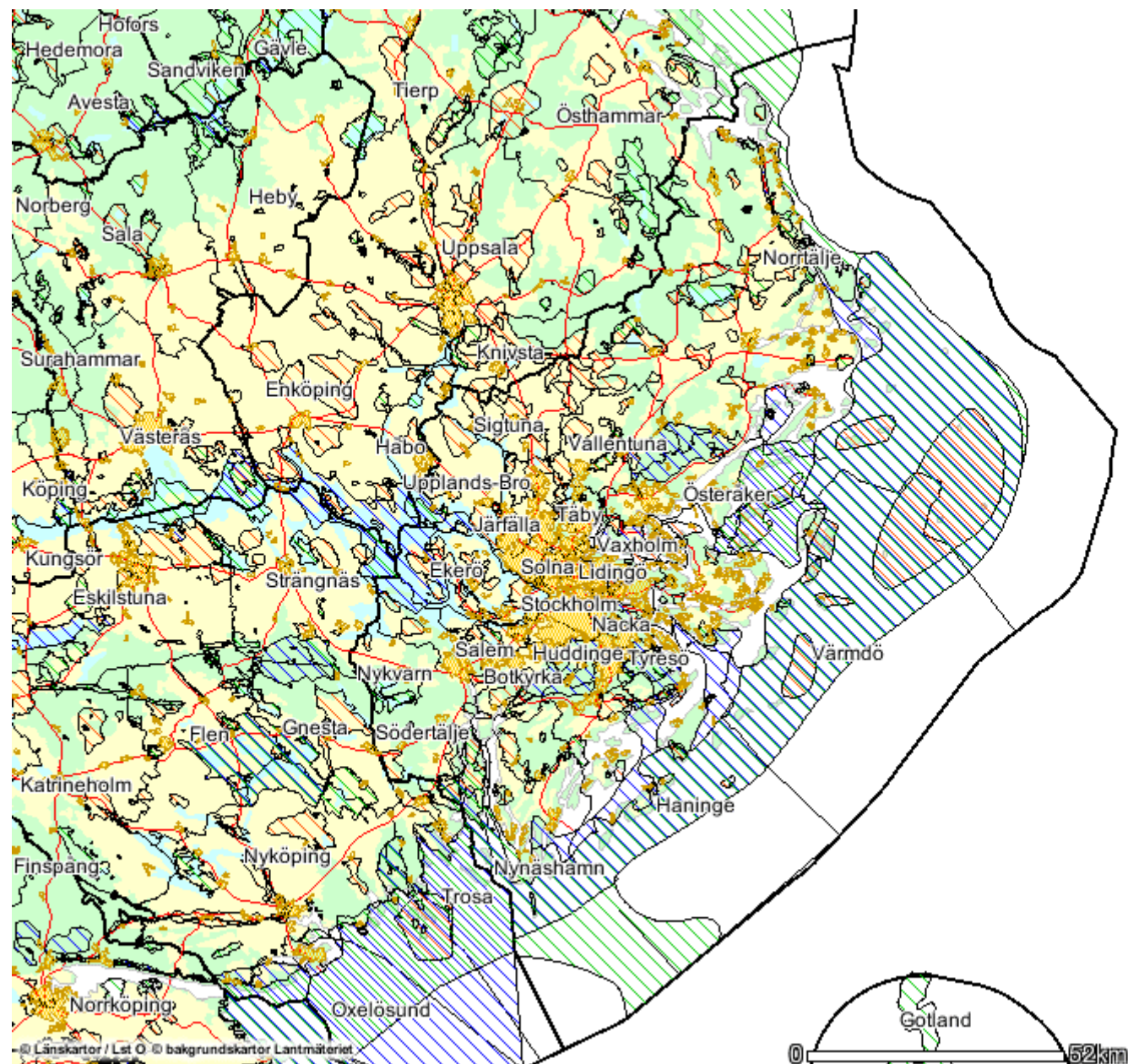


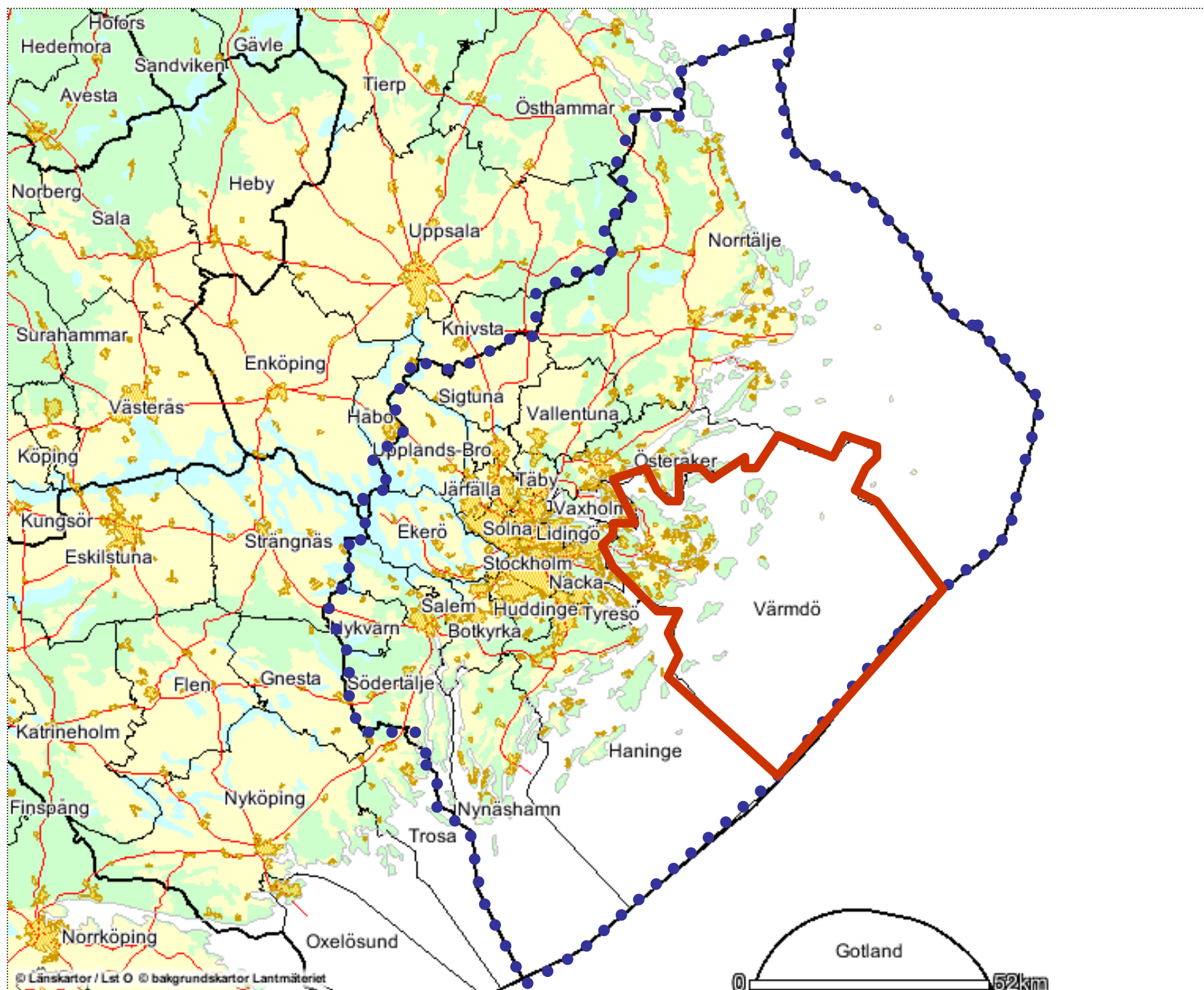


# Planning in the Stockholm Coastal Area

Värmdö Municipality  
Coastal Plan









# KUSTPLAN

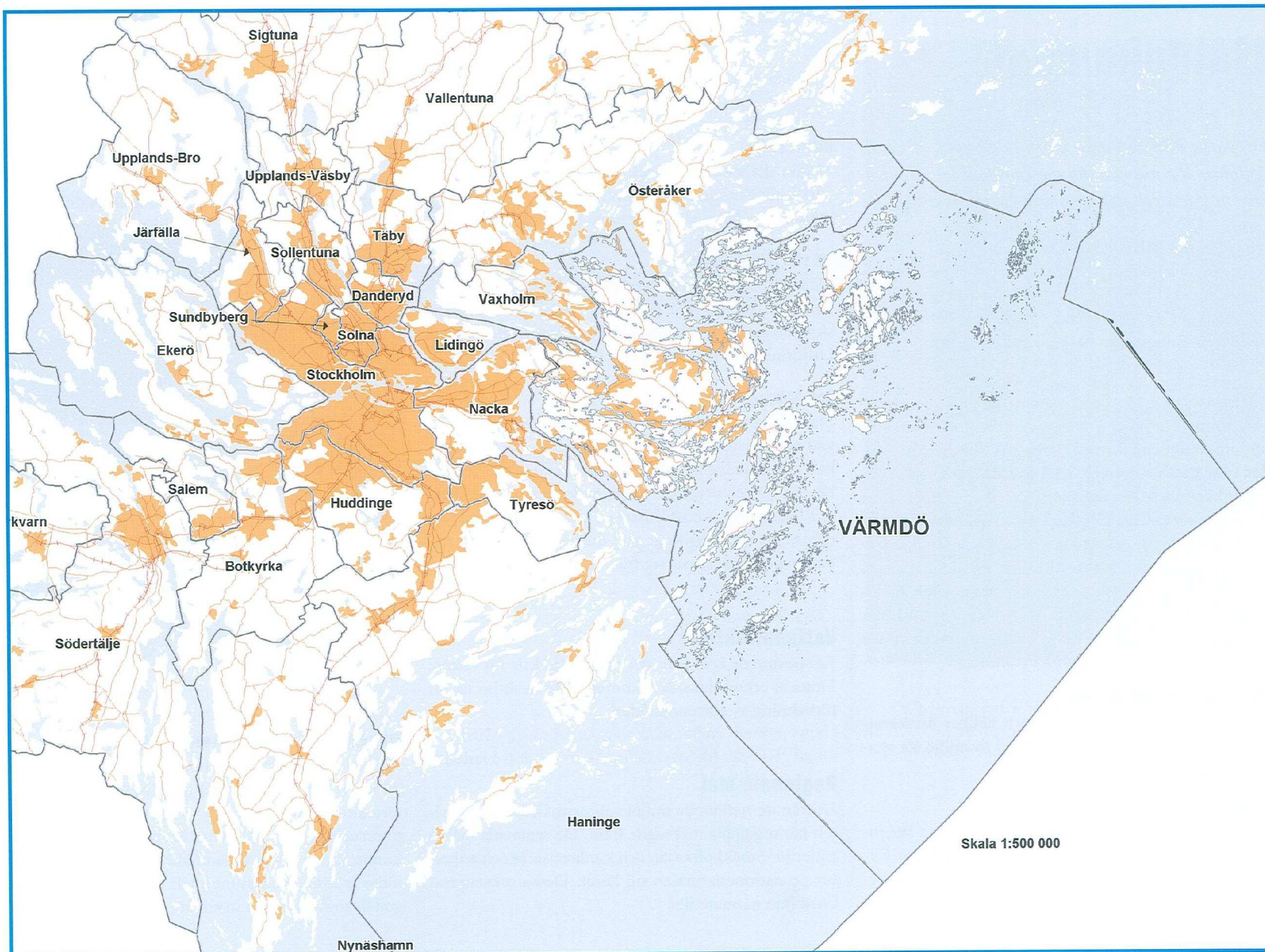
Fördjupning av översiktsplanen  
för kusten och skärgården i Värmdö kommun

