

#### ABOUT THE BOOKLET

This booklet has been developed within the Sida-funded ITP-programme: »Towards Sustainable Development and Local Democracy through the SymbioCity Approach« through the Swedish Association of Local Authorities and Regions (SALAR), SKL International and the Swedish International Centre for Democracy (ICLD).

The purpose of the booklet is to introduce the reader to Sweden and Swedish experiences in the field of sustainable urban development, with special emphasis on regional and local government levels.

Starting with a brief historical exposition of the development of the Swedish welfare state and introducing democracy and national government in Sweden of today, the main focus of the booklet is on sustainable planning from a local governance perspective. The booklet also presents practical examples and case studies from different municipalities in Sweden. These examples are often unique, and show the broad spectrum of approaches and innovative solutions being applied across the country.

#### **EDITORIAL NOTES**

MANUSCRIPT Gunnar Andersson, Bengt Carlson, Sixten Larsson, Ordbildarna AB

GRAPHIC DESIGN AND ILLUSTRATIONS Viera Larsson, Ordbidarna AB

ENGLISH EDITING John Roux, Ordbildarna AB

EDITORIAL SUPPORT Anki Dellnäs, ICLD, and Paul Dixelius, Klas Groth, Lena Nilsson, SKL International

PHOTOS WHEN NOT STATED Gunnar Andersson, Bengt Carlsson, Sixten Larsson, Viera Larsson

COVER PHOTOS Anders Berg, Vattenfall image bank, Sixten Larsson, SKL

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#### **CONTACT INFORMATION**

ICLD, Visby, Sweden
WEBSITE www.icld.se
E-MAIL info@icld.se
PHONE +46 498 29 91 80

SKL International, Stockholm, Sweden

WEBSITE www.sklinternational.se E-MAIL info@sklinternational.se

PHONE **+46 8 452 70 00** 

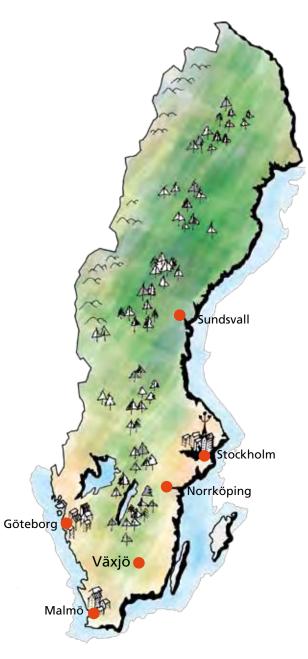
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## 1. A COUNTRY OF DEMOCRATIC TRADITIONS



#### **Basic facts on Sweden**

Area 450 000 sq km (third

largest country in Western Europe)

Population (2011) 9416 000

Population density 21 inhabitants/sq km Capital Stockholm Language Swedish

Type of Government Constitutional

Monarchy, Parliamentary

Democracy

Head of State King Carl XVI Gustaf Religion Lutheran (75%),

Lutheran (75%), Muslim, Roman Catholic, Orthodox,

Baptist, Jewish, Buddhist

GDP per capita (2010) 349 548 SEK

(approx. US \$54 000)

Natural resources Zinc, iron ore, lead,

copper, silver, timber, uranium, hydropower

Industries Iron and steel, precision

and electronic equipment, armaments, wood pulp and paper products, processed foods,

motor vehicles, music

Labour force by occupation

Agriculture 2%, industry

26%, services 72%

Life expectancy Women 83, men 79

**Sweden is** situated in the far north of Europe and is characterised by large forests, numerous lakes and very long coast lines. Traditionally, Swedes lived in small, dispersed rural settlements, but today, close to 85% live in densely populated towns and cities in central and southern Sweden. The north is sparsely populated, but good communications, infrastructure and transport systems connect all parts of the country.

For such a large country, Sweden has a small population of only 9,4 million. Though traditionally ethnically homogenous, today 15% of the population are of foreign origin.

Sweden is a constitutional monarchy with a parliamentary system of government. Public administration is highly decentralized, with many important responsibilities devolved to regional and local levels.

## Democratisation and development of Sweden

Certain elements of democracy in Sweden originated before the Middle Ages, but modern democratic government only started to developed in the 19th century. An important step that contributed to strengthening citizens' participation in public debate was the introduction of free elementary education for all children in 1842.

From the mid 19th century, Swedes increasingly took part in popular movements such as the workers' movement, the temperance movement and non-conformist churches. These organisations introduced comprehensive adult education, and fostered a democratic culture through meetings and protests.

At the end of the 19th century, there was a heated debate about whether workers and women were sufficiently educated to take part in public affairs and vote. Socialists and liberals argued that they were, while conservatives disagreed. Eventually the struggle for democratic rights succeeded, and the vote was extended first to all adult men, and finally to women in 1919.

#### The Swedish Welfare State

The Swedish economy expanded rapidly during early 20th century, partly due to Sweden not being involved in World War I or II. From being a poor agricultural country, Sweden became industrialised and urbanised.

In 1932, the Social Democratic Party gained power and governed until 1976. From 1932 to 1946 Per Albin Hansson was Prime Minister and under his leadership the ideal of the Swedish Welfare State developed. Citizens were considered members of one family with common goals, who should support each other and work for the benefit of all. A service-oriented democracy developed, combining economic growth with high taxation and comprehensive social insurance. This Swedish model improved the well-being and supported the development of all citizens, and was considered exemplary in Europe.

But since the 1970s the welfare state, challenged by financial crises and rising unemployment, has had to reduce public expenditure. Government has been forced to adapt to increasing competition, privatisation and deregulation in global markets. Sweden still has one of the largest public sectors, as well as 'competing' with Denmark in having the highest taxes in the world. Depending on ideology, some people want to reestablish the old welfare state, whilst others want a smaller, 'cheaper' and less-interventionist state.

#### A strong economy

Historically, Sweden's industrial economy was based on its ore deposits, large forests and hydroelectric power, but today the focus has shifted to manufacturing of motor vehicles, electronic and precision equipment, ball bearings and power transmission products. However, raw materials such as timber and metals still form an important part of the economy.

Only 10% of Sweden consists of farmland and under 2% of the labour force works in agriculture. The largest sector is services, but the well-developed industrial sector remains an important backbone of growth in the national economy.

Before 1850, Sweden was a very poor country

and over a period of about 70 years, almost a third of the population migrated to the United States and other countries. But then things changed, and from 1850 to 1970 Sweden was, along with Japan, the fastest growing economy in the world. Sweden still has one of the strongest economies internationally. This economic success was due to

- Peace Sweden has not been engaged in war since 1814
- Free public schooling since 1842, leading to high literacy rates
- Abundant natural resources such as iron ore and timber (over 50% of the country is covered by forest)

- Massive investment in infrastructure, creating jobs and boosting the economy
- Access to low-cost energy sources such as hydropower
- An effective tax system, making large-scale public investment possible
- Effective and non-corrupt public administration ensured efficient use of public funds
- Free university education and significant public investment in the research and development.



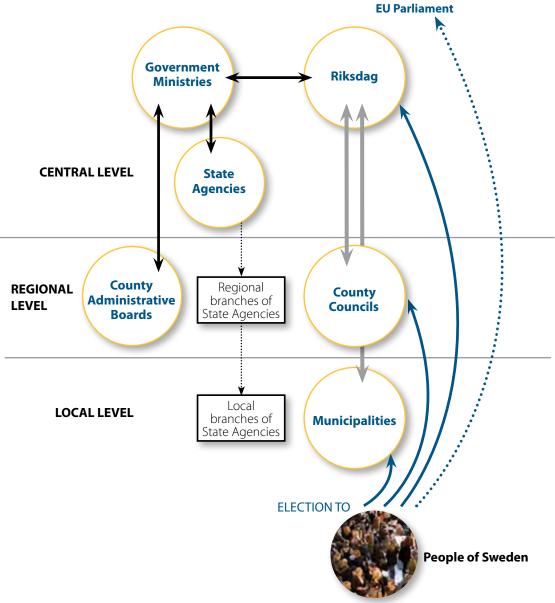






## 2. THE GOVERNMENT SYSTEM OF SWEDEN

#### **SWEDISH GOVERNMENT STRUCTURE**



All public power in Sweden proceeds from the people. Swedish democracy is founded on the free formation of opinion and on universal and equal suffrage. It shall be realised through a representative and parliamentary policy and through local self-government. Public power shall be exercised under the law.

The Instrument of Government, chapter 1:1

**Sweden is** governed by four basic laws which are the equivalent of a Swedish Constitution

 The Instrument of Government of 1974 defines the organisation of, and relations between the legislature or Riksdag (parliament), executive or administrative government, and the judiciary or courts. It also protects fundamental human rights.

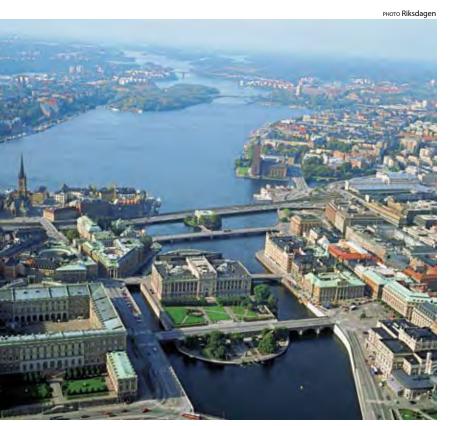
- The Freedom of the Press Act of 1949 guarantees citizens access to official documents, a principle first initiated in 1766.
- The Fundamental Law on Freedom of Expression of 1991 guarantees freedom of expression in new media not covered by the Freedom of the Press Act, such as radio, TV, films and CD-ROM discs. It protects free dissemination of information and prohibits censorship.
- The Act of Succession of 1810 defines the order of the succession to the throne and the appropriate upbringing and education of royal heirs.

## Parliament and national government

Since 1969, Sweden has had a unicameral parliament called the Riksdag, to which citizens elect 349 members every fourth year, on the third Sunday of September. The role of the Riksdag is to develop legislation and govern state finances and the work of the executive.

The Riksdag elects a Prime Minister who forms a Government and appoints ministers, as well as heads of ministries. This gives the Prime Minister of Sweden a very strong position. After the election of 2010 there are 12 ministries and 24 ministers, out of which 11 are women. The Government is accountable to the Riksdag and to stay in power it has to be supported in decisions by a majority of the Riksdag. To assist in government work there are various Government Offices, comprising the Prime Minister's Office, the Ministries and the Office for Administrative Affairs. The Government Offices have about 4 800 employees out of which only 200 are politically appointed posts.

Sometimes a specific Ministry is solely responsible for a specific policy area. But when it comes to policy areas related to sustainable development those are often shared between several Ministries. For example, *see opposite page*:



The Swedish parliament, the Riksdag, is situated in the centre of Stockholm surrounded by water.

| POLICY AREA                                 | RESPONSIBLE MINISTRIES                             |
|---|--|
| Housing and construction                    | Ministry of Justice, Ministry of Health and Social |
| J   | Affairs, Ministry of Environment                   |
|   | Ministry of Employment, Ministry of Justice,       |
| Democracy, gender equality and human rights | Ministry of Rural Affairs, Ministry of Health and  |
|   | Social Affairs, Ministry of Education              |
| Rural development, livestock, and food      | Ministry of Rural Affairs                          |
| Communications, infrastructure, and ICT     | Ministry of Enterprise, Energy and                 |
|   | Communications                                     |
| For the same and all sectors                | Ministry of Enterprise, Energy and                 |
| Environment, energy, and climate            | Communications, Ministry of Environment            |
| Business, trade, and regional growth        | Ministry of Foreign Affairs, Ministry of Justice,  |
|   | Ministry of Enterprise, Energy, and Communica-     |
|   | tions, Ministry of Finance                         |

#### **Elections and political parties**

In Sweden, elections are held every fourth year for three levels of government – the Riksdag, the county or regional councils and municipal councils. In the 2010 national elections there was an 84,6 % voter turnout. Every fifth year, Swedes elects their representatives in the European Union parliament, where Sweden presently has 18 of the 736 seats.

The electoral system at all levels is based on proportional representation in multi-seat constituencies. Voting is for parties, but since 1998, voters can also express preference for individual candidates. The Most of the eight political parties represented in the Riksdag today have been there since the 1920s, and the different parties often have ties with interest groups such as business, churches or trade unions.

Since the election of 2006, Sweden has been ruled by an alliance of four Centre-Right parties - the Moderate Party, the Liberal Party, the Christian Democrats, and the Centre Party. This coalition has ruled as a minority government since 2010, which means they need to win the support of other political parties in the Riksdag for proposals.

#### National election results 2010

| Party               | Percentage | Seats |
|---------------------|------------|-------|
| Social Democrats    | 30,66%     | 112   |
| The Moderate Party  | 30,06%     | 107   |
| The Green Party     | 7,34%      | 25    |
| The Liberal Party   | 7,06%      | 24    |
| Centre Party        | 6,56%      | 23    |
| Sweden Democrats    | 5,70%      | 20    |
| Christian Democrats | 5,60%      | 19    |
| Left Party          | 5,60%      | 19    |
| Other               | 1,43%      | -     |
| Total               | 100%       | 349   |

### Women's representation in political assemblies

In Sweden, women gained the right to vote and be elected in 1919 after 35 years of debate, and voted for the first time in1921. Today, Sweden has a very high proportion of women in political parties and elected assemblies compared to most countries. The average proportion of women in parliaments is around 17%, while in the Swedish Riksdag, 45% are women. Women make up 42% of local councils and 48% of county and regional councils.

## Government implementing agencies

In Sweden there are about 350 central committees, boards, authorities and state companies related to different ministries. Government agencies in Sweden are comparatively independent and responsible for their own work, but guided by government appropriation letters. Government may not decide how agencies apply laws or decide on matters delegated to agencies. In many countries, ministers can intervene directly in the work of government agencies, but in Sweden this is not allowed.

State agencies are mandated to implement decisions and policies at different levels. Central government agencies are responsible for portfolios such as higher education, agriculture, industry, defence, justice, employment and development cooperation. County Administrative Boards represent central government at county or regional level. Local level agencies include police stations, post offices, railway stations, and tax and unemployment offices.

Example of agencies that are important for urban development are the National Board of Housing, Building & Planning, the Swedish Energy Agency, the Environment Protection Agency, the Swedish Transport Administration and Swedish Transport Agency.

#### **County Administrative Boards**

Sweden is divided into counties and County Administrative Boards link to citizens and municipalities on the one hand, and to central government on the other. These boards ensure that central policy is implemented effectively throughout the county, in areas such as

- Animal welfare, hunting and fishing
- Environment and nature conservation
- Ecologically sustainable agriculture and farm support
- Traffic safety
- Protection of national and cultural heritage
- General elections
- Security and crisis management
- Housing
- Gender equality.

County Administrative Boards support municipal planning by providing

- advice and recommendations based on comprehensive regional plans, policies and regulations regarding health and safety, national interests, environmental standards and matters involving several municipalities
- municipal planning requirements such as inventories, and natural and cultural environmental evaluations when planning land use and settlements
- advice and guidance on applying the Planning & Building and Environmental Acts, and hearing objections to plans and appeals, which can be taken further to the Land and Environment Courts.

#### Local and regional government

At local level, Sweden has 290 municipalities and at the regional level, 20 county councils (three are called regions – Västra Götaland, Skåne and Gotland). There is no hierarchy between municipalities and county councils – they merely have different responsibilities. The only exception is Gotland, an island in the Baltic Sea, where the municipality is also responsible for county council functions.

Municipalities and county councils or regions are governed by directly elected councils, have the right to levy income taxes on individuals, and are responsible for a broad range of services including pre-school education, childcare, elderly care, health services, social services, housing, water supply and local roads.

Independent municipal planning is a key aspect of local self-governance in Sweden, with each municipality deciding how land is used and developed. Before the 1987 Planning and Building Act, a central government agency approved local plans. Now, municipal plans approved by local assemblies have legal status, and central government can only interfere to protect national interests, natural resources or state security, or to ensure proper stakeholder participation. Read more about municipalities and sustainable planning in chapter 3.

## 3. STRONG LOCAL SELF-GOVERNANCE

the basis for sustainable urban development

In Sweden all levels of government play an important role in promoting sustainable development, and their responsibilities are defined in legislation. Municipalities have the main responsibility for planning, development and service provision. Municipal self-governance has a long history and was first formalised by a *Local Government Act in 1862*. Today it is directly connected to local economic and social conditions. Swedish municipalities have the power to tax citizens directly, and most only pay income taxes at municipal and county council levels.

Sustainable urban development requires holistic and integrated approaches and long-term perspectives regarding environmental, social and economic issues. A sustainable society requires comprehensive planning and coordination by a range of authorities and stakeholders, and cooperation in implementation and administration.

Sustainable urban development has administrative, financial, technical, cultural and institutional aspects, which are reflected in the urban structures, transport models, infrastructure systems and service provision. Sustainable urban planning and development processes must also be transparent and include wide stakeholder participation.

Urban planning and implementation processes involve many actors at different levels of government. This complexity has increased with the widespread privatisation of various services including public transport, though government remains ultimately responsible. Coordination and cooperation between actors is today a significant aspect of sustainable urban development.

Planning authorities also face new requirements related to climate change mitigation, energy provision, regional cooperation and international agreements. While municipalities still play the major role, wider development issues influence planning and development, and require regional cooperation among municipalities and county councils.



## The history of municipal planning in Sweden

Towns and cities have developed over long periods, and some were already established during medieval times. The physical structure of original urban settlements was based on the economic and social conditions that prevailed at the time, and the natural resources available in the surrounding areas. Tradesmen and artisans in towns relied on the produce of farming, fishing, mining and forestry in the immediate vicinity.

The control of urban settlement development was initially a central government concern, but was gradually decentralised to become a municipal responsibility. Building and settlement appearance was long considered important, with legislation as early as the 13th century regulating the width of streets and size of squares.

The first urban planners were commissioned by rulers to improve the fortification of existing settlements or to build new towns at strategic locations. Planners thus often had a military background, and defence was a primary consideration in urban design.

Towards the end of the 17th century, central government established national regulations for towns and cities, with a strong emphasis on fire prevention. A commission proposed the width

of roads and lanes, that town authorities be given the right of expropriation, that settlements be structured in blocks and that building permits were necessary.

## Decentralisation and local regulations

In the 18th century, many towns objected to royal decrees and demanded regulations related to local conditions. This resulted in greater decentralisation and legislation that allowed local building regulation. *Stockholm's building regulations of 1725* became a guideline for other towns, and in 1734, a new general law covering urban and rural building regulations included distances to property boundaries, the width of streets and size of public areas and sanitation facilities.

In 1750, central government first required towns to submit plans and maps of buildings, streets and open spaces to the Royal Building Authority for review and approval, or recommendation of more convenient and safer layouts and building methods, with fire prevention remaining a key objective.



