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THE LAND SHUFFLE: REALLOCATION OF AGRICULTURAL LAND UNDER THE LAND DEVELOPMENT LAW IN THE NETHERLANDS

*Margaret Rosso Grossman**
*with the collaboration of Wim Brussaard***

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* Associate Professor, Agricultural Law, Department of Agricultural Economics, University of Illinois at Urbana-Champaign. B. Mus., University of Illinois, 1969; A.M. Stanford University, 1970; Ph.D., 1977, J.D., 1979, University of Illinois. Research for this article was supported by a Fullbright research grant under the Western European Regional Research Project and thereafter by a Senior Research Fellowship from Wageningen Agricultural University, The Netherlands. The author holds a copyright on this article.

** Professor Department of Agrarian Law, Wageningen Agricultural University, The Netherlands.

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I. INTRODUCTION

In the past few decades, a number of nations have become aware of the vital importance of the world's agricultural land resources to produce food and fiber for a growing population.¹ A mere awareness, however, will not result in protection of the dwindling supply of productive agricultural land. Instead, there is need for legal mechanisms designed to keep the most productive farmland available for agricultural use. In the United States, with its vast acres of fertile farmland, protection of the land for future generations has attracted attention only relatively recently.² Federal and state legislatures and local governments have begun to enact and implement legal schemes to retard conversion of farmland to nonagricultural use. Legal implements like agricultural zoning, agricultural districts, conservation easements, the conservation reserve, right to farm laws, and special tax abatement have been somewhat effective in achieving their goals.³ But some of these programs have only limited application,⁴ and in many instances participation is voluntary.

It might be concluded that the large size of the United States and the impressive, albeit declining, number of acres⁵ of farmland have made the enactment of effective programs seem less compelling. The United States thus has much to learn from smaller coun-

1. For information on global agricultural land use, see, e.g., F. Urban & T. Vollrath, PATTERNS AND TRENDS IN WORLD AGRICULTURAL LAND USE (Economic Research Service, U.S. Dep't Agriculture, Foreign Agricultural Economic Report No. 198) (1984).

2. See, e.g., GAO, PRESERVING AMERICA'S FARMLAND—A GOAL THE FEDERAL GOVERNMENT SHOULD SUPPORT, Rep. No. B-114833 (1979); NATIONAL AGRICULTURAL LANDS STUDY, THE PROTECTION OF FARMLAND: A REFERENCE GUIDEBOOK FOR STATE AND LOCAL GOVERNMENTS (1981).

3. A large body of literature concerning legislative programs to protect farmland has developed. See, e.g., Duncan, *Toward a Theory of Broad-based Planning for the Preservation of Agricultural Land*, 24 NATURAL RESOURCES J. 61 (1984); Grossman, *Exercising Eminent Domain Against Protected Agricultural Lands: Taking a Second Look*, 30 VILLANOVA L. REV. 701 (1985); Juergensmeyer, *Farmland Preservation: A Vital Agricultural Law Issue for the 1980's*, 21 WASHBURN L. J. 443 (1982); Rose, *Farmland Preservation Policy and Programs*, 24 NATURAL RESOURCES J. 591 (1984).

4. Conservation easements and related programs, for example, involve substantial financial commitment, and can therefore protect only a limited number of parcels of agricultural land.

5. On land use in the United States, see H. Frey and R. Hexem, MAJOR USES OF LAND IN THE UNITED STATES. PRELIMINARY ESTIMATES FOR 1982 (Natural Resource Economics Division, Economic Research Service, U.S. Dep't Agriculture).

The land area of the United States is approximately 2,265 million acres. About 21 percent is cropland; 26 percent, livestock grazing; 29 percent, forested (excluding forest land in parks); and 24 percent, nonagricultural and other land. Total cropland in 1982 was 474 million acres; this includes cropland used for crops (in 1982, 387 million acres), pastured and idle. Urban areas constitute about 47 million acres. *Id.*, at v, vi.

tries that are more densely populated. In situations of extreme population density, other land uses compete with agriculture for a share of land in the countryside, yet in many situations the continued viability of agriculture is essential both for a reliable food supply and for the economic welfare of the country. Under these circumstances, farmland is relatively scarce. Thus, it has traditionally been valued and protected, even to the extent of significant government interference with the landowner's freedom of choice regarding the use of property. One such country, which has implemented complicated legal protections for its productive farmland, is the Netherlands.⁶

A. Farmland in the Netherlands

Agricultural land is crucial for the Netherlands, which has an intensive agricultural industry that produces high-quality products for consumption at home and abroad. The total area of the Netherlands is 4.15 million hectares (about the size of the combined states of Massachusetts and Connecticut.⁷ Of this area, 2.02 million hectares are cultivated land, used for arable farming, grassland, horti-

6. The Netherlands are a constitutional monarchy with a parliamentary system. The monarch (currently the Queen) reigns but does not govern. Executive power resides in the Queen, but her powers are exercised through ministers, who must have the confidence of Parliament. This combination of Queen and ministers is referred to as "the government." Government powers are extensive; the government can regulate in many areas by decree (for example, through *algemene maatregelen van bestuur*), when such regulation is authorized by statute.

The Queen (that is, the government) and Parliament exercise legislative power in joint action. Parliament, the *Staten Generaal* (States General), has two chambers. The First Chamber consists of 75 members elected by members of the provincial councils; the Second Chamber has 150 members chosen in direct elections. Only the Second Chamber may propose or amend bills. Laws must be approved by both Chambers of Parliament and by the government. Article 120 of the Constitution provides that "The constitutionality of Acts of Parliament and treaties shall not be reviewed by the courts." See *The Constitution of the Kingdom of the Netherlands*, 30 NETHERLANDS INT'L L. REV. 387, 401 (1983) (English translation of revised Constitution, effective 17 February 1983).

the Netherlands consists of 12 Provinces, and there is a large degree of decentralization. Provinces are governed by the elected provincial councils. The provincial governor is appointed by the Queen.

See generally, Koopmans, *the Netherlands*, N-11 to N-28 in 1 Int'l Encyclopedia of Comparative Law (1971); R.J.B. Bergamin & H.Th.F. van Maarseveen, CONSTITUTIONAL AND ADMINISTRATIVE LAW, ch. 17, at 381-434 of INTRODUCTION TO DUTCH LAW FOR FOREIGN LAWYERS (eds. D. Fokkema, J. Chorus, E. Hondius, E. Lisser, 1978) [hereinafter cited as INTRODUCTION TO DUTCH LAW].

7. This includes about 34,000 square kilometers of land and 7000 square kilometers of water areas (lakes and inland sea branches). van Lier, *Rural Land Uses in the Netherlands*, 51 *Ekistics* 4, 4 (1984). Each square kilometer is equal to 100 hectares, each hectare equals approximately 2.47 acres).

culture, and other agricultural purposes.⁸ In 1985, there were 136,000 Dutch agricultural holdings.⁹ The majority of these holdings are relatively small; only 12.3 % of holdings are over thirty hectares in size; 69.1 % are between two and thirty hectares.¹⁰ Dutch farmers make up only a small proportion of the 14.5 million inhabitants of this small, densely populated country.¹¹ Nonetheless, agriculture contributes dramatically to the Dutch economy,¹² and agricultural products, often in manufactured form, make up a sizable portion of annual exports.¹³ Also the Netherlands ranks among the world's top farm-exporting nations.¹⁴

Holland's extreme population density has meant increased pressure on agricultural land, particularly in recent years. Early in this century, the construction of polders (land reclaimed from water areas) and clearing of heaths and peatlands resulted in an increased farmland area.¹⁵ More recently, declines have been the norm. Indeed, although the total surface area in the Netherlands has increased somewhat in the years since 1960, conversions of agricultural land to other uses have meant that the amount of land under cultivation has dwindled.¹⁶

Social developments since the 1950s have made the countryside

8. MINISTRY OF AGRICULTURE AND FISHERIES, DUTCH AGRICULTURE IN FACTS AND FIGURES 3 (1986) (1985 statistics) [hereinafter cited as FACTS AND FIGURES].

9. *Id.* The number of holdings has declined significantly. In 1969, there were 301,000; in 1970, 185,000. *Id.*

10. COMMISSION OF THE EUROPEAN COMMUNITIES, EUROSTAT (STATISTICAL OFFICE OF THE EUROPEAN COMMUNITIES), FARM STRUCTURE: 1983 SURVEY: MAIN RESULTS, at 18-19 (Theme 5, Series C 1986). These statistics are based on a 1983 survey and represent information from 138,539 holdings.

11. FACTS AND FIGURES, *supra* note 8, at 3 (1985 statistics). Agriculture, involving 270,000 workers, makes up only six percent of the active work force of approximately 4.5 million worker-years.

12. Besides agricultural production itself, with its 5.01 percent share of total production, the food and drink industry, which processes over 60 percent of Dutch agricultural and horticultural output, is one of the most important industrial sectors. FACTS AND FIGURES, *supra* note 8, at 4, 14.

13. FACTS AND FIGURES, *supra* note 8, at 19. Statistics from 1985 indicate that agricultural exports made up 22.8% of total exports from that year.

14. In 1984, the Netherlands, with a 6.9 percent share, was third in exports of agricultural products, after the United States (18 percent) and France (7.2 percent). LANDBOUW-ECONOMISCH BERICHT, at 14 (Den Haag, Landbouw-Economisch Institute Periodieke Rapportage 1-86 (1986)). Barlagen, *Boeren in een veranderend platteland*, 24 CULTUURTECHNISCH TIJDSCHRIFT 317, 318 (1985) says the Netherlands rank second after the United States. This ranking was correct in 1976.

15. A. CRIJNS, THE REGULATIVE PHASE OF LAND DEVELOPMENT 1 (Landinrichtingsdienst Information Paper 7, 1986) [hereinafter cited as REGULATIVE PHASE].

16. Between 1960 and 1985, total area increased from 4.1 to 4.15 million hectares (with the increase explained by the impolderment of areas of the IJsselmeer), while cultivated land decreased from 2.32 to 2.02 million hectares. FACTS AND FIGURES, *supra* note 8, at 3.

increasingly important to many sectors of the Dutch population.¹⁷ Interests other than agriculture have demanded a share of rural land. Urbanization and industrialization, as well as infrastructure developments and increased demands for outdoor recreation and nature protection, have played roles in the decline in the amount of cultivated land.¹⁸ At the end of the 1960s and during the early 1970s the loss of farmland was about 10,000 hectares per year. Presently, about 5,000 hectares per year are lost,¹⁹ still a significant amount in light of Holland's small size.

The Netherlands' dense population and intensive agriculture industry require optimal use of limited land resources. Thus, the Netherlands has adopted relatively stringent measures to control and allocate the consumption of its land. Three of these measures have been particularly effective in maximizing the productivity of agricultural land.²⁰

The first measure, which also influences the second and third,²¹ is a comprehensive system of physical planning, carried out under authority of the Physical Planning Act,²² and effectuated in a decentralized, but coordinated, manner by the central government, provinces, and municipalities.²³ The policy of the central government demonstrates a commitment to sound planning and management in rural areas²⁴ insofar as possible in light of the pressures exerted on

17. A. CRIJNS, REGULATIVE PHASE, *supra* note 15, at 4.

18. See van Mourik, *Physical Planning in Rural Areas, Policy Resolutions of the Netherlands Government 1977*, 9 Planning and Development in the Netherlands 135, 140 (1977) [hereinafter cited as *Policy Resolutions*].

19. A. CRIJNS, REGULATIVE PHASE, *supra* note 15, at 1.

20. See generally R. HELD & D. VISSER, RURAL LAND USES AND PLANNING: A COMPARATIVE STUDY OF THE NETHERLANDS AND THE UNITED STATES, chs. 17 & 20 (1984) [hereinafter cited as *RURAL LAND USES*]; Steiner, *Farmland Protection in the Netherlands*, 36 J. SOIL & WATER CONSERVATION; 71 (1981).

21. See *infra* text accompanying notes 186-87, 217.

22. Wet op de Ruimtelijke Ordening, 5 juli 1962, Stb. 286, effective 1 August 1965; current version, 21 nov. 1985, Stb. 623, 624, 625 (Ned. Staats. No. 64 (1986)).

23. See generally, BRUSSAARD, PHYSICAL PLANNING LEGISLATION IN THE NETHERLANDS, ch. 9 in PLANNING LAW IN WESTERN EUROPE (J. Garner & N. Gravel eds. 1986); W. Brussaard, *De Spelregels van de Ruimtelijke Ordening 1986* (Rijksplanologische Dienst, publikatie 87-3, 1987); W. BRUSSAARD, THE RULES OF PHYSICAL PLANNING 1986 (Ministry of Housing, Physical Planning and Environment) [hereinafter cited as *RULES*].

24. Policy is set out in part in the Nota landelijke gebieden (Report on Rural Areas), derde nota over de ruimtelijke ordening, Tweede Kamer, zitting 1976-1977, no. 14 392 (1977). Policy is intended to do justice to agrarian sources of livelihood, living conditions of the agrarian population, economy of land use, landscape values, significance of rural areas in terms of natural science and ecology, and contrasting effect of open areas. *Id.* § 1.1 at 3; van Mourik, *Policy Resolutions*, *supra* note 18, at 139. In 1983, the *Nota* completed parliamentary treatment as a Key Planning Decision (see *infra* note 149). Tweede Kamer, Vergaderjaar 1983-1984, 14 392, nr. 46. The implementation of general policy, as established in the Key Planning Decision, involves different treatment for four categories of land areas:

rural areas by other societal interests.²⁵ Provincial regional plans (*streekplannen*), which normally are influenced by central government policy, outline in general terms the future spatial development for the provinces. Provincial authorities refer to these regional plans to establish policy for the required approval of municipal plans. Municipalities²⁶ can issue structure plans (*structuurplannen*) indicating through description, explanation, and maps the future development of the area. In addition, allocation or land-use plans (*bestemmingsplannen*) establish—most importantly through maps—the prescribed use of land within the plan area. Municipalities include rural areas, and for these areas a land-use plan, similar to a zoning plan, is mandatory. In the plan, land can be allocated for agricultural, among other, uses. Land-use plans are directly binding on citizens, who are forbidden to change the use of their land to a function inconsistent with the plan designation. Construction is permitted only after application for a building permit, and the permit must be refused if building would conflict with a land-use plan.²⁷ Thus, land designated for agricultural use can be protected from conversion to nonagricultural uses. The efficacy of this protection, however, depends to some extent on the individual municipality's evaluation of competing land-use priorities.

A second measure is the reclamation of new agricultural land through the process of creating artificially-protected areas called polders. Long required to protect land from incursion of water, the Dutch have developed sophisticated mechanisms for enclosing and draining both small and relatively large areas from lakes or the sea.²⁸ Though small reclamation projects began as early as the sixteenth century, the most significant efforts from the point of view of agriculture have occurred during this century through the IJsselmeer project, involving large areas of the body of water formerly known as the Zuider Zee. The closure and partial drainage of this gulf of the North Sea have resulted in the acquisition of approxi-

areas with agriculture as chief function; areas with alternating agriculture and other functions in larger spatial entities; areas with alternating agriculture, nature, and other functions in smaller spatial entities; and areas with nature as chief function. *Id.* § 6.2, at 3.

25. van Mourik, *Policy Resolutions*, *supra* note 18, at 147-48.

26. There are about 800 municipalities (each called a *gemeente*), which include built up areas and also contiguous rural areas.

27. See W. BRUSSAARD, *RULES*, *supra* note 23, at 16-31. The owner of land is normally not obliged to change a preexisting land use to fulfill the plan designation.

28. It has been said that "God created earth except Holland, because that was made by the Dutch." van Lier, *Rural Land Uses*, *supra* note 7, at 5.

mately 200,000 hectares of new land.²⁹ The 1918 legislation establishing the project had, among other purposes, the related goals of meeting the demand for farmland and providing for an increase in food production.³⁰ Thus a substantial portion of the reclaimed land has been devoted to agricultural use.³¹ Moreover, the careful design and preparation of optimal land parcels have made this new land productive and efficient.³²

The third measure that affects agricultural land is the land development process that is the subject of this article. In short, land development is the legally sanctioned mechanism used in the Netherlands to reorganize, improve, reparcel, and reallocate farmland, for the purpose of improving agricultural structure, especially economic and working conditions. This complicated process is designed to make the best use of the limited amount of available farmland. It is an indispensable instrument for maintaining the competitive economic position of Dutch agriculture.

B. Land Development

Land development in the Netherlands involves a complicated legal scheme and a high level of government involvement in land ownership. The comprehensive nature of present-day land development evolved over the years from its beginnings in the process of

29. A. CONSTANDSE, PLANNING AND CREATION OF AN ENVIRONMENT 2 (Rijksdienst voor de IJsselmeerpolders, Ministerie van verkeer en waterstaat, no date) [hereinafter cited as CREATION OF AN ENVIRONMENT].

The polders add a fifth to the land surface of the Netherlands. Wijers, *The Zuiderzee works within the frame of physical planning*, 4 Planning and Development in the Netherlands 42, 43 (1970). This figure evidently includes the fifth, or Markerwaard, polder. Although planned and diked, this polder will not be built in the near future. Both the cost of the project and the present value of the area as a body of water have contributed to this decision.

30. van Lier & Steiner, *A Review of the Zuiderzee Reclamation Works: An Example of Dutch Physical Planning*, 9 Landscape Planning 35, 38 (1982). The law was the Zuiderzee Act of 1918, Stb. 354.

31. The process of preparing reclaimed land for agricultural use involves removal of surplus water through drainage and evaporation (often aided by growth of reeds), and maturation of the soil, which involves penetration of air into the soil plus the occurrence of chemical and biological processes. It takes an average of five years after the polder is drained before the newly reclaimed soil can be used for agriculture; thereafter government agents farm the land for about five years. Land in a new polder is prepared gradually, and farmers may receive the last plots of land only 20 years after the process of land preparation began. It is said that "the land is reclaimed for the third generation." See R. van Duin & G. de Kaste, ch. 5, *Making reclaimed land fit for agriculture*, 45-47, 53, in THE POCKET GUIDE TO THE ZUYDER ZEE PROJECT (Rijksdienst voor de IJsselmeerpolders, Ministerie van verkeer en waterstaat, no date). For an overview, see also H. Smits, *Agricultural Aspects*, 4 PLANNING AND DEVELOPMENT IN THE NETHERLANDS 62 (1970).

32. See generally, Rijksdienst voor de IJsselmeerpolders, Ministerie van verkeer en waterstaat, *Boeren op nieuw land* (no date).

ruilverkaveling—most accurately translated as land consolidation, but sometimes referred to as reallotment. Regulated by law since 1924, but existing informally even earlier,³³ *ruilverkaveling* was necessitated by the unfavorable agricultural land structures that existed in many areas of the country.

In theory, *ruilverkaveling* is a neutral concept. It “encompasses the assembly of property belonging to different persons, the division once again of the property into portions or parcels in order to result finally in a new distribution of the quantity contributed according to the ratio of each one’s contribution to the total.”³⁴ Though theoretically the process of *ruilverkaveling* could be applied to numerous kinds of property, over the years the Dutch have applied the concept to a redistribution of real property, especially farmland.³⁵

Land consolidation measures can be designed to remedy two different types of problems that make farming inefficient: the division of farm property into parcels too small for economic cultivation, and the wide dispersal of plots of land that form one farm.³⁶ Both of these problems existed, and still exist, in Holland. Indeed, in the 1950s, over 75 percent of Dutch farms were either too small or too fragmented for economic management.³⁷

A number of geographic and legal factors have led to the evolution of farms consisting of a number of small, often widely separated parcels.³⁸ In some areas, particularly in peatlands, farms were established along access roads, and parcels were extended perpendicular to the road. Inheritance laws required heirs to share equally

33. See *infra* text accompanying notes 64-75.

34. Dam, *De Doelstelling van de ruilverkaveling in de ruilverkavelingswetgeving* 11, 11 in VAKGROEP AGRARISCH RECHT, LANDBOUWUNIVERSITEIT, WAGENINGEN, RECHT IN ONTWIKKELING (1986) [hereinafter cited as *Doelstelling*].

35. *Id.*

36. P. MORAL-LOPEZ, PRINCIPLES OF LAND CONSOLIDATION 4 (Food and Agricultural Organization of the United Nations (1962)). The more complex legal regimes attempt to solve both problems and, as in the Netherlands, to address other concerns as well.

37. A. LAMBERT, THE MAKING OF THE DUTCH LANDSCAPE 312 (2d ed. 1985) [hereinafter cited as DUTCH LANDSCAPE].

38. The ideal size for Dutch farms has changed over the years. In 1947, 10 hectares was economically desirable. By 1974, 25 hectares was economical for dairy farms, and 30 hectares for field crops. Mantén, *Fifty Years of Rural Landscape Planning in the Netherlands*, 2 LANDSCAPE PLANNING 197, 204-205 (1975) [hereinafter cited as *Rural Landscape Planning*].

In the polders, in which agricultural interests were at first paramount, various farm sizes were used. In the North East Polder (the second, drained in 1942), farm sizes were established in response to conflicting pressures for larger commercial units and traditional small holdings. The compromise between these interests resulted in an average holding of 24 hectares, with the smallest size set at 12 and the largest at 48 hectares. In East Flevoland, drained in 1957, the average size was 40.5 hectares, with a minimum of 20 and a maximum of 95 hectares. A. CONSTANDSE, CREATION OF AN ENVIRONMENT, *supra* note 29, at 6,7.

in an estate. Thus, as the land was inherited, parcels were divided first lengthwise (until they became too narrow)³⁹ and then breadthwise, with the result that plots were small and often scattered.⁴⁰ Other farmland, too, was divided into increasingly smaller parcels as it was inherited by succeeding generations.

Further fragmentation of land occurred in some regions when commonly owned lands were divided into separate parcels.⁴¹ Equitable division required assigning small plots of different quality land to recipients, resulting in a proliferation of farms made up of numerous, scattered parcels. Other transactions involving the land (sales of parcels or parts of parcels, changes brought about by marriage) also contributed to this fragmentation. In addition, in more recent times, construction of roads and canals and the effectuation of municipal land-use plans have sometimes led to further division of parcels of agricultural land.⁴² Thus farmers commonly cultivated, and still cultivate,⁴³ "farms" consisting of five or six or more small parcels (approximately one or two hectares), often located far from each other and far from the farmstead.⁴⁴

Thus, from an agricultural viewpoint, the process of *ruilverkaveling* was designed, and is still designed, to restructure land parcels to incorporate conditions that ensure a more efficient performance of some of the work activities involved in agriculture. Efficiency is

39. Problems of narrow strips of land are longstanding. Even before the eleventh century, methods of land clearing resulted in a pattern of narrow strips of farmland. A. LAMBERT, *DUTCH LANDSCAPE*, *supra* note 37, at 80-81.

40. R. HELD & D. VISSER, *RURAL LAND USES*, *supra* note 20, at 343; A. LAMBERT, *DUTCH LANDSCAPE*, *supra* note 37, at 312.

41. A. LAMBERT, *DUTCH LANDSCAPE*, *supra* note 37, at 245, 312.

42. Kramer, *Inleiding, Landinrichtingswet*, Ned. Staats. 101, at XIX-XX (1985) [hereinafter cited as *INLEIDING*].

43. Developments in agrarian structure recently indicate that divisions in ownership and use of farms do not occur so frequently as in the past. The increase in number of parcels per farm found in some areas is normally the result of purchase or rental of available ground, in most cases not adjacent to the existing farm. Kramer, *INLEIDING*, *supra* note 42, at XIX.