SAMRÅDSHANDLING, VÄRMDÖ KOMMUN 2006

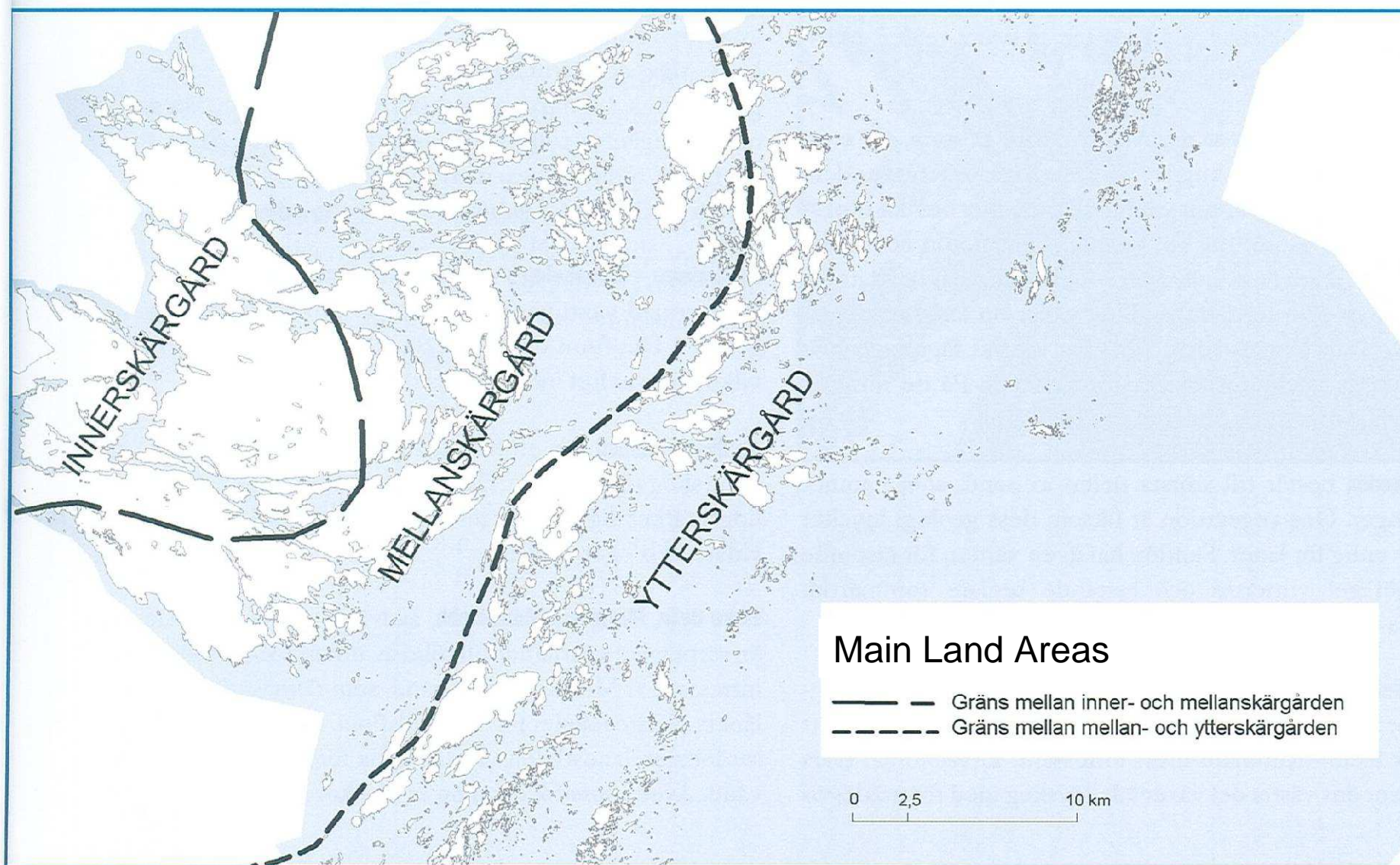


VÄRMDÖ KOMMUN

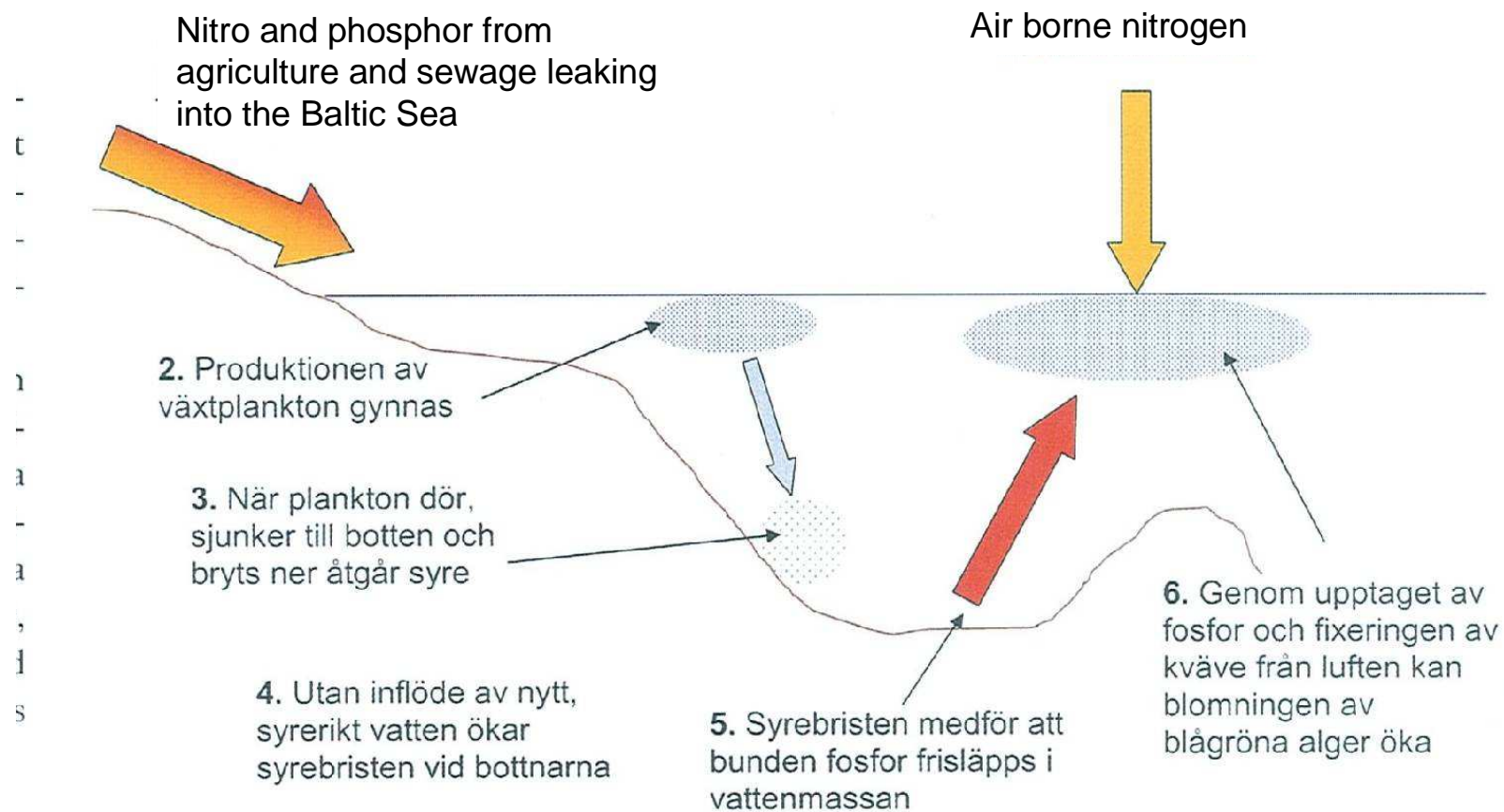






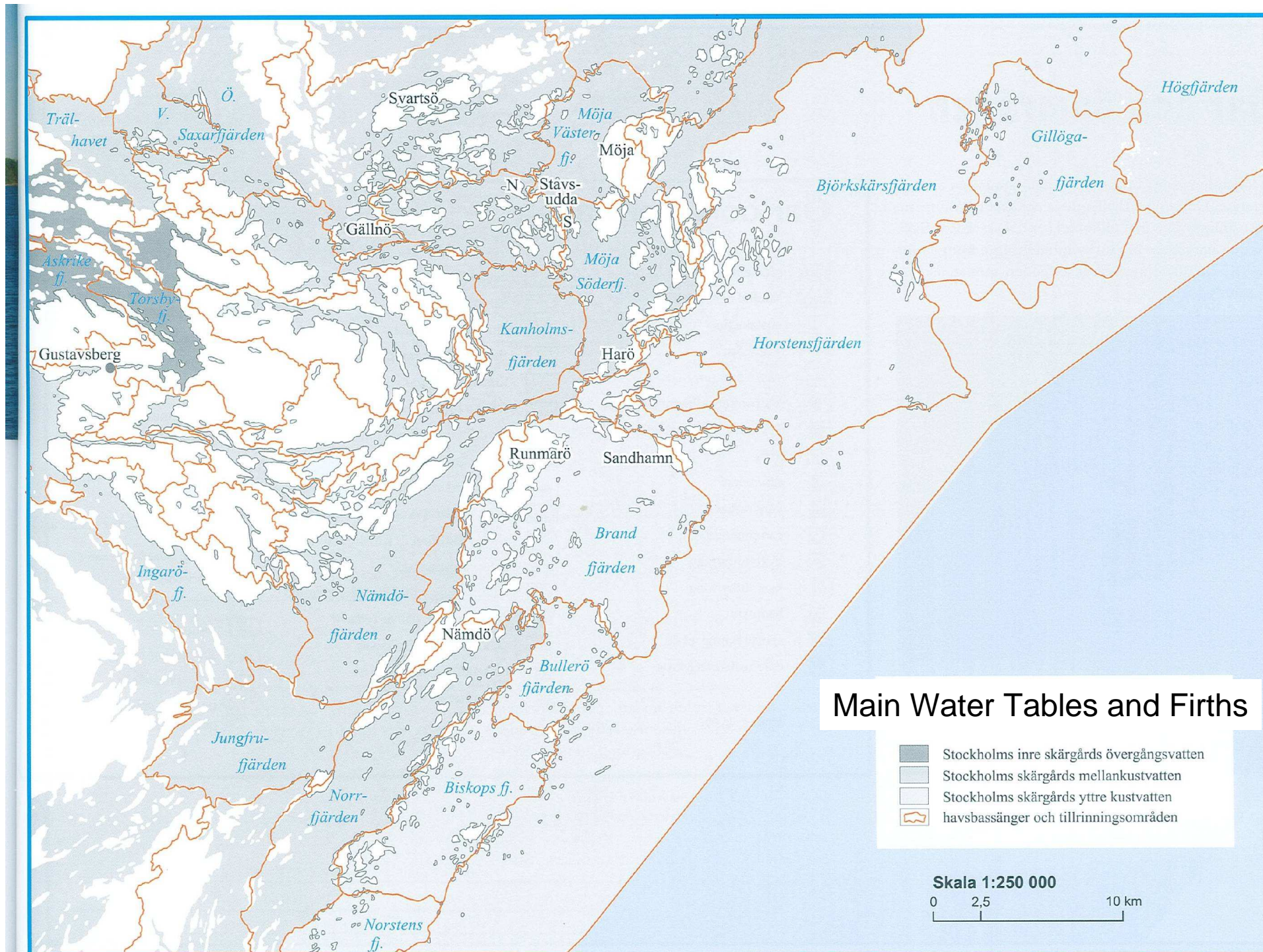




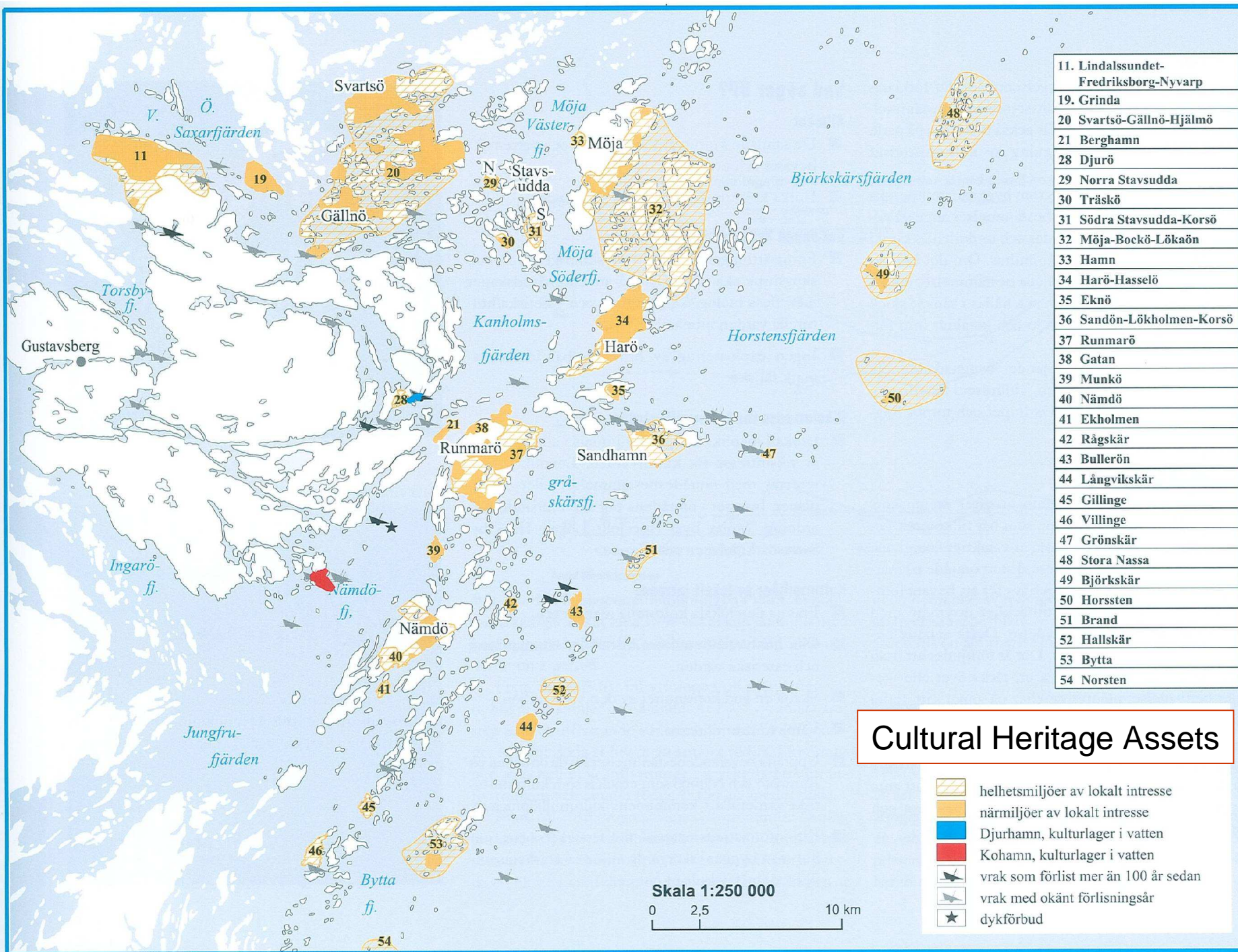


*Ekosystemet Östersjön kan ha kommit in i en ond spiral där kvävefixerande blågröna alger särskilt gynnas av ökad tillgång på fosfor.*



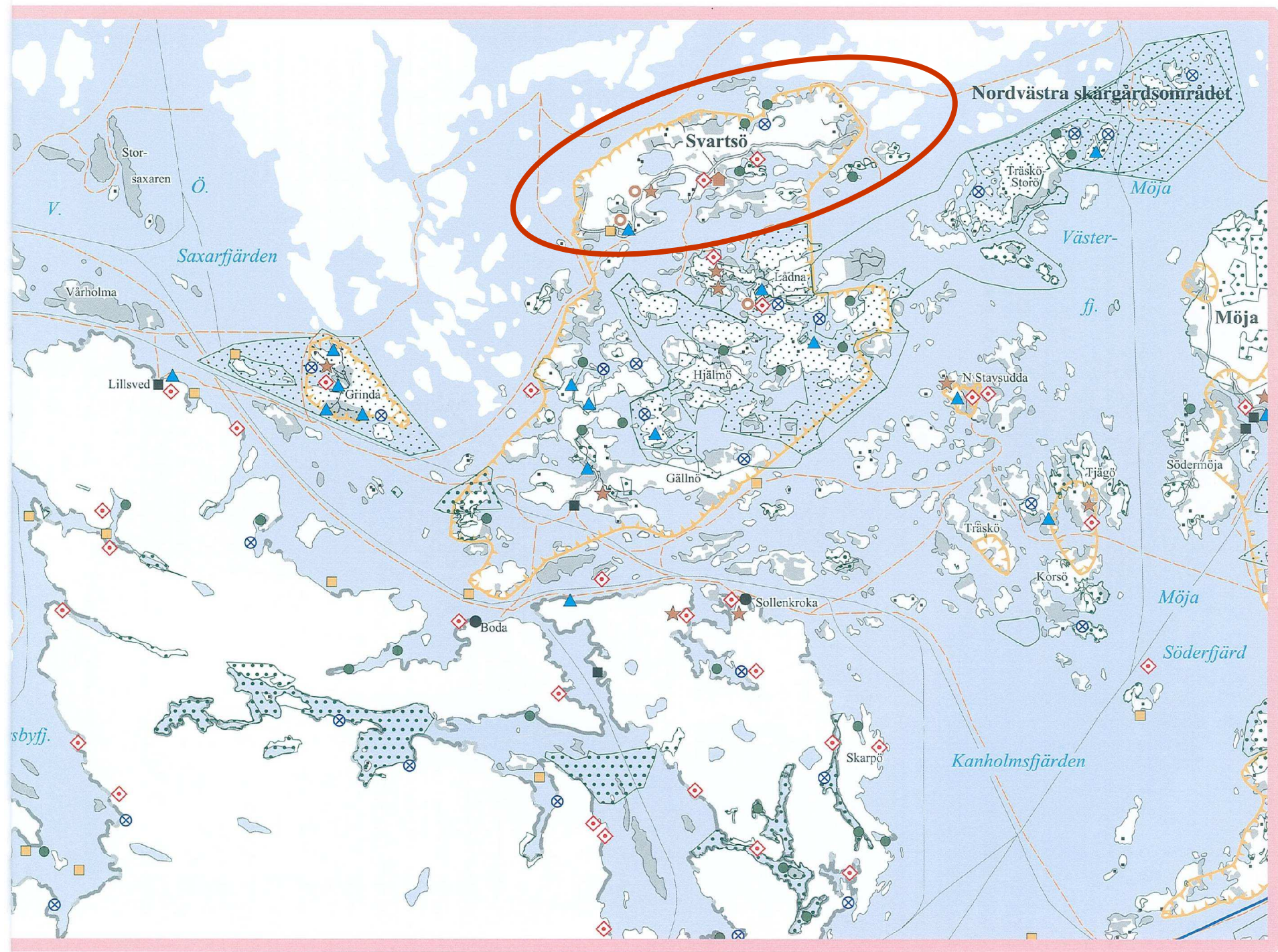






11. Lindalssundet-Fredriksborg-Nyvarp
19. Grinda
20. Svartsö-Gällnö-Hjälmö
21. Berghamn
28. Djurö
29. Norra Stavsudda
30. Träskö
31. Södra Stavsudda-Korsö
32. Möja-Bockö-Lökaön
33. Hamn
34. Harö-Hasselö
35. Eknö
36. Sandön-Lökholmen-Korsö
37. Runmarö
38. Gatan
39. Munkö
40. Nämö
41. Ekholmen
42. Rågsjär
43. Bullerön
44. Långvikskär
45. Gillinge
46. Villinge
47. Grönskär
48. Stora Nassa
49. Björkskär
50. Horssten
51. Brand
52. Hallskär
53. Bytta
54. Norsten

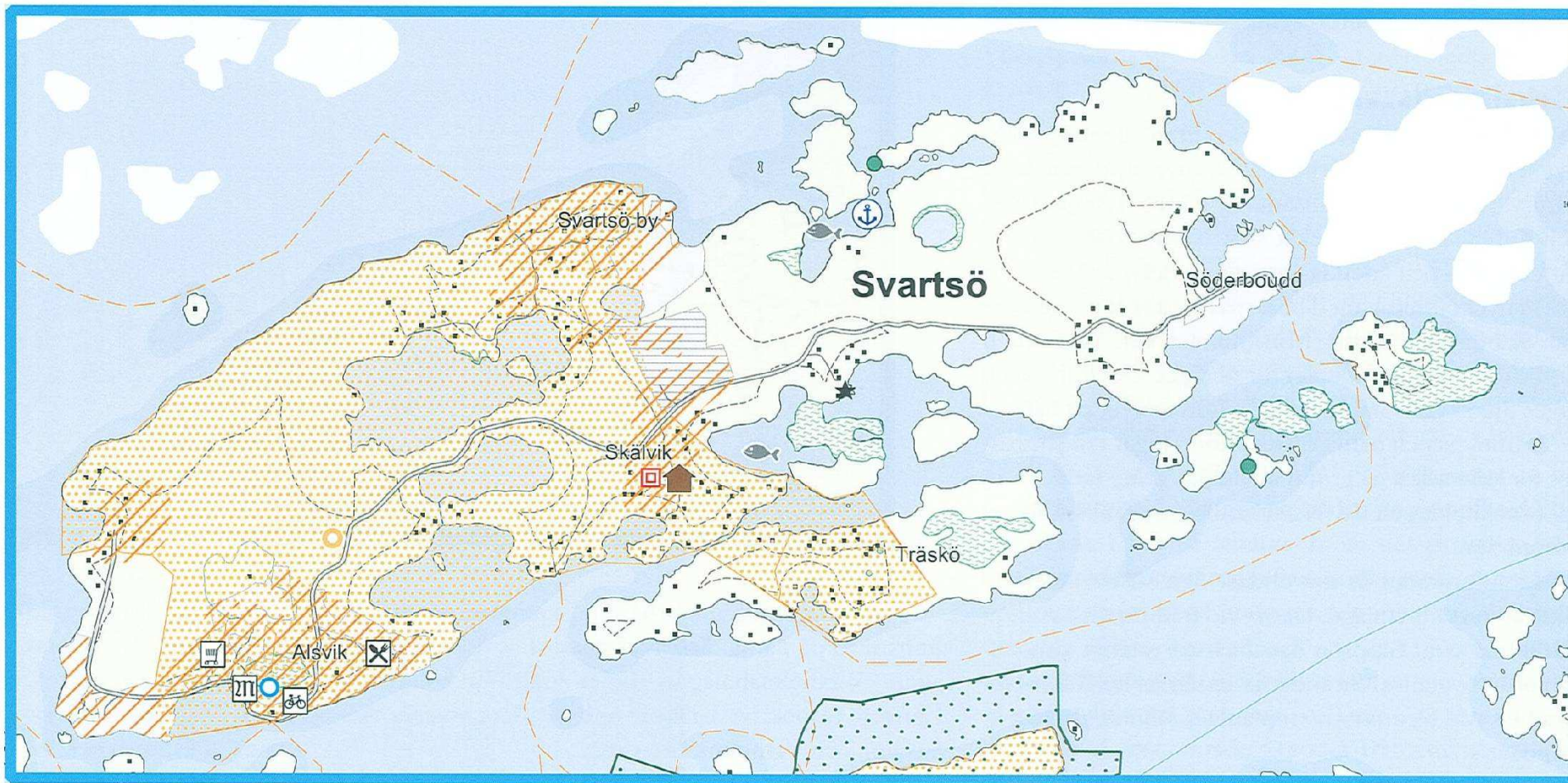














# The Planning Context

*to manage a development situation*

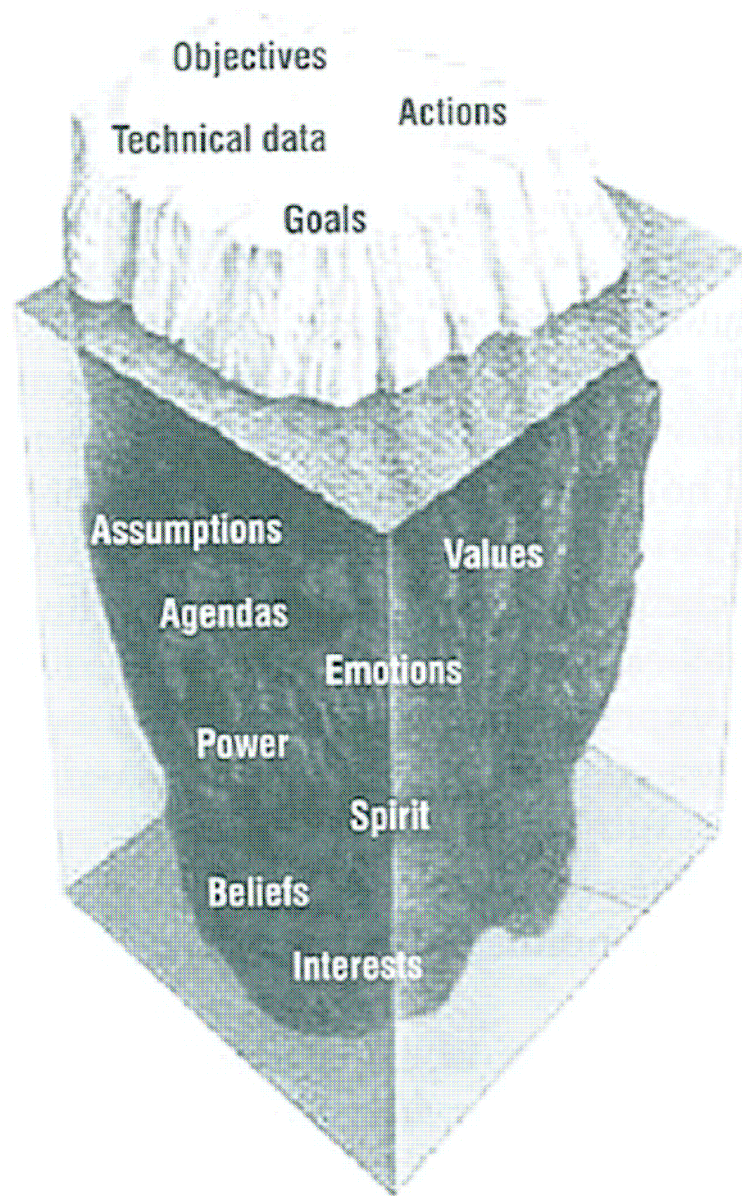
## Actors and Stakeholders:

Variety of citizens

Commercial actors

Local market businessmen

Organisations





# The Planning Context

## Forces and resources:

public assets

livelihood situations

social values and assets

natural assets and resources

political attitudes, wills and  
changes

# The Planning Context

## A changing world:

Climate change

State of degraded environment

Faster changing processes

Urbanization towards coastal areas

New emerging risks

International collaboration

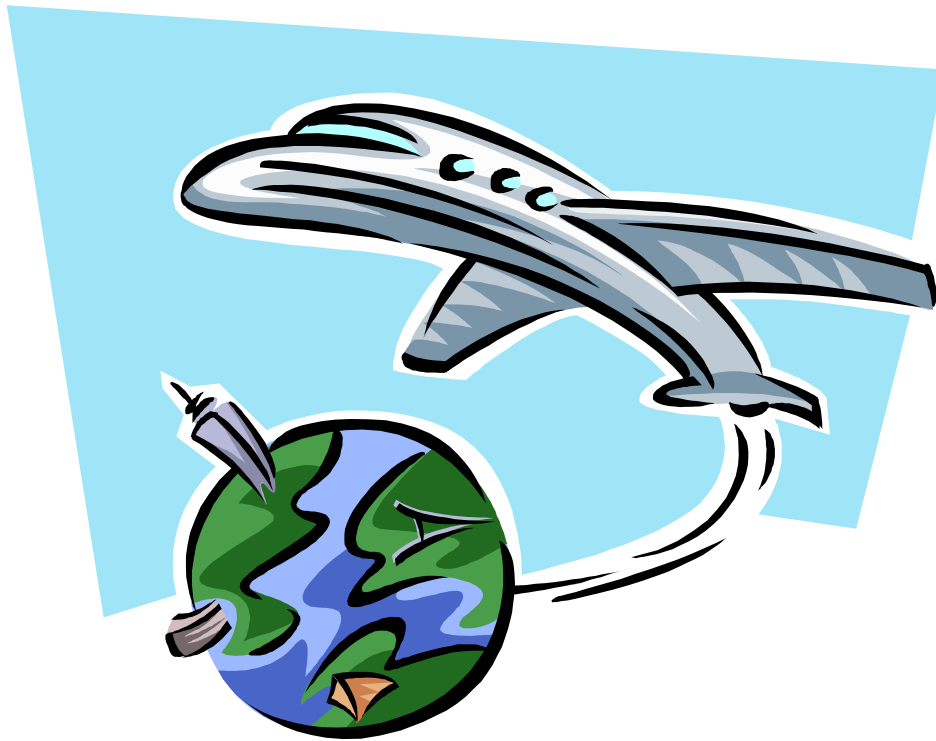


# New complex risks

## Example:

- The number of air routes increases
- The weather changes and dynamics

= more complex to plan and forecast



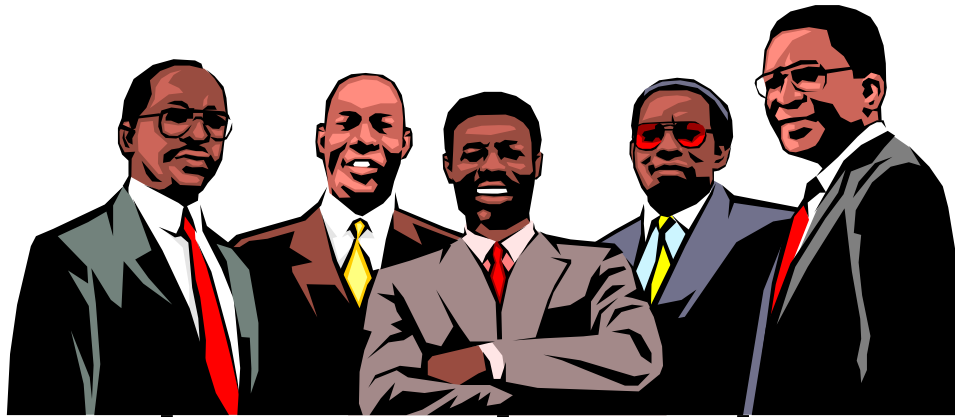
# Emerging Risks in the 21st Century

AN AGENDA FOR ACTION





# Top down or.....



Predestinated or..



open to new inputs?

# Bottom up.....?

# The role of Public Sector

is to balance the management of public assets and interests with the commercial markets and private short term interests and powers in a rapidly changing world....

And hence the public sector must use planning



# The Coastal situation

The coastal area contains large and vulnerable assets in the need of careful and long term planned management based on good governance and local ownership

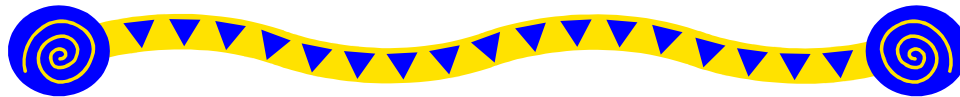
# Good planning is

a process...

that is transparent,

both bottom up and top down

and open to new inputs and trends





# Good planning is also

Locally driven,

having a clear ownership

and hence needs to be very  
participatory!



# Participation...

- Promotes local ownership
- Enhances accountability
- Strengthens project sustainability
- Facilitates Public-Community-Private partnership
- Facilitates process transparency and prevents corruption





## The 3 steps of successful participation:

1. Sensitization – to make people listen
2. Animation – to make people active
3. Mobilization – to make people move things

# The planning needs

To be flexible, practical and adaptable to new situations

Combining the **controlling and promoting** of development!

