

**From Reconstruction
to
Environmental Challenges**
**Norway's National Report to the UN
Conference on Human Settlements**

HABITAT II - 1996

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PREFACE

This document is Norway's national report to the United Nations' Conference on Human Settlements - HABITAT II - in June, 1996.

National reports from all participating countries will provide a basis for describing the situation in the housing and settlement sectors, developments since HABITAT I in Vancouver in 1976 and since the Rio Conference in 1992, and the challenges and relevant policies for meeting these challenges in years to come.

The writing of this report has been administered and co-ordinated by the Ministry of Local Government and Labour in cooperation with the Ministry of Environment and the Ministry of Foreign Affairs, each ministry being responsible for its own area of expertise. The report has been discussed in the Norwegian National Committee for HABITAT II, composed of representatives from municipalities, important interest organisations and scientific groups that have made valuable contributions.

The main goals of Norwegian housing policy and the major strategies for achieving these goals were approved immediately after the Second World War and have remained almost unchanged. The most important institutions in Norwegian housing policy, the Norwegian State Housing Bank and

the Federation of Norwegian Co-operative Building and Housing Associations (NBBL) were established in 1946. It can be said that the modern, social housing policy in Norway will be 50 years old in 1996.

This report is entitled «From Reconstruction to Environmental Challenges.» The title reflects the fact that the challenges in Norwegian housing and settlement policy have changed over the years. In 1945, the main objective was to provide people «with a roof over their heads» and primary goal was to build the largest possible number of homes. Norway has gradually developed a very high standard of housing for most of the population. Norway faces new problems today, connected mainly to increasing environmental problems on both a local and global scale. Quality means more than quantity. Improving existing housing areas and the urban structure is more important than new building. Achieving better living conditions for vulnerable groups, primarily in the cities, is also a major challenge in housing policy.

In order to achieve sustainable development, the industrialised world must reduce consumption of energy and resources, the amount of transport, pollution and building on unspoiled natural areas. Non-renewable energy and

natural sources must be replaced by renewable sources. This readjustment must include the entire pattern of production and consumption where housing, land use and transport comprise only some, albeit important, factors. The design and size of houses and residential areas are important in determining how much resources are used in production, future maintenance and repair. Future development and urban planning strategies will play an important role in this context.

The basic goals - adequate housing for all and sustainable urban development can be regarded as universal. Instruments and strategies can vary with time and place. In this report, an attempt is made to describe Norway's progress towards achieving these goals, how some results have been achieved, and how the remaining and new challenges will be addressed. Perhaps some of the Norwegian solutions and experiences can inspire a discussion on how the fundamental objectives can be realized more effectively. If so, the purpose of this report will have been achieved.



Gunnar Berge
*Minister of Local Government and
Labour*



*Norway's has a high housing standard.
(Photo: JDM)*



However, there are significant environmental challenges (Samfoto)

1. SUMMARY

The goal of the Norwegian government is «a safer and more just society, with employment for all and a better quality of life for the individual. The most important task in years to come is to ensure employment for all and to secure the welfare society. At the same time, higher production and consumption must be adapted to the limits set by nature and the management of resources must be responsible in a long-term perspective.»

The Government's goal in the housing sector is that everyone should be able to live in a good home in a good residential environment.

The environmental protection policy should solve national environmental

problems, and at the same time show other countries what steps to take. Norway, as one of the richest countries in the world, has a special responsibility to fulfil international environmental agreements and to be in the forefront in efforts to achieve sustainable development. Changes in production and consumption patterns in industrialised countries, as well as a more just distribution of global resources in the war against poverty, are of central importance in the Government's policy for sustainable development.

Norway has achieved a high housing standard through close cooperation between the national government, the municipalities and the private sec-

tor, including the housing cooperative movement. At the same time, developments in the housing sector have been a main factor in the evolution of land use planning as an instrument in environmental and resource management. However, global and local environmental problems pose new challenges for the housing sector. A tendency toward the accumulation of problems connected with living conditions in the cities must also be changed. The following summary gives a short resume of the report, which describes the development of Norwegian housing and land use planning, the urban policy and how new challenges will be met.

1.1 ADEQUATE SHELTER FOR ALL

Norway has good housing coverage and high housing standards.

Because of the cold climate, Norwegians spend a lot of time indoors, and the dwelling is very important for people's well-being. Norway has 412 dwellings per 1,000 inhabitants. The average size is 43 m² per resident. The technical standard of the homes is high. Since 1945, Norwegian housing policy has concentrated on achieving an equitable distribution of social assets. What is exceptional for Norway is that a majority, 84%, own their own home, either privately or through a cooperative. Socially-subsidized housing accounts for only a small share of the Norwegian housing market - only 4% of the housing stock. The detached single family house is the ideal type of dwelling for many

Norwegians and 60% of the population lives in this kind of home.

Geographical conditions and historic and cultural traditions have had a strong influence on the Norwegian housing policy over the years.

Norway has a decentralised pattern of settlement with many small towns and built-up areas. Almost 90 % of the country is covered by forest, mountains and mountain plateaus, and only 1.1% of the land is built on. The average population density is 14 inhabitants per km². Geography, climate and natural resources have led to a relatively large social stratum of independent farmers, fishermen and craftsmen. Class differences have not been as marked as in many other European countries. Cooperative organisations were esta-

blished within agriculture, fisheries and consumer trade and, over the years, in the housing sector as well. These traditions have continued to the present day.

The Norwegian model for the building and management of housing is based on a clear division of roles and active cooperation between the central government, the municipalities (local government) and the private sector

The municipalities have a strong position in the Norwegian social model and large degree of autonomy. The municipalities also have extensive authority in choosing and giving priority to various measures within the housing sector. The housing cooperative movement also plays an important role in housing policy. 14% of Norwegian housing is connected to the housing

cooperative movement, in Oslo more than 30 %. While the municipalities ensure that housing policy is adapted to suit local conditions, the housing cooperative movement effectively organises the interests of many people in search of housing. Close cooperation between the housing cooperative movement, the municipalities and the central government has made it possible for the majority of people to obtain a self-owned home at an acceptable price. Various systems of financial support have also made this possible for economically disadvantaged groups. The Norwegian model for the building and management of housing was established after the Second World War and is based on a division of roles and responsibilities where:

The national government

- determines national goals and the main guidelines in the housing policy
- makes laws and decides the framework conditions
- offers favourable loans and grants
- stimulates research, the accumulation of knowledge and dissemination of information

Municipalities

- contribute by supplying a sufficient number of building sites
- make plans for construction of houses and ensure, for example, the necessary infrastructure.
- check that house building (and other building) takes place in accordance with adopted plans and regulations
- are responsible for providing homes for economically disadvantaged households

The private sector, including the housing cooperatives

- takes responsibility and risks as developer
- is responsible for planning, designing and building the housing
- manages, maintains and rehabilitates the greater part of the existing housing stock
- chooses the type of financing and contributes capital and labour

This division of responsibility has proven to be flexible and viable and still forms the basis of Norwegian housing policy. The high standard of

housing has been achieved with little public effort.

As a result, few social housing units have been built and much of the responsibility and initiative is left to the individual home owner and the cooperative. The residents have both economic and practical responsibility for managing their own home. This means that the resident has a personal financial interest in maintaining the standard of the dwellings. Therefore slums are seldom seen in Norway.

The government's main goal in the housing policy is that everyone should have a good home in a good residential environment

This goal has remained almost unchanged during the entire post-war period. The objectives are:

- good housing coverage and well functioning housing and building market
- good distribution of housing
- good housing standards, good quality of construction and a good residential environment
- security of tenancy
- a functional and just organisation of forms of ownership and tenancy

Another important objective is to make the most effective use of the housing resources.

The Norwegian State Housing Bank is the main instrument for implementing the housing policy

The Housing Bank administers all direct financial measures in the housing sector. The Bank gives loans and grants for:

- construction of new houses
- renovation and urban renewal
- first home loans - to purchase a house or flat
- housing for persons needing special care/nursing homes
- kindergartens
- purchase of a home for the disadvantaged

The percentage of homes financed by the central government has varied between approximately half to almost 100% of the dwellings built every year. General loans and grants are granted after assessing cost, area and

quality, independent of the applicant's means. The most important loans of this type are loans for construction of new dwellings and urban renewal. Selective loans and grants are based on social or financial need. These loans include first home loans and certain types of loans for renovation.

General loans and grants are instruments which contribute primarily to the achievement of the goals of good housing coverage, good housing of moderate standard and good residential environments. They also help to ensure a suitable balance and a relatively stable price development on the housing market. Selective loans and grants are primarily intended to promote the goal of good housing coverage, and help to ensure that the costs of an acceptable home are in proportion to the residents' income. Since housing coverage in Norway at present is generally good, there is less need now than before to stimulate the building of new homes. Therefore the Housing Bank now places more emphasis on selective rather than on general loans and grants. Improvements to existing housing are being given increasingly higher priority than new building.

The Housing Bank also fulfils an important function as a source of expertise and guidance for developers and planners, and distributes a great deal of information on housing matters.

Although the housing legislation ensures security of tenancy, it is the economic instruments that make it possible for the majority of people to obtain a home

Norwegian housing legislation consists mainly of instruments for ensuring security of tenancy and a functional and democratic organisation of ownership and tenancy in the housing sector. The housing legislation is not generally concerned with the right to a home, and nor has it been used to any extent in Norway to obtain housing for the homeless. Economic measures have played a much more important role in this regard. According to social welfare legislation, the municipalities have an obligation to assist in obtaining housing for persons who cannot do this themselves, and to provide temporary housing for people in an emergency situation.

The national government, municipalities and the private sector/the housing cooperative movement have cooperated in developing good housing conditions in Norway. (Photo: Aspenberg)



Current challenges in the housing policy

Although both housing coverage and housing standards are high in Norway, many problems remain. The challenges are connected in particular with ensuring that no groups are excluded from the housing market, and with improving the quality of the existing housing stock. The following four tasks are important:

1. To enable disadvantaged groups, young people and refugees to establish themselves in the housing market.

The threshold to the Norwegian housing market is relatively high. One reason for this is the large share of self-owned homes, to finance which the buyer has to provide a large share of the capital himself. The tendency is that disadvantaged persons, with little financial resources, find it difficult to establish themselves on the housing market. The number of rented housing units should probably be increased, and the system of financing housing must be adjusted to make establishment easier.

2. To improve the existing housing conditions, especially for persons living under poor, cramped conditions

There are still some dwellings and residential environments in Norway of unacceptable standard. For example, poor conditions are found in some residential areas constructed in the 1950s and 1960s, particularly in central areas of the cities, especially Oslo. There are clear tendencies towards an accumulation of problems connected with living conditions, with the risk of a

segregated housing market. In order to counteract these trends it is important to accelerate urban renewal activity and continue to improve the dense residential environments built in post-war years.

3. Adapt housing to the needs of the elderly and the handicapped

The goal of social policy that as many people as possible should be able to live in their own home as long as possible, imposes demands on the design of the home. The achievement of this goal depends on well developed home care services and greater accessibility in houses and residential areas. Many new homes are being built with «life span» standard. However, the existing housing must be made easier to live in for both the elderly and the handicapped. Another challenge is to improve coordination between the health/social welfare sector and the housing sector in municipalities.

4. The building of ecologically sound houses and residential environments

Since the end of the war, the Housing Bank has contributed to the building of good housing of moderate standard, and has thus steered the building of dwellings in a sustainable direction. Nevertheless, social and economic considerations have been of greatest interest in the housing sector. Only in recent years have issues connected with the environment and resources received proper attention. It is thus important to focus more on these problems, so that management of resources and sustainable development will be given sufficient weight in the planning, building and management of housing and of

residential areas. This may contest with established housing customs and consumption patterns and will represent a significant challenge for housing policy in the years to come.

From 1996, changes will be made in the system of financing housing in order to meet the challenges

The instruments applied in the Norwegian housing policy have been gradually changed to correspond to new developments and challenges. Current measures comprise mainly the specific instruments that will be necessary to meet the challenges that can be identified today. However, some changes are necessary. In light of this need, important changes will be made in 1996 in the system for financing homes. Interest subsidies on general loans will be replaced by a better system of grants. In this way, subsidies can be directed more accurately at the groups who need them most, for example, to establish themselves on the housing market. A new system of grants will stimulate better housing and environmental quality in both new building and renovation. At the same time, the grants for urban renewal and renovation of dwellings will be increased.

Cooperation between the Housing Bank and the municipalities will be improved, and the municipalities will have more opportunities to apply the various economic housing policy instruments as an integrated part of their efforts to improve living conditions for the residents. The municipalities' own planning and policies will be decisive, both for avoiding segregation tendencies and in order to achieve environment policy goals.

1.2 SUSTAINABLE HUMAN SETTLEMENT DEVELOPMENT

An active regional policy reduces the pressure on the cities

The objective of the Norwegian regional policy is to maintain the main features of the present pattern of settlement. The primary goal of an holistic regional policy is to develop viable regions in all parts of the country with a balanced composition of the population, equal opportunities for work and equal welfare services. Partly with the aid of systems of economic support for the establishment of industrial and commercial activities, and the efforts to create a well developed public municipal sector in the rural districts, Norway has been fairly successful in reducing the pressure on the cities, and the associated environmental problems and social challenges. This active regional policy is one of the reasons why, in an international context, environmental problems, and multiple problems connected both with poor living conditions in urban areas are moderate in Norway.

Multiple problems connected with living conditions in the cities

In certain parts of the largest cities, disadvantaged persons are overrepresented and the residents experience an accumulation of problems connected with living conditions. Compared with other parts of the country, there is higher unemployment, more social problems, more crime, more insecurity, poorer housing and residential environments, and more traffic and associated pollution.

Serious environmental problems in the cities

The goal of sustainable Norwegian cities and the associated challenges refer mainly to what can be called second generation environmental problems. In contrast to first generation environmental problems, which are connected mainly with point discharges from production activity, today's problems are connected with consumption and lifestyle. The pollution occurs as result of widespread encroachments and discharges. The environmental problems in Norwegian cities and built-up areas are caused mainly by low utilisation of land and a scattered pattern of development, high energy consumption in the homes and due to use of private cars, leading to a high level of pollution. Almost 1/4 of the

Norwegian population is disturbed by noise and 15% is exposed to air pollution exceeding the recommended threshold limits. Other problems concern the use of natural areas, agricultural land and green areas within the cities for building purposes, and barriers created by the pattern of traffic.

The largest urban settlements covered 90% more area in 1990 than in 1960

One of the reasons for the large increase in the use of land, is the spread of building and the population through the creation of suburbs and large single family homes in the cities and urban areas during the whole post-war period. New residential areas have often been built far from the city centre. Residential areas consisting of detached single family homes, and based on the use of cars, have occupied large areas of land and have led to a considerable need for transport. New infrastructure such as roads, water, sewage systems and other municipal services have had to be built continuously.

High utilization of building plots and large traffic areas have reduced the extent of green areas

Urban development has led to building on the most productive agricultural land and valuable natural areas in the vicinity of the cities. It is therefore necessary to direct attention to natural areas in and around built-up areas. Open areas and areas that can be used for play and recreation are often scarce in the inner city. Green corridors which previously linked the green areas together have gradually been built on. This has led to reduced access to natural areas close to the city.

The average Norwegian travelled four times as far in 1990 as in 1960

Private cars, the construction of roads, and technical developments in the transport sector have led to greater mobility and have made it possible for people to make long daily journeys by car. This has produced large regionalised urban systems with commuting regions, regionalised housing and employment markets, and a scattered pattern of development. The scattered population pattern and the large number of detached single family homes in Nor-

way have led to a considerable need for transport. When this transport occurs mainly on roads, by private cars, the negative environmental effects are severe. Road traffic accounted for 74% of the energy used for inland transport in 1991. Journeys to work account for a steadily decreasing share of road traffic in Norway, currently about 20%. Shopping and leisure trips are increasing, and now account for 22% and 15% respectively. Small local shops cannot compete with the large shopping centres based on use of private cars. Many parents are dependent on cars to drive children to and from school, kindergarten and extra-curricular activities.

Many Norwegian cities are characterised by coincidental and uncoordinated design

Many places are characterised by inconsistent use of land, where new buildings and installations are poorly designed and are insufficiently adapted to the existing built-up environment and natural conditions. The form of the place and the colours, use of materials, advertising signs, etc. often create a disturbing visual muddle.

The Planning and Building Act is the most important cross-sectoral legal instrument for achieving sustainable urban development, and to counteract poor living conditions

The Ministry of Local Government and Labour administers the sections on building practices, while the Ministry of Environment administers the part of the Act governing land-use planning. This part of the Act covers three types of plan: local development plans, municipal master plans and county plans. The central government may also issue national policy guidelines. These clarify the over-riding national objectives on which all planning and exercise of authority by municipalities, county municipalities and national services in accordance with the Planning and Building Act should be based. The county plans and the county area plans (for a specific geographical area or a specific area of activity) can define important frameworks for regional development and for the planning carried out by the municipalities.

The responsibility for physical planning lies mainly in the municipalities. The municipal plans can stipulate whether land is to be protected or is to be used for specific purposes. The municipalities are required to prepare a general plan - the municipal master plan - with a separate part governing use of land. The municipal master plan lays down guidelines for the long-term development of the local community and a short term programme of action for the next few years. The part of the plan governing land use shows how the land within the municipality is to be used in the future, and is legally binding. Land use and the frameworks for development are defined in more detail in local development plans which are also legally binding.

Thus, the Planning and Building Act is probably the most important instrument the municipalities have for influencing future development in a way that will ensure a better environment. The Act is also an important instrument in the strategy for preventing an accumulation of problems connected with living conditions in certain inner parts of the cities.

The government's goals and principles for land use policy are described more specifically in «National Guidelines for Coordinated Land Use and Transport Planning.»

A basic premise for the land use policy is to promote an ecologically sound use of land resources which will safeguard nature as a permanent resource for human activities, health and well-being. This is reflected in the «National

Guidelines for Coordinated Land Use and Transport Planning.» These guidelines include detailed instructions concerning which considerations and solutions should receive priority so as to achieve better coordination of use of land, the pattern of development and the resulting need for transport. Land use and the system of transport should be planned in a long-term and sustainable perspective, with effective use of resources, good environmental solutions, safe local communities and residential environments, a high level of traffic safety and efficient flow of traffic.

The guidelines are based partly on the principle that the pattern of development and the transport system should be coordinated, in order to limit the need for transport for everyday activities. The development should also be considered in a regional perspective. Special importance should be attached to conditions that encourage public transport services. Emphasis should also be placed on exploiting the potentials for increasing the concentration of buildings in the building zones of cities and built-up areas, and generally speaking, encroachments on nature should be kept to a minimum. In this context, the guidelines give instructions as to what considerations should be given most weight in land use conflicts.

Economic incentives as a means of reducing both use of resources and pollution

Taxes have been imposed in a number of areas in order to reduce consumption and pollution. An example is the

taxes on fossil fuels (the CO₂-tax and the sulphur tax). Taxes account for 50% of the sales price of petrol. Studies are currently being carried out to determine how taxation policy can contribute both to higher employment and a better environment by changing the focus of the taxation from the work force to activities that involve increased use of resources and a higher level of pollution. (Green taxation policy)

The «Environmental Protection in the Municipalities» reform (MIK) - first generation local Agenda 21s

At the end of the 1980s, an experimental programme was introduced for protection of the environment in the municipalities. The purpose was to build up competence at local level. This was achieved partly by paying the wages of a person with environmental competence who would be attached to the municipality for three years. The results were positive and the reform «Environmental Protection in the Municipalities»(MIK) was introduced in the country as a whole in 1992. More than 95% of municipalities now employ a specialist to be responsible for environmental matters in the municipality. The most important areas of focus are environmentally sound and resource-friendly urban development, waste minimization and recycling, biological diversity, coastal and aquatic environments, and cultural landscapes and environments. Up to now, 2/3 of all Norwegian municipalities have prepared local plans of acti-



Bergen is the second largest town i Norway. (Samfoto)

on in the environmental sector which can be regarded as first generation versions of local Agenda 21s.

The development of environmental cities

Research and development, experimental projects and information are important instruments in the efforts to achieve more sustainable settlements. In 1993, the central authorities initiated cooperation with five Norwegian cities in the development of «environmental cities.» The goal is to arrive at models for sustainable urban development, while laying the foundation for more jobs, and improving both the environment for children and adolescents and living conditions in the cities. The main idea is to develop an holistic approach through which the solutions to many problems connected with living conditions and the environment can be coordinated. The environmental city projects are intended to provide a set of examples, as well as guidelines on sustainable urban development, suggestions for better instruments for promoting sustainable urban development and better methods for describing the state of the environment in Norwegian cities, for example, by using indicators.

Challenges must be met with new strategies

In the efforts to develop environmentally sound urban areas it is important to have a holistic perspective. The goal of a more concentrated city could easily conflict with the need for open areas in the immediate environment. Urban renewal and rehabilitation of dwellings must be considered together with improvements to the exterior environment.

Noise and traffic pollution can easily undermine the positive effects of renovation of individual buildings. Improving public transport facilities is not enough in itself to get people to use them. Experience has shown that it is also necessary to restrict the use of private cars. Six strategies are believed to be important for achieving more sustainable development of cities and other densely populated areas:

1. Better regional coordination, in order to direct the pattern of settlement and the design of the transport system

Today's urban areas and commuter suburbs usually stretch beyond the administrative boundaries of the cen-

tral municipality. As a result, many environmental problems connected with urban development, such as transport and the physical pattern of development, must be solved at the regional level.

The centre structure of the urban area must be determined at regional level, as a basis for the localisation of private businesses and public services. New urban structures must be developed using the arteries used for public transport as the framework, with urban growth concentrated around important junctions.

2. New city structures and a higher concentration of buildings in the building zones (infill)

Future building should take place within existing built-up areas. This means that infrastructure such as the water supply, sewerage system and other municipal services can be used more effectively. This type of development presents different challenges than does building on undeveloped land. The buildings must be adapted to the existing built-up environment and important outdoor areas and green areas must be protected.

3. Widespread cooperation between the commercial and public sectors, to strengthen the historic city centre

A strong and thriving historic centre is important for environmentally sound urban development. The centre is the most important source of information on the historic heritage and is the core of the city's identity. The centre contains considerable economic, cultural and environmental resources which must be exploited, and is the part of the city most easily reached by public transport.

In addition, the centre is the city's most important meeting place for culture, trade and other commercial activities. Tendencies towards draining of resources and the development of a poor environment must be turned through broad cooperation between the business community and the public sector.

4. Area-oriented planning and resident participation, to promote the development of the city's local communities (neighbourhoods)

Generally speaking, most of the dwellings and urban structure to be used in the future have already been built. If the environment is to be improved, efforts must be based upon the existing

physical situation. Planning must take place in close cooperation with residents and residents and the non-governmental organisations. It is in their own local community that people can turn their behaviour and consumption patterns in a more environmentally sound direction. Local communities with adequate services will reduce the use of transport. Efforts to improve living conditions and the environment for children and young people must also take place within the individual local community.

5. Coordination of investments and operating costs in the transport sector, to develop environmentally sound forms of transport

Responsibility for the various parts of the local system of transport system is currently divided between the national government, the county and the municipality.

This division of responsibility places serious limitations on the possibilities of considering the transport situation as a whole and making real choices between measures connected with transport and measures to improve the environment. In order to arrive at holistic solutions it is necessary to take a closer look at this division of responsibility, for example, in order to consider investment in road building contra investment public transport facilities.

6. Practical and economic advantages for individuals and the commercial sector for acting in a way that leads to sustainable consumption.

Norway is considering a number of instruments and strategies which would encourage more sustainable consumption. The national authorities are responsible for ensuring a economically acceptable framework for production and consumption. In addition to making environmentally sound choices more attractive, it is necessary to mobilise the population to behave in an environmentally sound way. This mobilisation should start in the kindergarten and in the school, and should be followed in the local community and at places of work.

The above mentioned strategies will be of central importance in Norway's continued efforts to achieve more sustainable urban development. At the same time, these strategies will advance the fundamental goal of sustainable production and consumption.

2. SPECIAL CHARACTERISTICS OF NORWAY

Geography, climate, natural resources and economic development are of primary importance for Norwegian culture, welfare, pattern of settlement and housing conditions. This chapter contains a brief description of these relations.

2.1 GEOGRAPHY

Norway is Europe's northernmost outpost. Norway's varied natural environment covers an area of 324,000 km². One third of the country is forested and only 3.6% is arable land. Mountains, mountain plateaus and water cover 56%. Only 1.1% of the land is built up. To all intents and purposes, two forms of landscape determine the pattern of settlement: the barren, steep and narrow coastal areas with fjords and islands, and the wide, open and more productive inland areas. Many coastal areas are characterised by unconnected fjords with steep mountain walls and narrow beaches. The potential for harbour facilities has had a strong impact on settlement. Trade, shipping and fishing have formed the basis for small, coastal communities. This mountainous coastal landscape contains small, compact clusters of houses. The south-eastern and central parts of Norway contain broad, fertile valleys, which provide a good basis for agriculture, both cultivation of crops and keeping of animals.

2.2 CLIMATE

Norway has a varied climate which makes heavy demands on housing. The country stretches from latitude 58°N to latitude 71°N. One would expect a cold, inclement climate and difficult living conditions. However,



Norwegian landscape (Samfoto)

because of the Gulf Stream, the climate is somewhat better than in other regions at the same latitude. Even so, the climate is very different in the different parts of the country. The areas on the west coast have a typical coastal climate, with a large amount of precipitation, much wind and relatively small changes in temperature in the course of the year. South-eastern Norway has a dryer climate, with warm summers and cold winters. In the far

north, the temperatures are generally lower. A combination of snow, rain, wind and cold impose special demands on the technical design of buildings and their position in the terrain. The average Norwegian spends 90% of the time indoors. Contrasts between light and dark periods of the year, cold and warm seasons and the long winter affect both the exterior and interior architecture of the dwellings, and how they are planned and used.



Norway has a harsh climate which makes heavy demands on the quality of the buildings. (Photo: Husbanken)

2.3 NATURAL RESOURCES AND ECONOMIC DEVELOPMENT

Norway's Gross Domestic Product (GDP) in 1994 was NOK 774.2 billion, approximately NOK 170,000 (25,000 USD) per capita. Norway has an open economy, in which imports and exports account for about 50% of the GDP. Growth in the world economy since the end of the Second World War has led to significant growth in production and national income. Norway's economic growth continued at a relatively high level throughout the world-wide recession at the end of the 1970s. On average, economic growth through the 1980s remained 1% higher than the average for OECD countries. This growth was mainly a result of much higher gas and oil production. Since 1987, economic growth in Norway has been lower than the OECD average, because of necessary economic adjustments and a national policy aimed at stabilising the economy. In 1995 the Norwegian economy is again improving.

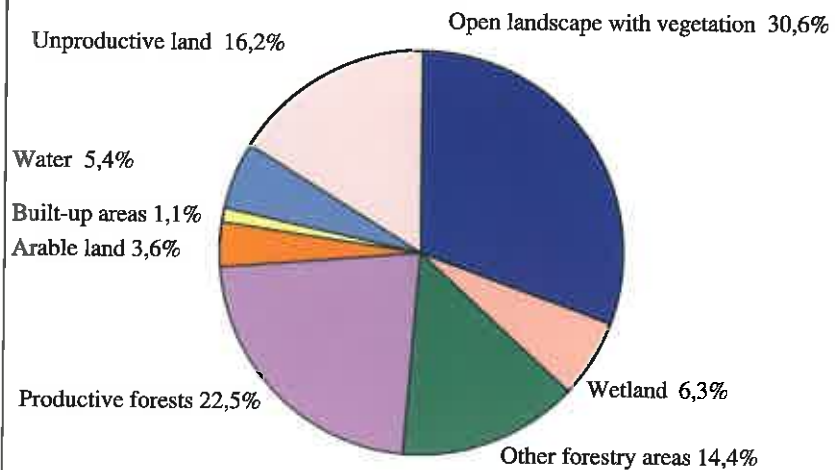
Agriculture and fishing

Primary production accounted for 3% of the GDP in 1994. Value added and employment in the processing of agricultural products is the same as for primary production. However, since 1950, the number of persons employed in agriculture has steadily decreased, and so has the number of farms, although the amount of land used for agricultural production has remained stable. The average Norwegian farm consists of about 10 hectares of cultivated land and about 50 hectares of forest. Norway produces approximately 40% of her food requirements.

The fishing industry has always had a strong impact on the pattern of settlement in coastal areas, owing to Norway's very long coastline and proximity to some of the most productive fishing fields in the world. Export of fish and fish products has increased dramatically and currently accounts for 10% of the total value of Norwegian exports. The coastal environment, with its many fjords, archipelagos and inlets provides ideal conditions for fish farming.

Fishing boats in harbour.
(Samfoto)

Land-use in Norway



A Norwegian agricultural landscape. (Samfoto)



Industry

Industry and mining accounted for 13% of the GDP in 1994. Norwegian industry is based to a large extent on easy access to hydropower, which provides 99.9% of electricity generated in Norway. Over half of Norway's current exports, with the exception of petroleum products, are raw materials from processing industry based on hydroelectricity, and fish and forest products. The trend since the beginning of the 1970s has been towards more processing for export.

Norway has large reserves of oil and gas in the North Sea. The petroleum sector contributes 15% of the GDP and approximately 30% of the income from exports. Norway is an important exporter of fossil fuels to the rest of Europe. The income from the oil industry has enabled Norway to maintain a high level of welfare despite international recession.

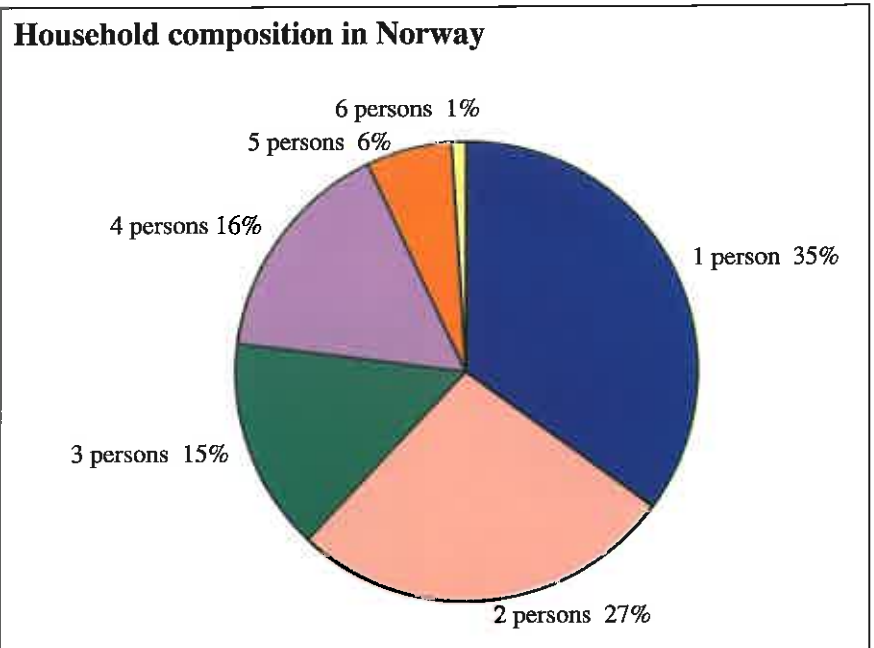
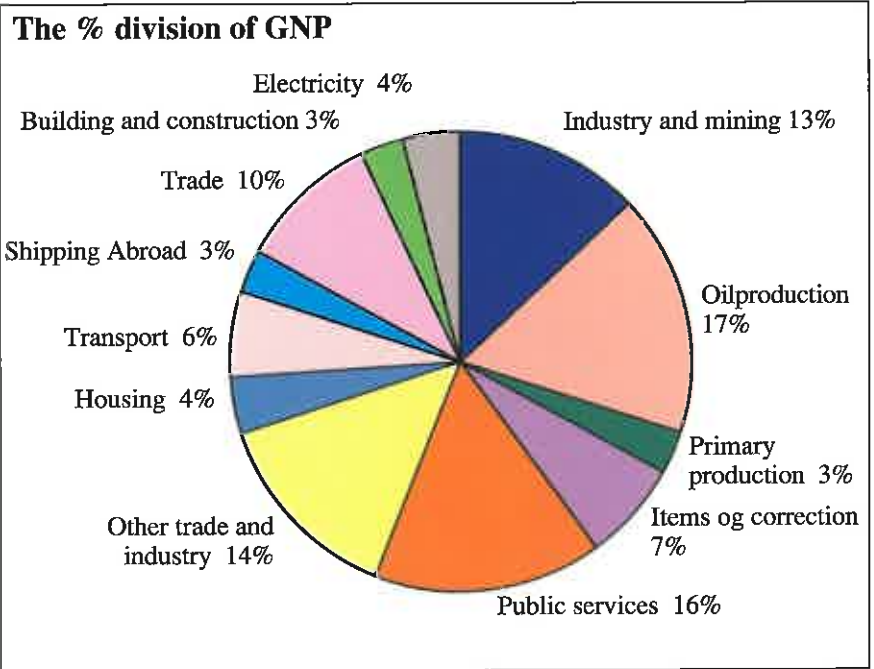
Like in the rest of Europe, the service industries have expanded rapidly in recent years.

2.4 POPULATION

The population of Norway was approximately 4.3 million at the end of 1992. The net rate of growth is very small - about 0.4% per year during the last decade. Life expectancy is among the highest in the world - 80 years for women and 74 years for men. The number of private households has increased significantly since 1970 (36%), although the population has increased by only 9%. The average household consists of 2.4 persons. Household size has steadily decreased - in 1990 one third of all households consisted of a single person. In Oslo, single person households accounted for 53% of all households. However, four person households are still the most common.



Oil drilling platform



2.5 THE POLITICAL SYSTEM AND THE PUBLIC SECTOR

Norway has a three-level political and administrative system, represented by the national government, the county municipality and the municipality. At all three levels the members of the political bodies are chosen by direct election every fourth year. Norway has a multi-party political system. In 1995, there were 8 political parties represented in the Storting (the national assembly). The Storting, with 165 members, is the highest legislative authority and also steers the country's economy. It is responsible for passing laws and adopting the annual state budgets. Norway has a parliamentary system, where the Government must have the support of a majority in the Storting. At present, the government is composed of 18 ministers in addition to the prime minister. Each minister heads a ministry which prepares cases for discussion by the Storting. The ministries are also responsible for implementing decisions made by the Storting, and for generally administering their respective sectors.

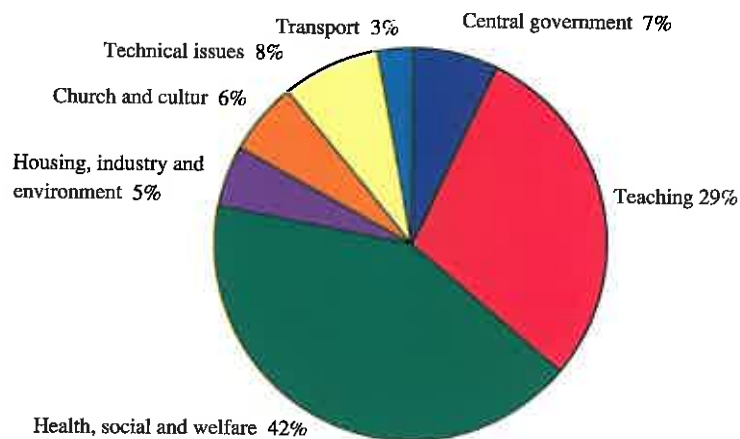
Norway has 19 counties with a population varying between 75,000 and 480,000 (average 200,000). The municipalities are the most important local authority. There were 439 municipalities in Norway in 1993 with a population varying from 480,000 (Oslo - which is also a county municipality) to 217 (Utsira).

