

Changing the Countryside by Land Consolidation

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ABSTRACT

Land consolidation is a system of technical and legal measures for the improvement of farming conditions and land productivity. In western and central Europe, the execution of these land consolidation schemes causes great changes in the appearance of the countryside: existing landscape elements such as trees, shrubs, and hedgerows, often do not fit into a more efficient pattern of fields, roads, and watercourses. Being aware of the cultural losses of an unguided development, the Netherlands took legal, organizational, and financial measures to achieve a planned development of landscape. Therefore landscape plans, including protective and creative measures, were made to provide the basis for the execution of the land consolidation schemes. There is rapid development nowadays in the scope and quality of these landscape plans for which a considerable amount of money is made available annually in the Netherlands. Although agriculture is the main purpose of the consolidation schemes, there is a tendency to cater to a much broader range of interests in which recreation and nature protection are getting more and more attention. Urbanization requires a multi-purpose approach in land-use policy.

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This is the age of big changes in human environments. Never before in the history of mankind has the alteration of our surroundings proceeded at such a pace or been so strikingly evident. Old urban patterns developed in the course of centuries, are subjected to revolutionary transformations over merely a few decades or even briefer periods of time. Roads used by many generations of people are being widened or reconstructed, or abandoned and eventually replaced by complete new networks which dominate the age-old rural scene. Industrial activities, mining operations, all kinds of excavations and agricultural developments, take their share in a common attack on the traditional land-use patterns.

In the confusion of this new situation, we are trying to find a solution and are looking for methods to ensure a new balance of Man and Nature. For this we badly need a new philosophy and a new approach in our relation to the land.

THIS AGE OF PLANNING

Our efforts are expressed in the phenomenon of planning. The desire to bring order into our physical surroundings results in a torrent of plans which attempt to shape both town and country for the remaining part of this century—up to the magic year 2000 A.D., by which time, we are told, the human population of the world will have about doubled again.

Most of this planning bears upon the urban zones, involving the reconstruction of old cities and the extension and creation of new settlements. But in these times of rapid transport, the planner's sphere of influence gradually extends to the less-controlled development of non-urban land. A planner's no-man's-land, called countryside, comes within the scope of everybody's interest. For the living space of the present-day town-dweller is no longer restricted to the city boundaries. He takes a real interest in the treatment and the appearance of the land around him in which he is going to spend a steadily increasing part of his leisure time.

Therefore we are now planning national, regional, and local, parks and scenic roads and parkways in the rural areas in several parts of the world. And living and 'driving for pleasure' are becoming ingrained among our considerations with respect to the future of the countryside.

LAND CONSOLIDATION

Among the powers which are influencing the future appearance of the rural zones, a specific discipline is gaining increasing importance in several west- and central-European countries. Thus *consolidation of holdings* is involving vast stretches of land in a planned reconstruction for the improvement of farming conditions and increased productivity. The influence of these land-consolidation schemes on the total

context of the countryside is considerable. Agricultural land-use patterns, often evolved in periods that have long gone by, are being adapted to modern mechanized farming methods by the execution of these consolidation schemes. Mostly, however, the character of the landscape is still determined by the structure of these old land-use formations. Irregular fields bounded by hedgerows and solitary trees, winding country lanes complete with shrubs and herbs, brooks and rivulets, and attractively shaped and situated farms, have often created a rural scene of outstanding beauty.

The reconstitution of such areas by consolidation schemes sometimes did considerable damage in the early days of land redevelopment. Chessboard-like road-systems, levelled fields, the removal of the natural cover of trees and shrubs, the transformation of meandering brooks into unattractive, straight, artificial watercourses, and the omission of replanting, were the results of a single-purpose approach in those undertakings.

In an increasing number of countries, however, these losses in amenity have been in deference to a broader scope in land-use policy, to a more careful treatment of landscape, and to a more comprehensive planning process. In the Netherlands this change in land-use policy was expressed in the renewal of the Land Consolidation Act of 1954, by which a *landscape plan* was introduced as a condition to procedure with any project carried out under the Act.

LANDSCAPE PLANNING

Within the concept of these landscape plans, the different aspects of landscape planning are taken into account. This involves *preservation* of valuable landscape features as well as the *creation* of new elements and the integration of a consciously designed new landscape in the process of a multi-purpose land reconstruction (Bentham, 1964, 1967, 1968).

