

# Land Assembly for Development – The Role of Land Pooling, Land Re-adjustment and Land Consolidation

Owen CONNELLAN, United Kingdom

**Key words:** Land assembly; compulsory acquisition; land pooling.

## ABSTRACT

The author was a member of a research team, commissioned by the UK's Department of Environment, Transport and Regions (DETR), Linklaters & Alliance and the Urban Villages Forum, and briefed to investigate problems of land assembly for major development projects in Britain and to propose possible solutions. A subsequent report was issued as a discussion document, and as part of that ongoing discussion process this paper will confirm the research findings to the FIG 2002 Conference.

The main context for this paper concerns the potential contribution of the process known as "*land pooling, land re-adjustment or land consolidation*" in the debate about land assembly, particularly in respect of current policy aims of making the best use of previously developed land and encouraging mixed use development. This process occurs when landowners participate in land assembly, servicing and disposal in accordance with a plan, including that assisted by some form of temporary compulsion. It may be considered as one method to involve the initiatives and skills of the private sector in land assembly yet leave landowners with a stake in their land ownership if they so wish.

The concept of "*land pooling etc.*" is new to Britain, but has been adopted extensively overseas. The research investigated various ways in which land is currently assembled for major development projects in Britain and overseas. The paper discusses specific situations in which "*land pooling*" may be considered as an additional tool to complement existing compulsory purchase and voluntary routes to land assembly. It also seeks to explore the potential for the process to be utilised to induce owners to collaborate in land assembly where ownership is fragmented but should, in the public interest, be pooled for major development schemes.

The research proposes such an authorized framework, which aims to persuade owners to participate in joint action as necessary for successful land assembly for development or redevelopment, and details of suggested procedures and practice will be presented to the Conference in this paper.

## CONTACTS

Owen Connellan BSc FRICS Rating Dip  
Frances Plimmer Dip Est Man MPhil PhD FRICS IRRV  
Kingston University (School of Surveying)  
Knights Park,  
Kingston-upon Thames, Surrey, KT1 2QJ  
UNITED KINGDOM  
Tel. +00-44-(0)20-8547-7070  
Fax +00-44-(0)20-8547-7087  
E-mail: [oconnellan@aol.com](mailto:oconnellan@aol.com), [fplimmer@hotmail.com](mailto:fplimmer@hotmail.com)  
Web site: [www.kingston.ac.uk/surveying](http://www.kingston.ac.uk/surveying)

# **Land Assembly for Development – The Role of Land Pooling, Land Re-adjustment and Land Consolidation**

**Owen CONNELLAN, United Kingdom**

## **1. INTRODUCTION**

Many major development projects require some form of land assembly to be undertaken, including mixed-use development in town centres, urban villages, urban renewal and new development on open land. The importance of land assembly is recognized in the UK, as instnced in recently published papers: specifically in the Urban White Paper (DETR 2000a) and the Rogers Report (Urban Task Force, 1999)

Land assembly is often an essential component of the development process for the project, and the process known as land pooling, land re-adjustment or land consolidation achieved these objectives in other parts of the world. The paper draws upon research evidence suggesting that such land pooling activities could be equally effective in the UK by encouraging development/redevelopment/rehabilitation in accordance with planning hopes and expectations. The paper cites previous research proposals for an authorized framework of land pooling, which aims to persuade owners to participate in joint action as necessary for successful land assembly for development or redevelopment, and suggested procedures and practice are quoted in this paper.

Later in the paper the additional question of current recoupment of betterment via ownership through public acquisition is raised, and the author suggests future possibilities for recoupment of betterment that might be associated with the land pooling process.

## **2. LAND ASSEMBLY**

This paper now summarises the various ways in which land is currently assembled for major development, redevelopment and rehabilitation projects in the UK, being a process of establishing a new ownership through acquisition of property interests or control over all the relevant constituent parts of a development site.

### **2.1 Direct Compulsion**

This is the time-honoured machinery for government purchase, or the threat of compulsory purchase, as an inducement to an agreement. That this system needs overhaul is common knowledge, as more particularly brought out by research commissioned by the Department of the Environment, Transport and the Regions (DETR) from the City University (1997) and also the independent research of Adams, et al (1999). This topic has also been the subject of intensive study in the Department and the apparent difficulties of compulsory acquisition are cited in more detail below.

