

Land Consolidation and the Emergence of the Metropolitan Landscape

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Summary

The physical appearance of the Netherlands is assuming increasingly metropolitan traits, featuring in particular the integration of highly urbanised, densely built-up centres and open, rural areas of divergent shapes and dimensions. Mixing 'red' (urban) and 'green' (rural) land uses is problematic though since in fact two different planning systems co-exist. The Dutch system of spatial planning has always focused primarily on the urban domain. In contrast, planning of green areas has its origins in agricultural land consolidation. The dominant urban-rural discourse does not match the prevailing situation i.e. the complexity of institutional structures and the density of interaction with and between authorities, shareholders, stakeholders and experts. This situation has far-reaching consequences for land consolidation, an instrument that is used for a wide range of functions in rural areas and urban fringe zones. The traditional reallocation of land in particular is under pressure.

Land consolidation focuses more critically on the effectiveness of the tools to be used to improve parcelling and achieve public objectives in the areas in question. This has already led to a decrease of about 30% in the use of the statutory reallocation tool. Besides that, voluntary approaches often take precedence over statutory reallocation. A growing administrative need for more selective, rapid and cost-effective work-methods has given the impulse to a simplification of the reallocation procedure.

On the other hand, there is a trend towards a more comprehensive approach to both urban and rural planning, which can be described as metropolitan landscape planning. In this approach urban and rural interact more effectively than is presently the case. As two examples of projects that are in the vanguard of metropolitan landscape planning show, there is a clear trend towards a more development-oriented approach to land acquisition. Such an approach links up well with the growing interest in public-private partnership in the rural areas. The rise of this more development-oriented land policy and of metropolitan landscape planning will make new demands on land consolidation. The way in which these demands will be taken up, will have considerable influence on the position of land consolidation as an implementation tool of land policies in the future.

1. INTRODUCTION

The physical appearance of the Netherlands is changing rapidly. The landscape of prosperous towns and cities surrounded by meadows and fields is assuming increasingly metropolitan traits, featuring in particular the integration of highly urbanised, densely built-up centres and open, rural areas of divergent shapes and dimensions. The preservation of these open areas has been one of the cornerstones of Dutch planning for a long time. Their use and appreciation are inextricably linked to the needs of the urban centres. Urban centres and open areas together form one whole, aptly termed the *metropolitan landscape*.

This approach is not yet widespread in the world of spatial planning. The integration of red (urban) and green (rural) forms of land use is hindered by the existence of two separate planning approaches in the Netherlands. While spatial planning has traditionally had a strong urban focus, the planning of open, rural areas is rooted in agricultural land consolidation. The two approaches have been insufficiently co-ordinated: the urban-rural divide rules. This situation has arisen from the obsolete urban-rural opposition dominating legislation, policy and organisation. Politicians, policymakers and professionals in both domains often fail to co-ordinate efforts, rendering the traditional role of government and its policy tools ineffective.

This situation has far-reaching consequences for rural land consolidation.* The dominant urban-rural discourse does not match the prevailing situation i.e. the complexity of institutional structures and the density of interaction with and between authorities, shareholders, stakeholders and experts. The traditional reallocation of land in particular is under pressure. Urban players such as property companies and project developers are increasingly active in the rural domain. Consequently, public authorities are opting for a more development-oriented land policy, involving a trend towards a comprehensive approach to both urban and rural planning. Such an approach can be described as *metropolitan landscape planning* (Van den Brink and Van der Valk, 2004).

This paper describes modern rural land consolidation in the Netherlands mainly from the perspective of reallocation. I will briefly discuss how the design of land consolidation is changing, where the administrative responsibilities lie and how the tool is being used to the extent that these aspects are relevant in this context. Finally, I will present two examples of projects that can be regarded as a precursor of land consolidation in the metropolitan landscape.

2. LAND CONSOLIDATION

Land consolidation is a statutory tool used to resolve land use issues in rural areas and urban fringe zones. National and provincial policy play a decisive role in determining how the land consolidation tool is used. Land use issues are products of their time. At first, the wish for economic reinforcement of agriculture in particular determined land consolidation. Nowadays, meeting the demand for non-agricultural space and improving spatial quality and liveability in general are more dominant. This is reflected by the integrated implementation of policy objectives for nature, recreation, landscape, cultural history, water and the environment. Land consolidation is thus very important for creating the National Ecological Network on account of the combined possibilities that this tool offers for land acquisition, land exchange and land development. Likewise, developments in the areas of urbanisation and infrastructure increasingly necessitate the use of this tool, for instance when a housing estate or railway line is to be incorporated into the surrounding area.

