Introduction of Land Readjustment in the Netherlands: reflections from Germany and Spain

Dr. Demetrio Muñoz Gielen
Nijmegen School of Management, Department of Geography, Planning and the Environment, P.O. Box 9108, Nijmegen, 6500 HK; University of Amsterdam, Faculty of Social and Behavioural Sciences, Nieuwe Achtergracht 166, Amsterdam, 1018 WV; Municipality of Purmerend, the Netherlands; email: d.munozgielen@icloud.com.

Abstract

Many say that Land Readjustment (LR) can potentially resolve the stagnation of development that accrues from scattered ownership and improve the financing of public infrastructure in private land development. Under this enthusiasm for LR lay the arguments that it avoids the need of expropriating land, empowers landowners to develop their land and provides the necessary public infrastructure at a lower or even no cost for the public budget. This enthusiasm has enticed the Dutch government, who asked an expert committee to submit a draft proposal for a LR-regulation and since the summer of 2014 is working towards a draft LR act. However, LR not always resolves the mentioned problems and in some countries it is even a 'dead word' in legislation. Unfortunately, no much literature analyse which aspects of LR-regulations might be critical in practice. Supporting on the experience with the German and Spanish LR this paper offers a framework of analysis to evaluate whether a Dutch LR-regulation might work or not in practice.

Key words: land readjustment, financing public infrastructure, public value capture.

1. Introduction

Land Readjustment (LR) is experiencing a revival in academic literature (e.g. Hong & Needham, 2007; Van Der Krabben and Needham, 2012) and becoming popular among international development organizations like UN-HABITAT (e.g. 2012), the World Bank (e.g. 2014) and the Lincoln Institute of Land Policy (e.g. Hong and Brain, 2012). The instrument is advocated as being one important land management tool in developing countries, where a rapid urban growth is making thee need of large investments in public infrastructure more evident. It is also advocated that developed economies could profit from it too because it is as an alternative to the traditional two ways of assembling land: voluntary exchange or public expropriation[1]. E.g. Great Britain and the USA, where since the 2000's the use of public expropriation to transfer private property from one group of owners to another for private development is becoming more controversial and its enforcement more costly (Hong and Needham, 2007: xv-xix; Hong, 2007: 10-12). This enthusiasm is not new; it previously enticed at the end of the 1970's and in the 1980's many international organizations, scholars and practitioners (e.g. Doebele, 1982). They found LR, inspired by its successful application in the post-war reconstruction of Japan and South Korea, a useful tool to improve the quality of urbanization not only in developing countries but also in Western countries like the US. Land readjustment for large-scale urban development remained however largely untested outside Asia, Germany, Spain and Israel due apparently to the lack of an objective and trusted body of professionals in developing countries and due to the resistance of existing real estate interests (Doebele, 2007).

[1] *Expropriation* is equivalent to *eminent domain* and *compulsory purchase* or *acquisition*.

Similarly to those times also nowadays some voices are critical about the practical possibilities of LR. The instrument seems not always to be an effective and self-financing method of urban development, which is why it has sometimes been named a 'sleeping beauty', potentially interesting but rarely useful in practice (Alterman, 2012: 765). Unfortunately not much literature analyse with aspects of LR might be critical in practice. This paper thus seeks to contribute to literature aiming a more systematic analysis of the effectiveness of LR-regulations (e.g. Turk, 2008; Yilmaz et al, 2015). To do so it critically reflects on the recently announced plan of the Dutch government to introduce a LR-regulation in the Netherlands. The reflection supports on the experiences with two LR-regulations: the German *Umlegung* and the Spanish *Reparcelación*. Both regulations are being extensively applied for decades now, so cumulatively they contain many potential lessons from which other countries may learn. Based on this experience, this paper evaluates the current proposal for a LR-regulation in the Netherlands. As there is an almost dramatic lack of English spoken scholarly publications about the Spanish LR, this paper will also contribute to filling this gap in the international literature.

Germany introduced LR (*umlegung*) already in the 19th Century, and nowadays the regulation is applied with regularity, especially in small and medium sized urban green-field developments, but there are also cases of *Umlegung* in urban regeneration areas (interviews with Mueller-Joekel, 2014). Spain introduced LR (*reparcelación*) for the first time in 1956 and the regulation was modified in the 1970's and beginning of the 1990s. Until the 1980s the regulation was not applied properly. In the 1990's, following a reordering of competences in urban planning among the central and the regional public administrations, each of the 17 Spanish regions developed its own variant of LR. Of these variants this paper will focus on the one of the region of Valencia[2] because it introduced some novelties that extended to most other regions. After the 1980's the instrument has been extensively used in almost all urban development in the country. Since that time almost the entire urban development in Spain, except strategic developments (e.d. large industrial sites, some complexes of public facilities and social housing and other singular cases) and main infrastructure (highways, railways, airports, seaports, etc), has been developed through LR (Muñoz Gielen, 2010 and 2014). This paper will refer to the LR-regulation that was in force until the 1980's as 'traditional LR', the LR-regulation since then as 'Spanish LR' and the LR-regulation introduced in the 1990's in the region of Valencia as 'Valencian LR'.

Section 2 introduces the proposed new LR-regulation in the Netherlands. Sections 3 to 7, based on the experience with the German and Spanish LR, reflect on separate aspects of LR: section 3 analyses which party is empowered to implement LR, section 4 the enforceability of readjustment on opposing landowners, section 5 how much costs can be charged on landowners, section 6 whether LR guarantees the construction of public infrastructure and section 7 the transparency and accountability of the LR procedure. Finally, section 8 draws general conclusions.