Early plans and maps for towns were prepared to show the structure with streets and housing blocks, with little information about the actual buildings. The city walls were an important feature. In the 18th century Government required towns to submit plans to facilitate fire fighting measures.



In Göteborg, the walls, moat and channels of the fortifications are still visible elements that influence the urban structure and functions in the city centre.

#### **Early industrialisation**

Industrialisation in the 19th century led to significant urbanisation and drastic changes in urban structures. Urban populations grew as industries needed workers and migration was encouraged, and increased housing construction, artisan services and other businesses led to economic growth and wealth concentration.

The character of urban environments changed as badly planned working class areas with poor quality housing developed, with little concern for the environmental impact or health of inhabitants. Legislation adopted in1810 led to rampant land speculation, which accelerated negative development trends.

Burgeoning urban areas were characterised by poor housing, unhygienic conditions, lack of sanitary facilities and high fire risks. Government and local authorities noted the problems and took initiatives to address the problems and improve housing, living conditions and social services for the industrial workers.

Inspired by urban development projects mainly in England, some industries established community settlements that provided housing, health care and schools for employees. The benefit was a loyal labour force, though benefits for workers were tied to employment and could thus easily be lost.



Jonsered is an example of an industrial establishment that offered housing and community services for its employees. What was once an area of workers basic accommodation and modest living standards is now considered highly valuable due to its cultural heritage status.

#### **Early municipal reforms**

Local authorities in towns and rural areas had promoted and established their position as independent entities in the 1800s. However, they still required central government approval of development plans, and financing for development projects and maintenance in towns.

Differences between urban and rural areas and varying conditions in different regions were addressed by two new *Local Government Acts in 1863*, dealing with cities/towns and rural areas respectively.

2 500 municipalities were formed, most based on the old rural parishes, while urban municipalities included 'charted' cities and market towns.

## The birth of the modern planning system

The chaos and confusion in building and planning during the first half of the 19th century called for a new approach to urban development, and government introduced important constitutional reforms and administrative changes. In 1874, a new *Building Decree*, was issued as a royal ordinance, which heralded the birth of modern building legislation by requiring towns to prepare and implement development plans.

The first *Town Planning Act* in 1907 strengthened the power of municipalities in relation to property owners and included an interesting provision for sharing the costs of implementation. This Act established municipal planning monopoly in Sweden, which is considered to be the cornerstone of Swedish urban planning and development.

The Act of 1907 required municipal/town councils to prepare plans for approval by central Government, which could not, however, impose changes, as municipalities were responsible for implementation. This legislation was deficient in various respects, and the need for binding regulations led to a new *Town Planning Act* in 1931.

#### Strengthening municipalities

The Town Planning Act of 1931 increased municipal powers, but control of new settlements and location of development in unsuitable locations was limited. Development in areas outside urban boundaries occurred frequently.

In the 1940s, socially oriented urban development and public housing were strongly advocated as a component of the welfare state, to address the housing shortage and the poor quality of the housing stock. This resulted in a new *Building Act and a Building Decree* in 1947. The shortage of housing and the poor quality of existing housing was a major concern. The political ambition to build a welfare state covered improved housing and the extension of social services.

The new legislation gave municipalities the authority to determine where, when and how urban development occurred. The Building Act required that urban development be based on an approved plan, and the Building Decree required that building permits be refused for any development not consistent with the approved plan. The Building Act strengthened the municipal planning monopoly and was a step towards further decentralisation.

The social aspect of housing provision gained increasing importance in 1940s and 1950s with improved standards and greater attention to the living environment as a result. Baronbackarna in Örebro is an area that is well-known for pioneering urban design and high quality housing.



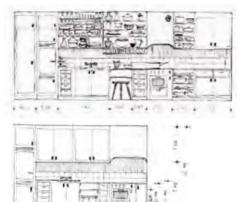


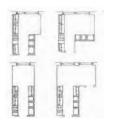
New planning instruments resulting from this legislation included *General Plans* for towns and settlements, and *Regional Plans* for areas including a number of municipalities. General Plans provided the strategic long-term perspective, while detailed town plans retained their legally binding status. The time horizons varied and were determined by municipalities.

The Government Commission that assessed the social aspects of housing existed 1933–47. It was significantly influenced by the research undertaken by Alva and Gunnar Myrdal. The recommendations of the commission promoted the establishment of municipal housing companies, subsidies housing, and subsidized housing loans.

#### A new approach to planning

Rapid economic and urban population growth in the 1950s and 60s increased the housing shortage and raised issues that affected both municipal administration and planning approaches. Private sector construction could not meet the demand and rental-housing costs were exorbitant. Growing urban areas required large-scale investment in infrastructure and public transport, particularly in cities.





The emphasis on qualitative and functional housing was to a certain degree a result of the studies carried out by a research institution (Hemmens forskningsinstitut/Byggforskningsrådet). The recommendations entailed suitable design for kitchens and bathrooms, furnishing of living space and minimum measurements for various activities and functions.

The industrial sector went through a period of restructuring and large industrial complexes were planned in external locations near cities and towns. The demand for labour resulted in people migrating from remote areas to cities. Central government promoted economic growth and supported industrial development and considered it important to secure access to natural resources, protecting potential assets, reserving strategic locations for major investments, and providing energy for large industries and urban development.

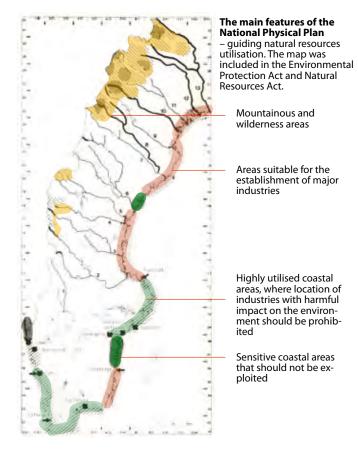
An emerging awareness of the impact of pollution increasingly made protection of all aspects of the environment a key planning consideration. The green areas, natural parks, clean air and agricultural land were aspects that gained prominence in terms of planning.

However, municipal urban planning instruments proved inadequate to deal with the complexity of issues. General Plans dealt mainly with land use, detailed planning focused on immediate needs, plan preparation and revision took too long, and implementation was often hindered by plans lacking legality. Smaller municipalities also lacked capacity and expertise, and struggled to keep pace with development.

Central government addressed these issues by reviewing planning instruments and administrative and legal provisions. A new national planning authority was formed in 1967 (*Planverket*), responsible for planning and building policies, natural resource use and reviewing municipal planning.

One of its major projects was the *National Physical Plan*, which identified attractive geographical areas, important natural resources and potential assets. It identified major rivers needing protection, where new hydropower stations should be permitted, which coastal areas should remain unexploited and where major industries, harbours and power stations should be located.

Although the National Physical Plan did not become a formal planning instrument, its recommendation influenced new legislation regarding development planning and the use of natural resources. Restrictions on urban sprawl and on development of leisure houses in coastal areas have had a significant impact on local



planning and the protection of environmental resources. Environmental concerns resulted in the 1969 Environmental Protection Act, which laid the foundation for present-day environmental laws and policies.

Housing remained a major issue for municipalities, and demand led to the central government *Million Houses Programme*, which financed increased municipal housing construction. From the 1940s, municipal housing companies were established to enhance implementation capacity and provide rental housing to address shortages.

In the early 1970's, government commissioned a lengthy review of planning legislation, which resulted in the *Planning and Building Acts* of 1987 and which is the basis for urban planning today. The act was recently replaced by a new *Planning and Building Act in 2011 (see chapter 6)*. The municipal planning function was strengthened, with *Building Departments* headed by *Town Architects* becoming *Planning Departments* headed by *Town Planners*. Municipal planning assessments, specific theme



The Million Houses Programme provided for and financed housing construction on a large scale to overcome the housing shortage. This resulted in development in peripheral locations and on land that was owned by the municipality. While providing adequate apartments with good technical quality, there were serious setbacks in urban design standards and the quality of the living environment.

analysis, new types of plans for parts of municipalities and other planning tools evolved within the formal planning framework.

Increased municipal responsibility for development planning and service provision also required administrative reforms. Rapid urban development and changes in the urban environment led to further legislative reforms to incorporate issues related to the environment, development challenges, international cooperation and globalization. The new approaches required increasing coordination, cooperation and integration of institutions, frameworks and issues.

#### Municipal administrative reform

Swedish public administration is decentralised, with local municipalities largely responsible for planning, development and service provision. The functions of the three levels of public administration (state, county councils/regions and municipalities) are defined by the *Local Government Act* of 1991, which, together with the *Planning and Building Act* of 1987 gave municipalities a strong mandate in terms of urban planning and development.

Municipalities now differ greatly in size and character from the 2500 city, market town and rural municipalities delineated in 1863. Municipal functions have been extended covering an

14



The poor quality of the built environment in many centrally located areas combined with the growth of the business sector lead to drastic redevelopment of centres and inner cities, with demolishing of historical and culturally valuable buildings and urban structures. The widespread protests against municipal planning marked a new trend in urban planning.

increasing share of the public sector. The population in some of the municipalities had decreased drastically over time. In 1943 a Municipal Demarcation Committee was established with the objectives to reduce the number of municipalities and to create units with sufficient financial resources to provide adequate services (before 1943 there were  $\pm$  500 municipalities with fewer than 500 inhabitants!).

The first reform, completed in 1952, resulted in 1080 municipalities. Rural municipalities were merged to form larger units, while the number of cities and market towns increased slightly. However, there are still substantial discrepancies between rural and urban municipal administrative capacity.

Legislative reforms in the 1960s included a review of the Local Government Act and introduction of the central-place principle, or combined urban-rural municipalities with towns as their centres. By 1971, there were 282 municipalities.

The objective was to create municipalities with a viable economy and tax base, and the capacity to provide adequate social and infrastructural services. The reform was completed by 1974, and there are now 290 municipalities, which vary in size and number of inhabitants, from 850 000 in Stockholm to rural municipalities with  $\pm$  2000 inhabitants.

#### **VÄXJÖ – THE GREENEST CITY IN EUROPE**

văxio has existed as a settlement for more than 1000 years, and the first church in Sweden was built here. Växjö became a bishopric in 1170



and a charted city in 1342. Today, it is the administrative centre of Kronoberg County and a focal point in an industrious region known for its glassworks, furniture and new university.



РНОТОЅ Mats Samuelsson

#### CONTACTS Maria Arvidsson, (Urban Planner), Kristina Thorvaldsson, (Acting Chief Planner), Växjö Municipality Council

Växjö has 83 000 inhabitants and 7000 enterprises of different types and sizes. It is a small city, but with great potential and ambitions in terms of sustainability and protecting the green environment.

#### Växjö's environmental profile

Växjö has been a pioneer in emphasising the environment in planning and development. Its long-standing commitment to Local Agenda 21 includes significant renewable energy sources. Its Environmental Programme, adopted in 2006 and renewed in 2010 includes objectives that go far beyond the National Environmental Objectives. Key focus area are

- · Living Life
- Our Nature
- Fossil Fuel Free Växjö.

In each area, there are indicators and targets, and achievements are assessed annually. The programme involves cooperation with county/regional authorities and associations. Participatory approaches encourage inhabitants to take part in debates, stimulated by information campaigns on Fossil Fuels, Climate-Smart Living, City Cycling, and Energy.

#### Living Life

Living Life refers to consumption patterns and encourages inhabitants to live and act in ways that contribute to sustainable development. It encourages local, ecological food production and reduction, recycling and reuse. Waste material will be a resource in terms of energy and biogas production.

#### Our Nature

Nature in and around Växjö is a major asset that needs care and protection. The aim is to protect and improve the environment in terms of clean water, fresh air and natural and cultural diversity.

Access to green areas, parks and lakes is facilitated, and natural resources are protected by minimising pollution and harmful emissions.

#### • Fossil Fuel Free Växjö

The reduction of greenhouse gas emissions mitigates climate change and the ultimate targets include zero fossil fuel use, energy-efficient housing, and public transport using only renewable energy. This means changing consumption patterns and encouraging alternative modes of transport such as cycling.

#### Planning for sustainability

In addition to Växjö's Environmental Programme and Policy, important sustainable planning and development documents include the Comprehensive Plan, Transport Strategy, Energy plan, Green Structure Plan and Cycle Structure Plan. These are closely linked to the Environmental Programme and incorporate the environmental objectives.

#### Results

Växjö's ambitious environmental programme and targets won it the Sustainable Energy Europe Award in 2007, the National Energy Globe in 2009, and 3rd place in the Swedish Society for Nature Conservation Climate Ranking in 2010. A BBC report in 2007 identified Växjö as the Greenest City in Europe.





»Passive« energy houses at Välle Broar.

## Support for strong local governance

In general there is a large consensus in Sweden about the value of greater scope for local initiative and local governance. This notion is particularly strong among municipalities and counties, and with stakeholders such as Swedish Association of Local Authorities and Regions (SALAR). Strong local self-governance is supported by both democratic and efficiency values.

**Democratic values** – Local self-governance enables greater responsiveness to citizens' needs. There is also greater accountability, as people know who is responsible for decisions, and closer proximity to decision-making processes enables greater public participation.

**Efficiency values** – Local self-governance is more cost-efficient than a centralised hierarchy of state organisations. Municipalities address new challenges and solve problems in innovative, effective and efficient ways, and cooperate with each other at county level. Municipalities also compete to attract businesses and taxpayers, which has lead to better performance.

## Political and administrative principles

Planning and development are political processes, in that elected leaders are ultimately responsible. Municipalities are obliged to serve the public and balance individual and public benefits in deciding on urban planning and projects, and in other respects.

Local government elections coincide with national and county elections and political parties that obtain sufficient votes govern municipal and county councils, and in Parliament. The number of municipal councillors varies, depending on the size of municipalities, from 31 to 101. Municipal councils meet 6 to ten times per year and have considerable freedom to make decisions, including on procedures and the structure of the municipal administration, provided it meets basic principles and criteria.

Municipal councils appoint an Executive Board and other boards and committees. Parties represented in council have a proportionate number of seats in boards and committees, which prepare proposals to council, supported by technical and administrative staff.

Committees are responsible for areas such as planning and building, property development, environment, traffic and transport, public open space and parks, education, health, social services and infrastructure service. The Local Government Act requires a minimum of three committees in addition to Executive Board, but municipalities can decide the number of committees and combination of areas.

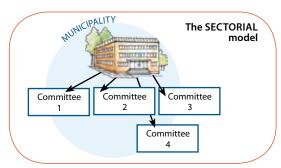
Urban planning and housing is mostly under an urban planning committee, often combined with environmental affairs. The move towards more integrated political and administrative structures and integration of service areas is based on the interrelation between urban development, social services, economic development, environmental issues and infrastructure, and the requirements of planning, building and environmental legislation.

There are three overall models of municipal organisation

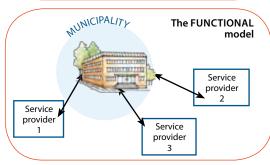
- The sectorial model in which committees are responsible for particular services.
- The territorial model, which organises committees and administrative offices on a geographic basis. Municipalities using this model have district committees or neighbourhood councils.
- The functional model, often referred to as the *purchaser/provider model*, which has become more prevalent with the privatisation of service provision. The procurement function is separated from the administrative functions, and committees contract services from the municipal administration or outside contractors.

Some cities have established sub-structures based on suburbs or other areas, to facilitate public participation and enhance service provision

efficiency. Municipalities decide what functions are placed at suburban level, e.g. social service, education and infrastructure maintenance. Most municipalities today combine sectorial, territorial and functional structures.







The models for municipal administrative systems are theoretical abstractions. Most municipalities will combine the sectorial and functional model. Larger municipalities with administrative sub-areas sometimes combine all three models. The territorial model may be used for certain limited number of administrative aspects.

Decision-making in municipalities must have the support of the inhabitants and participatory approaches are necessary to achieve involvement and acceptance. Particular attention is paid to encouraging young people to participate.

#### **Democratic decision-making**

The Local Government Act defines municipal responsibilities and requires democratic decision-making processes in which citizens are informed and participate directly, as well as voting for local councillors. The main principles of municipal governance include

- The decision must be of general public interest for the municipality
- The decision must have a relate to the area or to the inhabitants of the municipality
- All members of the municipality must be treated equally
- The decision must be made in due legal order, according to the regulations in the Local Government Act
- The decision cannot have retroactive effect of disadvantage to the members
- A decision cannot be in conflict with laws or other statutes
- A decision must be concerned with nonspeculative activities and any fees that are levied cannot be profit-making
- The municipality is allowed to promote and support businesses through general efforts that businesses can utilise on equal terms.
   Direct support to individual companies is only allowed if there are special reasons
- The municipality is allowed to carry out public non-profit activities in the public interest, such as electricity and water supply, sewage treatment, refuse disposal, bus traffic, rental housing.



How municipalities deal with their responsibilities impacts directly on the everyday life of residents and long-term sustainable development, which requires greater cooperation and coordination between sectors and functions, and with other levels of government. Many municipalities cooperate with their neighbours via municipal associations on matters such as water supply, energy provision and waste management. The private sector has become increasingly involved in providing public services, though municipalities retain overall responsibility.







## Tasks and responsibilities assigned to municipalities

Municipalities are legally responsible for

- Social services, including child care, care of the elderly, and social security benefits
- Pre-, primary and secondary schooling, which are all free
- Swedish language training for immigrants
- Libraries
- Matters related to public building projects
- Health and environmental care
- Sanitation and waste disposal
- Rescue services
- Water and sewerage
- Public order and safety
- Physical planning
- Crisis management

Municipalities may take responsibility for

- Youth and recreation services
- · Cultural activities
- Housing
- Energy
- Trade and industry
- Employment initiatives.

## Tasks and responsibilities of county councils/regions

The main responsibility assigned to county councils/region is medical healthcare. Other tasks that are mainly handled at regional level include public transport and regional development.

See more in chapter 4.

### The legal framework of local and regional government

Since 1974, local self-government is a principle in the Swedish Constitution (the Instrument of Government). Local authorities are independent bodies with the power to tax residents and make decisions within limits specified in the Local Government Act of 1991.

Apart from legislated functions, municipalities and county councils/regions may attend to matters of general concern. The Local Government Act regulates

- demarcation of municipalities and county councils
- the powers of municipalities and county councils
- election of representatives
- assemblies and committees
- co-determination procedures
- financial administration and audits
- assessment by courts of the legality of local government decisions.

Municipal and county council/region functions are otherwise regulated by legislation such as the Social Services Act of 2001, the Health and Medical Services Act of 1982, the Environment Code of 1998) the Planning and Building Act of 2011 and the Education Act of 1985, and related ordinances or regulations. Municipalities can make local regulations regarding traffic and parking control, refuse collection, local public order and other service issues.