= The “carrot and stick” approach





We need a new planning  
approach:

## **Strategic Urban Planning**



# The Master Plan

is designed in a top-down way





# The Strategic Urban Plan

is combining top-down and bottom-up  
made in participation with the town  
residents



# Planning Concepts

## Master Plan.....

- Problem oriented
- Top down approach
- Spatially focused
- Central decision based
- Physical conditions
- Static
- Reactive & restrictive
- The plan is a **product**

## versus the **Strategic Plan**

- Goal and vision oriented
- Bottom up & top down
- Spatial and non-spatial
- Participation based
- Urban management tool
- Implementation oriented
- Dynamic and promotive
- The plan is a ***process*** providing ***strategies***



# The Strategic Urban Plan

## **Asset based**

Working with local assets  
and opportunities and  
building a

**COMMON VISION**

and long term goals

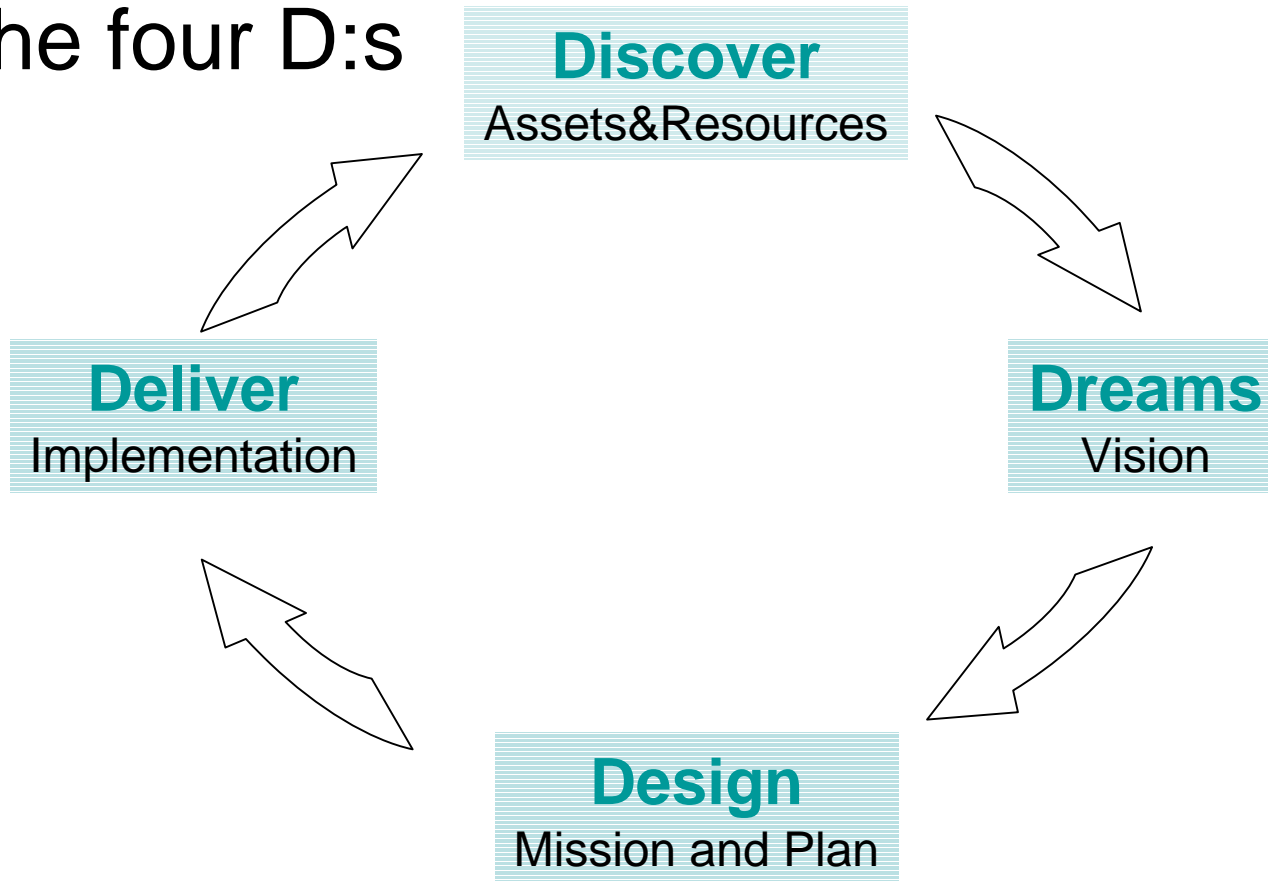
## **Strategy oriented**

Principles to guide  
decision making in  
rapidly changing  
urban settings

**Strategy approach  
gives stability  
and flexibility**

# The Strategic Planning Process

- The four D:s





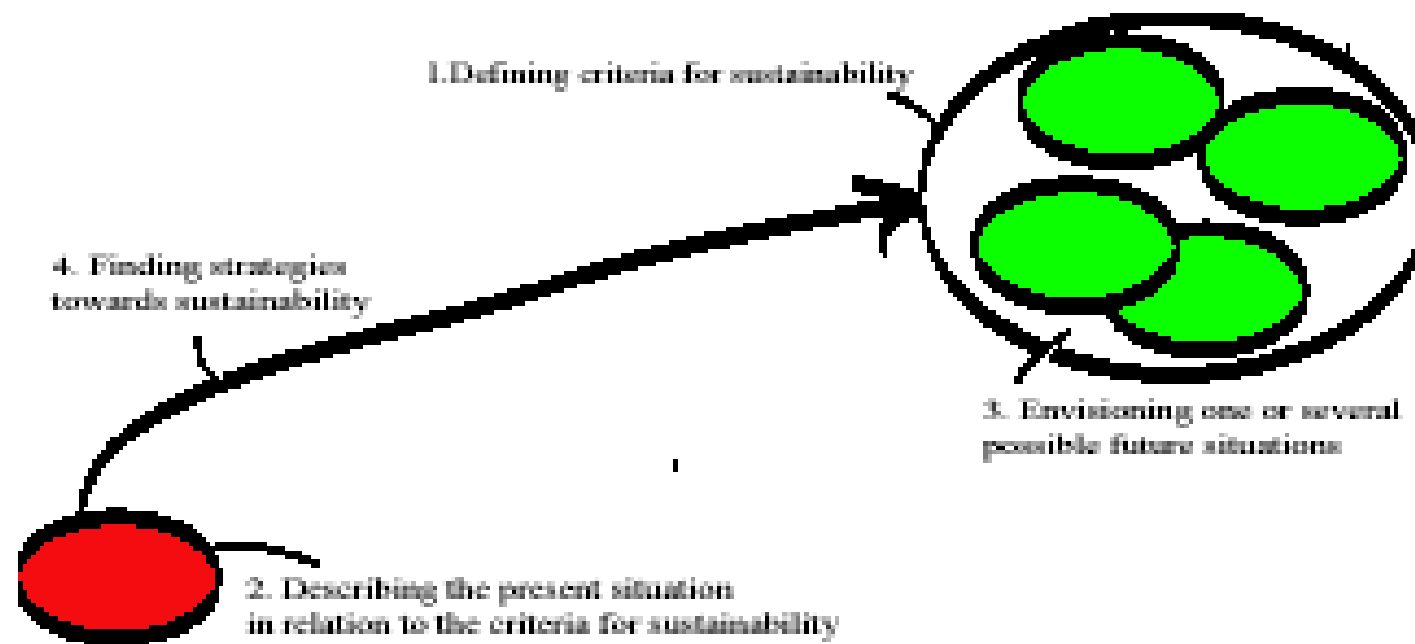
# The Anglo-Saxon planning culture

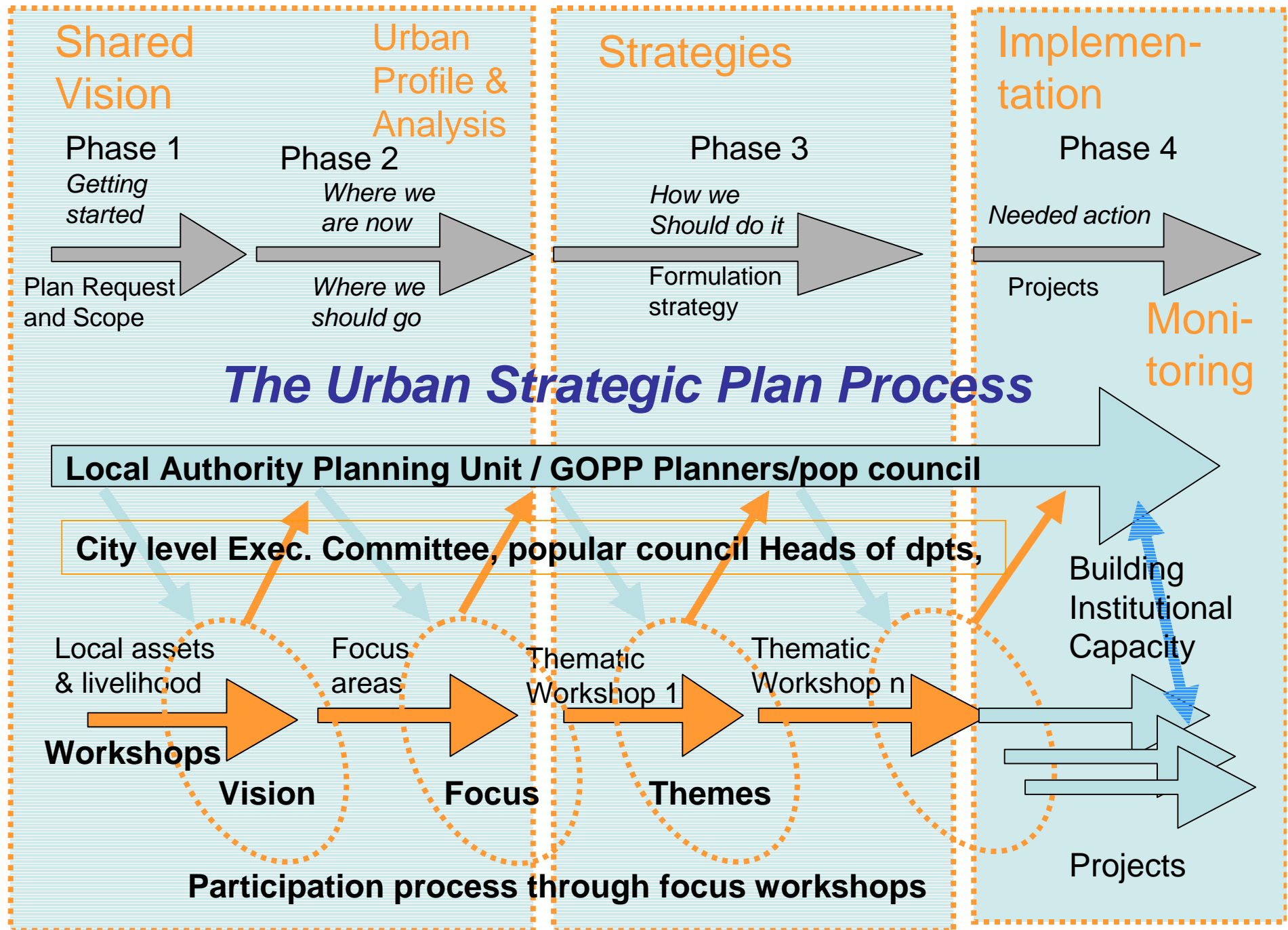
- Town planning
- "Country planning"
- Land use planning
- Regional planning

# The Strategic Urban Plan...

- is **goal oriented** with a clear spatial dimension more than problem oriented
- derives from a series of **focused workshops** where the local **assets** and urban profile is discussed with stakeholders
- is based on **themes** of workshop outputs being the basis for the **strategies**

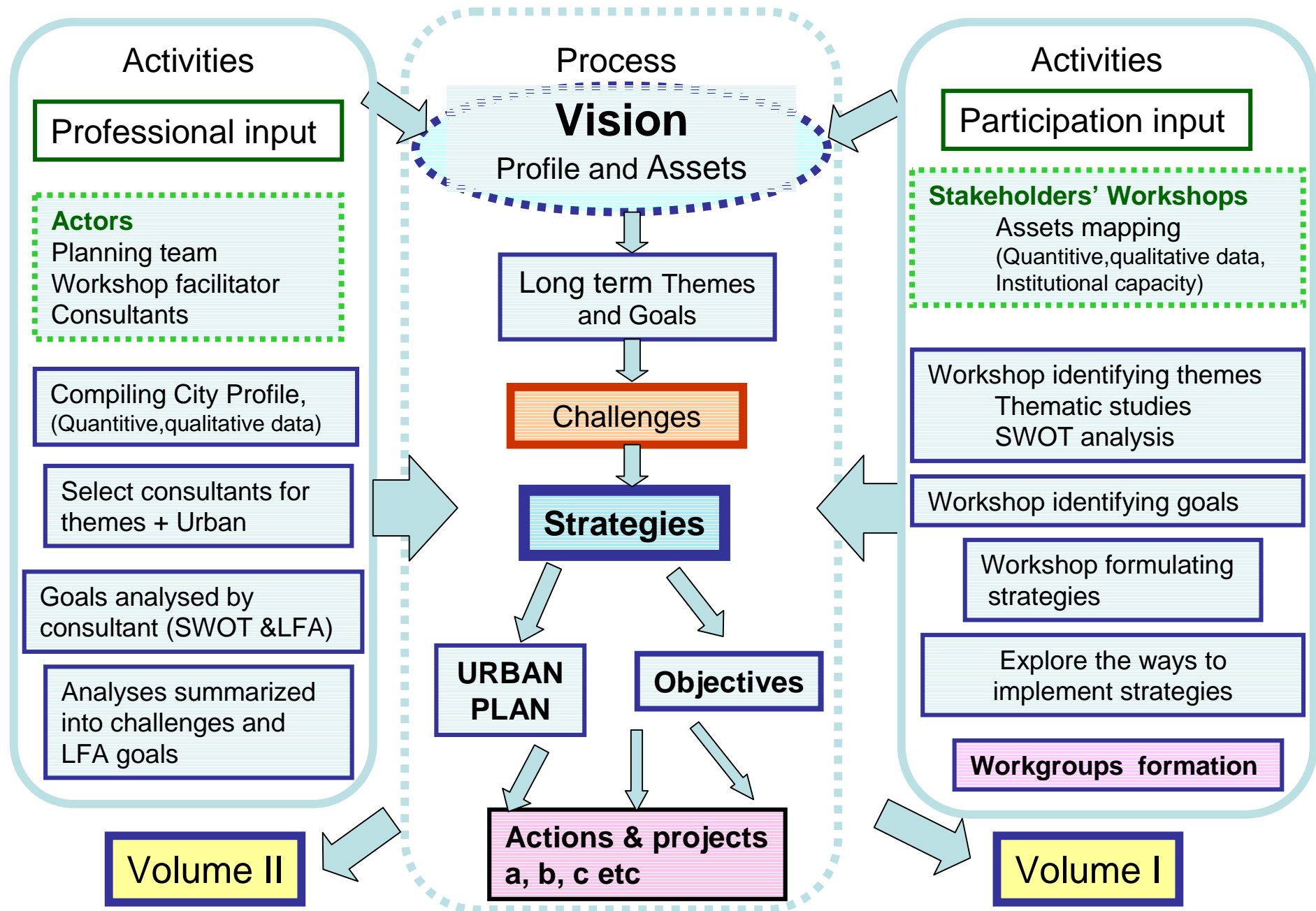




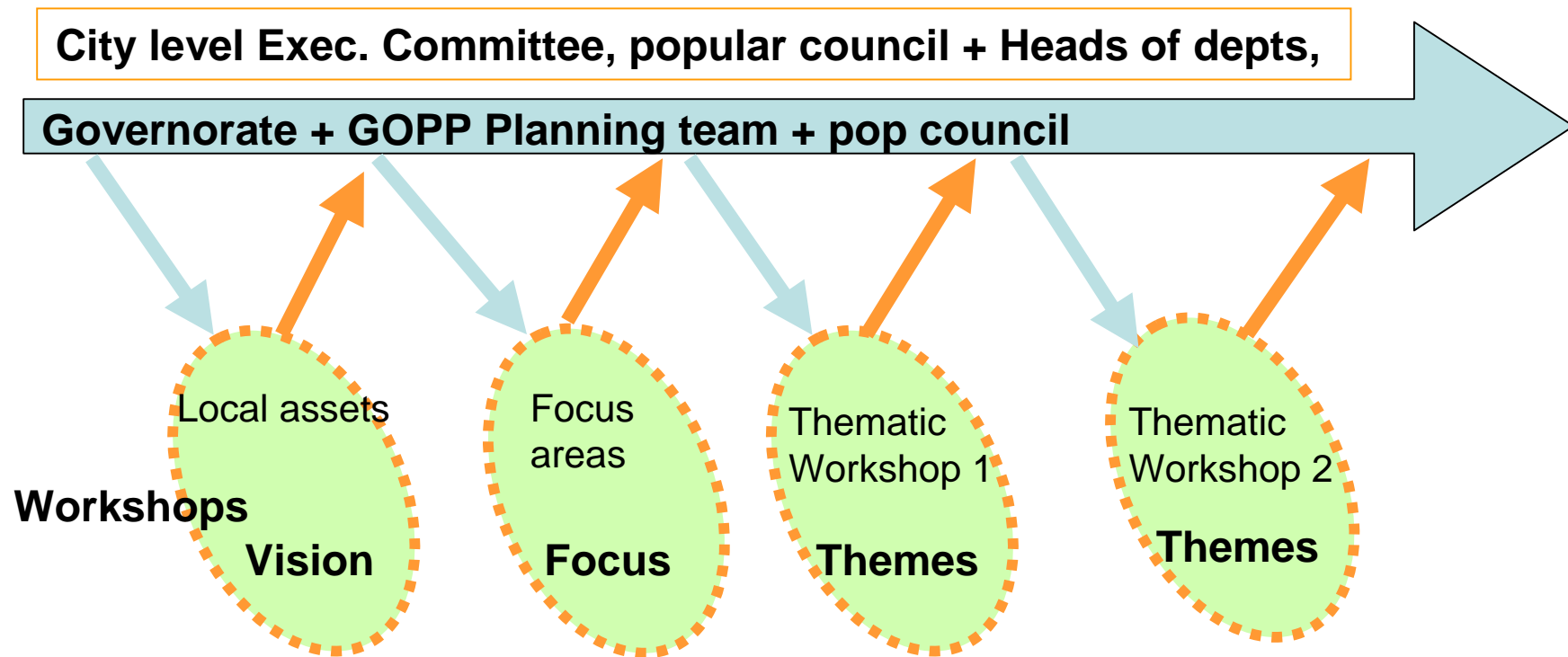
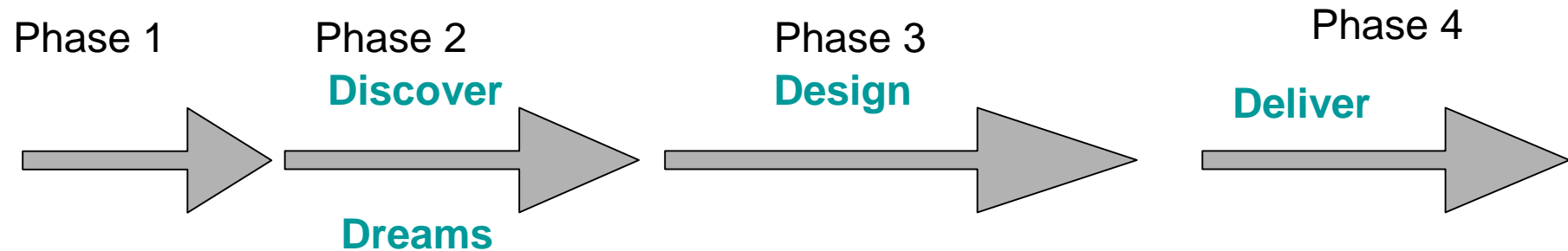




