

FAO LAND TENURE MANUALS

1

**Operations manual
for land consolidation
pilot projects in Central
and Eastern Europe**





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FAO LAND TENURE PUBLICATIONS

FAO's Land Tenure Studies are concise presentations on the often complicated and controversial subject of land tenure, especially as it relates to food security, poverty alleviation and rural development. These studies do not seek to be exhaustive but instead reflect what FAO and its many international collaborators have discovered are "good practices" for a particular aspect of land tenure and its administration. The studies cover various aspects of improving access to land and other natural resources and increasing tenure security. They address the role of land tenure in rural development, gender and access to land, improved access to land through leasing arrangements, and rural property taxation systems.

The design of land consolidation pilot projects is addressed in Land Tenure Studies Number 6.

More information on the Land Tenure Studies, and on FAO's work in land tenure, is available at:

http://www.fao.org/sd/LTdirect/ltstudies_en.htm

http://www.fao.org/sd/IN1_en.htm

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PREFACE

Land consolidation can be an effective instrument in efforts to promote rural and regional development in Central and Eastern Europe. Integrated rural development projects and programmes are needed to tackle the problems of deteriorating conditions in rural areas of the region, and their success will depend to a large extent on how they address the millions of small and fragmented farms that currently exist.

Land consolidation is also an effective instrument for making agriculture more competitive. When farms are divided into many fragmented parcels, often far away from the farm site, not easily accessible and badly shaped for agricultural purposes, it is difficult for farmers to introduce new competitive production arrangements and to use appropriate machinery and technologies. Land consolidation interventions can allow farmers to acquire farms with fewer parcels, but which are larger and better shaped. They may also enable farmers to expand the size of their holdings if state land reserves are available or neighbours choose to exit farming.

Land consolidation was one of the first areas of tenure reform in which FAO was involved and a number of documents were prepared in the 1950s to guide those responsible for land consolidation in Western Europe. Land consolidation is now on the agenda for countries in Central and Eastern Europe but conditions have of course changed. The experiences of Western Europe regarding what should and should not be done have already proved valuable to transition countries. But while these experiences are important, they will not provide all the answers. Each country in Central and Eastern Europe will have to find solutions that address its own particular conditions of fragmentation; its social, cultural, economic, legal, administrative and political environment; and the financial and other resources that it is able to mobilise.

To assist countries in Central and Eastern Europe, FAO together with its partners has produced guidelines on *The design of land consolidation pilot projects in Central and Eastern Europe* (FAO Land Tenure Studies Number 6). These guidelines provide advice on what countries can do to start a land consolidation pilot project. The publication gives arguments to use as to why land consolidation is important; it describes briefly what land consolidation is; and it identifies key decisions that should be made and key actions that should be undertaken before a land consolidation pilot project can even begin.

This *Operations manual for land consolidation pilot projects in Central and Eastern Europe* has been prepared as a companion to FAO's Land Tenure Studies Number 6 on the design of pilot projects. Its aim is to provide guidance to project managers and others on the management of a pilot project once it has begun. A manual of this nature can provide only general guidance. The contents of the manual should be assessed and applied in a way that is appropriate to each individual pilot project.

The manual captures some of the lessons learned from early land consolidation pilot projects in the region, and it is intended that the manual will be periodically revised and improved by drawing on the experiences gained as additional pilot projects are implemented.

The manual is based on work undertaken by FAO's Land Tenure Service together with its partners over several years. We gratefully acknowledge the financial and technical support to this work provided by the Ministry of Agriculture, Czech Republic; Land Consolidation Division, Denmark; GTZ, Germany; and DLG, The Netherlands.

We look forward to continuing collaboration with practitioners throughout the region to share knowledge gained on land consolidation.

Paul Munro-Faure

Chief

Land Tenure Service

1. INTRODUCTION

A. Background

1.1

Land consolidation is a term used broadly to describe measures to adjust the structure of property rights through co-ordination between owners and users. Land consolidation involves the reallocation of parcels to remove the effects of fragmentation but the term goes well beyond these actions. Land consolidation has been associated with broad economic and social reforms from the time of its earliest applications. It was an integral part of 18th century reforms in Denmark to free people from obligations to noble landlords and to establish privately-owned farms. Elsewhere in Western Europe, land consolidation was urgently needed after the privatization of feudal land to improve the land tenure structure of widely fragmented, small parcels of land. Early initiatives concentrated on improving conditions for agriculture, including enlargement of holdings. Over time projects have come to include water management, environmental protection, rural infrastructure and village renewal.