## Integrated approaches to municipal organisation

The way in which municipalities organise their institutions for planning and development is essential to achieve efficiency and promote sustainability. Planning is essentially a political matter and Executive Boards need to oversee the integration and coordination of the overall municipal vision, strategy and comprehensive plan, as the basis for sectorial plans.

Municipalities try to achieve broad political support for overall development plans, which councils review and approve at least once during an election cycle. This creates greater awareness among politicians regarding environmental, social and economic sustainability and interrelationship of different aspects. Municipal officials prepare plans, programmes and budgets to achieve goals and objectives with specific performance indicators.

The general trend concerning administrative structures is to merge functions to form fewer committees and supporting offices with broader responsibilities and competencies. Planning, building, housing and environmental affairs are generally combined. Some larger cities have a more diversified administrative structure with coordinating groups or reference groups, but in most municipalities there is increasing functional integration at both administrative and political levels.





Sustainable development of our society requires greater awareness and knowledge among people. Presentation of issues in a concrete way, using visual material, such as information exhibitions and information brochures, will assist the debate, increase awareness and improve understanding of the requirements. A sustainable society is built on participatory, knowledgeable and democratic decision making.

ото Malmö City

#### **GÖTEBORG - THE HARBOUR CITY**



РНОТОS Stadsbyggnadskontoret Göteborg

GÖTEBORG, with a population of almost 500 000, is the second largest city in Sweden. The city was established in 1621 on the west coast at the mouth of the river Göta Älv. Göteborg has a maritime character due to the historical importance of the harbour, ship building and sea freight business. The industrial sector is still of great importance, and includes companies such as Volvo and SKF. The economy is nowadays more diverse, with the increasing importance of academic education and research, environmental technology, IT and finance.

The »Klippan reserve« is a cultural heritage site that is closely linked to, and overlooks the harbour and the sea. It has a unique and dynamic environment, enlivened by the rehabilitation of historical buildings and sensitive infilling.

INTERVIEWS Hans Ander (Urban Planner), Ulf Moback (Acting Chief Planner), City Planning Office

#### Policies and Strategies for Sustainable Planning

There is a coherent policy basis guiding planning and development of the city, based on the overall Vision for the Västra Götaland Regional Council and complemented by the Sustainable Growth Strategy for Göteborg Region. The common understanding and agreement between the different levels of government and involvement of neighbouring municipalities regarding the vision, strategies and objectives is an important achievement in terms of institutional integration.

The Sustainable Growth Strategy for the Göteborg Regional Association of Municipalities is based on the following elements:

- Continued population growth with a balanced regional development
- Improve quality of the living environment and business opportunities
- Create a regional structure that is sustainable in the long-term perspective
- Develop long-term sustainable infrastructure including convenient and comfortable public transport systems
- Improve the cooperation between stakeholders.

Major challenges in the growth strategy include improvement of public transport

in the city and region to promote economic development. Another challenge for the Göteborg municipality is the need to redevelop the waterfront areas and upgrade larger suburbs. A major



#### **Regional Structure**

The Göteborg Regional Association of Municipalities was formed in 2002 to enable constructive dialogue around regional issues between member municipalities and to arrive at a common vision of sustainable development. The regional structure that forms the basis for the Göteborg Comprehensive Plan is an outcome of the regional cooperation. The illustration above shows the connection between regional centres, as nodes for development along major public transport routes.

need regarding social sustainability in Göteborg is to address the social vulnerability of children and other disadvantaged groups. Being a coastal town, protection against rising sea levels in combination with other climate change effects are concrete environmental concerns in sustainable planning.

#### The Comprehensive Plan 2009

The 2009 Comprehensive Plan emphasises regional and municipal cooperation far more than earlier plans. Based on the long planning experience the process has evolved and is now established as a tool to promote sustainable development. Regional and internal coordination and consultation processes have also improved. The comprehensive planning core-group and reference group have a wide representation to facilitate the acceptance of the final proposals. The plan includes thirteen strategic issues for which objectives and strategies are identified, requiring attention from specific administrative units. The objectives include environmental, social, economic and cultural aspects. The following development aspects make up the content of the comprehensive plan.

- Economy
- Natural and built environment
- Social planning, safety and security

- Social impact assessments focused on children's well-beina
- Public transport
- Attractive and sustainable housing
- Climate change adaptation
- Cultural heritage

#### Monitoring and review

The Planning Office undertakes an annual review that assesses the way in which each strategic issue have been addressed and what has been achieved. Annual budgets include provisions for funding sustainability strategies in the municipal vision and comprehensive plan.

The municipal committees and boards are assessed in terms of their achievements of the overall goals and objectives.

Specific objectives in annual budgets will be given special attention in the review. In 2011, the emphasis is on children's welfare, and other plans and development projects will be assessed with this issue in mind.

#### **New aspects of development**

Vast industrial and storage areas and wholesale facilities require changes. Some of these areas have attractive locations e.g. sections of the old harbour. Less attractive areas will demand considerable planning and investment to transform them into

more diverse and attractive urban areas.



**Protection of cultural** heritage areas and historical sections The Comprehensive Plan proposes protection through conservation regulations. More active use of valuable housing areas and cultural buildings is promoted through selective infilling and rehabilitation.

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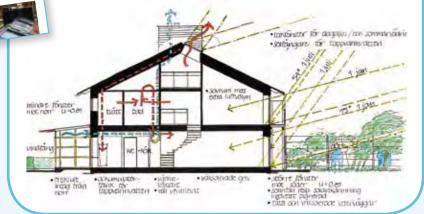


#### • PROJECT – Norra Älvstranden

Multi-functional redevelopment at the waterfront with an emphasis on passive energy provision, improved insulation and energy saving appliances. This mixed development includes housing, business, academic education and research.

#### PROJECT- Lindås

Townhouses, built for energy efficiency and reduced greenhouse gas emissions, have heating systems based on passive energy, solar power and heat exchanger. PROJECT MANAGER Hans Eek, EFEM arkitektkontor, Göteborg, www.efemarkitektkontor.se





Houses without Heating Systems

20 low energy terrace houses in G' teborg

The consequences of climate change include increasing risks for flooding. torrential storms and higher sea levels. In Göteborg specific studies are undertaken to predict likely rises in sea levels. The recommendations deal with restrictions to development in certain areas, protective measures for key infrastructure services, construction of protective barriers and restrictions on development situated less than 3m above sea level.



## 4. PUBLIC SERVICES AT LOCAL AND REGIONAL LEVEL

**Sweden has** a well-developed system of publicly funded services. Central government manages services such as police, social insurance and employment offices, but local and regional government provide most other services. Since 1990, public services have increasingly been privatised and provided by contractors, though municipalities and county councils/regions remain accountable for service provision and quality.

This chapter describes the main services that require integrated planning by municipalities and country councils/regions committed to sustainable development.

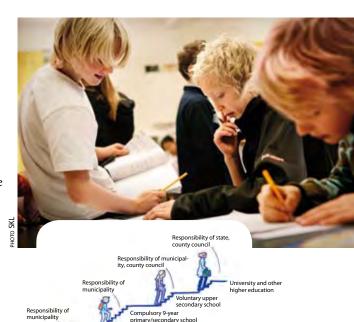
#### **Education and childcare services**

Swedish municipalities are responsible for primary and secondary education, including

- Childcare and preschools for the 1–6 age group
- Nine-year compulsory schools for the 7–16 age group
- Three-year optional upper secondary schools
- Language training for new immigrants
- · Vocational and adult education
- Education for persons with special needs.

All public school education is free, while preschools are 90% subsidized. Upper secondary school is not compulsory, but most students continue at this level. Central government is responsible for higher education. About 10% of students in primary and secondary schools and 17% in upper-secondary schools attend private schools, also funded by municipalities.

Municipalities must provide childcare and pre-schools for all children whose parents' work or study. In 2008, 85% of all children between one and five were in pre-schools or family day-care homes.



#### Social services for vulnerable groups

Vulnerable individuals are entitled to municipal social assistance and economic support for everyday costs, e.g. treatment programmes for alcoholics and other addicted people, family and youth counselling, and care for abused women. In special cases, measures can be taken without the individual's consent, e.g. care of children and young people and care of adult drug and alcohol abusers.

The social service affecting most people is economic assistance. In 2007, almost 380 000 adults and children received support at some time during the year, at a total cost of SEK 8,9 billion.

#### **Elderly care**

The elderly in Sweden constitute a growing percentage of the population, of which 18% has reached the retirement age of 65 (expected to grow to 23% by 2030). Though the elderly in Sweden are comparatively healthy, there is still a great need for medical and elderly care.

Sweden has a well-developed system for care of the aged, and invests 2,8% of its GDP in this sector. Municipalities provide extensive services like 'home-help', enabling people to live on their own as long as possible. There are senior citizen houses

#### Culture

Municipalities are responsible for more than 1 500 public libraries and nearly 100 museums, in addition to the many museums financed and managed at national level. Most municipalities support local theatres and music groups, and county councils/regions also sponsor county theatres, libraries, orchestras, and museums.

County cultural programmes are increasingly conducted in cooperation with municipalities. Sweden has a national policy to provide for cultural needs throughout the country. Theatre in Sweden has long enjoyed substantial public financial support. There are three national theatres, 35 regional and municipal theatres and over 100 independent theatre groups and production companies, of which about 70 receive project funding from central or local government.

A special feature of Sweden, and a reason for it being the third biggest exporter of music after the USA and UK, is the Kommunala Musikskolan – the Municipal Music School. All but seven of Sweden's 290 municipalities support musical or cultural schools where young people learn music and arts such as dance or drama. Over 375 000 students participate in these activities annually.



Senior citizens form an increasing proportion of the population. In a couple of decades almost 25% of the population will be 65 years of age and older. Many will be really old and require a lot of support, a fact that must be part of the planning for a sustainable society.

and group homes, to which old people can move when they so wish. Municipalities also provide most health-care for the elderly at service centres or at home, though some contract services to private companies, churches, or civil society organisations.



Dance theatre is a popular and flourishing form of art. In Stockholm, dance has its own theatre, the House of Dance.

PHOTO CA

#### Water and sewage

Sweden has an abundance of water, with almost 100 000 lakes accounting for 9% of the total area of the country, plus numerous rivers and streams that supply water for drinking and other purposes. Water is so abundant that only 0,5% of the available resource is extracted for use. For example, Stockholm uses only 3% of the average outflow from the third largest lake in the country.

#### Water consumption in Sweden

The industrial sector uses over  $^2/_3$  of water consumed in Sweden. Usage differs greatly among municipalities, with the highest consumption in coastal municipalities in Northern Sweden, where heavy industries are mostly located.

Households consume about 20% of water, and the average Swede uses about 165 litres per day on

- personal hygiene (55 litres)
- flushing toilets (30 litres)
- washing dishes (30 litres)
- laundry (40 litres) and
- cooking and drinking (10 litres).

Water heating accounts for about 20% of household energy costs.

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Water and sewage services are mostly provided by municipalities, which have over 2000 public water works and an equal number of sewage plants. Sewage is often used to produce energy. Municipalities or municipal companies run plants that provide customers with water and sewage services, financed by locally determined service charges that cover capital and running costs. Swedish legislation prohibits profits from water services. Neighbouring municipalities often cooperate by forming jointly owned water, sewage and waste management companies.

### Cooperating on water and sewage management

A recent example of jointly managed water and sewage services is in the south-west of Sweden, where from January 2011 the municipalities of Halmstad and Laholm merged their operations under a common committee with elected representatives from both municipalities. This committee is responsible for the management, operation and maintenance of water and sewage systems in both municipalities. The merger aims to improve water supply security and customer service by coordinating investments.

All operational staff are now employed by the technical affairs department of Halmstad Municipality, and about 100 million SEK will be invested annually over a number of years to link the two systems and build new pipe networks.

#### Waste management

Waste or refuse management is a key municipal responsibility for maintaining a sustainable environment, and is based on five principles – waste prevention, reuse, recycling, recovery (e.g. energy recovery) and safe disposal.

Previously, much of the waste collected was dumped in large landfills, but since 1990,



Affordable energy is an important factor in economic development. Karlstad Energi AB, a municipalowned company, turns waste into district heating and electricity – a business with nearly 50 000 customers and a turnover of 1,1 billion SEK.





municipalities have improved waste management practices, to contribute to climate change mitigation. Waste is now seen as a resource that can replace fossil fuels in providing heating and electricity. Organic waste can generate biogas through anaerobic digestion, which can be used for vehicle fuel, and digestate which is an excellent nutrient, rich in nitrates and phosphates. Organic waste can also be turned into compost.

In 2009, 20 municipalities had anaerobic digestion plants. Today, biogas is used primarily as vehicle fuel, a market that has more than tripled since 2005. About half of all household waste is incinerated to provide over 20% of all heating energy in the country.

For a long time, household waste in Sweden increased faster than the population, but this trend has been reversed in recent years. In 2008, the quantity of treated household waste was 511 kg per person, and in 2009 it was 480 kg, of which close to 100 kg was food waste.

In 2009, 98,6% of all household waste was re-used, recycled or recovered, with only 1,4% going to landfills. Landfill disposal has decreased by 50% compared to 2008. The goal is to reduce the amount of waste put in landfills to close to zero. A landfill waste tax was introduced in 2000 to reduce land filling.

Households are encouraged to separate waste and deposit it at collection points. Since 1994, legislation obliges producers to use as little packaging as possible and take responsibility for recycling it. Municipalities are only responsible for household waste. Industries and other producers are responsible for their own waste, with the largest volumes produced by the mining, wood and construction industries.

Municipalities organize waste management individually or jointly. In about 75% of municipalities, contractors manage household waste. Waste is treated by municipalities, municipal enterprises and private companies. Households pay the full cost of waste management, which in 2009 averaged 690 SEK per person per year (including 25% VAT). Some municipalities have a scale of fees to encourage waste sorting and minimization.

#### **Energy**

The Law on Energy Planning (1977) requires that each municipality have a plan for the supply, distribution and use of energy. An amendment in 1999 requires that the plan include an analysis of how municipal energy operations affect the environment, public health, land management, water and other resources.

Swedish municipalities mostly supply energy through municipal-owned or private contracted energy companies that operate district heating systems, often powered by waste incineration plants.

Privatization of the energy market in the mid 1990s led to the sale of most municipal utility companies, but with increasing energy costs, new green technology and small-scale production options, there are incentives for more diverse ownership, and new municipal energy companies are emerging.

The National Energy Agency supports municipalities to achieve energy efficiency and climate change adaptation. Municipalities and county councils/regions committed to energy efficiency can apply for funding for the period 2010–2014 from the annual programme allocation of 99 million SEK. The Agency also supports and advises local and regional government on efficient energy use (*see box below*).

#### **Cooperation promotes sustainable municipalities**

The National Energy Agency's Sustainable Municipality Programme (Uthållig kommun) started in 2003 with five municipalities. The ongoing third phase of the programme (2011–2014) involves more than a fifth of all Swedish municipalities.

The overall aim is to contribute to a more sustainable society. The programme facilitates sharing of experiences and learning among municipalities and other stakeholders. Each participating municipality selects one or several development projects in their local energy plan. The National Energy Agency and other authorities contribute their expertise. Municipalities from previous programme phases act as mentors. Universities and researchers provide methods and tools developed in and outside the programme.

The programme has focused on different areas of energy efficiency. Themes for the current third phase include:

- Physical planning with a focus on energy and transportation
- How the local business community and municipalities can cooperate around energy issues to contribute to sustainable development.

In 2011, energy consumption in Sweden increased by 6,3%, and due to increased demand and production constraints, prices rose significantly. The increased demand was mainly due to increased energy-intensive industrial production and a couple of harsh winters, while the decrease in production was due to reduced flows in larger rivers, and renovation of some of Sweden's ten nuclear reactors. At the same time, energy produced by wind, biogas and other alternative sources increased. *Read more about energy efficiency in relation to climate change in chapter 7.* 

#### Housing

Municipalities are responsible for the supply of housing, and Country Administrative Boards support municipalities in this regard (as described in chapter 2). The Law on Housing Supply requires that municipalities adopt housing supply guidelines and programmes in each four-year mandate period, as part of comprehensive municipal plans.

In Sweden, most municipalities and other large property owners rent out large numbers of apart-

ments at officially regulated rates, in order to provide more equitable housing.

Public housing is almost always apartments. Presently, there are around 4,5 million apartments in private and public buildings in Sweden, of which almost 70% are rented.

Municipalities base their

housing provision programmes on estimated housing

demand, based on projected population growth, demographic changes, immigration/emigration and economic growth. Attractive housing areas, diversity of housing types and easy access to housing promote economic growth, while shortages and inadequate housing create negative perceptions of a municipality.

In 2010, populations grew in 149 municipalities and decreased in 140. Various factors influence urbanization rates, including housing availability. 43% of municipalities reported a lack of housing and 60 of the 290 municipalities had no available rental apartments.

Earlier planning legislation encouraged municipal land acquisition or 'land-banking' to provide for cost-effective long-term urban development and reduce land speculation. In recent years, most municipalities have reduced their land holdings and sold considerable amounts of undeveloped land on the outskirts of built-up areas.

Municipal involvement in housing provision as developers and managers was an important initiative to address the serious housing shortage in the 1940s. Rental housing at that time was mostly private, but rapid urbanization and public funding for large-scale housing projects led to municipal housing companies becoming increasingly dominant. In 2009, 300 municipal housing companies owned close to 900 000 apartments. In recent decades, many municipal apartment blocks have been sold to associations of tenants, and about 80% of all houses and apartments Sweden are privately owned. The largest decrease in rental apartments has been in Stockholm, where tenant associations have bought many



#### Safe-guarding the interests of tenants

The Swedish Union of Tenants (Hyresgästföreningen) is a democratic members' organisation for tenants. Its objective is for everyone to be entitled to good housing at a reasonable cost, and they work to ensure that all tenants are guaranteed a secure housing situation that allows them to enjoy influence and a sense of community. More than half a million households are members of the Swedish Union of Tenants. The organisation is run by its members and is not affiliated with

any political party. It negotiates rent levels and terms for rental housing with landlords and provides advice and support in dealings with landlords. It also undertakes efforts to influence public opinion and lawmakers to improve the terms of tenants' rental leases. The Swedish Union of Tenants negotiates rent levels for 90% of the rental housing in the country and is an important dialogue partner for central and local authorities in the area of housing development.

public and private rental apartment buildings. Those who favour this argue that ownership is an investment that leads to increased freedom in housing choices. Opponents argue that it leads to increased segregation of people who can and cannot afford to buy apartments. In Stockholm, most rental apartments are in the suburbs, while most owned apartments are in expensive central areas.

The Swedish National Board of Housing, Building and Planning regulates the municipal housing supply, and development in terms of environmental protection, land and water management, and the planning, construction and maintenance of buildings.