# THE STRATEGIC URBAN PLAN PROCESS



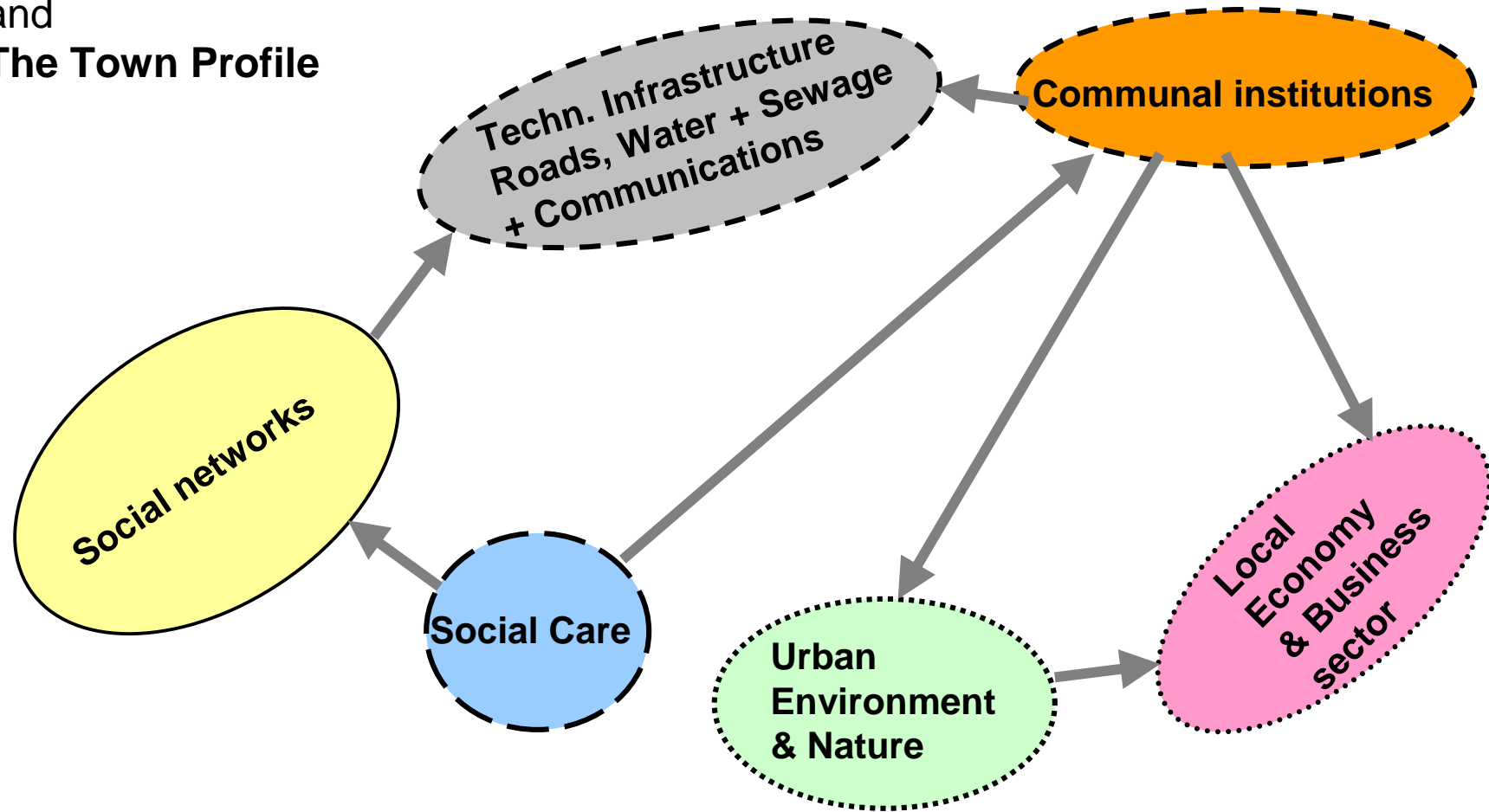
# *The Strategic Urban Plan Process*



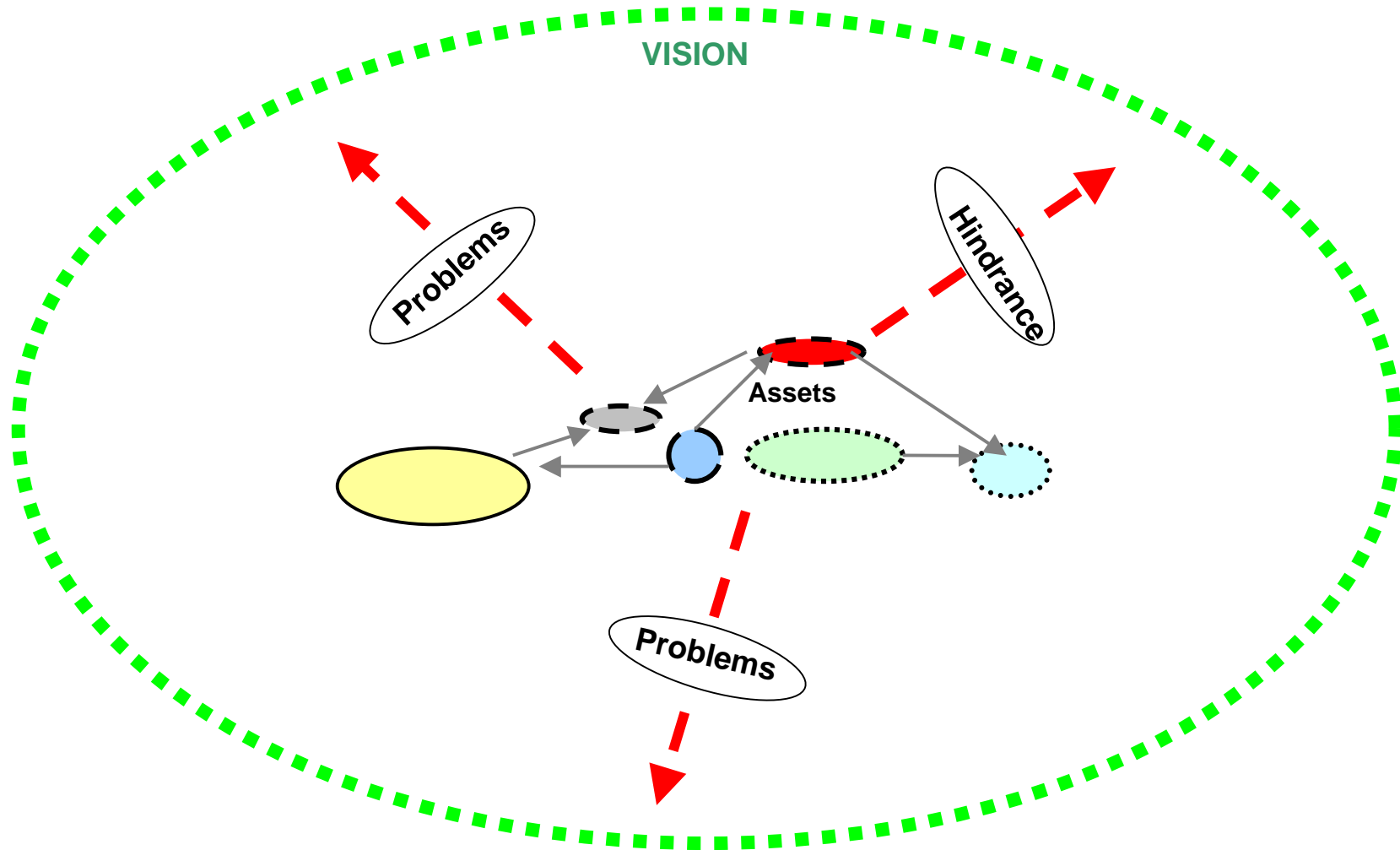
**Participation process through series of workshops**



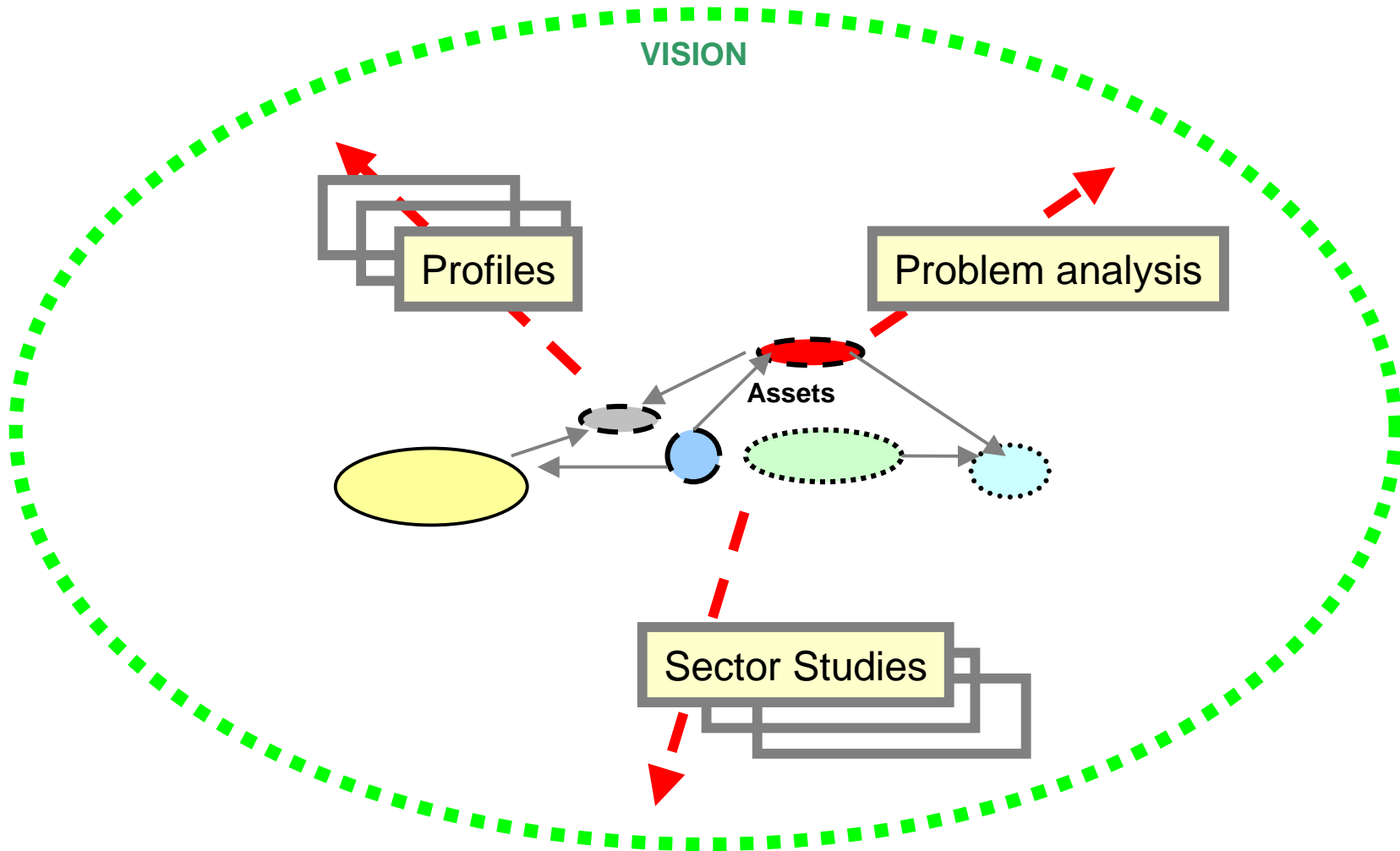
It starts with the  
**Assets mapping**  
and  
**The Town Profile**



Defining the issues to reach  
the Vision = Challenge

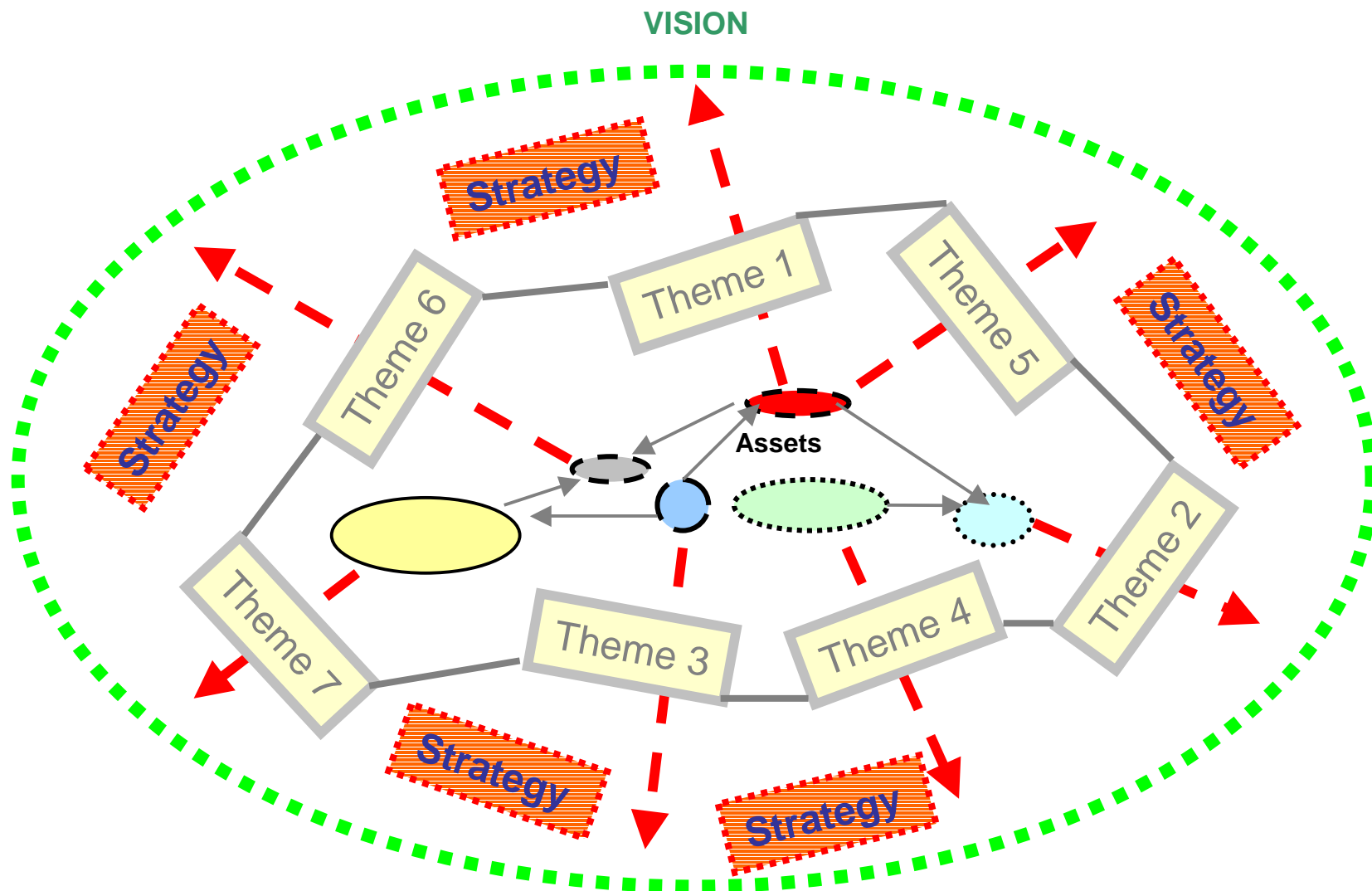


## Analysing the potentials and problems

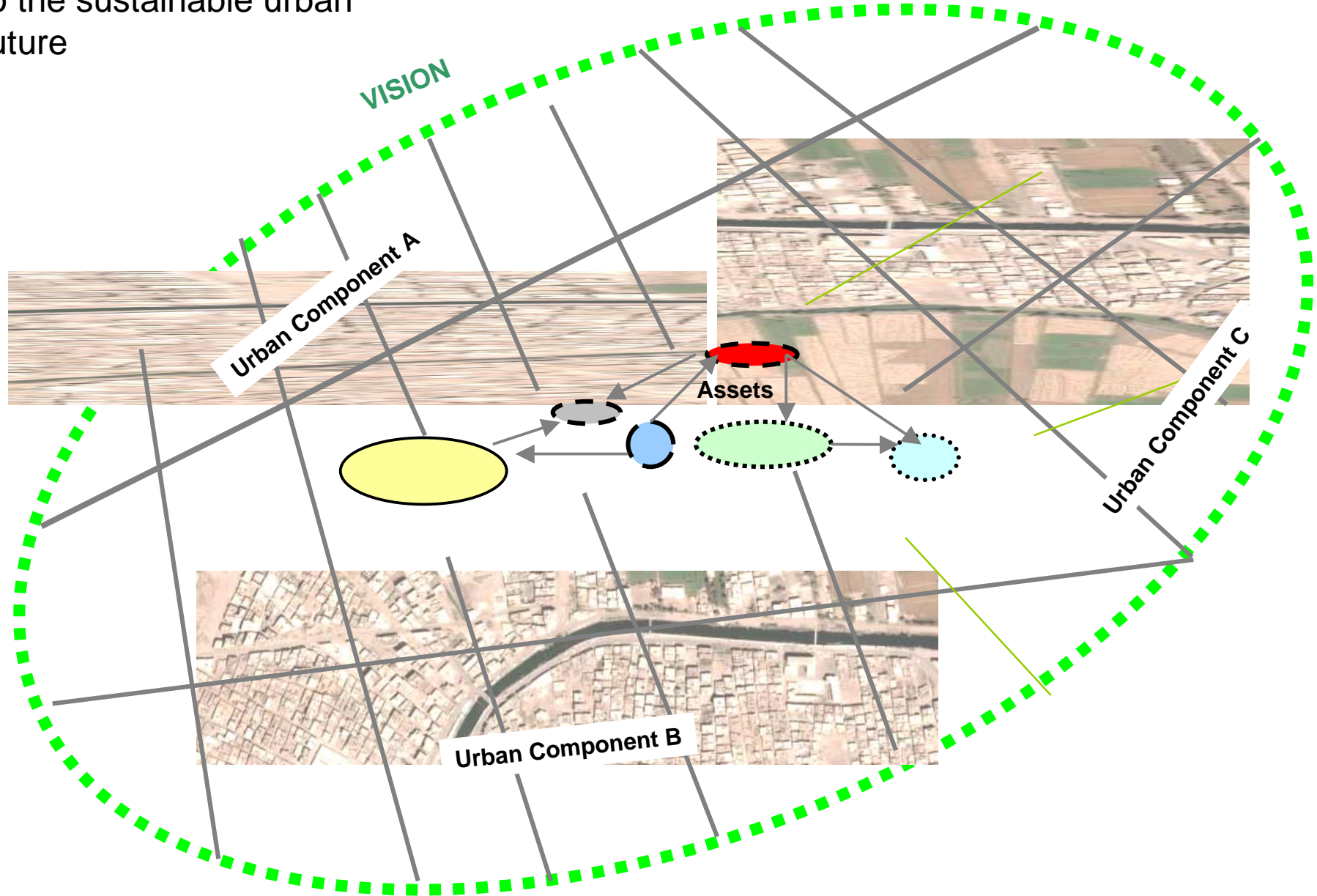




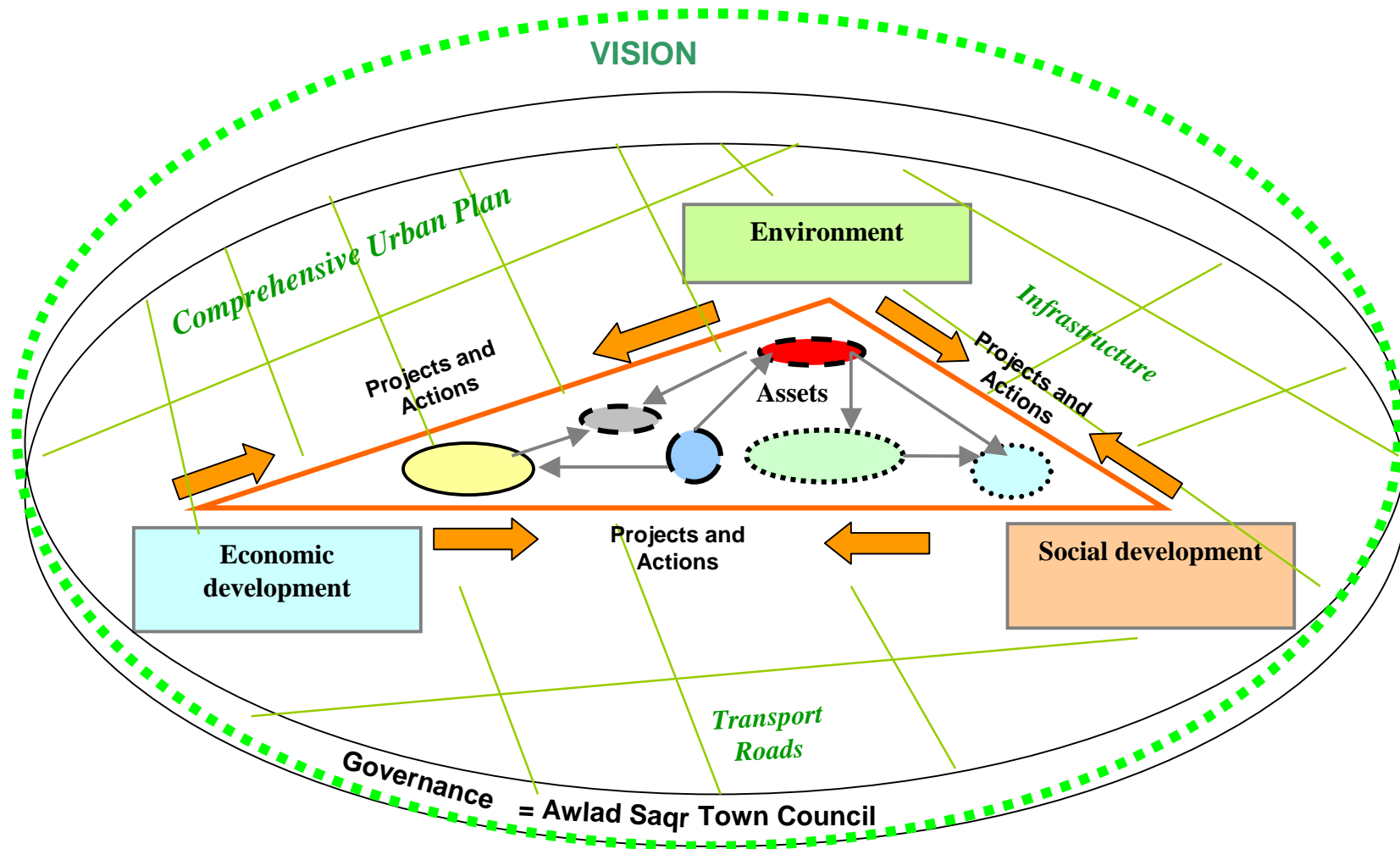
Defining the goals, development themes  
and the **STRATEGIES**



The diagram illustrates a sustainable urban structure framework. At the center is a network of nodes: a yellow oval, a blue circle, a red oval labeled 'Assets', a green oval, and a cyan dotted circle. These nodes are interconnected by a series of arrows, indicating a flow or relationship. Surrounding this central network are three aerial photographs of urban areas, each labeled with a component: 'Urban Component A' (top left), 'Urban Component B' (bottom left), and 'Urban Component C' (right). A green dashed line, labeled 'VISION' at the top, encircles the entire system, representing the overarching goal or vision. The diagram is titled 'The sustainable urban structure' at the top left.