A great number of land consolidation schemes are

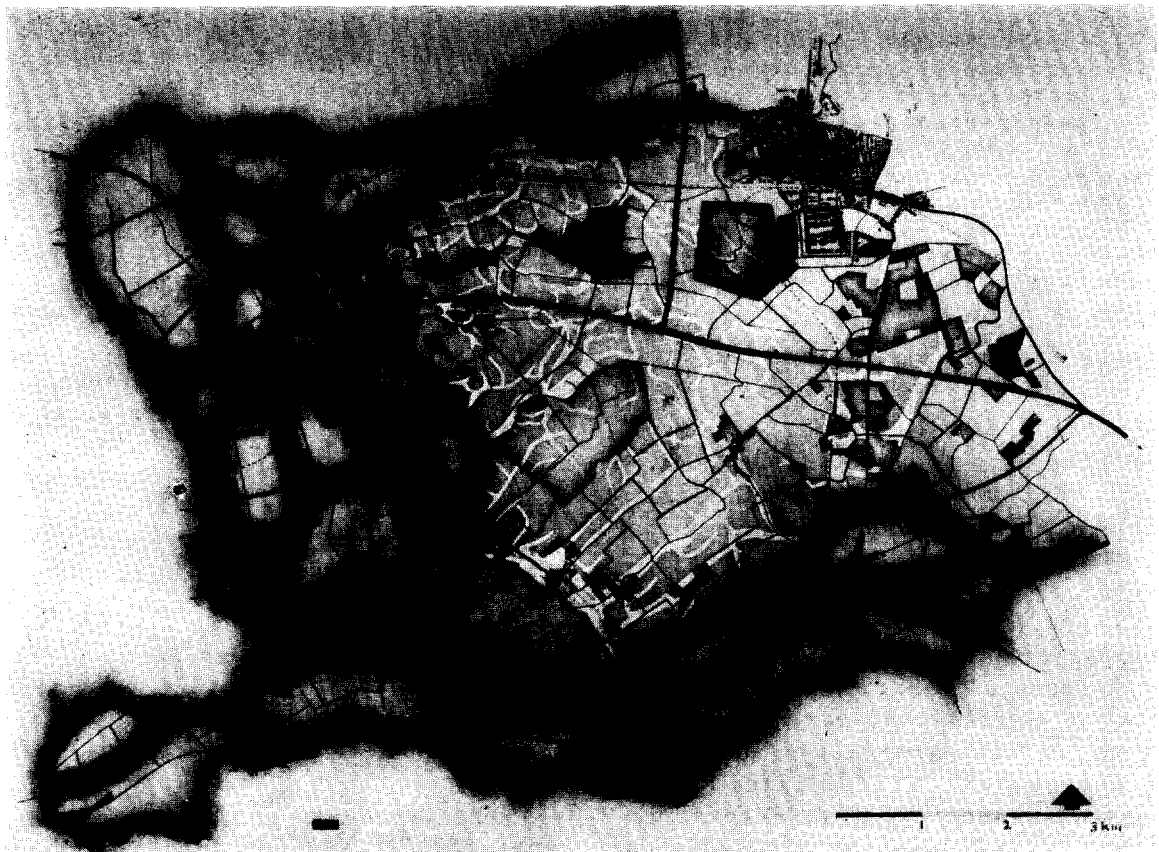


Fig. 1. Land consolidation scheme in the Netherlands Province of Zeeland, on an area of 7,100 hectares of mixed meadows and arable land. The forest park, to be planted in the framework of the consolidation scheme, is marked as the big black area in the northern (upper) part of the map. The other black areas are further new plantations. The two thick black lines are planned new highways. An interesting existing pattern of hedgerows and old dykes, planted with trees (indicated by the shaded areas on the left and below) will be spared, as will the central low-lying grassland area (of about 3 sq km in the very centre of the map) as a winter haunt for wild geese. Thus most natural areas will be protected. Units in the scale of the lower right-hand corner represent 1 km each. By courtesy of the Netherlands State Forest Service.

