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Study on Land Consolidation: Preliminary results

Note by the Secretariat

This information note presents the preliminary results of a study that was prepared by the WPLA bureau in collaboration with the Technical University of Munich (TUM), FAO and LandNet (network of practitioners and researchers in land consolidation) on land consolidation in the ECE region. The study draws upon the results and recommendations of a survey on land policy instruments in ECE member States. The study is an activity of the Programme of Work of the Working Party on Land Administration for 2018-2019. The final study will be presented at the 11th Session of the Working Party in February 2019.

The Committee is invited to take note of this information.
AN ANALYSIS OF LONG-TERM EXPERIENCES WITH LAND CONSOLIDATION PROJECTS AND PROGRAMS IN EUROPE

Introduction

Land consolidation is a land management technique instrument whereby both the structure of the landscape and the shape of the parcels are transformed in order to achieve a better agricultural and ecological potential of the area. Land consolidation is usually complemented or guided by rural development goals. It involves a (systematic and comprehensive) change of land ownership and land use structures (usually in a larger area), and an economic and agricultural development through reducing strip farming, improving infrastructure, reducing absentee ownership, improving or introducing irrigation or drainage canals (rationalizing agriculture). Although in previous decades it was primarily led by agricultural goals, nowadays it is also used to achieve a more rational use of land, improve and/or protect ecological systems, and rationalise urban structures. Land consolidation instruments are additionally used to enable road and infrastructure developments, and mobilisation of land for larger spatial development projects.

More specifically, land consolidation is an instrument to reduce fragmentation of ownership and of land use. FAO (2003) refers to land consolidation as it can assist farmers to amalgamate their fragmented parcels. For example, a farmer who owns one hectare divided into five parcels may benefit from a consolidation scheme which results in a single parcel. In many eastern European countries land consolidation programs tend to have primarily an economic production focus and/or and rural development focus (Bullard 2007). More recently land consolidation is associated specifically to a societal benefit or public value, such as food security (Bennett et al. 2015) or environmental protection (Louwsma et al., 2014). In this case, rather than relying on micro-economic agricultural production values social and societal values play a more crucial role. The optimal output of a land consolidation process then needs to be evaluated in terms of this societal benefit, rather than a pure economic benefit.

Although in some countries land consolidation has been an established and frequently practiced instrument, in other countries the instrument is rather new (Hartvigsen 2015) or not used at all. This is either due to recent regime and institutional changes (such as in the former Eastern European / socialist countries), or due to absent or inappropriate legislation concerning land consolidation or absence of political support. Moreover, land consolidation projects have not always been considered as successful or have been debated at times (Sikor et al. 2009). Quite a lot of literature addresses land consolidation goals (Louwsma et al. 2017), tools for land consolidation (Demetriou 2013), measurement of land fragmentation (Janus et al. 2018), alternative forms of land consolidation (Bennett et al. 2015; Haldrup 2015). However, how land consolidation projects, goals and shared success factors have changed over time, and what sort of factors have influenced the perceptions about land consolidation among practitioners of land consolidation is still unknown. This insight is however relevant to understand the day-to-day practice of land consolidation, so that implementation guidelines can be derived for those who aim to start and/or re-define their land consolidation procedures and requirements for human resources. This study takes a closer look at these experiences. The main purpose of the study is therefore:

1. To better understand the breadth and depth of the internal perspectives and experiences with land consolidation;
2. To acquire senior level experiences, and learn from how experts dealt with difficulties and found solutions;
3. To synthesize such experiences in order to provide recommendations for:
a. Future land consolidation projects

b. When, how and under which conditions to use land consolidation as a land management instrument

The methodology is first presented to investigate such experiences and perceptions, followed by a set of initial results and a set of first observations. After this the theoretical and analytical framework is introduced to analyse the results and a first derivation of conclusions.

Objectives of the Study

The focus of the study is twofold: (1) on the implementation of land consolidation policies at a level where land policy instruments affect property rights and the rights holders, and (2) on the implementation, evaluation and improvement of land consolidation policy instruments in relation to a sustainable spatial development.

Methodology - using narrated vignettes

To better understand the breadth and depth of the internal perspectives and experiences with land consolidation data are collected through narrated vignettes. The choice to rely on narrated vignettes is best to capture subjective experiences and views. Narrated vignettes are, simply put, stories generated from a range of personal sources and personal experiences (Wilks 2004). Vignette descriptions are an appropriate tool when compiling perceptions, experiences, beliefs and attitudes on a context or a phenomenon. The narrated vignettes are used to derive a synthesis of the discourse on land consolidation and the breadth of actions, beliefs, opinions and arguments in this discourse. The vignettes are not necessarily about the issue of land consolidation itself, but they describe the feelings and associations of land consolidation practitioners. Analysing the vignettes relies on a narrative synthesis using storytelling metaphors (Barone 1992; Czarniawska 2004; Greenhalgha et al. 2005). Narrated vignettes are personal stories told by experienced practitioners. These stories provide a subjective insight into ‘objective’ facts, changes, influences, drivers, endogenous, and exogenous factors. The stories are told and written down by people who have worked or have been working for a relatively long time in / for / with land consolidation projects (possibly for more than 20 or 25 years). They have ‘seen it all’, and their experiences – once documented through their own words in a short personal story, and once compared to other personal stories – can lead to a more fundamental insight in what influences, an what changes land consolidation projects and what makes one land consolidation project to a success (and also seen as a success story) and another land consolidation project not to a success (or even a failure, disaster, disputed program).