The main features of the division of authority between the three political levels are:

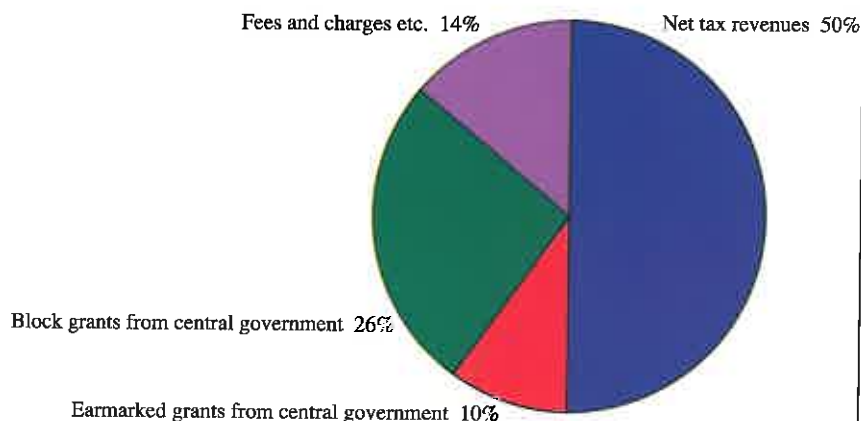
The national government is responsible for higher education and the universities, the social security system, the armed forces, national highways, the railways, employment training, the courts and the police, the prisons, the internal revenue and taxation, international relations, refugees and the policy on immigrants. The national government is also responsible for some hospitals.

The county municipalities are responsible for regional planning, county roads and transport, upper secondary schools, most hospitals and special health services, child welfare institutions, rehabilitation institutions

Municipality expences 1993



Municipalities income in 1990



drug addicts and alcoholics, museums, cultural institutions and other cultural activities.

The municipalities are responsible for housing coverage, kindergartens, child welfare, primary and lower secondary education, libraries, cultural activities, primary medical services, social services, care of the elderly and disabled, the fire service, ports, municipal roads, water supply, sewerage, refuse collection, etc. The municipalities are also responsible for land-use planning and building approval.

The municipalities and county municipalities receive their income from:

- direct taxes
- fees and charges
- general grants from the national government (the counties and municipalities determine themselves how these funds will be used)

- direct subsidies from the national government

Approximately half of all the municipalities' income comes from taxes, but the tax revenues vary considerably from one municipality to another - from 20% to 80% of the total municipal income. Municipal tax revenues are derived mainly from income and capital taxes on individuals and companies. Counties receive funds from income tax only.

General grants from the national government accounted for 70% of the funds transferred to municipalities and counties in 1994. Health and social services accounted for 58% of county expenditures and 43% of municipal expenditures in 1991, followed by education, which accounted for 25% at county and 28% at municipal level. Public consumption comprised 21% of the GDP in 1994.

2.6 EDUCATION

Norway has 9 years of compulsory education from age 7. 10 years compulsory education from age 6 is to be introduced in 1997. All pupils who have completed compulsory schooling (primary and lower secondary school) have a right to 3 years upper secondary education. The system of higher education is composed of universities and colleges. Compulsory education is free. The education at upper secondary school and at universities and colleges is also free, but students must pay for books and materials. In addition to the four universities of Oslo, Bergen, Trondheim and Tromsø, a network of colleges has been developed to serve all parts of the country. Thus, peripheral counties and regions can also offer a wide range of education at upper secondary and university/college level.

NOK 49 billion was spent on education in 1991. This represented 12% of total public expenditures and 6.8% of the GDP.

2.7 HEALTH CARE, THE SOCIAL SECURITY SYSTEM AND SOCIAL SERVICES

Norway has a public health care system where most services are free. Hospital care is free but patients have to pay for most medicines (very costly medicines, and medicines for chronic conditions are subsidized) and part of the cost of visiting a doctor. Health services operate on three levels - primary health care, county health services and the national health system.

The primary health service in the municipalities is responsible for promoting health, and for treating and preventing disease in the local community. This includes providing nursing homes for the elderly, institutions for the mentally retarded, health centres and home nursing.

The county health service include hospitals and special health services.

The national health service encompasses a few specialised somatic hospitals.

Priority is given to strengthening and improving the home nursing service, household help, outpatient treat-

Norway has a public health care system where most services are free. (Samfoto)



From a school playground. (Photo: R. Øhlander)

ment and polyclinics, instead of providing more places at institutions. Expenditures for health services amounted to 7.5% of the GDP in 1990. In addition to the public health services, Norway has a large private health sector, with doctors and dentists, clinics, etc.

Norway has a social security system which ensures that the elderly, disabled, handicapped, unemployed and others without a permanent income are ensured economic security. Women are granted one year's maternity leave with 80% of their salary or 42 weeks with full pay. Persons who fall outside the social security system or for some reason do not have sufficient income to cover their basic needs have a right to social assistance. 7% of Norwegian households received social assistance in 1990.

2.8 EMPLOYMENT, LEVEL OF INCOME AND COST OF LIVING

Norway has both a high average level of income level and a relatively high rate of employment. Forty-six percent of the population was employed in 1991 and average per capita income was about NOK 124,000. The tenth of the population with the lowest household income after taxes had less than half the average income. The 10% with the highest household income after taxes had more than double the average income. Twelve percent of the population belonged to households with an income that can be defined as low. Low income is defined as an amount per consumer unit that is the same or



lower than the lowest social security benefit paid to single pensioners. The percentage of persons in low income groups is highest among single parents, young single persons and families with small children. Approximately 130,000 Norwegians, 6.3% of the labour force, were unemployed in 1995.

2.9 EQUALITY OF STATUS

Norwegian law prohibits discrimination by gender and permits employment by quota when this promotes equal status for women. The Equal Status Act came into effect in 1979 and

an Equal Status Commissioner was appointed to ensure that the Act was complied with. Norway's legislation on equal status between the sexes is unique in the sense that it covers all sectors, including education, politics and family relationships.

Women have achieved a strong position in Norwegian politics. In 1991, women occupied 40% of the ministerial positions, 30% of the seats in parliament, 40% of the seats in the county councils and 30% of the seats in the municipal councils.

Seventy percent of all Norwegian women worked outside the home in 1990, as opposed to 83% of the men.

However, half of the women worked part-time. In 1988, women who worked full-time earned 86% of the wages paid to their male colleagues in full-time employment. To a large extent, women and men work in different branches and sectors. Women are employed more often in lower positions than men, are paid a lower hourly wage and spend more of their time on unpaid housework. However, women are in the majority in all institutions of higher education. Women accounted for 51% of the student body at all universities in 1989. 46% of all children between the ages of 0-6 were able to attend kindergarten in 1994.

EXAMPLE 1: THE WOMEN'S PERSPECTIVE IN PUBLIC PLANNING

It is stated in the Equal Status Act of 1978 that «Public authorities shall facilitate equality of status between the sexes in all sectors of society». This has resulted in plans of action and measures within a number of areas of society in order to promote women's participation and strengthen their status.

Various social functions are decentralised in Norway and the municipalities have decision-making authority. Municipalities have a major responsibility for health and social welfare policy and for physical planning. Public planning has traditionally been male-dominated, and in the light of the objective cited above it was necessary to get more women to participate in politics. Women in Scandinavia started a Nordic organisation in 1979 to promote a women's perspective in public planning and housing policy. With this in mind, the Ministry of Environment initiated a project entitled «A Women's Perspective in Public Planning - Municipal Planning on Women's Terms». The objectives were to

- learn how women's values could be integrated into municipal planning and to develop appropriate planning models to achieve this objective
- prepare municipal plans with a stronger women's perspective on the residential environments, the

economic policy, the employment policy and the health and social welfare policy

- communicate the knowledge obtained through the project to other municipalities.

The Ministry of Environment invited other ministries and the Norwegian Association of Local Authorities to participate in a central steering group. Six municipalities of small or medium size were invited to participate in the project, all of which accepted. Each municipality established its own project group with members from the grass-root population, women in the municipality, politicians and the municipal administration. The six municipalities were required to commit themselves to integrating the women's perspective in their planning. In addition, a general principle was that the planning should start from the bottom, and proceed upwards. The project had a budget NOK 7-8 million over a three year period. A central advisory group was also established, with special competence in planning and participation. This group was intended to give advice, and to evaluate and sum up the experience gained from the experiments in the six municipalities and to prepare informative material that could be used by other municipalities. The project municipalities were responsible for incorporating the work into other

municipal activities and for working out a programme and plan of action based on the project's objectives.

Experience showed a change in values in plans that were prepared. Much more emphasis was placed on a holistic perspective, on care, the environment, everyday life and disadvantaged persons. A great deal of activity occurred in local organisations in the municipality. Greater emphasis was placed on «soft» (human) values, than on economic and materialistic considerations. The experiences have been summed up in several publications.

In 1995, the Ministry of Environment has conducted a limited study in a few municipalities and counties in order to find out what has taken place in this field since the beginning of the 1980s. The study shows that the planning documents place greater emphasis on women's standpoints rather than on purely commercial or material interests. Better cooperation has been developed at regional level, both between municipalities and across sectors. «From bottom upwards» is emphasized as a good planning principle, with participation by women and grass-root organisations. Efforts are directed at mobilisation, network building, learning from experience and process-oriented methods. As one of the female organisers stated, «Women were previously considered to be a problem. Now they are regarded as a resource».

2.10 LAND USE AND URBANISATION

Norway's topography makes large areas of the country unsuitable for settlement. Thus, most of population live in quite small geographical areas. Today, approximately 72% of the Norwegian population lives in cities and densely populated areas. For the country as a whole, the population density is 14 persons per km². This is the lowest population density in Europe, except in Iceland.

However, the population density in Norway varies considerably. In northern Norway and the county of Nord-Trøndelag, 14% of the Norwegian population lives on 42% of the total area, giving a population density of only 4 persons per km². In contrast, almost a third of Norway's population lives in 4% of the country's total land area, consisting of the counties of Østfold, Akershus, Oslo and Vestfold (around the Oslo fjord). In these counties the population density is 113 persons per km².

Norway has a scattered pattern of settlement. Centralisation has taken place more slowly than in most European countries, and small towns and local

communities still exist in all parts of the country. It has been a political objective to maintain this pattern of settlement. Norwegian cities are rather small in a European context. Norway has only 4 cities with a population of more than 100,000 - Oslo, Bergen, Trondheim and Stavanger. The total population of these cities is approximately 1.2 million. The population of Oslo and suburbs is about 700,000. In addition, Norway has only eight towns with 50 - 100,000 inhabitants.

The cities and densely populated areas occupy relatively small areas of land. Despite this, urban settlement competes with agricultural areas and other valuable biological resources. In many cases, urban expansion has led to building on highly productive agricultural land and rare natural environments. Quite stringent protection of agricultural land has been necessary in recent decades, to prevent their being built on as a result of urban sprawl.

2.11 INFRASTRUCTURE

Energy

Norway has a highly developed electricity network and almost all

electricity generated in Norway is derived from water power. All homes are supplied with electricity for heating, cooking and lighting. Electricity accounts for 80% of the energy used by households for stationary purposes, wood 12%, petroleum products 8%, coal and coke less than 1% (1995).

6% of all households, mostly farm-houses in rural areas, still use wood as the only source of heating. In 1991, electricity provided 48% and petroleum products 40% of the energy used, while 7% came from solid fuel. Norway's energy consumption was 0.17 petajoule per inhabitant in 1990, which is somewhat higher than the average for industrialised countries. The housing and transport sectors were each responsible for just over 20% of the total energy consumption in Norway.

Water supply and sewerage

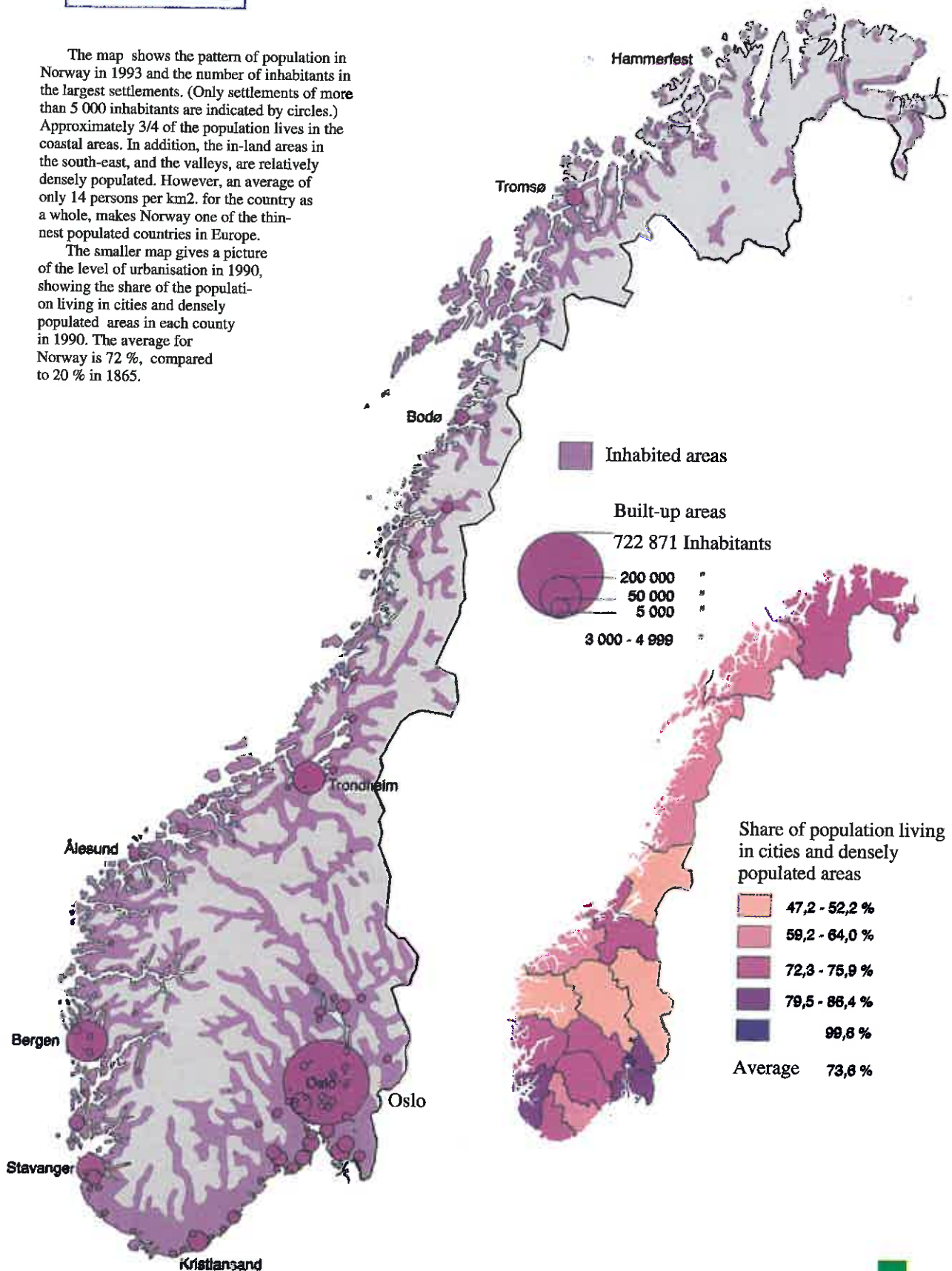
Norway has well developed water supply and sewerage systems, and practically all households have access to clean drinking water and an enclosed system of drainage. The quality of drinking water and sewage treatment may vary, however, and there is still a



72% of the Norwegian population lives in cities and densely populated areas. The City of Ålesund. (Samfoto)

The map shows the pattern of population in Norway in 1993 and the number of inhabitants in the largest settlements. (Only settlements of more than 5 000 inhabitants are indicated by circles.) Approximately 3/4 of the population lives in the coastal areas. In addition, the in-land areas in the south-east, and the valleys, are relatively densely populated. However, an average of only 14 persons per km² for the country as a whole, makes Norway one of the thinnest populated countries in Europe.

The smaller map gives a picture of the level of urbanisation in 1990, showing the share of the population living in cities and densely populated areas in each county in 1990. The average for Norway is 72 %, compared to 20 % in 1865.





*Car traffic represents a serious challenge to the environment.
(Photo: Aspenberg)*

need for further investments to ensure satisfactory systems consistent with current regulations.

Transport

Norway stretches over a long distance, which imposes particularly heavy demands on the transport sector. A well developed infrastructure is intended to encourage settlement and the development of viable economic activity in all parts of the country. The largest share of goods transport, approximately 50%, takes place by ship, although transport by road has greatly increased since 1970, and now accounts for more than 40% of the goods transport. Only 10% is transported by rail. Passenger transport is characterised by a large increase in the use of private cars. Nearly 80% of domestic passenger traffic, measured in passenger kilometres, takes place by private car. Leisure trips have increased most, and accounted for 20% of the passenger kilometres in 1992. Journeys connected with work accounted for 20% of the passenger kilometres, and shopping trips for 25%. There were 383 cars per 1000 inhabitant in Norway in 1993.

Air transport accounts for only a small part of the total transport, but a well developed net of small and large airports is of major importance for communication between the different parts of Norway.

The transport sector as a whole (excluding international shipping) accounts for 6% of the GDP. National highways and the railways (NSB - Norwegian State Railways) are financed by the central government, which allocates funds for both investment and running costs.

The Ministry of Transport and Communications' total budget was NOK 18.8 billion in 1995. Fifty percent of this amount went to roads and 31% to railways. Funds for national highways can also be used for investments in public transport. Allocations for public transport, except for allocations to NSB, take the form of general grants to the counties. In 1994, NOK 200 million was allocated as direct grants for investments in public transport facilities in Norway's four largest cities.

Norway has well developed postal and telecommunications systems which are extremely important for commercial enterprises and individuals alike, and also make it possible to maintain the scattered pattern of settlement. Both the postal and telephone services are publicly owned.

2.12 RESPONSIBILITY FOR THE ENVIRONMENTAL, PLANNING AND BUILDING POLICIES

The Planning and Building Act is the most important law in a housing and town planning context. The Act itself has two parts, and is administered by two ministries. The Ministry of Local Government and Labour is responsible for the building provisions, while the Ministry of Environment is responsible for planning. Several other Acts govern special sectors of development. These Acts are discussed in Chapters 3.4 and 4.3.

The Ministry of Environment has overall responsibility for the environmental policy and the land use policy,

through the regional and local planning, and for the policy on local communities. This includes responsibility for areas of primary importance for coordinated management of land and natural resources, environmental assets in the cities, pollution, outdoor life, conservation of nature and the preservation of the cultural heritage. Some of these areas are governed by special legislation. The Ministry of Local Government and Labour's responsibilities include the regional policy, the housing policy, urban renewal and building legislation.

Several other ministries have various functions and varying degrees of responsibility in connection with the policy on environment and development. For example:

- The Ministry of Transport and Communications is responsible for the policy on transport and defines the framework for local transport planning.
- The Ministry of Industry and Energy is responsible for energy supply.
- The Ministry of Health and Social Affairs is responsible for the environment, when this has an impact on health.
- The Ministry of Agriculture is responsible for productive land and forest.
- The Ministry of Fisheries is responsible for harbours, and
- The Ministry of Cultural Affairs is responsible for building of cultural importance and for sports installations.

3.

ADEQUATE SHELTER FOR ALL

3.1 THE NORWEGIAN MODEL FOR THE BUILDING AND MANAGEMENT OF HOUSING

After the Second World War, Norway was faced with major challenges of reconstruction to repair the damage caused by the war. There was an acute need for better housing, and to simultaneously rebuilding all sectors of society. At the same time, the economy was characterized by a shortage of goods and lack of capital.

The main goal of the Norwegian housing policy was to provide the entire population with an adequate dwelling as soon as possible. At the same time, no individual should profit from the housing crisis. It was a national goal that as many households as possible should own their own home.

This goal demanded an effective organisation, coordination of efforts and resources in both the private and public sectors, partly through rationing and strict regulation of prices. A system of financing homes was established which secured access to capital and was designed to ensure that the housing needs of all groups of the population would be met.

The model that was chosen must be seen in light of historical conditions and housing traditions. To own one's home is a strong tradition in Norway and most Norwegians regard a detached, single family house as the ideal.

There has never been any foundation in Norway for the emergence of professional landlords, and nor has there been a large rental housing sector. The Norwegian model and instruments for implementing the housing policy have been based on and have confirmed these traditions. This model is founded on the following division of roles and responsibilities:

The central government

- determines national goals and the main framework for the housing policy
- makes laws and defines the framework conditions
- provides favourable loans and grants
- stimulates research, accumulation of knowledge and dissemination of information

The municipalities

- shall provide an adequate number of sites that are ready for building on
- plan and provide suitable conditions for house building, for example, by developing the necessary infrastructure
- check that the house building (and other building) takes place in accordance with the valid plans and regulations
- are responsible for providing housing for households with a poor economy.

The private sector, including the housing cooperative movement

- takes responsibility and risks as developer
- is responsible for the design and construction of the housing
- manages, maintains and repairs the largest share of the existing housing stock
- chooses the form of financing and contributes capital and labour

The model presupposes that, through the political/administrative system, dialogue and cooperation take place between the public and private sectors at both municipal and national level. The objectives of the housing policy, and the means of achieving them, are laid down by the central government. The municipalities make independent plans to suit their own

needs and local conditions, without specific directives from the national government. At both national and municipal level, goals and plans are approved only after an open, democratic process. Subsequently, the private sector - first and foremost the developer - can actually decide the extent and location of the buildings. Private persons have to conform with public decision and regulations, but the model presumes that the individual buyers should themselves assess what kind of housing they need and decide how these needs can best be met. The function of the central government and the municipality is mainly organisational. The instruments that are used should stimulate the individual to mobilise his own resources and should ensure that all groups are in a position to meet their housing needs. At the same time, the general frameworks and instruments should influence the individual's choice, so that the overriding goals of the housing policy can be achieved. Thus, the Norwegian model is based on an enabling strategy, within publicly defined frameworks.

The model of roles and responsibility has been shown to be both effective and adaptable to changing conditions throughout the last 50 years. The instruments have been adjusted in step with developments, where one important change was to gradually abolish direct regulation of the housing market through, for example, rationing and price regulation. These developments are described in Chapter 3.3. Instruments of current relevance are discussed in detail in Chapter 3.4. The actual distribution of roles and responsibilities has remained stable.

Three factors have been significant, probably decisive, for Norway's being able to implement a social housing

policy with a large degree of success: The establishment of the Norwegian State Housing Bank as the major tool for implementing the government's housing policy; the central role played by the municipalities, and a strong housing cooperative movement which has also looked after the interests of disadvantaged persons in need of housing.

3.1.1 The system of financing dwellings: The Norwegian State Housing Bank

The Norwegian State Housing Bank was established by a special Act in 1946. Since then, it has been the central government's main instrument for implementing the housing policy.

The private credit market was not sufficiently developed in 1946 to take on the task of financing homes to any significant extent. By establishing a national housing bank the Government was able to make credit available, and through the criteria defined for loans and subsidies, obtained an effective means to influence developments on the housing market.

The Housing Bank gives loans for building of new houses, with favourable terms of payment. These loans cover a substantial share of the building costs. Loans for new building can be granted to all builders of dwellings, independent of means. The Bank also grants loans and subsidies to disadvantaged households that fulfil certain requirements. In addition, the Bank serves as a source of expertise in the housing sector, offers advice to builders and planners and gives out extensive information on housing. The Housing Bank has a set of requirements which define both acceptable costs as well as minimum and maximum standards. In this manner, the Housing Bank ensures that housing of satisfactory quality and moderate consumption is produced.

Building loans cover 60-70% (max. 80%) of the building costs and must be secured with a first mortgage. The remaining costs must be covered by the builder himself - through savings, input in terms of work, or through a loan from a private credit institution.

The Housing Bank has a set of requirements regarding costs and minimum and maximum standards which must be met in order to qualify for a loan. These requirements ensure that housing is of satisfactory quality, with a moderate standard.



The Housing Bank has financed 2/3 of homes built since 1945. (Photo: Husbanken)

The amount of funds available for loans, interest rates and terms of payment are decided by the government as part of the State Budget which is adopted by the Storting (the Norwegian national assembly). Thus, it has been possible to adjust the share of publicly financed housing and terms of payment to changing economic conditions, general business conditions on the housing market, the position of the private credit institutions and to general social objectives.

The share of new housing financed through the Housing Bank each year has varied from 50% to almost 100%. The Housing Bank has financed the largest percentage of homes in certain periods when the private credit market has functioned poorly or when real interest has been high. During such periods, the Housing Bank has helped to ensure the building of a reasonable number of new houses. Private credit institutions are often chosen in times of economic growth when building developers have not been willing to comply with the Housing Bank's requirement for «a moderate standard». It is obvious, however, that the share of houses built with loans from the Housing Bank has been large enough to influence the use of resources in the housing sector. It has subdued «luxury consumption» and made it possible for a broad spectrum of the population to finance the purchase of their own home.

The ordinary building loan has been the foundation of the loan system. However, these loans have not been suffi-

ent for some groups, for example, the disabled and other disadvantaged groups. Therefore, the Housing Bank has also established a system of «selective» loans for housing. These loans contain a higher direct grant and may cover up to 100% of the loan required, but are always «means-tested». The «safety net» in the system of financing homes consists of housing allowances which, in principle, assist those who have high housing expenses in relationship to income despite the above mentioned loans and subsidies.

Although the Housing Bank plays a dominant role in a housing policy context, the government does not have more than 25% of the total loan portfolio in the housing sector. The main reason is that the Housing Bank is only slightly engaged in financing the purchase of used housing and that building costs are first covered by a private loan which is only converted to a Housing Bank loan after completion of the building. The loan system has encouraged mainly new building.

Production of new dwellings has become less important in the Norwegian housing policy and the Housing Bank's role has been expanded to include loans for various other purposes. More loans and grants have been provided to purchase used housing, for renovation and loans for urban renewal. These loans and grants have a clear social profile. Selective loans and grants (means-tested) are given in close cooperation with the municipalities.

*The housing cooperative movement has built 14% of Norwegian homes.
(Photo: JDM)*



3.1.2 The strategic role of the municipalities

The municipalities have a strong position in the Norwegian social model and have a high degree of autonomy. The municipalities also have wide authority in choosing and giving priority to certain measures within the housing sector.

The municipalities' primary role is to make house building possible through physical planning, making building plots available and providing residential areas with the necessary infrastructure, technical installations and services. The municipalities also play an important role in enforcing building legislation, since they are responsible for ensuring that building is carried out in accordance with plans and relevant laws and regulations. The municipalities are also responsible for providing housing for residents who do not have the means to do this themselves. In many ways, the municipalities may be regarded as the local implementing agent of the central government's housing policy.

In the first decades after the war, the policy of many municipalities was to make an active effort to provide building plots. Large areas of land were purchased and plots were leased to builders at a reasonable price. This practice has been changed and plots are now normally purchased and made ready for building by the private sector. However, municipalities still influence the general pattern of building through the regulation of land use. The government financing system also influences land use, since the Housing Bank makes low cost and high utilisation of the plot as conditions for a loan for house building.

The municipalities have been given broader responsibility in connection with loans from the Housing Bank. They are asked to assess and give priority to applications for loans. They are also awarding certain grants, in accordance with guidelines set by the Housing Bank. In this way, the municipalities' knowledge of local conditions can be exploited, so that loans and grants based upon need will be given to those who need them most.

From the municipalities' point of view, cooperation with the Housing Bank in giving loans and grants is an advantage, since it enables the municipality to fulfil its duties in providing homes for disadvantaged households and other individuals in the municipality. A few municipalities have established their own system of grants in addition to those from the Housing Bank, but this is not a widespread practice. Nor have the municipalities, to any extent, purchased housing units to lease out to persons unable to obtain a home of their own. However, most municipalities have a few housing units for short term rental. On the other hand, the municipalities have been active as developers and landlords for certain groups, such as mentally retarded and elderly persons in need of care.

The municipalities have generally been able to fill the housing needs of those who, despite favourable financing, have not been able to obtain a home of their own. This can be partly explained by the role played by the housing cooperative movement and its traditionally close cooperation with the municipal sector.

3.1.3 The housing cooperative movement

Organised housing cooperatives have been one of the principle agents on the housing scene since 1945. Housing cooperative homes comprise a significant share of the housing market in the cities, in Oslo 30%. The national average is 14%.

Cooperative building and housing societies are based on membership, and are open to all. Individuals are members of one of the 105 local cooperative building and housing societies which in turn are members of, or affiliated to, an umbrella organisation, NBBL (The Norwegian Federation of Cooperative Building and Housing Associations). NBBL is one of the country's largest interest organisations, with approximately 600,000 members. Cooperative building and housing societies build housing units and allocate these to their members. When finished, the housing units are organised in housing cooperatives which are owned jointly by the residents. Housing cooperatives are directed and managed by the residents through democratic decision-making procedures.

NBBL and housing cooperative societies operate freely in the housing market and, are independent of the authorities. However, there is close cooperation between the authorities and the cooperative movement on both local and central level. The Norwegian authorities have actively supported the cooperative movement in different ways, for example by giving cooperatives priority in the public system for financing dwellings. The importance of housing cooperatives is illustrated

by the fact that specific laws have been passed which regulate the relationship between individual housing cooperatives and the cooperative building and housing society, as well as the general organisation of these institutions. (See section 3.5.5.)

There is close cooperation between municipal authorities and the cooperative movement in most cities and built-up areas with organised building and management of housing. The housing cooperative society is often seen as the municipality's «right hand» in the housing market.

3.1.4 Other segments of the private sector

Although the housing cooperative movement has played a vital role in Norwegian housing policy, the majority of Norwegian homes are built and owned by the residents themselves. Outside the largest cities and towns, the normal procedure for the person in need of housing is to buy or lease a plot for his/her own single family dwelling, to arrange financing, engage builders and other professional craftsmen and to act as developer himself. It is a tradition in Norway that some of

the house building is done by individual or voluntary communal effort. Many homes have been partly built by the owner himself, often with the help of neighbours. This reduces the need for private capital. The practice was especially common immediately after the Second World War when there was a scarcity of both capital and labour. Voluntary communal work was also organised by the housing cooperative movement in the pioneer period after 1945. As time went by, the construction of housing became more professional, with prefabricated dwellings and professional craftsmen, even in rural areas.

The building and construction industry is an important element of the Norwegian economy and represents 3-4% of the GDP (pure added value). If related industries are included, such as manufacture of building materials, consultant services, etc, the construction industry accounts for almost 10% of the GDP. The housing sector (investment and management) represents 30% of the building and construction industry, trade and industry 40% and other construction work 30%. On the other hand, the Norwegi-

an building and construction industry has played a relatively minor role as an independent agent in the housing sector since the war. It is true that building contractors and manufacturers of prefabricated houses have taken initiative and responsibility for building houses, and have often established a good working relationship with the municipalities. However, there have been few private investors in rental housing. On completion, homes are sold to individual owners or to housing cooperatives. The modest number of private rental housing units that do exist are usually found in buildings constructed before 1945 in the cities. The number of rental housing units owned by professional landlords has been reduced significantly since the war. This reduction has been encouraged by the authorities, which have adopted measures to reduce rental housing. Conditions in the housing market over long periods have also made it profitable to sell rented accommodation to the tenants. In the 1980s, a number of blocks of rented flats were reorganized into condominiums.



The building and construction industry represents 3-4% of the GDP. (Photo: Aspenberg)

3.1.5 Comments on the Norwegian model

A high housing standard with low public expenditures

The model used for house building and management since the Second World War has proved both effective and sufficiently flexible to function well under changing conditions. In contrast to the low housing standards of before, characterised by crowding and unhealthy conditions, contemporary Norwegian housing standards are very high. At the same time, the Norwegian State Housing Bank has helped to restrain luxury consumption and has encouraged moderate housing standards. Norway also has a much more equal, social distribution of housing standards than many other countries, and in this respect there is little segregation in the housing market. The results achieved in the housing market must be seen in relation to the fact, that during the same period, Norway had experienced very favourable economic development and a substantial rise in the general standard of welfare. In many ways, development in the housing sector reflects development in Norwegian society as a whole.

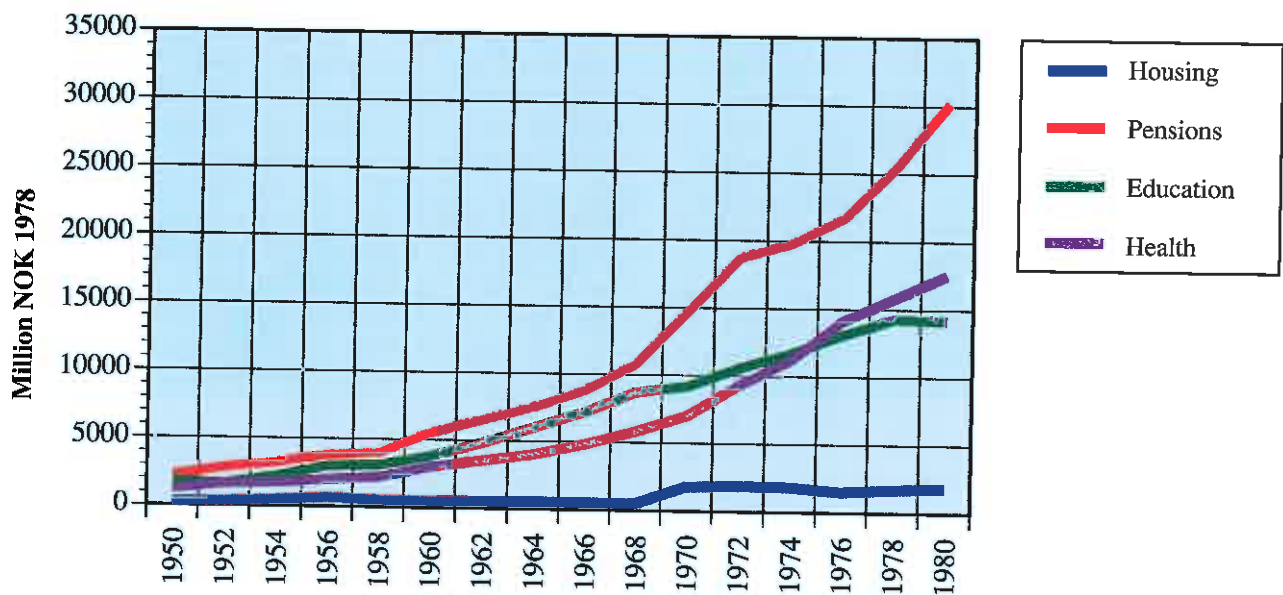
High housing standards have been achieved with relatively low public expenditures. This is partly because only few public rental housing units have been built. Furthermore, most of the initiative and responsibility have been taken by the private sector, including the housing cooperative movement. In 1994, total public subsidies in the housing sector amounted to NOK 4.9 billion, or 0.6% of the GDP. Other public expenditures, for example social security, increased much more than subsidies to housing.

Housing expenditures represent a large share of private consumption in Norway. Housing services constitute 5% of the GDP. There is significant private investment in the construction of homes. The inhabitants have both economic and practical responsibility for the management of their home, and are therefore interested in maintaining a good building standard. Thus, there are few problems of slum development in Norway.

On the other hand, indirect subsidies to housing have been considerable.