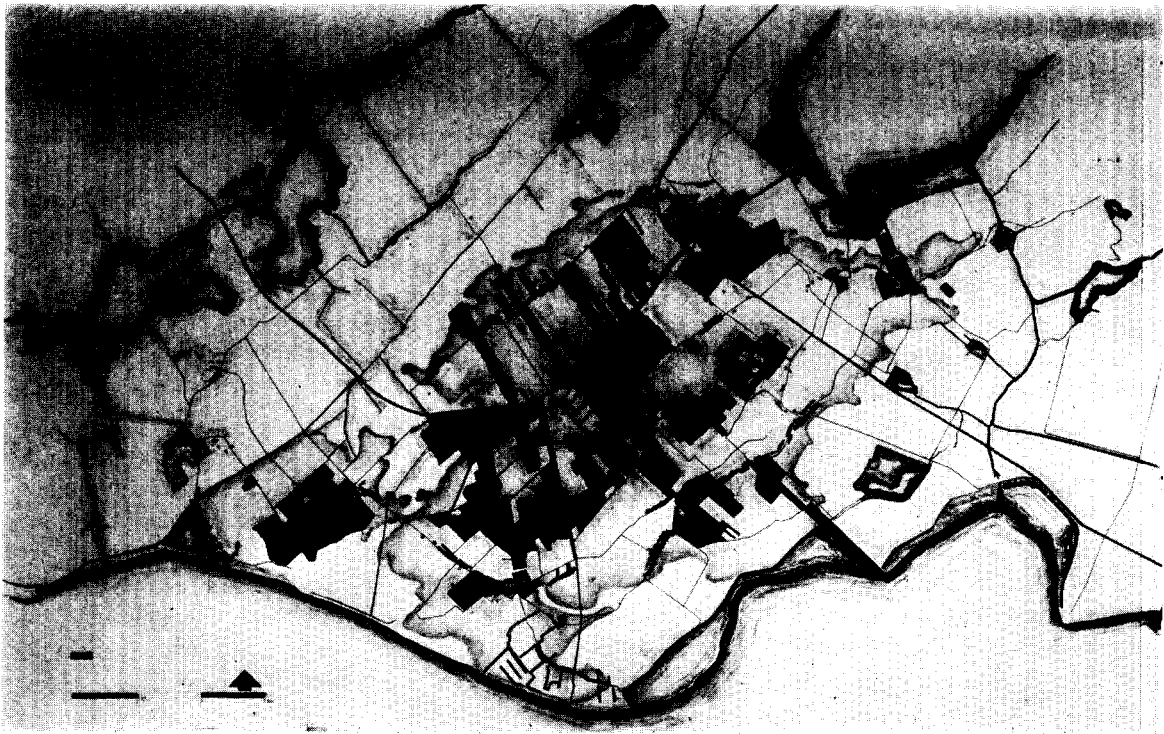


Fig. 2. Land consolidation scheme in the Netherlands Province of Friesland, on an area of low-lying wet meadows and higher sandy soils in the coastal part of the Province. It occupies some 8,450 hectares along the border of the IJsselmeer, an inland lake, which is a relic of the former Zuiderzee. On the map are shown, particularly in the northern (upper) part, freshwater lakes which will be spared and protected in the execution of the consolidation scheme. The dark areas on land are forests, partly existing (these will be protected) and partly new forests, to be planted (these are full-black). Valuable natural areas will be conserved. Units in the scale near the lower left-hand corner represent 1 km each. By courtesy of the Netherlands State Forest Service.

being carried out in the Netherlands, involving a total area of about 135,000 acres (55,000 ha) every year. In the Federal Republic of Germany about 300,000 ha are currently consolidated each year (Olschowy, 1967). Since the first landscape plans were designed in the post-war years, an interesting development in landscape planning practice in the agricultural areas has been evident. In those early years, scarcity of land restricted the possibilities for preservation and creation: only the most valuable existing elements could be safeguarded, and replanting was chiefly limited to roadsides and farmyards and to the necessary compensatory plantations in places where considerable felling had been unavoidable.