1.2

There is common agreement on issues and broad approaches to land consolidation in Western European countries but different organizational and procedural approaches have evolved, for example:

- In Norway, land consolidation is performed by an agency that is a separate court. It has a broad responsibility and processes cases of uncertainty to land rights as well as interventions affecting such rights, including land consolidation, boundary disputes, expropriations and enclosure of areas under common ownership. Norway thus has one land court to perform the combined tasks of consolidation and adjudication.
- Germany and Holland practice integrated land consolidation. Target areas are transformed according to an overall plan that includes the re-organization of farmland, provision of infrastructure, village renewal, sustainable natural resource management and environmental protection. Such plans are implemented through land consolidation projects, with a specialized agency assuming functions that may be carried out by local governments in other countries.
- Denmark uses an approach to land consolidation that is limited to agricultural land and associated forest land, and in practice is based on voluntary participation. This approach is increasingly applied by agencies implementing road expropriations and environmental protection regulations. Land consolidation requires delivering specialized services of negotiating the re-organization of land parcels and ownership, and managing acquisition of land on market terms.

1.3

These few examples illustrate that the way in which land consolidation is practiced in a country will depend on its social and economic conditions, administrative tradition, the existing legal framework, the character of the landscape and the prevailing types of land use. Yet the essential function of these different institutional arrangements is more or less the same, namely to improve ownership structures, parcel layout and land use. The implication is that the particular form that a land consolidation project takes in a country will depend on the institutional, organizational and administrative frameworks and the division of responsibilities between agencies.

1.4

In countries in Central and Eastern Europe, the development of arrangements for land consolidation takes place in the wake of the transition to a new private property regime, and in the context of accession to the European Union. The process

of institutional change is complex and sensitive to immediate political and economic agendas. It is also determined by other prevailing social, economic and cultural factors. Land consolidation is an ongoing process and the exact nature of its final outcome may be hard to predict; it takes time and it may suffer set-backs, but it can be an effective way of improving conditions for people in rural areas.

1.5

In response to requests from countries in Central and Eastern Europe for information on land consolidation, FAO together with its partners has produced a guide on *The design of land consolidation pilot projects* (FAO Land Tenure Studies Number 6). This guide provides support to land administrators in land agencies responsible for the technical design and implementation of land consolidation pilot projects. It argues why land consolidation should be considered as an integrated part of rural development and describes the essential elements of a land consolidation pilot project. The guide emphasises the importance of pilot projects as an effective way to lay the foundation of a long-term comprehensive land consolidation programme. The publication is available on the website: http://www.fao.org/sd/LTdirect/ltstudies_en.htm

1.6

This *Operations manual* complements FAO's Land Tenure Studies Number 6 on the design of pilot projects. It aims to support those people who are responsible for managing these projects. It focuses on the practical aspects of defining and implementing the first pilot projects. It identifies the main conditions that should be in place before the project starts, and it defines potentials and constraints. It draws attention to issues that need to be addressed and it discusses methods, tools and techniques. The manual identifies the main activities and their sequence in a pilot project. It considers how to cope with the fact that, at this stage, the concept of land consolidation is unfamiliar to most people, and there is usually little or no experience with land market transactions and, for example, little shared notion of price levels.

1.7

A manual of this nature can provide only general guidance. The manual does not prescribe a single solution for all conditions; instead the most appropriate and effective options should be selected. The manual should be interpreted and applied in a way that is appropriate to each pilot project. Its contents should be adapted according to the particular circumstances of the pilot project.

B. Characteristics of land consolidation pilot projects

1.8

Pilot projects in the region take place under specific conditions which set them apart from land consolidation projects in Western Europe. Box 1.1 describes some of these conditions. Table 1.1 identifies ways in which a pilot project may differ from projects carried out in a long-term land consolidation programme.