* There may be some discussion about the term land consolidation. In this paper – in line with the theme of the symposium – I use it as a synonym for integrated rural development, although it usually relates to an obsolete type of agricultural structural improvement (in Dutch *ruilverkaveling*; in German *Flurbereinigung*; in French *remembrement*). Today, integrated rural development is generally called land development (*landinrichting*, *Landentwicklung*; *développement de l'espace rural*). It should be noted, however, that in the Anglo-Saxon world, especially in the USA, land development primarily relates to building and other construction activities on land.

The dynamics of land use have boosted the demand for faster and more flexible working methods and procedures that are in line with these methods. Furthermore, the last decade has seen frequent debates about who is responsible for and who will finance land consolidation. This concerns the delegation of national government tasks to the provincial and municipal authorities, which was decided upon in the early 1990s. However, the lack of agreement on how to achieve this adversely affected the progress of projects. Recent agreements on the division of tasks and responsibilities among the authorities involved have allowed the provinces to take the lead in achieving national objectives for the physical development of rural areas as part of comprehensive regional development.

The term land consolidation refers to the changes in property resulting from the performance of works and/or rearrangement of land use in order to meet certain objectives. As such, land consolidation is primarily dynamic, but there is more to it. First of all, the property only involves land; the layout of buildings is only very rarely part of land consolidation plans. Secondly, land consolidation is only employed in rural areas, including urban fringe zones. Thirdly, although the term refers to an age-old human activity, i.e. intervening in his living environment, land consolidation has an institutional meaning. This involves the special land use laws and regulations, as well as the government agencies responsible for implementing the law. All manner of land consolidation activities in rural areas, such as nature restoration by private nature conservation organisations and the creation of recreational woodlands by a municipality, are generally not considered land consolidation if the activities take place outside these institutional frameworks.

3. LAND REALLOCATION

Land reallocation is regarded as the ‘unique core’ of land consolidation. It is the only tool available to rearrange rights of ownership and use and withdraw land from individual owners and users to public use. Land reallocation was long regarded as the crowning glory of land consolidation. In recent years, however, the importance of land reallocation has gradually diminished.

Statutory land reallocation was introduced in 1924, when the first Land Consolidation Act came into effect. This came about once it had become clear that voluntary measures were ineffective in achieving a substantial improvement of the agricultural structure (defragmentation of land use rights and ownership). In those days and for a long time after, reallocation and land consolidation were synonymous. The tool has been gradually extended – both the wording of the Act itself and its interpretation – in order to improve the infrastructure of water and land and make space available for the development of non-agricultural uses. The allocation of land to public institutions for public use provided in the Land Consolidation Act has proved invaluable. Although the Act of 1985 (usually referred to as the Land Development Act; see footnote on previous page) introduced the possibility to expropriate land for non-agricultural uses, this too is not yet used very frequently in actual practice. In land consolidation projects, the vast majority of land is acquired voluntarily, partly on the spot (60%) and partly as exchange land (40%). The realisation of non-agricultural uses through the exchange of land has thus taken on great significance in many projects.

Besides statutory land reallocation, there is also voluntary reallocation. This is a fairly popular tool nowadays, which can be particularly successful if the number of participants is not too large. In a quarter to a third of all projects, these agricultural improvements come paired with the realisation of non-agricultural uses. Its popularity is due in part to the inappropriate use of the scheme. Relatively many purchase/sales transactions are in fact conducted using this tool, the benefit of which is that no transfer tax has to be paid.

For the sake of completeness, it should be noted that other types of reallocation are used or advocated in the Netherlands (Needham, 2002). Two of them concern the reallocation of land for urban expansion. They differ from each other in terms of who takes the initiative: a public developer, usually a municipality, or a private developer or a consortium of private developers. Finally, there is urban reallocation, which is based on the notion of applying the rural reallocation procedures to the redevelopment of existing urban areas. In contrast to countries that offer this form of land reallocation, this type never got off the ground in Netherlands. The 1970s saw a few – fairly unsuccessful – experiments with urban land reallocation. However, interest in this form of reallocation has remained alive, and the Ministry of Housing recently commissioned a study into the potential this tool may have for urban renewal (De Wolff, 2003). In a follow-up study, the practical possibilities for concrete projects have been worked out in more detail. This study is expected to serve as the basis for a number of pilots. It is conceivable that this type of land reallocation will gain a foothold in the Netherlands.