2. The Dutch proposal of LR

The Netherlands already dispose since 1924 of a LR-regulation meant for reassembling agricultural land that has succeeded in reordering a large part of the total agricultural surface into more efficient plots. In 2013 the Dutch Ministry of Infrastructure and Environment assigned to a special committee (from now on: 'LR Committee') the task of drafting a draft proposal of LR-regulations meant for urban development. In previous years the problems with the stagnation of urban development created among professionals, academics and stakeholders (e.g. the Dutch Federation of Municipalities and the Dutch Federation of Urban Developers) support for a LR-regulation for urban areas. On the 1st of July of 2014 the Dutch

[2] 1994 *Ley de Regulación de la Actividad Urbanística de la Comunidad Valenciana*.

Parliament (second chamber) expressed its support to the introduction in the short term of a LR-regulation, and nine days later the LR Committee offered his conclusions to the Ministry (Commissie Stedelijke Herverkaveling, 2014). In its rapport, the LR Committee made a draft proposal of LR-regulation (from now on: 'Proposed LR'). The Ministry is at this moment organizing an open consultation among stakeholders and experts and working towards a draft law (from now on: 'Draft LR-act'), which will probably be published at the end of 2015. If finally approved, the act is supposed to become in force in 2018, together with a major revision of urban and environment legislation. This paper will thus reflect on the Proposed LR and, as far as some of its contents are known, on the Draft LR-act.

The Proposed LR regulates first the reallocation and realignment of all the rights in rem[3] regarding real estate (from now on: 'properties') within a development area (*blok* following the terminology of the LR Committee). Second, the Proposed LR regulates the construction of the necessary infrastructure. Within current civil Dutch legislation the owners of the rights in rem of real estate (from now on: 'owners') can agree land readjustment without any intervention of the public administration. However, in case there is a minority of owners opposing, the Proposed LR gives to the municipality, provided that a majority of owners supports it and the intended plan is economically feasible[4], the powers to force the readjustment of the properties of the minority. This compulsory readjustment is meant to be carefully regulated and foreseen with the necessary legal guarantees, the municipality remains responsible for all decision-making and an independent committee should supervise the procedure. Regarding these compulsory powers, the Ministry has recently announced that it will not include it in the Draft LR-act, leaving only the possibility of a voluntary readjustment that will require agreement among all the owners.

The procedure in the Proposed LR follows the following steps: after anybody undertakes the initiative, and provided that a majority of owners support it, the municipality makes a public notice of the draft Readjustment Plan (*Ruilplan*), which will be available to the public. A Readjustment Plan consists of two sets of documents: a List of Owners (*Lijst van Rechthebbenden*) and a Distribution Plan (*Plan van Toedeling*). These documents prescribe the physical transformation of the development area to the new uses and functions and the reassignment and reallocation of properties. In case these new uses and functions do not fit within the existing Land Use Plan, this plan will have to be modified[5].

Before the Land Use Plan is modified and before the draft Readjustment Plan is approved, municipalities must check whether all the necessary development costs are secured[6]. This means that the implementing party (the one who leads the process, see section 3) has to sign a development agreement (a private law contract) in which he commits to bear all the

[3] De most relevant 'rights in rem' regarding real estate are: property right (*eigendomsrecht*), building lease (*recht van opstal*), flat ownership or condominium (*appartementsrecht*), usufruct (*recht van vruchtgebruik*), leasehold or enphyteusis (*recht van erfpacht*), use right (*erfdienstbaarheid*) and mortgage (*hypotheek*).

[4] I.e. provided that the economic value of the land increases thanks to the transformation from the previous to the new uses.

[5] This paper focuses on LR-plans that involve such a modification of existing functions and uses that there is always need of modification of the Land Use Plan. With a modification of the Land Use Plan I mean any land-use regulation decision of any kind (rezoning, additional development rights, relaxation of existing land-use regulations, etc) that allow more economically profitable functions and uses.

[6] Costs are 'secured' when there is certainty that there is, or will be, financial means available to pay them. This certainty can be created in different ways: *i)* When there is a development agreement or any other form of private law contract that commits any party to pay; *ii)* When any public body commits itself to subsidy the costs; *iii)* When the municipality has the land and has calculated that the profits of selling the land will cover the costs (thus, in case of public active land policy, which is excluded from the situations described in this paper).

development costs (in kind or, in case that the municipality has to invest in the infrastructure, in money). The development costs that must be secured by the implementing party include the necessary infrastructure located inside the development area (the *blok*). See section 5 for a definition of infrastructure inside and outside the development area. In case the implementing party refuses to secure the development costs located inside the development area, the municipality has the power to refuse the approval of both the Readjustment Plan and the modification of the Land Use Plan. Regarding the costs of infrastructure outside the development area, the implementing party and the municipality can negotiate to include them in the development agreement too, but this is strictly voluntary. If the implementing party refuses, the municipality has not the statutory powers to refuse the approval of the Readjustment and Land Use plans. So in case there is no agreement about these costs, the municipality must try to recover them through section 6.4 of the 2008 Physical Planning Act (*Wet ruimtelijke ordening*). So one important feature of the Proposed LR is that it prescribes how to recover only part of the costs and partially supports on section 6.4 to recover the rest (see Frame 1). We will see later in section…. why this might be a problem.