BOX 1.1: Conditions under which land consolidation pilot projects may be carried out

Present conditions for initiating land consolidation in the Eastern European countries are in sharp contrast to the experiences of Western Europe.

New regime of private ownership: Land restitution and privatization programmes have recently established a regime of private ownership of land. The new private owners are now key actors in land-related developments. They decide how their land will be used and what changes should take place. Land consolidation in this context is to promote changes in land rights that the market cannot. However, land consolidation still depends on the decisions of owners.

Diverse group of owners: The restitution process has vested ownership of agricultural land in a diverse group of land owners. Only some wish to farm commercially; others use the land for subsistence and yet others are absentee owners. Some lease out their land or leave it unused. Some former large production units now operate under a regime of private ownership. Some people hold lease rights and other interests. The huge numbers of people who own very small farms may not see that they will benefit from land consolidation, and they could easily be against a project.

Attitude to land consolidation: In some countries, land consolidation was used in the past to override rights of farmers and the concept has become discredited. A new appreciation of land consolidation must be developed. Land consolidation must be promoted in accordance with priorities of farmers, and through incentives and benefits rather than through enforcement and sanctions.

Incomplete registration of property: Despite progress made in land registration projects, a land consolidation project will be likely to encounter varying degrees of incomplete registration. Land consolidation will require close co-operation with land administration agencies and should contribute to the completion of the registration process and to improved quality of data in the land registries.

Local knowledge: Much experience has been gained from the processes of privatization and land registration, and property professionals have gained experience with modern techniques of surveying, mapping, management of digital data, and project management. While this experience is valuable, there is still a gap in the core knowledge about the notion and rationale of land consolidation, as well as in planning procedures, legal instruments and economic aspects of land markets.

Weak land management institutions: Capacity to plan the re-organization of land in rural areas is often limited in central government and may not exist in many local governments. A land consolidation project could stimulate extensive re-organization, including the provision of rural investments, although capacity in the lead agency for doing so may have to be augmented.

Financial resources: The overall financing situation for land consolidation is one of tight resource constraints. Local governments are typically able to allocate limited support. The central government may not yet have found a way to use land consolidation to channel subsidies and resources into agriculture and rural development.

The economic situation: The period of transition has led to a decline in agricultural production. A major issue for land consolidation projects is the extent to which the re-organization of land can be complemented by investments in rural infrastructure that are needed to improve farming, health, education, and the general welfare in the community.

TABLE 1.1: How a pilot project may differ from projects in a long-term programme

	In a pilot project	In a long-term programme
Legislation	Pilot projects usually operate under existing legislation and without the enactment of new land consolidation laws. Transactions within a pilot project will tend to take place under the same rules as any other transaction in agricultural land, and on the basis of voluntary agreements. This can allow for flexibility to test practices.	Projects are implemented under a comprehensive land consolidation law. This law should be drafted using the experiences of approaches tested in pilot projects.
Participation	In pilot projects it may be difficult to introduce procedures that have provisions for compulsory participation. There are often sentiments against compulsory participation because of past experiences. Also, processes are as yet untested and a first pilot project has no successful local examples to point to. Extensive information and awareness campaigns are needed to overcome fears.	The participation of all land owners within a project area may be required if the project includes large infrastructure components. There is thus a need for provisions to address those who have no interest in the project or are even against it. An element of compulsion or expropriation is often provided in legislation in a way that empowers a specific government agent but yet defines procedures to protect individual owners.



TABLE 1.1: How a pilot project may differ from projects in an ongoing programme

	In a pilot project	In a long-term programme
Initiation of projects	The lead agency will usually have to take responsibility for identifying the communities for the first pilot projects as the concept of land consolidation is not yet familiar to land owners.	Initiatives increasingly come from land owners and local communities as the concept of land consolidation becomes familiar through publicity of the first pilot projects.
Valuation	Market prices often cannot be easily established because of outdated valuation schemes, relatively small number of transactions and limited information on prices. Potential sellers and buyers may have widely differing expectations of land values. Direct negotiations between seller and buyer, with assistance from project personnel, may be needed to establish values.	Valuation procedures will evolve as the first projects are implemented. As land markets develop, land values will be increasingly influenced by recent transactions for similar types of land.
Transfer and registration	An owner could have a single document that details all transactions for that person. By signing this agreement form, the owner agrees to participate in the project under the specified terms. After the new layout has been agreed to, and demarcated and surveyed, the documents required for transfer should be prepared and signed by owners and officials. The new parcels and their ownership should be registered. The final legal determination would thus occur after registration.	Land consolidation legislation could provide for all changes in ownership and parcel layout resulting from the project to become effective following legal approval of the reallocation plan. The approval would form the basis of registration, rather than transfer documents such as deeds. The legal determination could be made through the legal approval and not by the subsequent registration.