44. Illustrations from land consolidation projects provide concrete examples. In a land consolidation project for Etten-Leur-Rucphen (an area of 5430 hectares—13,400 acres—in the southern province of North Brabant), the average fulltime farmer had six plots with an average size of approximately 2 hectares (4.9 acres). An average of 2 kilometers separated farm buildings and outlying fields; only one-third of the land was adjacent to buildings. Naeff, *Land Consolidation Project in the Netherlands: The Project from the Etten-Leur-Rucphen Region*, ch. 13, at 306, in *LAND CONSERVATION AND DEVELOPMENT—EXAMPLES OF LAND-USE PLANNING PROJECTS AND PROGRAMS* (F. Steiner & H. van Lier, eds. 1984). Similarly, in an area of 4430 hectares between the Waal and Maas rivers in central Holland, the average farmer had 7.7 hectares, divided over more than 6 parcels, sometimes widely separated and difficult to reach. Some parcels were extremely narrow—20 to 30 meters. *LANDINRICHTINGSDIENST, MINISTERIE VAN LANDBOUW EN VISSERIJ, THE RIVER DISTRICT*, at 15 (no date).

improved, for example, with larger parcels of land and with improved form. Increase in size sometimes means removing hedges and unnecessary canals; improvement in shape involves designing, among other things, an optimum length-width relationship, which can affect the time required for field work. Moreover, efficiency also requires that the distance between the farmstead and parcel (or parcels) be reduced. Significant cost savings for the farmer result from the more efficient working conditions achieved through *ruilverkaveling*. In addition, improved parcel layout often results in more land available for cultivation and thus higher yields.⁴⁵ Besides improvements to individual parcels, the process also focuses on better access and improved water management.⁴⁶ Indeed, from a more general perspective, the process of land development makes an area more suitable for the functions it must fulfill.⁴⁷

The process of land development in the Netherlands has evolved⁴⁸ over the years from the agriculturally-directed procedures accompanying *ruilverkaveling* (consolidation) to a comprehensive scheme of *landinrichting* or land development. Land consolidation expanded rapidly into a "complete reconstruction of rural areas and became a corner stone in the agricultural-structure policy of the government."⁴⁹ But land development now aims beyond purely agrarian goals. Indeed, one factor that led to the recent change from *ruilverkaveling* to *landinrichting* was the failure of earlier legislative schemes to accommodate nonagricultural interests. This process of land development is now an important method for improving working conditions and raising incomes in agriculture and horticulture, for conserving and developing nature and landscape values, for improving opportunities for outdoor recreation, and other factors that improve living and working circumstances in the countryside. It also includes activities and measures that change the arrangement of the rural area: construction of roads or water-courses, and exchange of ownership of land.⁵⁰

45. T. TANIS, METHODE VOOR BEREKENING VAN BATEN VAN LANDINRICHTING VOOR AKKERBOUW-BEDRIJVEN, at 5-7 (Landinrichtingsdienst, Mededeling No. 150, 1984).

46. Dam, *Mr. Ph.A.N. Houwing en het ruilverkavelingsrecht*, 46 *Agrarisch recht* 387, 388 (1986) [hereinafter cited as *Houwing*].

47. H. BOSMA, KOSTEN EN EFFECTEN VAN LANDINRICHTINGSPROJECTEN IN NEDERLAND 3 (1986) [hereinafter cited as *KOSTEN EN EFFECTEN*].

48. See *infra* text accompanying notes 63-116.

49. Manten, *Rural Landscape Planning*, *supra* note 38, at 204.

50. LANDINRICHTINGSDIENST, MINISTERIE VAN LANDBOUW EN VISSERIJ, DE LANDINRICHTINGSWET: EEN SAMENVATTING VAN DE HOOFDZAKEN, at 1 (no date) [hereinafter cited as *DE LANDINRICHTINGSWET*].

C. Extent of Land Development

In the half century during which land development (in rudimentary or more comprehensive form) has been carried out, the structure of the Dutch countryside has been altered significantly. By the end of 1985, 345 *ruilverkaveling* and other land development projects had been completed on 837,000 hectares. Another 110 projects, involving almost 663,000 hectares were in progress, with others (71 projects involving 374,000 hectares) in preparation. Projects had also been requested for additional land. Thus, land development has touched over half of the rural area in the Netherlands.⁵¹

Moreover, a significant number of hectares remain scheduled for land development. Maps accompanying the *Outline Plan for Land Development*⁵² identify a further 695,000 hectares for possible development, and small quantities of additional land not indicated on the maps may also be developed.⁵³ Each year the land development process begins on thousands of hectares. In recent years, however, this annual level has declined from its peak of around 55,000 hectares in 1973. In 1975, a goal of 40,000 hectares per year was established, but cutbacks have reduced that figure to the level of 36,000 hectares for 1985 and beyond. Budgetary considerations may require further reductions.⁵⁴ Despite these recent developments, however, about one-third of the rural area is currently subject to land development, either in preparation or in execution.⁵⁵ Moreover, with a cultivated ground surface of 2.2 million hectares, continued land development at the present rate means that every hectare of cultivated ground could be developed within a human lifetime.⁵⁶

51. CENTRALE CULTUURTECHNISCHE COMMISSIE, CENTRALE LANDINRICHTINGSCOMMISSIE, LANDINRICHTINGSDIENST, JAARVERSLAG 1985, at 4, 19 [hereinafter cited as LANDINRICHTINGSDIENST, JAARVERSLAG 1985]. Due to the ongoing nature of land development, land already involved in older projects may be developed anew. Thus the figures represent some overlap. See also H. BOSMA, KOSTEN EN EFFECTEN, *supra* note 47, at 3; Kramer, *Van Ruilverkavelingswet naar Landinrichtingswet*, 16 BEDRIJFSONTWIKKELING 237, 237 (1985) [HEREINAFTER CITED AS *Ruilverkavelingswet*].

52. See *infra*, text accompanying notes 147-168, for discussion of the *Outline Plan*, or *Structuurschema Landinrichting*.

53. See Ministerie van Landbouw en Visserij, Ministerie van Volkshuisvesting, Ruimtelijke Ordening en Milieubeheer, *Structuurschema Landinrichting*, deel c: na parlementaire behandeling vastgestelde tekst, at 6-7, 13 (Tweede Kamer, zitting 1985-1986, 16600, nrs. 28-29) [hereinafter cited as *Structuurschema*]. See also LANDINRICHTINGSDIENST, JAARVERSLAG 1985, *supra* note 51, at 4.

54. *Structuurschema*, *supra* note 53, at 6; H. BOSMA, KOSTEN EN EFFECTEN, *supra* note 47, at 3-4.

55. Interview with Ir. A.M. Burger, Landinrichtingsdienst, 7 January 1987.

56. H. BOSMA, KOSTEN EN EFFECTEN, *supra* note 47, at 4.

Land development at this level requires a significant commitment of Dutch resources. Each year, the central government contributes about 250 million guilders to land development projects; other public bodies and the benefitting farmers contribute lesser amounts.⁵⁷ Together these contributions are substantial. In 1985, for example, the level of investment for the various aspects of land development projects reached 469.8 million guilders. This included state contributions for *ruilverkaveling* and other projects, as well as contributions of water control boards and municipalities.⁵⁸

Land consolidation, to which the Dutch have devoted so much legal, physical, and financial attention, is not unique to the Netherlands. Indeed, a relatively large number of countries have land consolidation legislation of some type.⁵⁹ But the Dutch are relatively unusual for carrying out land development projects on such a comprehensive and expensive scale. The average Dutch project involves 6000 hectares, as compared with 1500 in Belgium and 800 in West Germany.⁶⁰ Moreover, through a series of improved laws enacted over a fifty-year period, the Dutch have developed a comprehensive legislative program, coordinated with other aspects of national physical planning policy.

Thus, the legally regulated process of Dutch land consolidation presents a fascinating glimpse into a thoughtful process for developing favorable agrarian structures. In addition, it offers a viable solution to the problems of distorted farmland parcelling that occur, in the United States as well as in the Netherlands and other nations, when a major infrastructural development like a highway intrudes into an agricultural region.⁶¹

57. H. BOSMA, EVALUATION IN ADVANCE OF THE EFFECTS OF LAND DEVELOPMENT PROJECTS IN THE NETHERLANDS, at 1 (Landinrichtingsdienst, Information Paper No. 6 (no date)).

58. LANDINRICHTINGSDIENST, JAARVERSLAG 1985, *supra* note 51, at 31. In 1986, the total was slightly less, 419.7 million guilders. CENTRALE LANDINRICHTINGS COMMISSIE, LANDINRICHTINGSDIENST, JAARVERSLAG 1986, at 12 (1987).

59. The roots of land consolidation can be traced to thirteenth-century England; other areas had similar procedures in the seventeenth century, and an early German law dates from 1718. Quadflieg, *Flurbereinigungsrecht*, col. 631, in I Handwörterbuch des Agrarrechts (1981). An early law for land reallocation was enacted in Prussia in 1872. Mantel, *Rural Landscape Planning*, *supra* note 38, at 198.

For a rather dated summary of national land reallocation legislation, including a list of laws, see P. MORAL-LOPEZ, PRINCIPLES OF LAND CONSOLIDATION, *supra* note 36. See also Hieselaar, *The Need to Develop Rural Areas*, 57 LAND & WATER INT'L 11 (1986).

60. H. BOSMA, KOSTEN EN EFFECTEN, *supra* note 47, at 4. The investment per hectare in the Netherlands is approximately 8000 guilders, in contrast with a Belgian investment of 70,000 Belgian francs and a West German investment of 3,000 Deutsch marks.

61. See, e.g., Schmidt, *Freeway Impact on Agricultural Areas*, 20 NAT. RESOURCES J. 587 (1980).

Accordingly, this article provides an analysis of the complex process of land development in the Netherlands and the policies the process seeks to further. After an historical review of land development legislation, the article focuses on the 1985 *Landinrichtingswet* (land development law)⁶² and the enhanced possibilities for land development that it offers. The article analyzes the policy background as well as the legal and administrative arrangements for decisionmaking about land development. In addition, it explores the legal mechanisms for carrying out the lengthy process of reorganization of the rural land structure, including development of infrastructure, improvement of land parcels, exchange of those parcels among owners, and allocation of costs. Besides focusing on the typical land development methods, the article also explores special procedures available to facilitate voluntary land exchanges and to accommodate intrusive infrastructure developments.

II. THE EVOLUTION OF LAND DEVELOPMENT

The desirability of an optimal land arrangement for agriculture has long been evident to farmers in the Netherlands. As early as 1838, in a local almanac, it was indicated that improvement of the ground and its layout was desirable, and that the government should assume some responsibility through legal regulation and financial subsidy.⁶³ Achievement of this legislative government involvement, however, took decades.

Early in the twentieth century, *ruilverkaveling* (land consolidation) had occurred to a limited extent. These first *ruilverkaveling* projects, which affected only small land areas, could be carried out only with the consent of the landowners involved.⁶⁴ The entirely voluntary aspect of the agreements meant that the refusal of some landowners—or even of one landowner—to join in the consolidation guaranteed the failure of the whole project, even in instances in which the existing land ownership situation made consolidation imperative.⁶⁵ Thus a method to compel participation of reluctant land-

62. *Landinrichtingswet*, Stb. 1985, 299, Ned. Staats. 101 (1985) [hereinafter cited as LIW].

63. van den Noort, *Het economisch nut van ruilverkavelingen*, 24 CULTUUR-TECHNISCH TIJDSCHRIFT 257, 257 (1985). The almanac was the Drentsche Volksalmanak 1838, an excerpt from which is printed in van den Noort's article, *id.*, at 258-59.

64. Voluntary agreements are still possible. See articles 119 to 123 of the *Landinrichtingswet* and the discussion at *infra*, text accompanying notes 428-449.

65. Dam, *Doelstelling*, *supra* note 34, at 12. The early failure of a plan because only one owner failed to agree made the need for legal regulation particularly clear. Eshuis, *Van Landverlegging tot Landinrichting*, 86 TIJDSCHRIFT VERENIGING KONINKLIJKE NEDER-

owners was required.

A. The 1924 Law

Such a method became effective in the first land consolidation act, the *Ruilverkavelingswet* 1924.⁶⁶ The goal of the law was primarily agricultural; land consolidation was designed “for the promotion of agriculture.”⁶⁷ This included arable farming, horticulture, forestry, livestock raising, and peat cutting.⁶⁸ The aim of the law was fairly simple: to bring ground owners and users face to face with reallocation of agricultural land in a reasonable way.⁶⁹ This reallocation primarily involved the exchange of parcels of land so that participating farmers would receive more practical and better situated farming units.⁷⁰

Under the 1924 law, the majority could force the minority to participate in land consolidation. One quarter of the concerned landowners could submit a request for consolidation.⁷¹ But for implementation of the project, consent of a “double majority” was required. That is, the proposed consolidation had to be approved both by more than half of registered owners or rightful claimants and by more than half of the land area represented in the project. Moreover, those who did not participate in the vote were deemed to have consented to the consolidation.⁷²

Although the initial impetus for the law was agricultural, the ag-

LANDSE HEIDE MAATSCHAPPIJ 57, 58 (1975) [hereinafter cited as *Landverlegging*].

66. Stb. 1924, 481. As early as 1908 a draft for a law was presented to the government. A major reason for delay in enactment was division over the question of whether temporary expropriation (*onteigening*) of the land involved was necessary. Although the majority of those on a committee studying land consolidation believed it necessary, subsequent experience has proved that for the normal process of land exchange, expropriation is not required. Manten, *Rural Landscape Planning*, *supra* note 38, at 198. See also Eshuis, *Landverlegging*, *supra* note 65, at 58.

67. *Ruilverkavelingswet* 1924, art. 1, quoted in Dam, *Doelstelling*, *supra* note 34, at 12 (“ter bevordering van den landbouw . . .”) Even at this early stage, some questioned the limited purposes of land consolidation. Dam, *supra*. Only in later laws were the broader possibilities for land consolidation recognized. See especially the *Landinrichtingswet* 1985, discussed *infra*, text accompanying notes 117-140.

68. Kramer, *Inleiding*, *supra* note 42, at XII.

69. Kramer, *Ruilverkavelingswet*, *supra* note 51, at 237.

70. Dam, *Doelstelling*, *supra* note 34, at 12. The term *ruilverkaveling* (land consolidation) can be attributed to the Development Commission of the Netherlands Agricultural Committee, which in 1908 prepared a draft of the first *ruilverkaveling* law. The term replaced the word *landverlegging* (land transfer). Eshuis, *Landverlegging*, *supra* note 65, at 57-58.

71. Dam, *Doelstelling*, *supra* note 34, at 13.

72. Dam, *Doelstelling*, *supra* note 34, at 12. The provision that those who did not vote were deemed to have consented to the consolidation survived even in the 1954 law, but was finally deleted by an amendment enacted in 1975, Stb. 1975, 206.

gricultural interests promoted by the law were consistent with other needs of society. Both the reliable provision of food and the efficiency of the agricultural industry could support the general economic well-being of the country. In addition, as land consolidation projects began to focus more on technical improvements (for example, leveling and draining) rather than merely exchange of parcels, the projects also helped to provide jobs in partial solution to existing unemployment.⁷³

The 1924 law was not entirely successful; from 1924 until 1936 only thirty-six applications for land consolidation had been made, involving 11,821 hectares of land.⁷⁴ Several reasons help to explain the slow progress under the early law. Farmers and landowners held false notions and feared application of the law. Particularly in light of these hesitations, the requirement of approval of a double majority (voters and land surface) often ensured failure of a proposed consolidation. Even when a project was approved, the long duration of implementation sometimes led to neglect of agricultural land that would later be assigned to another farmer. Moreover, most of the expenses of land consolidation were at first imposed on the landowners themselves, who had to repay these costs over only ten years.⁷⁵

B. The 1938 Law

These shortcomings of the 1924 law led to the second legislative effort, the *Ruilverkavelingswet* 1938,⁷⁶ another law with primarily agricultural purposes.⁷⁷ Indeed, in the 1938 legislation, as in the 1924 law, nonagricultural parcels were not included in the block of land for which consolidation took place.⁷⁸ Nevertheless, the law

73. Dam, *Doelstelling*, *supra* note 34, at 12-13. In this era, particularly in the early 1930s, subsidies from government became important.

74. Kramer, *Inleiding*, *supra* note 42, at XIII. Between 1924 and 1940, only 32 projects were actually realized, involving a total of 11,150 hectares. Manten, *Rural Landscape Planning*, *supra* note 38, at 200.

75. Manten, *Rural Landscape Planning*, *supra* note 38, at 200. Costs were paid with an annuity of 13.6%.

Other problems with the law also existed: the omission of the power for corporate bodies to request consolidation, the undesirably late time of realization of the plan for roads and watercourses, and the vagueness of financial provisions. Kramer, *Inleiding*, *supra* note 42, at XIII.

76. Stb. 1938, 618.

77. Article 2 of the law, quoted in Dam, *Doelstelling*, *supra* note 34, at 13 states: "Ruilverkaveling occurs from power of an agreement or from power of law for promotion of arable farming, horticulture, forestry, livestock breeding, or peat cutting."

78. Dam, *Doelstelling*, *supra* note 34, at 14-15. In 1941, the law was amended to include nonagricultural parcels in the block when inclusion was necessary for infrastructural

also provided for more general interests that supported, rather than opposed, agriculture. Reflecting the importance of land development for the general economic well-being of Dutch society, the 1938 law made a decision for *ruilverkaveling* easier to reach. Only one-fifth of the relevant owners needed to submit a request for *ruilverkaveling*. In addition, public bodies and agricultural organizations could initiate the process.⁷⁹ The ensuing vote on the proposed project would be successful with only a single majority, rather than the double majority required under prior law. That is, a project could be approved by either a majority of persons voting or a majority of the ground surface represented in the vote.⁸⁰ In some cases of compelling need, a project could be enforced even without the majority vote.⁸¹

The 1938 law also included legal rules for consensual *ruilverkaveling*. Though voluntary agreements had occurred early in the century, the 1924 law did not include provisions for this form of land consolidation.⁸² Only after 1950, however, were these rules used on a rather large scale.⁸³

The nature of *ruilverkaveling* projects broadened somewhat under the 1938 law. Improvements in the size, shape, and accessibility of parcels of farmland remained a primary goal. Construction, improvement, and relocation of roads and waterways also continued. In addition, the projects could include soil improvement, drainage, reclamation, and inpoldering.⁸⁴ Gradually more attention was paid to provision of utilities through laying of gas, electric, and water lines. Increasing mechanization, particularly after the second world war, meant significant cost savings.⁸⁵

The financial provisions of the 1938 law were more attractive because the costs of *ruilverkaveling* were no longer borne primarily by farmers. The government assumed responsibility for a large share and provided subsidies for infrastructure development as relief from unemployment. Moreover, sums advanced for farmers' share of costs could now be repaid over thirty (rather than ten) years.⁸⁶ Thus, the number of applications increased. After the Sec-

improvements.

79. Manten, *Rural Landscape Planning*, *supra* note 38, at 200.

80. Dam, *Doelstelling*, *supra* note 34, at 13.

81. Dam, *Doelstelling*, *supra* note 34, at 13.

82. Kramer, *Inleiding*, *supra* note 42, at XIII.

83. Eshuis, *Landverlegging*, *supra* note 65, at 60.

84. Manten, *Rural Landscape Planning*, *supra* note 38, at 202.

85. Dam, *Doelstelling*, *supra* note 34, at 14.

86. Manten, *Rural Landscape Planning*, *supra* note 38, at 200-202. The annuity pay-

ond World War, when Dutch farmers were particularly interested in land consolidation, the 1938 law became effective on a large scale.⁸⁷

Nonetheless, the 1938 law eventually proved inadequate. This inadequacy was made particularly clear when the sea dikes of the island of Walcheren⁸⁸ were devastated by bombing during the Second World War, and later when large areas of the southwestern Netherlands were inundated by a flood disaster in 1953. Problems with the 1938 law in these crises stemmed in part from the destruction of the existing situation from which the land consolidation would ordinarily begin.⁸⁹ Thus, special laws were enacted to facilitate reconstruction of these regions.⁹⁰ These laws aimed at the recovery of agriculture, horticulture, forestry, and livestock breeding through the reallocation of land. But the provisions of the laws were not limited to recovery of cultivated land and farms; they also focused on reorganization of businesses for the purpose of a practical management. In addition, large scale replanting was necessary, as well as improvement of existing roads and construction of new roads.⁹¹ Several new elements were introduced in the Walcheren law. Among these were relocation of farms (including relocation to other areas of the Netherlands), increase in size of farm businesses, and special attention for landscape protection.⁹² Under this more comprehensive legal framework, the work in Walcheren provided important lessons for the later evolution from relatively simple exchanges of farmland to the more comprehensive "landinrichting," or land development.⁹³

It was clear from years of experience under the 1938 law and from application of these special laws that improvements in the generally applicable legal instruments for land consolidation were still required. The improvements made in the special laws indicate

able each year was 5% of the total sum advanced.

87. Kramer, *Inleiding*, *supra* note 42, at XIII.

88. Located in Zeeland province in the southwestern Netherlands.

89. Mantel, *Rural Landscape Planning*, *supra* note 38, at 202.

90. Herverkavelingswet Walcheren 1947, Stb. H 400; Herverkavelingswet Noodgebieden, Stb. 1953, 444 (making the Walcheren law in part applicable to 35,000 hectares of flooded areas in the province Zeeland). See Kramer, *Inleiding*, *supra* note 42, at XIV; Eshuis, *Landverlegging*, *supra* note 65, at 61.

91. Kramer, *Inleiding*, *supra* note 42, at XIV.

92. Kramer, *Inleiding*, *supra* note 42, at XIV; Eshuis, *Landverlegging*, *supra* note 65, at 60. In addition, tenure rules were included; if necessary ground users could be relocated to the IJsselmeer polders. The law required no vote of owners to approve the land consolidation.

93. Eshuis, *Landverlegging*, *supra* note 65, at 61. The Walcheren law referred to *herverkaveling* (re-parcelling) instead of *ruilverkaveling*.

some of the areas of deficiency. In addition, there was need for a faster realization of the practical results of *ruilverkaveling*, as well as for better regulation of the rights of renters. The relationship of *ruilverkaveling* with physical planning and with landscape protection needed to be more specific. Also, need existed for a means to assign land to public bodies for nonagricultural purposes.⁹⁴

C. The 1954 Law

As a result of these shortcomings, the *Ruilverkavelingswet* 1954 was enacted. This was the third such law in only thirty years.⁹⁵ Reflecting developments over those 30 years, the goal of this law was somewhat broader than the earlier focus on the promotion of agriculture. The 1954 law stated as its goal the “protection of the interests of arable farming, horticulture, forestry, or livestock breeding.”⁹⁶ Though this protection of agricultural interests remained an overriding concern, the law took account of other public purposes. Land involving up to five percent of the total project territory could be set aside for other social purposes, but only insofar as this was in agreement with the goal of *ruilverkaveling*.⁹⁷ This provision recognized the inevitability of some changes in the use of the land, but was designed to anticipate those changes so they would not later interfere with the newly allocated land arrangement.⁹⁸ It also attempted to ensure that the necessary adaptations in land use were as consistent as possible with the interests of agriculture.⁹⁹ In addition, under this approach the loss of agricultural land for public uses was shared by all the owners in the *ruilverkaveling* project.¹⁰⁰ As the public interests of nature, landscape protection, recreation, and city or village renewal gradually played an increasing role in *ruilverkaveling*, however, the five percent limitation sometimes impeded achievement of these public purposes.¹⁰¹

94. Kramer, *Inleiding*, *supra* note 42, at XV.

95. Stb. 1954, 510. An important amendment in 1975, Stb. 1975, 206, changed the voting procedure from a vote held at a general meeting to an election. Also, those not voting were no longer deemed to have consented to the project. Joustra, *Algemene Inleiding*, at 22-24, in *Ruilverkavelingswet* 1954, Ned. Staats. 101-I (1984).