#### **Regional services**

Services such as regional development planning, public transport, health care, and to an extent, cultural services, are provided at county or regional level, though often in cooperation with municipalities.

#### Health care

Everyone in Sweden has equal access to health-care services provided by county councils and regions. About 1000 local medical centres throughout Sweden provide basic medical treatment, care and rehabilitation. Maternity and childcare are also usually provided at these centres. Some clinics and hospitals are managed by private contractors, but funded by county councils.

Around 9% of GPD is spent on health and medical care, which is highly subsidized by the state. The daily hospital fee is 80 SEK, while an initial visit a doctor at a primary care centre costs 100–200 SEK, after which medical care is free. In order to make health care accessible to all, there is an individual annual cost ceiling of 900 SEK, above which all treatment is free.

Central, regional and local government emphasise the importance of staying mentally and physically healthy, to prevent illness and reduce the 'burden' on the health care system.

Around 9% of GPD is spent on health and medical care, which is highly subsidized by the state.

#### **Public transport**

In Sweden about 20% of all travel is via public transport or taxi, and the rest via private cars or motorcycles. 45% of public transport is via city or local buses, and the rest via local trains and regional busses and trains, including the underground in Stockholm. Public transport is used to a much greater extent in cities and larger towns than in small towns and rural areas.

The use of bicycles as a means of transport is increasing in urban areas, and municipalities promote cycling by investing in bicycle paths, to decrease traffic congestion and co emissions.

Since 1983, County Transport Principals, consisting of selected members of county and municipal councils, have been responsible for public transport. Most counties have joint transport companies that plan services, which are usually provided by private, or sometimes municipal companies. About 98% of local and regional public transport is now outsourced through open tenders. Most costs are financed by ticket sales, and the excess is funded by grants from local authorities and the state.

From January 2012, a new law regulating public transport will replace County Transport Principals with Regional Transport Authorities. Under this law, any public transport company will be free to establish public transport on a commercial basis anywhere in the country.





#### SUNDSVALL - INDUSTRIAL CITY AND REGIONAL CENTRE

**SUNDSVALL** city has a population of about 50 000 people, while about 95 000 live in the whole municipality. Sundsvall was established in the 17th century at a time when many new towns were founded in Sweden. The growth of the town was supported by suitable conditions for a major harbour and its strategic location for forest-related industries.



рното Sundsvalls kommun

The Northern Harbour Waterfront is a redevelopment of industrial land into a residential area.

INTERVIEWS Marie-Louise Henriksson (Urban and Regional Planner) and Mats Henriksson (County Architect), both retired since 2011

#### Pioneering environment planning

The Swedish Government initiated the Sundsvall Environmental Project in 1989 to address environmental problems in the industrial town. This resulted in many follow-up activities and urban and natural environmental projects, including improvement of pollution control, green public open space and public transport systems. These early experiences have given Sundsvall a head start in gaining public support for environmentally sensitive planning, and the Sundsvall City Council has a majority in favour of progressive environmental policies.

The main challenges for sustainable development are linked to the historic dominance of major forestry sector industrial complexes and limited economic diversity. These industries remain important, but academic education, research and transport have developed significantly in recent years.

### Long-term planning and development strategies

Sundsvall has prepared a series of longterm development, strategies which address the developmental needs of the municipality and region. The County Administrative Board has played an active role in regional planning aligned with EU programmes, which promote inter-regional sustainable development. Important guiding documents for Sundsvall include

#### The Sundsvall Comprehensive Plan

The review of the Comprehensive Plan will have a planning horizon set at 2021, and the process emphasises public participation.

#### Local Agenda 21

Local Agenda 21 has 2020 as its target date, and specifies ten objectives that guide Sundsvall towards becoming a sustainable city and municipality.

#### The Sundsvall Urban Vision

The Sundsvall Urban Vision has a longterm perspective with a target date of 2037. This vision has been prepared based on public participation and input from the business community and general public. The basis for the vision is three statements

- Planning aims at a good living environment for the people of Sundsvall
- The town centre (the Stone Town) has a unique cultural heritage value that needs to be cherished
- Sundsvall is an important communications node in the Northern Sweden employment region.

#### The Sundsvall Sustainable Growth Strategy

The sustainable growth strategy promotes the coordination of employment

opportunities and economic potential in Sundsvall and five other municipalities in the region. It outlines the future of Sundsvall in terms of renewable energy, natural resources, high-quality education and favourable transport linkages.

### The importance of regional and international cooperation

Sundsvall considers cooperation to be particularly important, in order to compete with the strong economies of regions and cities in southern Sweden. The dispersed settlement pattern of the north calls for greater efforts to achieve cooperation and coordination.

The County Administrative Boards in Northern Sweden have initiated a regional analysis model for the transport sector, mainly related to railway links. For the region surrounding Sundsvall, greater cooperation is planned with municipalities along the Botnia Sea, and the east-west connection to the Atlantic will focus on economic and infrastructure development.

Examples of projects that Sundsvall is involved in include

#### • The Mid Nordic Green Transport Corridor,

This project is closely linked to the Botnian Green Logistic Corridor, which supports the establishment of cargo

facilities, linkages and coordination across boundaries.

#### • The Botnian Green Logistic Corridor

This project focuses on improving transportation of goods and people, and includes all Swedish counties in the northern region from Gävle to Norrbotten, counties in Norway from Trondheim to Narvik, as well as counties in Finland, Germany and Poland. The programme focuses on energy, transport and environmental protection.

#### • The Green Highway

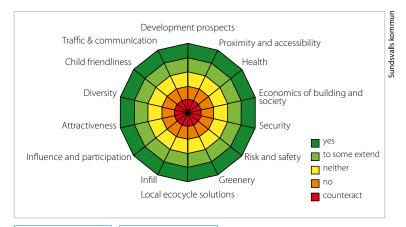
The Green Highway project, which emerged as a result of regional and international cooperation, entails the development of technology for transportation using locally produced, fossilfree fuels. The Green Highway is part of the Sundsvall-Östersund-Trondheim (SÖT) cooperation, which includes an urban network promoting cooperation between the cities in the fields of infrastructure and communication, education and competence development, culture, entertainment and tourism.

#### **Development projects**

Sundsvall has undergone a number of positive changes in recent years, and development projects have been facilitated by public support and well-established development strategies. Upgrading and redevelopment projects have focused on traffic regulation and areas of historical and cultural value in the town centre, and on redesign of more peripheral industrial and housing areas.

#### **Sustainability Assessment**

The Sustainability Assessment Barometer has been developed to standardise monitoring and evaluation of plans, activities and projects that are proposed, or have been implemented. The Barometer has 14 sustainability indicators, each with a number of means of measurement, and results are presented in a colour-coded graph.







#### 14 indicators

The assessment is based on 14 indicators and for each indicator there are a number of means to measure the degree of sustainability. The results will vary for different projects.



ното Kristofer Lönnå



• PROJECT Improvement of green paths and corridors - redevelopment, connecting links.



 PROJECT Sundsvall Town Centre – cultural heritage protection, redevelopment, infilling.



 PROJECT Travel Centre – new development, connecting local and regional travel.



# 5. FINANCING OF PUBLIC SERVICES AND DEVELOPMENT

The public sector in Sweden is financed by citizens and employers through taxes, and by fees paid by households and businesses. Sweden is renowned for its high taxes. Some argue that taxes are too high, while most Swedes accept that high taxes are necessary to sustain the welfare system and provide all citizens with equal services. The Swedish Tax Agency has an advanced, efficient and service-orientated collection system.

In 2009, 61% of tax revenue in Sweden came from direct income taxes paid by employees and social security contributions paid by employers. Most income tax is collected locally by municipalities and county councils, but those who earn over a certain amount annually also pay a state income tax.

12% of tax revenue comes from capital taxes such as company profits tax, real estate tax and other wealth taxes, and 27% comes from VAT on consumption and Excise duties. The VAT rate is 25%, with some exceptions, e.g. 12% on food and 6% on newspapers and books.

## Local and regional government revenue

The principal revenue source for Swedish local government is income tax, and tax rates are decided by municipal and county/regional councils. The average is about 30% of income, with 20% collected by municipalities and 10% by county/regions. Tax revenues finance approximately 68% of municipal

operating costs and 72% of county council costs, with the balances funded by service fees and other sources.

#### Housing in Sweden is expensive

On average, Swedes spend 27,7% of disposable income on housing, 15,8% on trans-

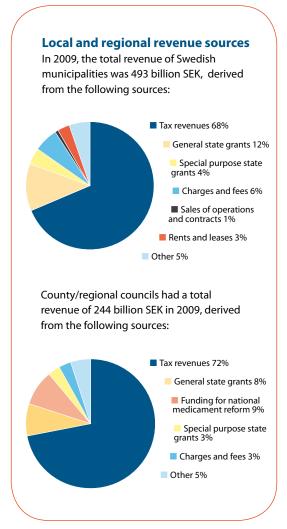
port, 17,7% on leisure
and culture, 14,8% on
groceries and alcoholic beverages,
and only 2,5% on
health and medical care.

#### Services are increasingly financed by fees

Most municipal and county/regional services are financed by local taxes, but the Local Government Act allows municipalities to charge fees. For local services that are legally obligatory, fees are set at national level.

The Local Government Act does not allow municipalities to make a profit on a service by charging fees in excess of costs, but they may set lower fees and subsidise a service from tax revenue. However, this does not apply to municipalowned energy companies.

As municipal and county/regional council costs are increasing and tax revenue are decreasing due to an ageing population, it is likely that services will increasingly be funded by fees.



## Financing urban development and infrastructure

Municipalities use various means to finance capital investment in urban development and infrastructure. The principle is that capital costs should be recovered from revenue over a reasonable period. Developers fund private development, but are required to contribute to funding related public infrastructure and facilities.

Land acquisition is a key factor in municipal urban development. Public land is either sold



to developers, to provide municipalities with capital for various purposes, or a developer is given leasehold rights for which they pay an annual rent. The advantages of leasing are that the municipality has greater influence on the development, and secures a sustained rental income.

## Implementation and cost-sharing agreements

Legislation provides for implementation agreements based on Detailed Development Plans, whereby a property owner's benefit is calculated as the basis for their contribution to public costs such as road construction, water and sanitation, public open space and parks, and any other services or facilities. Municipalities generally finance bulk infrastructure outside the development area.

Municipalities can negotiate cost sharing with developers based on the overall impact of a development on infrastructure, services and the environment.

#### **Development cooperation agreements**

Development cooperation agreements facilitate implementation of detailed development plans by property owners, according to municipal standards and requirements, and usually also cover operation and maintenance. Property owners associations are usually established as the legal bodies that contract with the municipality.

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#### Financing operation and maintenance

All public property is maintained by local or central government, including public buildings, streets, roads, open spaces and green areas. Maintenance includes waste collection, street cleaning and removal of snow.

Private property is maintained by property owners, but can be prescribed by municipalities in cases of neglect. Development cooperation agreements between municipalities and other stakeholders regarding maintenance are common.

## Redistribution of financial resources between levels of government

The Swedish Government has a policy that services should be of the same quality throughout the country. To ensure this, various systems redistribute resources within the country. According to the 1996 equalisation system, richer municipalities (mostly in the Stockholm area) pay, and poorer ones receive compensation.

There is also a state grant system that distributes funds to municipalities, based on population and age categories. In 2009, all municipalities receiving significant state grants were in the sparsely populated far North of Sweden. Municipalities and counties can also receive special purpose grants, in recent years e.g. for competence development of teachers, decreasing queues in health care, strengthened rehabilitation of the mentally disabled. The state budget for all types of local government grants in 2009 was 81,5 billion SEK.

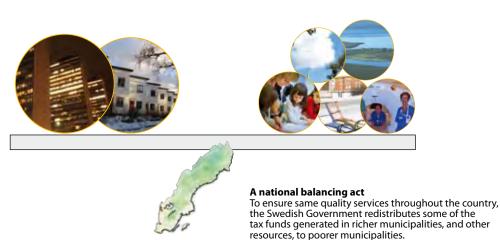
#### Local and regional expenditure

Local and regional government expenditure accounts for more than one fifth of Sweden's GDP. The largest sector for all municipalities is education, followed by elderly care and pre-school activities. The largest cost is personnel, which accounts for 55% of expenditure. For county/regions, the main expense is health care, accounting for over 90% of budgets, with the remainder spent on public transport, regional development, culture, and certain kinds of education, e.g. liberal adult education.

Since 1993, the Riksdag decided the principle that any new obligations placed on municipalities or county/regions by the State should be financed by the State, not by increasing local taxes or shifting funding from existing services.

The budgetary period for local, regional, and central government is one year, which since 1997 corresponds to the calendar year. Since the adoption of the Local Government Act in 1991 the overall budget planning cycle is three years, which enables more flexibility in expenditure. The three-year period is progressed, so the current budget year is always the first in the period. Municipalities also require annual operational plans, based on their budget plans.

The three-year planning cycle requires foresight and consideration of different future scenarios. Councils are required to communicate these plans to citizens via the media, to enable public scrutiny and feedback, before plans are approved.



## 6. PLANNING FOR A SUSTAINABLE SOCIETY

#### Sustainable development

concerns everyone and all aspects of society, and requires holistic and integrated planning approaches that include public consultation and participation. Swedish municipalities, as planning authorities, have considerable responsibilities for integrated planning, as well as for plan implementation, and operation and maintenance of infrastructure and services.

A broad sustainability perspective in municipal planning requires incorporation of national

Cities and other built areas must provide a good, healthy living environment and contribute to good regional and global environments. 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.

Swedish Environmental Quality Objectives, no.15

and international objectives, regional cooperation, and involvement of other stakeholders such as the private sector and civil society. The role of municipalities in Sweden is regulated and guided by sound national legislation, policies and development strategies, but there are still many challenges that require innovative approaches and solutions at local level.



## The concept of sustainable planning and development

The concept of sustainable planning and development in Sweden has evolved over time. Municipal reforms in the 1960s and 70s aimed to create municipalities with sufficient capacity to be self-financing and independent service providers. However, the current complexity of regional and global interdependence requires increasing cooperation and coordination among municipalities, and with other levels of government and other sectors.

The first generation of comprehensive planning focused often on the use of land and expansion of urban areas, but lacked a strategic and developmental perspective. Cooperation among municipal departments and with other levels of government was limited, and consultation was often a formality. Smaller municipalities had limited resources to undertake the tasks and reviews. More recent comprehensive plans pay greater attention to long-term perspectives, visions and strategies.

Sustainable planning and development require integration of social, economic, environmental and institutional and functional considerations, based on a clear vision and objectives for sustainable human, built and natural environments. An integrated approach also treats planning, implementation, operation and maintenance, and replacement of infrastructure as an integrated and cyclical asset management process.

Municipality and regional development visions also need the support of all stakeholders, including politicians, developers, property owners, commu-

nities and other interest groups. There will often be debate and sometimes disagreements on aspects, and developing a shared vision may involve compromises. However, a democratic planning process is necessary for sustainable development.

Many municipalities and county/regional councils have over time developed more inclusive and integrated planning processes, and wider coordination and cooperation in the planning and implementation phases, involving different departments, regional authorities, the private sector and other stakeholders. As a result, many visions, comprehensive plans, strategies and policies have the long-term and holistic perspective required for sustainable development.

### The impact of existing urban structures

Visions and long-term strategies focus on ideal and future development scenarios. However, most development occurs in connection with or within existing urban structures, or as additions or redevelopments. Cities and urban areas have grown over time and taken on forms that reflect the attitudes and culture of the time.

Many Swedish towns have a historical core, even from medieval time or with an origin as military fortifications. Other town structures reflect the growth and industrialisation in the 19th century. Large suburban areas came into being during the great expansion and redevelopment programmes since the 1960s.

Contemporary planning must take the exist-



Most self-help housing areas were built between 1920 and 1940. Standardised building drawings were provided by government for low-income group families, workers or officials.

Haga (Göteborg) is one of the oldest working class areas. It has recently been upgraded and redeveloped, retaining its original character and most of the buildings.



ing urban structure as the starting point. Planners and decision-makers face the challenge that many existing areas that are not compatible with their vision of sustainable and integrated urban development. On the other hand, older urban forms and buildings are valuable cultural heritage assets, of great importance for the character and identity of a town or city.

Historical parts of Swedish towns have a densely developed structure, with great variation and diversity. Originally, they included mixed development with residential areas, businesses and artisans' workshops. In general, the share of business and commercial use in town centres has increased, at the expense of residential use. The structure of city blocks, streets, squares and parks is more organic in the historical city-cores, while urban development in subsequent centuries tended to be based on uniform grid networks.

Pre-20th century urban design and building construction was characterised by functional integration, mixed use and variety. The growth of urban areas was sequential and organic, and reflected social changes and evolving architectural styles. Swedish society was far from harmonious, with major inequalities and poor service standards. However, the compact and diverse built environments in historical parts of towns are full of character, and are today recognised as important assets in the urban environment.

New functionalist planning concepts introduced since the 1920s promoted the separation of functions, an emphasis on traffic planning, larger green areas between suburbs, and large, separate residential and industrial areas and commercial centres. The expansion occurred in suburbs in peripheral areas and with functional separation of land-uses.

The aim was to provide healthy, high standard housing with green areas and playgrounds in a spacious urban environment. Some areas built in this period were based on the ground-breaking concept of suburbs with housing, employment and all necessary services within walking distance.

Rapid economic and population growth and urbanisation resulted in large-scale projects, with the so-called Million Houses Programme (1965 to 1975) representing the historical peak of construction in Sweden. Suburbs became larger and industrial areas and shopping centres were located where land was readily available, cheap and separated from other built-up areas. The new suburbs were established far from existing historical centres.

Urban structuring was increasingly based on the requirements of motorised transport, with road networks occupying evermore space and reinforcing the fragmentation of urban landscapes into separate areas with different land-use functions.

Modernisation also resulted in drastic redevelopment of inner city areas, causing considerable damage to historical and culturally important areas in many Swedish towns. This loss of heritage assets during the 1960s and 70s remains a matter for regret today.

In spite of large-scale development and inappropriate redevelopment, the period of expansion produced many areas and buildings of good quality, with great potential for improvement and



The centre of Vällingby has been given a new image while protecting the original urban design. It includes new housing, employment opportunities and a business centre. Vällingby, built in 1950s, was one of the first self-contained suburbs in Stockholm.

Improved »Million houses« area includes new playground, greenery, new facade colour, balconies and entrances. The purpose is to create more diversity and variation.



alteration to meet new sustainability demands. There are already many good examples of urban upgrading that have created more diversified and integrated urban environments.

### Sustainability in the municipal context

**ECONOMI** 

**ENVIRONMENTA** 

Sustainability

Sustainability

The concept of sustainability has gained increasing support among authorities, interest groups and the public, due to increased awareness of environmental threats and the potential consequences for economic development. Planners and decision-makers

in particular need to understand the threats, in order to plan appropriate action programmes and restrictions on development.