1.9

A pilot project is a way to lay the foundation for future work to be carried out under a long-term land consolidation programme. As such, a pilot project may have several objectives, for example:

- The pilot project should serve to devise, establish and test approaches that can be used in future projects to be implemented through a long-term programme. A pilot project usually pioneers new approaches and techniques, and thus its initiation, design and implementation is likely to differ from the operations of later projects. Many of the organizational and legal elements that would be taken for granted when implementing projects within a mature programme will have to be designed and tested in a pilot. For example, the knowledge and experience gained in such pilot projects should inform the elaboration of land consolidation legislation required for a long-term programme.
- The pilot project should serve to find ways to build experience and expertise in new areas of land administration. While much experience has been gained in some areas of land administration (particularly land registration, cadastral surveying and mapping, and management of digital data), there are still gaps in the core knowledge about the notion and rationale of land consolidation and other aspects of land administration. For example, in addition to a lack of land consolidation experts, there may be few qualified valuers, either in government or the private sector, and expertise needed for pilot projects and a long-term programme must be acquired rapidly.
- The pilot project should, very importantly, serve as a successful model for other communities. By its very nature, a pilot project introduces a new concept to people, and this is especially true of the very first pilot project to be carried out in a jurisdiction. A pilot project that is unsuccessful, e.g. because it is controversial, may generate bad publicity and ill-feelings which would destroy attempts to build widespread support for the concept of land consolidation. After people can see a successful example, even if it is limited, support can be created to introduce more comprehensive projects. This will hopefully allow for a relatively rapid transition from pilot projects to a long-term land consolidation programme.

1.10

No project is perfect and not everything can be achieved in a pilot project. There are likely to be trade-offs when attempting to meet the objectives. For example, there may be an understanding that some degree of compulsory participation will be necessary in some projects carried out as part of a long-term programme, and particularly in projects with public investment in rural infrastructure, etc. That is, in such a long-term programme some people may be required to participate in projects even though they do not want to. However, such compulsory participation may be difficult, or even impossible, in a pilot project. The fact that the first pilot project is a pioneering experience means that promoters of land consolidation cannot point to a successful example in the jurisdiction and tell members of a community, "Look, this is what we would like to do for your community". Members of a community may be opposed to a first pilot project until they can be convinced that they will benefit sufficiently from the project. For many people "seeing is believing" and words alone that promise benefits are unlikely to satisfy them. Forcing people to participate in a first pilot project against their will may create ill-feeling, and the bad publicity could threaten attempts to build widespread support for land consolidation.

1.11

After experience has been gained with some initial pilot projects it might be possible to introduce pilot projects which have a measure of compulsory participation. In such cases, the participants might agree to the design and implementation of a pilot project provided a minimum quorum of land owners and land users are in favour of the pilot project. Such a decision requires a careful evaluation to ensure that people who object to the pilot project do not cause it to fail.

1.12

One aspect of land consolidation that must be addressed in the project is the relationship – and the power expressed through that relationship – between:

- the lead agency responsible for land consolidation in the jurisdiction;
- the land consolidation designer/project manager responsible for the design of the new parcel layout and the implementation of the pilot project; and
- the committee of participants responsible for representing the interests of participating land owners and other local stakeholders.

1.13

In projects carried out as part of a long-term programme, this relationship should be clearly defined. For example:

- In some jurisdictions, the designer/project manager works on behalf of the lead agency, and the committee of participants provides a link between people in the community and the project.
- In other jurisdictions, the committee of participants is given greater opportunity to play a leading role, with support from the lead agency and the designer/project manager.