Frame 1: Section 6.4 of the 2008 Physical Planning Act

Section 6.4 gives to municipalities the power to compulsorily charge infrastructure costs on landowners through a Development Contributions Plan (*Exploitatieplan*). When a land use plan has to be modified to allow a building plan, and municipalities do not manage to agree voluntarily with the landowner about his contributions for the infrastructure, they can approve this plan together with the modification of the land use plan. In the Development Contributions Plan municipalities calculate the costs that landowners will have to contribute. Once the municipality approves this plan together with the new land use plan, she can make granting the building permit conditional on this contribution. If the landowner does not secure this contribution the building permit becomes nullified. In this sense, municipalities can compulsorily charge these costs on landowners: if landowners do not pay, they cannot build.

There are many drawbacks of this way of charging landowners through the Development Contributions Plan. First, the 2008 Act and the 2008 Physical Planning Decree (*Besluit ruimtelijke ordening*) regulate in detail the costs that can be included in a Development Contributions Plan and charged to the landowners: mostly local, site-specific, on-site public infrastructure. Large public infrastructure, especially that one located off-site, largely cannot (partially or totally) be charged to the landowners. There have been examples of municipalities charging these costs to landowners through a Development Contributions Plan, but judicial scrutiny is limiting this practice (Buitelaar et al., 2012: 63-65). Second, specially in urban regeneration areas, the evaluation methods of land prescribed in the 2008 Act and Decree often diminish further the amount of costs that be charged to landowners. Third, the approval of this plan involves an active and direct involvement of municipalities, who bear responsibility on the implementation of the infrastructure and might suffer losses if finally the costs are higher than initially calculated.

Due to these drawbacks municipalities do preferably agree a development agreement with the landowner in which he commits to bear the costs, instead of approving a Development Contributions Plan. Indeed, Development Contributions Plans are not used frequently: up to July 2010 municipalities used it in only 3% of the building plans (Buitelaar et al., 2012: 62). However, municipalities are not free to force a development agreement and landowners must agree voluntarily. The lawmaker presupposes that in case there is not agreement, municipalities are able to recover the costs through a Development Contributions Plan, so following jurisprudence municipalities cannot easily refuse the plan. Recent jurisprudence is punishing those municipalities who refuse plans just with the argument that the landowners did not agree a development agreement (Fokkema, 2014; BVH Ruimte i.s.m. Vreman Advies, 2014: 19-20). Municipalities must prove that with a Development Contributions Plan the municipality will finally end up subsidizing the costs. Only then municipalities can refuse the

initiative without the risk of loosing the case at the Courts. This implies that municipalities have to do a draft Development Contributions Plan beforehand to prove the need of subsidization, which implies a direct organizational input that not all municipalities can afford.

Together with the draft Readjustment Plan, the municipality also makes a public notice of a draft List of Pecuniary Regulations (*Lijst van Geldelijke Regelingen*), which will also be available to at least the owners. A List of Pecuniary Regulations transposes the Readjustment Plan into its financial consequences: it includes a land exploitation calculation[7], the 'initial value' of all properties included in the development (*inbrengwaarde*) and the 'end value' of the resulting serviced building plots (*uitneemwaarde*)[8], a calculation of the balance for each owner, a calculation of the compensation for those owners that cannot receive a serviced building plot[9] and of other costs as for example compensation for the removal of existing buildings or users.

After the public consultation, and after the implementing party signs a development agreement in which he secures at least the development costs located inside the development area, the Municipality approves the Readjustment Plan (but not yet the List of Pecuniary Regulations). Previously or after this, the municipality modifies the Land Use Plan[10]. Once the Readjustment Plan is irrevocable[11] the Property Register (*Kadaster*) reassigns and reallocates the properties, i.e. issues new titles to returning property owners. Now the financial processing starts: the implementing party works out the List of Pecuniary Regulations, the municipality approves it, the implementing party constructs the infrastructure or pays the municipality for doing so and finally the serviced building plots are delivered to the owners and the public infrastructure to the Municipality.

3. Who is the implementing party?

One important feature of a successful LR might be whether it offers or not the possibility to different parties of becoming the implementing party[12]. The implementing party is the one who:

a) Prepares the necessary documents (the Land Use Plan, the Readjustment Plan and the List of Pecuniary Regulations in the Proposed LR for the Netherlands), creates enough

[7] A 'land exploitation calculation' includes a calculation of all costs and incomes made in the development of the land, i.e. the process that starts with the initial physical situation and ends with the delivery of serviced building parcels ready for building. The costs and incomes are translated to their present or future value and incremented or diminished with the expected indexes.

[8] The 'initial value' is the market value of the properties under the presumption that the Land Use Plan is not going to be modified, the properties are not going to be readjusted and the area is not going to be developed. It excludes thus the expectations of future value increase due to the development of the area. The 'end value' is the market value of the resulting serviced building plots, i.e. after the modification of the Land Use Plan, the readjustment of the properties and the construction of the infrastructure.

[9] Because for example their initial property was too small to account for a full serviced building plot.

[10] Provided such modification is needed. As said, this paper focuses on those cases that involve such a modification of existing functions and uses that there is always need of modification of the Land Use Plan.

[11] A Readjustment Plan is irrevocable after the legal possibilities of challenging it at the Courts have passed, or in case of appeals, after the Courts confirm the municipal approval.

[12] The 'implementing party' receives different names in literature, e.g. a 'self-governing agency for redevelopment' or 'land assembler' (Hong and Needham, 2007: xv-xix), a 'land readjustment agency' (Hong, 2007: 20), ….

political and social support for the plans and submits them to the public administration in charge (the Municipality in the Dutch case);
b) Actually provides the public infrastructure and delivers serviced building plots (and in case he has to advance investments, the one who also bear financial risks, see later).