96. *Ruilverkavelingswet* 1954, art. 2, Ned. Staats. 101-I (1984): “ter behartiging van de belangen van land-, tuin-, bosbouw of veehouderij.”

97. *Ruilverkavelingswet* 1954, art. 13, Ned. Staats. 101-I (1984).

98. See Dam, *Doelstelling*, *supra* note 34, at 14.

99. Dam, *Doelstelling*, *supra* note 34, at 17.

100. Kramer, *Inleiding*, *supra* note 42, at XV.

101. Dam, *Doelstelling*, *supra* note 34, at 18. Voluntary transfers to a government body, the *Stichting Beheer Landbouwgronden* (now the *Bureau Beheer Landbouwgronden*),

Beginning in 1958, *ruilverkaveling* took place according to the provisions of multi-year plans.¹⁰² As the demand for land consolidation grew during the 1950s, the number of requests exceeded the capacity for carrying out the projects. Thus, a method of establishing priorities was demanded. The multi-year planning effort was a factor in the government decision for a program involving 40,000 hectares per year.¹⁰³

Other changes in approach also occurred. For example, after 1965, *ruilverkaveling* was carried out in closer coordination with provincial policies of physical planning; plans for land consolidation were established on the basis of, or in connection with, the relevant *streekplan* (regional plan).¹⁰⁴ In addition, land was obtained by the *Stichting Beheer Landbouwgronden* (now the *Bureau Beheer Landbouwgronden*) not only for agrarian, but also for nonagricultural, purposes. Later, application was given to policies to protect nature and landscape reflected in the important memorandum on the relationship of farming and nature areas.¹⁰⁵

Under the improved legal regulation, *ruilverkaveling* projects have greatly increased in size. Before the Second World War, the normal size of blocks of land that made up a project was 400 to 500 hectares. Between 1970 and 1973, in contrast, a size of 6,000 to 7,000 hectares was the norm, with the possibility of projects involving over 20,000 hectares.¹⁰⁶

In the years since 1954, societal developments have led to changes in the functions and value of rural areas. Among these changes are included the expansion of towns, increasing mobility, higher recreation needs, and the enhanced value assigned to nature and landscape. Thus an increasing number of interest groups have claimed some connection with the countryside and the right to use or protect it. Competing interests have placed higher demands on the process of *ruilverkaveling* and have altered public expectations

or purchases by municipalities sometimes solved the problem. *Id.* at 18-19. On the role of the *Stichting*, see Eshuis, *Landverlegging*, *supra* note 65, at 63.

102. Mante, *Rural Landscape Planning*, *supra* note 38, at 204; Kramer, *Inleiding*, *supra* note 42, at XV.

103. Eshuis, *Landverlegging*, *supra* note 65, at 63. Eshuis refers specifically to the years 1961 to 1963.

104. Kramer, *Ruilverkavelingswet*, *supra* note 51, at 238. Impetus for this coordination came from the *Wet op de Ruimtelijke Ordening*, effective in 1965, *Stb.* 1962, 286.

105. Kramer, *Ruilverkavelingswet*, *supra* note 51, at 238. The memorandum is the *Nota betreffende de relatie landbouw en natuur-en landschapsbehoud*, Tweede Kamer, Zitting 1974-1975, 13 285, nrs. 1-2 (1975). It is referred to as the *Relatienota* or the Relationship Report.

106. Eshuis, *Landverlegging*, *supra* note 65, at 62-63.

of the results of land consolidation. In addition to provisions for the protection of agriculture, greater attention must now be paid to nature, landscape, recreation, and other public purposes.¹⁰⁷

The predominately agrarian goal of the 1954 law was abandoned in land development laws enacted in 1977 to solve problems existing in two specific areas of the Netherlands. One of these laws, for Delft in the densely populated West of Holland, was intended to promote good physical planning (in part, through creation of a buffer zone) and in addition to protect the interests of agriculture, nature, landscape, and open air recreation.¹⁰⁸ The other law for the Groningen area in the North plagued with unemployment, was directed at promotion of both a good living, housing, and work climate and economic and social development.¹⁰⁹ For these projects, the *Ruilverkavelingswet* 1954 was deemed inadequate. For example, for the Delft area, land needed for public purposes approached thirty percent of the total area, far above the five percent limit imposed by the *Ruilverkavelingswet*.¹¹⁰ Moreover, the project could not depend on the cooperation (that is, the positive vote) of the landowners, as required in the 1954 law.¹¹¹ In the Groningen area, a coordinated and integrated treatment of a number of diverse social interests required special legal provisions, especially in light of the nonagricultural nature of many of the interests.¹¹² These two special laws introduced new approaches. They regulated the relationship with physical planning, in which the provincial administration plays an important role. They provided for public participation. Moreover, the laws focused on the management and maintenance of nature areas and elements with landscape, recreational, cultural-historical, and natural-scientific value.¹¹³

Thus, again, the existing legal arrangements for land development were found inadequate. The 1954 law had several serious

107. Kramer, *Inleiding*, *supra* note 42, at XVI.

108. Reconstructiewet Midden-Delfland, Stb. 1977, 233 (involving 6,000 hectares, and intended to promote the important physical planning goal of creating a buffer zone in a heavily populated area). See art. 2, Ned. Staats. 101-II (1987).

109. Herinrichtingswet Oost-Groningen en de Gronings-Drentse Veenkoloniën, Stb. 1977, 694 (involving 130,000 hectares). See Ned. Staats. 101-III (1985), at XIV. Article 3 of the law states its purpose.

110. Memorie van toelichting, printed in Reconstructiewet Midden-Delfland, Ned. Staats. 101-II (1987), at 8.

111. Memorie van toelichting, *supra*. Articles 37-43 of the *Ruilverkavelingswet* 1954, Ned. Staats. 101-I (1984) include the provisions concerning the vote of the land owners and users.

112. Memorie van toelichting, Herinrichtingswet Oost-Groningen, quoted in *Inleiding*, at XXIV-XXVI, Ned. Staats. 101-III (1985).

113. Kramer, *Inleiding*, *supra* note 42, at XVII.

shortcomings, some of which have been suggested by the preceding discussion. First, given the increasing demands on rural areas, the goal of the law—the protection of agricultural interests—had become much too limited. Second, the law lacked specific provisions to regulate the coordination of land development with physical planning for a geographic area. Third, the decision to proceed with a land consolidation project depended on the vote of the ground owners and users,¹¹⁴ whereas the interweaving of various land use functions in the rural areas sometimes made the possibility of an administrative decision desirable. Fourth, the five percent limitation on the land that could be assigned to public bodies was inadequate, given the changes in ownership and use of land necessitated by the varied functions demanded in rural areas. Fifth, the law lacked a procedure for assigning the ownership of lands with natural, landscape, or cultural-historical value to public bodies or other legal entities.¹¹⁵ Finally, the participation and appeal possibilities under the law were inadequate.¹¹⁶

D. Toward the *Landinrichtingswet*

Like the process of *ruilverkaveling* itself, the latest major change in Dutch land development, the 1985 *Landinrichtingswet*, enjoyed a long gestation period. Developments in the densely populated nation made it clear that the countryside, so essential for its continued agricultural production, would face increasing pressure from urbanization as well as from nature and landscape protection interests. Recognizing the need for an integrated use of the countryside, in 1972 the Minister of Agriculture and Fisheries articulated several goals for the development of rural areas: a rational and economically justifiable agrarian management; a socially acceptable living, working, and housing climate in the country; a maximum shared use of the country by the entire nonagrarian population; and the preservation of a natural environment that is as varied as possible.¹¹⁷

Shortly thereafter, an interdepartmental committee was appointed with the task of drafting a land development act to replace

114. *But see* *Ruilverkavelingswet* 1954, art. 44, which permits a government decision for *ruilverkaveling* in cases of pressing need, even when the required majority is lacking.

115. Kramer, *Inleiding*, *supra* note 42, at XVIII-XIX.

116. Kramer, *Ruilverkavelingswet*, *supra* note 51, at 238.

117. Minister van Landbouw en Visserij, *Memorie van toelichting op de begroting*, 1972, at 41, cited in Kramer, *Inleiding*, *supra* note 42, at XI. *See also* A. CRIJNS, *REGULATIVE PHASE*, *supra* note 15, at 4.

the 1954 law.¹¹⁸ The committee had the benefit of experience gained through the special laws enacted in 1977. In March 1979, the committee made its recommendation to the government, and in November 1979 a draft of the new law was introduced into the Second Chamber of Parliament.¹¹⁹ After a lengthy parliamentary treatment, the new law, the *Landinrichtingswet* was published in June 1985, to be effective 15 October 1985.¹²⁰

The major differences between the 1954 law and the *Landinrichtingswet* indicate that the new law has attempted to remedy some of the deficiencies of prior law.¹²¹ The new law is broader in scope, to recognize the many functions competing for recognition in the countryside. It also establishes a legal basis for the important interconnection between physical planning and land development. The law makes available several forms of land development, tailored to remedy different problems and primary land uses. It offers the possibility of a simple or more complex preparation process, and assigns the provincial administration a significant role in the land development process. Participation of interested parties and consultation with municipalities and waterboards are regulated. In addition, the *Landinrichtingswet* demands an evaluation of the effects expected from a proposed project.¹²²

III. THE LANDINRICHTINGSWET: SOME BACKGROUND

A. Purpose of the Law and Types of Land Development

The broadened purpose of the Land Development Act is immediately apparent from the language of article four of the law: "Land development strives toward the improvement of the countryside in conformity with the functions of that area, as these are specified in

118. The committee was created by decree of 25 October 1972, Stcrt. 214, by the Minister of Agriculture and Fisheries and the Minister of Housing and Physical Planning.

119. On the system of Parliament in the Netherlands, see *supra* note 6.

120. Stb. 1985, 299. See Kramer, *Ruilverkavelingswet*, *supra* note 51, at 238.

121. The application of the new law was expected to be gradual. Some projects, begun under the 1954 law, would continue under the provisions of that law, making both laws applicable for a number of years. See *Landinrichtingswet*, art. 240. Ned. Staats. 101 (1985).

To avoid extended simultaneous application of the two laws, however, efforts were made to facilitate and speed the transition from the *Ruilverkavelingswet* to the *Landinrichtingswet*. Only those projects (numbering perhaps ten) in their final stage at the time of the effective date of the new law would be continued under the 1954 law. Moreover, no prolongation of existing projects was expected. Procedures in the two laws are similar enough so that steps in the process completed under the *Ruilverkavelingswet* would not have to be repeated to comply with the new law. *Landinrichtingsdienst, Soepele overgang naar nieuwe wet* [1985] (press release); *LANDINRICHTINGSDIENST, JAARVERSLAG 1985*, *supra* note 51, at 13-14.

122. Kramer, *Ruilverkavelingswet*, *supra* note 51, at 239.

the framework of physical planning.”¹²³ This clear statement of purpose establishes two significant philosophies: that the countryside must accommodate several land-use functions, and that close correspondence of land development with physical planning is essential. The former philosophy is elaborated by the provision that land development can include, but is not limited to, measures and provisions for arable agriculture, horticulture, and forestry; nature and landscape; infrastructure; open air recreation; and cultural history.¹²⁴ The latter is implemented in the law by numerous requirements for coordination of land development decisions with physical planning decisionmaking authorities.¹²⁵

1. Types of Land Development

The *Landinrichtingswet* is designed to accommodate varied, and often conflicting, interests. These interests require different land development approaches, and even different decisionmaking processes. Thus, the law includes four statutory types of land development: redevelopment (*herinrichting*); consolidation (*ruilverkaveling*); readaptation (*aanpassingsinrichting*); and consolidation by agreement (*ruilverkaveling bij overeenkomst*).¹²⁶ The law provides guidelines for the situations in which each instrument is appropriate, and specifies measures and provisions to govern each instrument.

Herinrichting and *ruilverkaveling* are the most important instruments of land development.¹²⁷ The choice between these methods in a specific situation is influenced by the functions assigned to the relevant location in the physical planning process. *Ruilverkaveling*, modeled after land consolidation methods long used in the Nether-

123. LIW, art. 4.

124. LIW, art. 5. Legislative history indicates that other purposes are also possible. Ned. Staats. 101, at 8 (1985).

The nonagricultural purposes have been recognized in developing policy under the law. Areas for which land development is possible are noted on a policy map accompanying the *Structuurschema Landinrichting*, *supra* note 53. Only about 30 percent of the land on the policy map was chosen on account of a priority only from agriculture. Another 30 percent was chosen with no priority for agriculture; the remaining 40 percent involved a combination of agriculture and other important policies, like nature and landscape or urban sphere of influence. Of course, farmers live in all the areas; 80 percent of the rural area involves farms. Barlagen, *Boeren*, *supra* note 14, at 329.

125. See, e.g., LIW, arts. 42, lid 1; 88, lid b. See also Brussaard, *De Landinrichtingswet in relatie tot de ruimtelijke ordening*, 66 STEDEBOUW EN VOLKSHUISVESTING 527 (1985).

126. LIW, art. 13.

127. Thus, much of the discussion in this article will focus on these instruments.

lands, is intended for areas in which agriculture is the primary function, and in which other functions are less important.¹²⁸ It usually involves reallocation of land in the entire area, either as a whole or in smaller units.¹²⁹

Redevelopment (*herinrichting*), in contrast, is designed for areas in which potentially conflicting land uses must coexist; that is, for land that fulfills—or must in the future fulfill—important nonagricultural functions in addition to agriculture.¹³⁰ Thus, *herinrichting* is appropriate for areas within the urban sphere of influence, as well as for areas with important nature and landscape values.¹³¹ Regions with alternating agriculture, nature, or other functions are suitable for either redevelopment or consolidation.¹³² Reallocation of land will normally occur in the area, or in part of the area, subject to redevelopment, but redevelopment can proceed without reallocation.¹³³

Although the two types of land development are quite similar, several crucial differences exist, particularly in the decisionmaking process and in the mechanism for obtaining land for infrastructure improvements and other purposes.¹³⁴ Thus, the choice between redevelopment and consolidation for an area being considered for land development must be made at an early stage in the preparation process.¹³⁵

Readaptation (*aanpassingsinrichting*), a new procedure in Dutch law, will be used less frequently. Related to a similar procedure in West German law,¹³⁶ it is designed to be used in conjunction with an infrastructural improvement or development of national or regional importance (for example, a road, a canal, or a landing strip), to modify the unfavorable land-use effects of the infrastructural project.¹³⁷ The goal of readaptation is to reduce the costs of miti-

128. LIW, art. 15.

129. See LIW, art. 15, lid 3. See also *Memorie van Toelichting* at 53, printed in *Ned. Staats.* 101, at 16.

130. LIW, art. 14.

131. LANDINRICHTINGSDIENST, *DE LANDINRICHTINGSWET*, *supra* note 50, at 6.

132. See *Structuurschema*, *supra* note 53, at 7.

133. LIW, art. 14, lid 3.

134. See *infra*, text accompanying notes 219-28 and 241-45.

135. The Central Land Development Committee recommends the instrument to be used in a specific area, before that area is placed on the *Preparatory Outline Scheme for Land Development Projects*. LIW, art. 26, lid 2, c. But the provincial councils ultimately choose the instrument, and the choice is included with the suggestion to place an area on the *Voorbereidingsschema*. *Id.*, art. 19, lid 4. See *infra* text accompanying notes 175-83.

136. The procedure is the *Unternehmensflurbereinigung*, regulated by the *Flurbereinigungsgesetz*, BGBl I S.546 (1976 version) (EL 32 No. 860).

137. LIW, art. 16.

gating the harmful consequences often associated with infrastructural projects; only secondarily is the process intended to improve the parcelling of agricultural land. The exchange of land in conjunction with the infrastructure project can, for example, avoid the expense of building additional access viaducts, as well as the cost of compensating landowners for damages caused by changes in the shape and relationship of their land parcels.¹³⁸

The final type of land development authorized by the *Landinrichtingswet*, consolidation by agreement (*ruilverkaveling bij overeenkomst*), regulates the procedure by which a small number of landowners voluntarily exchange land to achieve better parcelling.¹³⁹ The procedure, also available under the 1954 law, involves three or more landowners. It is an efficient and inexpensive way to improve farmers' situations, when only a few owners or users and a small amount of land are involved.¹⁴⁰

2. Responsible Organizations

Several special government entities are instrumental in carrying out the various phases of these often-complicated land development procedures. The *Landinrichtingswet* establishes the Central Land Development Committee (*Centrale Landinrichtings Commissie*), and assigns to this Committee important functions.¹⁴¹ This Committee is the successor to the organization called *Centrale Cultuurtechnische Commissie* under the 1954 *Ruilverkavelingswet*, and its responsibilities are similar.¹⁴² The Central Committee advises the national government on land development policy and supervises land development projects. It includes a maximum of twenty members, who represent the Ministers; authorities of the provinces, municipalities, and polders; and organizations promoting the interests of agriculture, forestry, nature and landscape conservation, and open air recreation.¹⁴³ In addition to the Central Committee, each

138. See Nota naar aanleiding van Eindverslag at 45-46, quoted in Ned. Staats. 101, at 73-74.

139. LIW, art. 17.

140. See generally, Burger, *Kavelruil*, 16 *BEDRIJFSONTWIKKELING* 256 (1985).

141. LIW, art. 7.

142. *Ruilverkavelingswet* 1954, art. 3, lid 1, Ned. Staats. 101-I (1984).

143. LIW, art. 8, lid 2. The agricultural and nature organizations to be represented are designated in a government decree of 23 September 1985, Stb. 1985, 524. The organizations represented include federations of farmers, foresters, and groups represented by conservation organizations. It is typical of the "pillarization of society" in Holland that there are catholic, protestant, and neutral organizations for nearly every interest. Thus, for example, the Central Committee includes representation of Catholic, Protestant, and neutral farmers' organizations.

area slated for land development has a local land development committee with special statutory responsibilities for overseeing the project in that area.¹⁴⁴

The Government Service for Land and Water Use (*Landinrichtingsdienst*) is the government agency responsible for implementing land development policy.¹⁴⁵ As a sub-unit of the Ministry of Agriculture and Fisheries, the *Landinrichtingsdienst* plays a crucial role in the work of the Central Committee and in executing and supervising land development projects. The Service has nearly 700 employees in its central directorate and in the provinces.¹⁴⁶

Other agencies play a role as well. For example, the Land Registry Office (*Kadaster*) is active in preparing the plan of reallocation, and the Bureau for Agricultural Land Management (*Bureau Beheer Landbouwgronden*) acquires the land needed for development projects. It is also significant, as the ensuing discussion will indicate, that various levels of government enjoy decisionmaking responsibility in the land development process.

B. Policy Background: The *Structuurschema Landinrichting*

Land development in the Netherlands takes place in the context of comprehensive policy planning. This policy is articulated in the the *Outline Plan for Land Development (Structuurschema Landinrichting)*.¹⁴⁷ The *Structuurschema* is mandated by article six of the *Landinrichtingswet*, which specifies that the document will contain the main principles governing national land development policy and provide special insight into the spatial aspects of that policy.¹⁴⁸ The *Outline Plan* is viewed as a Key Planning Deci-

144. LIW, art. 27. The local committee normally has 7 members, but may be larger. *Id.*, art. 28, lid 1, 2. Rules for the local committee, authorized by LIW, art. 32, are the *Regeling werkwijze Landinrichtingscommissie*, Stcrt. 1985, 217, established by the Ministry of Agriculture and Fisheries after consultation with the Central Committee.

The local committee is similar to the *plaatselijke commissie* established pursuant to article 51 of the *Ruilverkwelingswet* 1954.

145. The agency was formed in 1935, with the name *Cultuurtechnische Dienst. LANDINRICHTINGSDIENST*, JAARVERSLAG 1985, *supra* note 51, at 3.

146. LANDINRICHTINGSDIENST, JAARVERSLAG 1985, *supra* note 51, at 99, states that there are over 800 employees. The current number, according to A.M. Burger of the *Landinrichtingsdienst*, is approximately 670.

147. Ministerie van Landbouw en Visserij, Ministerie van Volkshuisvesting, Ruimtelijke Ordening en Milieubeheer, *Structuurschema Landinrichting*, deel e: na parlementaire behandeling vastgestelde tekst. Tweede Kamer, zitting 1985-1986, 16600, nrs. 28-29 (1986). An earlier version, deel a: beleidsvoornemen, appeared in 1981. An English summary of the earlier version is *OUTLINE PLAN FOR LAND DEVELOPMENT IN THE NETHERLANDS (SUMMARY)* (*Landinrichtingsdienst*, Information paper 2, no date).

148. LIW, art. 6.

sion (*Planologische kernbeslissing*), and was adopted only after implementation of a public-participation system designed to facilitate nationally important planning decisions.¹⁴⁹ The important policies articulated in the *Outline Plan* are intended to direct land development activities between 1985 and 1994. Major policy changes are envisioned only through revision of the *Outline Plan*.¹⁵⁰

1. Objectives of Land Development

The starting point of the *Outline Plan* is the principle aim of national land development policy: "the development, within the overall framework of government policy, of parts of the rural area in accordance with the functions attached to them and their mutual interconnection in such a way that the social significance of that area can be maximized as well as possible."¹⁵¹ This rather broad national policy is elaborated into a number of other, more limited objectives that focus on both agricultural and nonagricultural considerations.

Agricultural objectives include the maintenance or improvement of the competitive position of agriculture and horticulture; the elimination or reduction of regional deficiencies in income; the improvement of working conditions; the broadening of long-term options for land use; the improvement of water control; and the improvement of the parcelling situation, directed toward an efficient use of ground. Other goals include the achievement of safe and effective access to the rural areas, and the adaptation of the construction and improvement of infrastructural facilities to the development of

149. The Key Planning Decision procedure, used since about 1972 without legislative requirement, was incorporated into the Wet op de Ruimtelijke Ordening with the 1985 amendments to that law. Ned. Staats. 64 (1986). After widespread publicity on a policy proposal, members of the public have time to express views on the policy. Comments are also sought from advisory bodies, provincial governments, and sometime municipal authorities. After a consideration of the views expressed, the government decision is published. During the following period, the Second Chamber of the Parliament may discuss the issue with the government, and amendments may be made. The plan cannot be effective without approval of the Second Chamber. In addition, the First Chamber must also approve the plan. (It is deemed approved by this Chamber if the Chamber does not expressly decide to treat it within one month of receipt. Wet op de Ruimtelijke Ordening, art. 2a, Ned. Staats. 64 (1986). See Brussaard, *Planologische kernbeslissingen: Over vorm en procedure van belangrijke beleidsbeslissingen op nationaal niveau*, at 25-41 in VAKGROEP AGRARISCH RECHT, LANDBOUWUNIVERSITEIT WAGENINGEN, RECHT IN ONTWIKKELING (1986). See also W. BRUSSAARD, RULES *supra* note 23 at 37-39.