1.14

In a pilot project, and especially in the first pilot, the relationship is likely to be determined in part by the personalities and personal skills of people in the lead agency and the committee of participants, and of the designer/project manager. It is quite possible that the committee of participants can be completely dominated by the lead agency, and especially by the designer/project manager once appointed. In any project, but particularly the first pilot project, there will be problems unless the local community gets on well with the designer/project manager. How does the pilot project ensure that there is a good "marriage" between the local community and the designer/project manager? If the lead agency is responsible

for selecting the designer/project manager, how and when are the views of the community towards the designer/project manager to be taken into account? Do the lead agency and committee of participants jointly approve of the selection of the designer/project manager? Or does the lead agency first select the designer/project manager who then assists the lead agency in the public meeting that leads to the selection of the committee of participants?

1.15

Land consolidation pilot projects should enable the meaningful participation of local communities. If it is too much to give the committee of participants an explicit veto in the selection of the designer/project manager, the lead agency will have to ensure that the person selected is suitable for the community chosen for the pilot project.

C. Terminology

1.16

This section defines some of the terminology used in the manual. Terminology used in individual countries will vary in accordance with legal and organizational structures, and because of local preferences. People who are responsible for the design and implementation of the pilot project should adapt the terminology so that it is meaningful to participants.

- 1) **Committee of participants:** A group of community members elected by the participating land owners and other local stakeholders to represent their interest in the project.
- 2) **Designer/project manager:** The term "designer/project manager" is used to describe the person who is directly responsible for the design of the new parcel layout and the implementation of the pilot project. In this manual, the responsibilities of this person include conventional project management as well as the technical design of the new parcel layout. In some projects these responsibilities may be divided between different people. For example one person (i.e. the project manager) may have overall responsibility for the management of the project while another person (i.e. the land consolidation designer) may have specific responsibility for preparing the design of "plan 2" (see below). However, even if responsibilities are divided, full responsibility remains with the project manager for ensuring that "plan 2", and all other tasks, are completed as required.
- 3) **Land registration/cadastral agency:** In some countries registration and cadastral functions are carried out by one agency, while in other countries there are separate registration and cadastral agencies. Valuation functions are assigned in some jurisdictions to the cadastre office and to other agencies elsewhere. For simplicity, the manual refers to the functions of land registration, cadastre and valuation as being the competence of a "land registry/cadastral agency". These references should be interpreted according to the particular institutional arrangements found within a country.
- 4) **Land registration/cadastral co-ordinator:** The person in the land registration/cadastral agency who is assigned responsibility for ensuring that the project-related activities of that agency are carried out.
- 5) **Lead agency:** The central government agency that is assigned overall responsibility for introducing land consolidation, initially through the pilot projects. The lead agency is responsible for co-ordination among other line ministries and agencies and between the public and private sector. During the initial period, the lead agency may be a land agency with other responsibilities, and may not be responsible only for land consolidation.
- 6) **Lead agency co-ordinator:** The person in the lead agency who is assigned responsibility for ensuring that project-related activities of the lead agency are carried out.
- 7) **Plan 1:** A map prepared to illustrate land holdings as they exist before the project. The map should be based on cadastral information and should be annotated so that lands of each owner or farmer can be easily identified.

- 8) **Plan 2:** A map prepared to illustrate the land holdings as they will exist after the project, along with any infrastructure planned as part of the project (such as rural roads, irrigation, and landscape improvements). Before “plan 2” is finalized, several versions of the map showing different options should be prepared to help participants select the agreed-upon layout.

D. Overview of the process

1.17

This section provides an overview of stages in a land consolidation pilot project. Each pilot project will be different, but because each project aims to achieve essentially the same goal, a similar framework can be used for most projects. This section provides an overview of one such framework.

1.18

Like any attempt of categorization, the classification of the stages presented in the framework will not be suitable for all applications. The scope of projects will vary, the parties that are involved will be different, and the activities to be carried out will not always be the same.

