

# Settlement Pattern in Norway

## Trends and Policies

By HERMUND SKJØLBERG

### **The Specific Character of Regional Development Problems in Norway**

Changes in settlement patterns in Norway conform broadly with long-term global trends. They form part of the general European development towards urbanization with its complementary rural backlog. Yet a specific Norwegian situation arises out of the combination of northern latitude with a rugged topography, which, in the present stage of economic development, has turned large areas into marginal land. In the political context, the widening of marginal lands in relation to the urban hierarchy and to land suitable for modern agriculture has gradually turned regional settlement patterns, resource allocation, and related matters into one complex field of thorny and controversial problems in national politics.

A total land area of 308,400 square kilometers and a population not yet exceeding 4 million account for an overall population density of less than 13 persons to the square kilometer; in Northern Norway the average population density is little more than 4 persons to the square kilometer.

The primate city of Oslo with its contiguous urban areas holds a population of about 3/4 million. Only two other cities (Bergen and Trondheim) have populations exceeding 100,000. The majority of urban municipalities have less than 30,000 inhabitants but the pattern is somewhat modified by suburban and con-urban developments. The local urban points throughout rural areas are generally very small.

An aerial survey of the country will show extensive mountain ranges and plateaus intersected by narrow valleys. Despite some lowland areas, especially in the south-east, the arable land area is less than 3 per cent of total land area, which is a lower percentage of arable land than in any other European country. Commercial forests make up nearly one-fourth of the land area; the remaining 73 per cent consist of highlands and other areas which are largely unproductive in the traditional sense of the term.

Animal husbandry and forestry at 400 meters or more above sea level account for only a very modest part of the country's agricultural and forestry production. In Northern Norway climatic conditions generally confine settlements to lowland or sea level areas.

From a settlement point of view, the most important feature of the western and northern coastal landscape is the generally narrow strip of fertile strandflat land which, historically, gave rise to a subsistence settlement pattern based on mixed agriculture combined with coastal fisheries and also provided the base for seafaring activities. The overwhelming majority of the Norwegian population lives within 10 kilometers of the sea.

### **Postwar Regional Policies**

In the immediate postwar years, reconstruction and rehabilitation commanded most of the political interest in the country but the introduction of national budgetting and the general pro-planning attitude among politicians then in power prompted them to include »regional planning» among incentives for economic growth.

Regional planning at the time was looked upon as part of a general labour market policy. Ideas on planning and implementation were vague. Economic surveys covering most counties were compiled during the 1950's and provided a general information base on regional resources and potentialities but problem-orientation was inadequate and lacked involvement in overall urban and other land use planning, urban economy, and the localization of economic activities.

More important was the North Norway Development Program which was launched in 1952 and was meant to be a 10-year program. Ordinary government investment programs were stepped up and a North Norway Development Fund was established to promote manufacturing and other industries; besides, special tax legislation was enacted to encourage private investments in Northern Norway.

The main objectives were to harness and utilize primary resources more fully and efficiently than formerly and to eliminate glaring deficiencies still existing in local road and power supply systems. Economic development was centered on the development of power supply, the modernization of the fishing fleet, increased capacity of fish processing plants, and yards servicing the fishing fleet. Agriculture also needed incentives.

Special measures were introduced to improve and diversify the qualities of local management and vocational training.

The Program was reasonably successful in closing gaps in infra-structure and increasing North Norway's share in national production. Major industrial developments like an iron works and an aluminium plant on the coast of Helgeland each formed the nucleus of a regional centre. Tromsø, the capital of the North, also showed considerable growth through incentives under the Program. But financial assistance to private entrepreneurs under the Program was generally channelled to existing firms and thus did not appreciably influence the localization of economic activities and the general pattern of urbanization.

A minor 4-year development program to improve living conditions in the coastal areas of Trøndelag was introduced in the late 1950's; its effect was insignificant.