## 2.2 Indirect Compulsion

Alongside direct compulsion, the existence of *indirect compulsion* has also to be recognised. The most obvious and frequently encountered example of this type of action is found in the planning system in which “The ability of the development control process to encourage owners of fragmented sites to assemble their land has been recognised in central government planning policy for some time”, citing PPG6, par 1.6 and 1.13 (2.22)

## 2.3 The Voluntary Approach

The voluntary approach is also time honoured. But because it is voluntary, in an area of activity which does not seek publicity, insufficient is known about current practice. It is clear that the free market in land operates reasonably efficiently for small sites held by one or two owners. It is when larger sites or a large number of ownerships are involved that more complex methods are adopted for the voluntary assembling of sites to facilitate development such as options; joint venture agreements, the formation of development companies; and land equalisation agreements. However it is an arguable conclusion that voluntary land assembly is a viable option only in certain instances, such as development of greenfield sites or assembly of small sites where owners are realistic. But it can be fundamentally flawed, in circumstances where a “hold out owner” can prevent unified control over the relevant site being created

## 3. CURRENT COMPULSORY ACQUISITION DIFFICULTIES

The limitations of the Compulsory Purchase Order (CPO) process, as a means of ensuring land assembly from fragmented ownership in all cases where voluntary negotiation fails, have been identified in research commissioned by DETR from the City University. Its report (City University Business School 1997) lists the following difficulties:

1. *Lengthy timescales.*

The CPO process is lengthy, on average 3 years - with larger schemes increasing this figure. Such timescales are one reason why many developers/landowners will avoid the CPO route.

2. *User dissatisfaction with the CPO process and outcome*

Most affected owners find the way in which their land is compulsorily acquired to be a difficult experience. Such dissatisfaction, combined with the procedural elements that promote a confrontational stance by owners, translates into long timescales and complexity.

3. *Problems with the current dispute resolution procedures in the CPO process*

The Report suggests that the CPO system might be significantly improved by reforms in the procedures and mechanisms relating to disputes over value. A more accessible forum and one which provides for 'binding mediation' is a proposal which came to the fore. The Local Valuation Tribunal is one body which the Report noted as being more suited to dispute resolution - in terms of accessibility and cost, for example.

4. *Blighting effect of CPOs that are not implemented*

The Report highlighted problems where CPOs have been confirmed, but are not implemented, and where the approval stage takes longer than expected and either allocated funds are withdrawn, or land values fall and the development proposed is no longer viable.

5. *Conflict-ridden nature of the CPO process*

The Report noted that a significant proportion of professionals involved in the process believe that there is no incentive for affected owners to co-operate, and that some owners are encouraged to take a "belligerent attitude and delay the process where they can" (e.g. "objecting to the CPO on unrealistic grounds").

6. *Resistance of a very high proportion of local authorities against the use of CPO powers.*

An additional restraint on the practical availability of the CPO mechanism is the political will to use such powers, related to such factors as lack of capital receipts and spending power and time constraints.

#### **4. FOLLOW-UP EVENTS AND EFFECT ON COMPENSATION LEVELS**

*Review by Department of Environment Transport and Regions (DETR):*

In June 1998 the DETR instituted a fundamental review of the laws and procedures relating to compulsory purchase, compensation and the disposal of compulsorily purchased land. An advisory group was appointed, whose membership embraced the spectrum of professional competence and relevant interests, and who published an Interim Report (DETR 1999) with recommendations for wider dissemination and discussion. Following on from this Interim Report, in July 2000 came the Final Report (DETR 2000b).

The main thrust of the findings was to confirm that the current compulsory purchase arrangements are basically sound, with adequate safeguards to protect the rights of those whose property is taken away from them. However it was recognized that the existing legislative base is complex and convoluted and the review therefore recommended that new compulsory purchase and compensation legislation, consolidating, codifying and simplifying the law should be prepared in consultation with the Law Commission and brought before Parliament at the earliest opportunity.

On the important issue regarding the assessment of the value of the land taken, it was recommended that the principle of open market value should be retained as the normal basis for determining the compensation payable for the land taken.