4. THE STATE OF THE ART

Since the first Land Consolidation Act came into effect in 1924, land consolidation plans involving nearly 1.4 million hectares, divided among approximately 480 projects, have been completed. This surface area represents about three quarters of the total area of cultivated land. At present, an area of 800,000 hectares is being consolidated and 360,000 hectares are under preparation. These figures indicate that a substantial number of areas were consolidated so long ago that the process had to be repeated. With the execution of the deed of allocation, the new parcelling has taken effect in an average of eight areas with an aggregate surface area of 38,000 hectares in recent years. In addition, approximately 10,000 hectares divided among some 250 projects are reallocated on a voluntary basis each year. As a result, a total of approximately 165,000 hectares has been reallocated on a voluntary basis in the last decades.

The above figures pertain to areas which, as tended to be the case in the past, have been reallocated in their entirety. This has changed in two ways. First, in many areas it has been decided to reallocate only a part or a number of parts of the area. This is due to the fact that rather than improving the agricultural structure of the area in question, many of these areas are being developed for non-agricultural uses. Besides, in the vast majority of the projects, scarcely 35% of the surface is actually exchanged. In these cases, reallocation of the entire area would be excessive. Secondly, voluntary reallocation is often preferred to statutory reallocation. The long-term and complicated procedures associated with statutory reallocation often meet with resistance, not only from the landowners and users involved but also from other participants involved in the process. The dynamic nature of land use calls for quick results. Moreover, people prefer to keep the initiative. Development measures affect areas that are the property of the party involved or land acquired locally. Accordingly, there is a

growing administrative need for more flexible application of land reallocation. In short: work more selectively, rapidly and cost-effectively. In the meantime, small-scale experiments have been conducted with a combination of statutory land use and voluntary exchange. Research has revealed that this combination can lead to positive results (Van der Stoep *et al*, 2003).

In general, the need for land reallocation is not questioned, but this need cannot be compared to the one giving impetus to the creation of a statutory scheme at the time. Apart from a few locations, the fragmentation of agricultural land use is such that it should be possible to address it using voluntary measures. The disadvantages associated with less than optimal parcelling are of secondary importance in terms of the operating costs of many agricultural businesses. Many farmers prefer voluntary plot exchange to statutory reallocation, partly because they fear that in the latter case they will face all manner of non-agricultural land claims. This fear does not so much concern the claims as such, as these arise from spatial policy. This fear rather pertains to the power of the statutory tool that enforces the realisation of the claims, on which these agricultural businesses have less influence.

All in all, land consolidation focuses more critically on the effectiveness of the tools to be used to improve parcelling and achieve public objectives in the areas in question. This has already led to a decrease of about 30% in the use of the statutory reallocation tool. The decrease can be seen in both the number of projects and the extent to which the tool is assigned to projects in the land consolidation plans. The following figures are indicative for the coming years. In those areas where land use is currently under preparation (360,000 hectares), only 45,000 hectares are designated for statutory reallocation and 89,000 hectares for voluntary plot exchange. Added up, less than 40% of the total land consolidation area under preparation will be reallocated. The fact that these are preliminary figures does not detract from the fact the tool is used less frequently. The fact that the voluntary plot exchange area is twice as large as the statutory reallocation area is also striking. This may still change, however, as the voluntary approach is sometimes discarded in favour of the statutory approach if the former proves insufficiently effective.

5. NEW RULES OF THE GAME

The decentralisation agreements previously referred to will be laid down in a new Rural Development Act, which will replace the 1985 Land Development Act. In addition, a few years ago – in 2002 – a special Act came into effect for the reconstruction of sandy areas in the eastern and southern parts of the Netherlands, where there are high concentrations of intensive livestock farming (Van den Brink and Heinen, 2002). Following the 1997 outbreak of swine fever in this area, numerous measures were taken to restructure the sector and prevent new outbreaks of the disease. The Reconstruction Act was introduced to alter the special structure of the high-concentration areas. The Act has a broad objective, although in practice the primary aim of reconstruction appears to be to resolve the friction between agriculture and nature.

The Act was necessary, because many felt that the procedures provided for in the Land Development Act were too complicated, too lengthy in most cases, and insufficiently flexible. Like the Land Development Act, it is an implementation Act with a separate section on reallocation. However, the Act is better characterised as spatial planning legislation with

its own set of tools to secure the implementation of the policy set down in the reconstruction plans. It is thus a powerful tool, which is unique in Dutch land use legislation. The reconstruction plans are of national significance due to the complexity of the problems, the size of the planning area (1.1 million hectares in total, nearly 0.7 million hectares of which cultivated land) and the aim to revitalise rural areas.