The guidelines for practitioners were that the personal stories should be ‘freely’ told. They should lead to a story of about 2-3 pages text. It was suggested is to address a set of standard topics. Examples of topics for the vignettes can be found in Annex 1.

Results

The request to write narrated vignettes was sent to senior land consolidation practitioners of 30 European countries. Twenty-one responses were received by the study team. These included 18 narratives (Austria, Azerbaijan, Bavaria/Germany, Czech Republic, Denmark, Estonia, Finland, France, Hungary, Lithuania, FYR Macedonia, Netherlands (twice), Norway, Romania, Slovakia, Slovenia, Spain, Sweden, Ukraine). Each of the narratives were scanned and categorized related to degree of experience and types of institutional frameworks. Some of the vignettes were very open and personal, whereas others were more related to formal rules and formal documentation of land consolidation in the respective countries.
When comparing the main historical context in which the land consolidation was developed the narrative vignettes of the respective countries can roughly be classified to following five categories:

1. **Active nationwide multipurpose land consolidation procedure working and in action.** No large issues with land ownership or land registration.
   
   Examples: Germany, Netherlands, Denmark, Austria, Slovenia

2. **Active nationwide agricultural land consolidation procedure working and in action.** Other land consolidation-goals are also possible. No large issues with land ownership or land registration.
   
   Examples: Spain, Finland

3. **Nationwide land consolidation procedure in difficulties or ceased.** No large issues with land ownership or land registration.
   
   Examples: Sweden, Estonia

4. **Nationwide land consolidation procedure merging or in action.** Large issues with land ownership or land registration.
   
   Examples: Macedonia, Azerbaijan, Ukraine, Lithuania

5. **Nationwide land consolidation procedure in difficulties or ceased.** Large issues with land ownership or land registration.
   
   Examples: Romania, Czech Republic, Slovakia, Hungary

Furthermore, one can observe that Lithuania, Azerbaijan and Ukraine have large amount of state owned agricultural lands. Germany, Netherlands and Spain have moved land consolidation responsibility from State to Regions. Austria, Germany, Netherlands, Slovakia and Denmark have moved from agricultural land consolidation towards multipurpose land consolidation. Smaller and/or voluntary projects have risen in to the limelight at least in Germany, Netherlands, Denmark and in Finland. EU-funds are or have been used to implementation of land consolidation at least in Germany, Spain, Netherlands, Macedonia and Slovakia. In some countries land owners do not participate to project costs (certain Spain).

**Analysis of narrated vignettes**

After the personal stories were collected Kingdon’s multiple streams framework was used to compare and interpret these (Kingdon 1995; Cairney and Jones 2016). This framework consists of three main streams: problem, policy and politics – demonstrated in Figure 1. Kingdon adapted this policymaking metaphor to argue that three separate ‘streams’ must come together at the same time - and they must do so during a brief ‘window of opportunity’ – for a policy to be implement and accepted and / or a policy to change significantly.
Analysis of the results

It is clear that countries are in different stages of land consolidation adaptation, expressed amongst others by the length of historical developments and gradual revision in land consolidation goals and practices. This also implies that ‘Modernisation’ of land consolidation occurred in some countries, which is usually expressed both in terms of technological innovations and as organisational reform.

Based on the analysis using the framework above the following conclusions were derived. There are:

Problems associated with:

• Persistent fragmentation
• Sustainability depends on efficient farming systems
• Inheritance subdivision (does not stop after land consolidation process)
• Increase of complexity and adapting to new rules and adopting new procedures
• Internal resistance (within organisational system; inertia to adapt to new rules; in western Europe there has been more time to adapt and adopt as compared to eastern Europe)
• External resistance (farmers refusing to accept new rules and conditions)

Processes associated with:

• Degree of previous experience in executing with land consolidation (land consolidation managers need to gain experience in order to understand and handle sensitivities)
• Number of years after or before conversion from socialists/communist systems to non-socialists land regimes (land consolidation executed as technocratic process, thereby neglecting the socio-human issues and sensitivities – this creates resistance or mistrust)
• Degree of perceived complexity and associated adaption / adoption of new rules and execution forms (complexity perceived as land consolidation was originally seen as technocratic, procedural process, and not as idiosyncratic projects each time)

• Gradual change from improving quality of land survey data to a more general / overall quality of information

• Degree of State interference

• Option of voluntary land consolidation projects

• Degree and possibility of participation

Policies associated with:

• Variation in degree of stakes of small and big farmers (smaller farmers thrive on fragmented parts; big farmers thrive with consolidating/merging plots)

• Influence of external stakeholders

• Necessity to have a good start with pilot and creation of support by stakeholders

• Necessity to be acquainted with local sensitivities

• Necessity to be acquainted with negative implications and connotations of use of certain words