1.19

A manual of this nature can thus provide only general guidance: the lead agency and the designer/project manager will need to assess and apply the contents of the manual in a way that is appropriate for each individual project. The stages of the project, as identified in this manual, should be adapted according to the particular needs of the pilot project. The lead agency and the designer/project manager may find that some stages should be combined, while another stage, as defined in this manual, may need to be further divided into separate stages for the operations of a particular project. Moreover, the designer/project manager may decide that activities identified in the manual to be carried out during one stage would be better carried out under a different stage of the project.

1.20

Before a pilot project can begin, a number of pre-conditions should be met. These can be categorized as:

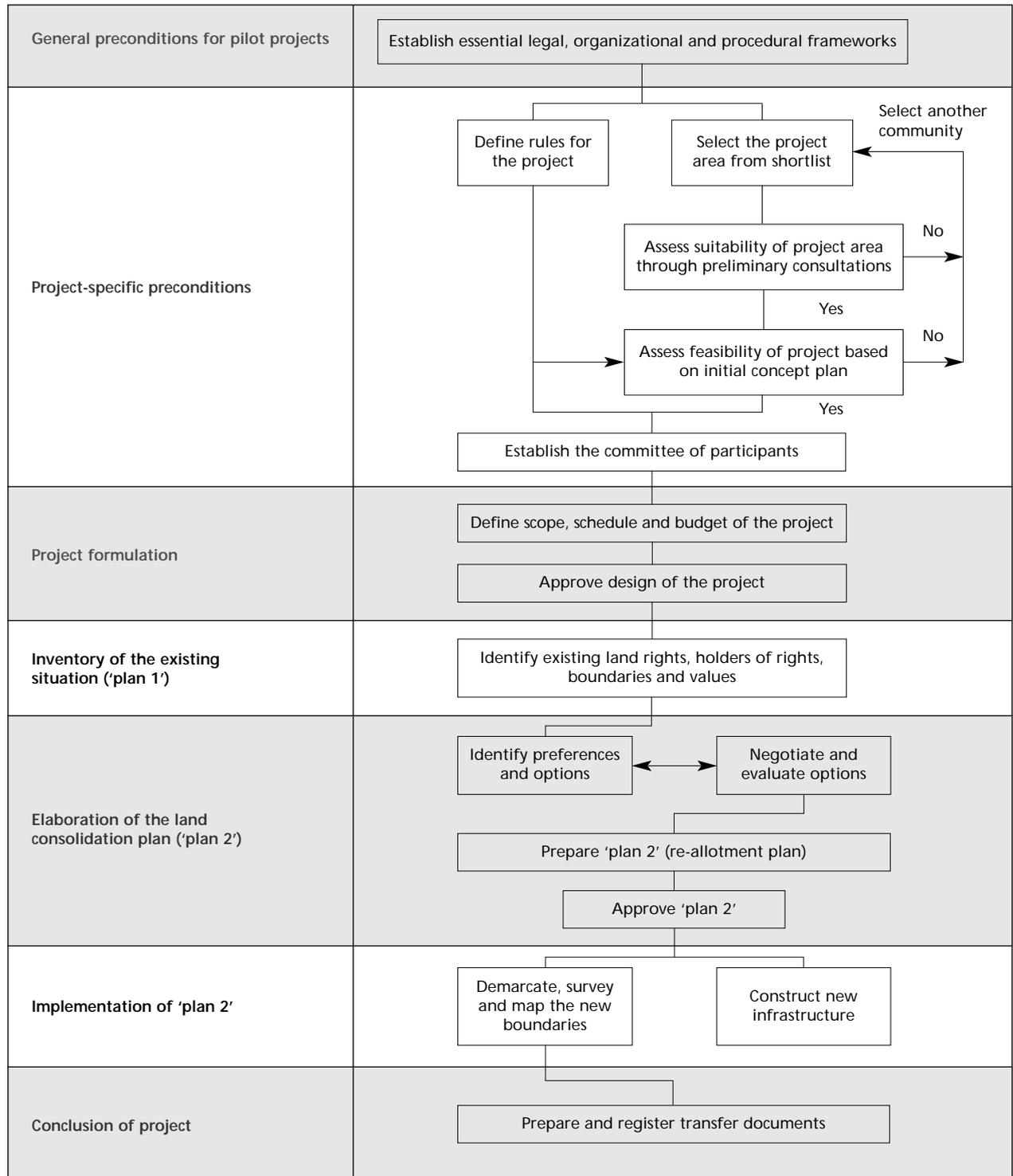
- General preconditions for all pilot projects (e.g. that land consolidation pilot projects can be carried out under the current legal framework, and that a government agency has been assigned responsibility for land consolidation pilot projects).
- Preconditions for a specific pilot project (e.g. an assessment has shown that a specific community would be a favourable site for a pilot project).