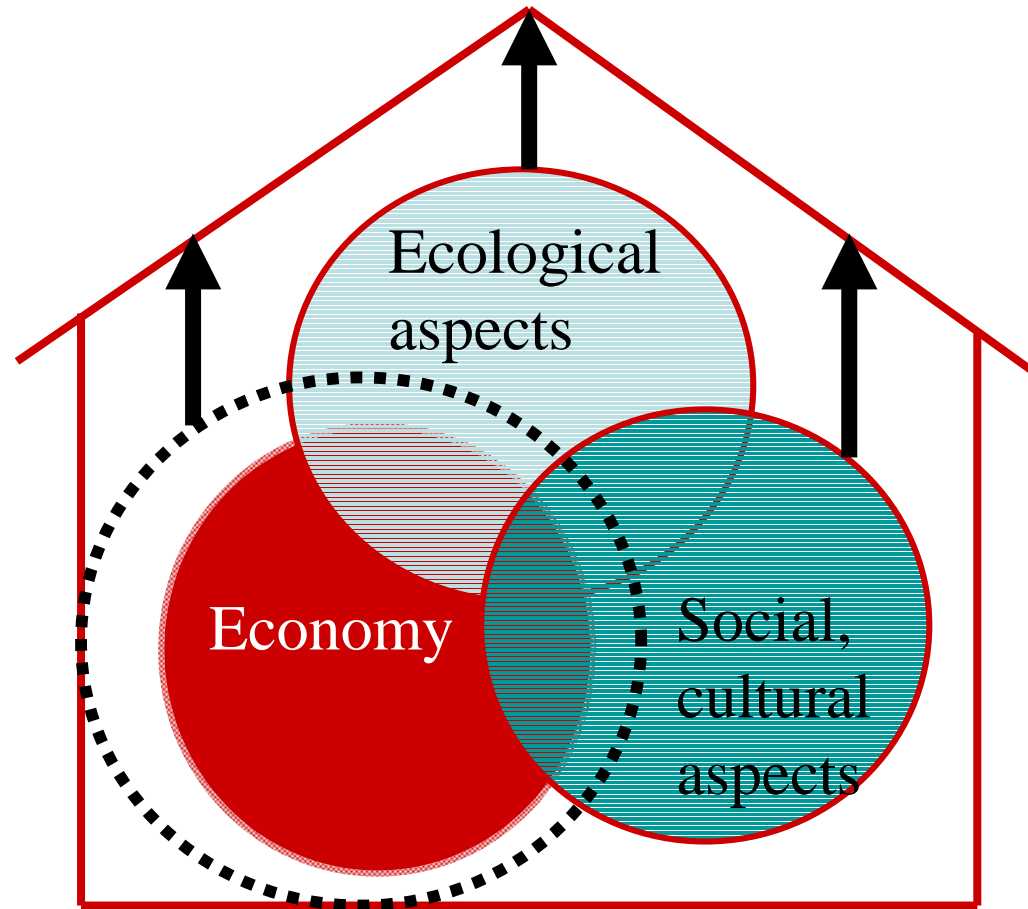


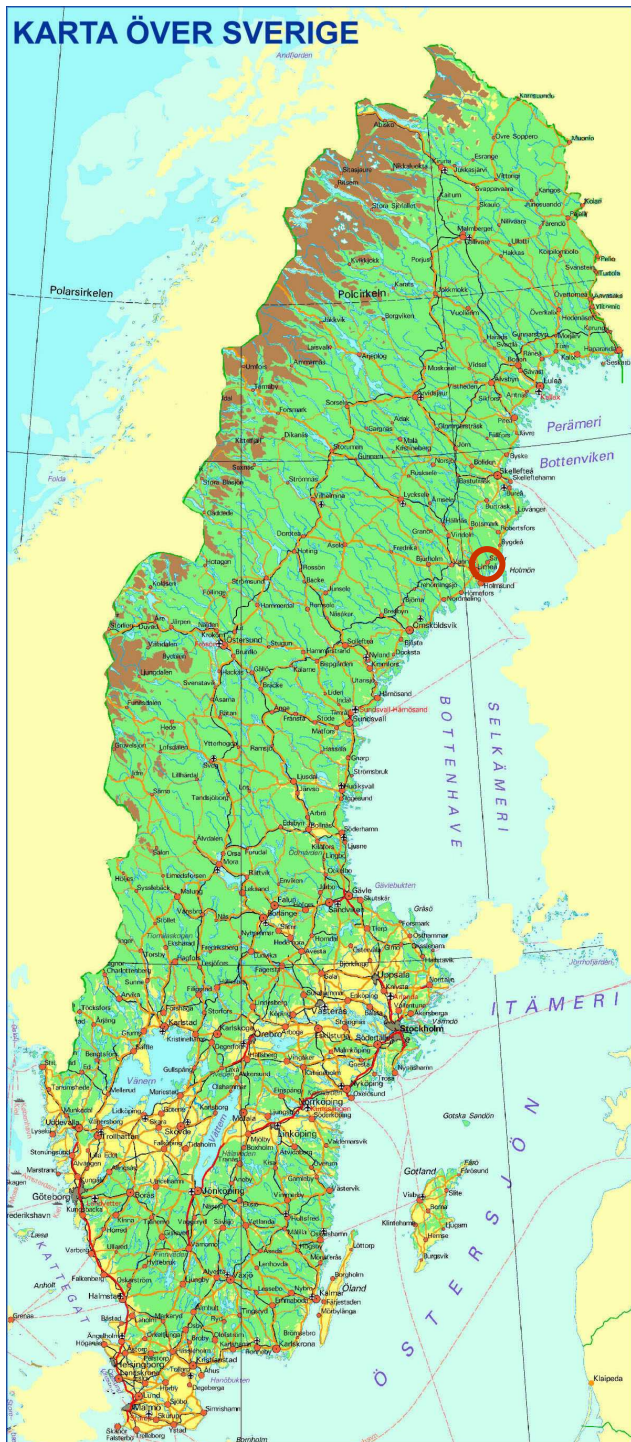
The Strategic Urban Plan to be a tool for the City Council/Municipality and the stakeholders to coordinate actions, explaining the **ways, times and resources** for an orderly development towards an agreed long term vision





# The three pillars of sustainability

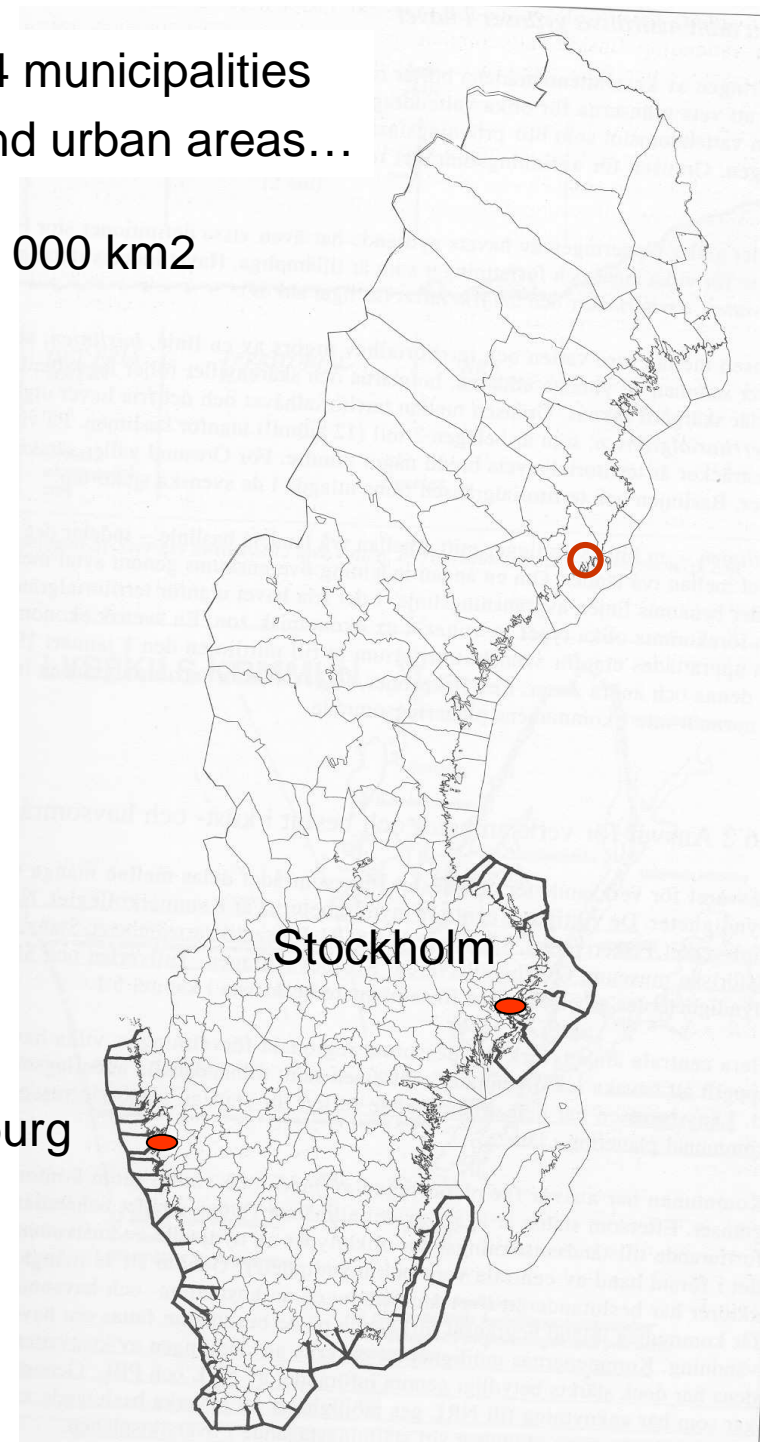




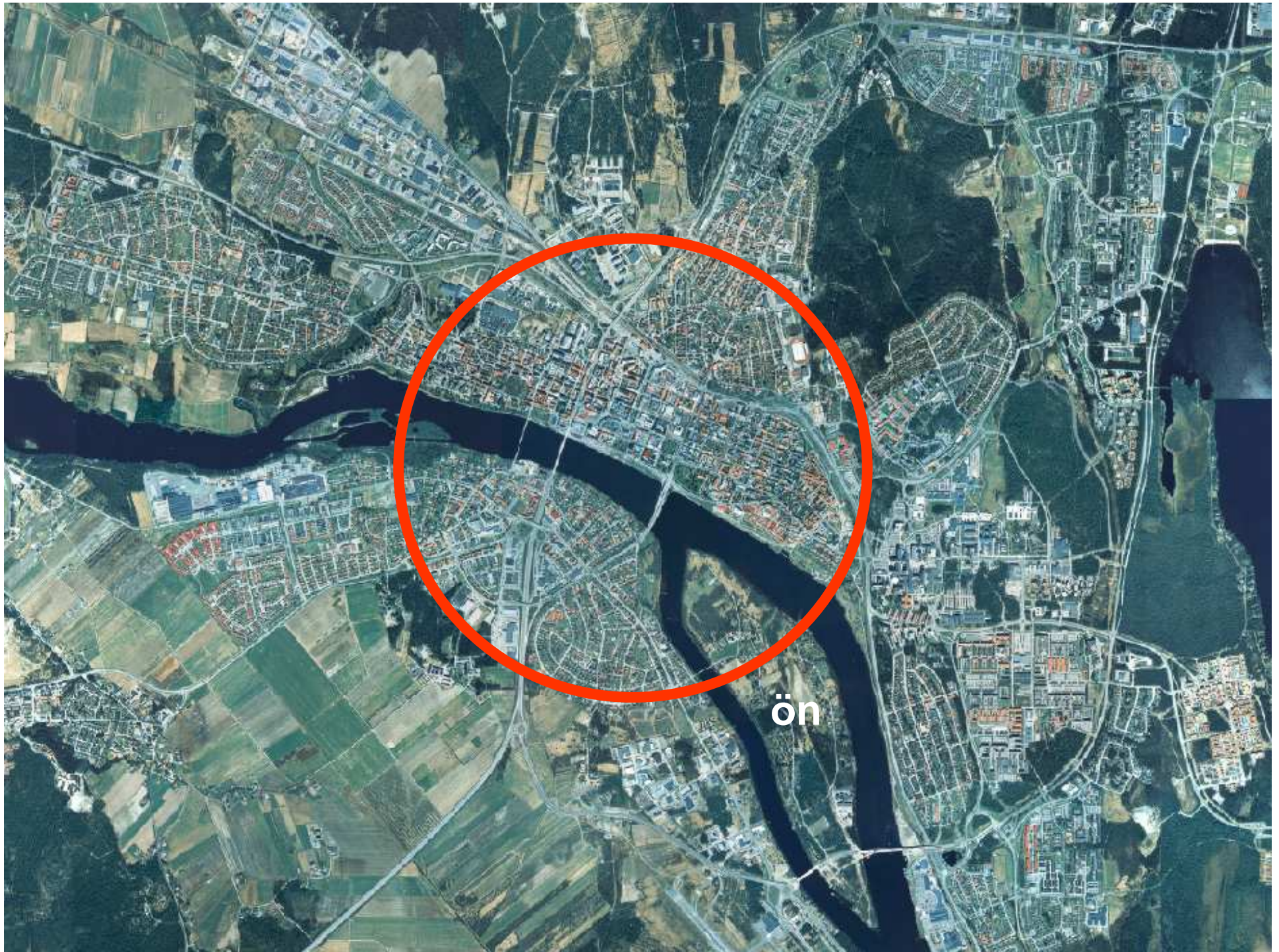
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Gothenburg