*Law Commission*

In December 2000, following discussion with the Law Commission, the DETR and the Lord Chancellor's Department approved terms of reference for a preliminary study to identify the likely features of a project to take on board the Government's intended review. The Law Commission (2001) published a Preliminary Report, which stated:

*“There is general agreement that current law and practices are cumbersome and convoluted. The long lead-time not only generates uncertainty and financial loss for the current landowners but it also makes the procedure unattractive to potential investors as a means of assembling land for major infrastructure or regeneration schemes.”*

The Law Commission made it clear that its Paper was in line with the “main thrust” of the DETR Review’s conclusions and assumed the preservation of the principal features of the existing system together with improvements.

The follow-up events enumerated above do not, therefore, herald any fundamental changes in the general level of compensation for land compulsorily acquired. The Land Compensation Act 1961 provided that compensation shall be the market value of the land but subject to the modification that the acquiring authority shall not pay any *increase* nor any *decrease* in the value of the acquired land if they may be said to have been brought about by the scheme of development which gives rise to the need for compulsory purchase (Heap 1996: 330)

Thus any scope for recoupment of development value via purchase for ownership under compulsory purchase rules is limited to any increase in value between the market value of the land with the benefit of the development scheme (for which the land was acquired), and the market value of the land without the benefit of the said scheme.

## **5. CONCLUSIONS ON EXISTING PRACTICES FOR LAND ASSEMBLY**

As has been demonstrated, the CPO process has certain limitations which mean its application makes it difficult to create a climate of partnership and consensus that is desired in certain situations. Even when the political will among the local planning authorities makes the CPO option a possible route, the delays, uncertainties and risks will often deter the private sector. Other routes to achieve land assembly by persuasion are difficult to apply in a strategic way and often fail to achieve satisfactory land assembly but a complementary approach that builds on the strength of each may provide a possible answer.

In pursuing this idea of a complementary approach this paper draws upon research in which the author was previously involved. The particular research was reported in a Discussion Paper that was selectively released by the Urban Villages Forum of the Prince’s Foundation in February 2001 (UVF 2001) and was concerned with the potential contribution of the process known as “*land pooling*” to the land assembly problem; this Discussion Paper being a summary of a major Report (unpublished). The research on which this Discussion Paper is based was commissioned by Linklaters & Alliance, the Department of the Environment, Transport and the Regions, and the Urban Villages Forum. It was carried out by a research team led by Nathaniel Lichfield (Research Director), Denzil Millichap, Stuart Black, Ray Archer, Owen Connellan, Dalia Lichfield. Dr Tim Dixon, Director of Research at the College of Estate Management Reading, prepared the Discussion Paper and its contents represent the views of the study team and do not necessarily reflect the views of the funding bodies

## 6. LAND POOLING

The current position thus is, that if an authority wishes to promote land assembly, it will do so by agreement or CPO. But another possibility arises which, while not giving such complete ownership, is capable of achieving some of the objectives of acquisition for comprehensive development, redevelopment and possibly some recoument of betterment. This opportunity is under the generic description of *land pooling*.

This arises when landowners combine their interests in order to participate in land assembly, servicing and disposal in accordance with a plan. Since some help is needed from Government the process is called “*assisted land pooling*”. It involves the initiatives and skills of the private sector in land assembly yet leave landowners with a stake in their landownership if they so wish. The concept of assisted land pooling is new to this country, but has been adopted extensively overseas. (Doebele 1982, Larssen 1993). Such overseas procedures were therefore researched in detail with the assistance of numerous local experts acting as Country Correspondents. (see **Annexe A**)

The Discussion Paper (UVF 2001) reviews specific situations in which the concept of land pooling may be considered as an additional tool to complement existing compulsory purchase and voluntary routes to land assembly. It also seeks to explore the potential for assisted land pooling to be utilised to induce owners to collaborate in land assembly where ownership is fragmented but should, in the public interest, be pooled for major development schemes. In this regard, it focuses on situations where compulsory purchase powers for land assembly may be limited or unavailable, and where public sector finance for doing so is nonexistent or constrained.

The research evidence suggests that assisted land pooling could be equally effective in this country by encouraging development, redevelopment, and rehabilitation in accordance with planning hopes and expectations. It is argued that this would be achievable with the availability of a suitable vehicle, tailored to British requirements. The research proposed such an authorized framework, which aims to persuade owners to participate in joint action as necessary for successful land assembly for development or redevelopment.