It is relevant whether not only public bodies, but for example also property developers and associations and cooperatives of owners have the possibility of becoming the implementing party. This is relevant because public bodies are not always powerful enough (organizationally and financially) to lead LR. For example public bodies might lack the necessary technical and managerial skills, and if other parties can also lead the readjustment the chances are larger for an effective implementation of LR (Yilmaz, 2015: 159, 162).

Who is the implementing party in Germany and Spain?
In both Germany and Spain, the same as in the Dutch Proposed LR, it is the Municipality who keeps all the competences of approving the plans and of organizing all necessary administrative procedures, included all public consultation. But the implementing party does most of the work (a and b). Who is the implementing party in Germany and Spain?

- In Germany the implementing party is a public development company, most of the times belonging to the Municipality;
- In Spain there are different possibilities, the Municipality (or sometimes another public body) can point out as implementing party:
    - In both the Spanish and the Valencian LR: a public development company;
    - In the traditional LR: besides a public development company, municipalities can also point out the landowners of at least 60% of the surface of the development area as the implementing party;
    - In the Valencian LR: besides a public development company, municipalities can point out in a public selection not only the landowners, but also any other party (not necessarily owning land, although most of the times it is a property developer who owns part of the land). So there is not anymore the threshold of 60%.

Who is the implementing party in the Proposed LR for the Netherlands?
In the Proposed LR the implementing party is the majority of owners and, if the Draft LR-act finally excludes compulsory readjustment, a 100% majority. It is possible for the owners to agree with for example commercial developers to implement LR together, but the support of the majority is *conditio sine qua non*. So, the same as the German LR, the Proposed LR in the Netherlands reduces the universe of parties that can implement LR: in Germany only a public municipal development company can implement LR, in the Netherlands only the majority of owners or those parties that have an agreement with the majority of owners. Leading LR in Germany relies thus on strong municipalities, and in the Netherlands on an agreement with a majority of owners.

In the traditional Spanish LR, where both a majority of landowners and a public development company could implement LR, there were often many landowners opposing the plans. In theory municipalities could overcome resistance through compulsory LR or through expropriation: In Spain, besides the compulsory land readjustment, there is also the possibility, rarely used, of expropriating the land. However, municipalities were not strong enough, and/or they did lack the necessary political will or financial resources to intervene, so opposition of landowners often delayed LR and/or forced municipalities to lower the amount of public infrastructure and other requirements. This lead in the 1960s, 1970s and 1980s to badly provided developed areas. In the 1990s the region of Valencia gave to municipalities the statutory powers to point out private parties not necessarily owning land as implementing parties, and gave them the powers to enforce readjustment. This was already introduced in the 1970s in the traditional Spanish LR, but the Valencian LR gave to the selected parties enough certainty about their risks so that they actually dared to assume the responsibilities of

becoming implementing party (section 6 reflects further on these certainties and risks). This novelty reduced the need for commercial developers to acquire land beforehand and thus reduced their financial risks, this leading to a sharp increase of private implementation of LR, which coexisted alongside those LR-plans implemented by public bodies. The Valencian LR contributed in this way to increase the effectiveness of LR in terms of a sharp increase of areas developed with LR and a clear improvement of the quality and quantity of the public infrastructure in the developed areas. This novelty extended to almost all Spanish regions (Muñoz Gielen & Kortals Altes, 2007). Whether LR in the Netherlands could benefit with such a measure is difficult to answer, but it seems that at least the requirement of supporting on a majority of owners will exclude many areas to become developed with LR.

4. Voluntary or compulsory LR?

Voluntary and compulsory LR in Germany and Spain
In both Germany and Spain there is the possibility of both a voluntary and a compulsory LR. In the voluntary LR the implementing party agrees with all the owners the terms of the readjustment, i.e. the detailed infrastructure provision projects (quality, quantity, costs), when will he provide the infrastructure, how much and when will the owners pay their share of the costs, which serviced building plot will receive each owner, etc. Voluntary LR can only be done if all owners agree to the terms of the readjustment. That's why voluntary LR is also called 'private' LR. With an increasing number of owners the chance to get this agreement from all participants decreases, so the experience in both countries show that there is need of a compulsory LR.

In the compulsory LR the implementing party can impose the readjustment terms upon the owners (usually just a minority of them opposing the development) and force the readjustment. This means that the implementing party, after the public administration approves the LR-plan, inscribes in the property registers the new property boundaries (new serviced building parcels for the owners and the public infrastructure for the municipality). All owners, whether they agreed or not with the LR-plan, receive a new serviced building parcel, so there is no expropriation, i.e. the property of owners who do not agree just becomes readjusted without the need to expropriate it. This serviced building parcel uses to have different dimensions than the former property (smaller, as there was some land needed for the public infrastructure), and might be located in a different place, but it is more worth in economic terms than the former property. Compulsory LR is not always applied in Germany and Spain, but the mere possibility of it has been central in the effectiveness of the regulation. This conclusion for Germany and Spain is also said to apply for any LR-regulation that wants to become effective (e.g. Hong, 2007: 17-21).

Voluntary or compulsory LR in the Netherlands
The LR Committee proposed to the Ministry the possibility of forcing LR on a minority of owners provided that a majority supported it. In the Proposed LR it is the local council (local legislative body) the one who should decide whether there is sufficient support among owners, and the LR Committee suggested a minimum percentage of 80% of the total surface of the plan area, of the number of owners or of the market value of the land. Here the Proposed Dutch LR is more conservative than the German or the Spanish LR, where no minimum support among owners is needed. Based on the experience in Germany and Spain this can lead to delay and stagnation of LR in the Netherlands. As recently the Dutch government announced to introduce only a voluntary LR, this shortcoming will be worst, and LR might become a 'dead letter' in legislation. As far many stakeholders manifested their disconformity with this decision and there seems to be also resistance in the Parliament, so this will be one important discussion in the next months.