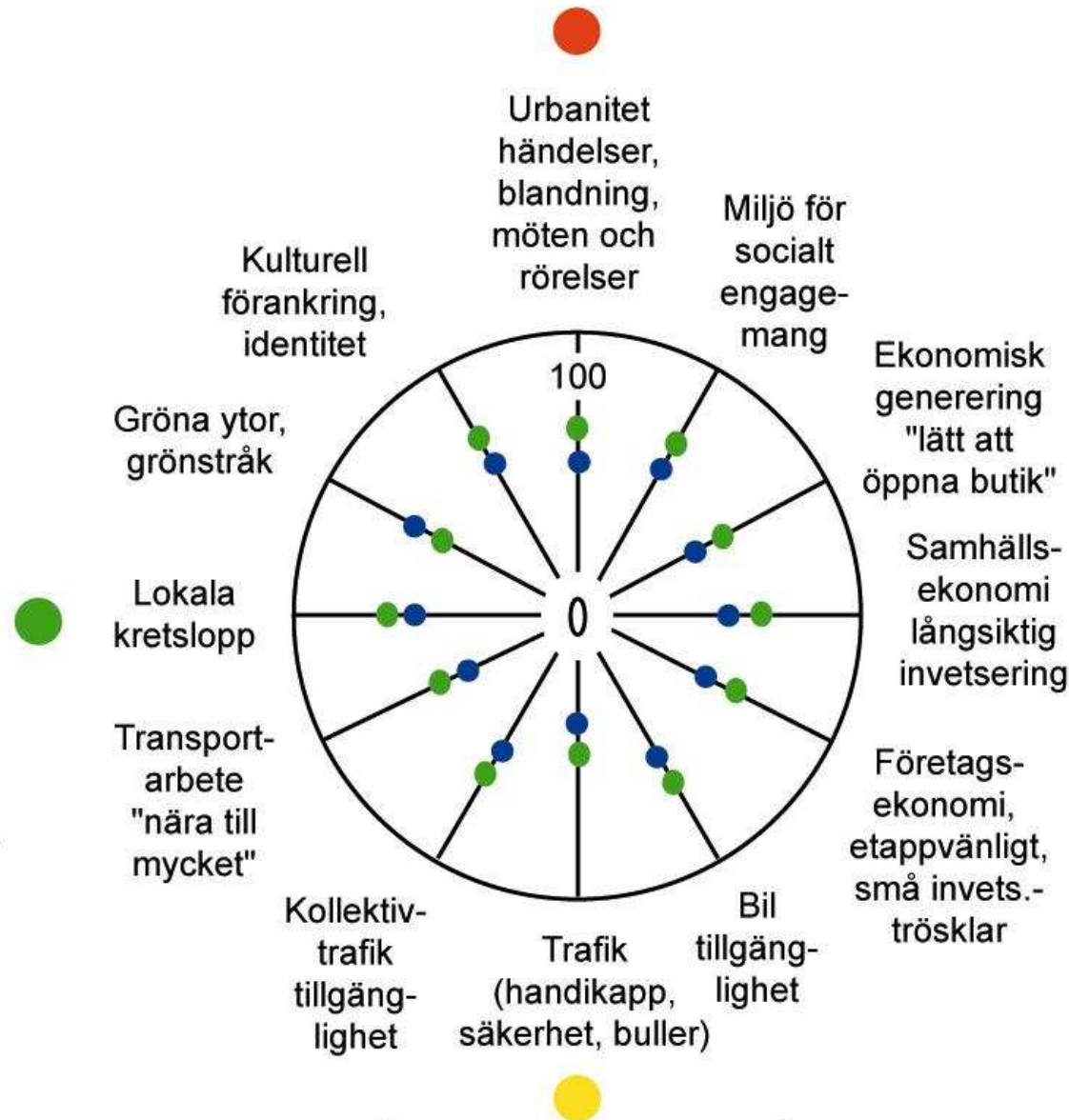




# Social sustainability

## Ecological sustainability

## Financial sustainability



# Technical sustainability



# SMALL



# MEDIUM





# LARGE



# X-LARGE



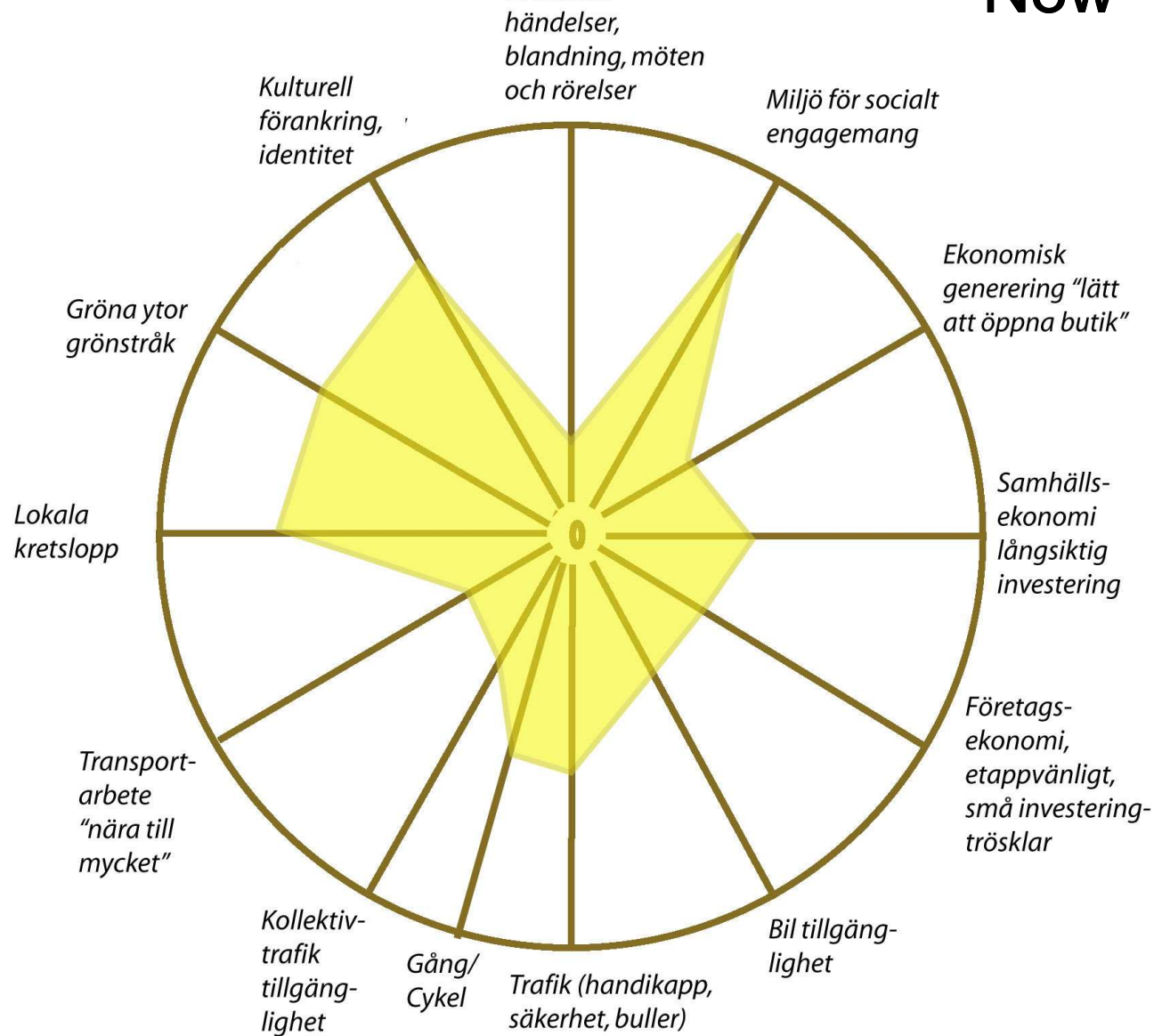








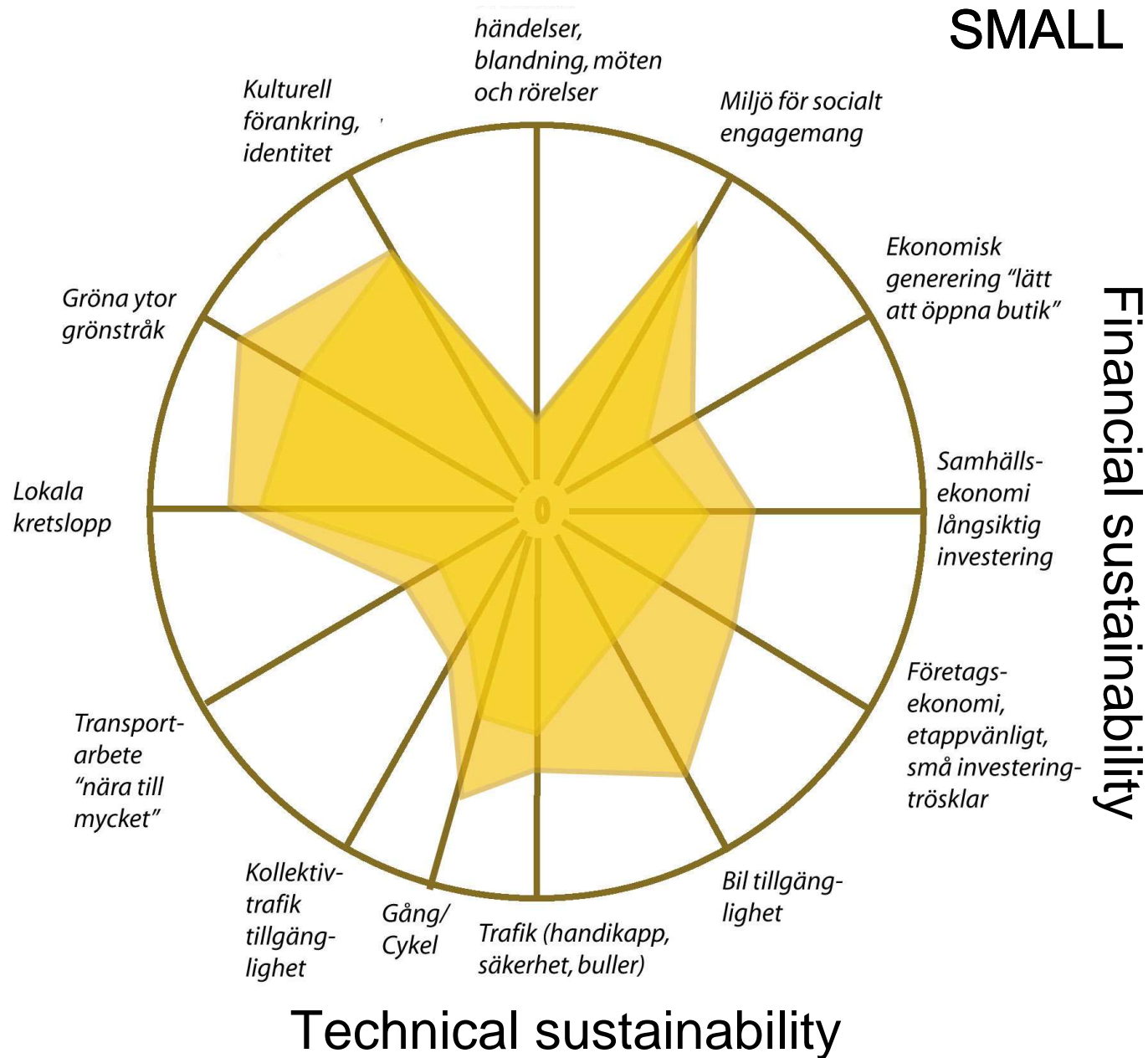
Ecological sustainability



Technical sustainability



Ecological sustainability



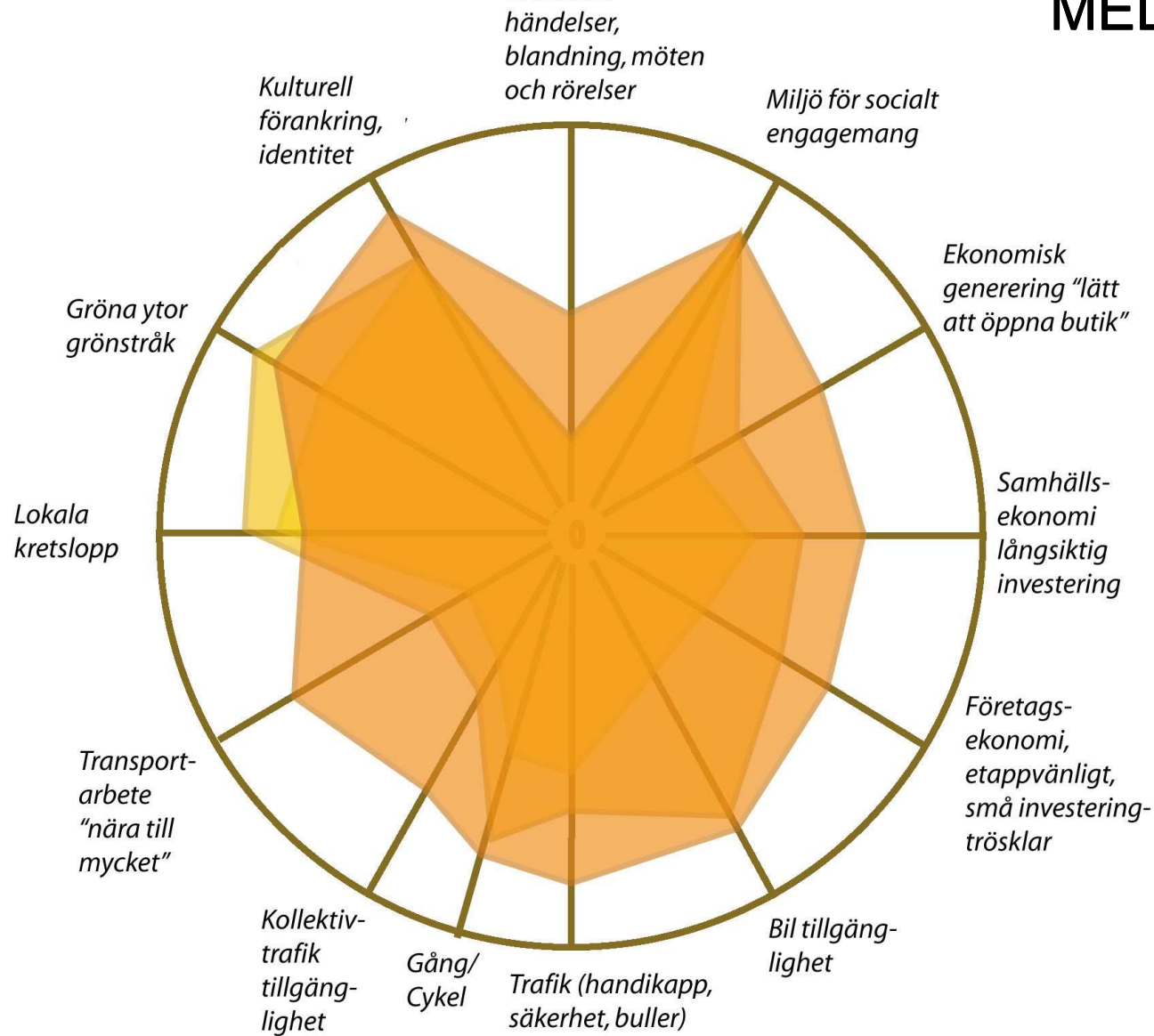
Technical sustainability

# Social sustainability

MEDIUM

Ecological sustainability

Financial sustainability



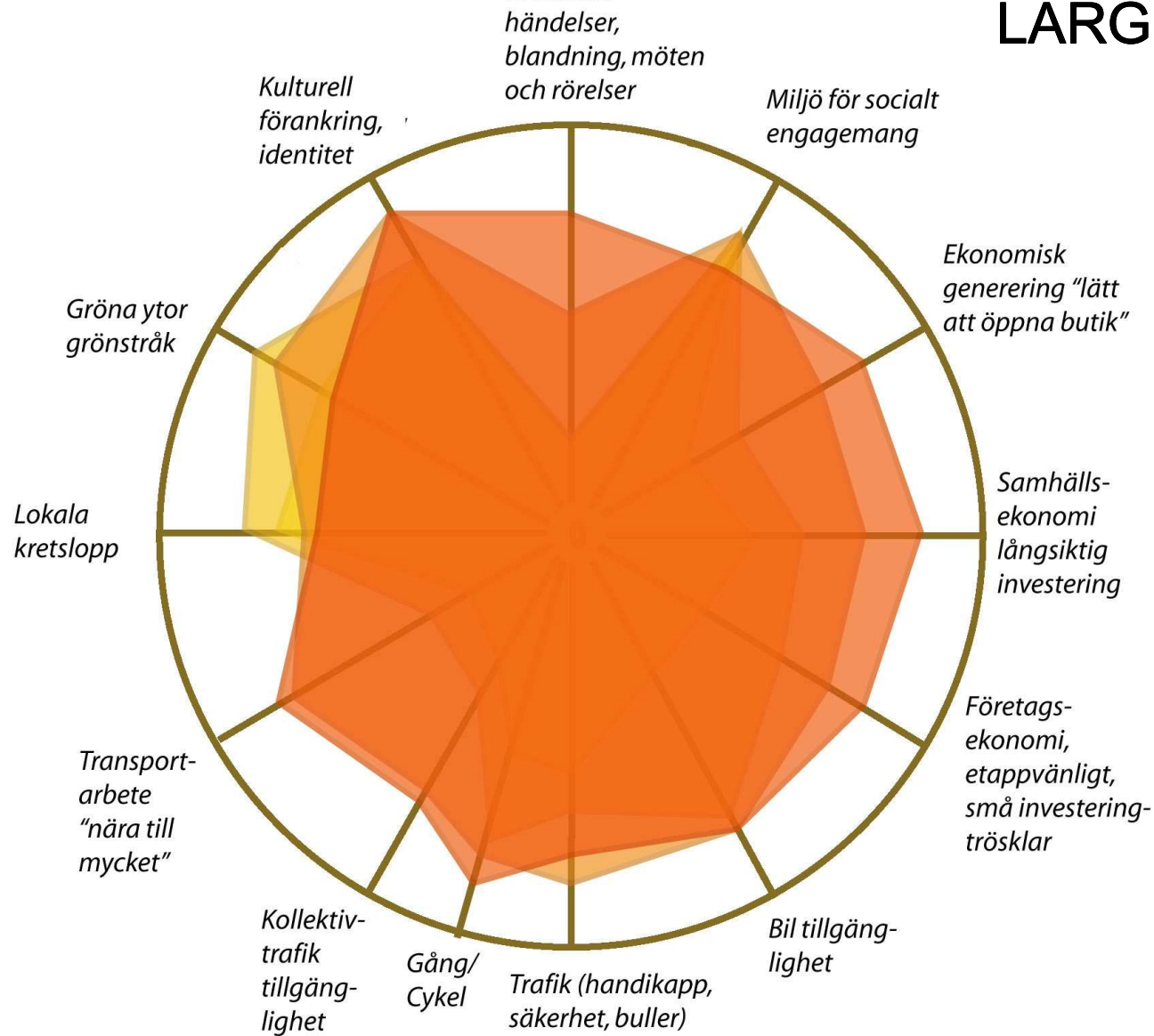
# Technical sustainability

# Social sustainability

LARGE

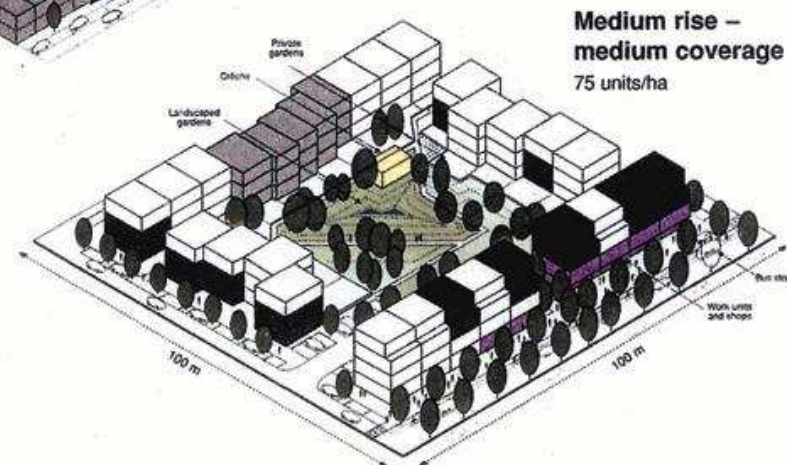
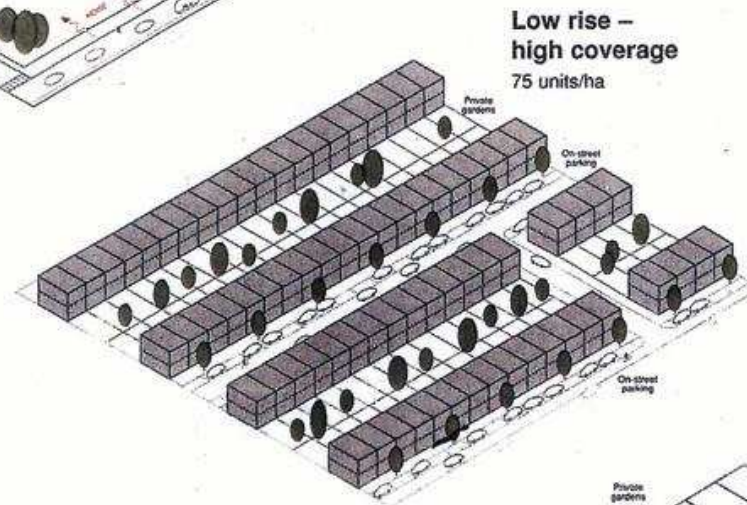
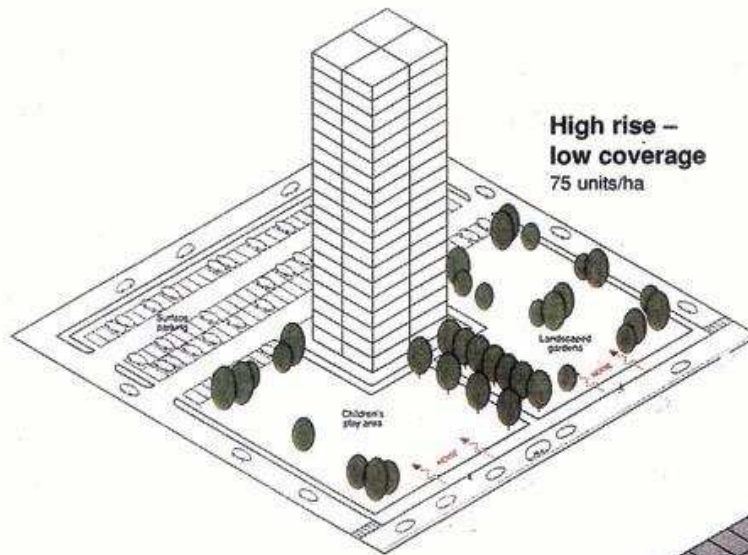
Ecological sustainability

Financial sustainability



# Technical sustainability

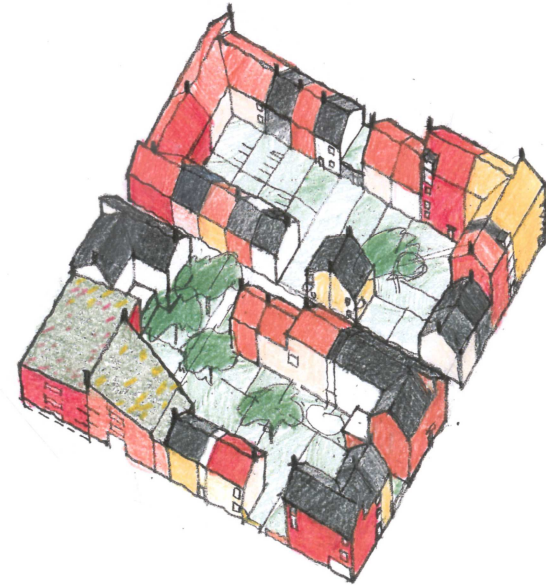
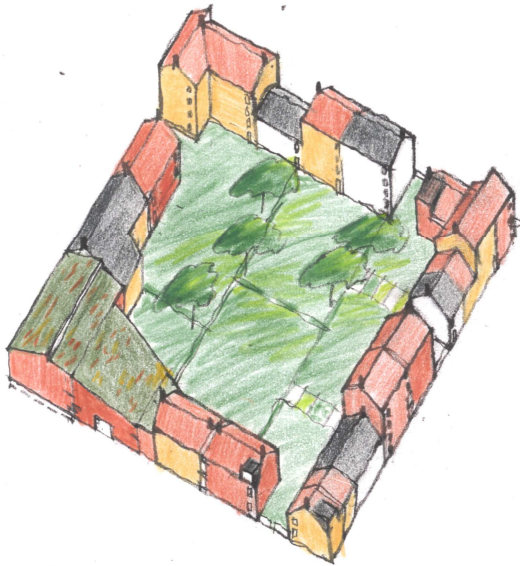
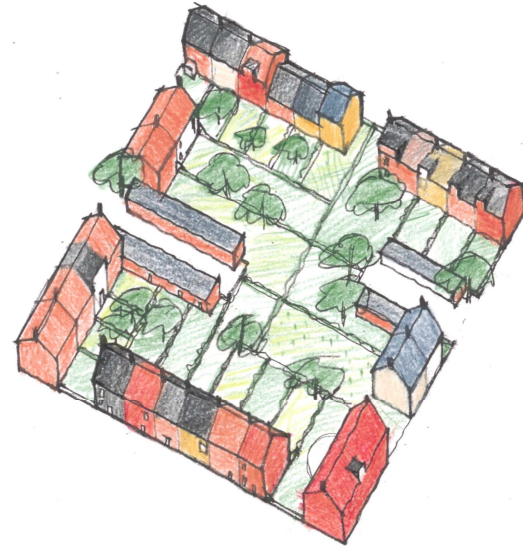




### Key

Target a mix of activities  
Include a variety of house types

- Community facilities
- Shops and workspaces
- Maisonettes
- Houses
- Apartments





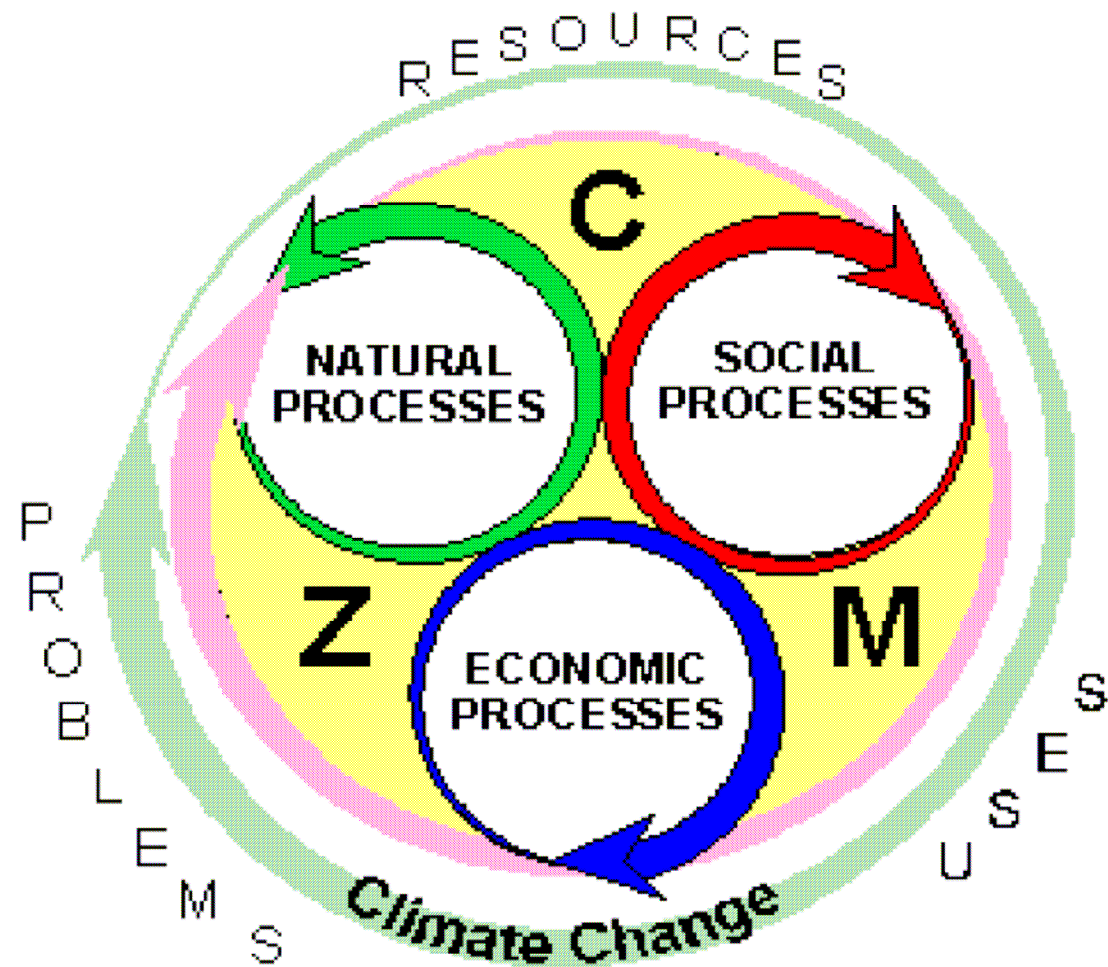
# Coastal Processes

Processes Coastal zones are typified by a complex and dynamic interplay of natural, demographic and economic processes linked to each other in a network of mutual reciprocal influence.

These processes are essentially dynamic cycles involving the exploitation of natural resources; the transformation and use of resources for demographic growth, social organization and economic production; and the generation of by-products and their dispersion back into the natural system.

Uncontrolled or excessive socio-economic growth increases the pressure on the natural sub-system and will cause oppressive problems resulting in environmental degradation and eventually in the collapse of the coastal system or parts thereof.

Climate change will tend to exacerbate such problems. Climate change may lead to a range of impacts including rises in sea level and changes in storminess, rainfall, evaporation and freshwater availability.



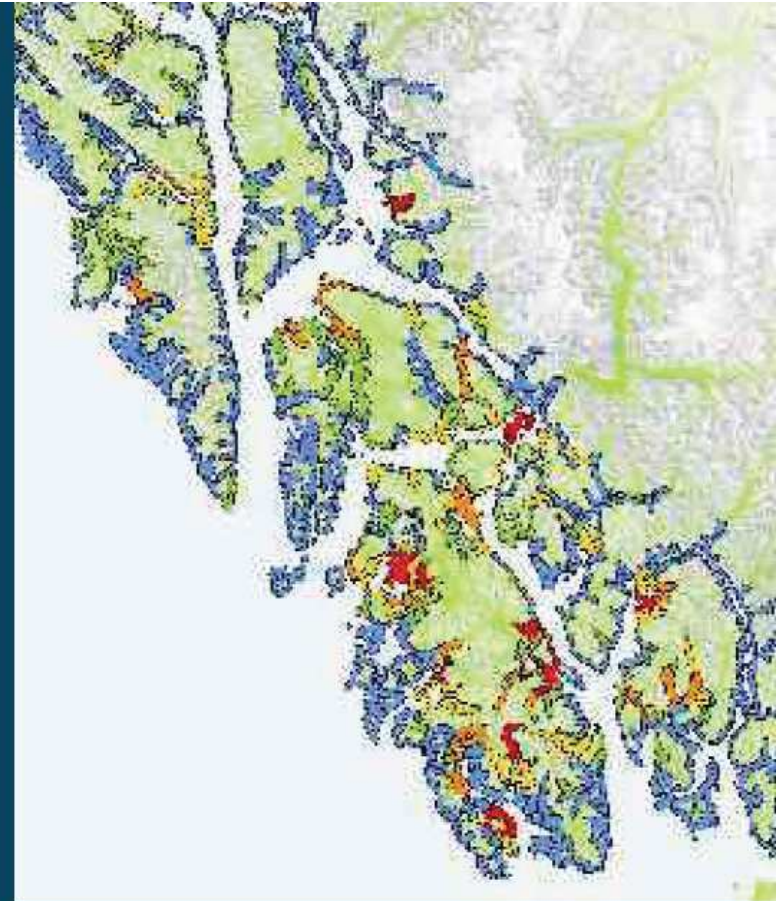
webbsida från  
[www.NetCoast.nl](http://www.NetCoast.nl)