## 7. RECOMMENDED PROCESS FOR LAND POOLING

Assisted land pooling may be considered as an additional tool to complement compulsory purchase and voluntary routes to land assembly, and the findings of the research team for the Discussion Paper (UVF 2001) are now presented as follows:

### 7.1 Assisted Land Pooling

A system of assisted land pooling that can achieve its aims in a legitimate and efficient way will have the following characteristics:

- Actively promotes partnership;
- Designed to produce a fair and equitable sharing of profit and risk amongst willing and unwilling owners;

- Operates within a decision-making framework that is speedy, both fair and efficient in its outputs and processes;
- Addresses issues of value and property-rights; and
- Leaves social and environmental issues to the political process of planning.

Such a system could achieve land assembly solutions acceptable to owners, developers and the community.

## 7.2 Lessons from Overseas

Assisted land pooling has achieved these objectives in other parts of the world. Such overseas procedures and procedures were therefore researched in detail with the assistance of numerous local experts acting as Country Correspondents (see **Annexe A**). This background research for this paper shows that there is a wide spectrum of overseas mechanisms available to achieve land pooling which may be categorised as follows:

- Entirely voluntary, conceived de novo, for achieving land assembly by agreement amongst owners (analogous to UK practice in the private sector);
- Public Authority inspired, controlled and compulsorily effected (German model);
- Voluntary but having recourse to an authorised framework (French model), and
- Authorized framework designed on majority rules (overriding dissenters and enforcing participation) and instigated by a nucleus of owners (Japanese model).

The essentials of successful land pooling schemes overseas all have an element of compulsion from the authorities. The French and Japanese models are of particular interest because they combine and integrate voluntary and compulsive elements. Essentially, they provide differing versions of assisted land pooling - and tend to operate on the basis of:

- Readily available knowledge and advice on the land pooling process (the framework of such process having been established by Government authorisation);
- A scheme acceptable to the planning/local authority
- The scheme must be viable (in terms of market economics or with the aid of subsidy);
- The scheme is backed by required majority of owners with any dissenting minority disempowered
- Sufficient incentives by way of expectations of profits (or reallocation of acceptable plots) with safeguards on risk-avoidance and ultimate tax benefits;
- Requirements of public authorities for extractions of any land- planning gain, impact fees and the like - are not so demanding as to damage the required incentives to owners and to any development organisation;
- Early and active participation of a development organisation, which will underwrite the risk and organise an economic, efficient and effective development process;
- Acceptable (and rapid) process for determining compensation i.e. share apportionment, plot reallocation, or buying-out dissenters) within minimum scope for disputes; and,
- The recommended scheme must be sufficiently all embracing and flexible to cope with all the various facets which political decisions entail.



### 7.3 Applying Assisted Land Pooling in the UK?

The research evidence for the Report leading to the Discussion Paper suggests assisted land pooling can be effective in encouraging development, redevelopment, and rehabilitation in accordance with planning hopes and expectations. This is achieved by the availability of a suitable vehicle and an authorised framework, which persuades the owners to participate in joint action. With regard to relevance to the UK, consideration should be given to key issues, which include:

- The carrot is the expectation of favourable terms (compensation, profits, relocation, tax benefits etc.) and the *stick* is the prospect of being left behind in the most likely event of the scheme going forward;
- The accepted principle is that if a required majority is in favour of the plan which is acceptable to the planning authority, the residual minority cannot abort the scheme;
- Any dissenters are dealt with on an equitable basis (i.e. no less favourably than on compulsory acquisition terms);
- A policy of risk avoidance to the owners (on any composite redevelopment scheme) is pursued by involving a development organisation early in the process as an active *participant and an acceptor of risk* - which will obviously entail a measure of profit-sharing with that organisation.

### 8. DEVELOPMENT VALUE RECOUPMENT FORM LAND POOLING?

There are obvious advantages to public authorities in the assisted land pooling process by encouraging and so achieving the desired planning and development of a particular area without the delays, expense and exhaustive involvement by a public authority in compulsory acquisition procedures. Furthermore as part of the assisted land pooling process, the planning authority can still enter into planning and other obligations with the owners that can secure other benefits for the public within the development scheme i.e. land for infrastructure (plus capital contributions required), roads, green spaces and communal use, low-income housing and “finance resource land” (for resale to provide operational capital for the project). Some of these are analogous to planning gain procedures and may be considered as forms of value capture but hardly recoupment via ownership, as the participation of a public authority in a land pooling scheme is usually as a facilitator rather than a purchaser of the land required for the scheme. But the value would be achieved in the advantage of comprehensive development, which would not otherwise arise.