5. How much do owners pay?

LR is often priced as being a self-funding way of paying all the externalities of urban development. In theory, the economic value increase that accrues from the development should pay for all necessary development costs. The value of land increases thanks to (1) modifying the land use plan towards more profitable uses, (2) readjusting the properties to adapt to the new uses and (3) providing the infrastructure[13]. The development costs to be paid with the value increase potentially include the construction of public infrastructure directly needed for the development and also those external negative impacts in the wider physical or social realm (off-side infrastructure, 'soft' social infrastructure, affordable and social housing, sustainable measures, etc). There are for owners two possible ways to contribute: ceding land for free or very cheap (meant for public infrastructure or as payment in kind for the costs of constructing the public infrastructure) and paying monetary contributions (*cfr.* Yilmaz, 2015: 160). A distinction should be made between costs that can be compulsorily charged to the landowners, and additional contributions that can be agreed voluntarily.

How much do the German owners pay?
In Germany landowners can be compulsorily charged through LR with the following costs:

- The area designated for local public infrastructure in the legally binding land use plan (the 'hard' local infrastructure like roads, sewerage, etc, which occupies from about 20% to 40% of the total development area[14]) must be ceded for free provided that the value increase due to LR (the second value increase step of the three mentioned above) is large enough to compensate owners for this, see under. This means that in areas with high land values municipalities usually can obtain this land for free, but in areas with low land values municipalities will have to compensate landowners or just designate less land for local public uses;
- German municipalities can also, after providing the local public infrastructure, charge a Recoupment Charge on landowners (*Beitragsbescheid*) to pay at most 90% of the costs of constructing this infrastructure[15]. This contribution (formally not a tax) is based on the *Erschließungsbeitragsrecht* of the Federal Building Code (Hobma et al., 2014: 33-39).

So in principle German municipalities will not recover all the costs made. Regarding the costs of constructing the local infrastructure, the Recoupment Charges covers a maximum of 90% of these costs. Regarding the land needed for this local infrastructure, municipalities have to support on a second charge, the 'Readjustment Charge'. After the readjustment of the properties municipalities can charge landowners the economic value increase of their land that accrues from the readjustment (i.e. the fulfilment of the LR-procedure and the reshaping of property boundaries in the property registers, this is the second value increase step of the three mentioned above). The economic value increase that accrues from the modification of the land use plan (first value increase step) belongs in Germany to the landowners and cannot be charged. Landowners usually pay by ceding for free the land that is needed for the local public infrastructure (the mentioned 20 to about 40% of the total development area). In case this land is not enough to pay the value increase due to readjustment, landowners have to pay an additional amount in money, or they can also pay with extra land. These extra payments in money or land can be enough to pay all the costs (land and construction costs) of the local infrastructure, and sometimes also to cover part of the costs of supra-local public

[13] For example a former deteriorated industrial area or an agricultural area has to be rezoned to residential before land readjustment can proceed. Only the fact that the administration rezones the land does automatically increases the market prices of the land. After the land has been readjusted, the price of land also increases again, and once the infrastructure has been constructed, the price might increase too.

[14] The local public infrastructure that can be compulsorily charged excludes 'soft' social facilities usually serving wider areas, e.g. schools.

[15] This regards only the costs of constructing the local infrastructure, and excludes the needed land and of course the costs of 'soft' social facilities.

infrastructure (contributions for infrastructure that serves a wider area and are located in, near by or far away from the development area) and of 'soft' infrastructure (like schools, sport facilities, health-related buildings, retirement homes for the elderly, affordable/social housing).

Summarizing, both the Recoupment and the Readjustment charges together sometimes cover all the costs of the local public infrastructure, and sometimes less, depending on the land values and market circumstances in the specific area. If taking into account the supra-local public infrastructure and other 'soft' infrastructure, neither the Readjustment and the Recoupment charges are usually enough to pay all the costs, so there is a need of public subsidization[16].

This might be the reason that many German municipalities try to avoid the formal compulsory procedure and prefer to agree LR voluntarily with the owners. In case of voluntarily land readjustment, municipalities can negotiate with landowners to contribute more. They do so sealing a development contract, referred to as 'administrative contract' because it is regulated in public law (Section 11 of Federal Building Code –BauGB). Any party and the Municipality can seal different sorts of administrative contracts: *Erschließungsvertrag* and *Folgekostenvertrag* (Hobma et al., 2014: 28-30, 32). It is also possible to seal a 'private' law contract (ruled in Civil Law). These contracts can include additional contributions for supra-local and soft infrastructure (Hobma et al, 2014: 35). For example in Stuttgart these contracts are used to provide up to 50% of the land for public infrastructure or to provide free/cheap land for affordable/social housing; in Munich they are used to charge part of the economic value increase that accrues from modifying the land use plan. However, both landowners and Municipalities must agree voluntarily on this. If there is no agreement the Municipality cannot charge more than the above-mentioned Recoupment and Readjustment charges.