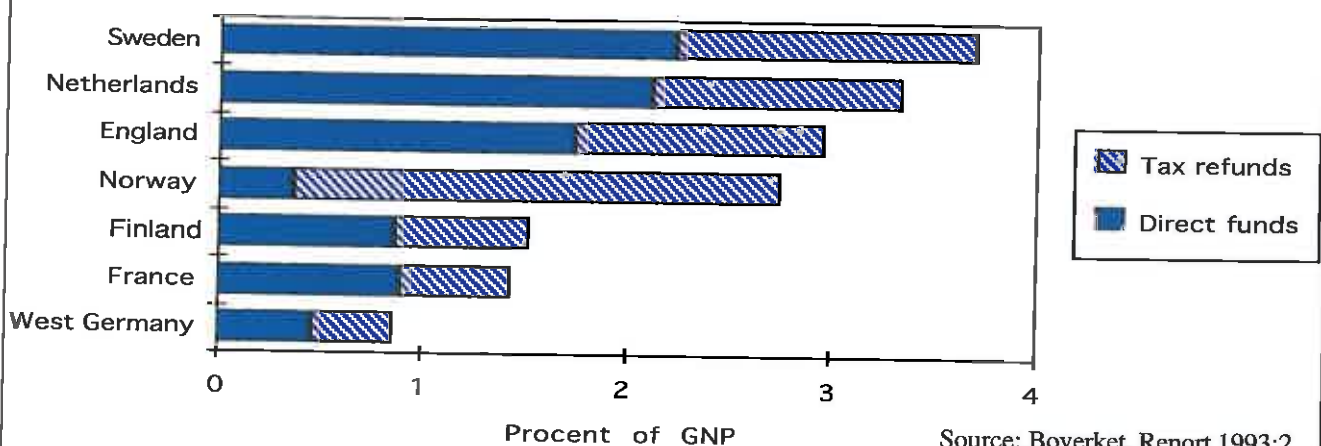
Direct subsidies have been limited, but indirect subsidies have been extensive. The interest paid on loans can be deducted from income when calculating income tax. The government's loss of revenue represents a larger subsidy to the housing sector than direct subsidies through the Housing Bank do. It is debatable whether tax benefits should be regarded as subsidies. The

Public welfare expenses in Norway



Source: Kuhle and Solheim 1991

Housing funds as percent of GNP 1985



Source: Boverket, Report 1993:2

Norwegian Building Research Institute has estimated that, in 1992, tax benefits amounted to approximately NOK 26 billion (3.7% of the GDP) while direct housing subsidies amounted to approximately NOK 3 billion (approximately 0.4% of GDP). Subsidies in the form of reduced taxes are of greatest benefit to persons with high incomes, while the Housing Bank's subsidies are of greatest benefit to low income groups. There has therefore been a concerted effort to reduce tax benefits. In 1994, tax benefits were reduced to NOK 14.2 billion (1.8% of GDP) while direct subsidies were increased to NOK 4.9 billion, representing 0.6% of the GDP.

Deregulation of the market and more responsibility to the municipalities

An important change that has influenced the Norwegian model since the war has been the deregulation of the housing market, of interest rates in the Housing Bank and of interest rates in the money market during the last decade. The repeal of price regulation of housing has made it more difficult for low income groups to enter the housing market.

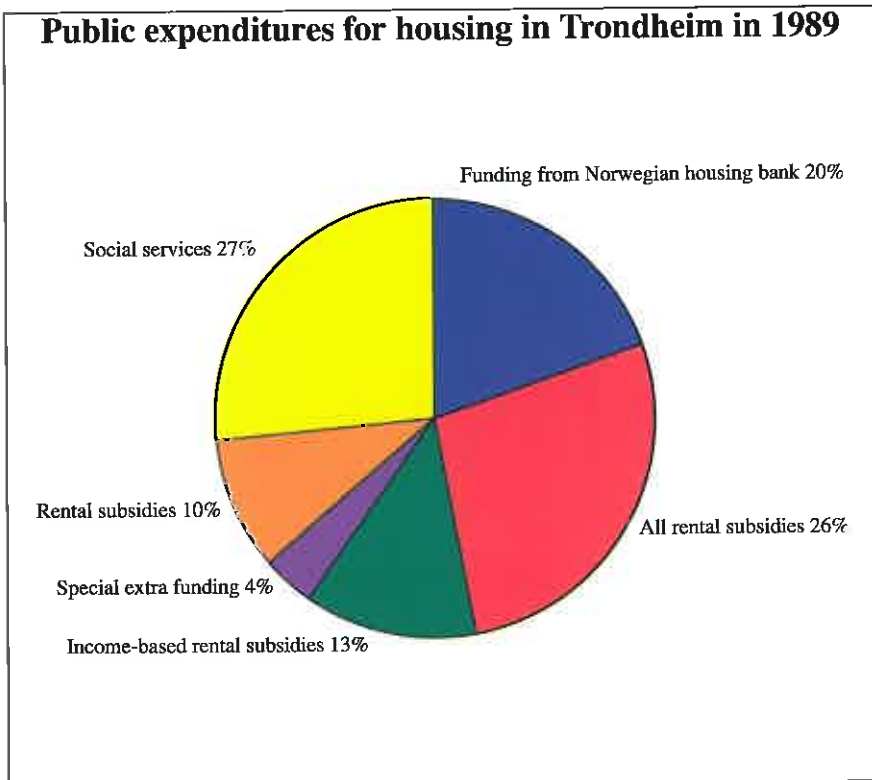
The Housing Bank's selective loans and grants have therefore been changed, to make them more directed toward the groups that need them most. The municipalities have been given more responsibility for administering a number of loans and grants from the Housing Bank.

They are also pay out a significant share of the direct housing subsidies to disadvantaged groups. In Trondheim, social assistance from the municipality for housing purposes accounted for the largest share (27%) of public expenditures in 1989.

Forms of private ownership give many advantages, but limit the public authorities' potential to influence the existing housing stock

Norway does not have a large public housing sector composed of housing that can be leased at a low

Public expenditures for housing in Trondheim in 1989



rent. In general, this function has been taken care of by the housing cooperative movement, which has effectively organised population groups which would otherwise have difficulty in obtaining a home.

One consequence of the fact that private owners control the management of housing is that the public authorities may find it difficult to implement official policies through measures that affect the existing housing. For example, it may be difficult to fulfil the municipality's obligation to provide housing for disadvantaged groups and to make improvement to the existing housing stock in order to meet the needs of today's users. Since the new dwellings built each year represent only 1-2% of the existing housing stock it can take many years before measures directed only at new building show results.

This represents a challenge that becomes more urgent as new building becomes relatively less important than before.

Although house building in Norway has been generally successful in terms of the defined objectives, some problems in the housing sector are still unsolved, and new problems have to be faced. These are described in more detail in Chapter 3.6. However, there is little to indicate a need to change the general division of roles and responsibilities in the Norwegian model of responsibility in order to realize new goals.

EXAMPLE 2: ÅSBRÅTEN HOUSING COOPERATIVE

Åsbråten housing cooperative is a typical Norwegian housing area, as built by the housing cooperative movement in the mid-1980s. It is located at Holmlia south of Oslo and is a part of the last large, uninterrupted development area to be planned and built in Norway. It takes only 10-15 minutes to the city centre by train. The housing cooperative is one of five which have been built at Holmlia by USBL Cooperative Building and Housing Society. It is composed of 105 flats in blocks and 93 row houses/small single family homes. The housing is financed through the Housing Bank. The buildings are placed around a central open area and play areas safe from traffic. In addition, important natural elements such as pine forest and stony knolls have been retained between the buildings. The row houses have their own gardens. The flats have central heating and hot water from a nearby source of district heating. A flat in a block, with kitchen, living-room and two bedrooms has a floor space of 85 m². A two-storey row house has a floor space of 105 m².

The housing is separated from traffic by placing parking facilities under the apartment buildings or on the outskirts of the area. Footpaths accessible for cars are found within the housing area.

A wide range of local public and private services are available. Kindergarten, primary school, youth club, shops and meeting rooms, etc. are placed within walking or cycling distance from the houses. The housing cooperative has three small communal laundries located close to the houses. USBL has also established a central service centre which performs the usual caretaker functions, helps the residents with practical tasks and serves as an intermediary for other services and contact between residents. The residents come from many different countries, a good and safe social environment has been developed.

Åsbråten housing cooperative is an example of good Norwegian housing planning, with the emphasis on functional homes, good play and outdoor areas that are safe from traffic, public and private services and a good social environment. It is a product of close cooperation between the housing cooperative movement, the municipality of Oslo and the Housing Bank.



From a housing group (Photo: JDM)



Communal laundrette (Photo: JDM)



Community house containing offices and rooms for parties and social life

3.2 THE MAIN CHARACTERISTICS OF NORWEGIAN HOUSING POLICY - A HISTORICAL DESCRIPTION

Instruments employed to implement the housing policy must be adjusted to changing needs. The Norwegian model has been the general framework since the period of reconstruction after the war. The foundations were laid in the inter-war years, but formal institutions were established in 1946. The measures have been adjusted along the way. A brief description of developments leading to the current situation is given below.

1918 - 1940

Preparations in the inter-war period

Like in the rest of Europe, industrialisation and migration to the cities created serious housing problems, including a scarcity of housing, crowded housing conditions and health problems. Several philanthropic organisations became concerned about the living conditions of the working classes in the 1800s. However, it was only after the First World War that municipalities became actively engaged in providing better housing for the population. The municipalities built dwellings themselves or gave inexpensive loans and financial guarantees to Limited liability housing companies.

Cooperative building firms around the country built housing complexes and garden towns for the middle class. The idea was that these firms should continue to build, but in reality, the firms were closed down as soon as homes were built for the initiators. There was no incentive to continue production. The problem of the need for continual long-term production was not solved by the cooperative firms established during this period.

Despite the efforts made to promote house building on the part of the municipalities, and the establishment of cooperative building firms, there was still a great deal of activity in the rental market. It was mainly the middle class that benefited from the public efforts, while the working class still had to make do with rented housing. The first housing cooperative society

Etterstad apartments, constructed in 1928 was the the housing cooperative movement's first housing complex in Oslo. (Photo: JDM)



As was the case in the rest of Europe, housing conditions for the working class in the last century were quite poor. (Photo: Per Kviberg)



Torshov, working class housing built by Oslo municipality in the 1920's. (Photo: JDM)



with a foundation in the working class, «Oslo Bolig Og Sparelag», or OBOS, was established in 1929. In 1932, the municipality decided to base the city's housing policy on collaboration with the housing cooperative movement. In order to ensure continued production of housing in the long term, it was decided that a cooperative building and housing society would be responsible for housing building, while completed housing would be separated into independent legal units, or housing cooperatives. The municipality of Oslo was represented in administrative bodies and OBOS became Oslo municipality's most important tool in the housing policy. The municipality was committed to providing OBOS with plots. This organisation, together with the national system of public financing, was an important element in housing policy after the war.

1945 - 1952

Reconstruction and the establishment of the Housing Bank

Large areas of the country lay in ruins in 1945. Migration back to these areas began immediately after liberation. A rapid growth in population and number of households intensified demands for the effective construction of housing. 22,000 homes were destroyed during the war - 12,000 of these in the northernmost counties of Finnmark and Troms. Approximately 100,000 new homes were needed. Reconstruction and the need for capital for the building of homes gave impetus to the establishment of a national housing bank.

Several institutions were established to encourage construction both during and immediately after the Second World War. Public insurance for war damage was established in 1940, to give economic compensation to persons whose homes had been destroyed by the war. A Housing Directorate was established under the Ministry of Local Government. One of the its most important tasks was to provide technical guidelines for the building of homes and to develop different types of housing to aid reconstruction.

The Norwegian State Housing Bank

Norway had established public financing of housing before the turn of the century, but this financing was mainly directed towards rural areas and farms. The idea of national public



Wartime destruction gave impetus to efforts to organise housing construction in Norway



«Burned area regulation» (BSR) established plans for several of the cities which had been bombed. An example from Bodø

financing for housing was considered several times, including just before the outbreak of the Second World War. The war brought a temporary stop to this activity, but much of the groundwork had been laid.

The Norwegian State Housing Bank was established in 1946. The Bank was to be a bank which finance housing the average Norwegian. It was not meant to serve special user groups or persons with special needs. Housing Bank loans were given with security in a first priority mortgage comprising about 75-80% of the building costs. Private capital for the rest of the building costs was obtained from savings, by doing some of the

building work oneself, or by taking up a loan in a private bank. Reconstruction after the war was financed by grants from public insurance for war damage and loans from the Housing Bank. When reconstruction was completed, the Housing Bank continued «on its own two feet.» The Housing Bank established regional offices which offered technical competence, including architectural expertise, to the different regions of Norway.

The Housing Directorate prepared guidelines and information on inexpensive housing construction with optimal use of resources. The average single family home or row house consisted of 2 or 1 1/2 storeys with a

basement - a compact and inexpensive type of housing. Two and four-family houses were also built which were even more economical.

Up to 1957, the interest rate in the Housing Bank was 2.5%. This was well below interest rates in private banks and made it possible for the inhabitants to obtain a housing loan at acceptable cost. Principal payments were 1% per year for brick/masonry houses and 1.3% for wooden houses. Funds for the Housing Bank were provided partly by direct government grants, partly from compulsory investment by private credit institutions and partly through the issuance of government bonds. The difference between interest on funds lent by the bank and interest on loans issued by the Housing Bank has been paid entirely by the central government. This interest subsidy has been the main form of government support to the housing sector in Norway. In certain cases the Housing Bank has also granted interest-free and principal-free loans, cancellation of part of the principal in accordance with general guidelines, and interest subsidies to families with small children.

Special legislation on building permits regulated the number of houses built. Most building materials were rationed.

The housing cooperative movement and the municipalities

Major efforts were made to establish cooperative building and housing societies throughout the country. The Norwegian Federation of Cooperative Building and Housing Associations (NBBL) was established in 1946 as a service and interest organisation for cooperative societies. The housing cooperative movement became an important instrument in urban housing policy and reconstruction. The municipalities were represented on the board of directors of the housing societies and in the committee of representatives. The municipalities, on their part, aided the housing cooperatives by purchasing large areas of land which were then rented at reasonable cost to the cooperatives. Sale of homes in housing cooperatives were governed by price and sale regulations. The municipalities often bought a certain share of the flats which they leased or sold to residents in need of housing. To all intents and purposes, the municipality was

The Housing Directorate developed rational housing types which were used in reconstruction of Norway after WW II



Lambertseter in Oslo, the first commuter suburb, built in the middle of the 1950's (Photo: JDM)

responsible for planning, layout and building of roads, water supply and sewerage systems, plots and other infrastructure.

1953 - 1962

Retrenchment in the housing sector

Nine percent of married couples still lacked a home in 1950. The immediate post-war social crisis after the war had been relieved, but housing was still scarce.

Industry lacked materials, labour and credit. Funds for loans through the Housing Bank were made a part of the national budget for the first time in 1954. The armed forces also to be built up and needed resources. The retrenchment was not a result of bad economic times. Nor was there a direct lack of building materials, alt-

hough there was still a deficiency of reinforcement steel and nails, partly due to the war in Korea. This war and the beginning of «the cold war» placed limits on housing production. The budget for loans in the Housing Bank was cut by half between 1953 and 1958. House building reached a temporary peak in 1954, with the construction of approximately 35,000 homes. This level of building was not reached again until 1969.

Norway's first commuter suburb, Lambertseter in Oslo, was built in the middle of the 1950s. Functionalist ideas concerning light, air, green surroundings and the importance of the neighbourhood were of paramount importance in the planning process. Norwegian suburbs were founded on ideals concerning a general right to good

Mass production of housing was essential in the 1960s. (Photo: JDM)

housing and the importance of public services, and a sense of community. The city plan for Oslo shows zones of suburbs connected by subways and trams radiating from the city centre and places of work. Connected green areas between suburbs were meant to ensure access to open areas. Blocks of flats had three or four storeys. Most flats were between 60 - 80 m² in area and were composed of three rooms and a kitchen.

1962 -1972

Industrialised construction , municipalities receive more responsibility

Norway had a sound economy in this period and the gross domestic product (GDP) increased by about 4-5% per year. However, house building did not increase until the latter half of the 1960s. Poor, crowded housing conditions were gradually reduced, but migration to the cities still demanded extensive construction of houses. Members of the post-war baby boom were also starting to look for housing.

The need for greater house-building activity was a central theme in the parliamentary election campaign of 1965. The authorities' goal was to build 40,000 homes per year. This was close to a doubling of previous levels. In order to stimulate house building, the requirement for self-financing of some of the building costs was reduced by introducing second priority loans from the Housing Bank. This ambitious goal imposed demands on municipalities' provision of building plots and infrastructure, to make them ready for building on. The Building Act, which had previously applied mainly to urban regions, was made applicable to the country as a whole. All municipalities were required to prepare «Municipal Master Plans,» that is, plans for the future use of land in the municipality, including land for housing. The Ministry of Local Government required the municipalities to devise housing programmes describing the future construction of homes and the preparation of building sites for this construction. Housing plans became a very important aspect of municipal land use planning and the housing programme had a significant influence on the planning in many Norwegian municipalities in the 1960s and 70s.



The construction and maintenance of roads, water supply and sewerage systems, and of schools, kindergartens, homes for the elderly and other municipal services had also to be financed. In the 1950s and 60s it was usual for the municipal expenditures on such infrastructure to be financed through the ordinary system of taxes. Afterwards, financing through the government Municipal Bank became increasingly important. Both private developers and the housing cooperative movement leased lots from the municipality at reasonable rates. Therefore the cost of plots was very reasonable and represented a small share of the total housing costs. After 1970, it became more common for the municipality to sell plots to developers or contractors, and to include the cost of infrastructure in the price of the plot. This led to both higher prices for plots and higher cost of housing.

The Housing Directorate was dissolved in 1965 and responsibility for professional development and supervision of housing quality was transferred to the Housing Bank. The Housing Bank cooperated with other institutions, for example the Norwegian Building Research Institute, to develop detailed requirements for good housing plans. The Housing Bank set minimum and maximum area requirements for homes to be financed through the Bank. One early measure to reduce public expenditures in the housing sector was the gradual introduction of value added tax on homes as from 1968. The current value added tax to the State is currently 23%.

Industrialised construction developed quickly in the latter half of the

1960s. Traditional craftsmanship was replaced by prefabrication and elements made of concrete. New building methods were tried out as the industrialisation increased. Experience shows that the building techniques used during this period were not always good enough. Rather extensive damage has been discovered, especially in apartment blocks.

1972 - 1980

Index regulated loans and new ideals

Housing costs increased at the end of the 1960s, especially in the cities. This was caused by a combination of higher housing standards, general inflation in the cost of house building, production, more expensive loans from the Housing Bank and a need for a larger amount of private capital. In 1972, the government published a comprehensive White Paper to the Storting on concerning housing costs and the need for new forms of financing. Two new elements were introduced - building loans from the Housing Bank were granted as «equalisation» loans and the system of housing allowances was established.

The principle behind «equalisation» loans was that people should pay less in the initial years more as their financial situation improved and capital costs were reduced by inflation. Instalments were less than interest charges during the initial years. The idea was that the cost of homes financed by the Housing Bank should not exceed 20% of the average income of an industrial worker. At first, this was achieved in several regions of the country. However, a high increase in wages and extensive building activity led to a significant

increase in the Housing Bank's loan portfolio. The situation became untenable, and the system of equalisation loans was discontinued at the end of the decade.

Housing allowances were introduced to reduce high housing costs for economically disadvantaged groups. Housing allowances continue to serve as a safety net in the housing financing system.

House building reached its peak in Norway in 1975, when 43,000 homes were built, 35,000 of them financed by the Housing Bank.

During these years, the residential environment became an increasingly important political theme. Criticism of large residential areas based on high rise buildings was accepted in Norway at the beginning of the 1970s. This acceptance came before this type of development had become widespread, and since then almost no buildings higher than 6-7 storeys have been built in Norway. Attention was also drawn to the fact that the housing was planned without adequate input from users. New models were developed, involving user participation and democratic planning. Many people were critical of the fact that almost all planning was for the «core family» (husband, wife and 2 children). Joint activities, communal rooms and other forms of housing have gradually been given more emphasis when planning housing.

1980 - 1990

Urban renewal

At the beginning of the 1970s a number of plans were made to demolish old buildings and build new



A number of fine housing areas with compact construction of small single family homes/row house were built in the 1970's. (Photo: JDM)

ones in older part of the cities. These plans met with quite strong reactions from the residents and many professionals. Most of the plans were eventually changed, with a view to rehabilitating most of buildings and demolishing only the worst.

Public renewal of housing built before the turn of the century was necessary mainly in the three largest cities - Oslo, Bergen and Trondheim. Technical and sanitary standards, and the quality of the housing were often poor in the old buildings. The cities prepared renewal programmes describing which areas were to be renewed, the rate of renewal and minimum standards. The renovation was financed by loans and small grants from the Housing Bank. The Bank made it a condition for a loan for renovation that the project be included in the municipal renewal plan. At first, the municipalities also subsidised rents.

Around 1980, approximately 55,000 homes in the three largest cities (Oslo, Bergen and Trondheim) were below acceptable standard. 35,000 of these homes were renovated to a marked degree in the course of the 1980s through planned urban renewal.

The Planning and Building Act sets the main guidelines for urban renewal. According to this Act, the municipalities can base the renewal on an urban renewal resolution or a rehabilitation resolution. An urban renewal resolution requires that the municipality (through an urban renewal company) buys the properties, renovates the buildings and transfers ownership to the residents, who form a housing cooperative. Urban renewal companies with responsibility for this part of the urban renewal were established in the three cities of Oslo, Bergen and Trondheim. A renovation resolution requires the landlord to renovate the building. If the landlord does not comply, the municipality may expropriate and then renovate the building. This right of expropriation has not been used to any significant extent.

Renovation costs were high because the buildings were often in very poor condition. General buildings costs also rose very quickly in the 1980s. Renovation costs gradually became so high that many residents had difficulty in paying. Conditions were especially difficult at the end of the 1980s when



A number of buildings and courtyards in the largest cities were rehabilitated in the 1980's: Grünerløkka in Oslo. (Photo: Aspenberg)

prices were high and economic recession brought about rising unemployment. The financial situation of municipalities also deteriorated and grants for urban renewal were reduced. Many people were forced to move. As in the housing market as a whole (see the last section), urban renewal collapsed and urban renewal companies were closed down.

1980 - 1990

An increasingly free market

Several changes in housing policy occurred at the beginning of the 1980s. The Housing Bank's system of loans and grants was reorganised, and the free market was allowed to play a more important role. Price regulation of housing cooperative homes was gradually eliminated. Regulation of the rental market was also reduced. Owned apartments in multi-family dwellings were allowed and a lot of rented housing and housing cooperatives were reorganised in this fashion. Prices for homes, which had previously been regulated, rose dramatically. Many people increased their housing capital but it became difficult for others to establish themselves in the housing market. Subsidies in the housing sector were changed from general to selective grants. Priority was given to economically disadvantaged groups such as many elderly, the handicapped and young people trying to buy their first home. A larger share of the Housing Bank's loans were subject to a means-test.

The Housing Bank did away with the requirements for design and minimum area in 1983, although the requirements concerning maximum area and cost were retained.

The credit market was also liberalised in the 1980s when a number of government restrictions on private credit institutions were removed. While before it had been difficult for many to obtain a loan for a house from a private bank, it now became quite easy to do so. The banks no longer had to meet the same requirements in terms of funds from savings, credit worthiness and good surety. There was a period in the middle of the 1980s when financing from the private sector equalled finan-

In the 1980s, the cooperative movement took a greater interest in good architecture. Casinetto Building Cooperative, Oslo. (Photo: JDM)



A liberalized credit market at the beginning of the 1980s brought about a building boom and an exclusive housing consumption. (Photo: JDM)



There has been great interest in urban housing and good architecture in the 1990's. Lilleparken in Oslo. (Photo: Aspenberg)





During the period 1992 to 1994, about 15,000 homes were built in Norway each year, almost all of them financed by the Housing Bank. (Photo: JDM)

cing from the central government, both in terms of the number of homes and the amount of the loan in relationship to the home's value. 30,000 homes were built in 1984, of which 15,000 were financed by the Housing Bank.

The housing situation improved continually. The government summed up the situation by stating that, in many parts of the country, the housing market was now in balance. However, removing the restrictions on the credit market brought about a building boom. Investment in commercial buildings increased dramatically and prices accelerated. Building costs, including those for housing, more than doubled in the course of a few years. It became more difficult to enter the housing market. Many more small flats were built during this period in order to decrease the price of the «entrance fee», but also to adapt to the larger number of small households. In the middle of the 1980s the average floor space of a home financed by the Housing Bank was about 100 m². In 1989 the average floor space was 74 m². In a few places, especially in the cities, the houses that were built were so small (50 m² or less) that a discussion arose as whether minimum standards should be laid down for homes financed by the Housing Bank. These minimum standards were instituted at the beginning of the 1990s.

1990 - 1995

Collapse and consolidation

Like in the rest of Europe, an overheated economy in the 1980s was followed by a recession, with consequent unemployment. However, the effects in Norway were not as dramatic as in other European countries owing to income from oil production. The recession was evident, however, in the housing sector. The housing market collapsed in 1991. The price of homes dropped and the private credit market experienced severe difficulties. Real interest rose significantly and privately financed house building stagnated. The Government used the Housing Bank actively to counteract these trends. A certain amount of activity and employment in the building industry was maintained through public financing. During the period 1992 to 1994, about 15,000 homes were built in Norway each year, almost all of them financed by the Housing Bank.

Many people had financial problems because of the recession. While investment in the housing sector had been profitable since World War II, many people were forced to sell their homes, often at considerable loss. Unemployment and a reduced ability to meet payments led to difficulties for private banks, and the Housing Bank

began to experience loss for the first time in its history. A great deal of attention was given to payment problems experienced in urban renewal projects and a special system for cancelling debt was introduced for housing cooperatives that were suffering from the economic situation. The central government offered financial support to the housing cooperative movement, since a large number of housing cooperatives also had financial problems.

The Norwegian economy has improved in the last couple of years and the housing market for both used and new homes has become stable. House building has increased to about 20,000 units per year. The Housing Bank has continued to finance approximately 15,000 homes per year. The increase indicates that the private credit market has begun to function again. However, private credit institutions have to meet even more stringent requirements in terms of surety and credit worthiness. Therefore, the Housing Bank will continue to play an important role in the Norwegian social housing policy.

3.3 THE CURRENT HOUSING SITUATION IN NORWAY

The housing situation in Norway is generally very good. All surveys of general housing conditions using common indicators show that housing standards are very high. Indicators include floor space and rooms per person, housing standard measured in terms of kitchen, bathroom and WC, insulation against heat, cold and noise, as well as forms of ownership. This situation is illustrated even more clearly by developments since World War II.

1,750,000 homes in Norway (1990)

Approximately 1.3 million homes have been built since the war. This represents 412 dwellings per 1,000 inhabitants. Since 1950 there has been an especially marked increase in the number of single (unmarried) people with their own home. In 1990, 98.7% of couples (married or cohabitant) and 56% of all single people over 18 years of age had their own home.

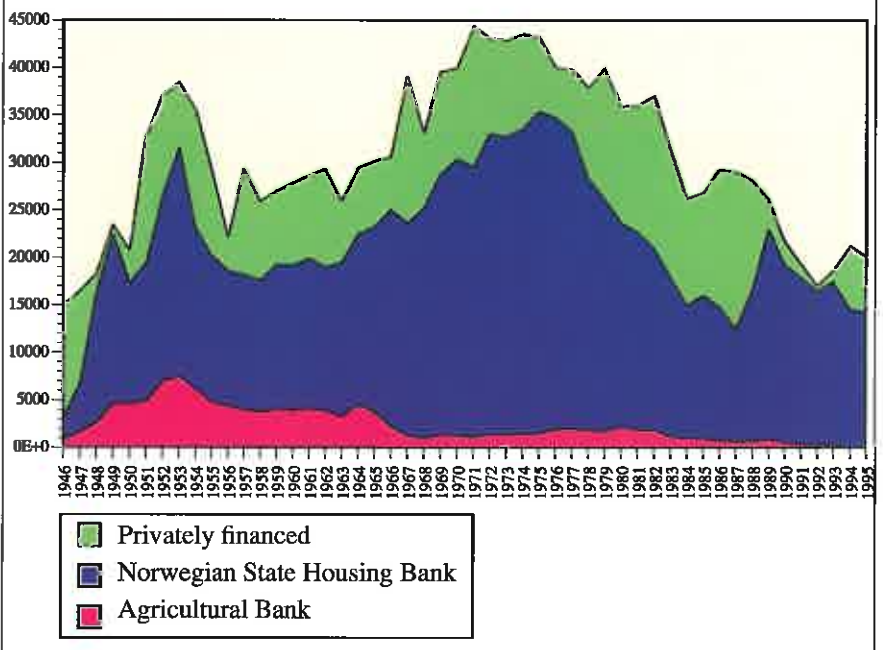
House building reached a peak in the mid-1970s

Approximately 40,000 homes were built each year during this period, 30,000 of which were financed by the Housing Bank. In the mid-1980s there was a period when financing by private credit institutions almost equalled financing from the public sector, measured both in terms of number of homes and percentage financing of the individual home. At the beginning of the 1990s, house building decreased to approximately 15,000 homes per year, almost all of them financed by the public sector. Production has now increased to about 20,000 per year and the private market's share of the financing is increasing.

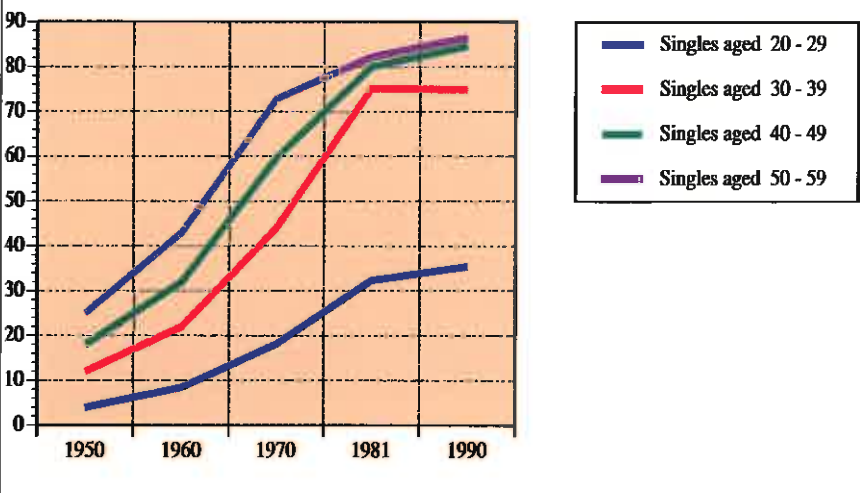
Consumption in the housing sector has increased

The average floor space per dwelling has increased from a little less than 90 m² in 1967 to about 110 m² today. The distribution of housing is relatively even in terms of size, with a slight predominance of larger dwellings. 35 % of the homes are larger than 120 m², while only 3 percent are smaller than 40 m². Average floor-space per person increased from 28 m² in 1967 to 43 m² in 1988. The largest homes are located in areas with a scattered population.

Housing production and finance in Norway after 1945



Percentage of single persons living in their own home



The size of newly built dwellings sank from 100 m² in the mid-1980s to 74 m² in 1989. The average size has increased steadily in recent years. While the average size of homes in Norway has increased, households have become steadily smaller. Therefore the consumption of housing space per inhabitant has increased considerably.

In 1990 there were:

- 2.4 persons per dwelling
- 4.0 rooms per dwelling
- 1.6 rooms per inhabitant
- 43 m² average area per person
- 2/3 of all households had 4 or more rooms.

8% of the population still lives under crowded conditions

Crowding is measured in terms of the number of rooms or m² per person in a housing unit. A home should have one room (exclusive kitchen) per inhabitant. 52% of homes in Norway satisfy this requirement, 8% are too small and 39% are of higher standard.

60% of the population lives in detached single family houses

49% of the total housing stock consists of detached single family houses. Semi-detached houses comprise 13%, other small-houses 21%

apartment houses 13% and tenant housing 4%. The Housing Bank has financed steadily fewer detached single family homes in recent years. These represented 50% of Housing Bank production in 1979 but only 12% in 1990. Building of detached single family houses has recently increased. Detached single family homes are clearly dominate in sparsely populated areas, but apartment houses constitute approximately 50% of the total housing in the cities.

Norwegian housing has high technical standards

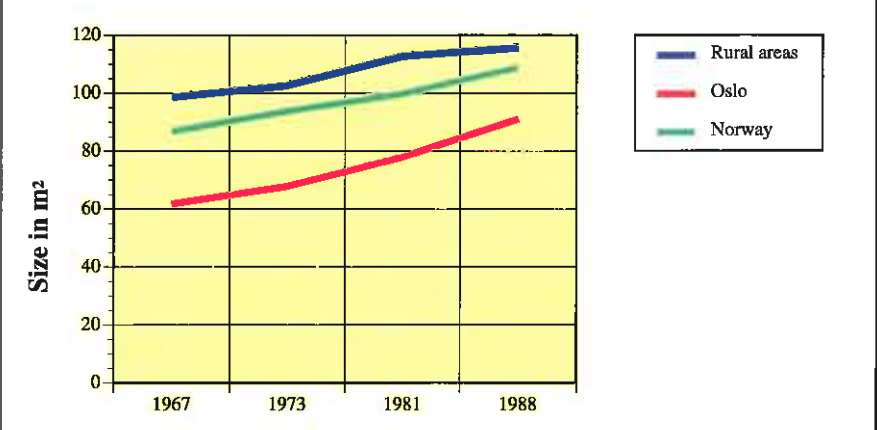
A difficult climate, with extreme variations in temperature often combined with strong winds has necessitated good constructions that last for many years. Ninety-five percent of Norwegian homes have a bath, kitchen and WC - only 4% of dwellings do not have an inside WC. This indicates a high technical standard, but the quality of the appliances and the technical standard of housing varies considerably. Detached single family homes have the highest standards and tenant housing the lowest. Fifty-four percent of homes have central heating or permanently mounted electric radiators as the main source of heating. Norwegian homes have a high standard in terms of appliances - 95% of the homes had a deep freeze, telephone and washing machine in 1990. Approximately 85% of the households own a car.

The best housing conditions are found in small and medium-sized built-up areas and cities. Such settlements contain the largest number of detached single family homes.

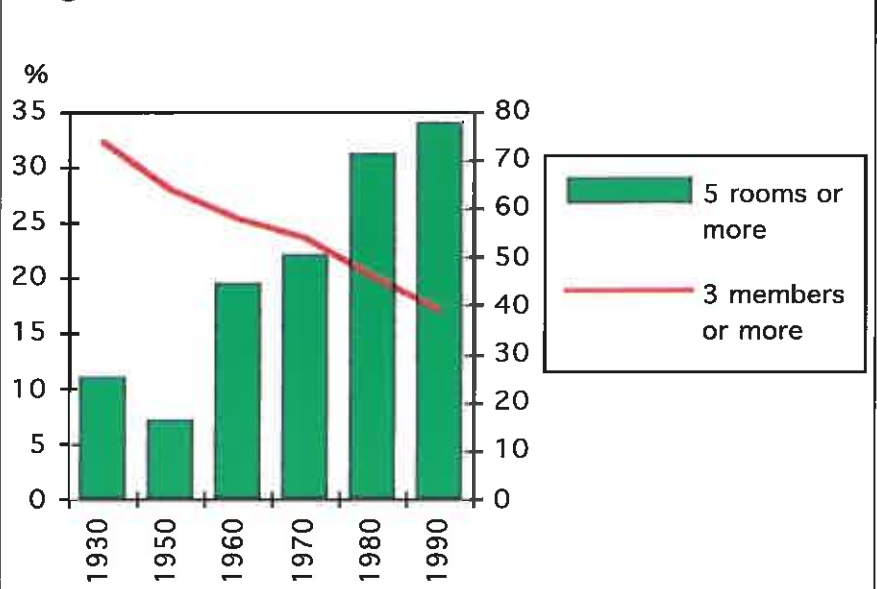
The cities contain a greater variety of housing sizes and standards. The worst housing conditions are found in the older tenant houses and blocks of flats in the cities. Poor housing conditions are also found in certain parts of northern Norway.

There are a small number of households and individuals with unsatisfactory housing who are unable to obtain an adequate home. The group is primarily composed of socially and economically disadvantaged individuals with unstable housing conditions, and living in areas with heavy traffic in the inner city. Many elderly and handicapped persons also live in homes that are not adapted to their needs.

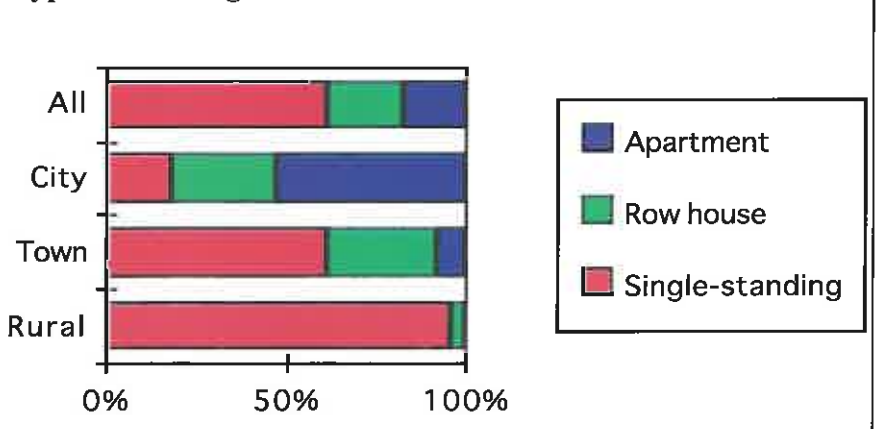
Average dwelling size Norway 1967-1988



Large homes and households 1930-90



Types of housing 1988



30% of the population owns or has access to a holiday home or cabin (1990)

Many holiday homes are of high standard and are used as alternative homes, especially during the summer. Housing consumption and housing standards in Norway are therefore somewhat higher than the housing statistics indicate.