However the author would argue that if the authority were seeking significant financial recoupment it has to become more involved in the process and thus be able to claim a larger “shareholder stake” in the process on behalf of the public with a commensurate participation in the shareholders’ profits from the venture. However it is important that a public authority’s requirements should not become too onerous bearing in mind that the co-operation and participation of owners is conditioned by the expectation of realised equity to themselves.

Consequently if an authority wishes to increase its equity share, a greater involvement of such a public authority is involved in the German model of land pooling including positive action in land readjustment and purchase where necessary.

The German model operates through the formal procedure of *land readjustment* known as *Umlegung*. Doebele, (1982: 180) explains that this involves the sub-division of the land concerned in a suitable way with respect to location, shape and size by adjusting to the binding development and microzoning plans and to other building laws; providing land for development facilities (transport, parks and green areas) from all owners equally; and not reducing the basic substance of landownership. This process is nevertheless a form of compulsory land readjustment carried out by local authorities on their own responsibility as necessary for the realisation of the development and microzoning plans but it can even be initiated before development and zoning plans have been inaugurated.

Originally these powers for readjustment only applied to plots of undeveloped land but in more recent decades the law has been broadened to include developed properties. Similarly there has been an extension from the earliest and most pressing need for residential development sites and now *Umlegung* has proved especially applicable for industrial and commercial areas and other mixed use developments (Doebele, 1982: 180).

Dieterich et al (1993: 66-7) confirm that the process of *Umlegung* is a complicated procedure that can be subdivided into Stages (see **Annexe B**), which process incidentally permits the Municipality to retain betterment value.

### **Acknowledgments**

The author wishes to acknowledge with grateful thanks the help provided in the preparation of this paper by his research colleague, Nathaniel Lichfield BSc (Est Man) PhD PPTPI FRICS, Professor Emeritus, Economics of Environmental Planning, University of London; Partner, Dalia & Nathaniel Lichfield Associates, Chartered Town Planners.

## ANNEXE A

### List of Country Correspondents

**Mr Rainer Müller-Jökel**, Vermessungsdirektor, Frankfurt am Main, Germany  
**Mr Jan Sonnenberg**, Director of Land Consolidation Department, Apeldorn, Netherlands  
**Mr Freek Rosman**, Delft University of Engineering, Delft, Netherlands  
**Mr Philippe Malaquin**, Ingenieur ENSCP, Paris, France  
**Mr Takeo Ochi**, Urban Development Department, Isukuba City, Japan  
**Mr Andre Sorenson**, Sapporo, Japan  
**Prof. Takayuki Kishii**, Nihon University, Nihon, Japan  
**Mr Mitsuo Nakano**, Executive Director, Japan Land Readjustment Association, Tokyo, Japan  
**Prof. Vincent Renard**, Ecole Polytechnique, Paris, France  
**Mr Meir Garon**, Urban and Regional Planner, Jerusalem, Israel  
**Prof. William A Doebele**, Harvard University, Cambridge, USA  
**Prof. Frank Schnidman**, University of Miami School of Law, Florida, USA  
**Prof. Gerhard Larsson**, Royal Institute of Technology, Stockholm, Sweden  
**Ms Asli Aras**, Middle East University, Ankara, Turkey  
**Prof. Kauko Viitanen**, Helsinki University of Technology, Helsinki, Finland  
**Mr Luis Felipe Alonso**, Madrid, Spain  
**Mr Hideaki Kondo** Director, Land Readjust. Division, Ministry of Construction, Japan  
**Mr Geoffrey Keogh**, Aberdeen University, United Kingdom  
**Mr Kiyotaka Hayashi** Research Director Centre for Urban Advancement Nagoya, Japan  
**Mr George W. Liebmann**, Baltimore, Maryland, USA  
**Prof. Ulrich Flury**, Institute for Signal and Information Processing, Zurich, Switzerland