150. Structuurschema, *supra* note 53, at 4.

151. Structuurschema, *supra* note 53, at 4: "Het binnen het kader van het totale overheidsbeleid inrichten van delen van het landelijk gebied overeenkomstig de daaraan toegekende functies en hun onderlinge samenhang op een zodanige wijze, dat de maatschappelijke betekenis van dat gebied zo goed mogelijk tot zijn recht kan komen."

the countryside.

In addition, the objectives demonstrate other goals of land development. Both the support of national urbanization policy and improvement in the quality of village life are among these. Another objective is to contribute to realization of national policy with respect to open air recreation. Nature interests are not neglected. Objectives include improving the quality of the landscape; safeguarding, developing, and managing natural areas and cultural-historical features; and developing, improving, and managing woodlands.¹⁵²

As the *Outline Plan* makes clear, these objectives can be realized only in specific land development projects, which are intended to eliminate problems caused by the existing land arrangement for the functions of the countryside. National land development policy aims at a “nuanced realization of objectives.”¹⁵³ Policy goals thus help to put these rather detailed objectives into perspective. For agriculture and horticulture, the emphasis of land development as an instrument of agricultural structural policy will focus on elimination or reduction of regional income deficiencies and improvement of working conditions. With respect to urbanization policy, emphasis will be placed on areas within the sphere of urban influence, with an aim of preserving buffer zones. For nature and landscape in rural areas, accent will be placed on improving landscape quality, as well as contributing to the maintenance, development, and management of nature areas and valuable cultural landscapes. Finally, in connection with improvement of living and housing conditions, emphasis will be focused on effective and safe access to the rural areas.¹⁵⁴

To implement these goals and priorities, the government plans to engage in land development activity at the average rate of 36,000 hectares per year. This total includes comprehensive land development projects under the *Landinrichtingswet*,¹⁵⁵ as well as activities under laws applicable for special regions or land development problems. Budgetary considerations in the future may limit the amount of land that can be developed.¹⁵⁶

152. Structuurschema, *supra* note 53, at 4-5.

153. Structuurschema, *supra*, note 53, at 5.

154. Structuurschema, *supra*, note 53, at 5.

155. These include *herinrichting*, *ruilverkaveling*, and *aanpassingsinrichting* projects. Structuurschema, *supra* note 53, at 5.

156. Structuurschema, *supra* note 53, at 5-6.

2. The Policy Map

An integral part of the *Outline Plan* is the policy map that identifies areas to be considered for land development. These are regions that will benefit most clearly from land development and where implementation of projects will further policy goals.¹⁵⁷ The policy map includes three parts. Part A, designating areas with priority for agriculture and horticulture, includes approximately 495,000 hectares of land. Part B, areas located within the urban sphere of influence, includes approximately 280,000 hectares. Part C, areas with disharmony between landscape quality and land-use function, includes 385,000 hectares. Because some land is included in two or three of these parts, there is overlap in the designated areas; when this overlap is eliminated, the total area that will be considered for land development under the *Outline Plan* is some 695,000 hectares.¹⁵⁸

The regions specified in the policy map are outlined only approximately, and more precise boundaries must be established. The policy map is both indicative and limitative. Provincial authorities, who ultimately designate the areas for land development, must decide whether land development is the appropriate mechanism for solving the problems of the indicated areas. The map is limitative in the sense that it defines the areas from which provincial authorities generally must select in recommending land for inclusion on the *Preparatory Outline Scheme for Land Development (Voorbereidingsschema Landinrichting)*, an annually-revised register of projects).¹⁵⁹ When the provinces suggest more land for development in a given year than is desirable, priority will be given to land where the proposed project reflects several main lines of policy, has potential for significant realization of policy goals, or will involve

157. Structuurschema, *supra* note 53, at 6, 11, 13. The policy concerning agricultural structures led to the inclusion of areas where the land arrangement situation can be improved substantially and where, from the standpoint of income deficiencies and working conditions, a considerable urgency exists. Urbanization and outdoor recreation policies have led to inclusion of areas within the sphere of urban influence. Policies on nature and landscape protection and landscape planning have directed the identification of areas where land development can contribute substantially to the elimination or decrease in a significant disharmony between landscapes and their functions. *Id.* at 6.

158. These figures, from 1984, are taken from Crijns & Addink, *Structuurschema landinrichting*, 16 BEDRIJFSONTWIKKELING 239, 242 (1985).

159. Structuurschema, *supra* note 53, at 6. On the *Preparatory Outline Scheme*, see *infra* text accompanying notes 175-83. But small areas not on the map may also be considered. An average of 1000 hectares per year may be developed, even if they are not on the map, if they comport with the main lines of policy. And an additional average of 5000 hectares may be included if the government's share of the costs is quite minimal. *Id.* at 6-7.

the consumption of relatively few resources.¹⁶⁰

3. Criteria for Selecting Forms of Land Development

The *Outline Plan* provides general guidelines to govern the choice among the types of land development authorized in the *Landinrichtingswet*. The choice between consolidation (*ruilverkaveling*) and redevelopment (*herinrichting*) is most difficult, and the functions of the area in the framework of physical planning are often determinative. Thus, areas where agriculture is the primary function will normally require consolidation. Regions with alternating agriculture, nature, and other functions are suitable for either redevelopment or consolidation. Where nature or landscape protection is the primary function, redevelopment is likely to be the appropriate treatment. Redevelopment will also be the usual approach in areas within the urban sphere of influence.¹⁶¹

Readaptation (*aanpassingsinrichting*) raises fewer questions. This type of land development is intended for situations in which infrastructural facilities (for example, new highways or airports) of national or regional importance have adverse effects on the transportation system, agricultural land use, nature, landscape, or outdoor recreation. But readaptation is appropriate in these situations only when land development can minimize the adverse effects of infrastructure projects. Areas appropriate for readaptation are not included on the policy map of the *Outline Plan* because readaptation projects are supplemental and follow the infrastructural developments.¹⁶²

4. Land Development Factors

Land development involves measures and provisions directed at four main factors: access, water control, parcelling, and landscape. The *Outline Plan* sets out policy with respect to these factors.

Policy with respect to access—that is, traffic and transport on country roads—is linked with overall planning policy for rural areas. One emphasis is on safe and effective access to the countryside, which may include road construction or improvement and construction of bicycle paths. With regard to agriculture and horticulture, improvements are to be directed toward good accessibility to farm

160. Structuurschema, *supra* note 53, at 7.

161. Structuurschema, *supra* note 53, at 7.

162. Structuurschema, *supra* note 53, at 7.

buildings and land, but without neglecting nature and landscape values.¹⁶³

Measures concerning water control will contribute to the various functions of the area, including agriculture and horticulture, nature and landscape protection, forestry and landscape planning, and open-air recreation. Considerations may include the provision of drinking and industrial water. Moreover, harmful influences on nature and landscape values are to be avoided, and nature areas and reserves are to be protected.¹⁶⁴

Parcelling of agricultural land has long been an important factor in land development. In this connection the *Outline Plan* specifies that reparcelling should promote concentration of land use as much as possible and contribute to the various land-use functions of the area. Where agriculture, nature, and other functions alternate in small spatial units, reparcelling must ensure both that agriculture and nature values are accommodated and that effective farm management is not hindered. Relocation of farmers, in connection with the public interest, should improve the location of farm buildings in relationship with the land as well as relieve adverse effects on nonagrarian interests. When a small number of participants are willing to exchange ground to achieve a quick improvement in their parcelling situation, the policy is directed toward promotion of land exchange (*kavelruil*).¹⁶⁵

Landscape is the final important factor, and here the policy is directed to the building of a harmonious landscape structure. The quality of the landscape is to be closely regarded in the preparation and performance of land development projects. Measures concerning access, water control, and parcelling must consider landscape quality.¹⁶⁶

5. Evaluation

The *Landinrichtingswet* requires an evaluation of redevelopment and consolidation projects.¹⁶⁷ The evaluation is to describe consequences of the project for the economic situation, including work opportunities, living and working conditions, nature and landscape, and the quality of water, land, and air. The *Outline Plan* specifies

163. Structuurschema, *supra* note 53, at 7.

164. Structuurschema, *supra* note 53, at 7-8.

165. Structuurschema, *supra* note 53, at 9.

166. Structuurschema, *supra* note 53, at 9.

167. LIW, art. 35.

the method that forms the starting point for such evaluations.¹⁶⁸

IV. MAKING THE DECISION FOR LAND DEVELOPMENT

A decision that an area of the Netherlands will be subjected to the lengthy land development process can be made only in conjunction with procedures specified in the law and when that decision is consonant with national land development policy. As the discussion of the *Structuurschema Landinrichting* has indicated, normally only regions identified on the policy map developed as part of the *Structuurschema* are eligible for land development.

A. The Initiative

1. The Request for Land Development

A request for land development, submitted in writing to the Minister of Agriculture and Fisheries and supported by reasons for the request and a map of the proposed area,¹⁶⁹ initiates the land development process. The government, as well as provinces, municipalities and other public bodies may submit a request, as can organizations concerned with the interests served by land development. In addition, land owners and users, who together represent at least thirty percent of the ground in the area, can request land development.¹⁷⁰ In actual practice, as it developed under the 1954 law, most requests were submitted by farmers or by organizations representing farmers.¹⁷¹ Only recently have nature conservation organizations taken the initiative for land development.¹⁷²

The request for land development is brought to the attention of the Central Committee.¹⁷³ The Committee evaluates the request, and prepares an outlook document, which describes and evaluates the existing land-use situation in the area. On the basis of that situation and the policies established in the *Structuurschema*

168. *Structuurschema*, *supra* note 53, at 10. See generally, H. BOSMA, EVALUATION IN ADVANCE, *supra* note 57.

169. LIW, art. 24. See generally Brussaard, *Ontwikkelingen in de besluitvorming rond landrichtingsprojecten*, 24 BOUWRECHT 267 (1987).

170. LIW, art. 23.

171. *Ruilverkavelingswet*, art. 31, provided that requests could be submitted by a fifth of the cadastral owners, certain societies, and agricultural organizations, or by certain governmental bodies. Language in the LIW, art. 23, is slightly more inclusive.

172. Interview with A.M. Burger, Landinrichtingsdienst, 7 January 1987. The fact that nature conservation organizations ask for land development suggests that the process has been successful in protecting interests other than agriculture.

173. LIW, art. 25. The Minister sends the request to the Central Commission, which informs the relevant provincial deputed states, the municipalities, and the water boards.

Landinrichting, the document specifies whether land development is desirable and, if so, which type and with which method of preparation.¹⁷⁴

2. The Preparatory Outline Scheme

Before work can begin on a land development project, it must be placed on the *Preparatory Outline Scheme for Land Development*.¹⁷⁵ This document, amended annually, lists areas for which consolidation or redevelopment projects are in preparation. Each year the provincial states¹⁷⁶ identify areas in their respective provinces for inclusion on the *Outline Scheme*. These areas are chosen after consideration of several factors: the *Structuurschema*, which establishes national policy; the Central Committee's outlook documents on specific land development requests; and provincial spatial policy, as identified in a regional plan or other provincial decision.¹⁷⁷

The provincial states recommend the identified areas, as well as the appropriate instrument and preferred method of preparation for each, to the Minister of Agriculture.¹⁷⁸ The various requests are considered by the Central Committee, which makes a recommendation,¹⁷⁹ on the basis of which the Minister of Agriculture establishes the *Outline Scheme*.¹⁸⁰ When the provinces suggest more

174. LIW, art. 26. On methods of preparation, see *infra* text accompanying notes 184-94. The document is sent to the deputed states, municipalities, water boards, and to those who made the request.

Note, however, that the provinces ultimately decide on the type of project and the type of preparation. See *infra*, text accompanying notes 133-80.

175. LIW, art. 18. This *Preparatory Outline Scheme*, now prescribed in the law, is successor to the scheme used (without statutory mandate) in connection with multi-year planning since 1958. *Memorie van Toelichting II*, at 54, quoted in *Ned. Staats.* 101, at 19.

176. Provincial government consists of the Queen's Commissioner (appointed by the central government), the provincial states (*Provinciale Staten*) and the deputed states (*Gedeputeerde Staten*). The Commissioner acts as chairperson of the provincial and deputed states. The provincial states represents the people in the province; members are elected directly. Though it was intended to be the higher authority, its task is mainly supervising and approving, as well as issuing ordinances. The board of deputed states, elected by the provincial states from among the members, normally takes the initiative for rulemaking. See Bergamin & van Maarseveen, *Constitutional and Administrative Law*, at 4 28-429 in *INTRODUCTION TO DUTCH LAW*, *supra* note 6.

177. LIW, art. 19.

178. LIW, art. 19, lid 4. If the provincial states suggest an instrument not envisioned by those making the initial request for land development, the deputed states must consult with those who sought the project. LIW, art. 19, lid 3.

179. If the Central Committee recommends either a different instrument, a different form of preparation, or different borders for an area than the one suggested by the provincial states, the provincial states must agree with the change. LIW, arts. 20, lid 3 and 21, lid 1.

180. LIW, art. 18, lid 4. The *Preparatory Outline Scheme* is sent to the boards of deputed states (the general elective of the provinces, elected from members of the provincial

land for development in a given year than is desirable or financially possible, priority is given to projects that reflect several main lines of policy and that have the potential to realize these policy goals using the minimum amount of resources.¹⁸¹

After an area is listed for the first time on the *Preparatory Outline Scheme*, the provincial deputed states in consultation with the Central Committee appoint members of the local land development committee, responsible in part for implementation of the project.¹⁸² Other individuals, including a secretary (who is an employee of the Government Service for Land and Water Use) and an employee from the office of Land Registry, are then assigned to assist the committee in its work.¹⁸³

B. The Preparatory Phase

Placing an area on the *Preparatory Outline Scheme for Land Development* is not the final step in deciding to effectuate a land development project. Instead, the decision to proceed is made only after a time-consuming process of research, planning, evaluation, and public education. Indeed, this preparatory phase commonly lasts ten years or longer.¹⁸⁴

The *Landinrichtingswet* authorizes two types of preparation for land development: simplified and phased. The simplified method involves immediate preparation of a land development plan, which serves as the basis for a decision as well as the guide for implementing the project. Phased preparation requires first a rather general land development program, on which a decision whether to proceed is based, followed by a more specific plan, which guides eventual implementation.

Phased preparation is a new element in the 1985 law. It is designed to facilitate planning in areas where problems are complicated, and especially where nonagricultural functions are significant. Thus it is useful primarily in the process of redevelopment (*herinrichting*). Phased preparation is not intended to prolong the

states) in the various provinces and published in the *Nederlandse Staatscourant*. *Id.*, art. 22. See Bergamin and van Maarseveen *Constitutional and Administrative Law* at 428-429 in INTRODUCTION TO DUTCH LAW *supra* note 6.

181. Structuurschema, *supra* note 53, at 7.

182. LIW, art. 27. The work of the committee is regulated by the rules cited *supra* note 144. LIW, art. 32.

183. LIW, art. 30.

184. The average duration of preparation in the 1980s has been 10 years; during the 1970s, 8 years; and during the 1960s, 6 years. Barlagen, *Boeren*, *supra* note 14, at 325.

initial stages of land development,¹⁸⁵ but instead to allow more comprehensive and coordinated planning. This is important in situations where agriculture and other functions must coexist, particularly in regions where physical planning policies are abstract or overly general.¹⁸⁶ The land development project must be coordinated with the functions assigned to various parts of the area in the regional physical plan. When that regional plan is clear (that is, when it is specific enough to indicate what direction land development must take), the land development plan can be prepared immediately. When the regional plan is not clear and definite, the land development program is useful as an intermediate step and vehicle for discussion.¹⁸⁷

In situations where an optimal land development plan can be achieved without the intermediate program, simplified preparation is appropriate. Most areas where *ruilverkaveling* is the instrument for land development will use simplified preparation with its detailed land development plan. This is appropriate because the decision to proceed with *ruilverkaveling* is based on a vote of landowners and users, taken after they have been informed about the proposed project either through a plan or a program.¹⁸⁸ The rather abstract nature of the program is not likely to provide enough clear information about the details of the project to permit a meaningful vote.¹⁸⁹ Indeed, some believe that the phased preparation should never be used for *ruilverkaveling*, but only for *herinrichting*.¹⁹⁰

In practice, the majority of land development projects will use simplified preparation. For example, only a few of the projects in preparation during 1985 (six of fifty-nine projects) were scheduled for phased preparation.¹⁹¹ All six of these phased projects involve *herinrichting*.

When simplified preparation is used for a project,¹⁹² the land de-

185. Mentink, *Ontwikkelingen in de planvorming voor landinrichtingsprojecten*, 24 CULTUURTECHNISCH TIJDSCHRIFT 289, 295 (1985).

186. LANDINRICHTINGSDIENST, JAARVERSLAG 1985, *supra* note 51, at 16-17.

187. Interview with A.M. Burger, Landinrichtingsdienst, 7 January 1987.

188. LIW, arts. 62-69. See *infra* text accompanying notes 220-28.

189. LANDINRICHTINGSDIENST, JAARVERSLAG 1985, *supra* note 51, at 17.

190. E.g., Barlagen, *Boeren*, *supra* note 14, at 325.

191. Ministerie van Landbouw en Visserij, Besluit, 8 Oktober 1985, No. J. 5025, Bijlage, included in Landinrichtingsdienst, Landinrichtingswet (handbook for employees), Pt. iv, at 74-78.

Legislative history also suggests that the simplified procedure should be the normal method of preparation in land development. See Gonggrijp-van Mourik, *De Landinrichtingswet, een produkt van overtrokken planning*, 45 AGRARISCH RECHT 517, 527 (1985).

192. The ensuing discussion about the plan will focus on the simplified process, which is the most frequently used as well as the most relevant for agriculture.

velopment plan is established by the deputed states of the province in which the area lies, after consultation with the Central Land Development Committee.¹⁹³ In addition, the plan must be examined in light of its consistency with the physical planning policy of the province.¹⁹⁴ This rather straight-forward statement, however, obscures the complicated and lengthy procedures involved in establishing the plan.

1. *Preparing the Plan*

A draft of the plan is actually prepared by the local land development committee. The plan must contain both the facts needed for informed decisionmaking¹⁹⁵ and the detailed provisions necessary for execution of the plan.¹⁹⁶ The former includes information about the existing situation, spatial development, and reasons for land development in the region; expected effects of the project on the economic situation, conditions for living and working, and the environment; and the expected financial contributions of public bodies responsible for parts of the infrastructural work.¹⁹⁷ The latter include specific details concerning the borders of the area (with information about the areas where reallocation of land will occur); the infrastructure elements to be developed and their location; an identification of lands destined for protection as natural areas; the plans for withdrawing lands from agriculture for nature, recreation, or other public uses; and an accurate estimate of the costs of the project.¹⁹⁸

The local committee bases its draft plan on extensive research.

In the phased preparation, the land development program is normally established by the provincial states, LIW, art. 42, unless that power is transferred to the deputed states, *id.*, art. 45. The program is established after the draft is tested against the main points of provincial physical planning policy, as expressed in a regional plan (*streekplan*) or other provincial decision. The information required in the program, *id.*, arts. 35 and 36, is less detailed than that required in the plan; the program forms the foundation for the plan. *Id.*, art. 73, lid 2.

Procedures for establishing the plan are similar to those for the simplified procedure and are regulated by many of the same statutory articles.

193. LIW, art. 81. The decision to establish the plan must be accompanied by reasons. *Id.*, art. 83, lid 1. When the deputed states deviate from the advice of the Central Committee, that decision must be reported to the Minister of Agriculture, and there is an opportunity for the government to reverse the decision of the deputed states. *Id.*, art. 82.

194. LIW, art. 88, lid b (providing substitute language for art. 81, lid 1, for projects with simplified preparation). In phased preparation, this coordination takes place in connection with the program.

195. In the phased preparation, these are included in the program, on which the decision whether to proceed is based. LIW, art. 35.

196. On the contents of the plan, see LIW, arts. 74 and 75.

197. LIW, art. 87, lid 3 & lid 4.

198. LIW, art. 75. See also A. CRIJNS, REGULATIVE PHASE, *supra* note 15, at 12-13.

Early in its work, the committee usually requests a number of sector recommendations. These documents are to provide information about the existing situation and difficulties concerning agricultural structure, nature and landscape protection, landscape building, and outdoor recreation.¹⁹⁹ In addition, the documents are to inform the local committee of the wishes of the relevant sectors for the land development project. These wishes must be considered as the plan is formalized.²⁰⁰

An essential part of plan formulation is evaluation, designed to determine in advance of a decision to proceed whether the relationship between costs and effects in a proposed land development project is reasonable.²⁰¹ Since 1982, even before adoption of the *Landinrichtingswet*, every land development project in preparation has been evaluated, a process that serves both as a method of accounting for the use of public funds and, perhaps more importantly, as a tool for project planning.²⁰²

The *Landinrichtingswet* now specifically requires evaluation as part of either the program²⁰³ or the plan.²⁰⁴ This evaluation is to describe the expected consequences of land development measures for the economic situation, including work opportunities, living and working circumstances, nature and landscape, and the condition of water, soil, and air.²⁰⁵ Beginning early in each land development project, evaluation of these effects is carried out at several stages, according to a system called the "HELP-method."²⁰⁶ The evalua-

199. The sector recommendations (*deeladviezen*) are required by art. 26 of the *Regeling werkwijze*, *supra* note 144. For phased preparation, they are required prior to preparation of the land development program. *Id.*, art. 22.

200. One of the initial stages of plan formulation is the *schetsontwerp*, specified in the *Regeling werkwijze*, *supra* note 144, art. 26. This document usually contains a clarification of the spatial development, a description of the main points of the *deeladviezen*, an analysis of the wishes expressed in those recommendation documents, alternative schemes for improving the land development in the area, and a summary evaluation of those alternatives. This *schetsontwerp* forms a foundation for preparation of the draft of the plan.

201. See H. BOSMA, EVALUATION IN ADVANCE, *supra* note 57, at 1. For comprehensive information, see H. BOSMA, KOSTEN EN EFFECTEN, *supra* note 47; Bosma, *The Evaluation in Advance of the Effects and Costs of Land Consolidation Projects in the Netherlands*, PROCEEDINGS OF THE EIGHTH SYMPOSIUM OF THE EUROPEAN ASSOCIATION OF AGRICULTURAL ECONOMICS 293 (ed. F. Lechi)(1985).

202. H. BOSMA, KOSTEN EN EFFECTEN, *supra* note 47, at 213.

203. LIW, art. 35, lid 1/b/6.

204. LIW, art. 87, lid 3/b.

205. LIW, arts. 35, lid 1/b/6 and 87, lid 3/b.

206. H. BOSMA, KOSTEN EN EFFECTEN, *supra* note 47, at 212. Even earlier, under the multi-year planning that began in the late 1950s, projects were evaluated and selected on the basis of the relation between the amount invested in agricultural improvement and the expected returns to agriculture from the project.