The Level of Living Survey in 1991 showed that 84% of the population owned their own home either privately or through a housing cooperative

The general goal that everyone should own their own home either privately or through a housing cooperative is clearly expressed in the statistics. The increase in the housing stock has occurred mainly in these two categories.

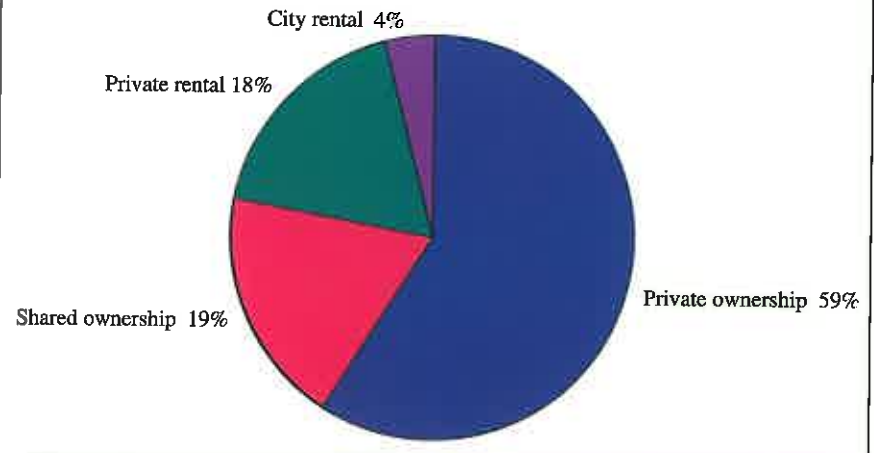
es. The number of rental housing units remained stable until 1970, then sank dramatically. This was partly due to urban renewal, where many tenant housing units were renovated and transferred to the residents by establishing a housing cooperative or a condominium. The distribution of forms of tenancy in 1990 was:

- 59% privately owned
- 19% cooperatively owned
- 18% rented from a private landlord
- 4% rented from the municipality

Housing expenditures account for an increasing share of private consumption

Norway's high housing standards have led to correspondingly high housing expenditures. Studies show that housing expenditures have increased, both as a share of the average wage of an industrial worker and of total private consumption. Housing expenditures increased from 17.3% of the average wage of a male industrial worker in 1980 to 21.1% in 1987. The high housing expenditures can be paid partly because women have entered the employment market and many households have two incomes. Many single person households have difficulty in meeting the high cost of housing and young people find it difficult to establish themselves in the housing mar-

Home ownership 1990



ket. Eleven percent of the households use more than 30% of their income to cover housing expenditures.

In the course of the 1980s, housing costs became the largest expenditure in the average household budget. Housing expenditures became higher than expenditures on food in 1984 and higher than travel/transport expenses in 1988. In 1991, the average Norwegian household used 26.5 % of its total expenditure for housing, electricity and fuel and 19.2 % for travel and transport. Higher housing expenditures are also related to smaller households and more single persons. There are fewer persons to share the housing expenditures.

In 1989/91, household expenditure on the various goods and services was as follows.

Expenditure	percent
Food	14.8%
Alcohol and tobacco	3.7%
Clothing	6.4%
Housing, electricity, fuel	26.5%
Furniture & appliances	8.0%
Medical expenses	2.4%
Travel and transportation	19.2%
Recreation and education	10.7%
Other goods and services	8.2%
Total expenditures on consumption	100.0%



60% of the population lives in detached single family houses. (Photo: Aspenberg)

3.4 FUTURE CHALLENGES

As shown, the housing situation for most people in Norway is good. Even so, important challenges lie ahead.

The need for new housing in Norway is dependent on the current housing situation, demographic and economic developments, the use of the existing housing stock, the number of homes which fall out of use, etc. High real interest rates and unemployment tend to bring about a reduced demand for housing. Young people also choose to establish themselves in their own home later than they did only a few years ago, owing to longer education and an uncertain employment market. On the other hand, the households' real disposable income has increased in recent years, which should bring about a higher demand for housing. Norway's economy is at present favourable. It is predicted that 115,000 new homes will be needed before the turn of the century. This implies building 25,000 houses per year. However, new building is not the greatest challenge. Norway faces the following important challenges in the housing sector:

1. to make it possible for young people, refugees and other disadvantaged groups to establish themselves in the housing market.

2. to improve existing housing conditions, especially for those living under poor, crowded conditions

3. to adapt housing to needs of the elderly and handicapped

4. to build environmentally sound housing, with optimal use of resources

3.4.1 To make it possible for disadvantaged groups, young people and refugees to establish themselves in the housing market

Demographic developments indicate that, in the years to come, the housing market will have to meet the needs of a large number who want to establish themselves in their first home. Studies show that most young people want to own their own home. However, many young people, including



Urban renewal can contribute to improve the standard of living in central urban areas. (Photo: Aspenberg)

students, need a temporary home before they establish themselves more permanently. Some do not want to bind themselves financially while others are unable to obtain their own home without help from the public sector, for example through being offered municipal rental housing.

Municipalities own approximately 76,000 rental housing units. The majority of these are rented to individuals in socially difficult situations and serve an important social purpose. The low number of rental housing units in Norway makes it difficult for the housing market to meet temporary housing needs. The percentage of rental housing should probably be increased in the future in order to increase flexibility in the housing market and to provide a greater choice of housing for the soci-

ally disadvantaged, for young people who are establishing themselves for the first time, and for others who do not wish to own their own home.

It is evident, however, that the most common form of ownership (also for those establishing themselves for the first time) will continue to be self-owned homes, including homes in housing cooperatives. Current market conditions are characterised by relatively high housing prices and, for those with low credit worthiness and financial capacity, limited possibilities of financing the housing through the private credit market. Therefore a relevant challenge is therefore to create conditions that enable these groups to own their own home.

3.4.2 Improve existing housing conditions, especially for those living under poor, crowded conditions

Twenty percent of the population still lives in homes that are in poorer condition or are smaller than what is generally acceptable in Norway. Of the Norwegian population over 16 years of age, 270,000 (or 8%) lived under crowded conditions and 130,000 (or 4%) lived in a home without a bath or an inside toilet in 1988.

Ten percent of the population in the cities lived in a poor residential environment in 1991 as opposed to 5% outside the cities. Problems related to living conditions have increased quite considerably in the inner parts of the cities. The worst living conditions are found in the eastern part of central Oslo, where income levels are lower than in the rest of the city and housing and environmental conditions are poorer. Noise and pollution from road traffic are problems for many inhabitants. Because of the low cost of housing, the population of these areas includes many people with low financial capacity, most often the elderly, young people with temporary housing or persons with a foreign background.

Urban renewal

There are still 8,000 housing units in Oslo that were built before 1920 and should be renovated. There are 4,500 housing units in need of renovation in both Trondheim and Bergen. Renovation of this housing stock would improve housing conditions for a large number of those not living in satisfactory homes today. Furthermore it would help to reduce differences in living conditions in the cities. The cities reduced their urban renewal efforts around 1990, and the municipal apparatus was curtailed. New models and a new apparatus must be built up. This challenge must first and foremost be met by the urban municipalities themselves, for example through active use of local development plans, programmes, information and cooperation with owners in order to speed up the renewal again. The central government must stimulate this development by adjusting the various instruments available.

A challenge in future urban renewal projects is to involve the residents in the planning process, so that the execution and cost of the renewal process can be adjusted to the residents' needs and financial situation.

There is a need to improve the external environment. Improvement of public open areas such as market places, squares and parks will contribute to a better residential environment. Housing in central areas is often exposed to extensive pollution and noise. There is no point in renovating housing if traffic continues to ruin the environment right outside the buildings. Traffic patterns will often have to be changed in order to protect buildings in the inner city. Changes can take place by encouraging more environmentally sound forms of transport/public transport, by restricting the use of private cars and by directing traffic outside the residential areas.

Housing and environmental renewal in the concentrated residential areas built between 1920-40 and after 1945

The concentrated residential areas built between 1945 and 1975 are currently being extensively renewed. Many residential areas suffer from poor construction, monotonous composition of the housing, flats that do not meet contemporary needs and outdoor areas exposed to dangerous traffic. The concentrated residential areas built between 1920 and 1975, where the need is greatest, comprise approximately 475,000



Outdoor areas, housing environments and buildings from the post-war period are in need of renewal. (Photo: JDM)

homes, or 27% of the housing stock in Norway. Slightly more than half of these homes are detached single family houses or row houses. 220,000 of them are part of a housing cooperative.

Changes in the composition of the population, and new household patterns will impose new demands on existing dwellings and residential areas. Most homes were originally built for families with children. Many parents have chosen to remain in these homes. These parents have become older and often have difficulty in coping with steep staircases, small baths and poor accessibility. Most residential areas would benefit from having a varied population composition containing children, young people, adults and elderly. It is therefore necessary to change the design, size and composition of housing units in residential areas built in the first decades after 1945. New layouts can increase accessibility for the elderly and handicapped, and a different combination of types of homes can provide a basis for greater variation in the composition of the population. Improvement of these residential areas can reduce differences in living standards in the cities.

The residential areas built in the first decades after the war were not planned for the number of cars possessed today, although conditions have gradually improved. A requirement for parking areas was introduced in most of the cities in 1960 in connection with the end of rationing of the sale of cars. 85% of Norwegian households own a car today. This leads to extensive parking in streets and strained traffic conditions. Outdoor areas and playgrounds have become both dangerous and unpleasant. It is obviously necessary to improve the traffic situation.

Many apartment buildings from this period are insufficiently insulated and the facades are in need of repair. Additional insulation and the repair of facades can help to reduce heating, energy consumption and running and maintenance costs. It has been calculated that it is economically justified to carry out energy-saving measures in the Norwegian housing stock which could reduce energy consumption by 25%. Thus, renovation of this housing is an important environmental challenge.

Improvement of facades can have significant consequences for the appearance and architecture of the buildings. Several BOM projects have been com-



Improvement of facades can have significant consequences for the architectural appearance. Example from Rustad residential area in Oslo. (Photo: Mette Sjølie)

pleted with varying results. The new design often clashes with the original architecture. A large part of Norway's cultural heritage represented by these buildings is about to be lost. It is therefore important to improve the buildings and housing standard while retaining architectural values worth saving.

Area-oriented planning

Today, most municipalities are currently organised in different departments. The following four political and administrative divisions are most common: health and social services, technical services, schools and recreation, and religious/cultural activities. Improvement of residential areas involves close cooperation between these sectors and with the

residents and NGOs/CBOs. To a large extent, sector planning can be replaced by area-oriented planning. Oslo, Bergen and Trondheim are divided into districts. These districts are possibly too large to form natural entities and inspire the local residents to participate in public activities. Thus it may be reasonable to divide the cities into «local communities» to which the residents feel they belong.

Local plans and programmes of action can be prepared in cooperation with residents, housing cooperatives and CBOs. Usually, the individual residential area/housing cooperative is not qualified to prepare plans for the district or local community, and will therefore need advice and assistance from the municipality.

EXAMPLE 3: SØBSTANDMYRA HOUSING COOPERATIVE, TRONDHEIM

Improvement of the residential area and the residential environment

Søbstadmyra housing cooperative consists of 190 apartments in five-storey buildings. The buildings were constructed at the beginning of the 1970s under the management of Trondheim municipality.

At the time of building, more weight was placed on inexpensive housing than on a good residential environment. The apartments were allocated on the basis of social criteria, mainly to the economically disadvantaged. It was soon apparent that the buildings had serious technical and functional weaknesses, and that the flats were not attractive on the housing market. Many residents moved out. The housing cooperative entered a negative spiral with a combination of environmental problems, and buildings and outdoor areas fell into disrepair. As time went on, the buildings were in danger of becoming a slum.

In order to counteract these developments, cooperation was established in 1983 between the housing cooperative, the cooperative building and housing society and the municipality. The central government and the municipality helped financially. The residents - children, young people and adults - participated actively in the planning and improvement work at all times. The strategy was to improve the social environment and then make physical improvements. Groups of residents were organised for different tasks, first a youth group. A project leader was engaged. During one period, the project had three employees.

A number of communal rooms were established for various activities, for example, to house a youth club, and a housing cooperative newspaper was distributed. A «swap shop» and cafe for residents were established. Rehabilitation of the buildings and outdoor areas was carried out as an ordinary urban renewal project managed by the cooperative building and housing society, and was completed in 1990. Renovation was financed by a loan from the Housing Bank and by



Søbstadmyra housing cooperative before and after environmental rehabilitation. (Photo: Meite Sjølie and JDM)

the residents themselves through the housing cooperative's budget for running costs. A special foundation was created to manage the expanded service apparatus.

Søbstadmyra is now a well functioning housing cooperative with a stable, good residential environment. The buildings and outdoor areas have been rehabilitated. The project illustrates the potential that lies in the housing cooperative model, and the requirements for the use of the hou-

sing cooperative form of organisation in a residential area in crisis. Housing cooperatives and cooperative building and housing societies ensure democratic participation by the residents and professional management. The form of ownership implies that the residents have a personal interest in operating, managing and improving the residential area - a model which contributes to Norway's generally well functioning residential areas.

3.4.3 Adapting housing to the needs of the elderly and the handicapped

The number of elderly has increased substantially since the 1970s. The number of the very old (over 80 years of age) will increase up to about year 2005. As a result, a net increase of 100,000 handicapped is expected by year 2010.

The goal is that both the elderly and the handicapped can continue to live in their own residential environment as long as possible, and will not have to move to an institution. Fourteen percent of the current population is handicapped and 6% need daily help.

A parliamentary resolution was passed in 1991, stating that mentally retarded persons who live in large central institutions should be moved back to their home municipality where they would be offered their own appropriate home. At that time, 5,000 mentally retarded persons lived in institutions - to day only 1,300 are left. Another large task is to offer satisfactory housing to the 11,000 mentally retarded who still live with their relatives.

Enabling the elderly and handicapped to continue living in their ordinary home environment imposes demands on the design of house and on the residential area as a whole. Both existing and future housing must be made accessible for the handicapped and an extensive service apparatus must be established. The most important measures are to provide larger and better bathrooms and install lifts.

The Housing Bank rewards housing that is designed with a «life-span standard» by providing supplementary loans. «Homes for those in need of care,» partly financed by grants, are required to have these «life-span» qualities. A life-span home must be accessible for persons using a wheelchair. This places demands on the design of the home itself, width of doors, design of the bathroom, etc. Kitchen, livingroom, bedroom and bathroom must be located on the same level.

A better system of services and better coordination of the housing and health/social welfare sectors

Norwegian municipalities have a well developed system of home-based care for the elderly, ill and handicapped, for example in the form of household help and home nursing. Household help includes help in washing



A goal is to enable the elderly and the handicapped to remain living in their own housing environment. (Photo: Norges Handicapforbund)

clothes, cleaning, cooking, shopping and other practical tasks. Home nurses give medical attention when the patient can continue to live at home. These services must be expanded if more elderly and handicapped people are to be integrated in residential environments.

Many households currently need some form of support or assistance in everyday life. Parents who work outside the home, and single parents, often have very demanding everyday lives and have the same need for an expanded system of services as the elderly and handicapped do.

Such service systems are therefore not necessarily assistance reserved for special groups. Common services in the residential area could include cooking, cleaning, and care of children, the elderly or the sick, clearing snow and various tasks of management and maintenance. A greater sense of belonging to a community can also create a basis for buying equipment and services which would be too expensive for the individual household.

Smaller households and many single persons have a need to meet people outside their homes. This generates a need for more communal activity in the residential environment. Expanded services and communal activities require both space and orga-

nisation. Many of these requirements belong to a «grey zone» between the housing policy and the health and social welfare policy.

Norway has a good starting point in the jointly owned residential areas, for example the housing cooperative movement with its cooperative building and housing societies and individual housing cooperatives. Many contemporary housing communities have organised caretaker services to be responsible for management, administration and maintenance of the housing area.

If housing cooperatives or other groups organise a more extensive system of services, this can be coordinated with the municipality's ordinary social apparatus such as the household help and home nursing services. Many housing cooperatives have a number of communal rooms or would like to obtain them.

The municipalities build a number of communal facilities such as centres for the elderly, kindergartens, primary schools, sports facilities, youth clubs, etc. It is certainly feasible to coordinate the use of these resources. There is much to indicate that more can be done to coordinate resources in the housing and the health and social welfare sectors.

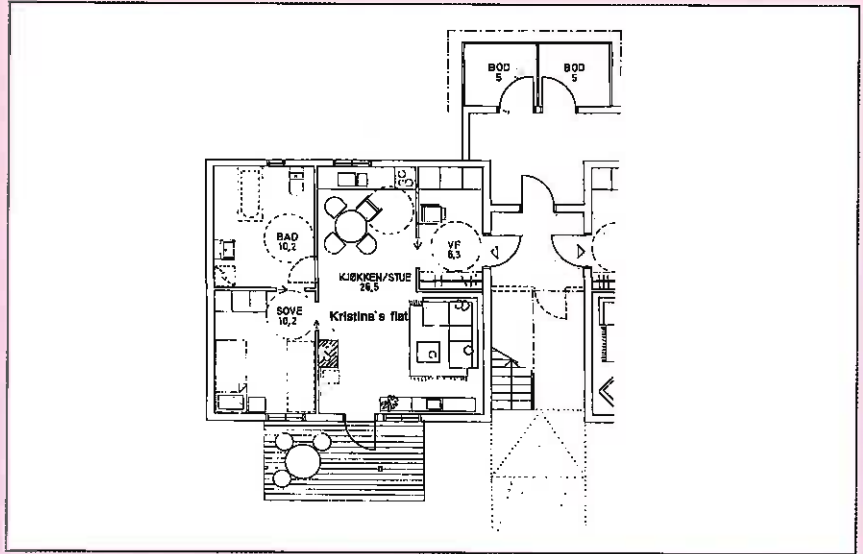
EXAMPLE 4 : FROM AN INSTITUTION TO HER OWN HOME

Housing for the mentally retarded in Nøtterøy municipality

In 1990 it was decided by law that municipalities should take the main responsibility for the mentally retarded in terms of education, employment, services and housing. The goal was to eliminate large regional institutions and to give the mentally retarded their own home in their home municipality. The reform affected 17,000 persons, 5,000 of whom lived in an institution. More than 85% of those affected live in their own home today.

Kristina, who is now 24, is seriously mentally handicapped. She was placed in an institution in 1980 along with 120 - 140 other mentally retarded persons. She lived in a house with five others and had just a private bedroom. All meals were prepared by the institution staff and served in a common dining room. There was little room for a private life. Her parents also found this situation frustrating.

Today, Kristina has her own 55 m² home in her home municipality, Nøtterøy. The home is in a housing complex composed of 12 houses. Four houses are specially constructed for the handicapped and are grouped around a common dining/living room and a room for employees on night duty. The



housing was built through cooperation between the local cooperative building and housing society and the municipality. The municipality owns all the homes and the other houses are allotted to individuals selected by the municipality, for example, to young people in special need of housing. This housing complex is an integrated part of a larger residential environment.

Kristina has benefited from the reform and her new home. She is happy, as shown by the fact that she has become calmer and functions better. She can lead a much more satisfacto-

ry private life, and her parents can visit her in her own home. The residents live in a normal residential environment where they can visit shops and other meeting places. However, Kristina is still dependent on extensive help, but this is integrated with the ordinary municipal system of home-based care. Experience from this housing complex shows that the common rooms have not functioned as intended. There was no need for this social meeting place, and the rooms will probably be converted into a normal home.



3.4.4 Environmentally sound and resource-effective housing

One of the main goals of the Housing Bank has been to encourage moderate housing standards. This has been achieved partly by establishing maximum limits for size and cost. Compact forms of housing have received more favourable loans than detached single family homes. The Housing Bank's favourable loans have enabled ordinary people to obtain a suitable home of moderate standard and have also encouraged persons with relatively high incomes to choose a Housing Bank home instead of more luxurious housing. In this way the Housing Bank has turned house building in a more sustainable direction.

However, most of the interest in the housing sector has been focused on economic and social considerations. It is only in recent years that environmental and resource issues have received proper attention. Greater emphasis must be placed on these considerations, so that good resource management and sustainable development receive greater weight in the planning, construction, renovation and management of housing and residential areas.

The objectives of environmental policy may conflict with established housing traditions and patterns of consumption, and will therefore represent major challenges in the future housing policy. A more detailed description of the most important areas and challenges follows:

Reduced energy consumption

The housing sector is responsible for 23% of Norway's total energy con-

sumption. Lower consumption of energy in the home is an important environmental goal. Use of energy (primarily for heating) can be reduced by building more concentrated forms of housing, for example, apartment buildings and row houses. A flat in an apartment building requires 50% less energy per m² for heating than a detached, single family home.

Deliberate thought should be given to the location of residential areas in the landscape. More energy is needed for heating if a house is built in the shade, in areas exposed to wind or where cold air tends to settle. Recycling of heat can help to reduce energy consumption. Use of district heating can also save energy. More emphasis must be placed on using renewable energy sources such as wave and wind power. The energy in waste can be used in district heating plants.

Large energy resources can be saved by improving existing buildings. The energy saving potential in the existing Norwegian housing stock is calculated to be 25%. Energy-saving measures can be carried out in all types of housing. Individual home owners have been actively helped to improve the stock of single family homes and a number of housing cooperatives have begun improving post-war housing.

New building regulations will contribute to a better indoor climate and reduced energy consumption through better insulation and ventilation. A change in living and consumption patterns can also help substantially to reduce use of energy, for example, reduced use of hot water, regulation of room temperature, etc.

Detached, single family home or apartment building?

Norwegians have traditionally lived in detached single family homes. This represents a high housing standard which many people consider desirable. This housing type will probably continue to dominate in the smaller towns and built-up areas, where the environmental loads are not as heavy as in the cities. The short distance to places of work and to services enable residents to use a bicycle or to walk, which reduces the need for a car for everyday errands. However, demographic changes and the trend toward smaller households indicate that a larger number of more concentrated housing units should also be built in these places. Municipalities should not only plan for the construction of detached single family homes - especially in areas around the cities.

Many people maintain that small communities with small single family homes and row houses have a better potential for using renewable sources of energy and for local management of waste and emissions than exists in urban areas with apartment blocks. Small groups of houses in close contact the natural environment can use local water sources and treat waste water in the locality. There is no need for large and costly investments in infrastructure. Sewage and waste can be composted and returned to the soil, for example in local gardens. Renewable energy sources can be used, such as solar energy, wind power and heat from the earth. However, technological developments have made it possible to use solar energy and other environmentally sound energy sources just as much in more concentrated residential areas. Alternative methods of treating waste water in concentrated housing areas have been developed already, though it is a matter of debate whether these systems are more environmentally sound than those which are currently employed in the majority of cities and densely populated areas.

Waste can be sorted and recycled just as well in concentrated as in scattered residential areas. Food wastes can be composted and spread in the gardens of single family homes and row houses, but in more concentrated

Concentrated housing uses less energy and fewer resources than detached, single family homes. (Photo: JDM)



residential areas this can be done in allotments, given adequate planning and preparation.

On the whole, concentrated forms of housing require less material and resources than detached, single family homes do. The objective of sustainable development and consumption may conflict with ingrained ideas concerning good housing standards and other desirable patterns of consumption. It is therefore a major challenge to develop forms of housing that are both acceptable to the population and contribute to a total reduction in consumption.

Good outdoor areas

Chapter 4 contains a more detailed description of the need for more concentrated city structures where, for example, housing density is increased within existing city limits instead of building on undeveloped land. New buildings can thereby use the existing infrastructure such as roads, water supply, sewerage system and other municipal services. However, this concentration can easily conflict with the need for good outdoor areas. Therefore emphasis must be placed on

securing green outdoor areas and playgrounds. New buildings should as far as possible be placed in already built up areas, for example in abandoned industrial areas.

The trend toward smaller plots for single family homes, as small as 400-500 m², has often resulted in insufficient outdoor areas. Green areas have been replaced by large buildings and road systems. With such small building lots, it is no longer possible to leave the building in the hands of the individual developer. In future, the building of houses must be coordinated to a greater degree, to ensure that the types of housing, roads and outdoor areas are well designed.

Homes without risks to health and environmentally sound building materials

In many cases, new building techniques and materials contribute to a poor indoor climate that is harmful to health. Fumes, dust, fibres, damp and poor ventilation can cause allergies and respiratory problems. Modern building materials can be categorised as low-risk and high-risk materials. Low-risk materials include wood, gyp-

sum, glass, stone, tiles and bricks. High risk materials include vinyl coverings, grout, glue, impregnating materials, plastic cork and some types of paint. As yet, it has been difficult to describe side effects exactly. People react quite differently to the different materials. Persons who build their own home can choose the materials to be used themselves, while housing developers who are building for as yet unknown purchases must base their choices on general knowledge and build with low-risk materials.

Concentrated radon gas from the earth may cause cancer. It is therefore important to protect oneself from this gas. Furniture and appliances are responsible for up to 50% of fumes in houses, and this should be taken into account when choosing fabrics and materials for the home. It is important to remember that materials used in dwellings and other buildings can cause health problems. It is also necessary to consider the environmental effects of building materials in a «life-cycle» perspective. Attention must be given to total environmental impacts from production to «dumping», and to the possibility of recycling.



3.5 GOALS, MEASURES AND INSTRUMENTS IN THE HOUSING POLICY - PLAN OF ACTION

3.5.1 The political management system

The Government has submitted several White Papers on housing policy since the end of the Second World War. These reports have contained a detailed description of Norwegian housing policy, including recent developments and changes in the terms of reference, and have defined the frameworks for achieving the objectives of the housing policy in the light of new developments. Every fourth year, a White Paper containing the Government's long-term plan is submitted to the Storting. This White Paper describes the housing policy and other sector policies.

A White Paper on the Norwegian State Housing Bank is submitted every second year. Papers dealing with other areas within the housing sector have been submitted as needed.

White Papers give the Storting opportunity to discuss housing policy and to give the government signals as to the desired development. However, the Storting seldom votes on proposals based on these papers. Voting normally occurs when the Government makes a proposal to the Storting. The Storting has the legal authority and the authority to make allocations, while the central government has the executive authority in the Norwegian political system. All governmental measures, be they economic or judicial, must therefore be based on a resolution by the Storting.

Legal tools and instruments in the housing sector must be based on laws passed by the Storting. Every year, the Storting adopts the State Budget, through which funds are allocated for specific economic measures. In connection with the State Budget, the Storting can also adopt guidelines for how these funds are to be used.

Proposals concerning amendments to the legislation, or extensive reorganisation of the instruments available, are often a result of comprehensive studies in which research groups, and different parties and interest groups have taken part. The proposals are then circulated to relevant groups and institutions for comment. To make sure that all interested parties have had an opportunity to express their views, the principle of public circulation is regu-

lated by special legislation, for example, the Public Administration Act.

This process is supplemented by more or less continuous contact between the ministries and public institutions and the various interest and professional groups in the sector. As a rule, these groups also have direct contact with the Storting during its handling of amendments to the legislation, and its consideration of the budget. In addition, the media make sure that no important political decisions are made before a broad public debate has taken place.

3.5.2 The administrative system

The Housing and Building Department at the Ministry of Local Government and Labour is the highest administrative body in the housing sector. The Department functions as secretariat for the Ministry's political leadership in the matter of housing. This involves the preparing of cases for the Minister, who then presents them to the Government and if necessary to the Storting. In addition, the Department is the executive body that implements and follows up proposals adopted by the political authorities. As the highest sectorial authority, the Department's function is to monitor developments in the housing and building sector and, on the basis of these developments, to devise new instruments and administer the existing ones. The Department's work is connected mainly with economic issues (for example, through preparing drafts for the part of the State Budget that refers to the housing sector) and with legal instrument (i.e. the housing and building legislation). As the highest administrative body, the Department is also responsible for the management and development of other parts of the administrative system in the housing sector.

The Norwegian State Housing Bank is the Government's most important administrative instrument in the housing sector. The Housing Bank administers all direct economic support in the housing sector, partly in cooperation with the municipalities. Approximately 50 % of existing Norwegian homes have been financed by the Norwegian State Housing Bank.

The Housing Bank distributes government subsidies to the housing sector

through grants and, until the end of 1995, through loans with subsidised interest rates. Subsidies make financing through the Housing Bank attractive and give the Government an opportunity to direct housing policy by making these loans and grants subject to specific requirements.

In addition to financing housing, the Bank provides extensive information, primarily on its system of loans and grants, but also on the residential environment and housing quality. The Housing Bank also has the important function of evaluating the effects of the instruments which it administers and is an important source of information for the Housing and Building Department in its efforts to create new policy instruments. The Bank has a main office in Oslo and four regional offices located around the country (Bergen, Trondheim, Bodø and Hammerfest).

The National Office of Building Technology and Administration's main responsibility is to administer technical building regulations. The office formulates building and construction regulations, which are adopted by the Ministry, and also produces information which is designed to increase the building industry's understanding of and compliance with the existing regulations. The office is also responsible for various forms of supervision and monitoring in the construction sector. The office works on the international harmonisation of building regulations and does important work in connection with the standardisation of construction.

Both the Norwegian State Housing Bank and the National Office of Building Technology and Administration are directly subordinate to the Housing and Building Department at the Ministry of Local Government and Labour. The activity at these institutions is formally directed by regulations and instructions, and through an annual letter of allocation which allocates funds from the budget and sets the main priorities the coming year on the basis of the Storting's consideration of the State Budget.

The municipalities and the County Governor's offices also have duties and responsibilities in the housing sector, and thus can be regarded as part of the management system.

The municipalities are not required by law to take responsibility for the housing policy. However, they do play an important role in promoting the objectives of the housing policy (See Chapter 3.1). The municipalities' role in the distribution of loans and grants from the Housing Bank has been strengthened in recent years. Many municipalities have also developed an active housing policy. The municipalities have a more formally defined role in relation to the Planning and Building Act, which they administer at local level.

The County Governors serve primarily as an administrative appeal body as regards decisions made in planning and building cases by the municipalities. They are also responsible for advising and informing municipalities about the planning and building legislation.

A general trend which also applies to the housing and building sector is that individual cases should normally be handled at the lowest possible administrative level, while principles should be discussed at a higher level. There is also a trend towards management by objectives and results in relation to budgets, instead of more detailed management by regulations.

3.5.3 Political objectives

The Government's primary goal in the housing policy is that all people should live in satisfactory homes in a good residential environment. This primary objective has remained almost unchanged since the end of World War II. The last comprehensive White Paper on housing policy from the Norwegian government was submitted and discussed in the Storting in 1989. The report was entitled «Housing Policy for the 90s» and contained an examination, explanation and reformulation of different objectives in the housing policy. These objectives still form the basis of the current policy. Some aspects have been discussed in more detail in two White Papers submitted in 1995 entitled «On Living and Housing Conditions in the Cities» and «On the Norwegian State Housing Bank's Interest Rates and Subsidy Profile.»

The Government's primary goal in the housing policy is that all people should live in satisfactory homes in a good residential environment. (Photo: JDM)

Current objectives are:

- Good housing coverage and a well functioning housing and construction market
- Good housing distribution
- Good housing, good quality of construction and good residential environments
- Security of tenancy
- A functional and just organisation of ownership and tenancy

In addition, a central objective is to secure the most effective possible use of housing resources.

The following is a more detailed description of the individual objectives:

Good housing coverage and a well functioning housing and construction market

In order to ensure good housing coverage, the national housing policy should help to maintain an adequate supply of homes, both through the financing of new building and through better use of the existing housing stock. The housing policy should promote a balance between supply and demand in the housing market which will encourage relatively stable prices and steady activity in the construction industry.

Good housing distribution

Housing costs should be reasonable in relation to income. A clearly expressed goal in the Norwegian housing policy is that the distribution of housing should be better than indicated by the distribution of income and wealth. Therefore, the housing policy occupies a central position in the government's total policy on the distribution of wealth and social benefits. A special

objective is to reach those households in need of housing and those in a poor financial situation to ensure that these groups have an opportunity to live in an adequate home.

Good housing, good quality of construction and good residential environments

Housing and the residential environment have a strong impact on people's level of living throughout their lives, and are especially important for the conditions under which children and young people grow up. The housing policy should be used as an instrument to create good living conditions, independent of social status, geographical location or ethnic background. Homes should have a defined, technical minimum standard with good accessibility, and should be adapted to the users' needs. The housing policy should promote good quality housing, though of moderate standard. The housing policy should also prevent segregation in the housing market. Homes and residential environments must be designed to function also for the elderly, the handicapped and families with children. A good residential environment will be the foundation for a well functioning local community.

Security of tenancy

A central objective in the housing policy is to promote financial, social and legal security of tenancy. The financing of housing should contribute to reasonable housing costs, so that even disadvantaged groups can afford normal housing. Another important point is that all residents, whether they are owners or tenants, should be pro-



tected from arbitrary and unreasonable treatment. Security of tenancy is therefore closely connected with legal agreements and a well developed system of laws and regulations in the housing sector.

A functional and just organisation of ownership and tenancy

Different forms of ownership result in different needs for cooperation between residents. Conflicts of interest may arise between neighbours and between landlords and tenants. Therefore rules are needed to regulate the relationship between residents and establish a framework for cooperation. An objective of the housing policy is to establish rules which provide a good basis for appropriate administration of joint interests in different owner/tenant constellations. Rules should also define conflict solving mechanisms and can serve as the basis for a just distribution of rights and duties among the residents.

The housing policy is directly linked to objectives and results in a number of other areas of society. For this reason, the housing policy cannot be shaped without interaction with the shaping of policies in other spheres, such as the economic policy, health and social welfare policy, industrial policy, energy policy, environmental policy, etc. The need for coordination has received more attention in the 1990s than before. For example, the Government's goals in regard to the environment, and for the health and social welfare services have given more consideration to better quality and accessibility when building houses. The elderly and handicapped should be able to remain in their homes as long as possible instead of being forced to move to an institution. Integration of refugees and immigrant should contribute to more equal standards of living and prevent a segregated housing market. In an environmental perspective, housing and residential areas should be based to the least degree possible on environmentally harmful products, on use of private cars and on unnecessary consumption of energy. Thus the housing policy functions as an arena for attempts to balance political goals in the housing sector with objectives in many other areas, and with socio-economic and political-financial considerations.

3.5.4 The use of instruments should be coordinated

In addition to legal and economic instruments, dissemination of information, experimental and demonstration projects and research are important tools for achieving goals in the housing sector. The National Office of Building Technology and Administration and the Housing Bank contribute both to development projects and to information on good housing and good residential environments. They also distribute small grants in order to stimulate research groups, universities and colleges, municipalities, developers and contractors and other agents in the building industry to take an interest in these issues. The government has also appointed a special «Architectural Practices Board» which distributes information on good architectural practices. The different instruments must be weighed against one another, and it will often be necessary to use a combination of instruments to achieve the objectives.

3.5.5 Legal instruments

The Norwegian housing legislation is directed mainly at ensuring security of tenancy and a functional and just organisation of ownership and tenancy in the housing sector. In Norway, legislation has not been used to regulate the general right to housing, and laws have not been used to any extent to secure housing for the homeless. Economic instruments have played a much more important role in this regard. The Social Services Act, which includes regulation of financial social assistance, gives the client certain rights, and functions as the final «safety net» in emergency situations. A brief description of the most relevant laws is found below.