## ANNEXE B

### German Model Of Land Pooling (Readjustment)

Dieterich et al (1993: 66-7) describe the process of *Umlegung* as a complicated procedure that can be subdivided into the following Stages:

1. The Municipality makes the formal decision to start the procedure by determining the area of the *Umlegung*.
2. The rights and claims of all plots within the area of the *Umlegung* are established and added together.
3. Land designated for streets, other public space or similar amenities in the local plan is appropriated from the area of the *Umlegung*.
4. The remaining private properties will be returned to all owners involved using a special *Verteilungsmaßstab* (standard of distribution). There are different possible standards of redistribution: according to either plot values or sizes. The use of the size standard is only suitable if the values of all former plots are fairly similar. The principle of allocation has to take into account the former ratio of ownership, so that if , for example, a landowner possessed in total 20% of the overall value of all former plots he would have to receive back 20% of the value of the reallocated plots.
5. The allocation of new plots to landowners is conducted on the basis that each gets one or more developed plots according to entitlement, with monetary compensation if necessary.
6. When using the value-based *Verteilungsmaßstab*, the landowner has to pay the difference between the value of his former plot (undeveloped) and the value of his serviced new plot after the procedure of the *Umlegung*, which process incidentally permits the Municipality to retain betterment value (Müller-Jökel R.,1997). When using the *Verteilungsmaßstab*, according to the sizes of the plots, the Municipality is allowed to retain land equal to the increase in value caused by the *Umlegung* itself; however, according to the *BauGB* this may not be more than 30% in greenfield areas and 10% in inner-city locations. In these calculations the former appropriation for streets etc. (as referred to in stage 3 above) also has to be taken into account.

## BIBLIOGRAPHY

- Adams, D, *et al* (1999) *Do Landowners Constrain Urban Redevelopment?* Report Papers in Land Economy, University of Aberdeen.
- City University Business School (1997) *The Operation of Compulsory Purchase Orders*. London: DETR
- DETR (1997) *Planning Policy Guidance No.1: Principles*. London: HMSO.
- DETR (1998) *Planning for the Community for the Future*, London: HMSO
- DETR (1999) *Fundamental Review of the Laws and Procedures Relating to Compulsory Purchase and Compensation: Interim Report*. London: DETR
- DETR (2000a) *Our Towns and Cities: The Future: Delivering an Urban Renaissance, Cm 4911*. London: DETR
- DETR (2000b) *Fundamental Review of the Laws and Procedures Relating to Compulsory Purchase and Compensation: Final Report*. London: DETR
- Dieterich, H., Dransfield, E. and Winrich, V. (1993) *Urban Land and Property Markets in Germany* London: UCL Press Ltd
- Doebele, William A (Ed.) (1982) *Land Readjustment: a Different Approach to Financing Urbanization*, Lexington (USA): D.C. Heath & Co.
- Heap, Desmond (1996) *An Outline of Planning Law (11<sup>th</sup> edition)*, London: Sweet & Maxwell
- Larsson, G (1993) *Land Readjustment*, Avebury, Aldershot: England.
- Law Commission (2000) *Compulsory Purchase and Compensation: A Scoping Paper*, (London: Law Commission).
- Liebmann, George W (1998) *Land Readjustment for America: A Proposal for a Statute*, Cambridge (USA): Lincoln Institute of Land Policy
- Müller-Jökel R (1997), *The Development of the Legal Land Adjustment System in Germany - Consequences for Developing Countries*, Paper presented at the 9th International Seminar on Land Readjustment and Urban Development: Bangkok, Thailand, 1997;
- Urban Task Force (1999) *Towards an Urban Renaissance (Rogers Report)* .London: DETR
- UVF (2001) *Land Pooling for Major Development Projects: A Discussion Paper* (London: Urban Villages Forum)

## BIOGRAPHICAL NOTES

**Owen Connellan** BSc FRICS Rating Dip. is a Chartered Surveyor and Valuer who has written and lectured widely on real property matters in Britain and abroad. He is also a member of the International Association of Assessing Officers (USA) and a Faculty Associate of the Lincoln Institute of Land Policy (USA). He has specialised in rating and property taxation matters and his present research interests include valuation methodology and the application of information technology to asset appraisal and property taxation. Currently he is a Senior Research Fellow of Kingston University in England, where he was formerly Head of School of Surveying.