The HELP-method is specified as the means for evaluation in the *Regeling werkwijze*,

tion process involves objective determination of the probable effects (over a thirty-year period) of a number of alternative land development designs, in comparison with the probable development of the area without land development.²⁰⁷

The evaluation considers four types of effects (economic, social, nature, and landscape), but leaves the weighing of the various effects to decisionmakers. Economic effects primarily concern agriculture;²⁰⁸ these include benefits from better parcelling and improved water management, as well as benefits from modernization accomplished by farmers themselves.²⁰⁹ In addition, the reduction in working hours on the farm as the result of land development is a significant social effect.²¹⁰ An important component of the evaluation is calculation of an internal rate of return (a cost-benefit ratio) of investments on behalf of agriculture. Projects with a rate of return lower than ten percent can only be accepted if noneconomic effects expected from the project are particularly significant.²¹¹

The result of the complicated and time-consuming process of evaluation is a report that explains the various effects of the proposed project and their national importance, and states the expected internal rate of return for agriculture. A summary of this evaluation report appears in the plan. The plan also states the expected annual benefit (in guilders per hectare) for livestock and grain farms, as well as the expected annual cost to owners for each hectare of agricultural land benefitted by the project.²¹²

Evaluation accompanies the various stages in preparation of the land development plan.²¹³ Moreover, the expected consequences of

supra note 144, art. 27, lid 2.

207. H. BOSMA, EVALUATION IN ADVANCE, *supra* note 57, Annex 4. The number of alternatives decreases as the plans for the proposed project become more specific.

208. H. BOSMA, KOSTEN EN EFFECTEN, *supra* note 47, at 214. Also, economic effects include changes in maintenance costs for roads and watercourses.

For further discussion about other effects, see H. BOSMA, EVALUATION IN ADVANCE, *supra* note 57, at 5-8. See also Jonkers, *Evaluatie van landinrichtingsprojecten; methodiek en toepassing*, 24 CULTUURTECHNISCH TIJDSCHRIFT 265 (1985).

209. H. BOSMA, EVALUATION IN ADVANCE, *supra* note 57, at 4-5.

210. H. BOSMA, EVALUATION IN ADVANCE, *supra* note 57, at 6.

211. H. BOSMA, KOSTEN EN EFFECTEN, *supra* note 47, at 216. Projects with an internal rate of return for agriculture lower than five percent can never be accepted. *Id.*

212. E.g., LANDINRICHTINGSDIENST, RUILVERKAVELING WIERINGEN, ONTWERP-PLAN, at 60 (1986). In this project, expected benefits for livestock farms are about 663 guilders/hectare/year (761 without the *superheffing* [milk production levy]); for grain farms, about 400 guilders/hectare/year. Costs are expected to be about 47 guilders/hectare/year, plus an additional 88 guilders/hectare/year connected with parcel improvement and farm building.

213. Although evaluation after completion of land development projects would seem useful, in part for comparing with the initial evaluations, many years (at least 15) elapse between the evaluation performed in planning and the completion of the project. Thus, cir-

the project are an important factor in the decision whether to proceed with land development.

2. *Establishing the Plan*

Before the plan is finally established and the decision for or against land development is made, several opportunities for public comment are available. When the preliminary draft is completed, the local committee must give notice in the geographic area of the proposed project and provide three months for inspection of the draft, comment, and informational meetings and discussions.²¹⁴ The committee then prepares a report that considers the views and comments expressed and explains any resulting changes in the draft plan.²¹⁵ The Central Committee then has an opportunity to consider the document in light of national policy and financial consequences, before establishing it, perhaps with amendments, as a draft and sending it to the relevant provincial deputed states.²¹⁶

Another opportunity for public comment, this time for a month, is required. In finally establishing the plan, the deputed states must consider any objections served, as well as provincial spatial policy.²¹⁷ Even after the plan is established, however, another notice period is provided, and there is opportunity for owners and renters who had objected earlier to appeal to the Crown concerning some issues.²¹⁸

C. *The Decision to Proceed*

1. *Redevelopment*

An important distinction between *herinrichting* and *ruilverkaveling* concerns the decision to proceed with the land development project. For *herinrichting*, the decision is made by the provincial deputed states. At the time that body establishes the land

cumstances in the land development area have often changed, making a comparison difficult and less meaningful. H. BOSMA, KOSTEN EN EFFECTEN, *supra* note 47, at 219.

214. LIW, art. 77. The Central Committee can give further instructions concerning the comment period. *Id.*, lid 5.

215. LIW, art. 77, lid 3, 4.

216. LIW, arts. 78 & 79.

217. LIW, art. 80 (notice and opportunity to comment, within fourteen days after close of the one month notice period).

218. LIW, art. 83. Appeal to the Crown is not possible with regard to land destined for roads and watercourses, but only as to land set apart for other public purposes (for example, outdoor recreation or nature and landscape). The plan can be amended, pursuant to *id.*, arts. 84, 131.

development plan, it also makes the decision to carry out the redevelopment project.²¹⁹ Land owners and users affected by the decision have no opportunity to vote on the project.

2. Consolidation

The decisionmaking process is more complicated when the instrument of land development is *ruilverkaveling*. When the plan is established, the deputed states also decide that a vote will be held to reach a decision about consolidation.²²⁰ For simplified procedure, the vote is informed by the details contained in the land development plan; for phased procedure (not normally to be used for consolidation), by the program.

Those who vote on the project are both landowners and tenants. Thus, the local committee must prepare, open for inspection and objections, and establish a list of owners, as they are identified in the land registry office.²²¹ In addition, the committee prepares a list of eligible renters. These include renters of ground within the area who have valid written leases of at least six years' duration. To be eligible, tenants must register during a time period specified by the committee by submitting a copy of their lease agreement.²²² The committee sends both lists to the deputed states, which supervises the vote.²²³

Voting is regulated both by the *Landinrichtingswet* and by additional procedural rules authorized by the law.²²⁴ The deputed states establish a main voting office, possibly supported by an administrative office, as well as voting offices in the municipalities.²²⁵ At least three weeks before the vote, each registered owner and renter will be informed by registered letter.²²⁶

In the actual election, each owner or renter has a vote, which is relevant in two ways. First, the positive or negative vote itself is counted. In addition, each vote represents a quantity of the ground

219. LIW, art. 90.

220. LIW, art. 92.

221. LIW, art. 53. This article of the law prescribes procedures for notice and comment.

222. LIW, arts. 54 & 55. These articles and art. 56 give details concerning the qualifications for renters to vote and the notice required. Opportunity for appeal is available. *Id.*, arts. 58-60.

223. LIW, arts. 53, lid 4; 61.

224. LIW, arts. 62-69. Further procedural rules are authorized by article 65; these were established through a decree of 11 September 1985, Stb. 1985, 525 [hereinafter cited as *Besluit*].

225. LIW, art. 64; *Besluit*, *supra* note 224, arts. 2 & 3.

226. LIW, art. 62.

in the proposed project. For land that is not rented, the owner's vote represents the entire number of hectares. For rented land, however, the votes of owner and renter each normally represent half the surface.²²⁷ A decision to proceed with the *ruilverkaveling* results if there is an affirmative vote of *either* a majority (more than half) of the number of votes *or* a majority of the amount of ground surface represented in the election.²²⁸

After the decision for *ruilverkaveling* has been made, owners and users of ground in the area must avoid actions that will change the value of real property.²²⁹

V. THE EXECUTION OF THE LAND DEVELOPMENT PLAN

The establishment of the land development plan marks both the end of the preparatory phase of land development and the beginning of the execution of the project.²³⁰ This stage of land development is the primary responsibility of the local committee, which has both the power and the duty to carry out the project.²³¹ Although the Central Committee has some special tasks in the execution of land development projects, the local committee assumes full responsibility to plan and coordinate the project. Thus, the local committee must acquire any permits (for example, those required under local land use plans pursuant to physical planning regulation²³²) needed to carry out the land development work.²³³

In some instances, the local committee can delegate responsibility for carrying out some parts of the work to another public body, normally the agency that will ultimately be responsible for the management or maintenance of the facility constructed or improved through that work. This delegation of responsibility helps to ensure effective correlation with other activities of the relevant pub-

227. LIW, art. 66. This article gives rather detailed rules about the representation of the ground among the various parties, including holders of rights such as usufruct.

228. LIW, art. 66, lid 1.

229. LIW, art. 71. In addition, workers on farms that will be ended have an opportunity to receive a government financial contribution. *Id.*, art. 72.

230. LIW, art. 124, lid 1.

231. LIW, art. 124, lid 3. Only work included in the plan can be done by the local committee. Work can be carried out on land acquired by the local committee in temporary use (*tijdelijk gebruik*). LIW, arts. 126; 189, lid 3. On temporary use, see *infra* text accompanying notes 322-31.

232. See *supra* text accompanying notes 22-27.

233. LIW, art. 130; Regeling werkwijze, art. 33, *supra* note 144. The deputed states can intervene in this area, when necessary to facilitate progress for the land development project. See Wet op de Ruimtelijke Ordening, art. 37, Ned. Staats. 64 (1986).

lic body.²³⁴

To facilitate performance of the land development plan, the law gives the local committee access to ground in the region and specific authority to carry out activities on that ground.²³⁵ Thus representatives of the local committee can go onto land to make measurements and observations, plant or cut trees, and work with the soil. The committee has power to perform works connected with access, water management, layout of parcels, and building up of ground surface. With agreement of the Central Committee, the local committee can also order the destruction, moving, building, or rebuilding of structures. Before proceeding with these activities, however, the committee must make a description of the relevant real property, insofar as no such description was made during the first valuation.²³⁶

Owners and users of ground in the region must permit the authorized activities of the local committee to occur on their land.²³⁷ Sometimes, however, an owner or user will suffer detriment from the land development activities; for example, part of a crop may be lost, or trees or a building may be destroyed. Also, the owner may forego use of a strip of land, which may be taken for road improvement or other developments under provisions allowing temporary use (that is, use before ownership is officially transferred) of land within the region.²³⁸ When such losses or damages occur through land development activities, compensation must be paid, either through the provision of substitute land or in cash.²³⁹

The execution of the land development plan, supervised by the local committee, can involve complicated physical work, both in construction or improvement of roads and waterways as well as other infrastructural projects, and in preparation of land for redistribution. Thus, the performance phase of land development,

234. LIW, art. 125. Delegation requires permission of the deputed states, in agreement with the Central Committee. Carrying out of works must be done in accordance with applicable rules on public letting of bids. See *Regeling werkwijze*, arts. 35, 36, *supra* note 144.

235. LIW, art. 128, leden 1-3.

236. LIW, art. 128, lid 4. On the first valuation, *see infra* text accompanying notes 287-98.

237. LIW, art. 129, lid 1. Failure of cooperation results in the invocation of legal process with help of *de sterke arm* (the strong arm of the law). *Id.*, art. 9, lid 2.

238. LIW, arts. 126; 189, lid 3.

239. LIW, art. 129, lid 2. *See Vonk, Enkele aspecten van de uitvoering van landinrichtingsprojecten*, 16 *BEDRIJFSONTWIKKELING* 247, 248 (1985) [hereinafter cited as *uitvoering*]. Payment for the temporary use of small parcels often takes the form of an annual sum paid to the owner or user. Eventually, when land is reallocated, the landowners' rights are finally established.

though relatively simple in legal terms, can take as long as fifteen years.²⁴⁰

This rather lengthy process involves significant public and private components. The public aspects involve acquisition of land for public purposes and eventually the assignment of the land involved to public bodies or other legal entities for continued management and maintenance. The private aspects involve issues of valuation of land brought into the project, as well as the rights of owners and users to receive land in the reallocation process. For both public and private purposes, financial provisions are also relevant.

A. Facilities with a Public Purpose

1. Obtaining Ground for the Land Development Project

Because land development normally includes components other than the exchange of farmland, a successful project will require the local committee to obtain land for a number of agricultural and nonagricultural purposes. Sometimes this land is essential for the success of the project; in other instances, desirable elements of land development can be realized only if land is obtained, but will be omitted otherwise.

Public facilities constructed in the process of land development require part of this land. For example, the construction or improvement of roads, watercourses, and other infrastructural provisions will require a number of hectares. Planting of wooded areas, promotion of nature and landscape, and provision of outdoor recreation form components of land development, in a degree that varies with the nature of each individual project. Ground is also occasionally needed to establish nature reserves. In connection with the agricultural aspects of land development, some hectares may be needed to increase the size of farms, sometimes as an incentive to encourage farmers to move their entire operations to another location. In addition, the exchange of land parcels among owners will operate more smoothly if some additional land is available to make that exchange more flexible.

The *Landinrichtingswet* recognizes this need for land and provides several mechanisms for ensuring that in each land development project the necessary ground can be obtained. Both voluntary and involuntary transfers are available for this purpose.

240. Barlagen, *Boeren*, *supra* note 14, at 325. In the 1950s, performance took an average of 10 years; later the duration was 13-14 years, and now 15 years is expected.

a. Involuntary Transfers

As a general principle in land development, each owner of land within a block has the right to receive, in the reparcelling and allocation, land of the same type and agricultural value as the land that owner contributed to the project.²⁴¹ This general principle is modified, however, for the purpose of obtaining ground for public purposes related to the land development project.²⁴² The necessity for land for these public purposes should not unfairly affect only a few owners in the project. Thus, when land development is carried out in combination with reparcelling (*herverkaveling*), the law permits a reduction (or *korting*), in the value of land that each owner is entitled to receive in the reallocation.²⁴³

This reduction, applied on a block by block basis, affects the rights of all owners²⁴⁴ within the block. It is expressed as a percentage that compares the total value of land needed for specific public purposes to the total value of land brought into the project. Owners receive compensation for this reduction, often in the form of a deduction from the costs otherwise assessed in connection with the land development.²⁴⁵

The permissible maximum percentage for the *korting* and the purposes for which the *korting* may be used depend on the type of land development project. For *ruilverkaveling*, a maximum reduction of five percent is permitted. The land obtained through this reduction may be used for the development or improvement of roads and watercourses and their related structures. In addition, the *korting* may be used to obtain ground important for outdoor recreation, nature and landscape values, and other public purposes.²⁴⁶

241. LIW, art. 139. It is possible, however, that an owner may not receive precisely the same value of land to which he is entitled. This can occur, for example, if small parcels of land cannot be fit well into the reallocation plan, perhaps because of the arrangement of roads or watercourses. Article 144 of the *Landinrichtingswet* therefore provides that the reallocation can deviate up to 5 % from the value to which the owner is entitled, even against the wishes of the owner. LIW, art. 144. This deviation is settled with the owner in money. *Id.*, art. 145.

242. The general principle is sometimes modified for other reasons. For example, an owner who would receive a parcel too small to be exploited and who has no reasonable interest in owning such a parcel may be paid money instead of receiving land. LIW, art. 146, lid 2.

243. LIW, arts. 141, 142, 143.

244. It applies to the rights of renters also.

245. On costs of land development and their allocation, see *infra* text accompanying notes 371-89.

246. LIW, art. 142. The *korting* permissible for *aanpassingsinrichting* may be used for similarly broad public purposes, but is limited to a maximum of three percent. LIW, art.

For *herinrichting*, the permissible reduction is limited to three percent. The ground obtained through this reduction may be used to construct or improve public roads and watercourses and for provisions related to these roads or watercourses.²⁴⁷ The *korting* cannot be used to obtain land for other public purposes, as it is in *ruilverkaveling*.

In land development projects involving *herinrichting*, however, other public purposes can be achieved by using compulsory purchase (*onteigening*),²⁴⁸ if the required ground cannot be obtained through voluntary sale. Compulsory purchase can take place with regard to real property, easements, and other property rights needed for realization of the *herinrichting* plan. Under this complex procedure, land is taken in the name of the state, on the basis of a government decision.²⁴⁹ Owners whose land is taken through this process, which is similar in purpose and effect to eminent domain, have no right to receive other land in the land development block in exchange, but instead receive monetary compensation. Compulsory purchase affects only the owners whose land is taken; there is no reduction in the right of other owners to receive land in the reallocation process.

b. Voluntary Transfers

Although the *korting* described above is a legal method of obtaining land needed for certain public facilities constructed during land development, it is generally perceived that this reduction should be used only when necessary; every effort should be made to let active farmers keep the maximum amount of land.²⁵⁰ Thus, it is desirable for most of the land needed for land development to be

143. (Article 143 does not refer to the broad category of "other purposes of public benefit" found in art. 142, lid 1/c.)

247. LIW, art. 141.

248. See *Onteigeningswet*, Ned. Staats. 24 (1981). LIW, art. 233 amends articles 122 and 123 of the *Onteigeningswet*, with particular regard to *herinrichting*.

Compulsory purchase is available for purposes other than land development. Often it is used as a component of physical planning, in which land is taken in conjunction with land-use designations specified in a *bestemmingsplan*. Indeed, the goals of land development can sometimes be achieved with the use of land taken by compulsory purchase on the basis of a *bestemmingsplan*.

249. LIW, art. 233, amending *Onteigeningswet*, art. 122. After the land development plan is established, the deputed states name a committee to prepare the compulsory purchase in a process involving opportunity for public participation. The government decision follows this process. Then there is an effort to purchase the necessary land amicably; if that effort fails, a legal procedure is available. See LANDINRICHTINGSDIENST, DE LANDINRICHTINGSWET, *supra* note 50, at 27.

250. Interview with A.M. Burger, Landinrichtingsdienst, 7 January 1987.

obtained through voluntary sale. Purchase of this land is the task of the Bureau for Agricultural Land Management (*Bureau Beheer Landbouwgronden*).²⁵¹

The land development plan normally specifies the amount of land necessary, the purposes for which it will be used, and the means of obtaining the ground. The plan includes a goal (*taakstelling*) for land to be obtained by the Bureau;²⁵² the goal is established on the basis of need for land and the realistic possibility of obtaining it, in light of mobility in the land market. For projects in preparation, this goal for purchase by the Bureau amounts to about six percent of the ground surface in the project.²⁵³

Although each specific land development plan establishes a goal for land acquisition within the region of the plan, the process of land acquisition may begin as soon as an area is identified on the *Preparatory Outline Scheme for Land Development*.²⁵⁴ When an area is placed on the *Preparatory Outline Scheme*, it becomes an acquisition area for the Bureau.²⁵⁵ The *Landinrichtingswet* encourages voluntary sales of land to the Bureau by authorizing payment of a premium above the normal purchase price.²⁵⁶ This provision is implemented by a Ministry of Agriculture and Fisheries decision establishing the conditions under which a premium can be paid in

251. This agency is sometimes also referred to as the Office for Land Management. It is a subdivision of the Ministry of Agriculture and Fisheries. The *Commissie Beheer Landbouwgronden* (Central Committee for Land Management), composed of sixteen representatives of ministries and organizations, makes policy decisions. The *Directie Beheer Landbouwgronden* (Government Service for Land Management) carries out these decisions; the Bureau for Agricultural Land Management is the legal entity with juridical responsibility for execution of decisions.

The Bureau is the agency that buys land in the name of the government for various goals. These include the performance of land development projects, landscape development, construction of woods, development of buffer zones between cities, creation of nature reserves, development of recreation areas. Land is normally managed temporarily by the Bureau, and then conveyed to its future owner.

252. There are a number of ways for the Bureau to obtain land. These include purchase of land on the open market; use of rules for ending farm businesses (purchase of land plus payment of an additional sum related to termination of the business) pursuant to the *Ontwikkelings- en Saneringsfonds* for agriculture; redemption of allocation rights in a land development project (*see below*), and purchase of farms that are relocated to an IJsselmeerpolder. LANDINRICHTINGSDIENST, DE LANDINRICHTINGSWET, *supra* note 50, at 39.

253. BUREAU BEHEER LANDBOUWGRONDEN, JAARVERSLAG 1985, at 18 (1986).

254. *See supra* text accompanying notes 175-83.

255. BUREAU BEHEER LANDBOUWGRONDEN, JAARVERSLAG 1985, at 18 (1986).

256. LIW, art.11, lid 1. When the land development project uses the mechanism of *aanpassingsinrichting*, which always involves an area not included on the *Preparatory Outline Scheme*, the premium is possible after the proposal (*voorstel*) for readaptation is complete. In *herinrichting* projects that do not involve re-parcelling, the premium is possible for a specific period after the decision to proceed with the project is made. *Id.*, lid 2.

connection with purchase of potential allocation rights.²⁵⁷

A similar mechanism exists to facilitate sales of land to the Bureau after the decision for land development has been made. An owner with ground in the land development block who offers to sell his reallocation rights within a specified time period will receive the actual value of the realty, as well as a premium.²⁵⁸ The premium, a kind of incentive for ending the farm business, is available to the owner who fulfills conditions that focus on the amount of land sold, the future use of farm buildings, and the cessation of the agricultural business.²⁵⁹ Renters are also eligible to receive payment for renunciation of potential or actual allocation rights.²⁶⁰

The Bureau is responsible for the financial management of land purchased within land development areas. For new land development projects, the Bureau also assumes responsibility for the physical management of ground that is not immediately needed by the local committee for the project.²⁶¹ Eventually, however, ground under Bureau management is conveyed to its ultimate owners, for example farmers, municipalities, and other organizations responsible for public facilities.²⁶²

2. The Delimitation Plan

The final stage in the often-lengthy construction of facilities for public purposes in land development areas is the establishment of the delimitation plan (*begrenzingenplan*) and the finalization of the related provisions for ownership, management, and maintenance of public facilities. The delimitation plan is the official administrative-

257. Ministerie van Landbouw en Visserij, Besluit No. J. 6370 (28 oktober 1985). The premium, calculated as a multiple of the rental value of the land and dependent in part on the age of the farmer, is contingent on a number of conditions. These include the sale of all (or essentially all) the owner's land, the cessation of farming, and withdrawal of buildings from farm use.

258. LIW, art. 146, lid 3. The offer must be submitted to the local land development committee within a time established by the Minister of Agriculture and Fisheries at the suggestion of the Central Committee.

259. Ministerie van Landbouw en Visserij, Besluit No. J. 6374 (29 oktober 1985) (Regeling afkoop toedelingsrechten 1985). The maximum premium, for areas where land purchase is especially crucial, is fifteen times the rental value. Other premiums are six or ten times the rental value. Reductions occur for ground users who have reached age 65.

260. LIW, arts. 11, lid 1; 150, lid 2; 146, lid 3. See also LIW, arts. 50, 72, and 118, concerning government payments to employees on farms that terminate operation through the application of articles 11 or 146 of the Landinrichtingswet. The displaced worker is eligible for payment for loss of wages and moving costs. See Ministerie van Landbouw en Visserij, Besluit No. J. 6256 (8 oktober 1985) (Regeling bijdragen werknemers in landinrichtingsgebieden).

261. BUREAU BEHEER LANDBOUWGRONDEN, JAARVERSLAG 1985, at 18 (1986).

262. *Id.*, at 19, 22-23. The possibility exists for the Bureau to rent the land.

cadastral document that describes the situation within the block concerning roads, watercourses, and other public areas.²⁶³

The delimitation plan serves three purposes. First, it distinguishes between two broad categories of ground within the project area: land that will be allocated in the plan of reallocation to owners and renters, and land with facilities of a public nature that will be therefore assigned instead to public bodies and other legal entities. Thus, because it identifies land that will not be available for reallocation to individuals, the delimitation plan must precede the reallocation plan. Second, it serves as the legal basis for allocation of land to the relevant public bodies. Finally, it is the foundation for ascertaining the public nature of roads and watercourses. Roads and watercourses that appear on the established delimitation plan are public; those that are not designated as public in the plan are not public ways.²⁶⁴

The delimitation plan is established pursuant to the procedure specified in the *Landinrichtingswet*.²⁶⁵ The local land development committee develops and sends to the Central Committee a draft plan, including maps of public roads, waterways, and related structures, as well as natural areas and other public provisions. The Central Committee sends the draft to the deputed states with a suggestion to establish the delimitation plan. The deputed states establish the plan and give notice to the Central Committee, local committee, and other public bodies.²⁶⁶ The decision to establish the plan also dictates the public nature of the ways identified in the plan.