Sustainable development is a process of continued efforts to achieve a good and sustainable living environment, which needs to inform planning at all levels of government. Municipal self-governance in Sweden provides a good basis for integrated planning, but the sector-based approach of central government and legislation needs greater integration, together with better communication between central government agencies and county and municipal councils.

The Swedish Association of Local Authorities and Regions (SALAR) recommends that sustainable urban development be based on environmental, social and economic sustainability, as three integrated perspectives.

### **Environmental sustainability**

Environmental sustainability concerns protection of long-term biological and ecological processes that guarantee biological diversity. To achieve this, the impact of human activities must not exceed the carrying capacity of the environment.

Sustainable planning needs to protect green areas and corridors, parks, public open spaces, forests and other natural resources. Most Swedes support conservation of biodiversity and natural areas as valuable assets, and opposition to new development

is common, if green areas are threatened. Climate change mitigation requires reducing emissions of greenhouse gases, and designing infrastructure and buildings to withstand the expected effects. Municipal comprehensive planning is guided by national sustainability recommendations such as increasing renewable energy sources, efficient energy use and expansion of public transport systems.

Much energy can be saved by constructing housing that is energy passive or that actually produces energy, in combination with better insulation and district heating using e.g. solid waste as fuel.

The impact of private motor vehicles must also be reduced by more efficient technology, limiting their use by improving public transport, more compact and mixed-use urban development and restricting and taxing access by car to city and town centres.

Land is a scarce resource and urban expansion threatens natural environments. Compact, higher density cities make more efficient use of infrastructure, preserve natural areas and reduce environmental impacts. Conservation of forests and green areas is essential, and appropriate management of wetlands is also important for flood prevention.

Built environments with cultural heritage and historic value are also assets that require conservation, as an aspect of environmental sustainability.

#### Social sustainability

Social sustainability is a complex matter, intimately linked to the structure of urban areas and economic development. Integrated, varied urban areas enhance access and interaction. Social sustainability requires that basic physical and social needs are met, including the need for participation in democratic and civic processes. Urban structures that entail mixed uses and a variety of activities supports social diversity and integration. A combination of residential use, business, offices, public services and commerce improve the image of urban areas and encourage communication. Housing need to offer a wide range of tenure

options within the same area to attract different socio-economic groups and age-groups.

Planning processes should actively promote equality and active public participation, with a special focus on women and children, disabled and elderly and vulnerable groups like the homeless and ethnic minorities. Social diversity is a positive asset that should be promoted by urban planning, and Swedish municipalities often address equality and vulnerability issues through special strategies to support vulnerable groups.

Access for all to health services and education, and the possibility to work and earn an income are essential for social and economic development and well-being. Safety and security are promoted by designing public areas and streets to increase interaction and surveillance. Large-scale housing development often decreases social interaction and a sense of community, and segregation contributes to increased inequality and crime. In addressing this issue, Swedish municipalities often work with the police and social services to involve communities.

Urban structures should provide meeting places such as public open spaces, schools, sport clubs, day care centres and recreation facilities where different groups can interact. Physically integrated urban areas facilitate social integration. A pleasant and accessible urban environment invites inhabitants to take ownership of public areas and promotes community building.

### **Economic sustainability**

Urban areas are often called the engines of economic growth. While planning must encourage economic initiatives and provide for economic activities, economic sustainability requires development that is in balance with available resources and not harmful for the environment. A new challenge is that the economy is changing rapidly, and new urban design concepts and approaches are needed to keep pace. The urban planning must accommodate changes through flexible regulations and structures that can be adjusted over time.

The regionalisation of development with dispersed, large-scale industrial and commercial centres depending on vehicle access and long-distance transport is in this view, not feasible. Municipalities should rather provide mixed development areas with diverse environments that encourage creativity and innovative types of business. Revision of detailed plans, less restrictive regulations, infilling and compact development are all means to support the establishment of small businesses.

Sustainable development must be explicit to be understood. The *URBAN* development must be based on green areas in the urban structure. *SOCIAL* development assumes

interaction between people of different socio-economic groups and ethnicity. ECONOMIC development must include promotion of environmental friendly innovations. ENVIRONMENTAL sustainability depends on the protection of ecological and biological processes.





Sustainable development planning must also support private sector investment and business development, skills training, and cooperation with other stakeholders to create employment. Municipalities can cooperate with companies via public-private partnerships and other contractual arrangements, and develop other strategies to increase local employment opportunities.

New, sustainable technologies for infrastructure, services, transport and housing, which promote climate change mitigation and efficient energy use, are essential areas for investment and economic development. Investments in green technology such as energy production and efficiency, energy and resources savings, electric vehicles, emission reduction etc. are not only good for the environment but also a potentially profitable economic sector.

The image of a town is important for attracting investment, and is based on physical environment, social and economic environment. Municipalities need a long-term approach to economic development which includes clear policies regarding realistic cost-recovery on investments, particularly in major service infrastructure.

### Planning principles in Swedish municipalities

Sustainable urban planning and development is based on planning principles which enhance the quality of the social, economic, natural and built environment. In Sweden, most municipal visions, long-term strategies and comprehensive plans are based on the following principles.

### Integration

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Integration has physical, functional, social, economic, cultural and institutional aspects. It promotes urban development that provides for different activities and functions, diverse housing types and architectural forms, a mix of land tenure options, and accessible services. Integrated urban planning supports the inclusion and interaction of different socio-economic groups, and economic and cultural opportunities. Institutional integration involves inclusive planning and development

processes based on cooperation between different municipal functions and levels of government.

#### Accessibility

Urban areas and facilities must be accessible to all. This is facilitated by physical linkages such as public transport, walkways and cycle paths. Emphasis is put on ease of access and safety and security, especially for women, children, the disabled and elderly.



рното Mats Samuelsson

### **Compact urban structuring**

Efficient use of land and infrastructure is essential to promote sustainability, and requires higherdensity development, infilling and redevelopment to support efficient and accessible public transport systems and service provision. Complementary functions, land uses and facilities are important in upgrading sub-urban areas.



#### Mixed development

Mixed development with different land uses and activities in the same area promotes functional and social integration. It increases accessibility

and efficient use of resources and infrastructure, reduces transport needs and promotes public transport and interaction between different groups.

#### **Diversity**

This principle promotes the development of attractive urban environment with varied housing types, land uses and tenure options. Variations in urban design and architectural style contribute to a positive environment and unique identity in an area. Diversity includes socio-economic aspects, with housing options that meet the different and changing needs of young people, growing families and the elderly.

### **Public transport**

Urban planning must promote public transport and reduce private vehicular traffic in order to





mitigate climate change effects. Road network design needs to give preference to buses, if public transport is to compete with private vehicle use. Restricted parking in

inner cities and congestion fees also contribute to traffic reduction.

Public transport planning must be an integral aspect of urban planning to promote sustainable development. Development along public transport routes facilitates transport efficiency and increases convenience for passengers.

### Protection of green areas and the natural environment

Protection of the environment is a priority for all planning at national, county and municipal levels. It entails limiting encroachment into natural areas, providing green open space in new developments, and conserving green areas in developed areas. Infilling and redevelopment need to be regulated to protect open and green spaces in inner cities.

Green belts within and connecting built-up areas should be emphasised in urban design, particularly to balance and enhance the built environment in high-density areas.

This is of importance for protecting and enhancing the biological diversity within urban areas, mitigating climate change effects and providing and providing recreational

## change effects and providing and providing recreational areas for the inhabitants.

### Protection of cultural heritage and the built environment

A city consists of different layers of importance from a cultural heritage perspective.

Not only the historical parts are of importance, but also other areas/objects/environments that can be regarded as a significant features of a specific period, style or design. The historical parts of towns need protection, as important cultural heritage assets

threatened by the pressure for redevelopment and alterations in inner city areas. Municipalities must ensure that planning facilitates the conservation or sensitive redesign of such areas to maintain their character and identity.

### Protection of agricultural resources and food production

Urban areas exist in a regional context, and are surrounded by land originally used for agricultural production. Local food production and small-scale farming should again be encouraged, as an increasingly important aspect of sustainable development. Urban agriculture in allotment gardens is an attractive element in the urban structure, and can be included in new developments, and upgrading and redevelopment schemes.

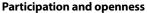


#### Local economic development

Urban areas are centres for economic activity, and municipal economic sustainability depends on dynamic local economies with vibrant enterprises and high employment rates. Support for businesses, skills development, efficient communication and good infrastructure and service standards provide an attractive environment for investment and promote economic sustainability.

#### Safety and security

Urban design can promote safety and security via social integration and improved surveillance, to reduce crime and vulnerability. Municipalities should address these issues in cooperation with communities, local interest groups and the police, and via enhanced participation in development processes.



The principles of participation and openness influence the way in which municipalities operate and manage planning processes. Stakeholder involvement in planning and implementation facilitates the achievement of appropriate and sustainable results. Municipal participation processes include planning forums, workshops, opinion surveys, callin radio programmes, information dissemination and public hearings.





### LINKÖPING – NORRKÖPING UNIQUE INTEGRATION FOR SUSTAINABLE DEVELOPMENT

**LINKÖPING** and **NORRKÖPING** are two of Sweden's mediumsized cities that have commenced a far-reaching cooperation aimed at integration of the municipalities into a big-city region.

The distance between the two is only 40 km, but the history and characteristics of the two are rather different. While Linköping has a tradition of being a bishopric centre for the Church of Sweden as well as the county residence centre, Norrköping was for over four hundred years dominated by its textile industries. Its city centre is dominated by old textile mill buildings. In the 1970s they were left empty and in decay. Today everything is upgraded and with new activities. Main businesses in Norrköping are paper, logistics, transport, electronics, and trade and commerce, while in Linköping they include high tech industry and food industries.

In the larger area of the two cities there are 420 000 inhabitants, 36 000 companies and 50% of Sweden's population within a radius of 200 km. Linköping's well-renowned university, which has a branch in Norrköping, attracts around 26 500 students and researchers.



CONTACTS Karin Elfström (Head of comprehensive planning) Linköping, and Linda Apelgren (Urban and Regional Planner) Norrköping

#### Planning the future together

Around four years ago decision-makers in the two municipalities realized that they risked to be left behind in development compared to the regions around the three biggest cities in Sweden – Stockholm, Göteborg, and Malmö. The two municipalities thus worked together to create a basis for a functional and integrated area – the fourth big-city region! Together with neighbouring municipalities, they strive to create an integrated region of housing, employment, education, and culture.

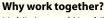
Linköping and Norrköping have developed a joint comprehensive plan. The aim is to reach sustainable economic, social and ecological development and to place Linköping and Norrköping in a larger regional context, as well as to create a structure that encourages public transport. The joint comprehensive plan is also complemented with two other strategies: Linköping–Nörrköping Common Climate Vision, and Vision 2030.

#### Vision 2030

The joint strategies envision that by 2030 the fourth big-city region will:

- Have 500 000 inhabitants
- Have the same proportion of people working as the national average
- Have the same proportion of people with higher education as the national average
- Have the same total sum in salaries as the national average
- Be one of the most attractive places in Sweden to live and work

 Be forerunner in climate change adaptation and mitigation.



Linköping and Norrköping decided to work together as they saw that they could complement each other, instead of competing with one another. The business sector in the two cities is highly complementary which speaks for a great potential to strengthen diversity and stimulate economic growth.

Over the last two decades the commuting across municipal borders, by both workers and students, have increased significantly and will continue to grow. This will demand extended and improved communications.

The degree of integration between
Linköping and Norrköping is
still relatively low, and there are
functional and cultural inertia
that needs to be overcome.
But processes have been
started e.g. in the area of
infrastructure and transport,
Linköping University locating
in both cities, cooperation
in child care services, and a
common administration for
rescue services and salaries.



Norr

LINköping

### Legislation related to sustainable planning

The legislative framework is the foundation for planning at municipal and regional development planning. The Environmental Code (1999), the Planning and Building Act (1987) and the new Planning and Building Act (2011) are the most important legal documents for sustainable plan-

ning. They provide the basis for current planning and development processes, while various other laws cover specific administrative, management and technical matters.

National policies and strategies establish more explicitly the national goals and objectives that will guide municipal and regional authorities in their development efforts.

### The Planning and Building Act

The Planning and Building Act of 1987 established the basis for decentralised, autonomous municipal planning and limited possibilities for state intervention. The Act aims to promote "societal progress towards equal and good living conditions and a good and lasting sustainable environment for the benefit of the people of today's society as well as of future generations."

The new Planning and Building Act of 2011 simplifies planning and building processes, while strengthening control of building construction. The new Act puts greater emphasis on the Comprehensive Plans as strategic and developmental documents. It requires that municipal councils approve Comprehensive Plans for each term of office, and further acknowledges the political nature of planning.

#### **The Environmental Code (1999)**

The Environmental Code is the primary environmental legislation, and replaced fifteen Acts such as the Natural Resources Act, the Environmental Protection Act, the Water Act and Agricultural Land Management Act. The purpose of the Code was to simplify the administration of environmental matters and to make it easier to comprehend the legal requirements.

The Environmental Code promotes sustainable development so that

- Human health and the environment are protected
- Valuable natural and cultural environments are protected and conserved
- Biological diversity is preserved

- Land, water and the physical environment are used so that a long-term good management are ensured from an ecological and socio-economic viewpoint
- Eco-cycles are achieved by reuse and recycling material, raw materials and energy

The sections that are of most importance for planning deal with national interest in terms of management of land and water, environmental quality standards and environmental impact assessments.

#### Management of land and water areas

The municipal planning monopoly means that central government can only intervene in matters of national interest, as specified by the Environmental Code. Government must investigate whether large industrial and energy facilities are locally acceptable, before preparing detailed development plans or applying for a building permit. However, municipalities can, in most cases, refuse permission for new developments, in spite of national interests.

### Environmental quality standards and environmental impact assessments

The Environmental Quality Standards may apply nationally, or to a county, municipality or specific area. These standards are policy instruments for achieving environmental quality objectives defined by government and the EU, and are an example of coordinated EU policies.

An environmental quality standard may, for example, lay down the maximum allowable concentration of a substance in air, soil or water. Environmental quality standards can be introduced nationwide or for particular geographical areas, such as counties or municipalities.

Environmental Impact Assessments (EIA) are required for all plans under the Planning and Building Act include EIAs. Most Comprehensive Plans now have EIAs that include environmental, social and economic aspects. Detailed development plans require EIAs, unless the impact is considered insignificant.

#### **Implications of the Environmental Code**

The Environmental Code consolidated regulations in earlier environmental legislation, streamlined application and strengthening the means of control. The Code has enhanced sustainable development planning and implementation via EIAs, environmental courts and environmental quality standards (e.g. for vehicle exhaust emissions). This limits municipal self-governance in some respects, as sensitive and controversial decisions regarding environmental protection and localisation of activities that have an environmental impact have been moved from the political to the judicial sphere through appeals to the Environmental Courts.

#### **County Administrative Boards control**

Control is exercised by County Administrative Boards, as government agencies at regional level. Municipalities submit their comprehensive plans and detailed development plans to County Administrative Boards, which add a statement regarding national interests and procedural matters, before the plan is submitted to the municipal council for approval.

### Planning instruments available to Swedish municipalities

Types of municipal plans include regional plans, comprehensive plans, detailed comprehensive plans and detailed development plans.

### Comprehensive Plans (Översiktsplan)

All Swedish municipalities must prepare a comprehensive plan for the entire municipality, which guides decisions regarding land use, new development and preservation of the built and natural environment. The plan is not binding but can be used for guiding decisions, where detailed plans are not available. At first, comprehensive plans were limited in scope and content, dealing mainly with existing land uses and expansion zones, but have become more

strategic, developmental and visionary. Most municipalities are now preparing the third or fourth generation of Comprehensive Plans since the initial plans for the 1989-1992 period. Processes for plan preparation and the content of plans have also improved in terms of long-term and strategic planning perspectives.

### Detailed Comprehensive Plan (Fördjupad Översiktsplan)

Municipalities may choose to prepare a Detailed Comprehensive Plan for a part of the municipality. This could cover an area of specific concern, a sensitive environment or cultural heritage aspects, etc. It could also deal with an area that needs more investigation, in preparation of future detailed planning.

### Detailed Development Plan (Detaliplan)

A Detailed Development Plan guides project implementation. It is legally binding, and it regulates land use and building rights. Detailed plans form the basis for projects implemented by private or public companies or individuals, and specify implementation periods of between 5 and 15 years. They outline the respective responsibilities of the municipality and property owners.

#### Regional Plan (Regionplan)

The Act provides for the preparation of Regional Plans by county/regional councils, but so far, only the Stockholm County Council has established a regional planning office to undertake this task.

### **National policies and strategies**

In the Swedish government system, national policies and directives in areas of central responsibility are issued to implementing authorities by national agencies, including the National Board of Housing, Building and Planning (Boverket) and the Environmental Protection Agency (Naturvårdsverket).

The most significant policies related to sustainable development are as follows:

#### **Swedish Environmental Objectives**

The Swedish Environmental Objectives system was established in 1999 to accommodate EU Directives, and progress in achieving the objectives is reviewed annually. The system sets goals and objectives on three levels

- A generation goal, defining the direction of changes in society that need to occur within one generation, if environmental quality objectives are to be met
- Environmental quality objectives, defining the state of the Swedish environment which environmental action should achieve
- Milestone targets, which are steps on the way to achieving the environmental objectives and generation goal.

**Swedish Environmental Objectives** 

- 1. Reduced Climate Impact
- 2. Clean Air
- 3. Natural Acidification Only
- 4. A Non-Toxic Environment
- 5. A Protective Ozone Layer
- 6. A Safe Radiation Environment
- 7. Zero Eutrophication
- 8. Flourishing Lakes and Streams
- 9. Good Quality Groundwater
- 10. A Balanced Marine Environment, Flourishing Coastal Areas and Archipelagos
- 11. Thriving Wetlands
- 12. Sustainable Forests
- 13. A Varied Agricultural Landscape
- 14. A Magnificent Mountain Landscape
- 15. A Good Built Environment
- 16. A Rich Diversity of Plant and Animal Life

The impact of urban areas and urban development is multi-dimensional and affects most of the environmental quality objectives, but especially in terms of clean air, non-toxic environment, reduced climate impact, a good built environment, a rich diversity of plant and animal life.

#### **Climate and Energy Policies**

The National Sustainable Energy and Climate Policy for the environment, competitiveness and long-term stability was approved in 2009 to promote ecological sustainability and security of supply. It prioritises increased use of renewable energy, more efficient energy use and reduction of greenhouse gas emissions. Long-term priority areas for action include heating, transport systems and electricity supply, and municipalities increasingly cooperate in these areas.

Binding regulations and incentives promote more energy efficient housing and construction using renewable resources and recycled material.