Nowadays, however, landscape plans of a much better quality are being prepared for execution in the Netherlands. In these, considerable areas of biological value can often be spared (cf. Fig. 1) and, moreover, interesting new areas for tree-planting can be made available to the extent of 3 per cent (or more in Fig. 2) of the existing agricultural land. These newly-shaped rural landscapes are often bigger in scale than the former

ones, but the new plantations, subdividing the area, are better suited to recreation purposes. Thus in them green belts of a width of 20 or more metres can be used for a cycle-track, bridle-path, or footpath. And also for establishing picnic sites, camp-grounds, and facilities for waterside recreation, landscape planning is providing the necessary background and infrastructure.

Very large numbers of trees and shrubs are planted yearly within the framework of these schemes for land consolidation. They are produced by private nurseries, and the planting work is carried out by private contractors who are specialists in this kind of work.

The new plantations for the improvement of landscape are being financed by a 100 per cent government grant from the Ministry of Agriculture. Compensatory plantations replacing former woodland get an average grant of 65 per cent, and farmyard and other plantations on private holdings, carried out on a voluntary basis, are being promoted by 50 per cent government grants,

Preparation of these land consolidation schemes is done in close cooperation with representatives of the population in the area concerned during a period of 2 or 3 years in which the technical and financial aspects are thoroughly studied and discussed. After the preparation of the plan for roads and water-courses, of the landscape plan, and of a detailed report on the project, the landowners in the area concerned decide, by voting, upon the execution or rejection of the project.

Accepting the project includes also the acceptance of the landscape plan in which the conditions for the treatment of landscape in the area are laid down.

GOVERNMENTAL RESPONSIBILITIES

As it is becoming more and more difficult for individual farmers and local communities to take responsibility for the maintenance of the landscape, the task of the public authorities is gradually growing in this respect. Thus as in the urban spheres, where the main green elements depend on public care, there will be a need to ensure the preservation and management of the most essential features of our rural environments by governmental support. The way in which this is done can differ from country to country: but when once the countryside is realized to be of vital importance in a country's national life, something has to be done for its upkeep, reshaping, or improvement.

Land consolidation, as it is developing in several countries now, can open up opportunities for a practical approach. In the Netherlands the consolidation projects are accompanied by a land acquisition programme by which the Minister of Cultural and Social Affairs provides the financial means for the acquisition of valuable natural areas which have been spared in the land consolidation projects. The yearly budget for these acquisitions nowadays amounts to 14 million guilders.

The most desirable situation arises when the new

developments in land consolidation projects are being supported by measures of regional planning. Thus the future landscape can be more or less outlined, and a better policy can be pursued with respect to management and maintenance of the most important structural elements.

If we look upon the countryside as the living space of a whole nation, then only a multi-purpose land-use policy can eventually provide a satisfactory solution of the present environmental problems. The introduction of landscape planning in land consolidation is a first important step in that direction. The establishment of recreation facilities in the consolidation schemes is a second one.

When the treatment of the countryside comes to take into account the comprehensive requirements of a modern, highly-developed urban society, however, the process of land consolidation will have to be directed still more to multi-purpose use instead of to the main purpose of agricultural improvement as it occurs today. And we are surely on the way to developments of broader scope in this particular field of endeavour.

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FAO Coin Albums

The year 1968 saw the start of the first international coin issue in monetary history, when many governments decided to use their coinage to draw attention to urgent world food problems, stressing either the agricultural development or the international cooperation needed to solve these problems. In view of the numismatically unprecedented nature of this issue, the Food and Agriculture Organization of the United Nations is making up special albums of the new coins for sale to the general public.

The albums, which are copyright, are being manufactured according to demand, up to a maximum of 20,000. Each album page will contain 8-12 actual coins, usually in

brilliant uncirculated condition, and will be released as soon as the page is complete. The first two pages, with cover, were released after 16 October 1968—FAO's anniversary and the date chosen by several governments for the first simultaneous issue of coins. The cost of the cover and first two pages of coins is \$25, including all handling costs, insurance, and postage—where appropriate, by airmail.

One of the first two pages holds eight coins respectively from Bolivia, Burundi, Ceylon, Lebanon, Nepal, Sudan, Syria, and Uganda, and the other holds eleven coins from the Order of Malta (2), Vatican (8), and Vietnam. Further details may be obtained from the Commissary Manager, FAO, 00100 Rome, Italy.