Closely related to establishment of the delimitation plan are provisions for future responsibility for the public facilities identified in the plan. Along with the draft delimitation plan, the Central Committee sends to the deputed states proposals for regulation of ownership, management, and maintenance of public ways and related facilities and for allocation of ownership of natural, landscape, rec-

263. A. CRIJNS, REGULATIVE PHASE, *supra* note 15, at 14.

Pursuant to article 84, lid 1 of the *Landinrichtingswet*, the land development plan itself can be modified up until the *begrenzingenplan* is established. If no delimitation plan is needed, the land development plan can be amended until the plan of allocation is approved by the Central Committee. LIW, art. 84, lid 7.

264. LANDINRICHTINGSDIENST, DE LANDINRICHTINGSWET, *supra* note 50, at 31.

265. LIW, art. 131. The procedure is streamlined because the delimitation plan is based on the land development plan; during establishment of the latter plan, opportunity for objection and appeal existed.

266. LIW, art. 131, lid 3. See also art. 47, lid 1, concerning requirements for public notice.

reational and other resources.²⁶⁷ The deputed states make a decision about future ownership and management of these facilities.²⁶⁸ Roads, watercourses, and related facilities will normally be the responsibility of a public body, though under special circumstances these facilities can be assigned to a different legal entity.²⁶⁹ The deputed states will consult with the relevant public body or other legal entities concerning the future responsibility;²⁷⁰ a legal entity must normally be given the opportunity to agree to assume the responsibility unless it had control of the facility before the land development process.²⁷¹ Nature, recreation, and similar facilities will be assigned to the kingdom or, with permission of the Minister of Agriculture and Fisheries, to another public body or to a legal entity (if that entity agrees).²⁷² Results of the decision of the deputed states are made public, and appeal is possible.²⁷³

The decisions made by the deputed states about ownership are incorporated into the deed of reallocation prepared by the local committee.²⁷⁴ The transfer of the deed in the public records results in the change of ownership.²⁷⁵

B. Privately-Owned Land

Owners and renters of land within the land development block have rights and responsibilities in connection with execution of the project. In addition to their obligation to permit designated activities on their land, individuals will have their property valued and eventually will receive (subject to rules concerning the *korting* and compulsory purchase) property of equivalent agricultural value in the reallocation process. Renters, too, have rights in the reallocation process. Even before final reallocation and change in ownership,

267. LIW, art. 131, lid 4.

268. LIW, arts. 133, 137. The decision must be made within six months of the proposal.

269. LIW, arts. 133, lid 1; 133, lid 2. Generally these are assigned without financial compensation. LIW, art. 133, lid 5.

270. LIW, art. 133, lid 3.

271. LIW, art. 133, lid 4. Assignment or withdrawal of responsibility to or from the kingdom requires agreement of the relevant minister, unless the kingdom had similar responsibility before the land development project. *Id.*, art. 134, lid 1.

272. LIW, art. 137.

273. LIW, art. 138.

274. LIW, art. 207, lid 1. The deputed states' assignments involving land outside the block are recorded in a separate deed. *Id.*, art. 138, lid 2.

275. LIW, art. 138, leden 3, 6. The timing of responsibility for management and maintenance of roads and waterways is regulated by section 135. After completion of works and approval by the Central Committee, management and maintenance is carried out by the body or entity specified in the deputed states' assignment pursuant to art. 133, lid 1.

however, some alteration in the pattern of land use will occur through the provisions permitting temporary use of land. And, during the lengthy execution phase of land development, improvements will be implemented on the farmland.

1. *Valuation: The First Appraisal*

a. The System of Valuation

Land development involves a process of land exchange, combined with improvement of access, water management, and parcelling. Because owners bring their land into the project and often receive different land in exchange, equitable treatment is essential. The *Landinrichtingswet* gives each owner the right to receive ground of the same type (that is, land with more or less the same agricultural value) as the land he brought into the project.²⁷⁶ In addition, land-owners are required to contribute to the cost of the land development process, in an amount related both to the benefits received from the project and to the increased value of land received through the plan of allotment.²⁷⁷ Thus the law prescribes a process of land valuation designed to establish the initial value of parcels in the development block, as well as the enhanced value of that land after redevelopment.

This valuation process occurs through two appraisals prescribed in the land development law.²⁷⁸ Though the main elements that constitute the appraisal are specified in the law, the details are worked out in the Central Land Development Committee's guide for appraisals.²⁷⁹ Instructions for valuation are essential so that the methods of appraisal will be consistent through the Netherlands.²⁸⁰

Closely connected with the valuation is ascertainment of the identity of those who have ownership or other claims to real property in the land development block. The local land development committee establishes a listing as complete as possible of these

276. LIW, art. 139.

277. LIW, arts. 221; 222, lid 4; 223. The state and other public bodies assume much of the cost of land development. See *infra* text accompanying notes 371-89.

278. LIW, arts. 162-166, 210.

279. Central Landinrichtingscommissie, Leidraad voor de eerste en tweede schatting volgens de Landinrichtingswet (1986) [hereinafter cited as Leidraad]. These rules are authorized through LIW, art. 32, which gives the Minister of Agriculture and Fisheries authority to establish operating procedures for the Land Development Commission. Article 41 of these operating procedures requires the Leidraad. Regeling werkwijze Landinrichtings Commissie, Stcrt. 1985, 217 (30 oktober 1985).

280. Interview with A.M. Burger, Landinrichtingsdienst, 7 January 1987.

claimants (called *rechthebbenden*).²⁸¹ The law provides a process for serving objections to the list, as well as for administrative and judicial appeals.²⁸²

The two-step process for appraisal of real property brought into the land development project is based on a system of land classification established by the Central Committee.²⁸³ The system prescribes a method for dividing the ground in the land development block into classes on the basis of its nature, characteristics, use, and condition, and for establishing an agrarian value (per hectare) for each class of land.²⁸⁴ The system also serves as a foundation for later determination of changes in land value as a result of land development.²⁸⁵ The local committee selects the appraisers (an uneven number, but at least three), who conduct both the first and second appraisals in accordance with the system of classification.²⁸⁶

b. The First Appraisal

In the first appraisal, the land is divided into classes, as prescribed by the system of classification, and the specifics with regard to the layout of the land are recorded.²⁸⁷ The first appraisal thus discerns the starting situation—what the farmers bring into the project. It is intended to define the agricultural production value of each parcel.²⁸⁸ This value, which might be considered the agricultural exchange value, serves as the foundation for later exchanges of land. It is not based on market price, which is influenced by factors other than agricultural productivity. Instead, the appraisal is intended to reveal each landowner's starting situation, as well as to ensure that in the reallocation each farmer will receive land with the same agricultural production value. Of course, the first appraisal also involves recording other information, including the situation of each parcel as regards access, water management, and other factors pertaining to the cultural situation of the ground, the

281. LIW, art. 161. See Dam, *Houwing*, *supra* note 46. Tenants receive special treatment. LIW, arts. 150-159. See *infra* text accompanying notes 299-321.

282. LIW, arts. 168-183. See generally Wennink, *De rechtsbescherming in de Landinrichtingswet*, 45 AGRARISCH RECHT 555 (1985).

283. LIW, art. 163.

284. LIW, art. 162, lid 2. The Leidraad states that value for the classes is determined by first judging the best and worst land and setting the value per hectare, and then establishing transitional categories between the best and the worst. Leidraad, *supra* note 279 at 8.

285. LIW, art. 162, lid 3.

286. LIW, arts. 164; 165; 210, lid 1.

287. LIW, art. 166.

288. Agricultural production value is voortbrengend vermogen. Leidraad, *supra* note 279, at 7.

facilities for drainage, and the presence of obstacles.²⁸⁹ These additional factors will be relevant in determining a farmer's benefit from improvements made during the land development project and from exchange of parcels.

Results of the first evaluation are recorded both in a register of appraisal results and on a map that indicates the borders of the various classes of land.²⁹⁰ These, together with the list of rightful claimants for the block of land in the project, are then laid open for public inspection.²⁹¹ Within fourteen days after the end of the inspection period, parties in interest may register objections against the list of rightful claimants and the results of the first appraisal.²⁹² If no objections are submitted, the lists are finally established.²⁹³ If objections have been filed, the local land development committee first attempts to settle these by reaching agreements.²⁹⁴ Failing agreement, an objection is treated first by a judge appointed for the land development project (*rechter-commissaris*),²⁹⁵ and if no settlement is reached, the matter is referred for judicial treatment to the court (*rechtbank*).²⁹⁶ Cassation to the highest court (*Hoge Raad*) is

289. Leidraad, *supra* note 279, at 12-14. The guide refers to objective and subjective factors concerning the land. The objective factors—access and water management—can be established regardless of the ownership and use situation. In contrast, the importance of the subjective factors—relating to the relationship of parcels, their form, size, and distance from the farmstead—depends on the owner or user of the ground. Both types of factors play a role in the second appraisal. The status of objective factors must be noted in the first appraisal, but the recording of subjective factors is not meaningful, because ownership changes during the land development process may alter these. Neither subjective nor objective factors form part of the agricultural exchange value. Leidraad, *supra* note 279, at 13-14.

290. LIW, art. 167.

291. LIW, art. 168. The inspection period lasts a month. Public notice, through the municipalities and through publication in at least two newspapers in the area of the block, is required. Parties in interest are to be notified by registered letter. After the public inspection, no further changes to the borders of the block are possible. LIW, art. 169.

292. LIW, art. 170.

293. LIW, art. 171.

294. LIW, art. 172. It is clear that most objections are handled successfully by the local committee. For all objection procedures for the period 1983-85, for example, there were an average of 3.2 objections per 100 hectares, and 11.1 objections per 100 owners. The local committee handled 82.4 percent of these objections; the *rechter-commissaris*, 11.1 percent; and the *rechtbank*, 6.5 percent. LANDINRICHTINGSDIENST, JAARVERSLAG 1985, *supra* note 51, at 107 (Tabel 13). In this same time period, 648 objections were served to the list of rightful claimants and valuation, 1784 to the plan of reallocation, and 387 to the list of financial arrangements. *Id.* (Tabel 14).

295. LIW, arts. 175, 176. The *rechter-commissaris* is a sitting judge of the *rechtbank*. One such judge is appointed to serve as *rechter-commissaris* for each land development project. If objections cannot be handled successfully by the local committee, the *rechter-commissaris* attempts to reach agreement between the parties. Only those problems that cannot be resolved are referred to the *rechtbank*.

296. LIW, arts. 179-181. Time limits are relatively strict. The *rechtbank*, for example, must make its decision within 30 days. *Id.*, art. 181.

possible from the *rechtbank* decision concerning the list of parties in interest, but the decision of the *rechtbank* on the appraisal is final.²⁹⁷ The *rechtbank* closes the list of parties in interest and the appraisal.²⁹⁸

2. *The Status of Renters*

Although much of the foregoing discussion of *landinrichting* has been expressed in terms of the rights of owners, renters of agricultural land, who enjoy protected status under Dutch law,²⁹⁹ also have specific rights in the land development project.³⁰⁰ Indeed, if the land-use situation within the block demands, the reallocation of parcels can be made on the basis of the needs of land users rather than land owners. Though this approach is rarely used,³⁰¹ its availability reflects the significant status of renters.

Like owners, renters have the right to receive an allocation of leased ground of the same value as the land that renter had leased at the time of the first valuation.³⁰² Insofar as possible, the land should be of the same quality and use category.³⁰³ This right to land does not apply if the land used by a renter has been taken through compulsory purchase.³⁰⁴ Moreover, the renter, like the owner, is subject to the reduction in value (*korting*) permitted to supply land for public uses;³⁰⁵ the renter can also offer to surrender potential or actual rights of reallocation and receive a premium.³⁰⁶

The renter's claim for land exists only if the tenant is registered, a process that occurs when a copy of the rental agreement is submitted within a specified time period to the local committee, which

297. With regard to the appraisal, only cassation "in the interest of the law" is possible. LIW, art. 186. In this procedure, the parties do not appeal to the *Hoge Raad*. Instead, a public ministry brings the appeal to determine the highest court's interpretation of the law. The proceeding is thus purely juridical; that is, the rights of the parties will not be affected.

298. LIW, arts. 183, 185.

299. See *Pachtwet*, Ned. Staats. 123 (1985). Leases or agreements to modify leases must be in writing, and must be approved by the land tenure control board (*grondkamer*). *Id.*, art. 2. Maximum prices are set by the government. *Id.*, art. 3.

300. See text accompanying notes 222-23 *supra* and LIW, arts. 54-61, concerning the right of renters to vote on the issue of whether to proceed with *ruilverkaveling*.

301. Interview with A.M. Burger, Landinrichtingsdienst, 7 January 1987.

302. LIW, arts. 150, lid 1; 139, lid 1; 140.

303. LIW, arts. 150, lid 2; 148.

304. LIW, arts. 150, lid 2; 139, lid 2.

305. LIW, arts. 150, lid 2; 141-143. See also art. 144 (concerning possible deviation up to 5 percent in value to facilitate reallocation) and art. 146, lid 2 (concerning the non-allocation of extremely small parcels).

306. LIW, arts. 139, lid 2; 11; 146.

issues a proof of registration.³⁰⁷ Other parties to each lease agreement submitted for registration are notified and have the opportunity to object to registration. Moreover, parties whose leases are not in writing or approved, as required by the Dutch agricultural leasing law,³⁰⁸ are directed to consult the agricultural tenancy division of the lowest court (*pachtkamer van het kantongerecht*) or the land tenure control board (*grondkamer*),³⁰⁹ which must give immediate consideration to leases connected with a land development project.³¹⁰ The local land development committee will not give further consideration to renters who do not fulfill these requirements and whose agreements thus do not comply with the law.³¹¹

The reorganization of land ownership that occurs through the plan of allotment often disrupts the established pattern of landlord-tenant relationships. Some tenancies will be maintained under the new arrangement, but other leases will be given up, and new relationships must be entered.³¹²

The *Landinrichtingswet* prescribes that the local committee should maintain existing tenancy relationships to the extent possible.³¹³ Nonetheless, even between existing landlords and tenants new lease agreements may be required, in light of the changed land ownership patterns. In this case, within thirty days after establishment of the plan of allotment, parties to existing relationships must send new agreements to the land tenure control board for ap-

307. LIW, art. 151, leden 1 & 5. Sending the agreement for registration must occur within 30 days after a time set and published by the local committee, art. 151, leden 2 & 4; agreements entered after that deadline must be submitted within 30 days after approval and before a final deadline established by the committee, art. 151, lid 3.

308. Pachtwet, art. 2, leden 1 & 2, Ned. Staats. 123 (1985).

309. On the *grondkamer*, see Pachtwet arts. 72-114; on the *pachtkamer*, see *id.*, arts. 115-154.

In each province there is a *grondkamer* (land tenure control board) with jurisdiction over the land in that province. *Besluit van 20 maart 1958*, no. 21, *Stcr. No. 65*, art. 1 (printed in *Ned Staats. 123* (1985)). Each *grondkamer* consists of a chair and at least four, but not more than twelve, members, Pachtwet, art. 73, who serve 5-year renewable terms. *Id.*, art. 74, lid 2. The *grondkamer* handles the approval of rental agreements and of agreements to modify or terminate leases. *Id.*, art. 88. Appeal to the *centrale grondkamer*, located in Arnhem, is possible. *Id.*, arts. 81, 107.

A *pachtkamer* (agricultural tenancy division) exists with every *kantongerecht* (local court), and consists of the judge and two non-legal members who serve five-year renewable terms. *Id.*, arts. 115; 116, lid 3. The *pachtkamer* also enjoys powers concerning rental agreements. *Id.*, art. 128.

310. LIW, art. 152, lid 7.

311. LIW, art. 152, lid 6.

312. The local committee must send information concerning the status of the various rental agreements within the land development block to the *grondkamer*. LIW, art. 154.

313. LIW, art. 153, lid 1.

proval.³¹⁴ Normally the new leases will have the same termination date as the agreements they replace.³¹⁵

When the interests of land development dictate that existing relationships cannot be maintained, the local committee has the authority to cancel existing agreements and to establish new relationships, assigning to a landlord a tenant from among registered tenants within the land development block.³¹⁶ The committee determines the duration and renewability of these newly established relationships,³¹⁷ and the land tenure control board prepares draft leases for the signature of the parties.³¹⁸ The parties have the opportunity to make adjustments in some provisions of the agreement,³¹⁹ but eventually the owner must rent the land. If owner and renter do not agree, the land tenure control board has the authority to prepare an instrument, which has the effect of a properly entered and approved lease agreement.³²⁰

At the time the deed of reallocation is recorded, old lease relationships are terminated, and agreements entered in connection with land development become effective.³²¹

3. *Temporary Use*

The executory phase of land development is lengthy; it involves both the construction of works and facilities of a public nature and the preparation and exchange of privately-owned land. Only at the end of the process is the cadastral record of land ownership adjusted in light of activities and exchanges of land planned and carried out during the land development process. Thus, often during

314. LIW, art. 158, lid 1.

315. LIW, art. 158, lid 2. Farm leases in the Netherlands are often quite lengthy. Normally, the initial duration of a lease of land with buildings (a *hoeve*) is 12 years; the initial duration is 6 years for land without buildings. A longer duration, with a fixed termination date, is possible. Shorter durations can be approved only in special circumstances. *Pachtwet*, art. 12, *Ned. Staats.* 123 (1985). Each type of lease is renewed for 6 years, unless a party gives timely notice; the renter may appeal the notice to the *pachtkamer* and ask to renew the lease despite the owner's desire to terminate. *Id.*, art. 36. The *pachtkamer* is instructed to consider reasonableness (*billijkheid*), art. 38, but also has other guidelines for deciding whether to grant the petition to renew the lease. Arts. 38a-43.

316. LIW, arts. 153, lid 1; 150.

317. LIW, art. 153, lid 2. The committee must try to give both tenant and landlord the same rights regarding duration and renewability as they would have enjoyed in the cancelled agreements.

318. LIW, art. 155, lid 1.

319. LIW, art. 155, lid 3.

320. LIW, arts. 156, 157, lid 1. Appeal from this action of the *grondkamer* to the *centrale grondkamer* is possible. *Id.*, art. 157, leden 2 & 3.

321. LIW, art. 159. The step of recording is called *overschrijving*.

land development, it is necessary for ground to be available for use by an individual or an entity other than the recognized owner or user. For example, public works or facilities may need to be constructed on land that is not yet actually owned by the government, but that will eventually be assigned to government ownership and management.³²² Through special provisions for temporary use, land on which such facilities are to be constructed is taken out of its normal use, and the owner or user is compensated either with other land (to minimize disruption of the farm enterprise) or in money.³²³

In addition, the possibility for interim use of land within the block lets users benefit from improvements before land is transferred to its new owners.³²⁴ This may contribute to increased efficiency for agricultural facilities. For example, such a possibility is helpful in instances when whole farms are moved, and also to permit the immediate use of newly laid-out farmland parcels. The ability to obtain land for development near the beginning of the *landinrichting* execution also contributes to the early realization of provisions for maintenance of landscape and nature values.³²⁵

Provisions for temporary use included in the *Landinrichtingswet* are a more detailed application of a principle already included in the 1954 *Ruilverkavelingswet*: if the interests of land development demanded, land could be taken and exploited before final transfer of title.³²⁶ Under the *Landinrichtingswet*, temporary or interim use of land within the block (or a part of a block) may occur only pursuant to a formal plan of temporary use.³²⁷

The local committee drafts this plan and submits it to the Central Committee for approval, after which there is public notice and opportunity for objections.³²⁸ If no objections are served, or if the local committee can reach agreement with those who objected, the

322. See LIW, arts. 128; 189, lid 3. See also arts. 142, lid 1; 143, lid 1 (temporary use of land to be taken through the *korting* is possible).

323. LIW, art. 129, lid 2. See *Memorie van Antwoord Tweede Kamer*, at 102-103, printed in *Landinrichtingswet*, Ned. Staats. 101, at 129 (1985).

324. See A. CRIJNS, *REGULATIVE PHASE*, *supra* note 15, at 16.

325. *Memorie van Antwoord Tweede Kamer*, at 102-103, printed in Ned. Staats. 101, at 130 (1985).

326. *Ruilverkavelingswet*, art. 54, lid 4, Ned. Staats. 101-I (1984). The performance of work on public facilities during *landinrichting* differs in a crucial way from work done under ordinary circumstances by a municipality or water district. The local committee, unlike other entities, can take the necessary land on a temporary basis without first getting the legal rights to ownership or use. Vonk, *uitvoering*, *supra* note 239, at 248.

327. LIW, art. 189, lid 1. The rather formal nature of this plan of temporary use (*tijdelijk gebruik*) has caused some difficulties. Establishment of the plan is time-consuming, in light of the temporary nature of what is to be accomplished through the plan.

328. LIW, art. 190.

plan is established.³²⁹ Otherwise objections are resolved by the judge, who modifies the plan of temporary use as necessary and establishes it.³³⁰ The plan, as established, regulates the ability of the local committee to use land or assign its use to others before final recording of the deed of reallocation. Owners and users of land within the block must cooperate with the local committee's activities, as outlined in the plan of temporary use.³³¹

4. *The Plan of Reallocation*

The reallocation of parcels of farmland to achieve better agricultural efficiency is an important goal of land development. This rearrangement of land ownership and use is thus an essential part of *ruilverkaveling* and *herinrichting* projects. In *ruilverkaveling*, the whole area must be reallocated, whereas in *herinrichting*, it is possible that less than the whole area will be subject to reallocation.³³² Although the eventual reallocation is considered in the preparatory stages of the project, when research towards an effective reparing begins,³³³ establishment of the final plan is one of the last stages in the land development process.³³⁴ It can be designed only after the local committee has accurate information about the allocation rights of owners and users within the block, as well as certainty about the land actually available to satisfy these rights (that is, land not set aside for public facilities). The content of the plan is directed by guidelines established for each land development block

329. LIW, arts. 192, 193.

330. LIW, arts. 194, 175, 176. No appeal from the decision of the *rechter-commissaris* is possible. *Id.*, art. 194, lid 3.

331. LIW, arts. 189, lid 1; 129; 9.

332. See LIW, art. 14, lid 3. Reparcelling need not occur in the whole *herinrichting* region. Indeed, in theory, *herinrichting* does not always need to be combined with reparing. *Memorie van Toelichting Tweede Kamer*, at 52, printed in *Landinrichtingswet*, Ned. Staats. 101, at 15-16 (1985). It is quite unlikely, however, that *herinrichting* will occur without any reallocation; it is more likely that only part of the project area will be reallocated.

333. Preparation of the plan of reallocation is supported by computer research performed during the preparatory phase of the land development project. The area is divided into small blocks (30-100 hectares), and a programming method is applied, with the goal of minimizing the distances between lots of individual farms and the total number of lots. The program will also accept preferences for the location of lots and farms—for example, the amount of land to be located near the farmstead—and accommodate the preferences in degrees of priority. Following realization of the preferences, the program will optimize distances to lots and number of parcels. The program helps to indicate the possibilities and problems of the reallocation, but it does not actually identify the location of each owner's lots. See I. DE BOER, INTOVOL: INTERACTIVE REALLOTMENT RESEARCH IN THE PREPARATORY PHASE OF LAND CONSOLIDATION PROJECTS, (Landinrichtingsdienst, Informational Paper No. 9, 1986).

334. LIW, arts. 195-206.

by the Central Committee.³³⁵ The guidelines reflect the land use situation in the block, as well as the goals to be achieved and limitations to be observed in the process of reallocation.