#### Local Agenda 21

Agenda 21 is the international programme initiated at the UN Conference on the Environment in Rio in 1992, with Local Agenda 21 as the related global municipal-level programme focusing on environmental protection and sustainable development. Local Agenda 21 emphasises local responsibility and municipal facilitation of sustainable development, with participation of all sectors and stakeholders. Most municipalities in Sweden have run Local Agenda 21 programmes for over 10 years.

### Swedish Strategy for sustainable development

The Swedish Strategy for Sustainable Development was adopted by the Government in 2003 and then amended in 2005. It outlines the vision for a sustainable society and how it will be achieved. Sustainability assumes democratic values and transparency, equality, safety and justice.

### The Planning and Implementation Process

Municipalities have long been responsible for preparing all development plans, and have well-established procedures and competencies. Comprehensive plans and detailed development plans are generally prepared by the physical planning office, while an integrated approach requires cooperation with other departments, as well as other levels of government and interest groups such as the private sector and civic society. Most municipalities have already establish new approaches and means for institutional cooperation.

The process should involve active and continuous participation of stakeholders, interest groups, communities and the general public, and the stages of programming, planning and implementation and review should be linked in an integrated manner.

### The municipal planning process

The Planning and Building Act provides guidance on preparing different types of municipal plans. Municipal councils initiate plan preparation, and Planning and Building Committees, or in the case of Comprehensive Plans, Municipal Executive Boards, oversee actual plan preparation by Planning and Building Offices or equivalent units. A core-team or reference group is established to represent different departments and ensure cooperation (*see chapter* 3).

As Comprehensive Plans take considerable time to prepare, and require substantial inputs and resources, many municipalities apply continuous review and update the existing plan and carry out annual assessments. The political acceptance of the comprehensive plan is obtained at the start of each new four-year council term. Updated plans and implementation programmes are then linked to the budget process.

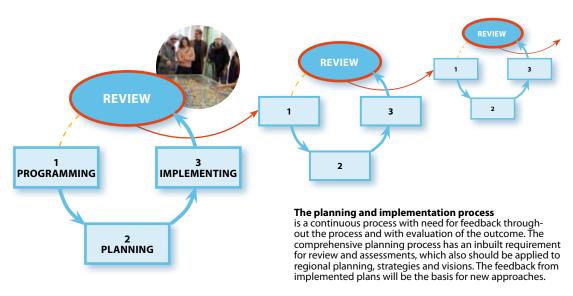
Detailed Development Plans focus on immediate implementation but also involve a complex planning process with specific requirements in terms of legal requirements, environmental quality standards, detailed technical and infrastructural solutions, and costing and financing. Close cooperation and negotiation with developers and stakeholders is part of the planning process.

### Phasing of the sustainable planning process

The planning process consists of three phases that are sequential and interconnected.

- The Programming Phase
- The Planning Phase
- The Implementation Phase.

The Programming Phase includes initiating plan preparation, formulating the purpose, preparing a planning brief and approval of a planning programme. The Planning Phase includes investigations, surveys, plan preparation, plan proposals, exhibition of plans for comment and input,



and plan approval. The Implementation Phase includes an implementation programme, detailed technical plans, negotiations and development agreements, cost estimates and budgets, financing arrangements, construction and monitoring.

The planning process is not linear and requires continuous feedback and evaluation. In particular the comprehensive plans with assessments and political validation must be seen as a cyclic process.

Different municipal units oversee different activities in the process at different times, which requires an integrated approach, open communication and good cooperation.

### The participatory planning process

The legislation requires public participation but allows municipalities to decide on the methods. Councils can only adopt comprehensive plans and detailed development plans if there has been an adequate consultation process, including a public exhibition of the proposal and plans.

In promoting sustainable development, planning authorities must take into account different interests and concerns in an open process. Most municipalities have established methods for public communication and participation that extend far beyond the basic legal requirements.

Different methods of communication can be used, depending on the purpose and stage in the planning process, including

- Dissemination of information in the initial stages, to establish contact and increase awareness
- Consultation when proposals are presented and stakeholders submit comments
- Participation when alternatives are considered and active inputs are expected
- Mobilisation when stakeholders are encouraged to participate in operation or maintenance.

All comments and objections together with the municipal responses must be documented, and a consultation report must be submitted with the plan to the County Administrative Board.

### **Planning challenges**

Municipalities and county/regional councils face many obstacles and challenges in promoting sustainable planning and development, including the following.

### Regional Planning

maintaining infrastructure.

The complexity of sustainable development requires regional perspectives and cooperation, but many county councils lack the capacity to engage in planning issues, and regional planning is limited.

Regional associations have played an important role in coordinating planning in specific areas such as energy systems, economic development



and major infrastructure investments. Regional associations of municipalities established to prepare comprehensive regional plans and long-term strategies have the potential to become effective, but need to develop and apply regional planning instruments.

### Comprehensive planning

Comprehensive planning is cumbersome and time consuming, and smaller municipalities lack the capacity and resources to review their plans regularly. In major towns and cities, rapid change quickly makes plans obsolete, and some municipalities review and update specific aspects of plans more frequently.

### Municipal cooperation

Internal and external municipal coordination needs to be improved. Legislation requires consultation between neighbouring municipalities and most have good working relationships, but there is a need for more formal and effective cooperation.

Within municipalities, the involvement of all departments in the planning process is important, and while there is good progress toward integrated approaches, administrative frameworks are rigid and tend to hinder cooperation.

#### Private sector involvement

The evolving planning system emphasises the role of the private sector in implementation, and in operation and maintenance. Private sector involvement in public-private partnership or contracted cooperation changes the role of municipalities. Communication needs to be enhanced and partnership and contract negotiation and management become key competencies, to ensure that objectives are achieved and sustainability is promoted. Private sector providers of public service need to meet service quality standards, operate in a transparent way, and encourage public involvement and participation.

### Climate change mitigation and adaptation

Climate change is a national and global issue. Reducing emissions of greenhouse gases is a



national objective, and municipalities need to restrict traffic and promote sound agricultural practices and energy efficiency. The impacts of climate change will have to be addressed mainly by municipalities.

Municipalities need to cooperate at regional level on effective energy provision, public transport and improved housing, as well as on water management, secure infrastructure networks, buffer zones and flood prevention.

All available possibilities to promote a green urban environment should be used. Even small green areas contribute to a better micro-climate and improve the urban environment. An otherwise unattractive waste collection installation is given a green facade.

### Coordinated planning, operation and maintenance

The municipalities are largely responsible for operation and maintenance of service infrastructure, though in some areas, with support from other levels of government. Coordination in these cases is crucial, especially regarding traffic and transport control, safety and security, and emergency and rescue services.

#### Sectoral approaches

Central government operates via sectoral departments, which in many instances causes confusion at local level. Different ministries and agencies issue recommendations and provide finance for services, and directives from the EU and government are not always coordinated. Improved communication and coordination between

different departments and spheres of government is needed to achieve an integrated and holistic approach to development planning.

A coherent national urban development policy is needed, to provide a common understanding of the requirements for sustainable urban development.

### The legislative framework

The complexity of urban development and new planning requirements are not appropriately reflected in the legal framework and planning instruments. Comprehensive plans and strategies cover entire municipalities, though urban and rural areas in municipalities have different characteristics, conditions and development needs.

Detailed plans are primarily project oriented, focus on immediate implementation in limited areas, and therefore often lack contextual perspective. The complex urban structure would benefit from more flexible planning approaches with planning instruments that link the overall strategic planning to the detailed plans.



#### **VISION FOR SUSTAINABILITY**

This vision and its key principles can guide urban planning to achieve environmental, social and economic sustainability. The challenge is how to apply and integrate these principles to create dynamic and diverse living environments in specific situations. This is the question that all stakeholders in urban planning processes need to debate, in order to arrive at creative, optimal and widely-supported solutions.

All three aspects need to be addressed. If for instance environmental and social aspects are addressed but economic aspects are neglected, the situation may be tolerable but not sustainable.

Illustration based on Arch. M. Sc Raul Marino Zamudio

# 7. ADDRESSING CLIMATE CHANGE

The well-known adage »think globally, act locally« is very relevant to climate change adaptation and mitigation efforts in Sweden. Global commitments and international policies are needed, and Sweden follows the work of the UN Inter-governmental Panel on Climate Change (IPCC) closely, and works actively within the EU.

At national level, the Swedish Government continuously develops its climate change framework, sets targets, finances research, makes investments, allocates resources to programmes and projects, and coordinates development and planning of climate change activities. However, municipalities and citizens need to take concrete local initiatives to realise CO<sub>2</sub> emission reduction targets, and adapt to changes. Yet local initiatives often depend on national government or EU support.



About one third of energy in Sweden is used for industrial production. A few energy intensive branches stand for a bulk of industrial energy consumption. These include paper and pulp, iron and steel, and chemical industries.



### The Delegation for Sustainable Cities

One example of national government support is the Delegation for Sustainable Cities, initiated in 2008 to stimulate sustainable urban development. The Delegation consists of experts such as planners, architects, engineers, export promoters, politicians, etc., who work with local authorities, businesses and other organisations. The Delegation also provides funding for innovative projects (340 million SEK in 2009–2010), disseminates good practices, promotes green technology, facilitates collaboration in research and development, and arranges and participates in seminars, conferences and other events around Sweden.

### The present situation

Though the Swedish economy grew by 48% from 1990 to 2007, production-related emissions of greenhouse gases decreased by 9%. Among the most important causes of this reduction was the extension of district heating and reduced use of fossil fuels. In 2007, emissions amounted to 7 000 kg of CO<sub>2</sub> equivalents per resident in Sweden, compared to just over 10 000 kg for the EU, and about 15 000 kg for OECD countries.

However, studies indicate that emissions from Swedish consumption may be 25% higher

than from production (*see box below*). Though Sweden has been able to combine economic growth with a reduction in emissions, the fact is that through increased consumption, Sweden's overall contribution to climate change has increased.

With renewable energy amounting to 44% of the total in 2007, Sweden had the largest percentage of renewable energy inputs in the EU. Electricity production and usage is among the highest in the world per capita, both in industry and households, due to many years of comparatively low electricity prices. Most of electricity in Sweden comes from hydroelectric and nuclear power, in equal proportions. Sweden is far behind countries like Denmark, Germany and Spain in terms of wind power, though production is increasing.

### Swedish consumers produce greenhouse gases

Although Swedish production-related  $CO_2$  emissions are low compared to the rest of the EU, a different picture emerges when looking at consumption. Measured in relation to the population, emissions from consumption in Sweden are equivalent to just over  $10\,000\,\mathrm{kg}\,CO_2$  per capita. Approximately 80% of emissions are caused by private consumption and 20% by public consumption. Private consumption activities include eating -25% of emissions, housing -30%, travel -30% and shopping -15%, with purchasing of clothes and shoes being the largest sub-item. As over half of all emissions are due to private consumption, the following questions are significant, if Sweden is to reduce emissions

- · How much do we drive and in what sort of car?
- How do we heat our homes?
- How much electricity is used at home?
- How much meat do we eat and what type?
- How far do we fly and how often?

Emissions can be reduced by changing our behaviour, and by developing and applying new technologies that consume less energy. Biofuel accounts for approximately 20% of energy supplied in Sweden, of which about ½ is used for district heating, which meets half the country's heating requirements for commercial and residential buildings. Only 20% of heating uses fossil fuels and electricity. It is estimated that the public sector could save 15–20% of energy costs through improved energy efficiency in heating, ventilation and lighting of buildings.

80% of Swedish production-related green-house gas emissions are from transport, buildings and industry, with most of the rest coming from agriculture. Public transport accounts for only about 15% of all travel in Sweden, while car travel constituting the bulk. The proportion of public transport is considerably higher in urban areas, e.g. in Göteborg, ½ of commuters use public transport to get to work, while long distances in northern Sweden encourage car travel.

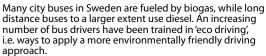
Local and regional efforts can make a major difference. For example, in the less-populated Bergslagen area of central Sweden, regional train travel has nearly tripled since 2001, when the four county councils and all municipalities assumed broader, coordinated responsibility. Emissions from new cars have dropped rapidly in recent years, as cars have become more energy efficient, and more cars use non-fossil fuels. However, Sweden still has the car fleet with the largest and most energy consuming vehicles in Europe.

Public procurement accounts for about 25% of GDP in Sweden – two thirds by national government and one third by local and regional authorities. According to a 2007 study, 78% of public sector procurement included environ-

mental requirements. The Swedish Environmental Management Council (MRS)

develops and supplies information, tools and training on environmental requirements in public procurement. The MRS is jointly owned by the national government, the Federation of Swedish Enterprise and SALAR.





### How is Sweden affected by climate change?

Sweden, like most countries, is and will continue to be affected by climate changes in different ways, and needs to prepare to adapt to these changes. In 2007, the government commissioned an administrative investigation into »Climate and Vulnerability«. Among the possible scenarios that the commission described were

- The risks of flooding, landslides and erosion will increase considerably due to higher levels of precipitation, and there is a need to take precautionary measures.
- The rise in sea levels is ongoing and will continue for several hundred years. Around 150 000 buildings (many of them in urban settlements) are located in erosion risk areas if there is a rise of 88 cm in sea levels a likely scenario according to the IPCC. This will put increasing demands on the planning of new developments as well as precautionary measures for existing constructed areas.
- Growth in forests will be substantial, and the prerequisites for agricultural production will improve. However, it is important to take active measures to preserve biological diversity.
- The Baltic Sea risks dramatic changes in its eco-systems. Climate change will worsen the situation and there is a need to intensify efforts to decrease the levels of pollution.
- The quality of water in lakes and streams will



Five years ago, Malmö City launched a successful campaign called »No ridiculous car trips« to decrease private car traffic and get people on bikes instead. The number of people using bikes has increased from 20% to 30% and the city has invested in infrastructure like protected bike lanes, safe crossings, bike parking, and railings to hold on to at traffic lights. Malmö has 2100 km of pedestrian lanes, 450 km of protected cycle lanes, and 1125 km of streets.

Getting groups of people to change behaviour is not easy. Malmö planners used a number of small positive encouragements, like putting orange rain caps on saddles of bicycles, to nudge people to get on the bike.

deteriorate, and efforts to maintain the good quality of drinking water will be needed.

- Mountains in the north of Sweden will increasingly be covered by bushes which will affect reindeer herding and tourism.
- Warmer climate will affect peoples' health and lead to more deaths from extreme heat during summers, and increases in contagious diseases.

### Swedish national policy on climate change

The official aim of Sweden's climate efforts is that the country should be a role model of a modern society that is environmentally sustainable, built on renewable resources, and where economic growth is achieved in harmony with the earth's conditions.

Sweden's national climate strategy includes instruments introduced since the early 1990s in the areas of energy, transport, environmental and tax policy. More targeted measures and instruments have been introduced since 2002, principally in the form of increased CO<sub>2</sub> taxes, climate information initiatives and special climate investment subsidies. The long-term aim is to make the country independent of fossil fuel energy.

In 2009, a new and coherent climate and energy policy was developed. The target is to reduce greenhouse gas emissions by 40% by 2020.

(The EU has committed to reduce emission by 20% by 2020). Other aims are that

- renewable energy sources will provide half of Sweden's energy by 2020
- vehicles will be independent of fossil fuel energy by 2030
- net greenhouse gas emissions will be zero by 2050
- overall energy efficiency will increase by 20% by 2020
- renewable sources will provide 10% of energy in the goods transport sector in 2020.

### Local initiatives on climate change

Municipalities must be the drivers and inspirers and not leave urban development solely to private actors. Municipalities are fundamental actors when the threat from climate change is to be averted.

Professor Ulf Ranhagen, KTH Royal Institute of Technology

The municipal planning monopoly creates favourable conditions to adopt a more holistic approach

рното Elisabeth Molin



On the island of Gotland in the Baltic Sea around 30% of electricity comes from wind power. Even though this in the long-term is a cost-efficient and environmentally friendly way to produce energy, there are also challenges such as conflicting interests with nature and cultural heritage conservation, and potential disturbances for inhabitants in e.g. noise and esthetical interference.

to planning, which should have beneficial climate affects. People increasingly reside in cities and towns, and the bulk of CO<sub>2</sub> emissions occur in urban areas. In general, the character, structure, organisation and operation of urban centres determine how easy or difficult it is to reduce emissions.

Local and regional government has a key role to play in climate change adaptation and mitigation through development planning, as a property owner, and in procuring goods and services.

As described in the previous chapter, sustainable urban development requires more compact towns to decrease transport needs, more effective and environmentally friendly energy provision, and increased public transport use, walking and bicycling. In short, it requires the proximity and integration of functions in everyday life, and 'ecological infrastructure' such as parks and green areas to mitigate climate change effects.

The extension of district heating and reduced use of fossil fuels have contributed most to reducing co<sub>2</sub> emissions in Sweden in recent decades. Municipalities provide 60% of district heating, and systems can be further extended and improved. There is also increasing interest in district cooling, using water from the ocean, lakes or snow, to replace electric cooling for industrial purposes and air conditioning of public buildings, shopping malls, etc.

Most local governments now actively address climate change issues. A SALAR survey of municipalities and county councils/regions in 2007 showed extensive climate efforts in many areas. 52% of municipalities have, and 28% plan cross-sector action plans for reducing emissions. 70% of county councils/regions have action plans and targets and 20% percent were working on them. Responses emphasised that financial constraints necessitate a gradual approach, and that national government has a major role to play in developing infrastructure and policy instruments.

In general, local and regional authorities can play an important role in

- promoting safe and competitive energy supplies
- investing in efficient and sustainable public transport systems
- expanding renewable and efficient energy production

- promoting energy efficiency and conservation
- orienting spatial planning and urban development to climate change mitigation and adaptation
- stipulating clear energy, environmental and climate requirements
- focusing on dialogue with citizens and greater public participation.

However, though many authorities are taking climate change seriously in long-term planning, there is criticism that climate change has fallen off the political agenda since its peak during the Copenhagen Climate Conference in 2009, and that environmental targets are being compromised by shorter-term economic considerations at both national and local level.

### Planning for local climate change adaptation and mitigation

Municipal planning and development often affect a larger geographic area, especially in terms of environmental impacts. Climate change has thus led to a stronger conviction that issues need to be addressed regionally, or through cooperation between municipalities and coordination between levels of government, in order to reach national targets. Short-term benefits from climate change efforts are seldom evident, and as municipalities have limited resources, regional cooperation and national funding are essential.

Areas of strong local climate action in Sweden include district heating, combined heat and power generation, green public transport, waste recycling and green public procurement, and how solutions are planned and implemented through dialogue with citizens and cooperation with local businesses.

The consumption of energy and the emission of greenhouse gases in buildings and households depends on the nature of buildings, their location and energy sources. The possibility of supplying buildings with more climate friendly energy is also affected by their structure and location. For example, district heating is only possible in compact settlements. Sweden faces major and

urgent challenges in upgrading large apartment blocks constructed during the 1960s and 70s in the suburbs of major cities.