The Social Services Act

According to the preamble, the municipalities shall help to make it possible for the individual to live independently and to have an active and meaningful existence in fellowship with others. Accordingly, the municipality is obliged to find temporary housing for persons who cannot manage this themselves. This right applies to individuals and families in an emergency situation. In practice, the municipality can meet this obligation by paying for a stay in a boarding house, hospice or hotel until more permanent housing can be found. However, the law also states that the

municipality shall help to find a home for persons who are not capable of finding one for themselves. This does not, however, give the individual an unconditional right to a home. The law reflects the division of roles and functions in the housing policy (See Chapter 3.1) where the municipality is responsible for ensuring the right conditions for the population to have suitable homes. People themselves are responsible for taking initiative to find a home.

The Rental Housing Act and the Rent Regulation Act

The Rental Housing Act was passed in 1939. The Act contains provisions on how rental agreements should be made, the rights and duties of the landlord and tenant, rules for the termination of tenancy, protection of the tenant from termination of tenancy, and conditions for removing a tenant through the legal system. Legally and in practice, the tenant has very limited rights in connection with the use of a rented home. He or she cannot use it for other purposes than those agreed upon or change the fittings or structure. If nothing is agreed to the contrary, the right to tenancy applies for an indefinite time, that is, until one of the parties terminates the tenancy agreement. The Act gives precise details as to how this termination shall be presented. In order to protect the right to a home, the Act contains rules protecting the tenant from termination of the tenancy agreement. These rules give the tenant a relatively strong position. Judicial practice shows that termination of tenancy will be judged unreasonable if the tenant would have problems in finding another home. Protection from termination may be weaker in some cases, however, for example if tenancy is connected with a place of work or the housing is to be demolished in connection with urban renewal. A breach of the tenancy agreement, for example lack of payment of rent despite warnings, or repeated breaking of house rules, can result in removal of a tenant.

The Rental Housing Act and the Rent Regulation Act contain principles for rental rates. The basic principle is that the rent cannot be unreasonably higher than the average rent for similar tenancy housing. These provisions apply to the whole country. In addition, a special Act regulating rents was passed in 1967. Municipalities with strong

pressure on the rental market can use this Act to regulate the rent for housing built before 1940. However, this right is now in use in only a few municipalities.

The Cooperative House Building Act and the Housing Cooperative Act

The Housing Cooperative Laws, which is a joint name for these two Acts, were passed in 1960. The Acts are based upon the pattern of organisation developed by the housing cooperative movement itself before the war. Cooperative building and housing societies are owned by the members and are open to everyone. The cooperative housing and building society have one main goal - to provide homes for their members. The societies may establish housing cooperatives or build owner-occupied dwellings. Usually they establish housing cooperatives which are then separated from the society as independent legal entities. Thus, residents in housing cooperatives will not risk losing their flats if the society has financial problems. Cooperative building and housing societies can secure influence over the housing cooperatives by tying these to the society through management agreements which cannot be terminated, and by demanding the right to approve changes in the cooperatives' by-laws.

According to law, cooperative building and housing societies have only a limited right to undertake activities other than building houses. Regulations have been laid down which limit the societies' possibilities for financial commitments other than those connected with share capital. On the other hand, cooperative building and housing societies can also function as saving societies for their members.

A housing cooperative may be established both by a cooperative housing and building society or by others, for example, a group of people looking for homes who choose a joint housing project. The housing cooperative is owned jointly by its members and housing is rented to these members. Thus, residents do not own the home in which they live directly but own a share of the association from which they rent the home.

A housing cooperative cannot be established for any purpose other than to obtain and manage housing for shareholders, unless the purpose is directly connected to the shareholders' housing interests. This gives housing cooperatives the opportunity to build and



A housing cooperative is jointly owned by the residents. (Photo: JDM)

own assembly halls, sports facilities, kindergartens etc. Both of the Acts on housing cooperatives lay down rules for the establishment and dissolution of cooperative building and housing societies and housing cooperatives. In addition, they lay down rules for first right of purchase, and on financial issues and accounting.

Joint Ownership Act

Individual ownership of units in multi-family buildings first occurred in Norway in the mid-1960s. Some people then began to establish jointly-owned apartments (condominiums) in order to avoid price regulation and the first right of purchase which applied in housing cooperatives. There were also tax advantages connected with owned housing. Approximately 20,000 private jointly owned apartments had been established by the mid-1970s. The organisation of many of these had many weak points. Therefore, in 1976 the authorities took the initiative to consider legislation on condominiums, and a temporary ban was imposed on establishing new condominiums.

The Act on condominiums was passed in 1983. The establishment of new condominiums was once again permitted and regulations were established for the organisation of owner partnerships. A jointly owned unit is a form for communal ownership of a property - one owns an ideal share of the whole building and has exclusive right to the use of a specific apartment. The basic idea behind the joint-ownership system is that homeowners should have the same

rights in terms of the use of their apartment as owners of detached single family homes. In multi-family houses in close physical proximity to neighbours and joint ownership of communal areas, such an «ideal» may be difficult to realize in full. However, the joint owner has more freedom in the use of his apartment than a member of a housing cooperative does. The limit is that he or she cannot use the apartment in a manner that is harmful or disadvantageous to the other owners. The Act also contains detailed rules for the establishment of condominiums, for management through the election of a representative body, on voting, on the division and responsibility for joint expenses, etc. In practice, the differences between housing cooperatives and joint ownership housing are only minor ones.

The Planning and Building Act

In principle, the building legislation applies to all kinds of buildings and installations and is of decisive importance as an instrument that can be used to achieve various objectives in the housing policy, especially in regard to the quality of housing - accessibility, indoor climate, energy consumption - and in regard to housing coverage and a well functioning housing and construction market. The Act stipulates requirements as regards technical standards, aesthetic design of buildings and built environments, and contains regulations for enforcement and administrative procedures.

The present Planning and Building Act was passed in 1986. Responsibility for enforcement of the Act is divi-

ded. The Ministry of Environment is responsible for planning, while the Ministry of Local Government and Labour is responsible for actual building. The sections on planning lay down rules for integrated physical, social, cultural and economic planning. These provisions are discussed in more detail in Chapter 4.3.

The parts of the law concerned with building are closely connected with the legislation dealing with planning. The sections on building activities lay down rules for how building that results from the planning decisions should be carried out. The Act regulates the consideration of building cases by the municipality, applications for building permits, on notification of neighbours, on the division of responsibility during the building process and on how the building work shall be approved. In addition, the Act lays down rules for expropriation and for repayment of costs for the construction of roads, water supply and sewerage installations. Rules are also laid down concerning sanctions for violations of the Act, for example, illegal building. Not least, the Act is also the foundation for technical building regulations and building provisions.

Efficiency in the consideration of building applications has been in focus for a number of years. The completion of complicated building projects often leads to many conflicts of interest which can take a long time to solve. This extra time increase costs. Efforts to simplify the administrative processes and make them more effective have led to less time spent on administration. At the same time, it has become obvious in the last few years that the technical quality of much of the building is not satisfactory. Damage to buildings as a result of faulty construction is relatively extensive. For this reason, the Storting agreed to a comprehensive revision of the Planning and Building Act in 1995. The objective of changes was primarily to raise the quality of both the consideration of building applications and of the building structure, and at the same time increase the efficiency of the public administration.

The distribution of responsibility has been changed, so that those who do a job are directly responsible for ensuring that work is done in conformity with the regulations in force. Higher demands are placed on the qualifications of person who do building work, and preparations

have been made for a system of approval of occupational groups and the establishment of a central register of approved artisans. Approval can be withdrawn if responsibilities are not fulfilled or work is poorly executed. Finally, regulations have been laid down for more effective building supervision, which will mainly be in the form of self monitoring using a defined system. The role of the building authorities has been changed, so that they now have a more supervisory role instead of undertaking direct inspection at building sites.

Most of the technical building rules are assembled in the Building Regulations. These regulations are connected primarily with personal safety. Buildings and installations should be planned and constructed so as not to cause danger or significant disadvantages to persons, neither during the building process nor during use. Technical requirements intended to prevent or delay fire, and requirements regarding the safety of structures are especially important in this connection. The building regulations are also important tools for improving the indoor environment through requirements concerning light and fresh air. Requirements concerning insulation have a definite impact on energy consumption in the housing sector. Finally, the regulations contain rules that are decisive in determining to what degree newly built housing will be accessible for the handicapped. The building regulations also contain detailed rules on administrative procedures, building supervision, approval, etc. The requirements in the building regu-

lations are functional. This means that the specific technical solutions will be described in more detail in guidelines to the regulations and in building standards. In addition, the Norwegian Building Research Institute publishes information containing fairly detailed descriptions of technical solutions that conform with the requirements in the building regulations.

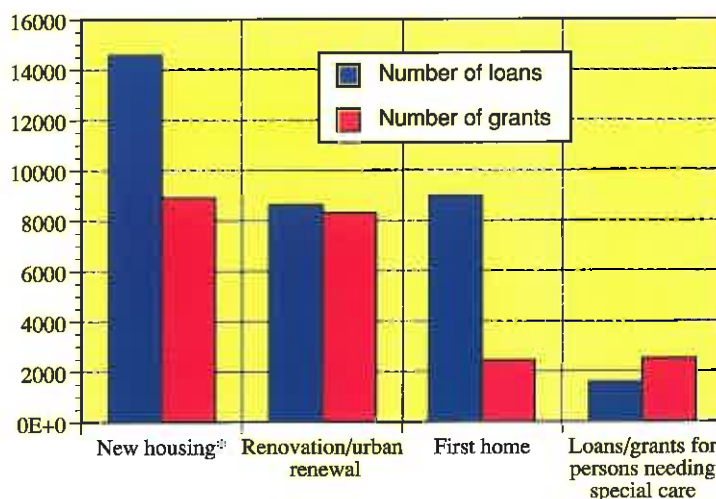
The building legislation has only applied to new building or rebuilding that can be compared with new building. The last revision of the Planning and Building Act included a provision which opening up for making the requirements apply to existing buildings as well.

The building regulations define minimum requirements. These requirements are an expression of the minimum standard the authorities will accept. Other instruments can set higher standards. The Norwegian tradition is that economic instruments often go farther than minimum requirements defined in the building regulations. In a number of cases, the economic instruments administered by the Housing Bank have set a standard, for example for housing quality, that have later become minimum requirements in accordance with the building regulations.

3.5.6 Economic instruments - the Housing Bank's loans and grants

The Norwegian State Housing Bank is the main instrument used by the Government to implement the housing policy. The Housing Bank administers all direct public financial support in the housing sector.

Number of loans and grants given by the Housing Bank in 1994



* The column for «grants» includes also supplementary loans for housing quality.

The Housing Bank works in close cooperation with the municipal authorities, who must approve applications for loans and confirm that any new building complies with the existing regulations. A general allocation for some types of loans and grants is given to the municipality for further distribution.

The Housing Bank also cooperates with the private sector, which is responsible for the actual building/renovation of homes and provides money for building costs while the homes are being built. The Housing Bank has cooperated very closely with the housing cooperative movement.

The Housing Bank gives loans and grants for:

- building of new houses
- renovation and urban renewal
- first home purchases
- housing for persons needing special care, and for nursing homes
- kindergartens
- purchase of a home for the disadvantaged

The Bank grants both general and selective loans. General loans, such as loans for new buildings, and most types of renovation loans, are subject to specific requirements, for example to area and cost. Selective loans are granted to certain groups of individuals, and are means-tested. Loans are generally given for 60-70% (max. 80%) of the cost of a home, with a first mortgage. The remaining costs must be financed by the purchaser/ builder or, in exceptional cases, by grants.

There are two basic categories of housing grants - those which reward desirable housing quality (general grants) and those which are given to disadvantaged groups (selective grants).

General loans and grants are instruments intended to promote good housing coverage and the construction of good housing of moderate standard in good residential environments. Selective loans and grants have the additional purpose of promoting a satisfactory distribution of housing, and housing costs which are reasonable in relation to income.

The most important types of loans include:

Renovation grants are used, for example, to encourage activity in urban renewal. (Photo: Aspenberg)

Loans for new building have been and still are the dominant type of loan granted by the Housing Bank, though the number of loans for renovation is increasing. In order to qualify for a loan, the housing must be of a certain standard. Minimum and maximum limits have been set for size, and there is also a limit on costs. Supplementary loans are granted as a reward for special housing qualities, for example accessibility (life-span homes), health and environmental qualities and good residential areas.

Renovation loans are given for urban renewal and renovation of homes and residential areas. Loans can also be given to individual households on the basis of need. These loans are intended to stimulate better housing standards in the older housing stock and better housing and residenti-

al environments. Urban renewal is also important for improving living conditions, especially in the cities.

First home loans enable young people, low income households and persons with special needs to establish themselves in a new or used home of moderate standard. These loans are given in a «pot» to municipalities who then give loans to individuals. The municipalities can also use these funds to refinance expensive loans from private credit institutions for individuals with financial problems. In addition, the Housing Bank can give these loans to housing cooperatives to refinance expensive private loans.

Loans for housing for persons needing special care, and for nursing homes. These loans were established to improve financing for persons in need of care (nursing services,



The Housing Bank's activity is increasingly directed toward improvement of the existing housing stock. (Photo: JDM)



etc.), especially considering the increasing number of elderly persons in Norway. Loans can be given, most often in combination with a grant, for the building, purchase or rebuilding of housing or nursing home facilities.

Grants from the Housing Bank encourage desirable housing qualities and enable disadvantaged groups to establish themselves in a home.

Grants which reward housing qualities include grants for:

- especially good accessibility
- measures that promote health and a good environment
- good housing areas
- urban renewal
- good architectural practices
- densification (infill)

Grants based upon social need include:

- first home grants
- renovation grants
- grants to young people to purchase their first home
- grants for the planning of housing for persons with special needs

The Housing Bank also gives grants for the development of good residential environments, to promote the municipal housing policy, to organisations for the handicapped and for the preparation of information on the housing policy.

Housing allowances are also granted the Housing Bank to families with small children, elderly persons and recipients of social security who have high housing costs in relation to income.

3.5.7 Information on good planning in the housing sector

Norway has a strong tradition in acquiring knowledge and developing norms for good planning in the housing sector. During the period of reconstruction after the Second World War, these efforts were administered by the Housing Directorate. Norms contributed to a housing stock of moderate standard with a rational technical design. Standard types of homes were developed and a wide range of information was given to municipalities and the building industry. The Housing Bank took

The authorities and the Housing Bank are engaged in the distribution of information on good housing planning and architectural practices.

over these activities in the mid-1960s. In cooperation with the Norwegian Building Research Institute, the Bank has developed a «grammar» for good housing planning. Parts of these norms and requirements have become the basis for financing by the Housing Bank. The Norwegian Building Research Institute has worked on independently to prepare extensive information material (detailed building papers) which recommend good and sound technical building designs. These efforts have created widely applicable norms for good house building in Norway.

In recent years, the Housing Bank has placed more emphasis on information concerning good planning of housing, instead of detailed requirements. Weight is attached to the residential environment and positive elements in the vicinity of the houses, for example good outdoor areas, safety from traffic, low-risk materials, renewal of housing and the environment etc.

The Housing Bank is also engaged in efforts to encourage good architectural practice. The National Board of Architectural Practices, composed of representatives of the building industry, professional organisations and relevant ministries, influences public opinion and spreads knowledge through information and education.

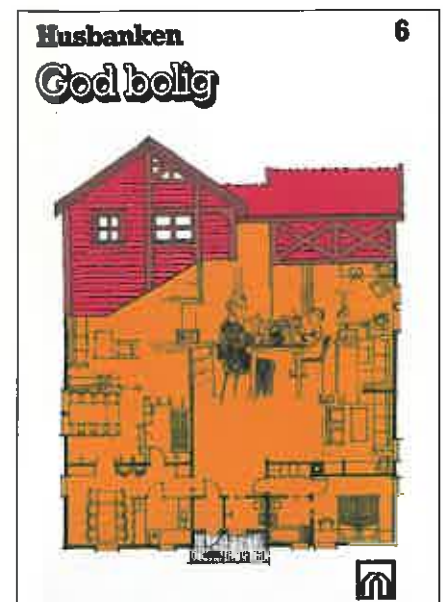
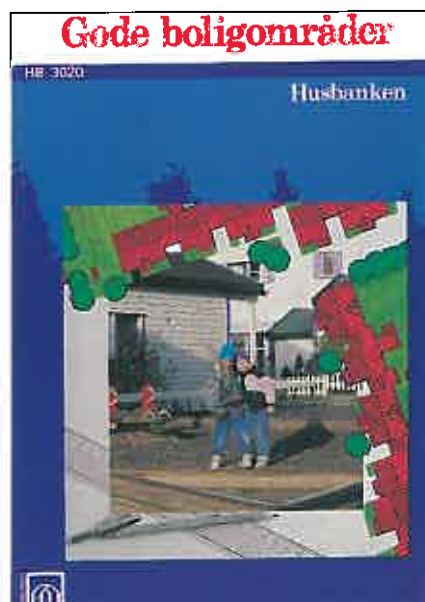
The Housing Bank has also played a major role in the attempts to make housing accessible for the handicapped, through both information and favourable financing. The Bank initiates and finances an important part of research on housing, which together with the distribution of information is an important instrument for achieving the goals of the Norwegian housing policy.

3.5.8 New challenges, new tools - Changes in contemporary housing policy

The instruments for promoting the Norwegian housing policy have gradually been changed to adjust to altered conditions and new challenges. By and large, the present set of instruments contains the instruments needed to meet the challenges that can be identified today. However, changes will be made in the system of financing housing in 1996 so that the Housing Bank's system of loans and grants will be better adapted to meet new challenges.

Subsidised loans from the Housing Bank will be eliminated. The Bank will continue to give the same type of loans, but interest rates will correspond to the interest the Bank itself has to pay for its funds. Loans from the Housing Bank will still be competitive, since the Bank will be able to achieve better terms of payment than private credit institutions. The Housing Bank will continue to be the most important credit institution in the Norwegian social housing policy.

Funds previously used for interest subsidies will be channelled through the system of grants, which will thereby be strengthened. Thus, subsidies will be directed towards definite purposes and will be geared towards priorities such as housing quality and providing homes for disadvantaged groups. Grants for urban renewal and to young people to purchase their first home are given priority in the State Budget for 1996. In addition, special grants have been established to improve housing quality.





Environmental challenges can necessitate further changes in tools and instruments in the housing sector. (Samfoto)

These grants will encourage greater emphasis on socially important housing and environmental qualities in new building areas and urban renewal. They will encourage municipalities and developers to attach more weight to holistic quality and environmental considerations in their planning, and will help to cover extra costs by rewarding projects with positive environmental qualities through favourable financing.

Since housing coverage is generally good, and since improvement of the existing housing stock is seen to be a central challenge, the funds available for loans and grants for the building of new homes have been reduced slightly, while the funds available for renovation and urban renewal have been increased.

The municipalities have traditionally played an important role in implementing the Norwegian housing policy. This role has been strengthened by the changes in the system for financing homes. Even closer cooperation between the Housing Bank and the municipalities is likely, since the municipalities will have a greater possibility of using the economic incentives in housing policy as an integrated part of their efforts to improve living conditions for their residents. The

municipalities own planning will be decisive for preventing tendencies towards segregation in the housing market, and for achieving environmental goals.

In this context, information and the transfer of knowledge will be important tools in years to come. Developments in the housing sector will generally be the result of the choices made by individual home seekers and developers. The citizens' interest and participation in the municipal planning and development processes will also be decisive. Therefore a major goal is to increase the level of knowledge amongst decision makers and among the general public. The desired development may conflict with established housing traditions, opinions and patterns of consumption. Better knowledge about the challenges will be of primary importance in the attempts to lead opinion in the right direction.

It is desirable to use positive instruments to meet the challenges in the Norwegian housing policy. The system for financing housing, and the use of incentives that are a part of this system, as well as information, the acquisition and dissemination of knowledge by the administrative apparatus in the housing sector, have been

shown to be effective means of promoting the housing policy. Regulations will be necessary, however, in certain areas, including direct requirements and prohibitions. The new building legislation allows requirements to be imposed for the existing housing stock. New building regulations will be concerned with important themes such as more stringent energy conservation, the life-cycle perspective in building, the management of waste and better indoor environments.

The national government has the main responsibility for establishing frameworks and incentives which will lead to rational choices on the part of decision makers, and for ensuring that the instruments that are used have the desired effect. Increasing emphasis is being placed on evaluation of the instruments and on the development of indicators for outcome assessment. Results in the housing sector will be dependent upon effective instruments adapted to actual developments. Future changes in instruments will probably be necessary in order to ensure realization of the main goal: a good home for everyone in a good residential environment as part of the development of sustainable human settlements.

4. SUSTAINABLE HUMAN SETTLEMENT DEVELOPMENT

4.1 CURRENT STATUS AND IMPORTANT CHALLENGES

According to Agenda 21, Chapter 7, the overall human settlement objective is to improve the social, economic and environmental quality of human settlements and the living and working environments of all people, in particular the urban and rural poor. The task of developing sustainable settlements will accordingly affect most policy fields. Central fields will be the economic policy, employment market policy, social policy and policy concerning welfare services and the distribution of wealth.

This section does not go into detail on these general areas of significance for sustainable city and town development. A survey of the relevant living conditions and socio-political indicators is presented in Chapter 2.

Norway has had an active environmental protection policy and concrete improvements in the physical environment have been achieved during the last decade. Important natural areas, cultural landscapes and watercourses have been protected through public efforts and popular commitment. National and coastal parks have been established close to built-up areas, and especially prepared for outdoor pursuits. Through an active pollution policy, air pollution, and emission of chemical dust, hydrochloric acid and sulphur dioxide from industry are almost eliminated. The construction of waste water treatment plants has reduced emissions of sewage into the sea and watercourses. Sorting and environmentally sound treatment of wastes are well under way.

In spite of the success of these environmental activities, Norwegian cities and built-up area currently face a number of challenges which will have to be met if we are to achieve ecologically sound and sustainable development. Cities are important contributors to global pollution. The most serious health and environmental problems are experienced in cities with high concentrations of noise, dust and air pollution, and a high rate of accidents, especially ones involving motor vehicles.

This chapter contains a description of the goals, strategies and instruments of particular relevance for urban development, and a description of the current situation and the important challenges facing Norway today.



View over Drammen (Samfoto)

4.1.1 Population patterns. Regional policy challenges

Norway has a dispersed pattern of settlement. This enables Norway to protect the country's natural resources and lessen pressure on the cities, thus reducing environmental problems and socio-economic challenges in these urban areas. A balance of settlement between the cities and rural areas also helps to reduce differences in living conditions.

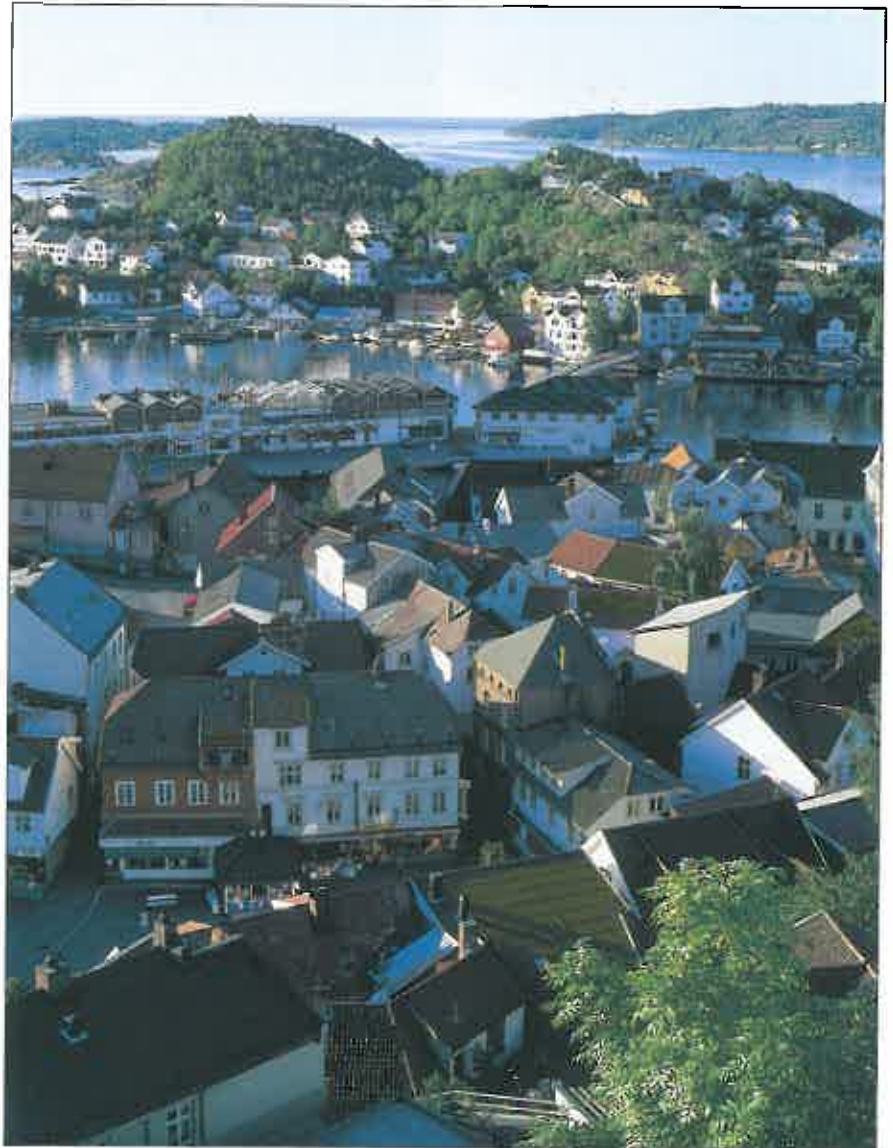
The process of urbanisation can be divided into three periods:

- Industrialisation and intensive urbanisation during the period 1850 - 1920
- An economic recession and a low rate of urbanisation during the period 1920 - 1945
- Extensive urbanisation after 1945

In 1950, for the first time, more than half the Norwegian population lived in cities and densely populated areas. Norway experienced significant economic growth in the 1950s and 1960s, as did the rest of Europe. In spite of the government's policy of support to regional areas throughout the country, a centralisation of both employment and population occurred in these decades. Owing to a high birth rate, rural counties with a high rate of out-migration did not experience a decline in population. However, the population of a number of small municipalities was reduced and some rural areas were completely depopulated.

Centralisation declined in the 1970s as a result of an increasing national economy based on income from oil production, and because of political interest in strengthening the regions. For example, income from the oil fields was used to stimulate public services in the municipalities. This secured primary welfare services and more opportunities for employment in regional areas. However, the population of the smaller towns and built-up areas increased also in the 1970s and 1980s at the expense of the rural areas. There was a particularly marked increase in the number of jobs in the service sector in large cities.

Suburban areas surrounding the five largest cities have experienced the most significant growth in the employment rate since the beginning of the 1980s. Many municipalities in the Oslo region experienced a 20 - 40% increase in the number of employed during this period.



Maintenance of the general pattern of population distribution will be a major challenge. (Samfoto)

On the other hand, small, sparsely populated rural areas in northern Norway did not benefit from developments in the employment market. Twenty-six municipalities in northern Norway experienced a decrease of more than 10% in the number of employed. The rate of unemployment was highest in the least central regions of the country. The very highest rate is found in the peripheral areas of northern Norway.

After a net population decline in the northernmost counties of Troms and Finnmark in the 1980s, a slight increase occurred in the 1990s. However, there has been a continual population movement from peripheral coastal and interior areas towards cities and built-up areas.

An economic recession and high unemployment reduced out-migration from regional areas at the end of the 1980s and beginning of the 1990s. It was mainly young people who chose to remain in

rural areas. However, experience shows that the current increase in the employment rate will lead to new out-migration from rural Norway. A high out-migration rate combined with a low rate of return and a low birth rate have brought about an uneven age and gender distribution in large parts of Norway.

An increasing number of young people have taken higher education since the 1980s. A system of institutions of higher education in all areas of the country has helped to produce one of the most highly educated populations in the world. Young people demand more varied and challenging employment and return to regions with larger centres which can offer a variety of jobs. The rate of return is lowest for areas without such centres.

The cities, on the other hand, have developed a more varied pattern of households and a steadily increasing number of children are now growing up in

The high rate of detached single family houses in Norway has resulted in extensive land-use, especially in suburban areas. (Photo: JDM)

cities. If this trend is not stopped, the population basis for services and other places of work in regional areas will gradually be reduced. Thus, the primary challenge for regional areas is to develop employment opportunities which can prevent out-migration and will attract young families with higher education.

In many local communities, the public sector - first and foremost the municipality - is decidedly both the largest employer and the most important producer of services for the population. Traditionally, many families along the Norwegian coast have combined fishing and agriculture. This pattern continues to exist, but income from primary production is increasingly being combined with employment in the public sector. A common pattern is that the wife is employed in the health sector, social services, education or municipal administration while the husband is a farmer or fisherman. Significant public activity is therefore necessary for the benefit of the country as a whole. Regional areas which have previously had a standard of living lower than the national average have experienced a clearly positive trend in recent years and in many respects have achieved the same living standards as more central areas of the country.

Changes are currently occurring in the public sector aimed at reducing expenses, improving services and adapting the supply of services to consumer patterns and demands. These changes can lead to a decrease in the number of people employed in the service sector. Jobs can be lost in regions where these have a great deal of influence on the employment rate. Thus, these communities face a major challenge in providing alternative employment. There is an obvious need for a stronger and more varied private sector which can counteract changes in important elements of the local economy. A strengthening of small and medium-sized businesses can aid in stabilising industry and trade in regional areas.

Increasing internationalisation and the opening of borders between European countries has made growing regional cooperation possible. Internationalisation will result in growing demands on the commercial sector for competitiveness and an ability to ad-



just to new conditions. This will influence the structure and development of the commercial sphere as well as the employment market in both central and peripheral areas of the country.

4.1.2 City structure, land use and development patterns

Contemporary city structures demand large areas of land and result in pollution and extensive use of transport and energy, with serious negative consequences for the environment and living conditions. An increasing amount of undeveloped land has been taken into use in cities and other urban areas during the last 30 years. The largest urban regions occupied 90% more area in 1990 than they did in 1960. Expansion accelerated in the 1960s, was highest in the period 1970-80 and decreased in the 1980s. A study of 21 Norwegian cities and built-up areas shows that the area they cover increased by 41% from 1970 to 1990. Population growth in the same period was 14%. In other words, urban area per inhabitant rose by 23%. The increase was largest between 1970 and 1980 (20%) as opposed to 3% between 1980 and 1990. The average urban area per capita in these cities and towns is approximately 500 m².

Despite Norway's impressive resources in terms of land, the areas of agricultural land are small and are often located around built-up areas which were originally rural centres. The protection of agricultural areas has therefore influenced land use and the building pattern in many cities and densely populated areas.

One reason for the rapid expansion of land consumption has been the spread of buildings and population through

suburban development around cities and towns since the end of the Second World War. New housing areas have increasingly been built at some distance from the city centre in order to protect productive agricultural land. Residential areas that are dependent on the use of private cars have come to occupy larger and larger areas and consequently a growing need for transport. New infrastructure such as roads, water supply, sewerage systems and other municipal services had to be built. Except in Oslo, this trend continued throughout the 1980s. Private cars, road building and technical developments in the transport sector gave increased mobility and made it possible to commute long distances. All these factors has contributed to large regional urban systems containing large commuter areas, regionalised housing and employment and a sprawling pattern of settlement.

Decentralisation is possibly even more apparent for commercial building construction, especially for industry and wholesale trade. Moving to the periphery of the city can result in lower rent and better access to suitable premises close to transport arteries, better parking facilities, more space for the loading and unloading of goods and raw materials, etc. However, this implies that industrial areas and commercial premises in the centre of the city are left empty. These deserted, used sites make it possible to build new, centrally located dwellings. The same applies to port areas and deserted industrial sites in built-up areas. There was also a strong tendency since the mid-1980s to locate industrial buildings and shopping centres near highways on the out-

skirts of the towns. This can reduce the importance of older shopping areas in the town centres. A general outcome of this decentralization, or expansion of the cities, is that the boundary between town and country has become more blurred. Rural areas are becoming urbanised bit by bit.

There are two reasons for the decrease in urban expansion in most areas in the 1980s. The first is infill, i.e. empty spaces within the existing built-up areas, especially in the cities, were used for new building. Second, there was a reduction in the average size of plots for detached houses. This applies first and foremost to small and medium sized towns and urban settlements, since the detached, single-family house accounts for a relatively small share of the housing in the cities.

Area per capita in cities and built-up areas varies considerably. The amount of land used per capita is almost twice as much in Fredrikstad/Sarpsborg, for example, as in Oslo. In addition, the degree of utilization of the land is significantly higher in central areas of the cities than the average for the cities as a whole. In the largest cities the degree of utilization of land is higher in the inner parts of the city. Population density in the district of Old Oslo is 180 m² pr inhabitant, while the average density in the city as a whole is 368 m² per inhabitant.

Norway is again experiencing economic growth in the 1990s and there is reason to believe that there will be increased pressure on land resources. Increased consumption can also lead to greater demands for large detached single family homes and private cars. With unchanged land use policy and continued economic growth, urban areas may once again begin to spread, with consequent pressure on the environment, spread of infrastructure and increased consumption of goods and services.

4.1.3 Urban structure and transport

Distances caused by sprawling cities, large functional regions and a scattered pattern of development cause an increased need for transport and consequently higher energy consumption, noise and pollution. In addition, the development of large functional regions has made it necessary to travel longer distances to work, services, family and friends than was necessary

Population density

	m ² per inhabitant	population
Oslo	368	707,000
Fredrikstad/Sarpsborg	616	90,000
Copenhagen	305	1,410,000
Århus	431	226,000
Ostersund	514	43,000
Amsterdam	200	810,000

Source: Scandinavian Cities, 1990 (The Norwegian Building Research Institute) Non-Scandinavian European Cities, 1980 (Newman and Kenworthy, 1989)

Energy consumption

Energy consumption in the different sectors of Norwegian society, 1961-1991 in Petajoule

SECTOR	1961	1976	1991	% 1991	electricity %1991
Housing	73	113	153	23%	73%
Public and private services	25	57	85	13%	86%
Industry	149	247	236	36%	67%
Transport	35	106	144	22%	1.5%
Primary production, mining & construction	not avail	44	40	6%	not avail *

*probably 10-15%

The table shows a marked increase in energy consumption between 1961-1991. The only decrease were in primary production, mining, construction and industry from 1976-1991. The table also shows a large relative use of electricity in 1991, with the exception of the transport and primary production sectors which are mainly based on fossil fuel. Energy consumption in the transport and housing sectors were almost equal in 1991 (22-23% of total energy consumption).

20 - 30 years ago. The average Norwegian travelled four times as far in 1990 as he did in 1960. A study from the Norwegian Institute for Urban and Regional Research (Peter Næss, 1995) shows that people who live in central areas use one third as much energy for transport as used by people living in peripheral areas.

Norway's scattered pattern of development and the large number of detached, single family homes cause a large demand for transport. When the transport takes place mainly on roads, by private cars, the negative environmental consequences will be considerable. Road traffic accounted for 74% of the energy used for domestic transport in Norway in 1991. The use of the different means of transport in the ten largest Norwegian urban areas in 1991 (measured in trips per day) was as follows:

Cars	61 %
Public transport	13 %
Walking/cycling	26 %

Commuting accounts for a steadily smaller share of road traffic in Norway (currently 20%). Shopping and leisure trips account for increasing shares, 22% and 15% respectively.

Small stores in the local environment are out-competed by large shopping centres based on the use of priva-

te cars. Many parents are dependent on private cars to take children to and from school, kindergarten and recreational activities. This implies that the need for transport can be reduced significantly if residential areas and local communities are self-contained and include the most important private and public services. Grocery stores, banks, post offices, schools, kindergartens, etc. require a certain number of customers and population concentration. Services should be within walking or cycling distance, making the use of cars unnecessary. Thriving, self-contained local communities require a deliberate policy to encourage establishment of service institutions and more concentrated types of housing than often built today.

The separation of functions has led to longer distances to travel, despite attempts to locate places of work near residential areas. Work, centres and residential areas are not in balance. This imbalance has led to empty residential areas during the day and abandoned central city areas in the afternoons and evenings. Another problem connected to long distances between homes and places of work is the commuting. There is heavy traffic on the main roads into the city during rush hours and often queues. Public transport into

the city is often well developed, but the capacity is often inadequate during rush hours. Public transport is used more frequently to centrally located work places than to work place located on the outskirts.