The *Landinrichtingswet* establishes the most important requirements for the reallocation. As already indicated, landowners and users have the right (subject to statutory limitations) to receive land of the same agricultural use value as that contributed to the project.³³⁶ In addition, if the interests of the project are not thereby diverted, the land each party receives should be of the same quality and use category as the land contributed.³³⁷ The law also establishes minimal requirements for each new parcel. Each parcel must have access via a public road or waterway. In addition, insofar as necessary and possible, each parcel must have adequate drainage.³³⁸

The reparcelling, however, always is designed to realize a better situation than that obtained by merely meeting these minimal requirements. Higher standards, formulated as goals rather than rules, focus on the optimum arrangement for efficient farm operation. For example, an efficient dairy operation requires the majority of land to be located adjacent to the farmstead. Such favorable location is less essential for crop raising, but cost-effective operation still requires each farmer's land to be consolidated into the smallest possible number of separate parcels, efficiently shaped and located as close as possible to the farm buildings. Consolidation minimizes transportation expenses and the required time for labor.³³⁹ The importance of such consolidated holdings for effective land use sometimes means that in cases of conflict the needs of ground users for contiguous parcels may take priority over the wishes of land owners in reallocation.³⁴⁰

In the course of designing the plan of reallocation, not all land is actually exchanged. On average, perhaps forty percent of land changes ownership during *landinrichting*; the percentage varies from project to project and may range from thirty to fifty per-

335. LIW, art. 195 requires these guidelines. The local committee sends a proposal for the guidelines to the Central Committee, in accordance with the instructions from the Central Committee. *Regeling werkwijze Landinrichtingscommissie*, *supra* note 144, art. 47.

336. LIW, arts. 139, lid 1; 140.

337. LIW, art. 148.

338. LIW, art. 149.

339. On the various benefits to be achieved from land development, see T. TANIS, *BATEN VAN LANDINRICHTING*, *supra* note 45, at 1-7.

340. *Landinrichtingsdienst, Model Richtlijnen voor het opmaken van het plan van toedeling*, at 4 (no date).

cent.³⁴¹ Normally, land on which houses and buildings stand remains with the farm and is not exchanged.³⁴² In principle, all other agricultural land is available for exchange in the reparcelling process. As a practical matter, however, land with special use or geographic and other constraints normally remains with the original owner and user. This applies, for example, to woodlands or fruit-growing land because of its special use, and to particularly wet ground because of the reluctance of new owners to accept it. Land that has toxic environmental contaminants or harmful agricultural pests also cannot be exchanged readily.³⁴³

Another factor in the design of the plan is the desires of the landowners and users. After the Central Committee establishes guidelines, the local committee is required to hold one or more meetings at which landowners and users have the opportunity to state their wishes with respect to the plan of reallocation.³⁴⁴ These wishes help to form the basis of the plan. Inevitably, however, compromises must be made so that the most efficient use of farmland can be accomplished for the majority of owners and users.

a. Drafting and Approving the Plan

Following the guidelines provided by the Central Committee, the local committee is charged with formulating the plan, which identifies the new parcels, specifies the allocation of ground not already assigned to public bodies, and regulates taking possession of the new parcels.³⁴⁵ The actual design of the plan, however, is the responsibility of the land registry office (*kadaster*), which has access to detailed records concerning geographic and legal aspects of land ownership.³⁴⁶ The completed plan requires approval of the Central

341. Interview with A.M. Burger, Landinrichtingsdienst, 7 January 1987, supplemented by review of the manuscript.

342. See LIW, art. 10, leden 3 & 4 (permission of owner required for change regarding buildings unless this limitation interferes with the land development project). The possibility of moving whole farms exists, however. Art. 10, lid 1 places restrictions on changes in land use of cemeteries, and lid 2, of military lands.

343. Vonk, *uitvoering*, *supra* note 239, at 251.

344. LIW, art. 198. These meetings are called *wenszittingen*, that is, wish sessions; parties have the chance to state their first and second choice preferences for land they will receive.

345. LIW, art. 196, leden 1 & 2. Other items included are details about lease relationships and allocation rights of renters, as well as the situation with regard to other rights and burdens (for example, mortgages and assignments) connected with real property. *Id.*, arts. 196, lid 2; 160.

346. LANDINRICHTINGSDIENST, JAARVERSLAG 1985, *supra* note 51, at 39-40. The *Kadaster* works in agreement with the district engineer and a forestry and landscape consultant. *Regeling werkwijze*, *supra* note 144, art. 48. After agreement is reached, the draft plan

Committee.³⁴⁷

The plan of reallocation affects important property rights. Thus, like other significant documents in the land development process, the plan must be available for public inspection. For reasons of finality, the public notice and comment period can occur only after other decisions are realized: the list of rightful claimants must be established; the valuation results must be finalized; the delimitation plan must be established; all eligible leases must have been submitted; and the wish sessions must have been held.³⁴⁸ After the one-month inspection period, parties in interest have fourteen days in which to submit written objections.³⁴⁹ If no objections are served, the plan is established.³⁵⁰

Any objections submitted on time are handled first by the local committee, which tries to reach agreement with the party objecting, making changes to the plan as necessary in accordance with the agreement.³⁵¹ Other objections are sent to the judge (*rechter-commissaris*) and, failing resolution, to the *rechtbank*,³⁵² in a process similar to appeals from the establishment of the list of rightful claimants and the results of the first valuation.³⁵³ After its decisions, the *rechtbank* adjusts the plan as necessary and establishes the plan.³⁵⁴

is sent to the local committee for further work. Developments toward increasing computerization of this process are occurring.

The *Kadaster* also makes detailed maps for the land development block.

347. LIW, art. 199, lid 2.

348. LIW, art. 199, lid 1. The list of rightful claimants must be finalized except for the right of cassation to the *Hoge Raad*. If the high court decision makes changes in the plan necessary, those can be made. *Id.*, art. 203.

349. LIW, art. 200.

350. LIW, art. 201. Then the local committee makes a report, sent to the *rechter-commissaris* and the Central Committee.

351. LIW, arts. 202; 172, leden 2 & 3.

352. Relatively few appeals actually reach the court; normally parties are willing to compromise, and the local committee can resolve objections. *See supra* note 294. Moreover, social pressure sometimes prevents parties from pursuing objections that do not promote the common good. Interview with A.M. Burger, Landinrichtingsdienst, 7 January 1987.

353. LIW, art. 202, which refers to other articles. Cassation from the decision of the *rechtbank* is available only in the interest of the law.

A process exists for the simultaneous drawing up and public comment on the list of rightful claimants, the register of valuation results, and the plan of reallocation. The process must be authorized by the Central Committee at the suggestion of the local committee. *Id.*, art. 205, lid 1. In this situation, objections against the list and valuation will be heard first, *id.*, art. 205, lid 2; the plan must then be changed accordingly, followed by new notice and opportunity to object to the amended plan, *id.*, art. 206, leden 1 & 2. The new objections are then considered with the others submitted against the plan of reallocation. *Id.*, art. 206, lid 3. This simultaneous treatment can save time in the reparcelling procedure.

354. LIW, art. 202, lid e.

b. The Deed of Reallocation

The plan of reallocation establishes the land ownership and use situation that will prevail for privately-owned land at the conclusion of the land development project. The actual transfer of land ownership, however, is accomplished through the deed of allocation. This document, accompanied by a detailed map delineating the new situation within the land development block, incorporates the changes into the cadastral records.

The deed can be prepared only after assignment of public facilities to the appropriate bodies, establishment of the plan of reallocation, and finalization of the list of rightful claimants.³⁵⁵ The deed, signed by the *rechter-commissaris* and the president and secretary of the local committee,³⁵⁶ constitutes transfer of legal title to the rights described in the deed. Recording the deed in the public register vests title to the rights in their new owners.³⁵⁷ In addition, on the basis of the deed, the public records indicate that each registered mortgage or attachment will henceforth be transferred to the relevant owner's newly assigned land.³⁵⁸ After the deed is recorded, new owners and users go into possession of their land, if they have not received possession earlier.³⁵⁹

c. Preparation of New Parcels

When the plan of reallocation has been established, the arrangement of new lots within the land development block has also been determined. The structure of these new lots often differs significantly from the situation existing before the *landinrichting*. Thus, a considerable amount of work is sometimes required before the parcels are efficient, or even acceptable, for their new owners and users. This work is considered parcel lay-out work, and it involves both the measures necessary for the parcels to be acceptable and further measures intended to improve the lots for better productivity.

The first type of work, parcel acceptance measures, involves activities that will make the newly formed parcels comparable in sur-

355. LIW, art. 207, lid 1.

356. LIW, art. 208, lid 1.

357. LIW, art. 208, lid 2. New owners will receive detailed information about their new parcels. *Id.*, art. 208, lid 5.

358. LIW, art. 208, lid 3. *See also* art. 160, lid 3.

359. LIW, art. 209. Legal processes are available to ensure possession. *See also* art. 204.

face level and drainage with the parcels the new owners or users originally had; these measures make the land suitable for exchange. The work involved may include building of connecting dams, the filling of unnecessary canals, and the construction of new dividing lines for the parcels. In many cases, it is most efficient and least expensive if the new owners and users do this work themselves. In this way the farmer can time the work for minimum disruption with agricultural activities. The farmer's plan of work must be approved by the local commission, to qualify for the cost subsidy available.³⁶⁰

Additional measures for parcel improvement are designed to increase the productivity of the land and to supplement the measures essential for acceptability of the land. These measures (for example, parcel leveling or improvement of sod or drainage) are anticipated in the land development plan, but are optional for the owners. Each owner bears the majority of the cost of these further improvements on his land, and is responsible for getting the work done (personally or through a hired company or workers), again according to an approved plan.³⁶¹ In some situations, these optional improvements can add significantly to the increased income that the farmer can earn from the land.

5. *Valuation: The Second Appraisal*

A number of years may separate the first and second appraisals, because the second appraisal is designed to evaluate the situation regarding land value as it exists at the conclusion of the land development project, after improvements and exchanges of land have been completed. The second appraisal, carried out by the same appraisers, follows both the system of classification already established and further instructions provided by the Central Committee.³⁶² It determines the benefit that each owner received from the land development, and thus serves as the basis for distributing costs of the project over the various owners. To calculate this benefit (measured by increase in value), each owner's situation after improvements and reallocation is compared with his situation at the

360. The kingdom will pay 65 percent of the cost of parcel acceptance works (*kave-laanvaardingswerken*). See LANDINRICHTINGSDIENST, DE LANDINRICHTINGSWET, *supra* note 50, at 35. See also Vonk, *uitvoering*, *supra* note 239, at 250.

361. The subsidy is only 40 percent. LANDINRICHTINGSDIENST, DE LANDINRICHTINGSWET, *supra* note 50, at 35. The maximum contribution per hectare depends on the type of work involved. Vonk, *uitvoering*, *supra* note 239, at 250.

362. LIW, art. 210.

time of the first appraisal. An owner whose holdings show a large increase in value has received more benefit from the project than has an owner with only a small increase in value. And an owner cannot be assessed more than the actual increase in value of his real property.³⁶³

Changes in value of an owner's real property that are identified in the second appraisal have resulted as a consequence either of work performed during the project or of land exchanges occurring pursuant to the plan of allocation. Several main types of changes are involved.³⁶⁴ Among these are alterations in value of land as a result of changes in the objective (distance of parcels and buildings from paved roads and water management) and subjective (considerations of parcel size, shape, and distance) factors.³⁶⁵

The appraisal also considers value changes through performance of works to improve the ground and through changes connected with public roads and waterways. In addition, the second appraisal considers "settlement items" (*verrekenposten*): factors that are relevant when land is transferred from one owner to another. These include changes in agrarian value of the land that have not been considered in the first appraisal; the value of buildings, facilities, and vegetation; factors like the ground level and presence of drainage or high tension power lines; as well as the nonagricultural value of the ground.³⁶⁶

The settlement item concerned with changes in the agrarian value of the land focuses on either improvement or deterioration of the land that occurs after the decision for land development has been finalized.³⁶⁷ Owners who make improvements will not be compensated for these unless they are carried out with permission of the local committee. To avoid a situation in which farmers neglect or abuse land that will be allocated to another owner, the law provides that after a decision for land development is concluded, land owners and users are forbidden to carry out operations, or to omit operations demanded for normal management, that will change the

363. *Memorie van Toelichting*, at 70, cited in *Ned. Staats.* 101, at 141. *See also* LIW, art. 233, lid 1/b (restricting costs for owners to the value of improvements received).

364. *See* LIW, art. 210, lid 1; Leidraad, *supra* note 279, at 21-23.

365. Leidraad, *supra* note 279, at 21-22, 36-37.

366. Leidraad, *supra* note 279, at 21, 24. In theory, with regard to a specific parcel, the amounts received or paid by the outgoing owner should equal those paid or received by the new owner. But this is not always the case, and sometimes the difference is divided among all owners. *Id.* at 24.

367. *See* LIW, arts. 49 (*herinrichting*), 71 (*ruilverkaveling*), & 117 (*aanpassingsrichting*).

value of the property, unless they have permission of the local committee. An owner who causes deterioration must pay the new owner for the damage,³⁶⁸ and may also be subject to a fine.³⁶⁹

The financial obligations that result from land development will be calculated on the basis of data established during the second valuation.³⁷⁰

C. Costs of Land Development

1. Division of Expenses

The complicated nature of land development projects and the often-extensive work necessary for an effective rearrangement of the rural area mean that substantial costs will be incurred.³⁷¹ These costs are shared by the kingdom (that is, the state government), other public bodies, and owners of land within the land development block.³⁷²

In fact, the state government bears the majority of the costs: an average of sixty-five to seventy percent of the total project expenses. The government pays the costs of the Central Committee, the *Landinrichtingsdienst*, and the cadaster and registry services, as well as the expenses of meetings and public notice.³⁷³ It also pays compensation for relinquishment of reallocation rights.³⁷⁴ In addition, the government subsidizes many other aspects of land development at varying levels, ranging upwards from forty percent.³⁷⁵

Other public bodies—for example, municipalities and water boards—also contribute significantly to the expenses of land development. Costs connected with public roads and waterways, outdoor recreation, landscape, and other public provisions are generally

368. If the first owner is deemed innocent, the value decreases are added to total costs and divided proportionately among all landowners. Interview with A.M. Burger, *Landinrichtingsdienst*, 7 January 1987.

369. LIW, art. 231. The fine is a maximum of 10,000 guilders. The problem of abuse or neglect of land seldom occurs, because of strong social controls. Farmers are aware of the activities of their neighbors, and this awareness discourages inappropriate behavior. Interview with A.M. Burger, *Landinrichtingsdienst*, 7 January 1987.

370. See *infra*, text accompanying notes 390-92.

371. See *supra* note 212 and *infra* text accompanying notes 385-88 for statistics on expenses incurred for land development.

372. LIW, art. 221.

373. LIW, art. 222, lid 1.

374. LIW, arts. 122, lid 2; 146, lid 3. This payment is available to the extent that the sums are not included in the owner-to-owner settlement costs.

375. For example, the costs of moving farms, agricultural parcel improvement work, and farm access ways are subsidized at 40 percent; parcel acceptance work and costs of the local committee and valuation, at 65 percent. *Landinrichtingsdienst*, *Overzicht van subsidie percentages*, 4 December 1986.

shared with the state government by the body that will own or manage the facility. Costs are assessed against these public bodies to the extent that the bodies obligated themselves to bear financial responsibility in connection with the land development program, plan, or in another agreement.³⁷⁶

Individual owners bear the remainder of expenses to the extent that those expenses are not subsidized by the government. Subsidies, however, mean that the owners are unlikely to bear more than ten to fifteen percent of the total project costs. Expenses borne by owners are of two types: those assessed against individual owners and those assessed against the owners collectively.

Individual owners pay the unsubsidized costs of measures relating directly to their parcels, rather than to the project as a whole. These costs involve items like planting of windbreaks, farm relocation, parcel improvement works, and individual access roads. To some extent, these expenses are incurred voluntarily by the owners with the intention of improving the productivity of their land. Generally, the owner's share of these individually-incurred costs must be paid in cash.³⁷⁷

Other expenses incurred on behalf of the land development and not otherwise subsidized or payable pursuant to agreement are assessed against the owners collectively.³⁷⁸ These include the unsubsidized portion of certain administrative expenses (for example, costs of the local committee and of valuation), as well as part of the costs of physical work connected with agricultural land (for example, parcel acceptance works).

These general expenses are divided among the parcels in accordance with the benefit that the land development has created for each owner. This benefit is determined on the basis of the second valuation.³⁷⁹ An owner cannot be asked to pay more than the increase in value he receives from the land development.³⁸⁰ Moreover, no levy and collection will take place against an owner whose costs are below a minimum amount.³⁸¹

These costs assessed against owners are advanced by the govern-

376. LIW, art. 222, lid 3. *See also* arts. 35, lid 2; 87, lid 4.

377. LANDINRICHTINGSDIENST, DE LANDINRICHTINGSWET, *supra* note 50, at 37.

378. LIW, art. 222, lid 4.

379. LIW, arts. 223, lid 1; 210, lid 1/a. On second valuation, *see supra* text accompanying notes 362-70.

380. LIW, art. 223, lid 1/b.

381. LIW, art. 233, lid 1/a. That amount, established by a government decree (*algemene maatregel van bestuur*) has been set at 200 guilders. *Besluit landinrichtingsrente*, Staatsblad 1986, 96 (3 March 1986).

ment. The amount later due from the owners, called *landinrichtingsrente*, burdens the parcels and is recorded against the land in the cadastral records.³⁸² This *rente* is then repaid over a period of twenty-six years at the rate of six percent of the assessed amount per year. Payment begins the year following notice of the amount.³⁸³ The assessment may instead be paid in cash, and it may be redeemed during any year by paying its established value at that time.³⁸⁴

The costs that burden individuals within a land development block vary depending on the expenses involved in that project and, of course, on the nature of the parcels involved. As part of the evaluation stage of the land development project, costs are estimated for the whole block on an average per hectare/per year basis. In one project, for example, costs to owners were estimated at 192 guilders per hectare per year, including the *landinrichtingsrente*, the costs of parcel improvement work and farm building, and higher drainage taxes.³⁸⁵ In another project, *rente* was estimated at seventy-six guilders per hectare per year; improvements and farm building, 132 guilders; and drainage, 10 guilders.³⁸⁶ A third project estimated *rente* at forty-seven guilders per hectare per year and costs of parcel improvement and building at eighty-eight guilders per hectare per year.³⁸⁷

These costs, however, must be considered in light of the estimated increases in productivity per hectare: for the three projects, an average of 627, 712, and 663 guilders per hectare per year.³⁸⁸

382. LIW, arts. 223, lid 2; 226, lid 1; and 227. If a cadastral parcel is later divided, the established *rente* for the parcel is divided in proportion to the cadastral size of the new parcels. If a parcel is combined with another, the *rente* from the parcels is also combined. The *rente* then burdens the newly formed parcels. Art. 228.

383. LIW, arts. 225; 226, lid 1. Real interest is about three percent.

384. LIW, art. 230. The amount to be paid in a given year is stated as a multiple of the annual amount. For example, if 20 years of payments remain, the owner must pay 14.053 times the annual rent to retire the debt. *Regeling afkoop landinrichtingsrente*, 9 april 1986. Minister van Financien, Nr. 086-656.

385. MINISTERIE VAN LANDBOUW EN VISSERIJ, LANDINRICHTINGSDIENST, HER-INRICHTING HITLAND, ONTWERP-PAN, at 62 (1986). Hitland involves a small project of only 640 hectares; its goals are not primarily agricultural, but instead focus on outdoor recreation.

386. MINISTERIE VAN LANDBOUW EN VISSERIJ, LANDINRICHTINGSDIENST, RUILVERKADELING SCHAGERKOGGE, ONTWERP-PAN, at 60 (1986). This project involves 3670 hectares.

387. Ministerie van Landbouw en Visserij, Landinrichtingsdienst, Ruilverkaveling Wieringen, Ontwerp-plan, at 60 (1986). This project involves about 2310 hectares.

388. The figure for Wieringen is for dairy farming and considers the effects of the *superheffing* (additional levy on milk production). Without the levy, the estimate is 761 guilders. The estimate for crop farming is 400 guilders in increased productivity per hectare per year.

Of course, the improved earnings will vary depending on each farmer's management skills and individual decisions about voluntary improvements.³⁸⁹

2. *List of Financial Arrangements*

The costs of the project assessed to the individual owners are reflected in the List of Financial Arrangements. This document sets out the monetary rights and responsibilities of the owners involved in the land development.³⁹⁰ It publicizes the results of the second valuation in terms of changes in agricultural value and the resulting share of land development costs assessed against each owner, as well as changes in value of parcels as the result of works performed during the land development. The list also reflects the financial results of the *korting* for public facilities, over-or-under allocation of property, unpaid compensation for damages incurred during the project, and the compensation for termination of property rights (for example, the sale of rights of allocation). The list also includes the settlement items connected with transfer of land from one owner to another.³⁹¹ Thus, the List of Financial Arrangements can include adjustments between the government and individuals, between individuals and other public bodies, and between two individuals or public bodies.³⁹²

The list is calculated by the local committee, with approval of the Central Committee.³⁹³ After approval, it must be available for public inspection and objection.³⁹⁴ The appeals process is similar to that available for the plan of reallocation.³⁹⁵

389. See also Barlagen, *Boeren*, *supra* note 14, at 320-24 for other examples.

390. LIW, arts. 211-218. Although the list of financial arrangements does not refer to land users, the land owner who must pay a share of the cost of land development can pass part of that cost on to the land user by increasing the rent. A.M. Burger, *Landinrichtingsdienst*, review of manuscript.

391. See Vonk, *uitvoering*, *supra* note 239, at 252.

392. LANDINRICHTINGSDIENST, *DE LANDINRICHTINGSWET*, *supra* note 50, at 36.

393. LIW, arts. 211; 213, lid 1.

394. LIW, arts. 213, lid 2; 214.

395. LIW, arts. 214-218.

On the suggestion of the local committee, the Central Committee can specify that the plan of reallocation and the list of financial arrangements are to be prepared and subject to inspection together. Objections to the plan will be handled first, and corresponding adjustments to the financial arrangements will be made. LIW, art. 219, leden 1 & 2. When such adjustments are made, parties in interest are to receive written notice and additional time to serve objections. *Id.*, art. 220.

VI. TWO SPECIAL PROCEDURES

A. *Readaptation (Aanpassingsinrichting)*

The development of major infrastructural improvements normally consumes land, often productive agricultural land. Moreover, the location of the improvement project—for example a major road, a railroad track, or a waterway—may result in negative effects even for land not actually required for construction of the project. So, for example, farms may be split into parcels located on opposite sides of the new highway, or plots remaining in farmers' ownership may be small, odd-shaped, and inefficient to farm.