Policy windows that arise when:

• the land consolidation project ‘ignites’ further economic development projects, e.g. new (integrated) rural development (Germany), recreational areas in a municipality (Austria)

• Start to allow or increase ‘voluntary’ (bottom-up) activities, incl. voluntary land consolidation projects

In addition, some other external drivers generated policy windows for different kinds of land consolidation projects:

• A shift in professional focus (from emphasizing quality of surveying to quality of Geoinformation)

• A shift in educational focus (including negotiation / social / entrepreneurial skills alongside technical skills in formal curricula)

As related to ‘successful projects’ based on the study one can observe that ‘success’ is associated with:

• Opportunities and legal recognition of voluntary land consolidation

• In some countries this existed already for a long time (Germany), in others this is only possible recently (e.g. Netherlands)
• Project area not too big: 200 participants and 2000 ha or 500 parcels (Lithuania)
• (Low) Number of objections (Austria)
• Land banking and financial incentives
• Need for land consolidation to be connected to multiple policy agendas (including rural development, spatial justice, integrated land and water management)

Lessons which can be drawn from the narratives are that land consolidation projects, goals, instruments and institutions tend to develop in different phases, represented by Figure 2. At first there is a specific ‘simple’ monolithic focus, which is the increase of farming output. Increase of agricultural production is the main reason for defragmentation and reshaping agricultural oriented ownership and land use structures. If these processes do no longer solve the specific needs and/or if these run into problems, then the land consolidation projects, goals, instruments and institutions tend to become more complicated. This means that one needs to address multiple goals simultaneously and apply multiple instruments in an integrative way. One can see this in the emerging combination of both agricultural and environmental goals. Hereby one needs to rely heavily on stakeholder needs and input expressed by stakeholders. Once these types of activities are no longer considered appropriate the next adaptive phase tends to be a more complex set of projects, goals, instruments and institutions. Hereby, one strives for more integrated problem framing and associated solutions. The solutions itself may not solve the fragmentation and ownership problem completely, as one has come to realise that land interventions have a very dynamic character. The problems change because of the intervention itself. This is visible in some countries land consolidation is both the solution and the problem. As a result of this complexity one aims again for an enhanced form of simplicity. Land consolidation is only considered effective and successful if it fulfils a very specific goal which can only be realised if the projects are much smaller and much more pragmatic and aiming for short term goals and wins. The perceptions about land consolidation have thus changed gradually.

Figure 2. Phases of land consolidation adaptation
Conclusions

Responding the main objective of this study one can conclude that:

1. The narrative vignettes have indeed provided a better understanding of the breadth and depth of the internal perspectives and experiences with land consolidation. Land consolidation has adapted and reinvented itself over time, and experiences from different countries have brought more insights in the bottlenecks, limitations, opportunities and requirements for land consolidation. The current idea is that land consolidation projects should be pragmatically oriented, aimed at short-term wins, and be very sensitive to the needs and characteristics of local contexts and stakes.

2. Gathering experiences of senior officials in a non-conventional way is meaningful to get the better understanding. It did not only derive new insights in daily practices, but also encouraged the practitioners to reflect critically upon their work and results. Such experiences are highly relevant for practical work which does not only depend on how to regulate processes, but also on how to use the right instruments, regulations and human insights at which point in time and at which location.

3. Future land consolidation projects can benefit from these insights. Overall, one can conclude that becoming a practical land consolidator requires a steep learning curve, whereby experience is significant. This also implies that one cannot design any obvious course curriculum for land consolidators. Knowledge, skills and experience go hand-in-hand.

Practical recommendations from this investigation include that land consolidation requires high ability to compromise, the art of communication by the responsible persons, a deep interest in all people living and working in the area, the need for a specific competence to deal with people (namely to be able to motivate and inspire them), the personality to never to be discouraged from setbacks and being open for new challenges and have a personal vision. A very specific observation is that ultimately expropriation, often needed during a land consolidation process, requires but also is in itself the highest level of good land governance.
Annex 1: List of suggested topics for vignettes.

- I first started to work in / for / with land consolidation projects in …… (year / place / organisation)
- The land consolidation project with which I am most satisfied is the project called …. in (place / location / year). I am most happy with this project because ……
- The issue which led to a lot of organisational and operational changes was …. in …. (year). It changed not only …. but also …… For me personally this change implied that I had to ….
- I can still remember working with the farmers and other stakeholders in …. (project name / location / year). What I still remember and what I have often talked about is the fact that …., and the ……
- I have been back to the land consolidation project in …… Now it looks like …. All the things that we helped to design are now ……
- I still remember when the politics decided to …. (in relation to land consolidation projects).
- In relation to our work in land consolidation I used to be proud of….
- Our work in land consolidation changed dramatically when …. 
- The people with whom I used to work in the land consolidation projects are now working at /in …. 
- Currently my work relates to ….
- What I always liked in land consolidation was…. 
- What someone need to be able to do in land consolidation projects is ……
- The skills one needs to have to make land consolidation projects successful is …. 
References


Demetriou, D. 2013. The development of an integrated planning and decision support system (IPDSS) for land consolidation: Springer Science & Business Media.