According to the mandate given by the Planning and Building Act, physical planning has significant potential to help reduce greenhouse gas emissions. Strategic planning of construction and housing, transport, infrastructure, energy supply, greening of areas etc. in municipal comprehensive plans can reduce the impact human activities on climate.

The need for transport can be reduced by planning attractive local housing, shops, businesses, infrastructure, meeting places and recreational opportunities in or near urban areas. Green house gas emission levels are included in the environmental consequences analysis required when Swedish municipalities develop comprehensive plans.

A 2010 SALAR survey on physical planning and climate change indicated that most municipalities are locating housing, infrastructure and workplaces to encourage the use of public transport or bicycles, and reduce car use and coemissions. 77% of municipalities are planning for the location of wind generators, and 40% have strict energy efficiency requirements for construction on municipal land.

### Efficient food transport in Dalarna County

The four municipalities in Dalarna County in the middle of Sweden – Borlänge, Gagnef, Säter, and Smedjebacken – are cooperating to procure joint transport for food distribution to schools, pre-schools and elderly care in the region. Decision-makers were looking for holistic solutions, and over the past seven years the model has had many positive effects on the environment, work efficiency, traffic safety and local markets.

The county has 175 schools, pre-schools and elderly care centres, and instead of each supplier delivering their products with their own truck, everything is sent to a distribution centre and one contractor transports all food to public institutions. With less distance travelled and lower transport costs, municipalities can procure more ecological products from smaller, local producers.

It is also safer for children, as there are fewer trucks arriving in schools and pre-schools during the day, and fewer stops and shorter distances have significantly diminished CO<sub>2</sub> emissions. In addition, the staff are more efficient, as they now receive one, instead of six or seven deliveries per day.

### STOCKHOLM – THE ACCESSIBLE CITY



**STOCKHOLM** is one of the oldest urban settlements in Sweden, dating back to the 13th. It soon became the largest town of the country, but it did not gain the status of capital city of Sweden until 1634. The economy of Stockholm was based mainly on trade and the political and administrative role became increasingly important. Today, Stockholm is the main centre in the country, with a growing economy incorporating finance, services, research, education and tourism.

Stockholm is recognised for its progressive engagement in environmental protection and innovation, and has achieved great progress in protecting air and water quality and the green environment.

The Old Town is the medieval core of Stockholm with an enchanting environment that is attractive and of great historical value. Most of the area is designated a cultural heritage and thus buildings and the urban environment are protected. The area includes mixed uses with a considerable share of residential properties.

INTERVIEWS Niklas Svensson (City Planning Strategist), Jonas Claeson (Urban Planner), Lisa Enarsson (Project Manager)
Stockholm City Council

#### Vision Stockholm 2030

Vision Stockholm 2030, presented in 2007, emphasises the city's strengths and the opportunities provided by rapid growth in the area. Challenges are related to the city's role in the wider Stockholm-Mälar Region. Environmental sustainability will be promoted by a strong drive towards fossil-free fuel, improved public transport and compact urban development. The segregated character of the urban structure and particularly the suburbs will be addressed both through a renewal of housing and urban environment and through social and educational investments.

Vision Stockholm 2030 is the basis for a new Environmental Programme, which emphasises climate change mitigation through reduction of harmful emissions and promotion of renewable energy provision.

#### **Regional cooperation**

The Stockholm County Council is the only regional planning authority in Sweden that actively prepares regional plans. The 2010 Regional Plan provides a framework and guidelines for municipal planning, based on consensus regarding overall goals and objectives, and close coordination between municipalities. The key matters addressed by the

Regional Plan are traffic and public transport, development nodes and service centres, energy provision, and the protection of natural resources and the environment.

### The Walkable City – the Stockholm City Plan

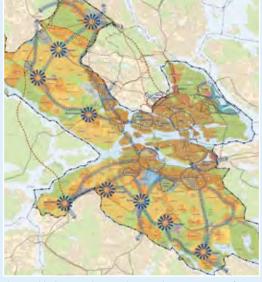
The 2010 Stockholm City Plan is based

on the Stockholm Vision and Environmental Programme, and is related to the Stockholm Regional Plan. The plan identifies assets and qualities to be preserved, and priorities such as the natural environment, public transport and economic diversity. Challenges include accommodating the increasing population, employment creation, a diverse society needing harmonisation, disparities between different areas. and addressing the causes of climate change.

Main objectives are to

- preserve green areas and improve their relation to the built environment
- undertake new develop-

- ment that reduces the 'barrier effect' and creates new links
- preserve and develop Stockholm's character and beauty
- develop a cohesive network, linking strategic nodes
- create attractive public spaces in parks and recreation areas



The Stockholm City Plan emphasizes the importance of accessibility. The compact development, mixed land uses, walkways and bicycle paths and public transport are the main features in the proposed concept.

PHOTOS AND MAP Stockholm City Counc

- create a cohesive and vibrant city in the Stockholm's inner suburbs
- promote sustainable urbanisation and environmentally effective solutions
- support higher education and scientific research.

The plan includes strategies to strengthen the city centre through infilling and redevelopment, and improved accessibility and connectivity. Strategic nodes will support a balanced development pattern, linking presently separated suburbs to achieve social integration and a vibrant urban environment.

This comprehensive plan involves a new planning approach that includes continuous assessment and evaluation. A 'rolling' planning process aims at greater efficiency and more flexibility in quiding detailed development planning.

#### **Development focus areas**

The Stockholm City plan identifies priority objectives such as compact development in the inner city and complementary development in suburbs. The prominent couple of projects are Norra Djurgårdsstaden/Royal Seaport and Järvalyftet/Sustainable Järva, initiated in 2001 and 2007 respectively.

#### • PROJECT Sustainable Järva / Husby

Stockholm has initiated an upgrading and improvement programme for the Järva area on the north-western periphery of the city. This long-term programme aims at social integration, connectivity between neighbourhoods and a diversified urban environment. Järva includes six main neighbourhoods, including the Husby-area.

The objectives for the Husby-component are good housing and a more varied environment, safety and security, employment creation and skills development. The programme aims to provide complementary functions and activities that facilitate functional, social and cultural integration. There will be a variety of housing options, workplaces and employment opportunities, recreation facilities and provisions for easy access to green areas. Other priorities are renewable energy, energy efficiency, waste management involving recycling and reuse, improvement of green areas and

transport alternatives like cycling, to reduce traffic.

The strategy also includes

- improving linkages to major green zones and neighbouring areas
- improving accessibility within the area
- developing the central activity corridorimproving walkways and cycle paths,
- and restructuring the road network
- adding complementary buildings and functions
- creating an attractive urban image
- preserving and developing existing qualities and assets.

Specific emphasis is put on the participatory approach and the involvement of the inhabitants in the process. A number of communication strategies have been used. The means of communication includes newsletters, information brochures, public meeting, exhibitions and discussion groups.

**TODAY** 



TOMORROW



Complementary land uses and activities and improvements of the urban environment will give Husby a new image and character. Walkways that will link different parts of the suburb need to be attractive and provide a variation of experiences. Meeting places, public service facilities and green urban space along activity corridors will encourage social interaction.

• PROJECT Royal Seaport

Norra Djurgårdstaden is located close to the city centre and at present it includes harbour facilities, industrial land and smaller residential areas. The envisaged development is one of the largest urban development projects in Europe, and will provide 10 000 housing units and 30 000 workplaces.

The new area will be environmentally sustainable and climate-smart, with energy-efficient solutions for transport and housing, passive-energy housing, climate adaptation, renewable energy sources, fossil-free fuel for private and public transport, and recycling and composting of waste.

The urban structure will be compact and multi-functional, with mixed uses, a variety of housing options and easy access to services, recreation and green areas. The emphasis is on a varied urban environment with a diverse

physical and socio-economic structure, a mix of living and work places, safety and security, and access to green areas.

The planning process is based on active participation with frequent consultations,

exhibitions, information brochures, opinion surveys, discussion groups and walking tours in development areas. Local information offices have been established to facilitate participation.



The development will make use of the potential of the locational assets with proximity to the water, nature parks and the city centre. The high density structure will incorporate urban greenery, access to services, work places, high quality public transport and a variation of housing options.

# 8. DIALOGUE, COOPERATION AND PARTICIPATION

joining forces for sustainable development

### Sustainable development requires

holistic thinking that integrates different dimensions and sectors, and cooperation and coordination among international, national, regional and local stakeholders. Democratic governance involves not only different levels of government, but citizens, businesses and civil society, and good results depend on effective government institutions, and addressing and balancing the interests of all stakeholders.

The Swedish Constitution states that »All public power in Sweden proceeds from the people«, so it is essential that citizens play an active part in defining and developing a sustainable society.

### Horizontal and vertical cooperation

To achieve a quality and sustainable living environment, both sector-specific knowledge and cross-sector cooperation are needed. Sector-based departments at national level need to support an integrated approach by local authorities. This is a challenge, as municipalities sometimes find EU and national government directives confusing and even contradictory, quite apart from having to balance them with different local interests.

Development of sustainable cities requires coordination, cooperation, participation and holistic perspectives. Long-term development plans sometimes propose radical changes that require broad political agreements and the involvement

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and support of communities, if they are to succeed. Requirements include

- Coordination and cooperation between municipalities in developing and operating joint services and addressing regional challenges
- Cooperation between municipalities and other stakeholders such as business and civil society to create cities that are attractive for inhabitants, students, visitors and investors
- Dialogue between municipalities and County Administrative Boards to develop a common vision for sustainable cities
- Dialogue between municipalities and national government on how to balance different national sector interests and interpret national polices
- Cooperation in municipalities between different functions
- Cooperation between municipalities and research institutions, so that approaches to sustainable urban development are informed by research.

### COORDINATION





### Regional approach to managing waste

In the southern region of Skåne, 14 municipalities with a total of 700 000 inhabitants, have come together to jointly own the

Solid Waste Company of Southwest Scania (SYSAV), creating a regional waste service company. The company is responsible for treatment and disposal of all different forms of waste. SYSAV have 280 staff members and besides private citizens, 6000 companies in Skåne get waste management services from the company. The annual turnover of the company is 795 million SEK. SYSAV is owned by the 14 municipalities lead by a board with elected politicians from the municipal councils. The headquarters is placed in Malmö.

### Consulting and involving citizens and other stakeholders

As described in Chapter 6, municipalities are legally obliged to organise consultation processes so that County Administrative Boards, other authorities, businesses, and inhabitants can give input on comprehensive and detailed development plans. Proposed plans must be exhibited publicly for at least two months. In some cases, this is a formality, but in others, there is comprehensive and inclusive public participation.

Besides the formal municipal planning processes, local and regional governments involve the public to varying extents in discussions on economic, social and environmental sustainability issues.



### Stakeholder consultation in developing the comprehensive plan for Skurup

**SKURUP** is a small municipality in southern Sweden with around 14 000 inhabitants. In 2009, the local council adopted an updated comprehensive plan. As required, a consultation process was organised, after the first draft plan was developed. The draft was disseminated in circulars and on the municipality website, and concerned authorities, organisations, neighbouring municipalities, interest groups and the public had the opportunity to give feedback.

The various points of view and inputs were summarised and commented upon by the municipality. Comments and feedback were given by the County Administrative Board in Skåne, the self-governing authority Region Skåne, two political parties, nine branches of state agencies, two private companies, eight municipalities and municipality-owned companies, four interest groups (e.g. village associations), but only five individuals.

Skurup Municipality followed this up by organising four public consultation meetings to discuss the draft comprehensive plan and feedback with inhabitants. After the consultation process, the draft plan was revised, in line with stakeholder expectations.

### Involving the public in local development and democracy

In recent years, many municipalities have improved public participation in local development, in order to

- strengthen local democracy by actively involving more people in local processes
- increase transparency and effectiveness
- better understand citizens' priorities and use citizens' knowledge as a planning resource
- inform citizens about the purpose and services of the municipality
- increase participation in local elections
- increase citizens' contributions to local development.

Knowledge and information are basic prerequisites for participation and influence in decision-making. How information is disseminated and knowledge is created varies, depending on the purpose and situation.

HOTO Medafonen

### Strengthening youth participation and influence in Järva

»Things have gone too far when decision-makers are synonymous with politicians. Let's distribute power and include everyone in common decisions.«

Megafonen

JÄRVA consists of a number of very different suburbs in northern Stockholm, including Kista and Husby. Kista has over 1500 companies, plenty of new construction and developments, and very low unemployment rates. In Husby, youth unemployment is 43%, and average incomes are considerably lower than in Kista. Both suburbs have a majority of inhabitants of foreign origin.

Some years ago, a group of youth in Husby formed an organisation, **Megafonen** (the megaphone), to address their concerns. They decided to be part of the solution and to strengthen the political participation and influence of youth in Järva. Megafonen works to create more jobs for young people, and to improve educational, leisure and cultural activities. It encourages belief in the future, and provides support in everyday life.

Their vision is a society in which everyone has an equal opportunity to have a good life – regardless of their name, what they call god, or where they live. Young women are under-represented in organisational life in Järva, and special efforts are made to engage young women in projects such as the following.

**Harakat** is an informal forum for dialogue on social and political issues. Young people gather weekly for discussion nights and 'lecture cafés' to exchange experiences and discuss how to improve the situation for youth in Järva. Local decision-makers are invited to participate in these events.

**InPower** is a project that aims to influence politics at the sub-municipal level and challenge structures that inhibit youth engagement. The project newspaper Our Line is distributed in five local suburbs, and several young people from the area have been employed and trained as journalists.

**Husby Youth Arena** is a cultural festival of poetry, music, lectures, debates, workshops, art, etc., arranged every August, in cooperation with local youth.



Swedish citizens participate in decision-making in various ways. Some prefer to be active in advocacy organisations, others want to be consulted directly on local development issues; some like to demonstrate, others prefer to write letters to the local newspaper. The important principle is that there should be a range of options for participation in public decision-making processes.

In Sweden, 194 of the 290 municipalities have introduced citizen's proposals. Anyone registered in a municipality has the right to propose an issue for discussion at a council meeting. Councils can delegate citizens' proposals to relevant committees, which report annually to council on decisions resulting from citizens' proposals. On average, municipalities receive 26 proposals annually. Most proposals concern streets, parks and technical matters, and on average, 30% of proposals gain municipal support.

### Levels of participation

SALAR uses a 'participation ladder' to describe the different levels of citizens' engagement. The five steps are

- INFORMATION to enable citizen's participation
- CONSULTATION of citizens regarding preferred alternatives proposed by the authorities
- DIALOGUE between citizens and decisionmakers, to discuss issues and make suggestions
   Everyone should have their say, and be heard (including via municipal websites)
- INFLUENCE by citizens via participation in processes over time, as partners
- DECISION-MAKING based on citizens' preferences, expressed in referendums or consultation process.

DECISION-MAKING
INFLUENCE
DIALOGUE
CONSULTATION
INFORMATION

Medafonen

### Vara Municipality prioritizes youth participation

VARA is a medium-size municipality in south-west Sweden. It has 16 000 inhabitants, with half living in rural areas. Vara has a lower proportion of inhabitants of foreign origin than the national average, yet decision-makers became concerned that two xenophobic political parties were gaining ground rapidly among young people. The municipality thus introduced forums where people could discuss matters of concern, to strengthen local democracy.

Young people were a particular target group of the initiative. From 2006, a youth council was established with 221 of the 680 high school students in Vara, and participants are regularly consulted by the municipality via a web-based discussion forum.

### Information technology and public participation

Development in the Swedish public sector has been facilitated by rapid developments in technology. Today, authorities and citizens can share information and interact more easily and quickly using modern information and communications technologies. This has facilitated increased communication and transparency, which has improved accessibility and responsiveness to citizens' needs.

Sweden is well-placed to use IT for democratic purposes. The Global Information Technology Report 2009–2010 placed Sweden first among 133 countries in Internet use, and mobile phones are the most common communication tool. For politicians, parties and opinion-makers, blogs

### Quick feedback for decision-makers in Kinda through the citizens' panel

**KINDA** is a small municipality with 9800 inhabitants in south-east Sweden. Decision-makers in Kinda saw that citizens had many opinions and much experience to share, but it was difficult to get them to attend meetings.

Kinda thus started a citizens' panel in 2008, as part of a SAL-AR project involving 30 municipalities. At the start, 35 people were on the panel, but a year later, there were 116. The citizens' panel is consulted by the municipality via SMS and e-mail on various matters, from opening hours at the recycling station to willingness to pay more tax to improve elderly care. About ten matters are put to the panel each year. Answers are summarized and sent to the relevant committee and department, then back to the panel.

»I want to give my opinion, but I am not interested in spending hours in meetings or getting involved in a political party« says Lina Jensen, a member of the panel. The municipal manager Anders Lind reflects: »It is becoming increasingly important for the municipality to use social media, and the citizens' panel. Everything from Facebook, blogs and Twitter to e-petitions and referendums can inform political discussion.«

and Twitter are increasingly important for reaching people and for political discussion.

IT solutions are often used to engage citizens in local government affairs and in local development, through interactive websites, citizen panels, online surveys and Internet discussions, petitions and referendums.

E-petitions are citizens proposals posted on municipal or county council websites, where other citizens can sign them. Municipal Internet-based referendums invite citizens to vote on alternative solutions, and promise that the results will guide the final decision.

#### Sigtuna Municipality invites citizens to have the final say

Sigtuna Municipality is 40 kilometers north of Stockholm, and has around 40 000 inhabitants. Politicians, worried about declining voter turnouts in local elections, decided on a number of measures to enhance citizens' input and influence between elections.

One method introduced was deliberate referendums. Between 2005 and 2008, Sigtuna organized 14 referendums, mostly on physical planning issues, e.g. the design of new developments and the location of roads and parks. Other referendums were on elderly care in the municipality, rural development and general municipal development issues.

Voting in referendums is web-based, but the municipality also arranged meetings to inform citizens about the issues and voting procedures. This led to a significant increase in voter turnout in the last local election, and the council has decided to continue to use referendums for important issues.

### MALMÖ – FROM CRISIS TO A SUCCESSFUL MODEL FOR SUSTAINABLE DEVELOPMENT

INTERVIEWS Inger Nilsson (City Director), Johan Emanuelson, Anna Lethagen and Fritjof Brandt, City Planning Office

MALMÖ CITY has changed dramatically over the last two to three decades. Older industries such as shipbuilding and textile manufacturing have been replaced by construction, logistics, new technologies and commerce. With 300 000 residents from 170 nationalities, Malmö is an international city.

A new university with 15 000 students is part of an innovative and entrepreneurial environment. Huge infrastructure investments, including a bridge to Denmark and a re-engineered railway network with an 8 km tunnel, have laid a foundation for local and regional economic development.