The provisions of the Reconstruction Act regarding land reallocation differ in some respects from those of the Land Development Act. This is a consequence of the attempt to simplify the procedures that many regard as too long and too laborious. The provisions of the Reconstruction Act are based on the proposals developed in the second half of the 1990s in conjunction with the debate on the decentralisation of land consolidation. The provisions aim to:

- Dissociate statutory land reallocation from the land consolidation plan: This will make reallocation less dependent on the implementation of land consolidation as a whole. In addition, it creates the opportunity to apply reallocation outside the realm of land consolidation if this is motivated by the need for structural intervention in the rural area.
- Abolish what is known as the preliminary estimate for determining the exchange value of the land: Instead, exchanges are based on a detailed soil map and a soil quality map derived from it. As a result, the surface area and quality of the land contributed by an owner or user will be decisive, as is in fact the case with voluntary reallocation.
- Limit the exchange plan to the plots to be actually exchanged: This has a beneficial effect on efficiency, all the more so because, as stated earlier, scarcely 35% of the land in an area actually changes hands. This approach also makes it possible to establish rights only for the plots of land that are actually exchanged.

These simplifications of the reallocation procedure will be incorporated into the Rural Development Act that is in the offing. In so far as the law permits, they are already being put into practice. For instance, in most cases the preliminary estimate is made on the basis of the soil map. In addition, it has been customary for a number of years now to prepare and implement the land consolidation plan in what are known as modules. This method enables a better response to current developments (obviating the need for time-consuming plan amendments) and better financial management of the projects. A module may comprise the reallocation of a part of a planned area.

Whether these adjustments will reverse the decline of land reallocation observed is questionable, however. The decline is partly irreversible, simply because the need to exchange land is less urgent than it used to be. It will also depend on the degree of success with which voluntary area-specific policy is implemented. If that is not as successful as expected, particularly as far as the attainment of public objectives is concerned, it is not inconceivable that the demand for a statutory approach will rise again. Whether and to what extent this will happen is only food for speculation. In my opinion, the question of whether land consolidation, and hence land reallocation, will be able to secure a position as implementation tool in metropolitan landscape planning is more decisive.

6. TWO EXAMPLES OF METROPOLITAN LANDSCAPE PLANNING

Dutch land consolidation has assumed a wide variety of forms. This is due to the dynamic nature of land use and the need for tailor-made work, i.e. solutions whose contents and procedures are geared to the specific problems of an area and to the players involved in the development process. There are predominantly sectoral projects, for agriculture or nature, for instance. These projects usually involve a small area, allowing work to proceed rapidly. At the other end of the spectrum are the larger and often more complex projects. Their complexity is due to the large number of divergent interests involved, compounded by a strong urban influence. The planning of these projects focuses on co-operation between various domains, i.e. the market, government and society, including both social organisations and individual citizens, each characterised by its own rationality. It is not essential for 'the' government to play a leading role in this. As a consequence, the boundaries between public and private sectors tend to blur, as do those between policy-making and implementation (Louw *et al*, 2003). Projects like these are in the vanguard of metropolitan landscape planning. The following two examples serve to illustrate a development-oriented approach to land acquisition.

The first example is the *Meerstad Groningen* (Groningen Lake City) project. Situated on the eastern side of the city of Groningen, this project involves the construction of a new housing estate that integrates open space development and the improvement of water management (Mackay, 2003). It involves 10,000 dwellings, approx. 140 hectares of commercial space, a 600-hectare lake for recreational purposes and for coping with excess rainwater, and landscape and nature development in an area covering a total of 4,000 hectares (of which 1,700 hectares will continue to be used for agriculture). Most of the land in the plan is now used for agricultural purposes. Total investments for converting the land into building plots are estimated at EUR 787.5 million. This amount does not include the investments needed for housing construction.

The project involves a totally new approach in the sense that residential areas and countryside are being developed in mutual cohesion. This will improve the quality of the plan and also enable a financial balance of both components. This approach has been called *green through red*. The idea is to set up a public-private land and property company that will manage the land still in the hands of government authorities and project developers. The planned company will be responsible for preparing the land for construction, including the excavation of the lake and the rural-space development. The costs of this operation will be covered by land grants made to project developers who will then finance the construction of houses in the area at their own risk. Any profit made by the company will be reinvested in the area. Land reallocation is projected for the part of the planned area used for agriculture.