How much do the Spanish owners pay?
In the Spanish LR landowners are compulsorily charged with the following costs:

- Landowners must cede for free all the land designated for local, supra-local and soft public infrastructure in the land use plan. This is an average between 60% and 80% of the development area. Depending on the regional LR-variant, this might include important amount of land ceded for free or for a cheap price meant for affordable and social housing[17];
- Important contributions in land for supra-local public infrastructure located outside the development area;
- All the costs of constructing the local public infrastructure (but not the supra-local and soft infrastructure);

[16] For example, in good areas (Frankfurt) the value of agricultural land can be about € 8/m2, once rezoned about € 200/m2 and once readjusted about € 400/m2 (this latter value is an estimation of the value of the final building plots, provided with local public infrastructure, minus the cost of constructing this local public infrastructure). In this example the landowners have to cede for free up to 50% of the total surface of their original parcels (they receive 50% of their former property as serviced building plots, which is as worth as the value of 100% of their property before readjustment). If there is need of less local public infrastructure, landowners will have to pay the remaining in money or with land.

[17] For example, in the Bask country regional legislation prescribes that 20-40% of the development area in regeneration sites (20% from 1994 to 2006, and 40% onwards), and 65-75% in green-field sites (65% from 1994 and 75% from 2006) must be ceded partly for free and partly offered for a cheap price (between € 100 and € 200/m2 of building area). This land is to be used for social and affordable housing. In the Bask city of Vitoria-Gasteiz this led to a share of 70% of affordable and social housing in all new residential areas during the period 1994-2005 (Burón Cuadrado, 2006 and 2012).

The same as in Germany, landowners must finally receive serviced building plots that are economically speaking more worth than the initial value of their land. The difference with Germany however is that landowners in Spain can be charged up to almost the full value increase of land (the value increase that accrues from all three steps mentioned before). Landowners have by law the right to keep part of the value increase, which means that the resulting readjusted serviced building plots are more worth than the initial value plus the costs of public infrastructure that they have to pay, this allowing a reasonable profit. But still Spanish municipalities generally force land landowners to cede more land and pay more contributions than in Germany. In addition, the same as in Germany, Spanish municipalities can negotiate additional voluntary charges, for example the building of public buildings or monetary contributions towards it, the building of social/affordable housing, or money payments to the general municipal budget. An important difference with Germany however is that in Spain LR is the obligatory, statutory land development tool, and municipalities cannot refuse to proceed if, for example, implementing parties do not agree voluntarily on additional contributions. Agreed additional contributions are frequent in Spain, but not omnipresent.

How much must the Dutch landowners pay following the Proposed LR?
The Proposed LR is not very clear in this. It differentiates between infrastructure located inside and outside the development area (*blok* in the LR Committee's terminology). It seems that the LR Commission means that costs inside the development area are those that can be compulsorily charged to landowners through section 6.4 of the 2008 Physical Planning Act (see frame 1 above).

The Draft LR-act will need to clarify the link that the Proposed LR establishes with section 6.4: for example following section 6.4 infrastructure located inside the development area that serves areas outside it cannot be fully charged to the landowners, while the Proposed LR seems to suggest that these costs can be fully charged. The ambiguity is due partly to semantic ambiguity[18] that should be clarified. But this in not the only aspect where the link with Section 6.4 will create problems.

The Proposed LR prescribes that the implementing party must secure in a development agreement the costs and the needed land of the infrastructure located inside the development area or *blok*. If not, the municipality can refuse to approve the Readjustment Plan and modify the Land Use Plan. So this development agreement is partly voluntary (the implementing party is not obliged to sign it) and partly compulsory (if he doesn't development goes not further). It is possible also to negotiate contributions for infrastructure outside the *blok*, but this is voluntary, i.e. the municipality is not allowed to refuse to approve the Readjustment Plan or modify the Land Use Plan in case the implementing party does not agree. Legislation and jurisprudence presuppose that municipalities can recover the costs via a Development Contributions Plan. This has two main problems:

- If there is a minority of landowners that do not agree to secure any costs (of infrastructure inside and outside the *blok*) in the development agreement, the municipality has statutory powers to refuse the initiative. If the implementing party wants to go further he will need to sign the development agreement and advance the share of the minority. It is unclear whether he will be able to recover this share from the minority, see in frame 1 the limits of cost recovery through the Development Contributions Plan. This problem can be resolved if, similar to the Spanish LR, the implementing party receive or sell part of the serviced building plots of the opposing minority to pay the contribution they refuse to pay. Another way of resolving it could be, at least partially, the German Recoupment and Readjustment charges, to be levied on the landowners after delivery of the serviced

[18] The Commission LR uses the term *noodzakelijk* (necessary) as something different from the legal term *toerekenbaar* (attributable), while they mean (as far as it is used to remark which costs can or cannot be compulsorily charged to landowners) the same.

building plots. If the value of land increases enough due to the readjustment, these charges can recover most or all the costs of the local public infrastructure.

- Anyway, if landowners refuse to secure the costs outside the *blok*, the municipality can formally speaking not refuse the initiative and will have to advance these costs and try to recover them through Section 6.4 (so most probably will end up having to subsidize). This problem can be resolved if, similar to the Spanish LR, the municipality is allowed to refuse the approval of the Readjustment Plan and the modification of the Land Use Plan in case the implementing party refuses to secure in the development agreement the costs outside the *blok*. With other words, the Proposed LR should not support on Section 6.4 and prescribe it's own way of charging all the costs through the development agreement.

The same as in Germany and Spain, the Proposed Dutch LR includes the provision that the economic value of the resulting serviced building plots must be higher than the value of the former properties. This guarantees that landowners will profit economically from LR. The Proposed Dutch LR is more similar to the Spanish LR because landowners can be charged up to almost the full value increase of land due to all three value increase steps mentioned above (modification of Land Use Plan, readjustment of properties and infrastructure provision), which bears the potentiality of recovering all costs of infrastructure located inside the development area. However, while in Spain also the costs of infrastructure outside the development area can be charged compulsorily, in the Dutch Proposed LR these costs can mostly no be compulsorily charged because here the Proposed LR supports on Section 6.4 and this regulation does not guarantee a full cost recovery.