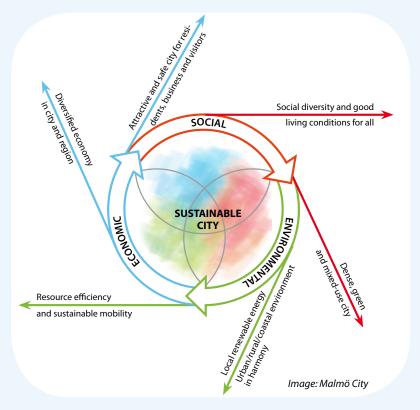
#### A turn-around strategy out of a crisis

In the 1990s, Malmö faced a crisis due to a long period of economic decline and stagnation. The city administration had a huge deficit, and all departments had to cut costs year after year, resulting in deteriorating infrastructure and public spaces. Political life was fraught by confrontation and infighting.

The 1994 elections brought in new political leaders, willing to stop confrontation and unite behind a vision for a complete turn-around for the city. A strategy was agreed and the first steps were to facilitate economic growth and development by building attractive new residential areas close to the sea (the old shipyard), and to establish a modern university, with support from national government.

These developments brought new life to the economy. They coincided with major national infrastructure developments in the region, with Malmö City as an active partner - building the bridge between Sweden and Denmark, and constructing a connecting railway tunnel under the city, with new stations in the urban landscape.

The strategy succeeded, and Malmö has seen a decade of economic development and become an international model for ecological sustainability.



The great challenge for Malmö City is now to address residential and socioeconomic segregation and develop greater equality, social justice, diversity and democracy, as the social dimension of sustainability.

### Value based and inclusive planning processes

Sustainable cities like Malmö are shaped by a common vision and values, rather than technical considerations. Instead of detailed control and regulations, city planners should ensure that a shared vision is maintained among politicians, residents and the business community.

Developing a sustainable city requires an integrated approach. Without a healthy eco-system, economic and social sustainability cannot be achieved. Maintaining and developing ecological sustainability requires economic resources. Economic development creates jobs that are necessary for social sustainability. Se-

rious socio-economic inequality creates social instability, which affects economic development negatively. A divided city is not attractive or sustainable. Investments in ecological sustainability can spur economic development and social sustainability.

An important aspect of social sustainability is to support and strengthen local initiatives and partnerships in neighbourhoods and districts. This goes handin-hand with the municipal responsibility to ensure that planning processes are democratic and built on dialogue and active participation.

The population of Malmö has changed, and is today one of the youngest in Sweden, with 53% of residents living as singles. What impact will this have on the future? What housing will be needed by different family configurations and changing lifestyles? The City has employed a number of young academics as part of the Young People

in Focus Project, and placed them in all main sections of the municipal administration to inspire management with young people's perspectives and values, and to develop ways for young people to influence the development of the municipality.

### Creative environments are good for city development

Malmö City Planning Office has defined the public realm as a variety of places and spaces where different people see and meet one another, and are brought closer together in their daily lives. By considering individual lifestyles and movement patterns, architects and planners can create conditions for natural, everyday, positive encounters between people of different origins, to develop a greater sense of community.

#### **Eco-city Augustenborg**

Eco-city Augustenborg is a programme, started in 1998, to make the district more sustainable. Augustenborg has now become an attractive, multicultural neighbourhood, and an example of ecologically sensitive urban renewal.

Augustenborg is also a good example of how to mobilise residents for ecological reorientation. Residents, pupils and people working in the area have been actively involved in various practical surveys and other research activities, in development planning and in designing the physical environment.

Main parts of the district established in the 1950s had declined significantly and the challenge was to involve residents in a process to revitalise the area and turn it into a model for sustainable urban development. Achievements include the following.

A new school was built using modular natural materials, which can be dismantled and relocated to another area in the future, should the number of pupils decrease in Augustenborg. The school has a ground-source heat pump and solar panels.

Energy efficiency measures have been implemented throughout the neighbourhood. Some apartment buildings have achieved a 35% increase in energy efficiency through better insulation. Solar collectors have been connected to the

central heating system. A pipe system has been installed under a gravel sports field. During winter, the system is connected to a refrigerating machine and the field is turned into an ice rink. The rest of the year the sports field functions as a huge solar collector. A wind power plant has been installed at a local school.

All residents sort their waste at 15 recycling units situated in the yards of the housing area. There are containers for paper, cardboard, coloured glass, uncoloured glass, metal, plastic and batteries. Composting of food waste started early in the ecological reorientation programme, and since 2008, Augustenborg has been a pilot area for separating food waste to make biogas. Today, 70 % of household food waste goes to biogas production.

Residents carried out traffic surveys, and certain streets were restructured to minimise through-traffic and increase safety for cyclists and pedestrians. Residents started a car pool, with the support from the city administration.

The district's green areas have been developed, leading to greater biodiversity, cooling in hot summer months, traffic noise reduction and better surface water management. Green roofs, flowering perennials, fruit trees and wetlands are key features. Malmö City built a new ecological drainage system in the housing area, and 90% of stormwater from roofs and hard surfaces is collected in gutters and channelled into 6 km of ditches, canals and small ponds, which have improved the aesthetics of the district and stopped flooding in the area.







Eco-city Augustenborg is one of Sweden's largest urban sustainability projects. It was supported by the government's Local Investment Programme and co-financed by Malmö City and its housing company. One key aim is to enable residents to take a leading role in the design and implementation of the project in partnership with the City administration, local schools and businesses. A number of demonstration photovoltaic systems have been installed (UPPER LEFT). This was the starting point for Solar City Malmö, another component of Malmö's urban sustainability development initiatives. There are some 11 000 m<sup>2</sup> green roofs in the area (UPPER RIGHT). Rooftop vegetation reduces and detains stormwater and has an insulation effect on the buildings. It also adds to greater biodiversity. The City's Water & Wastewater department built a new ecological stormwater drainage system conveying the water through canals, ditches, ponds and wetlands. The system added another aesthetic quality to Augustenborg.

### Gender and influence

Gender is an important aspect of participation and influence in society, concerning how men and women respectively are involved in and benefit from decision-making. Sustainable development entails equal respect for all human beings. In Sweden, it is often argued that it is important to acknowledge the role of gender in our lives, and discuss its validity and impact, as it affects

- the way we organize work who does what and why
- who has access to formal and informal decision making power
- who decides what is important at home, at work and in society
- who takes care of children and why
- who has control over resources and why
- who should be leaders and managers and why.

Gender concerns power distribution, human rights, democracy, and social and economic development. Gender inequalities are unfair, and costly in terms of reduced outputs, well-being and efficiency. Women and men contribute to development in different ways and on different levels. Women and men sometimes have different priorities, perspectives and contributions. The best guarantee of sustainable development in organisations and society is to include the priorities, needs and potential of both sexes in all activities.

рното GU Image bank



When analyzing environmental issues and climate change from a gender perspective on a global level, there are vast differences in how men and women are affected, in who protects and who affects the environment, and in who takes decisions about development. Gender inequalities often mean that women have less influence, but are most affected in times of crisis.

### RRR

### The 3Rs method of gender analysis

The 3Rs method is used by many Swedish municipalities to review and plan activities from a gender perspective. The method seeks to answer the question: Who gets what, and on what terms? The three R's are

- **Representation** How many men and how many women are involved?
- Resources How are organisational resources (money, space and time) distributed between men and women?
- Reasons Why are representation and resources distributed between the sexes in this way?

**LUNDBY**, a neighborhood council in Gothenburg Municipality, used the 3Rs method to change procedures. During a training seminar on the 3Rs method, politicians asked themselves how much of their local civil society funding support went to men and women respectively. All organisations that received support in the last year were asked about the proportion of men and women among members, leaders, staff, board, and participants in activities.

The results showed that organisations dominated by men were given more generous funding support than those dominated by women. After realizing this, new application procedures were developed, and all organisations now need to provide comprehensive gender statistics in their funding applications.

Even though the political representation of men and women in Sweden is fairly equal, real political influence and power sometimes is unevenly distributed. One analysis of municipal council meetings showed that even though the proportion of men and women is close to 50/50, only a third of contributions to debates came from women. Men also used more time than women for speaking.

## 9.

# Movements and initiatives influencing POLICIES AND ATTITUDES

**Sweden** has a tradition of concern for nature and the environment, and of popular movements to influence other people and decision-makers. Sweden was and is a comparatively egalitarian society, with limited hierarchic structures restricting social mobility and relationships. The country is also consensus-oriented, with a political culture of compromise rather than conflict. Decision-makers, experts, and the public thus often join forces to address challenges such as environmental issues and sustainable development. Ordinary citizens and civil society are able to mobilize, and influence politicians at national and local levels.

### Popular movements in Sweden

Until the end of the 19th century, Sweden was largely a country of independent family farmers, but increasing trade and industrialization forced less prosperous farmers into industrial towns as workers.

From this time, popular movements developed, such as the workers' movement, the temperance movement and nonconformist churches, demanding rights and challenging the status quo. These organisations introduced comprehensive adult education for the working class.

As political ideologies became more influential than old religious and aristocratic dogmas, the tradition of Nordic liberal adult education was born, in opposition to classical education, which focused mainly on educating the elite. By meeting

### A right to roam freely in the countryside

»Don't disturb - Don't destroy.«

The Right of Public Access summarised by the Environment Protection Agency

In Sweden, the Right of Public Access is a unique right to roam freely in the countryside, guaranteed in the Swedish Constitution, though not exactly defined in any statute. Swedes regard this right as part of their cultural heritage, and a matter of national pride. Its origins go back to laws and customs in the Middle Ages. The Right of Public Access permits anybody to walk, camp or pick berries and mushrooms freely, even on private land. But with the right comes responsibilities – to take care of nature and wildlife and to show consideration for landowners and others enjoying the countryside.

The reasons why Swedes spend time in the countryside have changed – today nature also provides an

arena for popular activities such as mountain-biking, paragliding, white-water rafting and climbing. With most people living in cities and towns, the result has been greater pressure on countryside nearby. A new issue is the increasing commercialization of such activities by tour operators, who make use of the Right of Public Access to make money on land belonging to others.



to discuss political issues and learn together, they improved their own situation in life and influenced social conditions. Free elementary education for all children from 1842 on led to high literacy rates.

The popular movements fostered a democratic culture through their meetings and protests, and democratic member-governed organisations. They no longer accepted that the upper classes should

make all decisions concerning cultural life, or what was taught in schools.

Many movements founded in the 19th century are still a vital part of Swedish society, but today there is a multitude of new civil society organisations in Sweden. An estimated 200 000 such organisations have over 32 million members, from a population of 9 million people – an average of over 4 memberships per inhabitant.

Liberal adult education also endures, and today there are ten different study associations in Sweden, with about 350 000 study circles and three million participants, which study a broad range of issues, including many related to the environment and sustainable development.



As Sweden became industrialized, many independent farmers left rural areas to become industrial workers. When popular movements developed, and workers organized and educated themselves, the demand increased for good working environments and protection of the public and natural environment from the harmful effects of industry.

### 100 years of environmental movements

In 1909, Sweden's first environment organisation, the Swedish Society for Nature Conservation (SSNC) was established, and today it is the biggest member-based environmental organisation in the country, with over 190 000 paying members. SSNC's main focus areas are climate, the oceans, forests, environmental toxins, and agriculture.

Other popular movements took an interest in environmental and quality of life issues from the late 19th century. Workers movements and trade unions were particularly concerned about good working environments and the effects of industry on the public and local environment.

However, it was not until the 1960s that environmental movements gained significant influence. People from the peace and healthy lifestyle movements joined forces to address environmental threats such as DDT, mercury build-up in biomass,

and other toxic substances. This led to demands for complete restructuring of production processes, and alternative production and alternative living became common terms. Early environmental mobilization included protests against the building of dams, and expanding car traffic and traffic planning. The world's first national environment agency was established in 1967.

The expansion of nuclear power in 1973–74 sparked mass resistance by environmental organisations, and led to demands to reduce energy consumption, based on public regulation and democratic participation, instead of escalating consumption.

In 1980, pressure from this movement led to a national referendum on nuclear power in Sweden. The environmental movement lost, but the result of the referendum is still open to interpretation and debate. The alternative that got the most votes was a slow reduction in nuclear power, as energy from other sources was increased.

After this, the environmental movement lost momentum, as the professionalization and bureaucratization of environmental issues began, and many government environmental offices were established. It was not until the 1990s that the environment and sustainable development issues again mobilized people to a significant extent.

The Green Party, established in 1981, was elected to the Riksdag for the first time in 1988, and in the 2010 election won 7,34% of the vote, making it the third biggest party in Sweden. Now, all political parties have environmental policies and programmes, due to the urgency of climate change and other sustainable development issues.

### Environmental attitudes of women and men

»Men's struggle for dominance over nature has been fought side by side with their struggle for domination over women. The victory over domination must be a double victory if it is to be complete.«

Elin Wägner in her book Alarm Clock, 1941

While the women's movement in early 20th century focused on equal civil rights and opportunities for women, the movement of the 1960s and 1970s demanded gender equality in all areas of life – economical, social, and political. Women in the Swedish environmental movement were inspired by Elin Wägner (1882–1949), a feminist who connected environmental and feminist issues. They were often most active on issues that threatened human health and reproduction, such as nuclear power, pesticides, harmful work environments and deteriorating food quality.

Nowadays, both men and women are actively engaged in environmental sustainability and climate change debates. However, surveys show that women are more concerned than men, and are more willing to actively contribute. For example:

- 60% of Swedes are worried about climate change, but least concerned group is men aged 15–29
- 36% of women and 24% of men see environment as an important factor when investing in shares
- 46% of women and 37% of men buy locally produced or organic food
- 74% of Swedes recycle their household waste, 77% of women and 70% of men
- 69% of women and 49% of men save energy switching off equipment and by using less hot water.

### **Contemporary urban movements**

Traditional social movements and civil society organisations continue to be important in Swedish society, also in relation to sustainable development and urban planning. There are large membership organisations advocating for cyclists' rights, public health, park conservation, etc.

Temporary interest groups also form around specific planned urban developments that will affect inhabitants and local businesses – positively or negatively. Both permanent and temporary or-

ganisations usually engage in formal dialogue with public authorities, and are often used as consultation partners in decision-making processes.

exist with flexible network organisations to address

In recent decades, traditional organisations co-

single issues by protesting against e.g. fur-trading, landmines, car traffic, demolition of a specific building, or more globally, advocating the freeing of particular political prisoners. However, these single issues are often positioned in a broader political framework that advocates alternative ways of life, more solidarity between human beings, less consumerism in society, etc.

These organisations do not always have a formal structure or membership, but mobilize people around different issues, often globally, using the Internet. In this way, organisations and people with different agendas find common cause and a stronger voice.

In the urban sector, in Sweden and internationally, there are various movements which address urban development issues such as segregation, gentrification, or commercialization.

#### Gentrification

changes that result when wealthier people (gentry) acquire property in low-income and working class communities, resulting in the poorer original residents being unable to pay increased rents and house prices. Often, old industrial buildings are converted to residences, shops and new businesses catering for more affluent people, who progressively displace the poor. Urban gentrification sometimes changes a culturally heterogeneous community into a more economically homogeneous community.

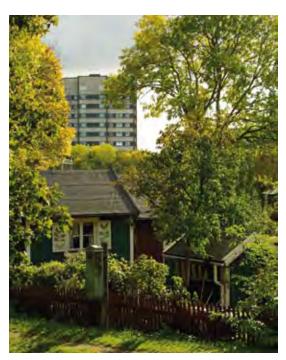
Urban movements are very heterogeneous and many are best described as sub-cultures. Some manifest in outright protest, e.g. against a planned new development, through occupation of empty buildings that are to be demolished, or blocking traffic to protest against pollution and/or the



Street art is a form of artist-initiated, often illegal, activity in urban environments. The basic idea of street art is that citizens themselves take responsibility for the decoration of public space. Sometimes it is purely about artistic expression while at other times the aim is to reshape the urban environment by adding more personal, meaningful, and critical messages as an alternative to commercial advertisements.

marginalization of pedestrians or cyclists in cities. Others focus on re-conquering public space and fighting gentrification or situations where they believe authorities have 'sold out' their city to private interests. Such initiatives include Reclaim the street and Reclaim the city parties and protests organized in streets. These events have often become riots. Street art movements and graffiti artists 'decorate' public spaces. Many see such behaviour as vandalism, while others see it as legitimate expression and participation in public debate.

There are also movements that work to improve the quality of urban life and environments by organizing urban greening and agriculture, promoting organic and locally produced food, and establishing allotment garden associations.



### **Fare-dodging as advocacy**

**Planka.nu** is a civil society network active in different cities in Sweden, founded in 2001 to oppose increasing costs and privatization of public transport. The goal of Planka. nu is tax-financed free public transport, and it uses ordinary advocacy methods such as seminars, participating in debates, and writing newspaper articles.

But it also uses direct action called 'self-reduction' of public transport costs by fare-dodging on buses and subways. This semi-criminal activity is financed by a fund 'p-kassan' – a kind of free-riding insurance. Members pay an annual fee, and if they get caught and are fined, they pay a small part and the p-kassan fund pays the balance. The surplus from p-kassan is used e.g. to buy subway passes for paperless migrants, or to fund underground publishing.

Planka.nu argue that tax-financed public transport would help fight segregation and so create a better urban environment, as poorer people mostly live in suburbs far away from city centres. There are some who support the goals of Planka.nu, but not its methods. Not surprisingly, public transport companies and municipalities are very frustrated by the activities of Planka.nu, which they see as stealing from other citizens.



With inspiration from Germany and Denmark, allotment gardens emerged in Sweden more than a hundred years ago, as the society transformed from mostly rural to urban and industrialized. This change often had chocking effects on family farmers who left rather free work and nature for monotonous work inside industries and living in cramped barracks. Allotment gardens became a welcome and affordable refuge for the new urbanites. Since then the allotment gardening movement has gone through many phases, from being a contributor to public health, to providing important cultivation opportunities in times of crisis, to being a place for leisure for stressed city people, often with often considerable monetary value.

Allotment gardens are strictly regulated (size, construction permits etc.) and every member belongs to an association which is managed by a democratically elected board. Associations and their umbrella organisations work closely with local authorities on issues of urban development. The International Allotment Garden Association has over 3 million members and has a participative status at the Council of Europe.

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Swedish Environmental Protection Agency www.naturvardsverket.se

Swedish National Board of Housing, Building www.boverket.se

and Planning

Växjö municipality

#### **OTHER**

In addition to the above sources of information, much valuable input to this booklet has been given through discussions and interviews with several central and local government officials and their organisations. Furthermore, valuable information has been gathered from official documents such as visions & strategies, policies, guidelines, and manuals, stemming from Swedish public sector organisations and municipalities and regions.

www.vaxjo.se