# BALANCE WP4:

Development of a  
Baltic Sea marine  
area management  
framework

- with key inputs from WP1, WP2 &  
WP3

**BALANCE Kick-Off meeting, Copenhagen, 31 Aug-1 Sept  
2005**

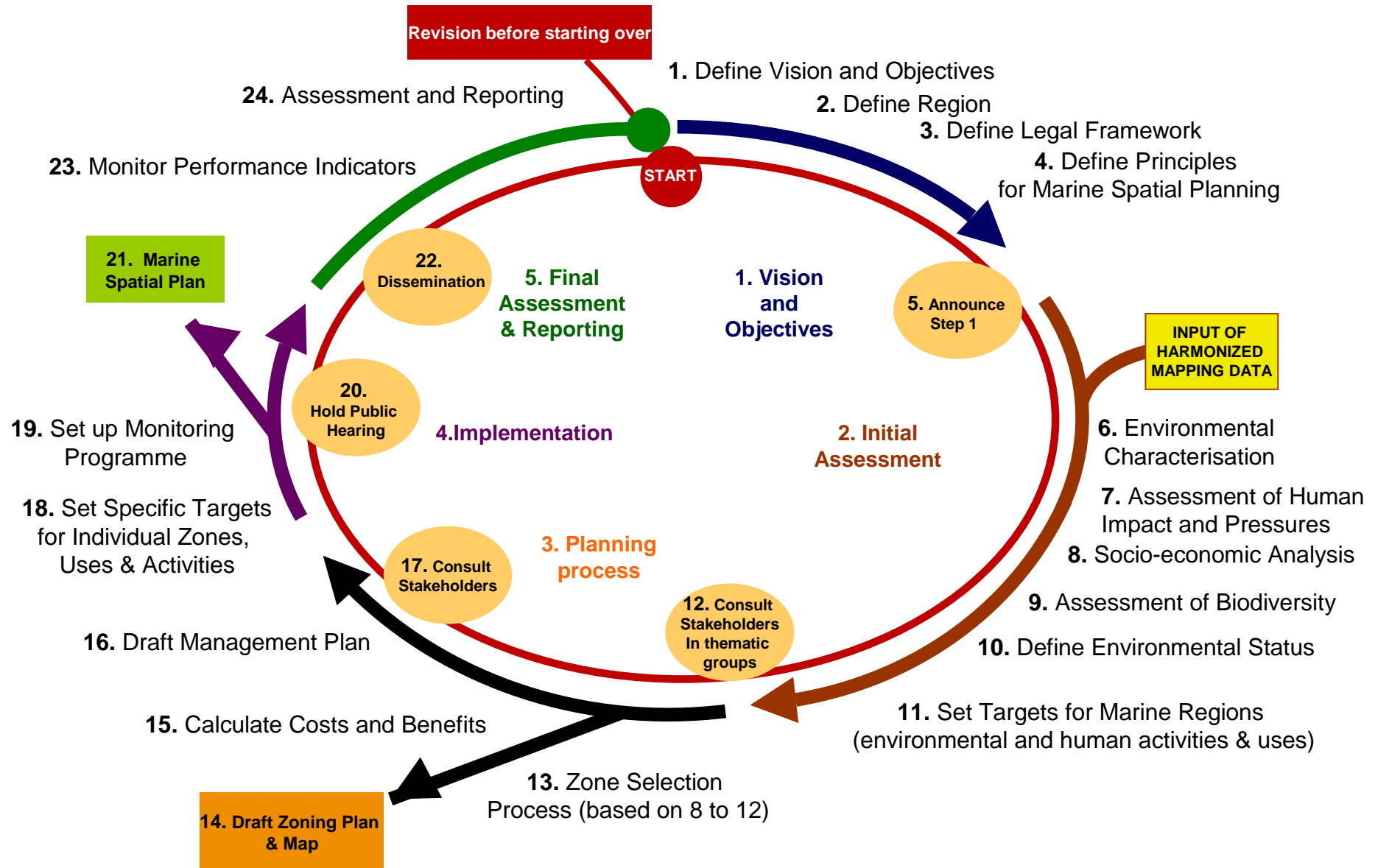




# Stakeholder Involvement

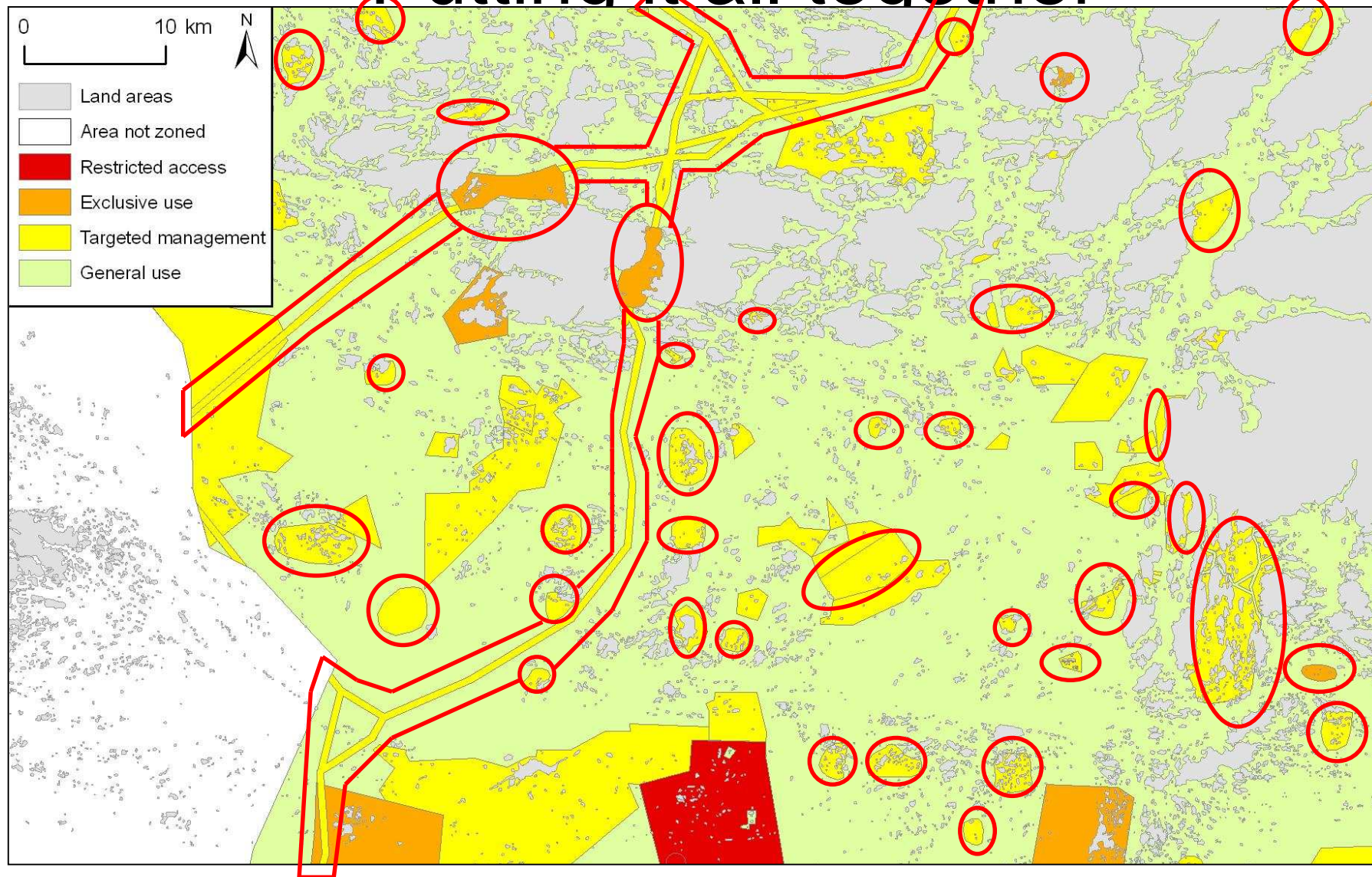
- **Agree on common “rules of the game”, principles for the whole process of planning, decision making and monitoring**
- **Create ownership for the process and the results**
- **Stakeholders participation fosters information/understanding**
- **Builds trust and reliability on all sides**
- **Communication is crucial (how, when, media of comms)**
- **Target groups are different and should be approached differently (local to regional, professions, different scale of involvement)**

## The BALANCE Marine Spatial Planning Template Applying Zoning





# Putting it all together



**New areas**

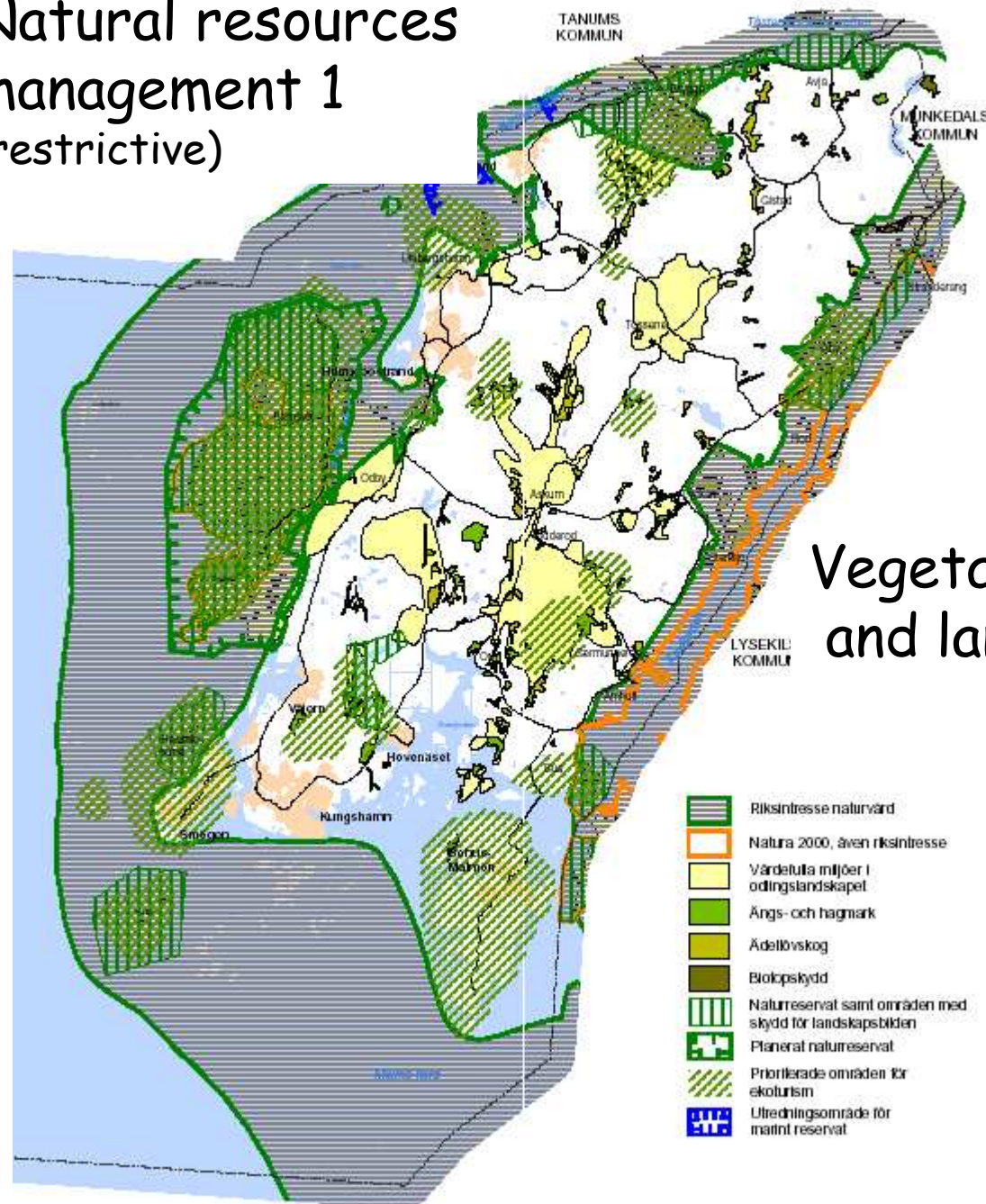


A typical west coast municipality

"The carrot and stick approach"

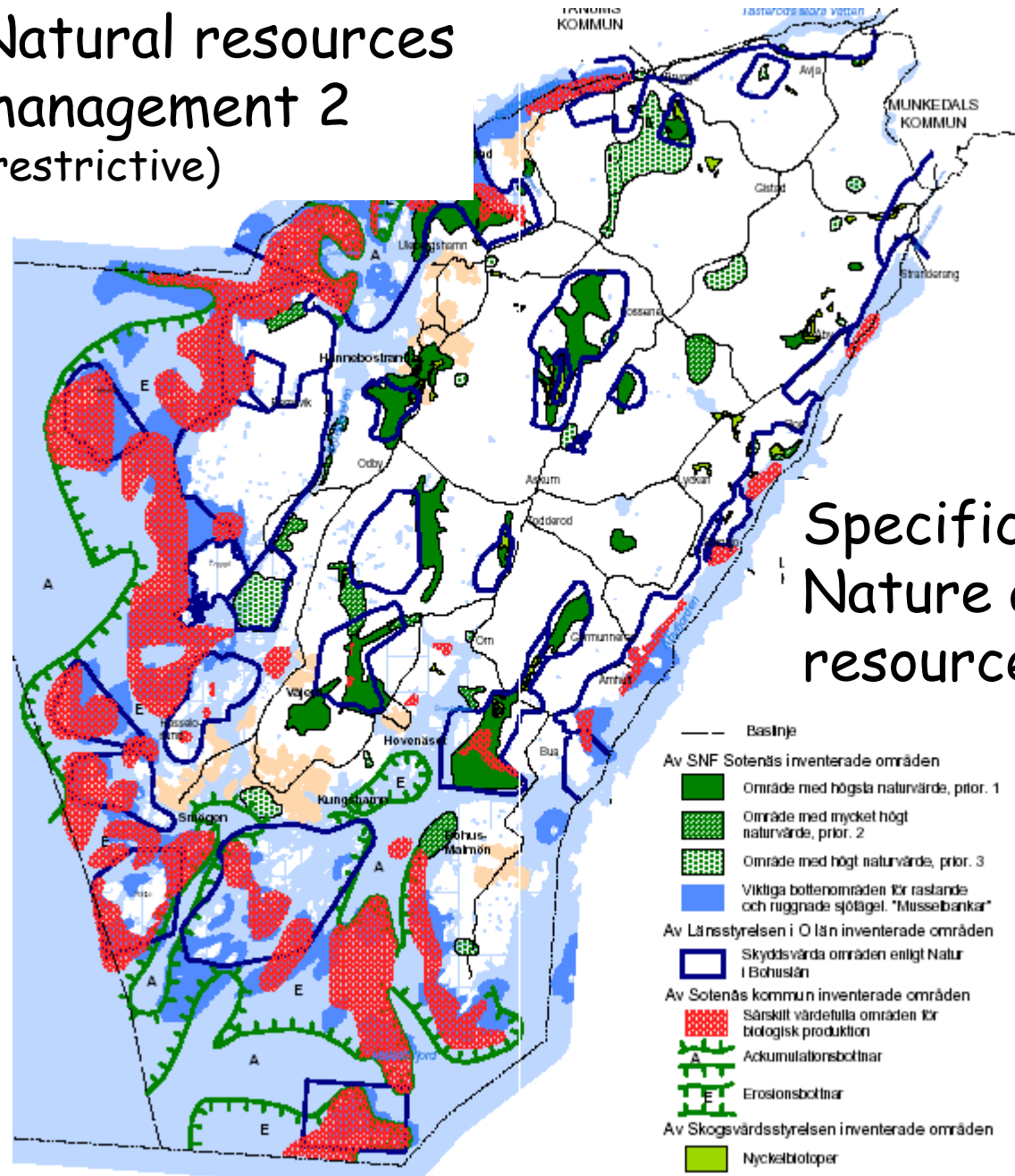


# Natural resources management 1 (restrictive)



Vegetation, Nature  
and landscapes

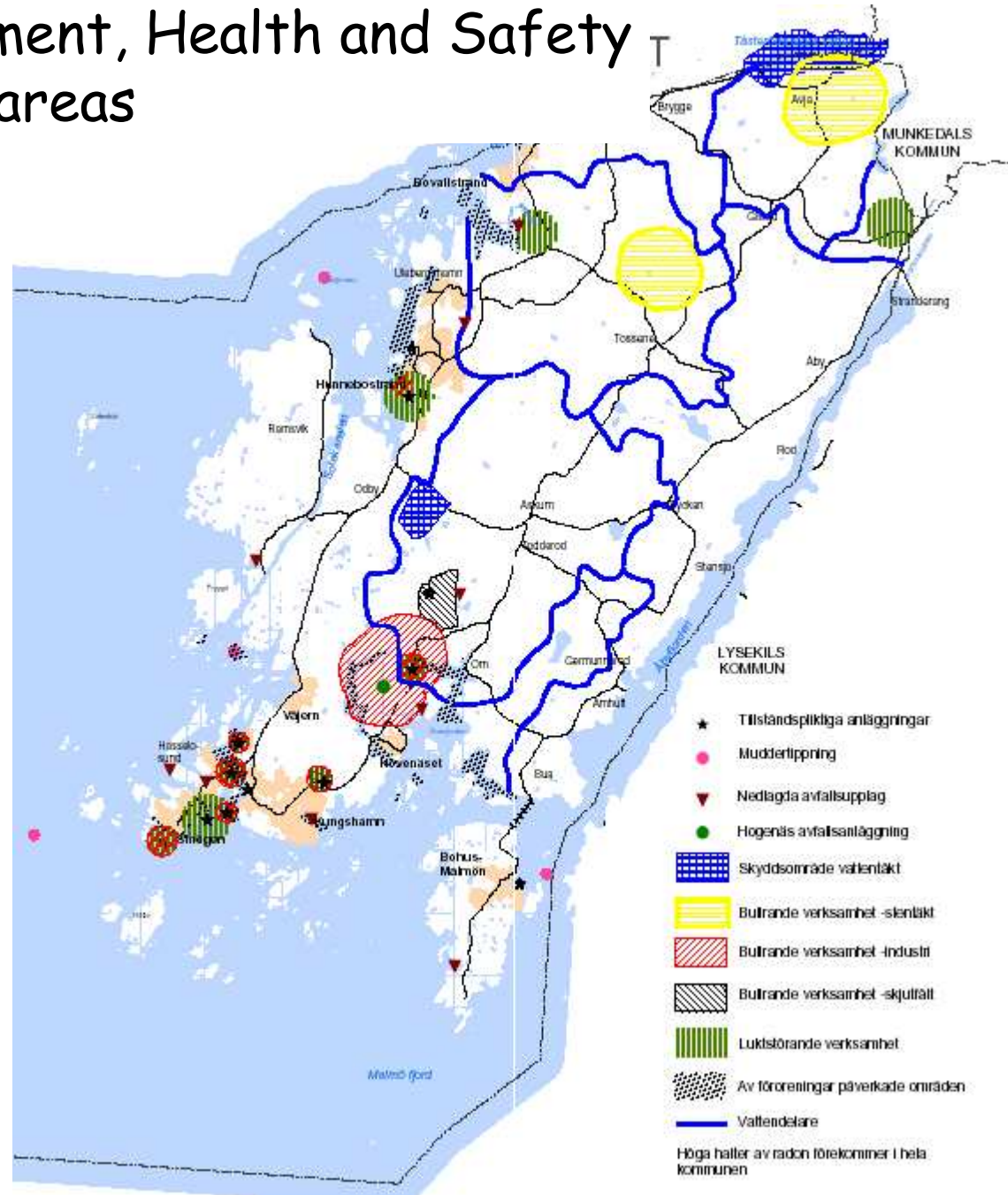
# Natural resources management 2 (restrictive)