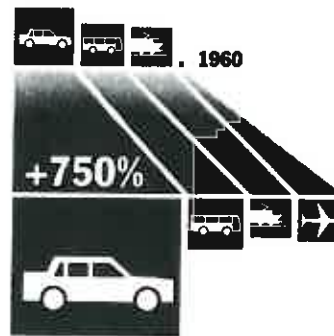
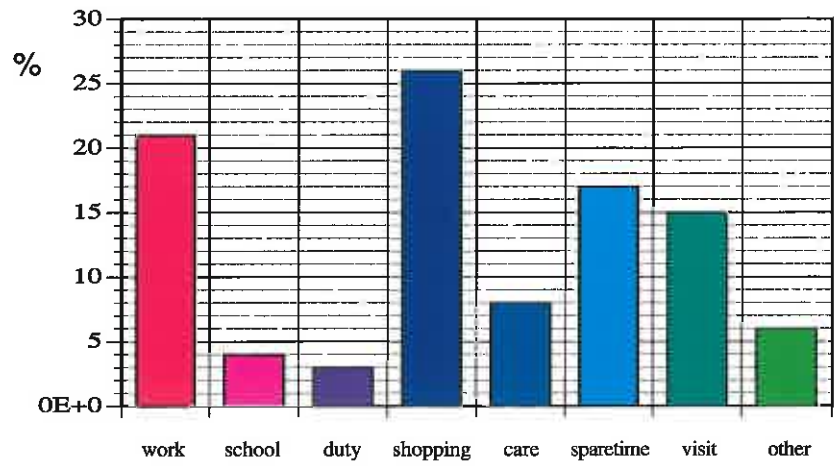
Shopping centres and supermarkets based on use of private cars are currently being built on the outskirts of, or outside most Norwegian cities. Main roads into the cities have proven to be an important factor for the localisation of commodity trade. Moving what once were important activities of the centre to the periphery can lead to more transport for shopping trips, and also makes the traditional city centre less attractive. Externally located shopping centres is also difficult to reach for persons without cars, primarily the elderly and young people under 18 years of age.

Household and family structures are changing. An increasing number of households have two incomes and two members who have to reconcile their preferences in terms of place of work and place of residence. This can lead to longer commuting distances and more use of transport. Lack of service facilities on the outskirts of the cities and in the suburbs also contributes to an increased need for transport to the city centres. An unsatisfactory system of public transport necessitates use of private cars.

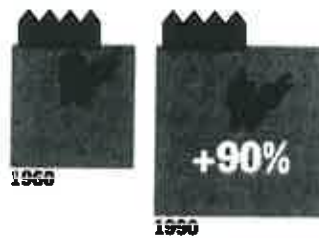
Older housing is often located near the city centre or around places of work. This housing is therefore exposed to heavy commercial and commuter traffic from new residential areas on the city outskirts. The poorest living conditions are found in these inner city residential areas. The increase in traffic has also led to a lower standard of residential areas along the most heavily travelled roads.

Relative distribution of travels in norwegian households

Source: Vibe 1993



The use of automobiles measured in km per capita increased 750% between 1960 and 1990



Land use for construction has increased by 90 % from 1960 to 1990.



Shopping centres along main roads and highways result in an increased use of private cars and compete with shops in the local community

4.1.4 Green structure, open-air recreation and biological diversity

Building on natural green areas reduces biological diversity and the population's access to untouched nature. The growth of built-up areas has led to a reduction of the most productive agricultural areas and of rare natural environments in and around the cities (deciduous forest, wetlands, river deltas, etc.) It is therefore important to draw attention to green areas in and around the cities. Such green areas include what remain of natural areas and forest, parks, and private gardens. The green areas are important for recreation and play and comprise an important part of the urban landscape. In addition, they are the foundation for biological diversity in cities and built-up areas and influence climate and the local air quality.

The inner parts of the cities often lack green space for recreation and play owing to a high degree of utilization of use of land for buildings and roads. Green corridors have gradually been built on, making natural areas near the cities more difficult to reach. The goal of locating new construction within the existing city limits may easily conflict with the desire for suitable areas for open-air recreation and play within easy reach of the home.

The Building Act, passed in 1965, introduced norms and by-laws for green areas. This led to more land being reserved for «green lungs» in residential and industrial areas and along the roads. Reserving land for green areas is, however, does not provide adequate protection. Studies show that, in many municipalities, the continuity and quality of green areas has been reduced to a significant extent by individual dispensations and negotiations in the planning process. Thus, the main tendency in the cities has been a real reduction of green areas and poor access to them. At the same time, the construction of a network of footpaths and bicycle paths has made green areas more accessible.

The reduction in green areas has been greatest in the course of the last decade. Almost no green areas have disappeared completely, but they have been considerably reduced in size. Studies show that truly natural areas, are most vulnerable. Access to green areas is also a problem. The increased traffic creates serious barriers for people and animals, making access difficult.

Green «lungs» are important in cities. Many areas are threatened by continued construction. (Photo: JDM)

In addition, modern road installations require a great deal of space and contribute to the loss of green areas. The inner-city districts of Oslo have on average 18 m² of green area per inhabitant and 29 m² of roads and parking areas (White Paper No. 11 (1990-91) on the economic situation of the large cities). Old Oslo is the most heavily burdened of Oslo's inner city districts. It contains Norway's largest traffic junction, and 1/3 of the available land is devoted to traffic, port facilities, railways, roads and streets. Area per capita regulated for traffic is four times as large as the average for the city. This district contains 15 m² of open-air recreation area per inhabitant in contrast to 45 m² for the city as a whole.

4.1.5 Water pollution, municipal sewerage systems

Water pollution is a serious problem in many Norwegian cities and built-up areas. One of the largest sources of pollution has been the discharge of untreated sewage into rivers and the sea. During the last ten years, a major public effort has been made to solve this problem by building waste water treatment plants. The objective is to have completed all important clean-up measures by the end of year 2000. As far as possible, the municipalities should cover the costs of these measures through sewerage charges.

4.1.6 Air pollution and noise

The current level of air pollution is a serious global and local problem of decisive importance for living conditions.

Greenhouse gases

Emissions of carbon dioxide (CO₂) amounted to 35.7 million tons in 1993, which corresponds to 0.2% of global emissions. Preliminary figures for 1994 are 37.7 million tons. Per capita emissions were twice as high as the world average, but about the same as in the rest of Western Europe. The largest emissions of CO₂ originate from road traffic, petroleum activities, heating and industrial processes. CO₂ is the most important greenhouse gas in Norway,



contributing 74% of the total national greenhouse gas emissions measured in terms of CO₂ equivalents. The next most important greenhouse gases are methane and nitrogen oxide, which account for 14% and 9% respectively of the total emissions. Chlorine and bromine compounds contribute to depletion of the ozone layer in the earth's stratosphere. Emissions of these gases contribute to an increase in ultraviolet radiation to the earth, which can cause injury to humans and animals, and damage to materials. Recent measurements have also shown low ozone levels over northern areas and the Antarctic. Norway has met international commitments and even stricter national targets for reduction of emissions of ozone depleting substances. The positive results has been achieved mainly through the use of administrative instruments, first and foremost legislative provisions, information, voluntary measures and cooperation between the authorities and industry.

Acidification

Precipitation containing sulphur dioxide (SO₂) and nitrogen oxide (NO_x) has an acidifying effect and is a threat to fish stocks and vegetation, and also causes health problems among the population. The critical load for acidification of surface water has been exceeded over an area 121,000 km² in Norway, corresponding to 37% of total land area. Around 95% of the sulphur and nitrogen

depositions originate from long-range transmitted pollution, principally Great Britain, Central Europe and Russia.

Total Norwegian emissions of NO_x amounted to 225,000 tons in 1994 and were thus amongst the highest per capita in Europe. As much as 78% of this amount originated from mobile sources, equally divided between road traffic and shipping. Norwegian emissions increased significantly up to 1987, owing to increased use of private cars. Emissions were reduced by 5% between 1987 and 1994.

Total emissions of SO₂ were reduced by 75% between 1980 and 1994. The most important reasons for these reductions are less use of heavy oil, stricter emission criteria for industry, stricter regulations concerning maximum sulphur content in oil, a higher tax on sulphur and ready access to inexpensive surplus hydro electric energy.

Local air pollution

The most serious and most widespread local air pollution in Norway are caused by emissions of nitrogen dioxide (NO₂) and PM10 (particulate matter or soot and dust caused by studded tyres). It is estimated that 600,000 Norwegians are exposed to NO₂ pollution exceeding the levels recommended for residential areas by the Norwegian Pollution Authority. Corresponding numbers are 700,000 for PM10, 30,000 for CO₂ and 13,000 for SO₂. Large areas of cities are exposed to pollution exceeding the recommended air quality guidelines. Highest excesses occur in areas with heavy traffic.

Surface (tropospheric) ozone

Volatile organic compounds (VOC) along with nitrogen oxide lead to formation of photochemical oxidants. High concentrations of tropospheric ozone, the most important oxidant, can harm people, vegetation and crops. Emissions of such volatile compounds (methane excluded) amounted approximately 295,000 tons in 1994, one of the highest per capita emission levels in Europe. The emissions originate mainly from loading of crude oil in the North Sea and from oil terminals, which together account for 40% of emissions. Car traffic is another important source, accounting for 24% of the emissions in 1994.

Noise pollution

Currently, 1 million Norwegian are exposed to noise levels exceeding 55 dBA in the vicinity of their homes. Approximat-



Traffic on roads and highways were responsible for 28% of CO₂ emissions and 39% of NO_x emissions in 1994 in Norway (exclusive offshore) (Samfoto)



A fourth of the Norwegian population is disturbed by noise pollution. (Samfoto)

ely 260,000 people are seriously disturbed by noise. Most of these are residents of central parts of the cities, but noise is also becoming a serious problem for residents of small built-up areas and for people living along national highways and main roads. Road traffic is the main source of this pollution. The Norwegian Pollution Authority (SFT) has recommended that dwellings should not be exposed to noise from traffic exceeding 55 dBA. The indoor limit is 30 dBA.

4.1.7 Waste

Norway produces 5 million tons of waste each year (not including waste from the construction industry and mining). The waste consists of:

Household waste	1.100.000 tons
Production waste	4.000.000 tons
Hazardous wastes	220,000 tons

Municipal waste management facilities accepted 2.2 million tons of wastes in 1993, or more than 500 kg per inhabi-

tant. In 1994, 69% of municipal waste was deposited on landfills, 18% was burned, 12% was recycled and 1% was composted.

Current methods for management of waste cause a number of environmental problems, the most important of which are pollution of water, air and the soil. Recycling is dependent on sorting of waste by the individual household and is well established in many municipalities. Kristiansand, with 65,000 inhabitants, has come a long way. Extensive sorting has been introduced, where the waste is divided into four fractions, and recycling stations have been established. Greater use of wet organic waste (food wastes, etc.) could increase the recycling and composting of municipal waste considerably. For this reason, projects have been started to encourage municipalities to emphasize sorting and the use of wet organic waste for compost or animal feeds.



4.1.8 Quality of the physical environment

Many Norwegian cities and built-up areas are characterised by a somewhat coincidental and uncoordinated design. In many areas the use of land is uncoordinated, and newer buildings and installations are poorly designed and are not adapted to the existing built-up environment or to natural conditions. Form, colours, materials used, advertising signs, etc. often create a visual muddle. The fragmented design of many areas in Norway must be seen in light of the development after the Second World War. Many Norwegian cities and built-up areas underwent a rapid transformation. Widespread urbanisation often resulted in a reaction against previous building materials and visual design. Norwegian cities and towns document impressive efforts to build a society but at the same time show that priorities gave little place for local adaption and consideration for historical traditions.

4.1.9 Living conditions in cities

Studies of living conditions show that Oslo contains districts with the country's highest standard of living, and districts with the poorest living conditions. The accumulation of problems connected with living conditions in eastern inner-city

Beautiful and traffic safe environments are of main importance for the welfare of the inhabitants. (Photo: Aspenberg)

Oslo is greater than in any other place in Norway. A relatively large accumulation of living problems is also found in the central areas of the other cities.

Generally speaking, the settlement pattern and differences in living conditions in the cities can be explained by social and market processes that influence geographical mobility. Demographic, socio-economic and ethnic settlement concentrations can be observed, that is to say an unbalanced population both in terms of type of household and age of residents, and of social and financial status and ethnic/cultural identity. A concentration of disadvantaged groups is found in some city districts, with financial problems, high unemployment and more social problems than other population groups. At the same time, these districts have the poorest housing and residential environments in both physical and social terms. The environmental problems connected with housing are the main cause of the largest differences in living standards in these districts compared with the rest of the country.

A reversal of this trend of deteriorating living conditions in the cities demands concentrated and coordinated

efforts, first and foremost by the cities themselves. The challenge lies in making the relevant areas more attractive, so that privileged groups will choose to settle there too. Urban renewal and other measures that can improve the physical environment are of major importance. With a foundation in an active urban renewal, it is necessary to develop housing, outdoor areas and public infrastructure and services that will lead to improvements and make the area attractive for new groups, while providing security for the current residents. Part of this challenge entails integrating immigrants into the community and strengthening of multi-cultural environments.

4.2 NATIONAL GOALS

The principle that local authorities - municipalities - should share responsibility for solving global environmental and development problems was firmly established in «Our Common Future» - the Brundtland Commission's report of 1987, and in Norway's follow-up document, the White Paper No. 46 (1988-89) entitled «Environment and Development.» This principle was also emphasized during the UN conference on environment and development in Rio de Janeiro in June 1992 which resulted in the plan of action «Agenda 21.» Agenda 21 was followed up in Norway by the White Paper No. 13 (1992-93) - «The UN Conference in Rio de Janeiro on Environment and Development».

Norway has agreed to the convention on biological diversity which came into effect at the end of 1993 and is fulfilling her obligations by creating a national plan of action concerning biological diversity.

4.2.1 Regional development

The goal of the Norwegian regional policy is to maintain the main features of the current settlement pattern. The over-riding objective of a holistic regional policy is to develop viable regions in all parts of the country with a balanced composition of the population and equal opportunities for employment and access to welfare services. Rapid changes in the pattern of settlement can be costly to society, for example in terms of increased pollution, lack of infrastructure capacity, pressure on the housing market and social problems. In addition, the utilisation of regional resources will be poor.

According to White Paper No. 33 (1992-93) entitled «City and Rural Areas Hand in Hand, on Regional Development», «the national government's main objective is to make regional areas real alternatives for the establishment of residence and commercial activities. The goal for more central areas is both to encourage positive development and to aid their ability to act as functional centres for the whole country».

«Regions are defined as geographic areas with joint employment and service markets, independent of administrative borders. A viable region is cha-

racterised by a balanced population consisting of young and elderly, of men and women. There must be a variety of employment opportunities and a physical infrastructure that benefits both commercial interests and the individual households. There must also be a socially oriented infrastructure which secures access to services and cultural and recreational activities. Places of work and social services need not necessarily be located within the boundaries of the local community but should be within acceptable distance.»

4.2.2 Reduced consumption of land and use of transport

Environmental goals and principles for land use planning are coordinated for the first time in White Paper No. 31 (1992-93) «Regional Planning and Land-Use Policy». According to this report «regional planning shall help to develop viable regions in all parts of the country, with a balanced composition of the population, equitable employment opportunities and welfare services and a good physical and cultural environment». It is also stated that «a fundamental premise for a land use policy is to promote an ecologically sound use of land resources that will safeguard nature as a permanent resource for human activity, health and well-being». The government emphasises promoting a land use policy which:

- provides business and industry with rational areas of land as a basis for value added within the framework of sustainable development
- preserves the quality of urban, cultural and natural landscapes
- contributes to less need for transport

In line with the above-mentioned premises, the government has developed principles which make land use planning and the actual use of land more predictable, while pointing the way to a more holistic approach to planning. The following principles should be applied:

- economize on land use
- joint localisation of activities and services
- collect and minimize encroachments in nature
- multi-purpose use of areas of land

- adapt and restructure the system of transport
- adapt new buildings to their surroundings

«National policy guidelines for coordinated land use and transport planning» passed by the Storting in 1993, go into more detail concerning the implications of Norway's land use policy. The following six moments are taken from the guidelines:

1. Planning of the spatial pattern of development and of the transport system should be coordinated, to promote forms of transport that are as effective, safe and environmentally friendly as possible, and to limit the need for transport. Emphasis should be placed on achieving solutions which imply that everyday errands can be carried out at a short distance from home, and which effectively coordinate the different means of transport.

2. An effort should be made to define clear limits between built-up areas and agricultural areas, nature areas and areas for open-air recreation. As far as possible, an effort should be made not to spread the encroachments into nature.

Along existing main highway and railway networks, priority should be given to maintaining a differentiated system of transport and to future needs to extend the road and railway networks. Emphasis shall be placed on exploiting the possibilities of increasing the density of buildings in the building zones in towns and urban areas. The development should be designed in a way that helps to conserve green structures, biological diversity and the aesthetic qualities of built-up areas.

3. The need for effective transport must be weighed against the need to conserve agricultural and nature areas. Decisions concerning the spatial pattern of development, including the system of transport, must be based on comprehensive impact assessments, with particular emphasis on socio-economic costs, the effects on the long-term goals for agriculture, and the

need to protect the natural and the cultural environment. The spatial pattern of development and the transport system should be designed to avoid re-allocation of cultivable land. Within walking distance of stations/junctions on the main arteries of the public transport network, development considerations should be given more emphasis than conservation, assuming that the planning ensures concentrated development and gives due consideration to cultural environments and green structures. Building should be avoided on particularly valuable nature areas, including especially valuable cultural landscapes, land close to the sea and to watercourses, areas used for open-air recreation, valuable cultural environments and historic sites.

4. When designing residential areas and a traffic system, due consideration should be given to national standards and guidelines for environmental quality. When planning new residential areas and road installations, an attempt should be made to locate and design these areas in a way that will preserve environmental quality, so as to avoid a need for remedial measures later.

5. In regions or areas where the density of the population provides a basis for public services as an environmentally friendly and effective

form of transport, it is necessary, when planning the spatial pattern of development and the transport system, to attach special importance to conditions that encourage public transport.

When the capacity of the road network is insufficient, equal consideration shall be given to alternatives other than increasing the capacity of the roads, such as regulating the traffic, improving public transport services.

The bicycle as a form of transport shall be emphasized when conditions are suitable.

The planning shall give due consideration to pedestrians and handicapped people.

Environmental and health hazards connected to transport of dangerous goods shall be emphasized when deciding where to locate undertakings which lead to such transport, and when planning traffic arteries and the use of land along traffic arteries.

6. Regional public or private services for the general public shall be located on the basis of an overall evaluation of the region, adjusted to the existing and planned centre structure and public transport junctions.

Undertakings which create heavy transport should be located close to the railway, a port, or highway network.

The deliberate development of center hierarchies in urban areas can promote more environmentally sound land use and urban planning. The most important services for the population are schools, kindergartens, grocery stores, post offices, banks, pharmacies, mother and child clinics, medical centres, local outdoor recreation areas and places for social contact. A lack of such facilities in residential areas and suburbs can increase the need to travel long distances to areas where these facilities exist. More specialised services should be located in the city centre or in regional centres. The deliberate establishment of a centre hierarchy in larger regions can reduce the need for the use of private cars.

4.2.3 Environmentally sound means of transport

In White Paper No. 34 (1992-93) «The Norwegian Highway and Road Traffic Plan for 1994-97» it is stated that, «The government will encourage better public transport, for example through special grants for investments in public transport in large urban areas. A large use of public transport for commuter trips is desirable in order to reduce queues and environmental problems. A flexible system of public transport is also desirable in less populated areas, partly out of consideration for those who do not have access to a car.»



Urban development must be planned according to a regional perspective. (Samfoto)

4.2.4 Reduced energy consumption

White Paper No. 46 (1988-89) «Environment and Development,» follows up the recommendations of the World Commission on Environment and Development.

According to this document, the government will work for a gradual levelling off of total energy use by the turn of the century. Stabilisation of and gradual reduction in energy consumption in the more wealthy countries of the world is necessary out of consideration for the need for economic growth in developing countries. Energy costs will be gradually increased in order to reduce consumption and to demonstrate the environmental impact of energy use. The government has indicated a more direct, goal-oriented policy in terms of energy economisation with emphasis on information, education and grants.

4.2.5 Reduced pollution of the sea, rivers and watercourses

The objective is to improve environmental quality in the sea and watercourses, and to improve accessibility to watercourses and sea areas where improvements in water quality have been achieved.

The ministerial declarations from the North Sea Cooperation, in which Belgium, Denmark, the United Kingdom, France, the Netherlands, Switzerland, Sweden, Germany and Norway as well as the European Union Commission participate, have set important political targets for protection of the North Sea.

A central objective is a 50% reduction in emissions of nutrients and a 50-70% reduction in emissions of hazardous substances. At the last conference of ministers, agreement was reached (with a reservation from the UK) to work for a reduction of hazardous substances, with the final goal of phasing these out in the course of a generation, that is to say 25 years.

4.2.6 Reduction of waste.

An objective is that problems connected with waste should be solved in a manner causing the least possible adverse effects for humans and the natural environment, while using the least possible amount of society's resources. The main strategies in order of priority are:



Central and local authorities have encouraged the use of the bicycle as an attractive mode of transport in the «bicycle» towns of Tønsberg and Sandnes.

- to prevent generation of waste and reduce the amount of hazardous substances in the waste
- to promote re-use, recycling of materials and use of energy from waste
- to ensure environmentally sound final disposal of waste

The choice of the different measures should be based on social considerations and the precautionary principle.

A central philosophy in the Norwegian waste strategy is that industrial enterprises should be made responsible for collecting and recycling waste that is generated when their products no longer are used. Cooperation with business and industry in recent years has resulted in branch-organised recycling of glass, cardboard, cartons, drinking cartons, white paper, waste oil, lead batteries, car tyres and worn-out cars. Four broad agreements were recently reached ensuring collection and recycling of between 60 - 80% of packaging composed of brown paper, cardboard, plastic and metal. Priority will now be given to finding solutions for waste from electrical and electronic products, as well as waste from building and demolition activities.

It is the municipalities that are responsible for management of waste from private households. More stringent requirements concerning landfills and incineration plants, higher costs for dumping and incineration of waste, and the establishment of easily accessible recycling plants could make it more interesting for the municipalities to emphasize reduction of waste and recycling, instead of dumping (on landfills) or incineration.

4.2.7 Reduced emissions to the atmosphere and reduced air and noise pollution

The World Commission on Environment and Development states that sustainable development is a goal for the global community and for individual countries. In line with this goal, the government's standpoint is that Norway should reduce emissions leading to depletion of the ozone layer, climatic change and acid rain. The objective in terms of local air pollution is to significantly reduce the number of people who are exposed to pollution exceeding the recommended limits by the year 2005, seen in relation to 1994.

CO₂ emissions will be limited, so that they will be no greater in year 2000 than they were in 1989. This target is provisional and will be evaluated continuously in light of further reports, technological developments, developments on the international energy markets, and international negotiations and agreements (Proposition No. 1 (1990-91) to the Storting).

Consumption of CFCs and carbon tetrachloride was prohibited in 1995 and of halons in 1994. (Consumption is defined as production plus imports minus exports.) Consumption of HBFCs and methyl chloroform will be phased out by 1996. Consumption of HCFCs shall be phased out by year 2015 and consumption of methyl bromide shall be reduced by 25% by 1998 in relation to the 1991 level. Norway has signed the Montreal Protocol and will at least fulfil these commitments and EU's decisions in this area.

Good local communities are important for the children's development. (Photo: JDM)

NOx emissions were stabilized at 1987 level in 1994. In addition, Norway has declared that emissions will be reduced by 30% by 1998 in relation to 1986.

SO₂ emissions should be reduced to 76% of 1980 level by the year 2000. (SO₂ protocol under ECE Convention on Long-range Transboundary Air Pollution).

VOC emissions from mainland Norway and the Norwegian economic zone south of the latitude 62° N will be reduced by 30% by 1999, compared with the 1989 level. Emissions for the country as a whole, including the whole economic zone, will not exceed 1989 levels.

4.2.8 Better local environments

One of the main objectives expressed in White Paper No. 29 (1992-93) on local community policy is to maintain and further develop environmentally sound local communities with emphasis on participation and cooperation of the population in solving local tasks. Local activities are given high priority: the protection of environmental/physical quality and a good development environment for children and adolescents.

One of the aims of such a policy concerning the local community is to better people's everyday lives physically, socially and culturally, thereby preventing social problems and providing a better quality of life. A good, viable local community is important for the well-being of the inhabitants and their sense of identification with the community.

Many of the tasks facing the local community can best be solved through cooperation between the public and private sector and non-governmental organisations (the third sector). Non-government organisations can be an important supplement to the public sector. A coordination of resources from the public sector and the third sector can be seen as a necessary prerequisite for the maintenance and further development of the welfare society.

Another major objective outlined in the report is to promote the local environment and the local community as the basic elements in municipal



planning and operations. A greater degree of holistic, cross-sectoral planning, with a coordinated view of the family, leisure time and working life is needed. The challenge is to enable the different public sectors to think holistically and cooperate with the local community.

4.2.9 Urban living conditions

In Norwegian politics, much attention has traditionally been given to the regions and outlying districts. There has also been broad political consensus on the desirability of a scattered population pattern through the transfer of funds. In recent years, attention has been increasingly directed towards the cities and the problems that have arisen through urbanisation, and the marked tendency towards differences in living conditions.

In White Paper No. 14 (1994-95) «On Living and Housing Conditions in the Largest Cities» the government states that «everyone should be given the possibility for good living conditions, independent of social, geographical or ethnic identity. The primary objectives of the efforts to improve living and housing conditions in the eastern inner districts of Oslo and other vulnerable urban areas are directed at:

- Improvement of living conditions for disadvantaged groups
- The population in all areas of the city should be able to obtain a good home in a good housing environment.
- Efforts will be made to encourage a varied composition of the population in distressed urban areas with an accumulation of poor housing and living conditions.



Everybody should be entitled to good living conditions independent of social, geographic and ethnic identity. (Photo: JDM)

As part of the efforts to improve living conditions for disadvantaged groups in the cities, the government will emphasise measures which aid integration of immigrants into Norwegian society. A central public responsibility is to aid all city districts to develop viable local communities with a varied population composition and good standards of housing and public areas. Home-based social welfare and health services, traffic safety and premises and areas appropriate for social contact, play and recreation should be encouraged.

4.3 PLANNING AND PLANNING LEGISLATION - A BRIEF HISTORICAL BACKGROUND

The history of Norwegian planning policy is characterised by tension between participation and decentralised decision-making on the one side and the need for a general over-riding national policy and regional coordination and planning on the other. The main tendency is toward the strengthening of municipal autonomy and local government, both by creating planning instruments and decentralising authority from the national and regional levels to the local level. At the same time, an economic liberalisation in the last decade has brought about a situation where decisions which were previously made by public planning authorities are left to the market.

At the end of the 1800s, growth of the cities increased considerably as a result of industrialisation. The need for housing, lack of space, health problems and fire hazard increased the need for planning. Therefore planning legislation was proposed in the cities. From the turn of the century, impulses from German and English garden cities were used as models for Norwegian planning. On the whole, developments in cities and built-up areas after the turn of the century illustrated a steadily increasing need for more extensive building legislation, including provisions on planning.

The first nation-wide Building Act was passed in 1924, but only to the cities

Rural municipalities could voluntarily define the municipality or parts of the municipality as a «building municipality» where the Building Act applied. Cities and building municipalities had a building council with member from both the political and administrative sectors. The Act was first and foremost a building act, which regulated construction. The Act contained provisions on local development plans, but did not mention coordinated regional plans or regional cooperation. The requirement to prepare local development plans applied to the municipality as a whole, but in practice such plans were only prepared for specific building areas.

During the Second World War, as early as 1940, the «Burned Areas

Regulation Board» was established to plan and regulate the reconstruction of bombed cities. The office prepared plans for a number of cities during the war, but reconstruction did not begin to any extent until after the war. The plans were influenced by the instruments of management defined in the Building Act and contained detailed drawings for limited areas of the cities, city districts and built-up areas which were in ruins. Regional aspects were not taken into consideration nor were general municipal plans prepared.

The Burned Area Regulation Board was reorganised after the war and was given a new leadership. The main office was located in Oslo but district offices were established in appropriate towns. Finnmark and northern Troms in the far north were divided into seven districts. Each district was composed of several municipalities. Regional plans coordinating all public sector planning were prepared, and covered settlement, economic activities, land use, communications, water supply and energy systems, health services, schools, cultural activities and administration.

The reconstruction brought to light weaknesses in the Building Act. Rapid reconstruction was necessary on sites ravaged during the war. This required a better clarification of plans and more effective legal instruments. The right to expropriate property was included in the Act. Plans were also needed which would coordinate municipal and regional resources and land use. This need was exacerbated by the ordinary building activity required after such activity had been almost non-existent during the war. The need for housing was acute and industry also had to be rebuilt. The country needed income from exports. As time went on, materials were no longer in short supply. The construction of infrastructure, economic development, house building, public social services, etc. had to be coordinated. Land use planning had to be coordinated with the municipalities' total resources.

This was particularly evident in the cities. Ideals concerning everyone's right to a good home, public services and a community feeling formed the foundation for the first Norwegian

suburbs. Functionalist ideas concerning light, air and green surroundings, as well as the importance of the neighbourhood, were determining factors in the planning. Businesses, schools, kindergartens, churches and other services were included in the land use plans. In Oslo, suburban zones were bound together by a network of tram lines radiating from the city centre and places of work. Connected green corridors between suburban zones ensured close contact with open areas.

As part of the industrialisation process, completely new communities were established in the 1950s around key industries, preferably based on water power, such as Mo i Rana and Sunndalsøra. Large and varied new establishments with heavy infrastructure made it necessary to have strong planning tools.

A number of over-riding plans were prepared, but these were not based to any significant degree on the planning legislation. Plans were adopted on political and administrative levels based on strong sector legislation. This applied, for example, to the energy supply and road building. The municipalities had little influence on the alignment of power lines and highways.

Regional developments in the 1950s and 1960s were characterised by increased commuting and a marked migration between regions, and from rural areas to towns and cities. There was an increasing need for a better regional overview, and better management of the necessary use of land, and of the development, through municipal planning.

The Building Act of 1965 was a response to the need for holistic municipal plans and regional cooperation.

The Act applied to the whole country, including rural municipalities. It was a part of the policy for economic growth and of geographic and social distribution of wealth. The municipalities were given wide, independent planning and administrative responsibility.

The Building Act of 1965 required the preparation of a general plan, or master plan in each municipality, which would determine the use of land. How-

ever, these general plans were not legally binding unless a general planning bye-law was adopted at the same time. An important change in the law was a clearer division between administrative and political consideration of plans. The building councils, in which the heads of the different municipal sectors had participated before, became entirely political.

Regional plans were introduced in the new Building Act as legal planning documents which would encourage inter-municipal planning. There was a need for the municipalities to cooperate on the preparations of regional plans. These could concern water supply and other infrastructure, economic development, housing construction, etc. Special regional planning councils with representatives from the municipalities concerned were responsible for the planning. Regional plans could only be made legally binding through the adoption of a regional planning bye-laws. In order to stimulate regional planning the Ministry initiated the division of the country into regions. This initiative was not successful. Divisions were based on information from municipal and regional authorities. Instead of creating regions where there was a clear and specific need for coordinated planning, the division was often seen as «theoretical» and rigid. Regional plans never achieved the practical importance they were meant to have. One of the reasons was that regional planning councils did not have independent budgetary authority or responsibility for implementing the plans.

The Building Act of 1965 was introduced at the same time as a number of other regional policy measures. Plans were for specific parts of the country showing centres of growth. By advising on favourable locations, the central authorities tried to direct the establishment of new economic activity to places where this was desirable. The municipalities were encouraged to prepare building sites for establishment of industry and house building, and to provide the necessary infrastructure. The municipalities were to prepare a special housing programme for the construction of homes. In order to support the municipalities, favourable state financing was made available for purchase of land, basic investments and preparation of build-

ing sites. The financing was directed toward measures based on municipal planning, and environmental considerations could be taken into account by imposing requirements regarding quality. In many municipalities, housing programmes became the main feature of municipal land use planning, which governed the planning work in the 1960s and 1970s.

The protection of arable land became steadily more important. The global food situation received a great deal of attention and «self-sufficiency» was a central political theme. Protection of productive agricultural land was regarded as essential. In Norway, cities and built-up areas are often established as centres in good agricultural areas. This means that new building often took place in peripheral, non-arable areas. The existing municipal infrastructure was not used to the full; new roads and public services had to be established. In addition, it became difficult to establish rational public traffic arteries. By and large, resident areas were dependent on the use of private cars.

Local and global environmental problems became more and more serious and the Norwegian Ministry of Environment was established in 1972. Since planning is an important element in the environmental policy, responsibility for administering the planning provisions of the Building Act was placed with this ministry. The Ministry of Local Government continued to have responsibility for the building provisions and retained primary responsibility for important instruments and credit institutions such as the Housing Bank, the Municipal Bank and the National Industrial and Regional Development Fund. The transfer of responsibility for planning was not accompanied by corresponding economic instruments. Thus, the possibility of requiring a certain standard of quality in the planning could not be backed up by economic sanctions or incentives. National credit institutions became less important in the 1980s and 1990s, since private institutions financed an increasing share of the municipal activity.

County plans were introduced in 1973 and gradually replaced regional plans. Like both the municipal master plans and the regional plans, county plans could be made legally binding only through the adoption of corres-

ponding bye-laws. The county municipalities were made responsible for county planning. County plan bye-laws were binding for certain areas, but in other areas only set guidelines for the municipal land use planning. Since the land use provisions were general and not legally binding, these parts of the county plans had little significance. Importance was placed on plans for measures to promote economic development and provision of services.

The preparation of municipal master plans progressed slowly. Only 1/3 of Norwegian municipalities had prepared such plans 10 years after the Building Act came into effect. The reasons for this sluggishness can be summarised as follows:

- Knowledge about planning was lacking. It was time-consuming to build up professional and administrative capacity in municipalities.
- The physical planning was insufficiently coordinated with the municipality's budget planning - The instructions in the Building Act applied mainly to physical planning, as needed in urban regions and central areas. The main need in the regions and in peripheral areas was for planning of economic measures.
- The municipalities' planning required regional clarification, which was often lacking, owing to insufficient inter-municipal county and regional planning. Powerful sectors with strong sector legislation were engaged in sector planning. The municipalities could not respond with equally strong, coordinated municipal planning. Serious conflicts of land use took time to solve and made municipal planning difficult. Probably most important: All local planning includes elements of regional management and planning from outside, which challenges local autonomy. Regional planning meets resistance from local politicians.

Extensive efforts were made in the latter half of the 1970s to improve the Building Act's planning provisions. In 1981, the planning provisions were extended and separated into a special Act. The most important change was the «inversion principle,» that is, that no measures could be taken if these were not in accordance with a plan.

Before the institution of this principle, measures were permitted as long as they were not directly forbidden by a plan or by law. Four months after it was adopted, and without ever coming into force, the new act was cancelled after parliamentary elections during the same year, which gave the country a conservative government. Efforts to change and improve the act continued.

Municipal plans are dependent on regional and national frameworks, but regional and national objectives are dependent on being promoted on local level. This necessitates a foundation in municipal plans. The Ministry of Environment regarded it as a major problem that it was taking the municipalities such a long time to prepare and adopt their master plans. For this reason, the Ministry initiated a three year project in 1981 which was intended to speed up the preparation of master plans by the municipalities. The municipalities were given financial support and expertise. The counties had widespread responsibility for guidance. Special importance was attached to the political and economic basis for the plans. The plans were the responsibility of the political and administrative leadership, and had to be revised every fourth year.

The planning provisions were revised in 1985 and remained a part of the Building and Planning Act. Since then the planning has been more successful. In 1990, 2/3 of the country's 440 municipalities had prepared master plans.