6. LR should guarantee the construction of the infrastructure

One important feature of LR is whether it succeeds or not in providing the necessary public infrastructure and facilities and avoids the situation that land has been readjusted but the infrastructure never is constructed, or too late, e.g. because there are not sufficient means for paying it (Yilmaz e.a., 2015: 158). Here LR needs to create two sorts of certainty.

Certainty that the implementing party will construct the public infrastructure
LR is effective if it creates certainty that the implementing party will construct the necessary infrastructure. How this certainty is created differs in the Spanish and German LR. In the Spanish *Reparcelación* the certainty is created in a developer agreement between the municipality and the implementing party in which this party commits to construct the infrastructure or to pay to the municipality for it. Generally speaking market parties are reluctant to commit because they have to deal with many uncertainties about the feasibility and the profitability of the project. During several decades the traditional Spanish LR did not include the obligation of sealing a development agreement, which resulted in delays and badly provided development areas. In the 1990's the Valencian LR (and later on this novelty became extended to almost all other regions) prescribed an obligatory development agreement: after an implementing party submits a readjustment plan municipalities organize the public decision making process (which includes a public selection among this and other possibly submitted readjustment plans) and modify provisionally the land use plan. However, this land use plan is approved definitively only after the development agreement has been signed. So in the Spanish LR implementing parties must sign a development agreement in which they guarantee the construction of the infrastructure. If they don't the land use plan does not become ratified, building permits cannot be issued and landowners can thus not profit from the new building possibilities. With other words, profiting from enhanced development possibilities is conditioned to a contractual commitment to bear all related costs.

In the German LR, formally speaking, municipalities are not allowed to condition the modification of the land use plan to any party signing any contract. However, the system

creates certainty because municipalities are the implementing party and commit to construct the infrastructure, if necessary subsidizing part of it.

Certainty that the implementing party will obtain enough financial resources to construct the infrastructure
In order to commit the implementing party to the construction of the infrastructure, both the Spanish and in the German LR they need on their turn certainty about how they will obtain the necessary financial resources. In Spain these resources fully come from the landowners, and in Germany there is often, besides the landowners' contributions, a public contribution too. In Spain the implementing party (a public company, a developer or the landowners) has certainty about the contributions of landowners because he has certainty that the municipality will use her statutory powers to force the readjustment of the properties and, in case landowners refuse to pay their share of the costs, also to charge part of their serviced building plots as paymend in kind. In Germany the implementing party (a municipal development company) has certainty about the contributions of landowners because the Municipality can charge both a Recoupment and a Readjustment charge. However, in case these do not cover all the costs, municipalities have to issue a subsidy.

Besides whether landowners cover all the costs or not, it is also relevant when do they contribute. In Spain landowners pay in instalments, just before the implementing party constructs the public infrastructure. And, as mentioned before, landowners pay all the costs. This implies that most of the times the implementing party only has to advance a minimal part of the investments (the costs of preparing the necessary documents previous to the selection as implementing party), and thus does not need to advance almost any investment. In Germany landowners pay afterwards, once the Municipality has readjusted the properties and provided the public infrastructure. This implies that the municipal development company has to advance the investments and the possible subsidy. It is however possible to charge part of the costs of infrastructure while completing part of the public infrastructure, which diminishes the need of previous investments.

Concluding, in Spain the implementing party has certainty about the legal possibilities of recouping all the costs, so he can commit in a development agreement to provide the infrastructure, which is a legal obligation. In Germany the municipality has also certainty about the legal possibilities of recouping an important part of the costs, so if she disposes of supplementary subsidies there is certainty that the public infrastructure will finally be constructed.

Certainties in the Proposed Dutch LR
In the Proposed LR Dutch municipalities, the same as in Spain, can condition the approval of the Readjustment Pland and the modification of the Land Use Plan to the majority of landowners signing a development agreement in which they secure the costs of the public infrastructure located inside the development area. Thanks to the flexibility of development agreements, municipalities can also require the landowner to pay before the infrastructure construction, or to pay in instalments, which reduces the need for municipalities of previous investments.

There are however two aspects in which the Proposed Dutch LR could learn from the German and Spanish experience. Regarding the local infrastructure, in both countries there are legal possibilities of compulsorily charging the costs to all landowners, also to an opposing minority. In the Netherlands however the only statutory way of compulsorily charging costs to a minority of opposing landowners is applying Section 6.4, which implies the possibility of not recovering all these costs, or recovering them with delay. This means that implementing parties have to advance the share of the minority of landowners and do not have certainty about recovering this investment, and when. Regarding the supra-local, off-site and 'soft' infrastructure, in the Proposed Dutch LR municipalities cannot require from the implementing

party to commit contractually to pay these costs, so municipalities can only try to obtain them through Section 6.4, which implies most probably having to end up subsidizing them.