In 1957 a guarantee fund was organized to create jobs in economically lagging regions anywhere in the Kingdom. This fund in 1961 was merged with the North Norway Fund into a nationwide regional development fund designed to promote economic activities in areas characterized by surplus manpower and occupational structures lacking in diversification. It is left to the discretion of the Development Fund Board currently to adjust the designation of geographical areas where the Fund may operate. Generally only minor adjustments have been made. About 45 per cent of the population in the Kingdom live in areas where the Fund is presently operational. Throughout the 1960's the incentives of the Fund were generally limited to loans and guarantees for loans.

During those years it became evident that migratory movements resulting from the geographical concentration of new jobs were largely unchecked by Development Fund activities and a traditional pro-agrarian policy.

In the decade from 1959 to 1969 the total number of Norwegian holdings was reduced by 22 per cent; the number of holdings smaller than 12 acres was reduced by more than one-third. There were considerable regional variations. In one inland county more than half the number of small holdings were abandoned. On the other hand there was a decrease of less than one-fifth in one of the mountainous strandflat counties on the western coast where primary occupations still bulk large and urban job opportunities are rather scarce.

Many abandoned farms have been amalgamated with neighbouring farms to improve ownership structure; yet this development implies a considerable thinning out of settlement in rural areas. In the 1950's the population in dispersed settlements was reduced by 4.5 per cent, and in the 1960's by 9 per cent. A major long-term problem involved in this development is that population levels in many outlying localities beyond commuting distance to existing urban servicing centres may fall below the minimum required to maintain organized societies able to supply public services of acceptable standards.

The urban population of the country is now approaching two-thirds of total population; the 8 largest urban regions account for more than 40 per cent of total population; 11 per cent live in other towns of more than 10,000 inhabitants, and 15 per cent in the numerous urban communities whose population numbers less than 10,000, most of them less than 2,000. Over the last years the overall trend has been an annual 0.9 per cent growth in total population, a 1.9 per cent growth in urban communities, and a 1.9 per cent population decrease in dispersed settlements.

The general urbanization of the country all through the postwar period up to 1970 was accompanied by a migratory movement from north to south which tended to converge on the Oslo Fiord counties, especially the Oslo Metropolitan

Region. In the 7-year period from 1960 to 1967, Greater Oslo, with 20 per cent of national population in 1960, absorbed 30 per cent of the total population increase in the Kingdom, and 42 per cent of new jobs.

The first 20 years of the postwar period were characterized by reconstruction and an emphasis on economic growth combined with consolidation and expansion of the social security system. Beyond the North Norway Development Program there was little genuine political engagement in an integrated approach to regional development. Through amalgamation the 744 municipalities of the country were reduced to 444 larger municipalities. Land use planning is largely a municipal responsibility and it was hopefully expected that these larger municipalities would solve the current physical planning problems. Regional planning as such was at a low ebb up to the mid-sixties.

### **The Present and the Future**

By the mid-sixties a revised Town and Country Planning Act introduced regional planning by way of co-operation between »two or more municipalities» and was institutionalized through the designation of 90 regions by the Ministry of Local Government.

Early in 1965 the Labour Government initiated a policy of »urban center growth promotion» as a means of stabilizing settlements in economically lagging regions; nine »experimental growth centres» were designated in various parts of the Kingdom. No specific incentives were envisaged. The experiment was meant to be in the co-ordination of already existing planning agencies and incentives combined with somewhat preferential allocations of financial resources for the designated municipalities.

Perspectives on the country's settlement pattern for the first time became a highly controversial issue in the 1965 election campaign. The new government, however, did not appreciably change the regional policy of its predecessor but added a new variety of its own: the designation of six non-urban »development areas» in addition to the nine growth centres already designated. Three of the development areas were located in upper valley regions, two in coastal regions, and one in a mainly forested locality.

According to a parliamentary report of 1970, the effect of the programs had been moderate up to then. The aggregate population of the nine growth centres was 74,000 after an average population growth of 4 per cent in 4 years, which is approximately the national average. The 6 development areas had an aggregate 1970-population of 91,000 after a four-year decline of 1.3 per cent; only one of the »areas» showed a minor population increase.