The Building and Planning Act of 1985 addressed many of the discussions that had been going on since 1965. The Act coordinated social, cultural and economic planning with physical planning. The most important change was that the requirement from 1981 concerning preparation of plans was reintroduced. In addition, the land use part of the municipal master plan was made legally binding. The municipalities were given decisive planning responsibility and can now approve their own plans unless objections are made by other public authorities or neighbouring municipalities. Environmental perspectives were to receive due consideration in the planning. The new Act emphasised democratic decision making processes, and that affected parties should participate in the preparation of the plans. New provisions have been introduced requiring



The municipalities have the authority to decide on the planning cases in Norway. (Samfoto)

that the planning should ensure a good development environment for children and adolescents.

One instrument used by the Government to promote the policy on the environment and resources was to issue national policy guidelines; these could be guidelines of a fundamental nature applying on specific planning issues, or binding provisions for specific areas to prevent changes in land use until the use of the land in the long term has been clarified.

Based on the recognition that the environmental impacts of large building or construction projects are not always taken into consideration in the ordinary planning process, the new Act also included a requirement for environmental impact assessments. An impact assessment must be made if the project is likely to have significant consequences for the environment, natural resources or society. Another important change was that the planning of roads was transferred from the Roads Act to the Planning and Building Act.

A constant challenge during the revision of the Act was, and still is, to achieve conformity between the Planning and Building Act as an instrument for coordinated and preventive planning, and the best and necessary planning provisions in the sector legislation. The Planning and Building and Building Act is discussed in more detail in Chapter 4.4.2.

The development and practise of the planning legislation occurs in several areas fraught with tension. There is built-in tension in the relationship between local autonomy and national/regional governance, in the relationship to and between the different sectors, and in the relationship to the building industry. It is challenging to find a balance between the need for quick clarification, simplification and predictability of decisions concerning specific projects and long term consideration of the environment and holistic solutions.

The development of the planning legislation since 1924 has provided municipalities with good instruments for planning and carrying out individual measures. The central government has formulated its goals for the land use policy in «National Guidelines for Coordinated Land Use and Transport Planning.» Equally good management instruments have not been developed on regional level.

Experience from municipal and county planning has brought to light a need for tools to promote better coordination of activities and binding planning across municipal and county borders. The enormous environmental challenges we are facing on global and national level have created a need for a greater degree of coordination that may challenge the strong degree of local decision making authority in Norway.

4.4 CURRENT INSTRUMENTS

Norway possesses well developed instruments for directing the future development of cities and built-up areas in a more sustainable direction. These instruments must, however, be used more deliberately.

The relevant instruments are described below. In addition, the reader is referred to Chapter 3.5, which describes the instrument used in housing policy. Economic housing policy instruments, especially loans and grants for urban renewal, are important for tackling problems connected with the level of living in the cities.

4.4.1 Regional policy

The basic principles of the regional policy in Norway are that regional policy considerations must be taken into account in ordinary sector policies (the «major» regional policy) and that the policy should support local economic development (the «minor» regional policy). The first aspect is most important. Important sector areas include the fisheries, agriculture and education. Transport policy has been decisive in ensuring a satisfactory infrastructure for the population and industry in a far-flung country such as Norway. Transfer of funds from the central government to county municipalities and municipalities allows welfare benefits and employment in the public sector, which in many places are higher than the income from taxes would indicate. Funds are generally transferred in the form of general grants, so that counties and municipalities can to a large extent decide themselves how the money is used.

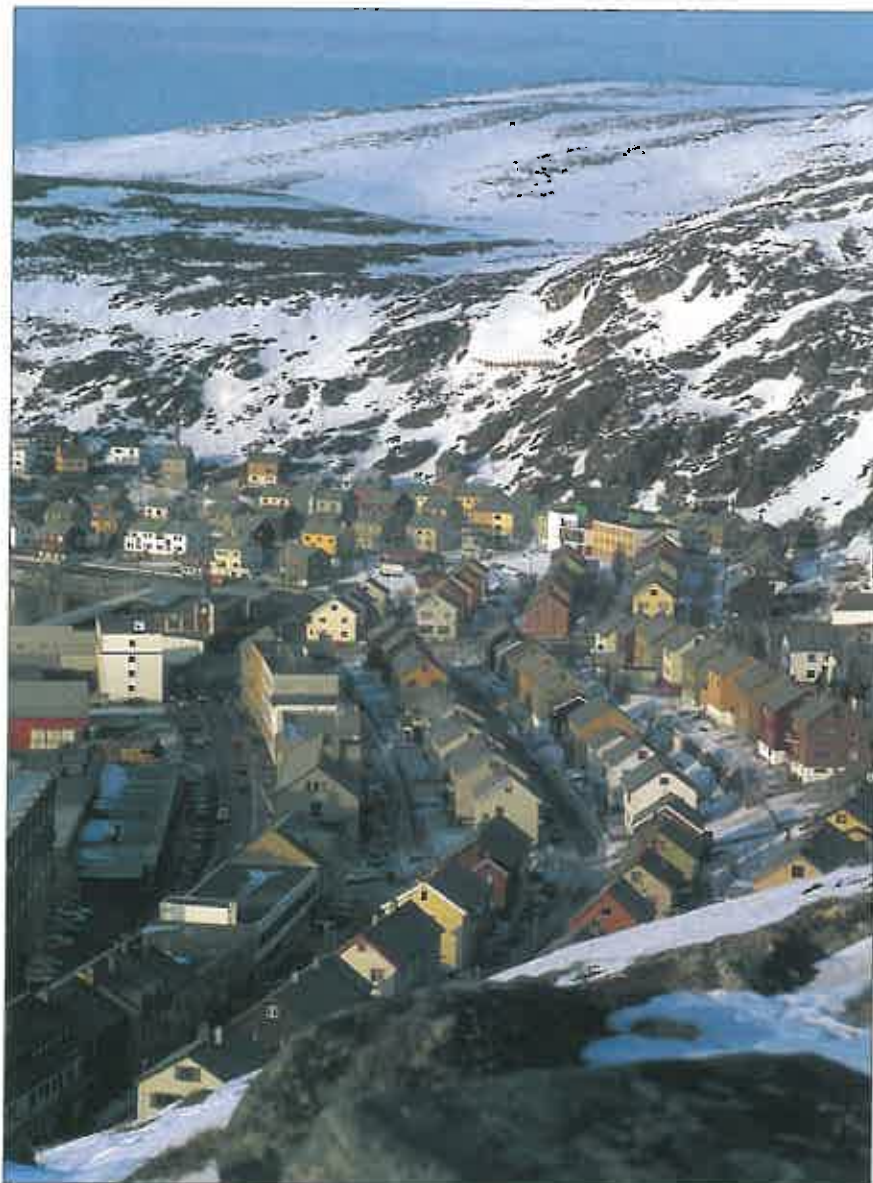
The «minor» regional policy should be adapted to the roles, problems and potentials of each individual region. The instruments used should stimulate initiative so that each region's advantages be exploited for the benefit of both the region and the country as a whole. The instruments should also compensate for disadvantages due to geographical location. Areas where people have to travel long distance, and with poor services, low population density and a topography that reduces the accessibility of cities or towns have the poorest foundation for the development of new and profitable activity in the private sector. These areas also have difficulty in attracting qualifi-

ed labour since there are fewer chances of jobs for working spouses. Investment risks are also higher. Thus, measures directed at promoting economic activity are needed in many regions. This kind of regional policy is necessary to secure equal competition between the regions and central parts of the country, and to promote a better regional balance in terms of employment and population development.

Norway is divided into four zones which form the basis for prioritising local support and support for economic development. Support is given in the form of grants, loans and guarantees for loans. In areas with highest priority in the north, Finnmark and Troms, grants

can be given for up to 40% of investment costs. In other parts of northern Norway, grants can cover as much as 35%, while up to 15% of costs can be covered in areas with lower priority. In addition to support for investments, businesses in high priority areas can be given grants to compensate for high transport costs, and municipalities can receive grants for infrastructure for the development of economic activities.

The management of regional support is strongly decentralised in Norway. Approximately 90% is distributed at the county level. Each county in development regions is given a quota of loans and grants to distribute. The counties are also economically responsi-



The northernmost districts of Finnmark and Troms have highest priority for regional policy measures. Hammerfest, the northernmost town in the world.

ble for the loans which they grant. The municipalities can also grant funds from the central government to encourage the development of local economic activity. Through a good system of support for economic development and a well developed municipal sector in regional areas, Norway has been quite successful in alleviating pressure on the cities. This active regional and local policy is one of the reasons why environmental problems and the accumulation of poor living conditions in Norwegian cities are moderate in an international context.

4.4.2 The Planning and Building Act

The Planning and Building Act is the most important cross-sectoral legal instrument that can be used to attain more sustainable urban development. The Act applies to three types of planning: local development plans, municipal master plans and county plans. In addition, the Government can lay down national policy guidelines. These serve to clarify the national goals which should be the basis for planning and exercise of authority in accordance with the Planning and Building Act by municipalities, county municipalities and national agencies.

County plans and county area plans (for a specific geographical area or a specific area of activity) can provide an important framework for regional development and municipal planning. Municipal planning is especially important in connection with environmental considerations in urban areas. The municipal plans can stipulate that land be protected, or that it may be used for specific purposes.

Municipalities are required to prepare a master plan (the municipal plan) with an associated plan for land use which should show how land within the municipality will be used in the future. This master plan shall give guidelines for the long-term development of society in the municipality and shall contain a short-term plan of action for the next few years. The land use plan defines the main features of infrastructure and land use. Local development plans give a more detailed description of how the land will be used, and define the frameworks for development. Both types of plans are legally binding.

The Planning and Building Act includes rules to ensure that all sectors and interest groups have an opportunity

to express their opinions and influence draft plans. The municipality is obliged to actively spread information on planning and to cooperate at an early stage of the planning process with any public agencies concerned. Important individual issues shall be presented for public debate as early in the process as possible and residents should be encouraged to participate actively in the regulation of existing built-up areas. Everyone should have an opportunity to become acquainted with the alternative draft plans.

The county municipalities are responsible for preparing county plans and county area plans. County planning shall coordinate the national authorities', county's and main features of the municipalities' activities in the county. The planning should lay down guidelines for the use of land and natural resources in the county when such use affects more than one municipality, or should be considered for several municipalities combined. County plans must be submitted to the Government for approval. The approved plans serve as guidelines for national, county and municipal planning and activity within the county. County plans and area plans are not legally binding, however, and county planning has never occupied an important place in land use planning in Norway. This has been regarded as a municipal responsibility because, as mentioned above, municipal plans are legally binding. However, it is being increasingly recognised that many environmental problems and other problems in society must be seen in a larger regional perspective, and that a coordinated response to these problems demands decisions at different levels.

According to current decisions, the municipal land use plans and local development plans only have to be approved by the central authorities when objections have been made by the county municipality, a neighbouring municipality or national sector authorities. The Planning and Building Act of 1985 does not contain guidelines for the content of planning, except for the general statement that they it should benefit society. However, the Act does stipulate that the Government can lay down national policy guidelines which shall apply to planning in the country as a whole.

The Planning and Building Act requires an environmental impact assessment to be carried out for major projects if they are likely to have significant con-

sequences for the environment, natural resources or society. The developer (owner) is responsible for this assessment. The requirement applies to both the private and the public sector. One of the purposes of the provisions is to ensure the authorities concerned, the local community and interest organisations participate in the planning process as early as possible. The provisions can also be used as a means of considering alternative solutions, for example in the development of transport systems in urban or other areas where public transport may be a more environmentally sound alternative.

The national policy guidelines for coordinated land use and transport planning are based on the Planning and Building Act and are an important tool in the land use policy. These guidelines are discussed in more detail in Chapter 4.2. In addition, national policy guidelines have also been laid down in order to ensure that children's interests are considered in the planning and for specific geographical areas.

4.4.3 The Pollution Control Act

The purpose of the Pollution Control Act is to protect the external environment from pollution, to reduce existing pollution, to reduce the amount of waste and promote better management of waste. The Act is used to ensure adequate environmental quality, so that pollution and waste do not cause damage to health, adversely affect well-being or reduce nature's capacity for production and self-renewal. Technology and cost-benefit assessments are of central importance. A number of undertakings that may cause pollution require a discharge permit. Enterprises may also have to meet requirements with regard to emissions of NO_x. The discharge permits include, for example, a requirement to clean emissions to air and water. An important principle in the Norwegian policy is that the polluter should pay the costs involved.

The Storting has decided that the Pollution Control Act shall also apply to the transport sector. Draft regulations have been prepared which define binding maximum limits on noise and local air pollution. The regulations will apply across sectors. In other words, the Act will apply to emissions from all sectors, including transport. Pollution components covered by the



The Cultural Heritage Act has gradually placed emphasis on the protection of whole cultural environments instead of individual monuments. (Samfoto)

Act include nitrogen dioxide (NO₂), lead, sulphur dioxide (SO₂) particulate matter (PM10) and indoor noise levels. The regulations will lay down a requirement to investigate the state of the environment and implement measures when the recommended limits are exceeded. The limit will be binding, that is measures will be required when limits are exceeded. Persons who pollute are responsible for implementing measures, that is to say, the owners of public roads, railroads, airports, transport terminals, industry and large heating plants.

4.4.4 The Cultural Heritage Act

The purpose of the Cultural Heritage Act is to protect archaeological and architectural monuments and sites, and cultural environment, in all their variety and detail, both as a part of Norway's cultural heritage and identity and as an element in the overall environment and resource management. It is a national responsibility to safeguard these resources as sources of scientific material and as a permanent basis for the experience, self-awareness and enjoyment of present and future generations.

The Act defines «monuments and sites» as all traces of human activity in our physical environment, including places associated with historical events, beliefs or traditions. A «cultural environment» is defined as any area where a monument or sight forms part of a larger entity or context. The Act makes it clear that protection of Norway's cultural heritage is part of a cross-sectoral environmental policy. Thus, municipalities and sectors have a responsibility to take cultural heritage into consideration when exercising their authority in accordance with other legislation.

Archeological/historical monuments and sites and cultural environments are part of Norway's cultural heritage and are non-renewable resources which, together with Norway's natural heritage, must be managed with the future in mind. The protection of the country's cultural heritage is a prerequisite for sustainable development. Developments within protection policy have turned from a protection of individual monuments to greater emphasis on large physical relationships and complete environments. A wider breadth of the preservation measures is necessary. Them-

atic and county-wise protection plans are central tools in this regard.

The Ministry of Environment is the highest administrative body in this connection and has a special responsibility for the dimensions and implementation of the protection policy. The Directorate for the Cultural Heritage is responsible for all protection of the cultural heritage, including management in accordance with Acts, regulations and other rules, for obtaining and disseminating information on archaeological/historical monuments and sites and cultural environments, and for influencing other sectors and the general public in the long-term management of cultural heritage resources. The Directorate for the Cultural Heritage is also responsible for professional/technical advice to the Ministry of Environment. The county municipalities have primary management responsibility for protection of the cultural heritage. The tasks are concerned mainly with specific protection and preservation measures and with making sure that the need to protect the cultural heritage is duly considered in planning and development cases.

4.4.5 The Open Air Recreation Act

The Open Air Recreation Act of 1957 established people's right to enjoy natural areas (outlying areas, the sea and watercourses) independent of who owns them. The term used is public right of access. The Act also imposes on the public to behave responsibly and with care.

The Open Air Recreation Act also opens up for certain restrictions on free access in areas that are popular for excursions, but it is not an Act on management of land. The public right of access, and possibilities for outdoor recreation presuppose that the land is not built on or regulated for other purposes. Such regulation is governed by the Planning and Building Act, not the Open Air Recreation Act.

4.4.6 The Nature Conservation Act

The purpose of the Nature Conservation Act of 1970 is to ensure that the use of natural resources is based on acknowledgement of the close inter-relationship of man and nature, and on the preservation of the quality of the natural environment for future generations. This Act is primarily an Act for protection of specific elements of nature. First, the Act provides the authority to protect areas.

There are four different types of protection: national parks, protected landscapes, nature reserves and natural monuments.

Second, the law provides the authority to protect plant and animal species. In addition, a combination of area and species protection is possible in a so-called biotope protection (protection of a plant or animal species together with its environment). Temporary protection can be imposed when there is immediate danger of valuable areas/ plants/animals being injured or destroyed. The authority to establish protected areas or protection of species lies mainly with the Government, but the Ministry of Environment has the authority to establish temporary protection.

4.4.7 Economic instruments

Various economic instruments are directed toward stimulating more sustainable production and consumption and reducing damage or disturbance of the environment:



Norway has strong traditions concerning the common right to the use of natural environments. (Photo: JDM)

Funds for the transport sector.

The central government transfers funds to counties, municipalities and important physical planning agencies in the transport sector. Funds for public transport are provided through general grants to counties, but the sector must compete with hospitals, schools, etc. for priority. More direct grants go to:

National highways and railways. NSB, Norwegian State Railways) is financed by the central government. Funds are provided for both operations and investment. In the Ministry of Transport and Communication's budget of NOK 18.2 billion in 1994, 54% was budgeted for the highway sector and 31% for the railways.

Public transport. A grant of NOK 200 million was given for public transport in the five largest cities in 1994. These funds were used for investments.

Government taxation as an environmental policy instrument

The CO₂-taxes, introduced in 1991, are limited to the use of fossil fuels for energy

The SO₂-tax is the most important means of limiting SO₂ emissions. In addition, by authority of the Pollution Control Act, restrictions have been imposed on the use of certain types of heating oil. In principle, a permit is required from the Norwegian Pollution Authority (SFT) for all large emissions of SO₂, both emissions from industrial processes and from fuel combustion.

Petrol taxes account for approximately 50% of the sales price of leaded petrol and a somewhat lower percentage of the price of unleaded petrol. The sale of unleaded petrol has increased dramatically.

Funds for municipal waste water treatment

The Ministry of Environment and the Norwegian Municipal Bank provided substantial financial support in the form of grants and/or loans for treatment of municipal waste water. Grants should ensure the clean-up and elimination of pollution from buildings constructed before 1975. Grants for the period 1995-2000 are allocated for investments in nitrogen removal plants. Grants can also be given for the development of new technology connected to municipal waste water treatment plants and for the secondary treatment of waste water in municipalities where the theoretical cost of treatment per household is much higher than the average for the country. The system of grants helps to make watercourses, fjords and the sea more accessible to the public and to increase their user-value. (cf. Campaign to improve the aquatic environment). The central government has increased investment in this sector in recent years. The budget framework for 1995 is NOK 700 million. The greater part of these funds, approximately NOK 560 million, will be allocated for nitrogen removal. The remainder will be spent on measures to improve ordinary sewerage systems.

Municipal economic instruments

Toll gate rings have been established around Oslo, Bergen and Trondheim. According to the Roads Act, such systems are justified by the need for road building, and the funds collected should be used for specific road projects. The design and implementation of toll gate systems must be approved by the central authorities. Under certain circumstances, funds from toll gate charges can be used to build infrastructure for public transport, bicycle paths or other environmental measures.

Parking fees can be introduced by the municipality in accordance with the Roads Act and the regulations concerning roads open to public traffic. The parking policy, both in terms of fees and through regulations pursuant to the Planning and Building Act, is an important municipal instrument for channelling traffic and reducing the use of private cars.

Road charges involve the payment of a fee for use of a stretch of road. There is currently no legal basis for road fees in Norway. White paper No. 34 (1992 - 93) The Norwegian Roads and Traffic Plan, 1994-97, indicates that local authorities should establish road fees in urban areas through the same process by which the toll gate systems were established.

4.4.8 Environmental protection in municipalities (MIK)

In recent years, the Ministry of Environment has emphasised the development of local environmental protection. The foundation for this effort has been the reform «Environmental Protection in the Municipalities» (MIK). The Ministry's efforts in this connection are a direct consequence of the emphasis placed by the Brundtland Commission on local authorities' responsibility for solving global problems of environment and development. This idea was also followed up at the UN conference on environment and development in Rio de Janeiro in 1992. In the light of the above, the municipalities are responsible not only for physical planning, but also for ensuring that due consideration is given to environmental issues in their organisation and activities.

The MIK-programme is based on general ideas of decentralization and delegation of responsibility.

Municipalities have been given greater responsibility for protecting the environment and for preserving the cultural heritage in local communities. Most municipal administrations have lacked personnel with competence in the field of environmental protection, partly because environmental protection was regarded as the responsibility of the central government. Therefore, the Ministry of Environment and the Norwegian Association of Local and Regional Authorities took the initiative to establish an experimental programme for environmental protection in the municipalities, where the goals were:

- transfer of activities in the field of environmental protection from the central government to the municipalities
- political and administrative organization of environmental protection in the municipalities
- financing professional personnel with competence in environmental protection. The national government paid their salaries for a three year period
- municipal environmental and resources programmes
- development of a multi-sectorial interest in the environment

The experiment was carried out in 90 municipalities. After a three year trial period in which experiences were very positive, the programme was applied to the country as a whole. As a result of the reform, more than 95% of municipalities have employed professionals to be responsible for the environment in the municipality. The central government has guaranteed the salaries of these professionals until 1997.

The most important areas in municipal environmental management are: environmentally sound urban development, waste and recycling, biological diversity, coastal and aquatic environments, the cultural heritage, cultural landscapes and other cultural environments. Up to now, approximately 2/3 of Norwegian municipalities have prepared local plans of action for the environment.

These can be regarded as the first generation of local «Agenda 21s.» The foundation laid by the reform gives Norwegian municipalities a satisfactory basis for continued efforts to fulfil the goal of securing the population's approval of local «Agenda 21's» by the end of 1996.

4.4.9 Research and development concerning good planning

Extensive research and development work related to the goal of sustainable development is carried out in Norwegian colleges, universities and research institutes. The Ministry of Environment initiates and finances research and development of importance for its professional and political functions. In addition, the Ministry engages itself in development work. The Ministry cooperates with other institutions, for example the Norwegian Institute for Urban and Regional Research (NIBR), the Norwegian Building Research Institute and the Norwegian Institute for Transport Economics (TØI). The results are intended to contribute to:

- improvement of professional competence in municipalities and counties, and in the central administration
- the shaping of policies
- the development of relevant policy instruments

Three subjects are given priority: municipal planning, regional/county planning and environmental impact assessments.

Environmental Protection in Municipal Planning (MILKOM)

Through the Norwegian Research Council, the Ministry of Environment finances a research programme on environmental protection in municipal planning (MILKOM). Research shows how the municipal planning system handles environmental challenges by documenting planning practices and methods/models. A competence network has been established at NIBR where greatest weight is attached to documenting and evaluating the way in which the provisions of the Planning and Building Act are applied in the municipalities and how the planning process is carried out.

County planning

Extensive development work has taken place in Norway during the last five years in order to strengthen the counties' role in the regional policy and to use county planning as an important political tool. The development programme is based on practical experience in the individual county. It is complemented by significant research

and development in the areas of land use and transport planning, natural resources and economic development, and practical improvements in the planning system.

Environmental impact assessments

A special centre of competence has been established in NIBR to evaluate the system of environmental impact assessments. Two important projects are «Environmental Impact Assessments in Municipal Land Use Planning» and «Methods for Strategic Land Use and Transport Planning in Important Urban Areas and Towns.»

Landscape design

The achievement of a more deliberate landscape design and of attitudes that reflect consideration for physical surroundings and the cultural heritage, is dependent on information to and consciousness-raising among the general public, politicians and professionals in the municipalities. «County Forums on Landscape Design» have been established in most counties in Norway. A «landscape analysis» is an important aid in better planning and approval of architectural practices. The Norwegian Board of Architectural Practices distributes information and engages in the transfer of knowledge in order to influence opinions and increase professional awareness.

4.4.10 The development of five environmental cities

At the end of 1992, the Ministry of Environment initiated cooperation with the cities of Fredrikstad, Kristiansand, Bergen, Tromsø and the district of Old Oslo to develop «environmental cities» in these urban areas.

The goal of the experiment was to develop models for sustainable urban development, while laying the foundation for more jobs, better living conditions and a better environment for children and young people.

The main idea was to develop an holistic approach towards the work, and to find the solution of many problems by considering them as a whole. Long term planning and immediate improvements to the environment should pull in the same direction. Local examples and measures in the cities should be in concert with, and form the background for, both local and central development projects.

Broad cooperation between several ministries, professional groups and the cities will yield new experience which can be useful to other Norwegian municipalities.

The experiment is to last until the year 2000 and will result in:

- good examples for other cities
- a collection of examples and guidelines for sustainable urban development
- studies of and suggestions for better instruments for achieving sustainable urban development
- better methods for describing the environmental status of Norwegian cities.

Six areas are given priority:

1. Coordinated land use and transport planning, with priority to environmentally sound transport, environmental measures and densification in building zones

2. Strengthening the city centre as a meeting place for shopping, business and culture

3. Thriving local communities with good residential areas, and local services which will ease people's everyday life and provide a better environment for children and adolescents.

4. Natural areas, the aquatic environment and green areas should be safeguarded for purposes of recreation and to preserve biological diversity

5. Waste management, sorting of waste by source and recycling of wastes from households and from commercial and industrial activity

6. Good design of the physical environment through protection and development of the building environment and public places, and by preserving the various elements of the cultural heritage and making these more accessible to the public.

The project has resulted in specific measures to improve the environment and plans/visions for environmentally sound urban development in the future.

- In Fredrikstad, a connected foot/bicycle path has been built on each side of the Glomma (Norway's longest river).
- In Kristiansand, the central market square has been changed from a parking area to a pleasant traffic-free «living room» for the whole city.

- In Bergen, a vision for a new rail-based system of transport (light rail) has been developed, with concentrated building around strategic junctions.

- In Tromsø, plans and measures are being discussed to make the central city more attractive as a social and shopping area.

- In Old Oslo, a number of measures have been carried out in cooperation with the residents. The national highways through the district are reduced, and will be eliminated when alternative routes have been constructed. The environmental city of Old Oslo is described as a special example at the end of this chapter.

The environmental city project emphasises the need to find methods for measuring environmental developments and the state of the environment in the cities. In this connection, goals and related indicators have been developed. The indicators are tools for measuring the achievement of goals.

Environmental goals and humane values can easily be the loser in the battle with more materialistic social objectives. Money, speed and kilometres of roads are easier to measure than «good housing environments.» This makes it necessary to define measurable environmental indicators which can be used in environmentally sound planning. The Ministry of Environment has begun to work on such indicators. Detailed professional expertise has been built up, especially in connection with pollution, and both descriptions of the state of the environment and the goals are formulated.

There is broad consensus that the use of land, energy and resources must be reduced, as well as pollution. Biological diversity must be preserved. In addition, fundamental social benefits, such as security, and public services, should be provided within a sustainable framework.

The following are proposals for principal goals for sustainable urban development along with the means of measurement define in the environmental protection efforts:

GOALS

1. Reduce the use of land for construction and transport

2. Reduce the use of energy for transport and heating

3. Reduce air and noise pollution

4. Increase the share of environmentally sound transportation

5. Secure undeveloped and open areas for biological diversity and outdoor life and improve accessibility to watercourses and the sea

6. Reduce waste through changes in consumption and production and by increased sorting and recycling

7. Secure inhabitants a safe and stable environment with access to local facilities and services

8. Reinforce the city centre as the city's most important meeting place for shopping and cultural activities -

9. Preserve unique historic/cultural characteristics, quality of the area and valuable building and cultural environments. Place and design new buildings and installations in a manner that enhances the area's identity and promotes a good physical environment

10. Promote participation of the population in the development of the local environment and a sustainable urban society

INDICATORS

- M² per capita in towns/cities

- M² lot/dwelling/year in new projects

- Kwh/year for mobile sources per 1,000 inhabitants

- Kwh/year for stationary sources excluding industry

- Ton emissions/year of pollutant gases per 1,000 inhabitants

- number of people exposed to pollution (pref. NO₂ and PM10) and noise exceeding SFT's air quality guidelines and the Ministry of Environment's guidelines for noise

- Person km, percent share and number of trips per year using

- private automobiles

- public transportation

- bicycle

- on foot

- green areas as % of total developed areas

- size, quality and continuity of green areas, changes in these

- % of pop. who live within 500 m of green areas, picnic sites, etc.

- % of pop. who live within 200 m of a local open area

- existence of aquatic environments (lakes, rivers, streams, beaches) and change in these over time

- % of pop. who can come to undeveloped/outdoor areas without crossing heavy traffic

- % pop. with access to play areas near their home

- total waste generated

- kg per capita sent to landfills/burned per year

- % waste sorted

- % waste recycled

- % pop. within traffic safe walking distance to the most important facilities and services

- number of incidents of crime and criminal damage and their extent

- pop. composition and period of residence

- centre's share of total sales in the municipality/region

- variation in cultural activity, housing and other functions

- number of valuable or characteristic building or cultural environments which are registered and protected

- number of areas in the municipality which have been the subject of an area analysis

- description of accepted guidelines for the design of technical installations, buildings and plans

- share of the population which participates in local activities and/or voluntary organizations

4.5 THE NEED FOR NEW STRATEGIES - PLAN OF ACTION

Planning has traditionally focused on new building and continued expansion of the cities. Most cities of the future have already been built. If the objective is a sustainable city, attention must now be focused on developing and improving the existing urban structure and stock of buildings.

It is important to maintain a holistic perspective in efforts to develop urban areas. Measures must be considered collectively and must pull in the same direction. If one loses sight of the complete picture, the use of a particular instrument to solve a specific environmental problem may easily be in conflict with other objectives and therefore be counterproductive in terms of improving the environment as a whole. Attempts to create a more concentrated city can conflict with the need for more green areas. Urban renewal and housing rehabilitation must be seen in connection with improvement of the external environment. Noise and pollution from road traffic can quickly undermine the positive effects of improvement of individual dwellings. Experience shows that an expansion of public transport facilities is not sufficient to ensure more use of them. Restrictions must also be placed on the use of private cars.

If a marked increase in the price of petrol occurs while urban development demands more use of transport, the effect of increased petrol costs will be less than they would be if development promoted less use of cars. Furthermore, sprawling urban development increases the risk of restrictions on the use of cars having an adverse effect on people's well-being and reduce efficiency in the commercial sector.

It will be difficult, however, to create a variation in housing types in inner-city districts, since the use of land is tied to earlier construction. Possibilities of alternative use of the land must be exploited in planning. A major challenge for future urban renewal is to make these areas more attractive for wide groups of the population, while ensuring security of tenancy for the current residency. Coordinated efforts on the part of both the public and private sectors for physical rehabi-

litation of housing and residential environments can help to decrease the concentration of population groups with serious problems connected with living conditions in certain urban areas.

Urban renewal strategies are described in chapter 3.4. In addition, six strategies for more sustainable urban development are described below. Attention is drawn to this need for coordinated use of existing instruments. There is a need for:

1. Better regional coordination, to direct the pattern of development and the design of the transport system

2. New urban structures and densification (infill) within existing built-up areas

3. Widespread cooperation between the commercial and public authorities, to strengthen the historic city centre

4. Area-oriented planning and resident participation, to promote the development of local communities

5. Coordination of investments and operating costs in the transport sector, to develop environmentally sound forms of transport

6. Practical and economic advantages, both for individuals and for the commercial sector, for acting in a way that leads to sustainable consumption

4.5.1 Better regional coordination in order to direct the pattern of development and the design of the transportation system

White Paper No. 31 (1992-93) «Regional Planning and Land Use Policy» defines a new land use policy for more environmentally sound urban development. Emphasis is placed on the idea that the land use policy will be a long-term instrument whereby higher prices for fossil fuel and other restrictions on transport can take place without seriously disadvantaging either households or commercial enterprises. In the course of time, building policy can have marked influence on total land use and transport patterns. It is necessary to develop a land use policy which supports other measures, for example, general environmental taxes, pricing of transport or local restrictions on the

use of cars. More concentrated use of land will promote less use of cars without negatively affecting commercial transport and people's well-being. It would also reduce society's vulnerability in terms of energy supply and transport.

The structure of urban centres should be established at regional levels as the basis for the location of private enterprises and public services. New urban structures should be developed based on the main arteries of public transport, where urban growth is concentrated around important junctions.

A recently completed study by the Norwegian Institute for Urban and Regional Research (1995) concludes that energy consumption is strongly influenced by the pattern of building in cities and built-up areas. The connection between energy consumption in the transport sector and a number of urban planning and socio-economic factors is shown through a comparison of different cities and regions in Scandinavia and a study of residential and work places in different regions of greater Oslo. The project concludes that the following factors are important in reducing per capita energy consumption:

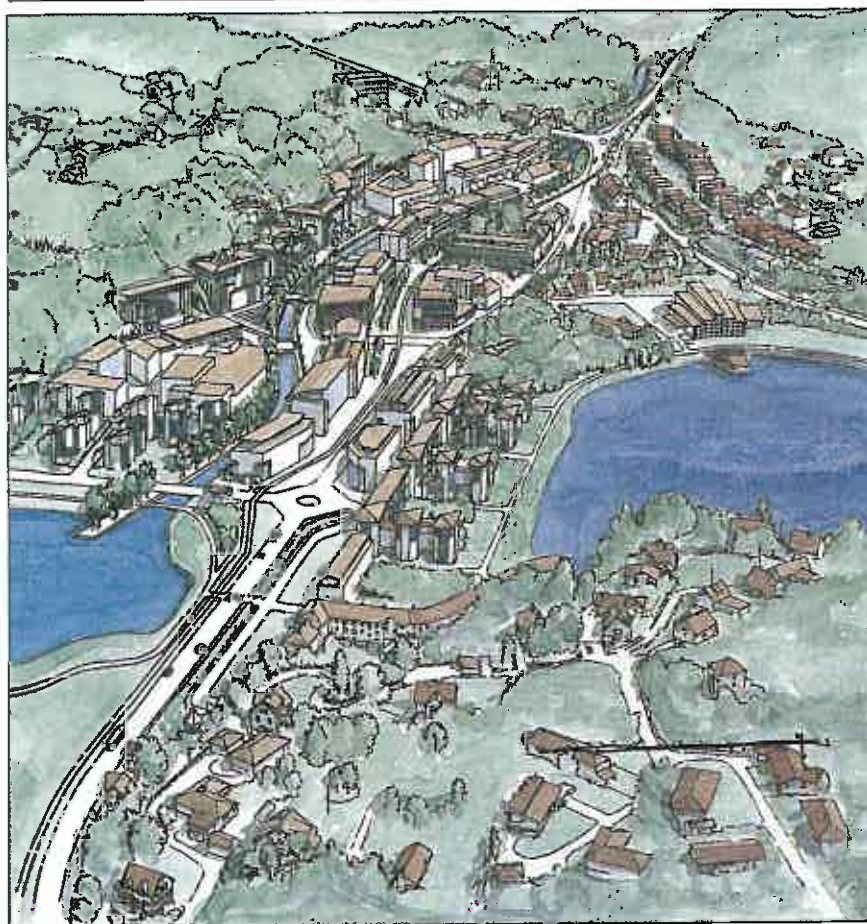
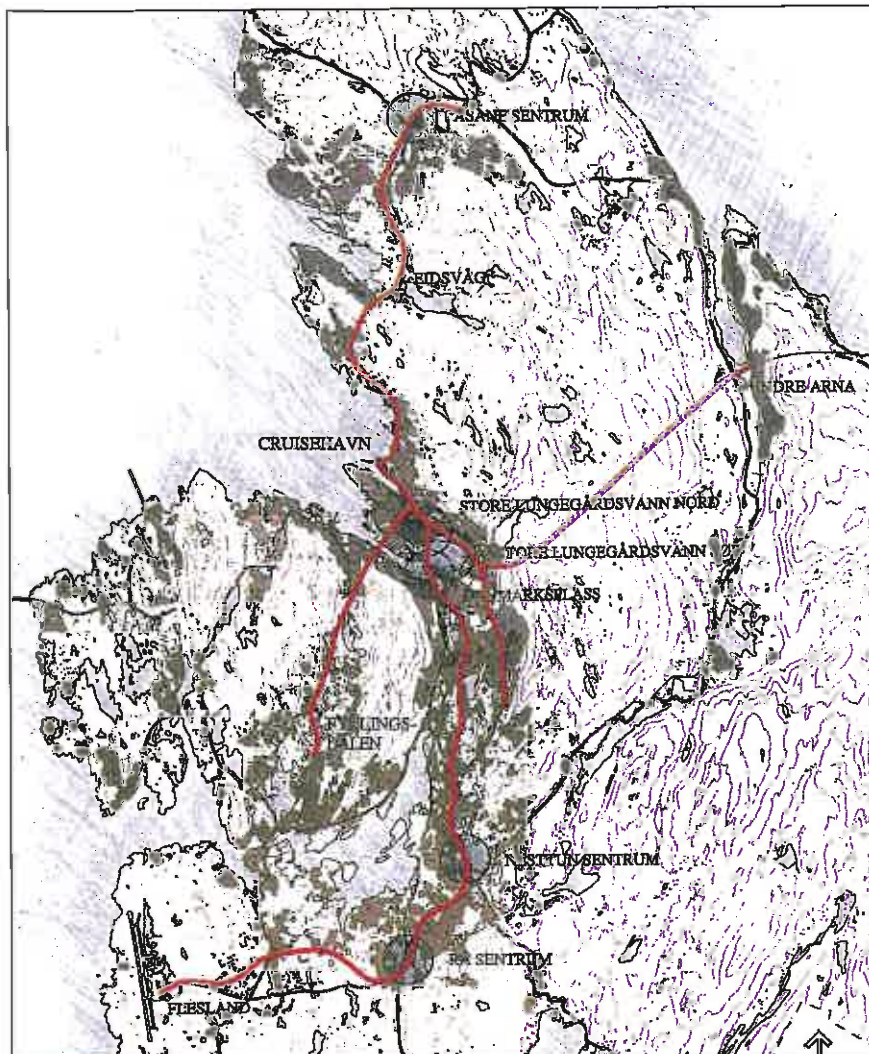
- high population density for the city as a whole
- «decentralized concentration» on a regional level (in other words, compact, relatively self-contained local communities distributed throughout the region, rather than concentrating the majority of the population in one dominating city)
- high density in every residential or commercial area
- centralised patterns of settlement within densely-populated areas (that is to say, higher density in central rather than in peripheral areas of the cities)
- centralised location of places of work within the city area (except for functions closely connected with the local community)
- locating places of work near public transport junctions
- a scarcity of parking areas near places of work

The study shows that people living in concentrated, urbanized areas use a third as much energy for transport as people who live on the periphery.