In the past, some *ruilverkaveling* projects had been carried out in connection with the other developments, for example a major highway. These situations proved to be particularly efficient and cost saving. The *ruilverkaveling* made it less expensive to avoid or reduce the effects caused when the road cut through the rural area. The exchange of land avoided situations in which, for example, a farmer owned land on opposite sides of the highway and thus eliminated need for viaducts. Also payment of damages for injury from inefficient parcel shape and resulting detours was reduced.³⁹⁶

Consequently, the *Landinrichtingswet* includes a form of land development designed to avoid or minimize the disadvantageous land-use consequences of regionally or nationally important infrastructural projects. This procedure, called readaptation (*aanpassingsinrichting*),³⁹⁷ thus may be used only in connection with such improvement projects. It involves careful coordination of the infrastructure project and the land development, and thus close cooperation between the body authorized to build the road or other project and the land development professionals. Readaptation is not designed to remedy situations in which the infrastructural provision is already completed; remedial improvements are initiated by a request for redevelopment (*herinrichting*) or consolidation (*ruilverkaveling*).³⁹⁸

396. Nota naar aanleiding van Eindverslag, at 44-45, printed in *Landinrichtingswet*, Ned. Staats. 101, at 73 (1985).

397. See LIW, arts. 94-118.

398. Nota naar aanleiding van Eindverslag, at 44-45, printed in *Landinrichtingswet*, Ned. Staats. 101, at 73 (1985).

1. *The Initiative for Readaptation*

Unlike consolidation (*ruilverkaveling*) and redevelopment (*herinrichting*), areas for which readaptation (*aanpassingsinrichting*) is possible are not indicated on the map accompanying the *Structuurschema*, nor are they included in the *Voorbereidingschema*.³⁹⁹ Instead, the official body authorized to develop and pay for the infrastructural project of regional or national importance⁴⁰⁰ decides whether readaptation would facilitate the project. The initiative for readaptation (*aanpassingsinrichting*) occurs when that body submits a request, supported by reasons, to the Minister of Agriculture and Fisheries.⁴⁰¹

The Central Land Development Committee has the responsibility for determining whether and to what extent readaptation is desirable.⁴⁰² After investigation of the existing land use situation, the proposed infrastructural project, and its detrimental effects on land use, the Committee decides whether readaptation is appropriate for ensuring functional land arrangement and for achieving cost savings. The Committee expresses its views in writing to the public body that requested the readaptation and to the deputed states of the relevant province.⁴⁰³

In addition, if readaptation is desirable, the Committee must accompany its statement of views with a proposal for readaptation.⁴⁰⁴ The proposal is to include a description of the infrastructural provision and the expected detrimental effects on the arrangement of land in the region, as well as an explanation of measures and provisions recommended to mitigate those effects and an estimate of the relevant costs and their division.⁴⁰⁵

The proposal also will include a description, as accurate as possible, of the block within which the readaptation (*aanpassingsinrichting*) will take place, with the borders illustrated on a

399. See *supra* text accompanying notes 175-81.

400. This public body may be, for example, the state, provincial states, a municipality, or a water board.

401. LIW, art. 94.

402. LIW, arts. 95, 96.

403. LIW, art. 97, lid 1. See, e.g., Centrale Landinrichtings Commissie, *Zienswijze Aanpassingsinrichting Beek* (1985).

404. LIW, art. 97, lid 2.

405. LIW, art. 98, leden a, c, e. Costs related to the infrastructural project and mitigation of detrimental effects generally are the responsibility of the public body authorized to carry out the project. Other costs of readaptation fall under the financial rules for land development. See, e.g., Centrale Landinrichtings Commissie, *Voorstel Aanpassingsinrichting Beek*, at 6 (1985).

map.⁴⁰⁶ Normally, the readaptation will involve a limited area in close connection with the infrastructural project. If the main goal of readaptation is to eliminate the detrimental effects of the project for agricultural land use, the area for readaptation should be defined on the basis of the agricultural businesses affected by the project.⁴⁰⁷ Although the infrastructural project lies within the block, it is not considered part of the readaptation area.⁴⁰⁸

Another important element of the proposal is an explanation of how the land necessary for the infrastructural project and for a successful readaptation will be obtained.⁴⁰⁹ Land needed for the infrastructural project must be obtained independently. Methods prescribed for acquiring land for readaptation cannot be used, because the infrastructural project is not considered part of the readaptation area. The Bureau for Agricultural Land Management (*Bureau Beheer Landbouwgronden*) will generally attempt to buy the land necessary for successful readaptation from owners willing to sell. If voluntary sales do not generate enough land for the infrastructural project, land can be obtained through compulsory purchase, sometimes with compensation to land owners and users.⁴¹⁰

2. *The Decision to Proceed*

Preparation for a readaption project is much like simplified preparation for *ruilverkaveling*; added to the process, however, is frequent consultation and coordination with the public body responsible for the infrastructural project (the competent authority). After preparation of the proposal, a land development committee is established.⁴¹¹ In consultation with the competent authority and on the basis of the Central Committee's proposal, the local committee prepares a preliminary draft of the readaptation plan.⁴¹² The plan

406. LIW, art. 98, leden b, f.

407. Landinrichtingsdienst, Jaarverslag 1985, *supra* note 51, at 13.

408. LIW, art. 17, lid 3. See *Memorie van Toelichting II*, at 53, printed in *Landinrichtingswet*, Ned. Staats. 101, at 17-18 (1985). This provision is significant in connection with the art. 143 deduction of 3 % of the value of property in the block, to make land available for public needs. Inclusion of the infrastructure area in the block would result in pressures on the needs of land owners within the block. It is not possible to apply the deduction against the land needed for a road or landing strip, for example.

409. LIW, art. 98, lid d. See *Centrale Landinrichtings Commissie, Vorstel Aanpassingsinrichting Beek*, at 5 (1985).

410. See *Onteigeningswet*, Ned. Staats. 24 (1981).

411. The committee is established by the deputed states of the relevant province, in consultation with the Central Committee and with the competent public body. LIW, art. 99.

412. LIW, arts. 101, 103. The local committee follows the working procedures established by the Minister of Agriculture, in agreement with the competent authority and in

contains more detail than the proposal about the area for readaptation and the measures and provisions expected and their costs.⁴¹³ After public notice and opportunity for comment,⁴¹⁴ the preliminary draft is sent to the Central Committee, which establishes the draft plan, after consultation with the competent authority.⁴¹⁵

The deputed states of the relevant province actually establish the plan, but only after public notice and opportunity for comment.⁴¹⁶ Normally, the deputed states establish the plan within six months of the end of the comment period.⁴¹⁷ At the time the plan is established, or within three months thereafter, the deputed states decide to proceed with the readaptation (*aanpassingsinrichting*).⁴¹⁸ Notice of the decision for the readaptation is provided to the public, as well as to public bodies involved.⁴¹⁹

3. Performance of Readaptation

Once the decision for *aanpassingsinrichting* has been made, the project can be carried out.⁴²⁰ The performance of the project is similar to the process for redevelopment (*herinrichting*) and consolidation (*ruilverkaveling*). It is complicated by the requirement of coordination with the competent authority at every juncture, but simplified because the land area involved is normally quite small.

During performance of the project, the competent authority is responsible for construction of the infrastructural provision that led to the readaptation. The local land development committee is responsible for carrying out the readaptation plan. Coordination of the two aspects of development in the region may raise difficulties, especially if the new road, air strip, or other project is completed before the readaptation project has been fully implemented.⁴²¹

consultation with the Central Committee. LIW, art. 100.

413. Contents of the plan are specified in article 102 of the LIW.

414. LIW, art. 104.

415. LIW, arts. 105, 106.

416. LIW, art. 107.

417. LIW, art. 108. The law provides special procedures for instances in which the deputed states deviate from the draft plan or from advice of the Central Committee and the competent authority. LIW, arts. 109; 111, lid 2.

The plan can be changed up to the time that the delimitation plan (*begrenzingsplan*) or a part thereof is established. LIW, art. 114.

418. LIW, art. 111, lid 1. The Minister of Agriculture and Fisheries is authorized to establish the plan or reach a decision for readaptation, if the deputed states fail to decide within the statutory deadlines. LIW, art. 112.

419. LIW, art. 113.

420. LIW, art. 124, lid 1.

421. Interview with A.M. Burger, Landinrichtingsdienst, 7 January 1987.

As in the other types of land development, readaption involves both publicly-managed structures and land used for farming and other nonpublic purposes. The former is the subject of the delimitation plan (*begrenzingenplan*),⁴²² which identifies the situation involving roads, watercourses, recreation areas, and other public facilities. These public works are carried out under the supervision of the land development committee. Often the land occupied by these facilities is transferred to public bodies. It is not available for reallocation to owners and tenants.⁴²³

Reparcelling of land in a readaptation project takes place in a single block.⁴²⁴ Owners and ground users generally enjoy the same rights in readaptation as they do in redevelopment (*herinrichting*) and consolidation (*ruilverkaveling*).⁴²⁵ These include, among others, the right of an owner to receive land of the same value that he brought into the project, some opportunity to sell land or reallocation rights voluntarily, and appeal possibilities. In readaptation, as in *herinrichting*, the law permits the reduction of each owner's right to land by a maximum of three percent.⁴²⁶ The land acquired through this reduction may be used for construction or improvement of public roads and watercourses and related provisions, as well as for measures and provisions concerning nature, landscape, and outdoor recreation.⁴²⁷

B. Consolidation by Agreement (*Ruilverkaveling bij Overeenkomst*)

As the preceding discussion has indicated, land development projects in the Netherlands involve substantial mental and financial commitment both from the government and from participants. The new arrangement of a land area as large as 40,000 hectares (or even as small as 1,500 hectares) requires careful, time-consuming planning. It often involves expensive road and waterway construction or improvement, as well as readaptation and exchange of farmland. Normally by the time a project is completed, a new genera-

422. LIW, arts. 131-138. The delimitation plan, drafted initially by the local committee and transmitted through the Central Committee, is established by the deputed states. LIW, art. 131.

423. See A. CRIJNS, REGULATIVE PHASE, *supra* note 15, at 14.

424. LIW, art. 16, lid 2.

425. See *supra* text accompanying notes 274-320.

426. LIW, art. 143.

427. LIW, arts. 143, 141.

tion of Dutch farmers is already using the land.⁴²⁸

Not all agricultural structure problems, however, require this complicated approach. In some instances, extensive adaptation of an entire area is not required; instead, the structure of a number of farm businesses can be improved significantly by exchange of land parcels with other land owners in the area. For livestock farmers, such structural improvement focuses on increasing the size of the parcel located adjacent to the farmstead. For arable agriculture, good structure requires large parcels with workable shapes. The results of improvements in parcelling include lower production and energy costs, as well as better working conditions for the farmer.⁴²⁹

Farmers who want to remedy structural problems through exchange of parcels can use a relatively simple procedure provided in the land development law: *ruilverkaveling bij overeenkomst*, that is, consolidation by agreement.⁴³⁰ Statutory authority for this procedure has survived with relatively few substantive changes from the 1954 *Ruilverkavelingswet*.⁴³¹ Using *ruilverkaveling bij overeenkomst* (called *kavelruil*),⁴³² three or more landowners agree to bring together their land, reparcel it in a specified manner, and redistribute the land among participants by deed.⁴³³ Government technical and financial assistance is available. Thus, the procedure offers a relatively quick and inexpensive way to make significant structural improvements for agriculture.⁴³⁴

Ruilverkaveling bij overeenkomst is voluntary, and each owner must decide whether to participate in a proposed project. The law provides, however, that at least three owners must participate. Although no maximum number of owners is specified, projects are more manageable when the number is limited. Normally, a project

428. Bruin, *Kavelruil, nog iets voor de toekomst?*, 16 *BEDRIJFSONTWIKKELING* 260, 260 (1985) [hereinafter cited as Bruin, *Kavelruil*].

429. Burger, *Kavelruil*, *supra* note 140, at 256-57.

430. LIW, arts. 17, 119-123.

431. *Ruilverkavelingswet* 1954, arts. 4-8, Ned. Staats. 101-I (1984).

432. The *Landinrichtingswet*, art. 122, lid 1, provides that each individual agreement must be approved by the Minister of Agriculture and Fisheries. Because in practice this approach would be cumbersome, the Minister has given general approval to agreements under certain conditions, through the *Regeling Kavelruil*, *infra* note 447. See generally Burger, *Kavelruil*, *supra* note 140.

433. LIW, art. 17.

434. *Ruilverkaveling bij overeenkomst* can take place in an area in preparation or performance of a normal *ruilverkaveling* or *herinrichting* project, in which case the consensual exchange must have approval of the local land development committee. If the land development is already in the performance stage, other conditions (most importantly, time limitations) apply. Burger, *Kavelruil*, *supra* note 140, at 257.

will involve three to ten landowners,⁴³⁵ the average area of land involved is twenty-five to thirty hectares.⁴³⁶

The exchange of ground is the most important aspect of *ruilverkaveling bij overeenkomst*. In theory, each owner will receive the same number of hectares as he contributed to the project. In practice, however, adjustments in the rights of the owners will occur. Some owners may decide to end farming, making additional land available for others in the project. Individuals may also participate in the project through contribution of money rather than land. That is, purchase and sale transactions related to the land exchange can occur.⁴³⁷ In addition, the structure of land in the project may require some deviation from the expected allocation to each owner. These adjustments are compensated in money, preferably at a price established for the entire area before each farmer knows the outcome of the exchange for his individual enterprise.⁴³⁸

Although the exchange of ground is the primary concern, minor parcel adaptation works are also possible. For example, ditches may have to be filled or other work accomplished to achieve acceptable new parcels. These adaptation works must be consistent with the land use plan of the municipality.⁴³⁹ Moreover, *ruilverkaveling bij overeenkomst* cannot occur if improvements in roads and waterways are needed. Those major structural projects can be undertaken only in the normal land development procedures.⁴⁴⁰

Kavelruil is accomplished in a relatively short time—generally two years, but at most three years, from initial application.⁴⁴¹ Interested owners take the initiative themselves, but receive governmental assistance in reaching agreement and preparing a formal proposal for the project. Parcel adaptation works in the proposal must be evaluated in light of nature protection considerations.⁴⁴² Participants enter a formal agreement, which sets out the location of each owner's old and new parcels and the rights of other parties in interest, as well as provisions for payment of costs and other guidelines for the exchange of parcels. The agreement may incorporate a number of provisions from the *Landinrichtingswet* concerning per-

435. Bruin, *Kavelruil*, *supra* note 425, at 260.

436. LANDINRICHTINGSDIENST, DE LANDINRICHTINGSWET, *supra* note 50, at 46.

437. LIW, art. 121.

438. Bruin, *Kavelruil*, *supra* note 428, at 260.

439. Burger, *Kavelruil*, *supra* note 140, at 257.

440. LANDINRICHTINGSDIENST, DE LANDINRICHTINGSWET, *supra* note 50, at 46.

441. Burger, *Kavelruil*, *supra* note 140, at 258. For a brief description of the procedures involved, see *id.*, at 258-59.

442. Burger, *Kavelruil*, *supra* note 140, at 258.

formance of work, reparcelling, and division of costs.⁴⁴³ The agreement signed by participants is recorded in the public register⁴⁴⁴ and becomes binding on successors in title.⁴⁴⁵ A notary's deed accomplishes the actual exchange of land parcels.

The government provides financial subsidies for a number of the costs involved in consensual land exchange, if the agreement has been approved by the Government Service for Land and Water Use. The government will pay the total cost of preparation of the agreement, as well as of the notary's deed whereby the property is distributed. In addition, a subsidy of fifty percent of the cost of adaptation works (to a maximum of 800 guilders per hectare) is available. Even the subsidized costs, however, must be paid initially by the parties; they are not financed by the government.⁴⁴⁶ For large projects (over fifty hectares), a subsidy is also available for the cost of certain plantings.⁴⁴⁷

Ruilverkaveling bij overeenkomst is not a substitute for one of the more complicated forms of land development. Instead, it is a supplemental method, available for small numbers of landowners who face rather uncomplicated structural deficiencies. The number of hectares involved is small, in comparison with the large land surface undergoing land development. An average of 130 projects per year, involving perhaps 3,000 hectares, has been calculated.⁴⁴⁸ Between 1972 and 1985, a total of 1695 projects, including 41,197 hectares, had been completed.⁴⁴⁹

CONCLUSION

As the analysis of the *Landinrichtingswet* and its application has indicated, land development plays a particularly significant role in

443. LIW, art. 122. Approval by the Minister of Agriculture and Fisheries is then necessary. See LANDINRICHTINGSDIENST, DE LANDINRICHTINGSWET, *supra* note 50, at 45.

444. LIW, art. 119, lid 1. If the agreement is to be valid, any holders of mortgages or other attachments must sign the agreement. *Id.*, art. 119, lid 3.

445. LIW, art. 119, lid 2.

446. Centrale Landinrichtingscommissie, Instructie voor de voorbereiding en uitvoering van kavelruilprojecten gebaseerd op hoofdstuk V van de Landinrichtingswet, § 9.6 (1986).

447. Staatssecretaris van Landbouw en Visserij. Regeling Kavelruil, 6 November 1985, Nr. J 6257. A maximum subsidy of 125 guilders per hectare is available for plantings, and certain species are prohibited.

448. Burger, *Kavelruil*, *supra* note 140, at 257.

449. LANDINRICHTINGSDIENST, JAARVERSLAG 1985, *supra* note 51, at 41. By 1985, a total of 1940 projects, with a surface of 48,231 hectares, had been put forward; not all of these had been completed. In 1985, 148 projects (2724 hectares) had been put forward, and 122 (2782 hectares) completed. Many of the projects have been located in the areas of sandy soil.

the countryside of the Netherlands. From its beginnings as a purely agricultural measure to its current more comprehensive approach, land development has offered solutions to the difficult problems faced by farmers and other rural land users in this densely-populated country. Land development has offered farmers the opportunity for higher income and improved working conditions. Larger, more rationally shaped parcels, located closer to the farmstead, make farming more efficient. Better access to the countryside, as well as to buildings and land within a farming unit, decreases transportation costs and saves time. Water management, where consistent with environmental protection, makes possible improved drainage of wet areas or effective irrigation of desiccated sandy soils. The financial and social benefits accruing to farmers eventually far outweigh the costs and inconvenience accompanying the land development project.⁴⁵⁰ In addition to improved farm efficiency, however, land development offers an opportunity to protect and enhance existing nature and landscape values, as well as to provide new opportunities for outdoor recreation. In short, it offers a unique chance to reorganize whole areas of the Dutch countryside, in light of the most pressing needs of all sectors of society. Land development has proved remarkably adaptable; both the legal authorization and the process of development itself have accommodated the changing needs of Dutch society.

Despite the clear benefits that land development offers, it has not proceeded without criticism. In the past, for example, representatives of landscape and nature preservation interests objected to the at-first purely agricultural purposes of land development. Indeed, though landscape plans have been included since the 1930s scenic and nature protection values were often considered only after agricultural improvements were assured. This criticism, recognized as valid, has been mitigated in part by the 1985 law, which provides for nonagricultural interests and ensures careful consideration of important nature, landscape, and other values.

Land development has also been a target of economic criticism. Projects result in effective new land arrangements, to be sure, but at an annual cost to the Dutch government of millions of guilders.⁴⁶¹ In a time of over-production of agricultural products⁴⁶² and

450. On the benefits, *see supra* text accompanying notes 49-50.

451. *See supra* text accompanying notes 57-58.

452. E.g., Beschikking superheffing, Beschikking van de Minister van Landbouw en Visserij van 18 April 1984, no. J 1731, Stcrt. 79, 19 april 1984, printed in Ned. Staats. 110S

of animal manure,⁴⁵³ this economic criticism may seem especially compelling. Yet several responses exist. Many of the alterations made during land development (for example, better parcelling and easier access) improve efficiency and therefore lower the cost of production, but they do not actually increase the level of production. In contrast, water management, especially in dairy areas, does increase production by permitting a longer grazing season and thus more milk. But this increase is offset by the use of some land (two to six percent) in every land development project for nonagricultural requirements.⁴⁵⁴ Further, the increased financial pressures faced by farmers, especially in a time of farm surplus, demand greater efficiency in the farm business. Lower production costs and enhanced quality are essential for competition in the world market. In some instances, however, a consideration of alternate crops will prove necessary. The flexibility in agricultural land uses offered by redeveloped land, too, is an important component in the continued solvency of farm businesses. Indeed, now more than ever, improved production in a qualitative (rather than quantitative) sense is essential.⁴⁵⁵

Land development is not uniquely Dutch; it occurs in some form, albeit often on a smaller scale, in a number of other countries. But it has proved to be a particularly appropriate solution to problems faced in the Dutch countryside, where geographic circumstances, historic land uses, and patterns of land inheritance have resulted in large numbers of small plots, sometimes irregularly shaped and distant from the homestead, and where problems of water management as well as of access to the countryside and to individual farm parcels have made farming difficult. And, in recent years, land development has proved itself capable of improving the environment for more efficient agricultural production, while at the same time

(1987) (imposing a levy on farmers for over-production of milk).

453. On the recent legislation concerning manure, see Brussaard, *De nieuwe regelgeving betreffende de produktie van dierlijke meststoffen*, 47 *AGRARISCH RECHT* 402 (1987); Brussaard, *Mest als nieuw terrein van milieurecht*, chapter 6 in *ONTWIKKELINGEN IN HET MILIEURECHT* (M. Aalders & N. Koeman eds. 1987); LAND UTILIZATION DEPT., GRONTMIJ, *RELATIONSHIP BETWEEN ANIMAL HUSBANDRY, MANURE PRODUCTION AND ENVIRONMENT IN THE NETHERLANDS* 39-48 (June 1987); *The Manure Action Programme in the Netherlands*, 4 *FARMLAND NOTES* (NASDA Research Foundation Farmland Project)(August 1987).

454. Interview with A.M. Burger, Landinrichtingsdienst, 7 January 1987. One possible compromise, which has been adapted in a few areas, is to redevelop, but omit some water management measures, especially where it is particularly expensive and would affect important nature values.

455. Barlagen, *Boeren*, *supra* note 14, at 330.

accommodating other interests that lay claim to the countryside: nature, landscape, forestry, and outdoor recreation. Moreover, the majority of Dutch farmers have cooperated with the complex and time-consuming processes involved in land development.

One might inquire what relevance land development in the Dutch style has for American agriculture or the American countryside. The geography of America's vast farming areas contrasts with the relatively small-scale farming of the Netherlands, and in the main American agriculture does not face the inefficiencies created by centuries of farm fragmentation. Moreover, even where land reorganization might be desirable, American landowners are not conditioned to accept the level of government involvement that comprehensive land development requires. Land development in the Dutch style is clearly most appropriate for a nation facing land use problems and pressures that can be solved only through central coordination and cooperation by all levels of government, as well as by land owners and users.

Nonetheless, "shuffling with the land," as the Dutch sometimes refer to *landinrichting*, may well be desirable in some instances, even in America's countryside of vast farming parcels. Large infrastructural projects (for example, interstate highways) often distort existing land ownership patterns, leaving farmers with undesirably-shaped or separated parcels. The possibility of accompanying such intrusive infrastructural projects with exchanges of land could well offer farmers more workable farm parcels and lower the cost of acquiring land needed for the project. Although it seems unlikely that a mandatory scheme analogous to *aanpassingsinrichting* would be politically acceptable, the opportunity for farmers to exchange land, with government assistance and financial subsidy, might well be successful.

Even if land development is not immediately applicable for American agriculture, however, an understanding of this concept gives insight into a complicated and time-consuming process, supported by a thoughtfully-designed legislative scheme, implemented by careful regulatory measures, and carried out by hundreds of highly competent civil servants. Land development provides a clear example of the types of measures, albeit intrusive, available to a nation that values its farmland as an irreplaceable natural resource; it helps to explain the consistent productivity and high quality of agricultural commodities in the densely-populated Netherlands. The continued application of this complicated legal scheme, imple-

mented with the cooperation of land owners and users, is helping to ensure the future of Dutch agriculture.