The parliamentary report stressed the importance of economic incentives and land use planning and also the specific development of urban centres within the designated development areas; further, a community development

type of engagement by the local population and the provincial authorities appears to be essential for success.

The Government in 1965 appointed three regional commissions covering South-east Norway, the western coastal region including Bergen, and Trøndelag in Central Norway, respectively, with altogether more than half the land area and 70 per cent of the population in the Kingdom. Their terms of reference included broad guidelines for urban/rural development, land use in broad outline, and overall co-ordination of public investments.

The three commissions submitted their reports in 1969. The Ministry of Local Government on the basis of these reports and additional material submitted a White Paper to the Storting in 1971. The three North Norway counties and the three remaining counties on the south-western coast, which originally declined to participate in the multi-county exercise, in the meantime had changed their minds and caused two similar commissions to be appointed. The one remaining county on the central western coast prepared an outline plan of its own. The new North Norway Plan was submitted to the Storting last May; the Agder/Rogaland Report will follow in 1974. The Storting dealt with the major 1971-report in May 1973 but important aspects of future regional policies in all probability will remain rather uncertain because the political stability of the country is less pronounced than formerly.

The South-east Norway Commission based its recommendations on one foregone conclusion laid down by its terms of reference: a containment policy in respect of the Oslo Metropolitan Area. The Commission advocated three major urban communities beyond commuting distance to Oslo and also suggested a number of strategic points within the lower levels of the urban hierarchy which were intended to combine the containment policy with an urban servicing system in rural areas.

The then Government accepted conurban developments along the Glomma estuary, Østfold, and similarly in the coastal region of Telemark, but rejected a Mjøsa lakeshore conurban development lest it encroach on the highly productive agricultural plain of the region and pollute Lake Mjøsa whose vulnerability to pollution had been more definitely established in the meantime. Instead, the Government accepted Elverum, 30 kilometers east of the Lake, which had been recommended by the Hedmark County Council.

The Commission recommended that major lowland areas be retained as agricultural land and likewise the designation of a number broad forest and hilly inland zones for recreational purposes; further, a separate plan was outlined for recreational development of the southern coast up to Stavanger. These zones include preferential areas for week-end cabins.

The existing water supply and sewer systems of the eight counties were studied and recommendations made for the replacement of the existing numerous small waterworks and drainage systems of the larger urban areas through regional systems worked out in conjunction with the introduction of resource policies by individual river systems. The problem is mainly organizational.

A separate study of the Oslo Fiord ports in the context of modern handling techniques and hinterland relationships concluded with the recommendation of three major harbours to be developed in addition to that of Oslo while other ports retain their local function. Norwegian ports are municipally owned and operated and subject to no co-ordination by the Government. The Commission recommended overall guidance and control by a central agency in order to prevent local development of superfluous port capacities based on outdated handling techniques.

The two commissions covering the western counties and Trøndelag presented conclusions along similar lines and advocated that Bergen and Trondheim, respectively, develop sufficient competitive power to reduce Oslo's primate city position. The Bergen urban region accounts for 2 per cent of the area of the two western counties concerned and nearly 50 per cent of their combined populations. Only five other urban communities, which are largely isolated power-based industrial locations, have populations exceeding 3,000; other urban points in the two counties are generally very small due to the rugged topography which confines settlement to strandflat areas. The recommendation by the Westcountry Commission that a number of local urban points be developed sufficiently to change the general settlement pattern has met with considerable opposition locally, especially in the north-western county whose urban system mainly consist of a number of small urban points of merely local importance.

Improvement of the road system and the harnessing of major water resources command a great deal of political attention in Western Norway.

The Trøndelag Commission similarly takes great interest in developing its major city, Trondheim, into a strong competitive position in relation to Oslo and also advocates a firm hierarchical structure of the regional urban system, the underlying idea being that the two Trøndelag counties should keep up their present share in the national population. The two Trøndelag county councils have stressed the importance of preventing depopulation in outlying areas but have otherwise accepted most of the recommendations made by their Commission.