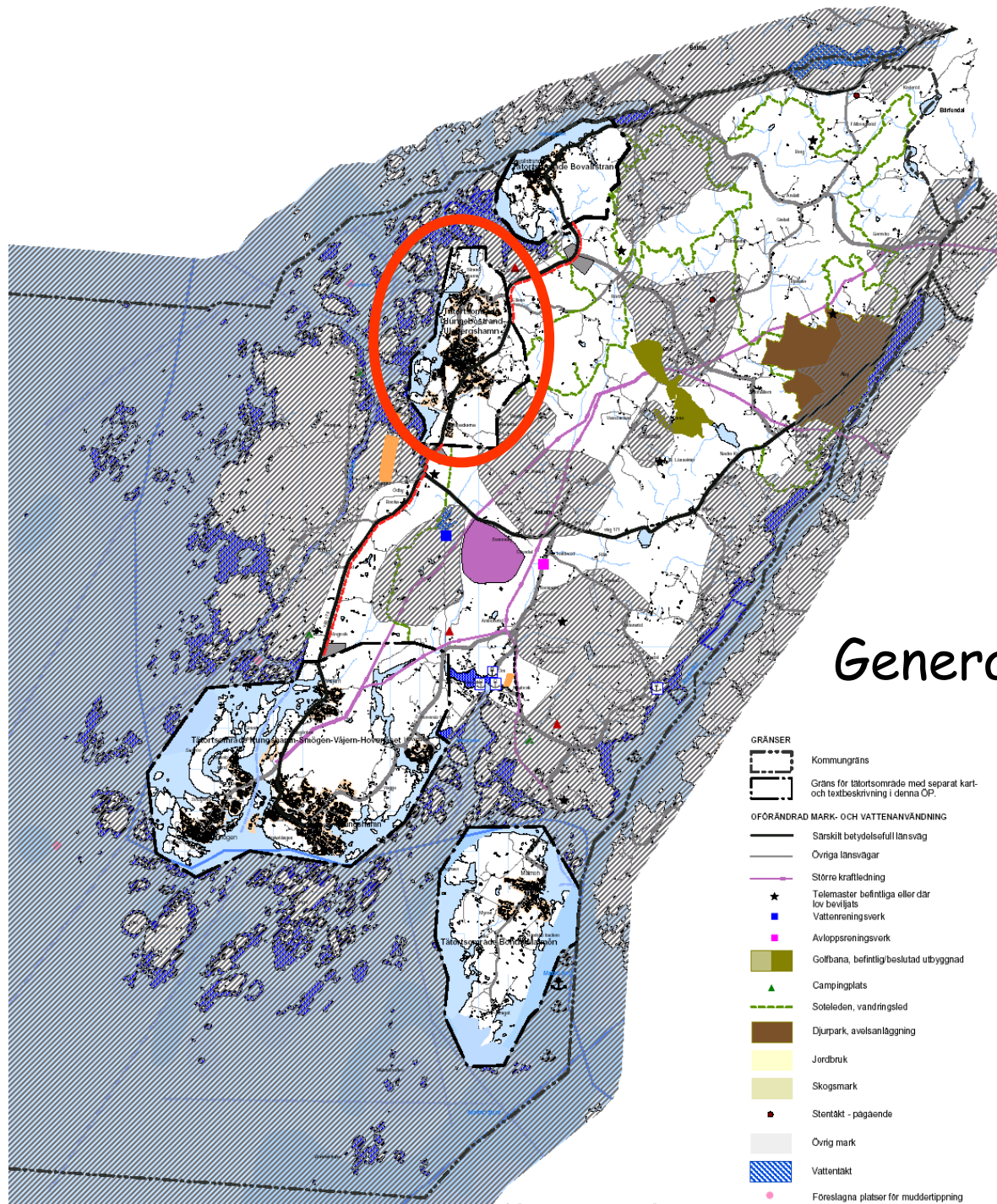


Specific  
Nature and marine  
resources



## T





## General Land use

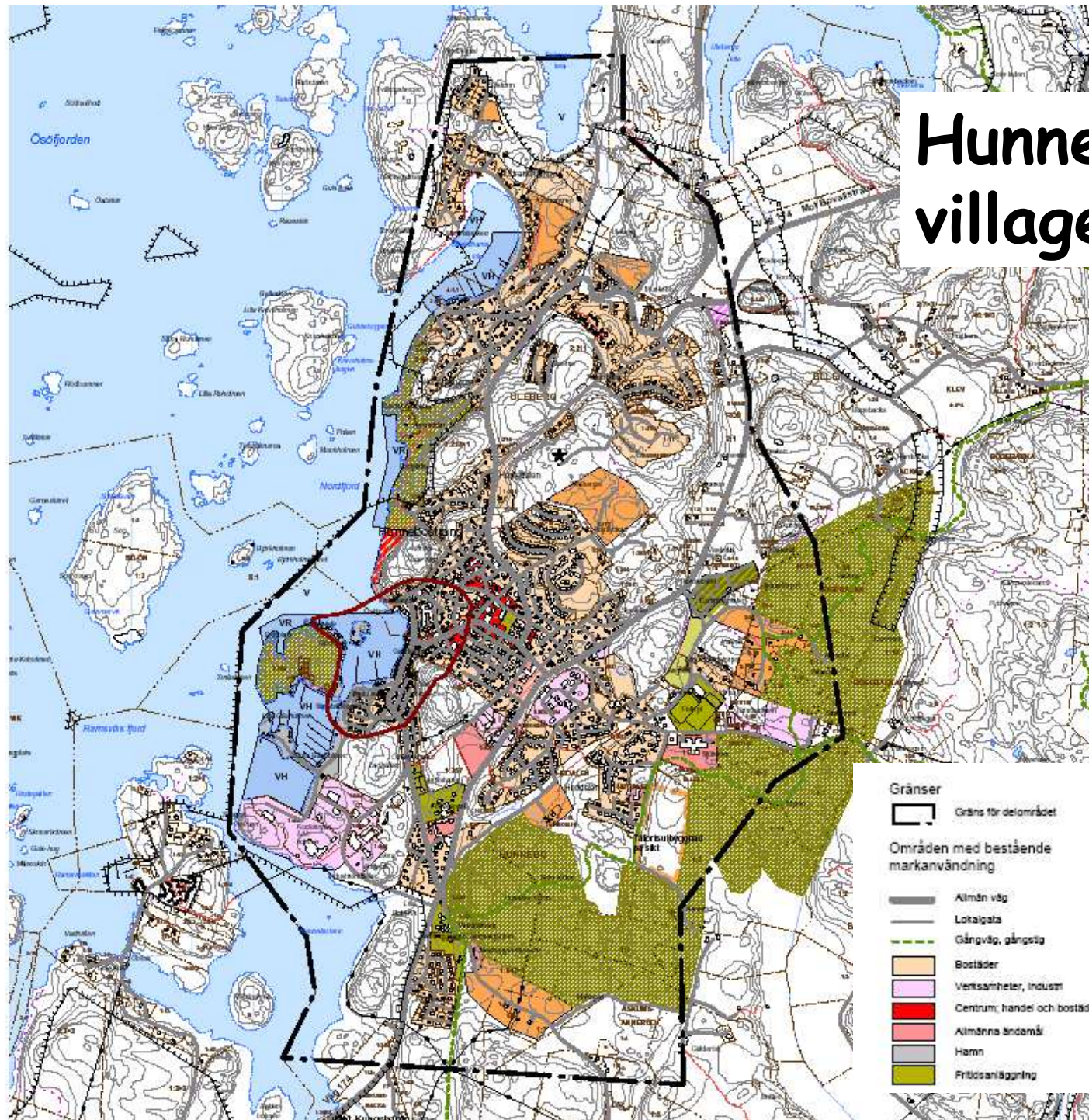






# Hunnebostrand village

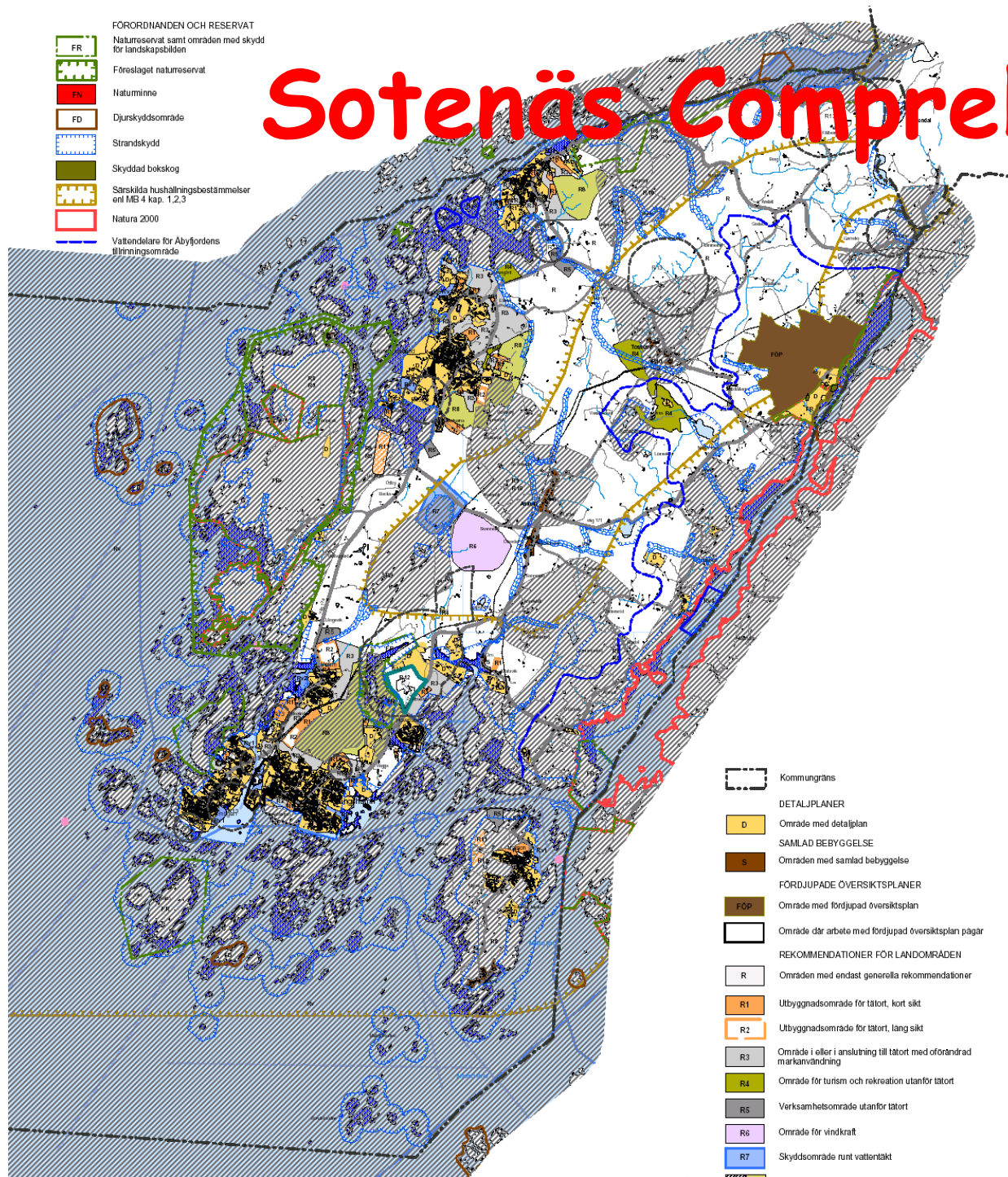
Proposed  
Land use  
(promotive)



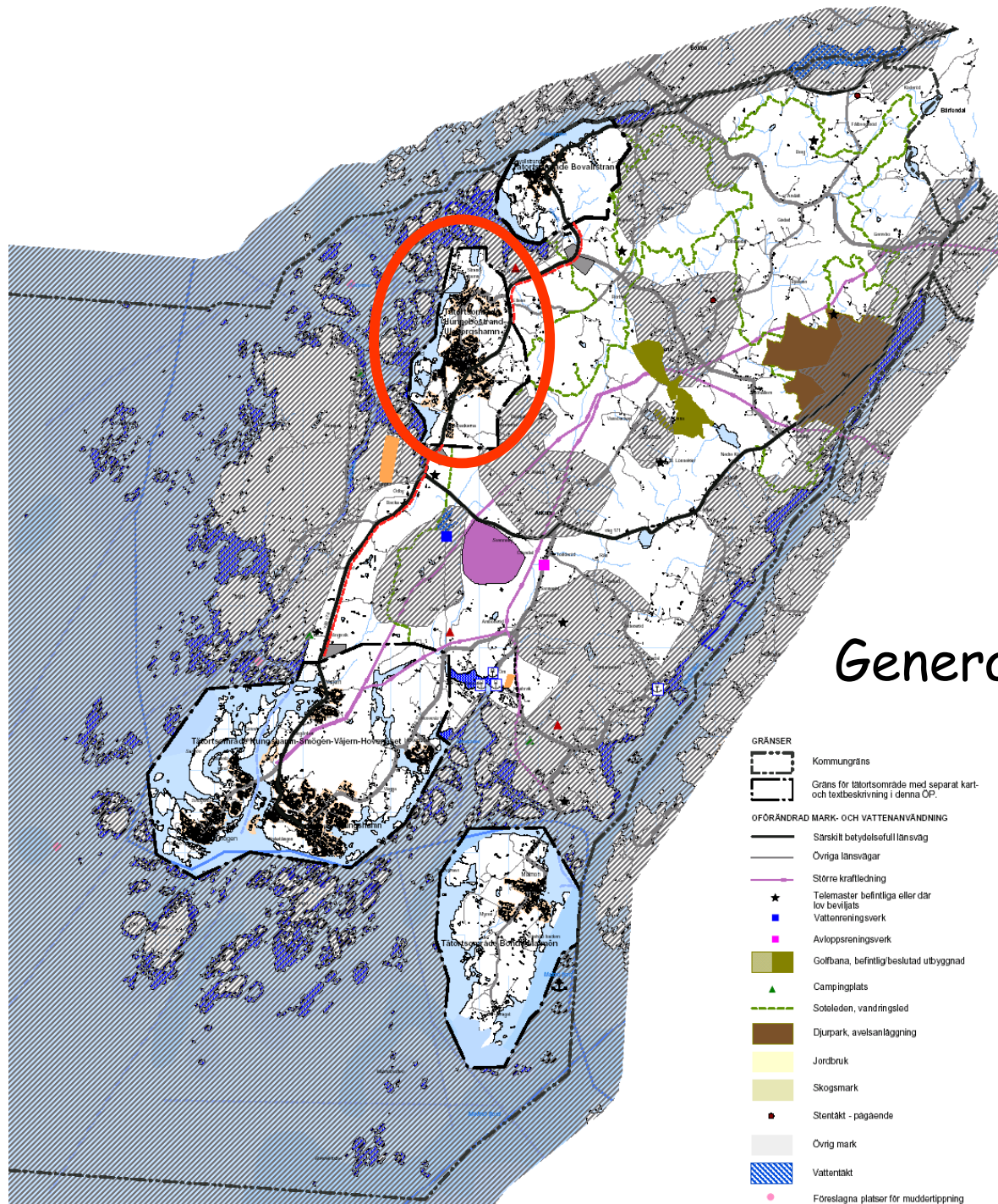


# Sotenäs Comprehensive Plan

Recommendations  
and instructions

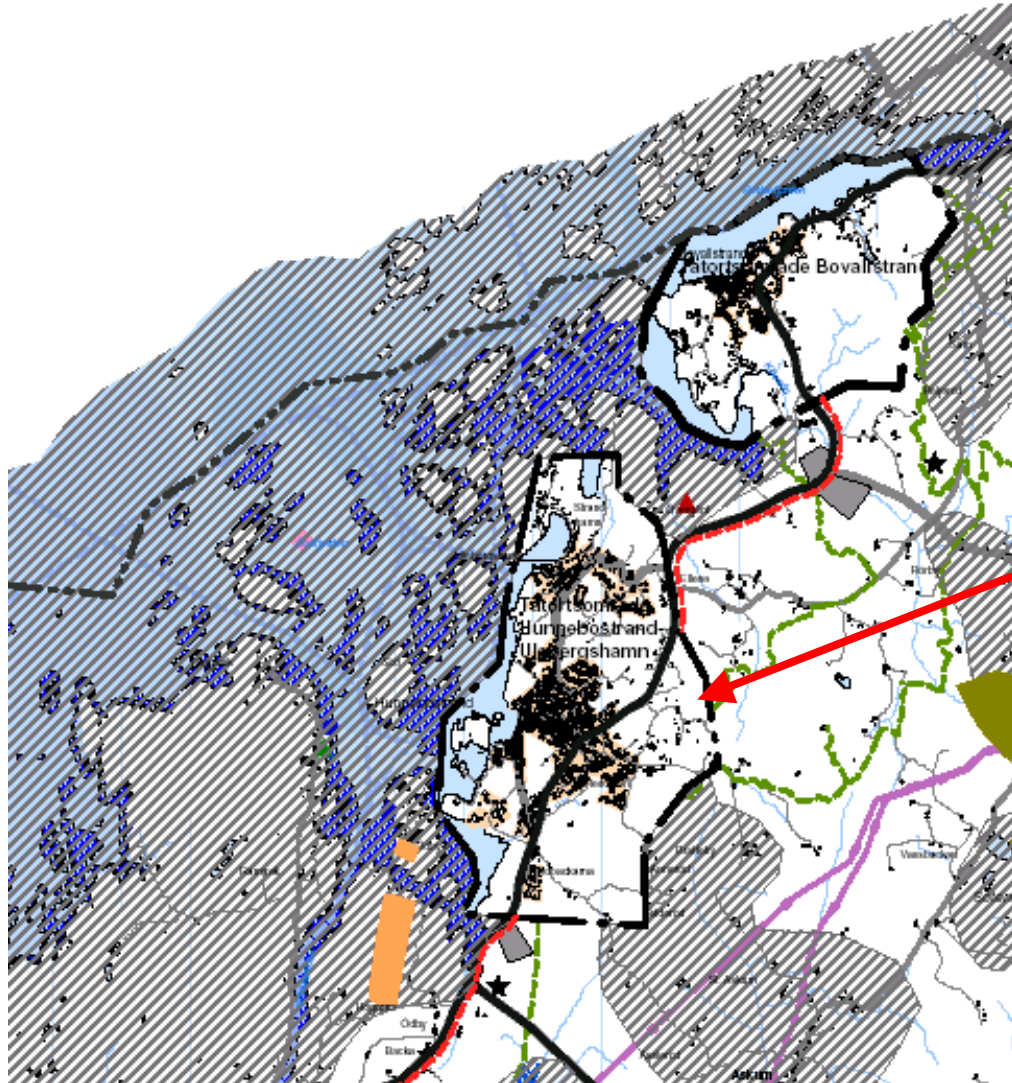






## General Land use

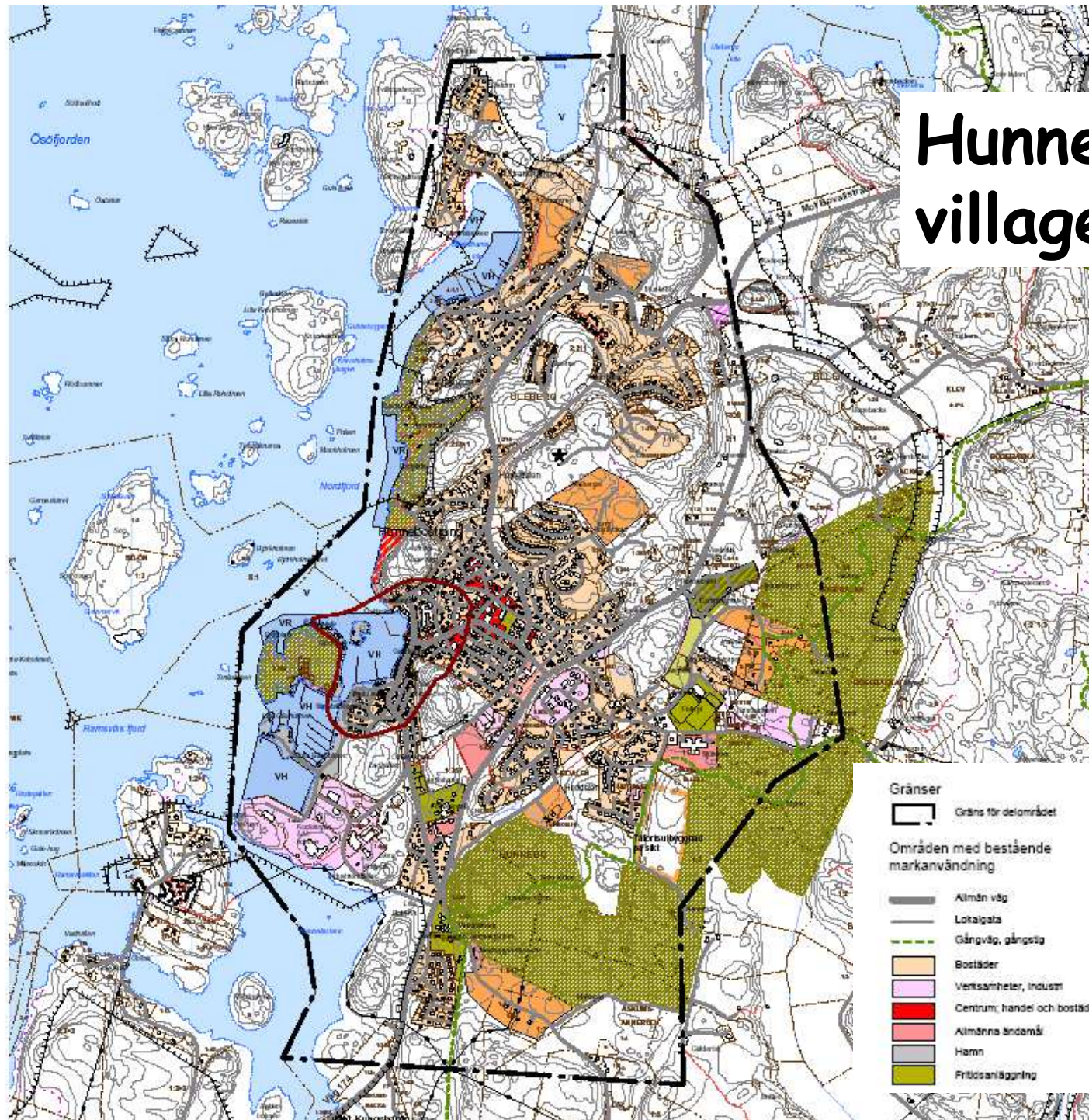






# Hunnebostrand village

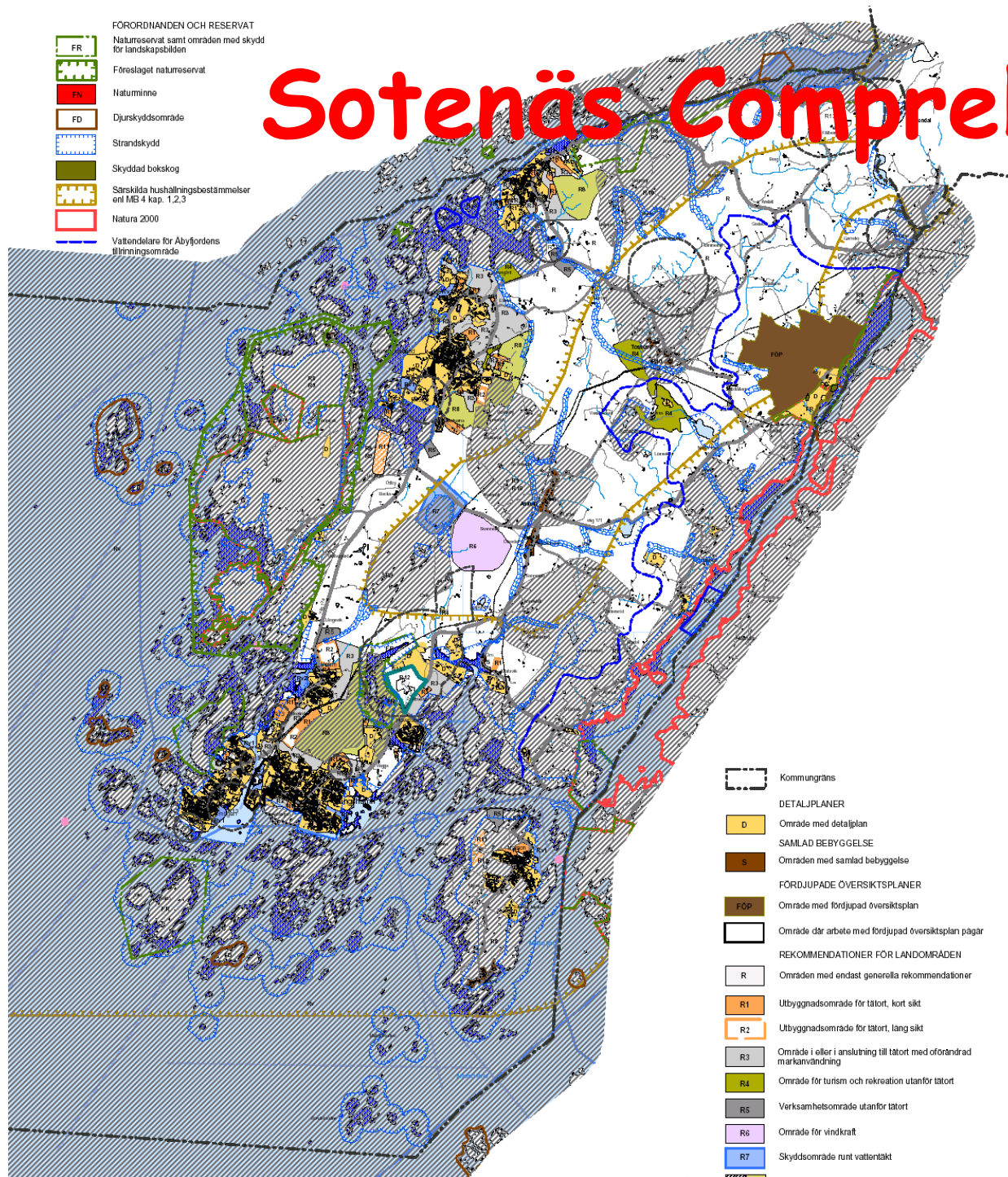
Proposed  
Land use  
(promotive)





# Sotenäs Comprehensive Plan

Recommendations  
and instructions



# Shore protection

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In Sweden there is *public right of access* to the open country

You are not allowed to reduce or cut the area of public access within 100 m – 300m from the shoreline

The life of animals and herbs shall not be damaged in an essential way