Modern cities and commuter regions usually extend beyond the administrative boundaries of the central municipality. Thus, many environmental problems connected to urban development, for example, transport and development patterns, must be solved on a regional level. Competition between municipalities, with regard to the establishment of economic activities, house building and attractive objects for taxation, make it necessary to plan on a higher administrative level. New establishments or the expansion of shopping centres must be integrated with the regional centre structure, to prevent centres based on use of cars from out-competing local centres and the traditional centre of the towns.

As mentioned, county plans and county area plans are not legally binding; they serve as a guide for the municipal land use planning. It is therefore up to each municipality to decide whether to take the county plans into account or not. The county has the possibility of sanctions, by raising objections to municipal plans. Conflicts between regional and local interests are solved by the Ministry, and this can be a long, time consuming process. The national policy guidelines for coordinated land use and transport planning serve as a guide to both central and local authorities, which can help to reduce such conflicts. Even so, the planning system may still contain weaknesses as regards the regional steering of the planning, and therefore also control of the regional urban structure. Thus, the preparation of county plans and county area will be an important issue in the efforts to develop suitable instruments to promote the land use policy. The Ministry of Environment is also considering strengthening the instruments connected to the county plans in order to make them more significant both for municipalities and national authorities. Changes in the Planning and Building Act are being considered in order to make county plans more binding as a foundation for municipal land use planning.

Urban housing should be concentrated around public transport axes. The Bergen city council has decided that rail based transport will form the framework for the city's public transport system. Future housing construction will be concentrated around important junctions for example as shown, Nesttun.



4.5.2 New urban structures and densification within existing building zones

As mentioned in the section above, cities should establish main arteries of public transport with junctions where future buildings can be concentrated. This will increase the amount of persons who can use public transport, reduce the walking distance to stations and bus stops, and limit the spread of urban areas. Future building should take place within the boundaries of existing built-up areas. Other infrastructure such as water, sewage and municipal services can thereby be used more effectively.

This type of housing construction and urban development is more challenging than building on undeveloped land. Housing must be adapted to the existing environment. Sites are often smaller and the structure of ownership more complicated than in more peripheral areas. There are often more private interests involved. Housing must be adjusted to the existing shops and places of work. Traffic patterns and parking areas must also be adapted to a more concentrated pattern of buildings with many functions.

Knowledge must be built up as to how such infill can be achieved in a flexible, effective and qualitatively satisfactory manner. It may be possible to develop new routines for the financing and administrative approval of projects in order to take into account all the different interests involved.

Not the least, it is a challenge to the municipalities to develop routines and instruments to ensure good outdoor areas. This means coordinating the interests of the different developers so that the «rewards» for the outdoor area are equally divided between the different property owners. The municipalities have a special responsibility for initiating and directing such processes.

The desire for the most cost-effective use of building plots can have a negative effect on green areas and common areas that can be used by the residents for play and outdoor pursuits. It is a challenge to ensure good outdoor areas for all age groups, which are safe from traffic. Children should be able to move freely and play safely in the local environment. Adults and the elderly should have natural meeting places which are protected from noise and pollution. As far as possible, new

housing should be built in areas that are already built on. These can, for example, include low priority industrial sites and road areas. «Grey» areas can also be made green again.

If the desire for better utilization of plots and infrastructure is to be fulfilled, current residents must acknowledge that new building could be an advantage, for example, through better public and private services. New housing can increase the population base for schools, kindergartens, shops, etc.

The building of single family homes and row houses must be organised in a different way than is common today. Owing to a lack of building areas and increasing costs, the size of plots for detached, single family homes has been reduced from about 1,000 m² to as little as 3-400 m². Building traditional single-family houses on such small plots, where it must also be possible to reach the house by car, often results in very poor outdoor areas, ruined terrain, and a generally poor residential area. Such concentrated development demands new housing designs and more coordination than has been usual up to now. It is a real challenge to develop housing types and to build residential areas that combine the need for individual solutions with a coordinated, concentration pattern of construction. The detached, single family home is an attractive housing type which can and still should be built, but both the process and the type of housing must be adapted to less use of land and a more environmentally sound development. The municipality is responsible for promoting such coordinated development.

4.5.3 Widespread cooperation between the business community and the public sector to strengthen the historic centre

A combination of a poor inner city environment and a pattern of development based on use of cars increases the tendency to locate housing, businesses and services outside the city centre. The city centre will eventually become less attractive and will risk becoming a worn out city district. There are several reasons why this development should be reversed and the traditional city centre strengthened:

- The city centre is the most important source of information on the cultural heritage and represents the core of the city's identity.

- The centre's extensive economic, cultural and environmental resources must be exploited.
- The centre is the part of town that is most easily accessible by public transport.
- The centre is the city's most important meeting place for culture, and for trade and other commercial activities.

The development of the centre is a laborious process involving many different parties and interests. It requires a coordinated planning process including both activities and land use. Public authorities, property owners and the commercial sector must cooperate on planning and implementation of the necessary measures which can include:

- **Preserving and drawing attention to the cultural heritage and the unique qualities of the city resource.** Buildings, parks, ports, gardens, etc. from earlier times are probably the most important precource the city centre possesses compared with other parts of the urban area. Therefore, greater emphasis on preservation of cultural monuments is an important part of the efforts to develop an environmental city. In many cases car traffic should be reduced or entirely eliminated in all or parts of the city centre, as already seen in several city centres throughout Europe.
- **The physical environment should be rehabilitated.** Not only the city's «hard surface», but also green areas should be improved and made more attractive.
- **Accessibility can be improved through a better system of public transport.** If the centre is to retain and strengthen its position in the urban area, investments must be made in transport to improve both accessibility and the environment in the centre of the city. Emphasis on improving the city centre is important for the future of public transport, since it is especially for journeys to and from the centre that public transport can compete with the private car.
- **Pedestrians and cyclists should be given priority.** Experience from a number of cities abroad shows that a majority of users of the centre actually reach it without using a car.

- **Accessibility by car should be ensured on the centre's premises** This implies, for example, giving priority to transport of goods. Parking can be concentrated in fewer areas outside the city cores of the city, close to the main arteries.

- **The housing function should be strengthened in areas closest to the centre.** This will increase the customer base for shops in the centre and life in this area will be more varied. It will be a challenge to establish good green areas close to the residential areas in the centre of the city, especially for families with children

- **Cooperation of shop owners who must compete with shopping centres based on the use of private cars.** Shopping centres on the peripheries often have large walking areas protected from both weather and traffic, as well as meeting places such as cafes, play areas and baby-sitters. Opening hours are suited to customers' needs and shop owners cooperate in publicising the centre. The city centre has to meet these challenges.

- **Cultural activities and public buildings make the centre more attractive.** The public sector can provide a good framework for cultural activities in the city centre, and support them financially. Public buildings such as the city hall and library can operate in an open «customer oriented» manner.

- **People must feel safe in the city centre.** Prevention of violence and other crime, as well as drug and alcohol abuse, are important if the city centre is to develop positively. The best strategy is to strengthen the natural social control that exists in streets and parks used by many people in areas with a variety of buildings and functions.

- **Unused spaces can be utilized for commercial activity and for improving the centre.** Most city centres in Norway contain large or small unused areas which are centrally located. These spaces represent a significant potential for development of the inner city. In

many cases, these areas are appropriate for housing. In other cases it is more natural to use them for trade, for building for communal or cultural activities, or for parks or open areas. They represent a resource which can be used to create a more environmentally sound city centre and city in general.

4.5.4 Area-oriented planning and resident participation in order to promote the development of local communities in the city

By and large, the housing and city structures of the future have been built already. Attempts to improve the environment must be based upon existing physical conditions. Planning can no longer occur for an unknown user-group but should be carried out in close cooperation with existing residents and non-government organisations. It is in their own environment that people can change their behaviour and consumption patterns in a more environmentally sound direction. The development of local communities with adequate services and facilities will reduce the need for transport. Efforts to improve living conditions and the environment for children and youth must also be based on individual local communities.

Cooperation with residents is necessary if the efforts to improve living conditions in the cities are to succeed. Old Oslo is the city district which has Norway's poorest living conditions. In order to improve the situation, close cooperation has begun between the residents, the municipality of Oslo and the central government on a project entitled «The Environmental City of Old Oslo». This project is described in more detail at the end of this chapter.

The city can be divided into four levels. The immediate environment can be seen as the basic element. It is here that ties are developed between neighbours. Organisations and meeting places are established and social life takes place at this level. Several neighbourhoods make up a local community and several of these make up a city district. Together, the districts create a city. Each level can be regarded as an alternative arena for municipal planning and administration, or for the residents' experiences and everyday lives. Each level demands a special administrative organisation and pattern of cooperation to achieve democracy and participation.

In Norway, municipalities are the established basic unit of the social organisation. Several of the largest cities are divided into districts with their own political and administrative bodies. Division into districts and dis-



A strong and thriving historic centre is an important element in sustainable urban development. (Photo: Terje Forseth)

strict democracy are sometimes not enough in relation to how the residents' experience their physical and social situation. There may be tension or conflicting interests between the municipality's need for practical administrative units and the local population's need for a sense of belonging. Planning should take place on levels and in units where residents find participation natural and desirable. The local community is a geographically limited unit, but its size and composition will depend on local traditions and conditions. Some of the factors that affect environmentally sound urban development and the quality of the local community are listed below:

Facilities such as grocery stores, banks and post offices should be within walking distance of the home. Leisure and shopping trips account for almost half the use of private cars. One reason for the larger number of journeys by car is that parents have to drive children to and from school, kindergarten, recreational activities, and use a car for daily shopping. Providing more of these facilities within the local community obviously cannot stop people from travelling outside the area, but can reduce the need to do so. We must not forget that approximately 15% of households do not have access to a car and are more dependent on local services.

Primary and lower secondary schools are the most important institutions in the local community for families with children. Children spend much of their time at schools, which are also used for recreational activities after school hours. Short distances to schools and traffic safety along the school route are important qualities which can reduce the use of private cars.

Recreational activities should take place on school premises

Kindergartens should be a general service for children. Several kindergartens may be needed in a local community. These should be spread throughout the area, to make the average distance between home and kindergarten as short as possible. It should be possible to reach them by foot or by bicycle. Locating the kindergartens near to public transport makes it possible to combine transport to the kindergarten with an environmentally sound journey to work.

Local community centres function as meeting places in the local com-



Private and public services for example Kindergarten within walking distance reduce local transport needs. (Photo: JDM)

munity, both for adults and children. In many instances it is appropriate to locate the community centre function in school or kindergarten buildings.

Cafes or restaurants can be an asset for the local community. In a situation with many single person households, there is an obvious need for such social meeting places

This kind of local community planning makes it necessary for the municipality to establish a system to coordinate the efforts of the different public services within a limited geographic area. The municipality must also develop an apparatus for receiving «input» from the residents, to ensure that their interests and points of view are taken into account in a democratic manner. The local population and the various non-governmental organisations must organise themselves and coordinate their interests. This can be arranged through a special cooperating committee or other democratic organisation. Such models and plans would be an important part of local «Agenda 21».

4.5.5 Coordination of investments and operating costs in the transport sector in order to promote environmentally sound forms of transport

Responsibility for the different elements of a local transport system is currently divided between the central government, the county and the municipality. The central government is responsible for national highways, which constitute an important part of

the total road network. Highways in urban areas are used to a large extent by local automobile traffic which could be replaced by public transport. On the basis of a 4-year plan for roads (from 1998, 10-year plans), the Storting allocates earmarked funds for investments and operation of national highways. Counties are responsible for grants to public transport and are given funds for this purpose through a general grant from the central government. In practice, this means that public transport is not considered in relation to investments, and has to compete with measures in the health and education sectors. The local railway system is a national responsibility.

This division of responsibility creates serious limitations on the possibility of being able to evaluate the system of transport as a whole and of making real choices between measures in the transport sector and in the environmental sector. In a similar manner, the existing division of responsibility makes it difficult to weigh the different investment to arrive at a system where investments are weighed against and operational measures for the transport system as a whole. The Directorate of Public Roads has the competence and capacity to plan and construct roads, but has no experience of short and long-term planning of public transport.

These problems have been discussed by a publicly appointed committee which published an report (Norwegian Official Report 1995:4) entitled «Instruments Used in the Environmental

Policy.» In terms of institutional conditions in the transport sector, this committee found that «In order to ensure holistic solutions to transport, and real choices between different measures in the transport sector and in the environmental sectors, including considering road building in relation to investments in and grants for public transport, it is necessary to take a closer look at the division of responsibility in the transport sector, including the possibility of system of alternative ways of using the funds for national highways.» The committee also concluded «that it is necessary to investigate the possibility of reducing the problems of coordination by concentrating the responsibility on one level of the administration. In principle, this can be accomplished by making the central government or the county responsible for a larger part of the transport system.

4.5.6 Practical and economic incentives to promote sustainable consumption

Norway is working in various instruments and strategies to encourage sustainable consumption. The national authorities responsible for ensuring a socio-economically reasonable framework for production and consumption. This can take place, for example, through the use of economic and administrative instruments, education and information. However, more sustainable production and consumption can only be achieved with the participation of all sectors of society. The Norwegian environmental policy has

already contributed to more sustainable production and consumption patterns. Examples include environmental taxes such as the CO₂-tax and the sulphur taxes on fossil fuel. Studies are being performed of how the taxation policy can be used to achieve higher employment and a better environment by changing the focus of the taxation policy from labour to activities involving increased use of resources and increased pollution.

The development of framework conditions which, seen as a whole, will lead to more sustainable consumption patterns involves a number of challenges. There is no point in moralising about the use of private cars, for example, when these are easier and less expensive to use than public transport. Concentrated housing solutions cannot compete with detached, single family houses if the alternative is sterile blocks of flats. If it is less expensive and easier to invest in the development of sites for single family homes on the outskirts of cities, rather than within existing built up areas, developers cannot be expected to choose vacant lots between existing buildings. If it is simpler and more profitable to invest in large shopping centres based on the use of private cars, it will be difficult to attract capital to the city centre. If people are to save energy, sort their waste and reduce pollution, arrangements must be made to make this practically feasible and financially profitable.

People who live in concentrated, central areas use much less energy than people who live in detached,

single family homes on the city outskirts. The former should be rewarded through reasonable housing costs and good housing residential environments. Level of living surveys show that the opposite is often the case. There are five points which are important if people are to choose to live in densely built areas in the city centre:

- Residential areas must have outdoor spaces that are safe from traffic, and with less noise and pollution
- Parks, squares and local open areas must be rehabilitated and maintained
- The visual environment must be improved. The city should be beautiful
- People should feel safe
- Public services must be good

A wide range of measures which all pull in the same direction is required to achieve sustainable solutions. In addition to making environmentally sound solutions attractive, it is necessary to mobilise the population to choose environmentally sound behaviour. Such mobilisation should begin in the kindergarten and in the school, and should be followed up in the local community and at places of work.

The above mentioned strategies will be of central importance in the future Norwegian efforts to achieve more sustainable human settlement development. Such strategies will at the same time contribute to more sustainable patterns of consumption.



43 cars



Bus with 43 passengers



43 bicycles (Photos: S.M. Fredriksen)

EXAMPLE 5: THE ENVIRONMENTAL CITY OF OLD OSLO

Resident participation and environmental improvements

Oslo, the capital of Norway, has a population of 460,000 and is divided into 25 city districts which have responsibility for health, social services and kindergartens. Old Oslo is one of these districts. It is located in the eastern part of the inner-city and has traditionally been a working class district. The current population of the district is 22,000. It is a run down area with poor living conditions. Approximately 1/3 of the population is composed of immigrants, three times the average of other city districts. The district of Old Oslo is Norway's largest traffic junction. One third of the area is devoted to traffic - ports, railway, highways and streets. This results in noise, vibrations, dust and fumes in the air, barriers for pedestrians and those on bicycles and a reduction of the area's aesthetic value. Housing standards are still low.

However, there are also valuable aspects of the district, not least in six active resident organisations. Oslo of the Middle-Ages was founded here about 1000 AD and the district contains some of the most valuable cultural monuments in Scandinavia from this period.

At the end of the 1980's, the local authorities and political leadership initiated a project to improve the living conditions of residents. The project was supported by the Environmental Health Programme from the Ministry of Health associated with WHO's Healthy Cities Year 2000 Programme. The project was based upon a number of working groups in which the local resident organisations were active participants. There were two important results:

An environmentally sound health plan documented living conditions and the state of the environment compared with Oslo as a whole. Connections between poor living conditions and serious environmental problems such as noise and pollution caused by road systems and traffic were shown.

A vision for the city district which showed rapid environmental

improvements of, for example, outdoor areas and more long-term improvements through the placement of highways in tunnels and the development of a «Middle-Ages» park near the sea.

The Ministry of the Environment granted funds to Old Oslo in 1991 for improvement of the environment and increasing employment in the district. The funds were used for a number of small but highly visible measures which inspired the residents to have a more positive view of the future and provided motivation for continued cooperation with public authorities. Parks were improved and a «children's farm» was built.

Both the municipality and the national government have interests in Old Oslo. As a traffic junction, Old Oslo is the main entrance to Norway. Thus, «The Environmental City of Old Oslo» was established as a broad cooperative project between the city district, the municipality of Oslo and the national government. Both a political group in charge of project management and a secretariat with a number of representatives from professional groups were established. Cooperation occurs across sectors and traditional forms of cooperation, but decisions are made in the ordinary way, both by the ministries and by the municipality of Oslo. The environmental city project has received NOK 20 - 40 million in the course of the last couple of years in addition to ordinary district budgets. Goals for

the environmental city project in Old Oslo are to:

- improve the environment, housing conditions and the health of the residents
- develop constructive cooperation between different ethnic groups and collaboration between the residents and the public sector
- create employment
- make visible the values contained in cultural monuments, natural environments and a lively urban environment in the district

A reorganisation of the transportation system is absolutely necessary for the achievement of these goals. A number of improvements are already visible:

- The majority of through-traffic has been placed in a tunnel. This work was begun before the initiation of the environmental city project and lays the groundwork for other improvements in the environment. Parts of the old highway will be torn down and traffic areas will be transformed into green areas.
- Parks and squares have been improved, «environmental streets» have been created and bicycle paths have been built along the main arteries through the district.
- Schools have been re-opened and rehabilitated.

1/3 of the population in Old Oslo are immigrants. (Photo: Leif Gjerland)



- An International Cultural Centre and Museum has been opened which aims at increasing respect and understanding between people with different cultural backgrounds.
- The municipality of Oslo works actively for urban renewal and improvement of housing standards. Resident organisations are key elements and function as promoters, contributing good ideas and offering social contact for the residents of the district.

However, significant challenges remain. There is still a need to reduce traffic and improve the physical environment. Socio-economic conditions must be improved in order to reduce differences in standards of living in Oslo. An important task is to encourage increased participation of immigrants with foreign cultures in the planning and development of the district.

In the new vision for Old Oslo, the last highway is placed in a tunnel and the port area is opened to the fjord. Both the «Middle-Ages town» and a completely new city district can be developed, an alteration in the urban environment that will mean a great deal, not only for Old Oslo, but also for the whole capital city as well as the country.

Buildings and out-door areas are improved. (Photo: Terje Forseth)



5. INTERNATIONAL COOPERATION AND NORWEGIAN DEVELOPMENT ASSISTANCE

The goal of Norwegian development assistance and the North/South Policy is to promote development and increase well-being in developing countries and to contribute to a more just distribution and use of resources. The North/South policy is in line with international frameworks for economic and social development, and development assistance is directed towards the promotion of economic growth and welfare in the individual developing countries. An officially appointed commission has recently completed an extensive report on Norwegian Development Assistance and the Ministry of Foreign Affairs will present a White Paper on Norwegian development assistance to parliament by the end of 1995.

5.1 PRINCIPLES IN NORWEGIAN DEVELOPMENT ASSISTANCE

One of the main objectives of Norwegian development assistance is to contribute to a lasting improvement of economic, social and political conditions for the populations of developing countries. Funds should primarily go to the poorest countries and should be used to improve living conditions for the poorest population groups, while avoiding dependence on continued aid.

Norwegian development assistance is recipient-oriented. The recipient countries' plans are the basis for discussions on the choices and design of projects that receive financing from Norway. The recipient country has responsibility for carrying out these projects. Breaches of the conditions for cooperation can have consequences for future assistance from Norway. Development assistance shall promote environmentally sustainable development and strengthen the developing country's

own ability to solve its poverty problems. This means that emphasis is placed on developing the country's economy and the commercial sector, and on the administrative and social infrastructure. In addition, better health and education, increased employment and food production are necessary for a development which will benefit the broadest stratum of society.

5.2 THE SCOPE AND DISTRIBUTION OF NORWEGIAN DEVELOPMENT ASSISTANCE

The development assistance budget for 1995 is almost NOK 8 billion, or about 1% of the Gross Domestic Product (GDP). Norway is among the countries in the world who give most development assistance in relation to GDP.

In 1996 the Government is planning to step up the share of development assistance spent on environmental support. Emphasis is placed on support to processes and products from developing countries which satisfy international environmental standards. To promote sustainable production and consumption in developing countries, priority shall be given to primary activities and industries.

5.2.1 Aid to refugees and emergency assistance

Norwegian support is directed to refugees in crisis situations arising as a result of war and conflicts in different parts of the world, or assistance connected to natural disasters. The support, which is channelled through NGO's and the UN system, has helped to reduce suffering among those affected by war in many countries. Both in areas with acute conflicts and in countries in a process of stabilisation, Norwegian assistance has been directed to-

wards measures which can solve regional conflicts which cause people to flee.

Norway will contribute more than NOK 1 billion in 1995 for this form of humanitarian assistance. Special support has been given to the previous Yugoslavia, Mozambique, Ethiopia, Eritrea, Rwanda, Afghanistan, Cambodia, the Middle East and Central America.

Norwegian refugee policy emphasizes the need for a wide variety of measures to limit current refugee problems and provide protection, and for assistance to reconstruct the native countries so that refugees can return home when the conflicts are over. The prevention of conflicts is important in this context. This involves support for human rights, democracy and the protection of minorities, based upon mutual respect and tolerance. Generally speaking, it is best and most cost-effective to help refugees in areas as close to their homeland as possible. Aid to refugees in their own region is therefore another important element of the Norwegian refugee policy.

5.2.2 Bilateral development assistance

Norway has concentrated long-term assistance to a limited number of «programme countries» and has regional budgets for Africa, Asia/the Middle East and Central America. The individual country's development needs, and sectors where Norway has special competence, are decisive for the choice of areas for assistance. These areas include: health, education, the environment, road transport, shipping, regional development, agriculture, fishing and energy. Emphasis is placed on consideration of women, children, democracy and human rights. Half of Norwegian development assistance is in the form of bilateral aid.

Adequate shelter is a problem in most developing countries. Picture from Dhaka, Bangladesh. (Photo: Roar Wik)

Africa

Norway cooperates with the following programme countries: Eritrea, Ethiopia, Mozambique, Namibia, Tanzania, Zambia and Zimbabwe. Long-term agreements with Angola and South Africa are being planned. Many areas in Africa find themselves in an economic crisis with serious poverty. Extensive political and economic changes are occurring in many countries. Norwegian development assistance to Africa will continue on a high level.

Asia and the Middle East

Norway has established long-term development assistance cooperation with Bangladesh and Sri Lanka, while India and Pakistan will cease to be programme countries as from 1996. In order to strengthen Palestinian self-rule in Gaza and on the West Bank, special funds are being given to support the improvement of living conditions in the Middle East.

Central America

Development assistance includes programme cooperation with Nicaragua, support to the peace process in Guatemala and a fund for the promotion of regional cooperation in Central America.

5.2.3 Multilateral development assistance and support through private organisations

Emphasis is placed on cooperation with the UN development programme, UN's Population Fund, UN's Children's Fund, the World Health Organisation, the Food and Agricultural Organisations of the UN and with the development banks. Multilateral development assistance amounted to NOK 3.1 billion in 1995, or approximately 40% of the development assistance budget. The major recipients of Norwegian support are International Development Association (IDA) and United Nation's Development Programme (UNDP). Multilateral assistance will continue at a high level.

Non-Governmental Organisations (NGOs) are also an important channel for development assistance. They can help poor and disadvantaged groups that are not easily reached by government to government aid. In 1995, NOK 600 million in development assistance was channelled through NGOs.



5.3 ASSISTANCE TO DEVELOPMENT IN THE HOUSING SECTOR

Aid to the housing sector has not been particularly visible and has most often been part of the support for regional development, of projects to improve the living conditions of disadvantaged groups, women's projects, credit projects for the poorest parts of the population, emergency aid and projects administered by NGOs. Total support to the housing sector is significant and the results are important. As is the case with other forms of development aid, recipients have responsibility for planning and carrying out housing projects.

5.3.1 Bangladesh

As a part of the programme for Bangladesh, NOK 150 million has been granted for the period 1993-97 as support to the Grameen Bank's housing programme. The Bank gives loans to the poor for the construction of homes and the purchase of plots. The Bank has developed a simple standard home that is resistant to floods and is recommended to borrowers. These homes can be built by the borrowers themselves with help from local craftsmen. Current aid will be the foundation for construction of 40-50,000 houses, and can also be used for further construction as the loans are paid back. Approximately NOK 42 million of the previous aid to the Grameen Bank has been used to build about 20,000 new homes. The most extensive activities of the Grameen Bank involve granting loans to members of the poorest population groups for income-producing activities. The Bank has more than 2 million

members, of whom 94% are women who improve their family's standard of living by participating in the Grameen Bank's development programmes.

5.3.2 Sri Lanka

Housing is financed in several areas within the special programme for Sri Lanka:

Social Welfare and Housing Programme

Housing for workers on the country's tea plantations is financed through this programme. Plantation workers' «line houses» are being rehabilitated and workers can also receive loans and access to land to build new houses. This programme demands extensive assistance in the form of both funds and organisation.

Batticaloa Rehabilitation Programme

Part of this development assistance involves the financing of housing and other buildings that have been destroyed as a result of conflicts, and the financing of homes that poor people can build themselves with the help of local craftsmen.

Integrated Rural Development Programme in Moneragala and Hambantota

These programmes also involve the financing of individual homes built by the poor.

5.3.3 Palestine

A study of housing construction and building materials was carried out by NORAD in 1995 in cooperation with the Palestinian authorities.

The study shows a great need for new housing. The Ministry of Housing and the Palestine Housing Council have been established to carry out housing projects. The poorest groups especially have difficulty in finding a place to live. Plots are expensive, it is difficult to get a loan, and expensive and time-consuming import of building materials is necessary because of a lack of local production. Cooperation between Norwegian and Palestinian developers is being planned. A decision concerning Norwegian funding will be made by the end of 1995.

5.3.4 Burundi, Rwanda, Zambia, South Africa

In 1995, Norway has financed new homes for self-builders in Burundi through the African Housing Fund. A similar project may be started in Rwanda.

The Norwegian Federation of Co-operative Building and Housing Associations (NBBL) is helping in the improvement of slum housing in Lusaka, Zambia. The project involves local organisation, self-building and improvement of the infrastructure in the housing area. The project has had positive results and Norwegian housing cooperation is therefore willing to become even more involved in housing assistance. NBBL and housing enterprises in South Africa are currently planning cooperation in the field of social housing in South Africa. South African representatives have visited Norway to study housing organisation and Norwegian experiences and competence. Plans for the first phase of cooperation will be finalised in the course of 1995.

5.3.5 Eastern Europe

To support the housing sector in Eastern Europe the Norwegian government budgeted NOK 40 million in 1993 for the construction of housing for Russian military officers returning from the Baltic countries. Norway is ready to sign the agreement on two conditions; exemption from duties, fees and taxes, and a declaration that the housing will be used by officers who have returned from the Baltic area and are no longer in active service.

In addition, funds are granted to Poland for the development of laws and regulations in the housing sector. Funds have also been set aside for commercial projects in the housing sector in the St. Petersburg and Novgorod areas.



The Federation of Norwegian Cooperative Building and Housing Associations (NBBL) is engaged in development assistance, and has contributed to development and improvement of Bauleni a part of Lusaka, Zambia. (Photo: NBBL)

5.4 ASSISTANCE FOR URBAN DEVELOPMENT

Urban projects have not been given priority in Norwegian development assistance. However, the priority given to the environment, health and institutional development and management has resulted in aid to some urban development projects. With the increasing emphasis on environmental conditions and institutional development, it is reasonable to assume that aid to urban development will be more extensive in the future.

5.4.1 Cartography

Norway finances extensive projects in the field cartography. Projects involve institutional development, transfer of digital map systems, development of competence and map production. Projects in this field will be carried out in the nine largest cities in Tanzania, for maps of Java, Bali and Nusa Tenggara in Indonesia and in Delhi (where the project also involves maps of underground cables and pipes).

Norway has received an application from Palestinian authorities for aid to build up a mapping institution, and for financing of maps of Gaza and the West Bank. Effective map making is necessary for physical planning, management and construction activities. A decision on Norwegian support will be made by the end of 1995.

5.4.2 Land use planning

Aid in building up local planning capacity is important for urban development. Norway will finance the establishment and organisation of physical planning in the Palestinian Ministry of Planning. Land use plans for Gaza and the West Bank will be part of this project.

Another important project in the field of land use planning is the development of seismological competence in Central America. Norwegian development assistance in this sphere is channelled through a regional organization (CEPRENAC). Results from the project will be used in land use planning and the establishment of building codes. Micro-zoning is planned for the most earthquake prone cities.

5.4.3 Water supply and sewerage

Water supply projects are financed by Norway in Zambia, Zimbabwe and Gaza/the West Bank, in Palestine, through bilateral programmes. These projects involve aid for institutional development and the construction of water supply systems. Norway also participates in the construction of water supply and sewerage systems in a World Bank project in Lobito and Benguela, in Angola. These projects are important contributions to the improvement of management, infrastructure, the environment, health and housing in a number of cities.

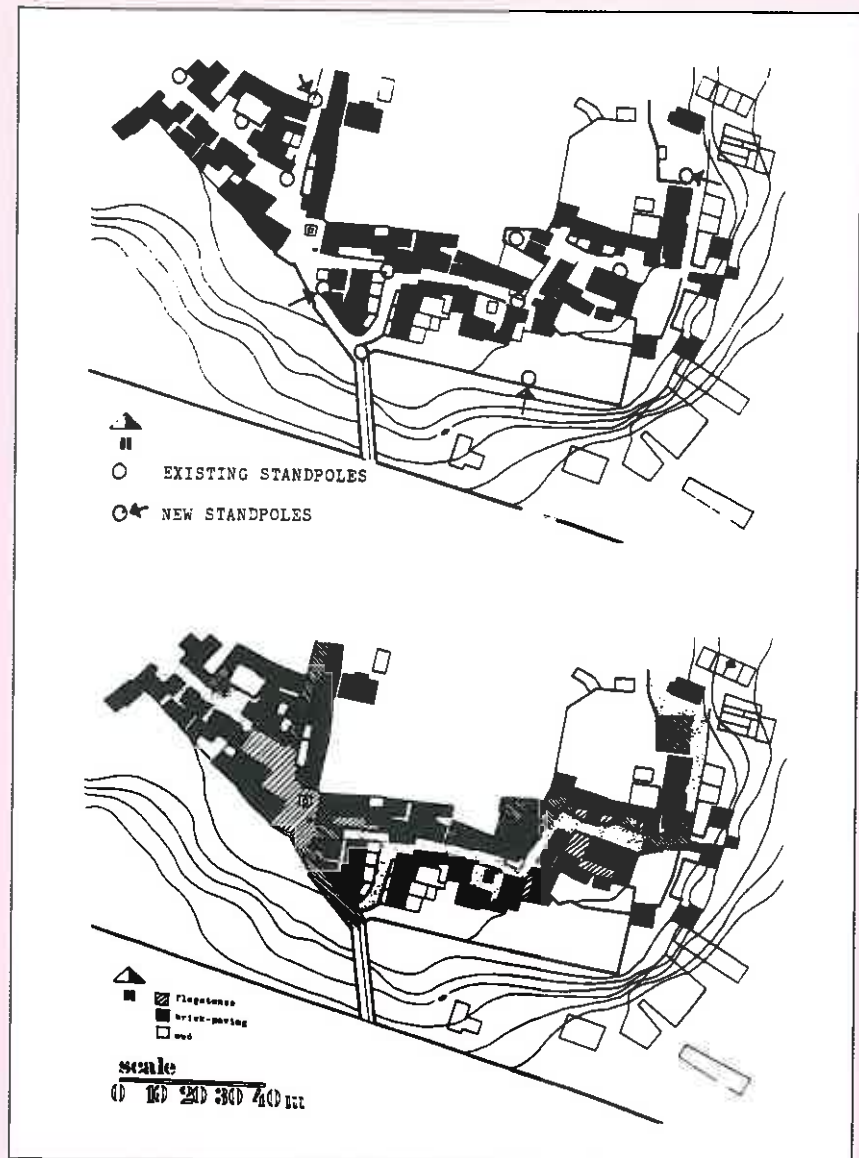
EXAMPLE 6:

UNIVERSITY NORTH/SOUTH COOPERATION IN THE EDUCATION OF PLANNERS

Norwegian institutions of higher education have built up cooperation with corresponding institutions in China, Nepal/India and Uganda. The purpose is to use education, primarily of architects and engineers, to achieve greater interest in problems connected with urban renewal, and measures in the public sector that can benefit the poor. Strategies will be developed to preserve important cultural monuments, while achieving a better environment and better living conditions for the urban poor.

Infrastructure and sanitary standards are often unsatisfactory and most of the existing housing is inadequate. Concrete suggestions and recommendations for step-by-step improvement of slum areas are described, based on the current financial situation of the residents. The plan is to carry out pilot projects which can give new impulses to the area's residents, and emphasis is placed on ecological principles - adaptation to climate, the use of water and the re-use of surface water.

One of the main goals of this cooperation is the exchange of knowledge. It is challenging to try to give everyone a «roof over his head» in rapidly growing cities. It is important to stimulate attempts to find solutions to the challenges planners will meet in years to come. Continued cooperation between educational institutions in developing countries and Norway can help to meet these challenges.



Registrationprojekt in Kathmandu, Nepal