The North Norway Commission has been especially concerned with the composition and character of manufacturing industries in Northern Norway and the difficulties involved in developing a reasonably efficient urban pattern in a region which is partly arctic, of very rugged topography, and whose population density on the average is very low. Manufacturing industries in Northern Norway are largely based on local raw materials, especially fish; their value-added is generally low; mechanical workshops are small and few in number. Consumer goods are largely purchased from Southern Norway. Agricultural production still is definitely below demand.

The Commission, through a number of subcommittees, has studied these problems in depth and has engaged in economic planning which involves a

series of strategies for a restructuring of basic industries in the context of technology, organization and location in order to increase their value-added.

The Commission's main idea on urban development is the »urban centre-line» along the coast, with a subsidiary system of local urban points; the pattern includes urban points whose populations may be smaller than 1,000 inhabitants. Among the major difficulties involved in the development of the urban system in Northern Norway are the large dispersed settlement areas beyond commuting distance to urban centres and the general lack of diversified urban services at local centres.

The Commission has attached great importance to the attractiveness of urban communities.

So far debates in the Storting have dealt with regional planning along national guidelines only in a general way. Attitudes within the party system to settlement policies are ambivalent and may preclude the adoption of a consistent national settlement policy. A majority holds that regional policies will have to comply with the interdependence between settlement pattern and occupational structure. A considerable minority maintains that settlement patterns can be controlled by political means; it contends that an urban containment policy, in addition to Oslo, should include Bergen, Trondheim, Bodø, and Tromsø because the main problem is migration within the various parts of the Kingdom, from dispersed settlement areas into »pressure areas» (urban growth areas); the main object of regional planning, according to this view, should be to ensure that existing population levels in all existing municipalities be maintained through job relocations.

Populism maintains that a return to small-scale agriculture and small-scale manufacturing would restore happiness to the nation.

It should be noted that over the last couple of years the migration pattern has been changing. An immigration from abroad of 6,600 in 1971 and 4,000 in 1972 affected the traditional migration balance within the country. Apart from the city core to suburb movements in Oslo and Bergen, there was net out-migration from only three counties in 1972. Net in-migration into the Oslo Metropolitan Area has dwindled into a trickle; the South-east Norway inland counties, formerly suppliers of labour to Greater Oslo, have become immigration areas; even Northern Norway experienced net in-migration in 1972.

The reasons why long-distance net migration has been dwindling are many-faceted:

- (1) Development Fund incentives have been expanded. Since 1966 the Fund has been authorized to compensate industrial firms for costs incurred in relocation, including vocational training and temporary loss of earning power. Since 1970 geographically graded investment grants have been a major new incentive. Development Fund annual commitments increased from 100 million kroner in the early 1960's to 683 million kroner in 1972; estimates are that inputs by the Fund have generated an aggregate total of the order of 80,000 jobs in various parts of the country.

Tax legislation since 1969 permits any firm anywhere in the Kingdom to make investment fund deposits tax free provided the investments be made in Northern Norway or in specially designated development areas in Southern Norway within 5 years. Such deposits will range between certain minimum amounts and 25 per cent of taxable income. After investments, the immediate write-off amounts to 45 per cent of deposits in Northern Norway and 35 per cent in other designated areas.

A government-operated Industrial Estates System introduced in 1968 so far includes nine industrial estates which are being developed in various parts of the Kingdom. Each estate is supposed to harbour manufacturing plants with an aggregate employment of at least 500 workers when fully developed, except for two mini-estates recently designated.

Besides, there were 170 municipally owned factory buildings at the end of 1971.

A regular government information service on local facilities for industrial location was introduced in 1971 in conjunction with a mandatory reporting system covering most industrial developments being planned in major urban areas.

(2) Specific developments like the Tromsø University and the new oil industry on the western coast draw on marginal labour reserves and thus affect migratory trends.