The second example is the *Hart van de Heuvelrug* (Heart of the Heuvelrug Area) project in the province of Utrecht. This region is ensconced between two growing cities. Made up of woods and moors, it is intersected by such infrastructures as a motorway and railway lines. The area is home to a number of care institutions such as psychiatric clinics, and a military training ground. Large-scale changes in the region's function are forthcoming. For instance, care institutions are being decentralised by housing clients elsewhere in the region, and military sites are being disposed of. At the same time, there is a wish to enhance the quality

of nature and the landscape and to put a halt to the spatial fragmentation in the region. The context in which this is taking place is that of a rural area under heavy urban pressure. To solve this spatial problem, the province of Utrecht has initiated a project in which several parties are collaborating, i.e. care institutions, municipalities, the Chamber of Commerce, ministries and nature conservation organisations. The sum of the benefits they aim to gain is greater than if they were to pursue their objectives individually. Innovative land-use policy is an essential part of this, for example permitting housing construction on sites in the woods in which care institutions are located and using the proceeds to enhance natural landscape areas (Province of Utrecht, 2003).

7. REFLECTION AND CONCLUSION

These examples are good illustrations of what I believe metropolitan landscape planning means. This is an approach to planning in which urban and rural interact more effectively than is presently the case. The manner in which government authorities in particular deal with land plays an important role. As both examples show, there is a clear trend towards a more development-oriented approach to land acquisition. In essence, this amounts to risk-bearing investments in projects, with equalisation of profitable and loss-making elements to ensure a comprehensive development that would otherwise not be possible. In this context, risk-bearing means ‘anticipating future designated and possible uses for the land’.

At the various levels of government, the existing public property services are converted into public development companies (or there are plans to that effect). This is expected to provide better opportunities for achieving public objectives and co-operating with market parties, such as property companies and project developers, each with their own expertise and operating opportunities. Especially the fact that public objectives must sometimes be achieved without the government being able to acquire land calls for a more development-oriented approach. In many situations, there is a lack of administrative support for expropriation or compensation for limitation of rights of use. As a potential alternative, a development-oriented approach may result in faster and better planning of rural areas. Such an approach links up well with the growing interest in public-private partnership in rural areas.

For land consolidation, this obviously implies a drastic change in the traditional *modus operandi*. It goes without saying that such an approach needs time to mature. In addition, research is required to further develop the conceptual aspects of the approach. If this development continues, institutional reforms will be inevitable. This will affect both formal institutions, such as legislation and organisations responsible for implementing laws, and informal institutions, encompassing the whole of explicit or implicit agreements, codes, standards, etc., governing the manner in which parties interact. Formal institutions are easier to change than informal institutions, which are more obstinate. Accordingly, new practices need considerable time to develop. In the reconstruction of the high-concentration areas, for instance, urban and rural are still divided, although half of the 30 largest cities in the Netherlands are located in these areas. The urban world is barely represented on the reconstruction committees. Instead, the familiar practice of rural land consolidation is relied upon.

To conclude, the traditional form of land consolidation is practised less and less frequently. The original agricultural objective has largely been abandoned. Instead, land consolidation has assumed the form of a tool that is used for a wide range of functions in rural areas and urban fringe zones. Land reallocation is no longer the 'crowning glory' it once was. Furthermore, voluntary approaches often take precedence over statutory reallocation. Finally, the rise of a more development-oriented land policy and of metropolitan landscape planning will make new demands on land consolidation. The way in which these demands will be taken up, will have considerable influence on the position of land consolidation as an implementation tool of land policies in the future.

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Adri van den Brink is head of Innovation and Knowledge Management of *Dienst Landelijk Gebied (DLG)*, the Dutch Government Agency for Land and Water Management. He is also professor of Land Use Planning at Wageningen University, Environmental Sciences Department. He has published extensively on land use planning, land consolidation, and methods for the advancement of multiple land use in national and international professional and scientific journals, books and conference proceedings. He is one of the leaders of a four-year interdisciplinary research programme, called *Reinventing landscape planning in MetroLand*. This research programme, funded by the Netherlands Organisation for Scientific Research, is a joint effort of Wageningen University, *vrije Universiteit Amsterdam*, and Delft University of Technology. It focuses on the theoretical substantiation and the practical implications of the concept of metropolitan landscape planning, with specific reference to the actual value of open space and how this value can be internalised in the Dutch planning system. Professor Van den Brink is currently chairman of the Board of the Netherlands National Clearinghouse Foundation for Geo-information, a web-based platform with accessory data and services. He is also chairman of the Netherlands Study Group on Land and Water Use.

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