The perspective of not being able to recover all the costs will discourage Dutch municipalities to undertake formal steps in the LR procedure before obtaining certainty from the implementing party. Dutch municipalities, the same as they already do with normal building initiatives on private land, will encourage also in LR informal ways of negotiation and condition any formal step (i.e. organizing a public decision making process about the Readjustment and the Land Use plans) to the implementing party previously agreeing in a development agreement to pay all the costs. This increases the uncertainties for the implementing party: while municipalities ask him to sign a development agreement there is no certainty about the future building possibilities and thus about the potential profits. The formal public decision making about the Readjustment and Land Use plans will start only after the signing of the contract, so before there is for the implementing party no certainty about whether the Local Council will finally agree, and under which circumstances and requirements. This uncertainty can also undermine the agreement between the implementin party and the landowners, as one of the basic parameters for their business case (how much will increase the value of their land) is uncertain. Specially not professional, somehow reluctant landowners will not be seduced to join a project with uncertain profits and will prefer free-riders strategies as for example forcing the Municipality to rely on Section 6.4, which implies lower costs for the landowners. Clear estimations of the expected profits are central in any LR-regulation (Hong, 2007: 16).

In short, the Proposed LR creates too much uncertainties for implementing parties, who will be reluctant to secure the costs of public infrastructure in a development agreement. As a reaction, municipalities will not be willing to undertake any formal step, this leading to a vicious circle: municipalities do not dare to give the certainty that the implementing party needs because they are afraid of ending up having to support on Section 6.4 and thus having to subsidize part of the costs. On their turn, implementing parties cannot afford giving certainty about the construction of public infrastructure.

7. Transparancy and accountability

This negotiation strategy does not constribute to an open, transparent and accountable decision making. Negotiations will namely be secret and decisions be made before the Local Council and the public will be consulted. The risk is also that the secrecy of negotiations will favour the best positioned stakeholers and harm an equitable distribution of costs and profits among all owners, which in general is one important prerrequisite of an effective LR (Yilmaz et al, 2015: 161). LR is presented in literature as a transparent alternative to other land development tools, one that allows more support among landowners and other stakeholders, but the Proposed LR for the Netherlands might end up not fulfilling this expectation.

At this point the Spanish LR offers an interesting experience. Spanish municipalities do not hesitate to approve the new land use plan and a draft of the readjustment plan before the signing of the development agreeing because they have the statutory powers to reverse these plans if finally the implementing party does not secure the costs in a development agreement. This gives to implementing parties enough certainty about the future building possibilities. It is important however to remark that this certainty is not only created through the provisional approval of the plans. Also, there is certainty about the costs of infrastructure thanks to three other ways: 1) municipalities also prescribe together with the provisional approval of the plans which infrastructure is required; 2) specific regional legislation prescribes minimal urban standards and percentages of minimum required social and affordable housing[19]. The negotiations, which must end in a development agreement, take thus place after a first open

[19] For example the previously mentioned Bask regional legislation on minimum percentages of social and affordable housing.

and public decision making proces and on the basis of openly prescribed requirements. The final results of the negotiations must be reverted back to the local council, who must ratify the plans. If there is no agreement, the provisionally approved modification of the land use plan is not enforceable (building permits cannot be issuded). A similar negotiation process takes place in England when local administrations negotiate planning gains and obligations ex Section 106 (Muñoz & Tasan-Kok, 2010).

7. Conclusions

The Dutch Proposed LR includes the possibility of charging compulsorily almost the full value increase of land due all three possible value increase steps (modification of Land Use Plan, readjustment of properties and infrastructure provision) to recover the costs of infrastructure located inside the development area. In this the Dutch proposal improves the German LR, where only the value increase due to the readjustment of the properties and the construction of infrastructure can be charged, this excluding the value increase that accrues from modifying the land use plan and often leading to the need of public subsidies. So the Dutch LR might be able to a full recovery of the costs of infrastructure located inside the development area. However, in order to recover the costs of a minority of landowners opposing to the plans, and in order to recover the costs of infrastructure located outside the development area and of 'soft' infrastructure, the Proposed LR supports on Section 6.4 of the 2008 Physical Planning Act, which in practice does not help much. The relation of LR with other land management tools (specially cost recovery and land acquisition tools) is mentioned as important for any effective regulation (Yilmaz, 2015: 159). The upcoming Dutch Draft LR-act should better fit within the existing Dutch legislation and avoid actors circumventing LR through Section 6.4.

As a consequence of this mismatch, municipalities have not the certainy a full cost recovery of all necessary public infrastructure. The perspective of ending up having to subsidize will discourage Dutch municipalities to undertake formal steps (i.e. modify the Land Use Plan and approve the Readjustment Plan) in the LR procedure before the implementing party securing all the costs in a development agreement. Implementing parties will be required to sing an agreeement without certainty about the building possibilities and about whether they will be able to recover the costs from the minority of opposing landowners, so they will be reluctant to secure the costs. This vicious circle will delay the process and rise the costs, for example financial costs (higher risks lead to banks asking higher loan interests and shareholders requiring higher profit margins for their investment) and other transaction costs related to making the plans, consultations, negotiations, etc. These costs are already very high in the Netherlands in 'normal' urban development on private land, i.e. with just one or few professional landowners-developers (Muñoz Gielen, 2014: 73-75). LR, that is supposed to deal with a multitude of not always professional landowners, might therefore suffer from high transaction costs.

The Proposed LR will subsequently revert into informal and untransparent negotiations, leading to a lack of accountability and the risk of a not equitable distribution of costs and profits. A transparent and equal distribution of costs and profits is one important prerrequisite of any effective LR (Yilmaz et al, 2015: 161).

Finally, the Proposed LR limits the amount of parties that can implement LR to those having the support of a majority of landowners, and excludes thus other agencies and parties. If the Draft LR-act finally prescribes the requirement of a 100% support among owners, as recently announ ced by the Dutch government, the regulation will encounter difficulties to be tested in practice.

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