(3) The net increase in the total labour force, which in the 1960's was five times that of the 1950's, is again diminishing.

(4) Manpower reserves in agriculture, though still ample in theory, may be slower in forth-coming.

A fairly broad information base for the formulation of a consistent national planning policy in respect of future settlement patterns already exists through a wide range of studies by various government agencies and institutions.

Mention may be made of a few salient points:

(1) Total population by the year 2000 will be of the order of 4.5 to 4.8 million and the active labour force 1.7 to 1.9 million, possibly 1.8 million, as compared with the present labour force of somewhat less than 1.5 million. The average percentage of the labour force engaged in primary occupations is today about 13; it is expected to be 10 in 1980, and 7 to 8 by the turn of the century, in South-east Norway only 3 to 4.

(2) Population growth and depopulation trends show a direct dependence on distance to urban communities. In the decade from 1960 to 1970 the average Norwegian population increase was 8.3 per cent; in areas within 45 minutes travel time from towns and cities of 10,000 or more there was an increase of 13.3 per cent; in corresponding areas around urban centres with populations ranging from 2,000 to 10,000 the population increase was 4.6 per cent; in areas of more than 45 minutes travel time from urban centres of 2,000 inhabitants or more an average population decrease of 5.5 per cent occurred. These are

very important facts in the evaluation of the urban system in relation to marginal dispersed settlements and their changes of continued long-term existence.

(3) The historical locations of Norwegian towns and cities within the most productive areas of the country's very limited agricultural resources give rise to continual conflicts between a traditional agricultural conservation policy and the expansion of built-up urban areas. This conflict has become more acute through the national preference for spaciousness in urban areas and is likely to influence future urban development policies in major agricultural regions.

(4) The composition of manufacturing output is expected to change over time. Mineral oil and chemical industries and a wide range of mechanical industries are foreseen to experience considerable long-term growth; the power-based aluminium and ferro alloy industries may possibly expand until most of the economically viable hydro-electric resources have been harnessed some time in the 1980's. The recently discovered North Sea oil resources will exert a great influence on the growth of some types of mechanical industries and will also generally accelerate the long-term structural changes of the occupational pattern. The present labour shortage is expected to continue over the next decades and will be a decisive factor in determining the relative competitive power of the various groups of industries. The prospects of textiles and related industries do not appear too favourable in this context.

Oil and hydro-electric resources can be expected to give rise to a rather limited number of new or expanded urban communities. Growth industries depending on advanced technology and a wide range of services also represent important underlying forces in the continued urbanization of the country. This development may be expected to cause both occupational and geographic mobility, at least within counties. The nation in all probability will have to live with a national shortage of labour accompanied by continual political clamour for more jobs in outlying marginal settlement areas, and containment of urban growth.

Developments over the last years have shown that evolvement and implementation of a consistent national policy designed to accommodate urbanization in the context of our geographical setting and historical heritage — in addition to conflicting political preferences — also depend on the modernization of our sectoral organizational system for the achievement of integrated planning and implementation.

Some important innovations are under way:

(1) A re-organization of the entire administrative system is taking place. The new system will imply decentralization both politically and administratively. The political responsibilities of the county councils will be strengthened; the administrative delegation of authority from central to county government agencies will be combined with local co-ordination by county governors.

(2) County planning is being introduced. The present regional planning system by groups of municipalities will be continued in areas where co-opera-

tion between municipalities is essential. The county councils are intended to become the hubs of regional planning.

(3) At ministry level a permanent working group has been recently organized for the co-ordination of budget preparation. Long-term budgeting, covering 5-year periods, is in the experimental stage and will become operational in a few years' time. Budgetary routines of the three-tier government system will be adjusted and kept entirely apart. As of 1972, the municipal accounting system has been geared to planning purposes through revised procedures distinguishing clearly between investments and operational costs, and groups of functional elements as well.

(4) Great attention is being paid to the production of more adequate regional sets of current statistics by the Central Bureau of Statistics.

The technical and organizational base for integrated planning may possibly be ready by 1980.