For the very first pilot project in a jurisdiction, general preconditions and project-specific preconditions must be put in place. For completeness, this manual covers both general and project-specific preconditions as the distinction between them may be somewhat arbitrary when preparing for the first pilot project.

1.21

Because the definition of a starting point of a project depends very much on who is making the assessment, project stages can be identified in several different ways. The project stages identified in this manual are described below and are illustrated in Figure 1.1.

FIGURE 1.1: Overview of the process for a pilot project



- 1) **General preconditions for pilot projects.** This stage would not usually be considered as part of a pilot project, but the lead agency will have to ensure that general conditions are in place before any pilot project can begin. The lead agency should ensure that pilot projects can be carried out under the legal framework. The lead agency should share information on land consolidation with other central government agencies. It should begin defining rules and procedures for pilot projects. (See chapter 2.)
- 2) **Specific preconditions for the pilot project.** The lead agency should meet with other central government agencies (including district offices) that might participate; with the local government in which the proposed project area is located; and with farmers and other beneficiaries in the proposed area. These meetings should provide the lead agency with an initial assessment of the potential application of land consolidation to the proposed area. The lead agency should prepare an initial concept plan – a document which can be used in further discussions. The lead agency should discuss the initial concept plan with other parties, and further develop the rules and procedures to be used in the pilot project. An analysis such as a SWOT (Strengths, Weaknesses, Opportunities and Threats) analysis should be used to ensure that the pilot project provides the greatest possible added value. Technical specialists such as the designer/project manager should be identified, and institutional coordinating mechanisms such as a committee of participants should be established. (See chapter 3.)
- 3) **Formulation of the project.** The lead agency and the designer/project manager should, following consultations, identify the specific boundaries of the project area. Details of the project should be formulated. The design should be based on a detailed analysis (e.g. a SWOT analysis) that demonstrates that the project brings benefits to the community. The project design should be approved by the competent authorities. (See chapter 4.)
- 4) **Inventory of the existing situation (“plan 1”).** The designer/project manager leads the preparation of a map of the ownership structure before consolidation, and an inventory of property owners and values of land parcels. (See chapter 5.)
- 5) **Elaboration of the detailed land consolidation plan (“plan 2”).** The designer/project manager leads the preparation of a map that shows the proposed parcel layout after the land consolidation project. An early activity in preparing the land consolidation plan is the identification of preferences of land owners and other farmers. Each participant informs the designer/project manager of what he or she would like to have happen. The designer/project manager prepares maps that show several options for the parcel layout in attempts to balance the interests of participants. The preferred option for the parcel layout is selected as “plan 2” and the preferences of buyers and sellers according to this option are represented in signed agreement forms. (See chapter 6.)
- 6) **Implementation of “plan 2”.** The boundaries of the new parcels are demarcated on the ground. After being surveyed, they are represented on a new cadastral map. Infrastructure is constructed if it is included as part of the project. (See chapter 7.)
- 7) **Conclusion of the project.** In the concluding stage, the designer/project manager supervises the preparation of transfer documents in consultation with the lead agency and the land registration/cadastral agency. The project finishes after the new ownership structure has been registered. (See chapter 8.)

Stage	Manual Section	Actors – examples of allocation of roles
General preconditions for pilot projects Preliminary determination of rules	2	Lead agency – responsibility Land registration/cadastral agency – participation
Specific preconditions for the pilot project Elaboration of the rules and procedures Identification of the project area Preliminary consultation and assessment Initial concept plan and decision to proceed with the project Establishment of the committee of participants Selection of the designer/project manager Selection of project advisors	3A 3B 3C 3D 3E 3F 3G	Lead agency – responsibility Lead agency – responsibility
Formulation of the project Selection of specific boundaries of the project area Formulation of the project Approval of the project design	4B 4C 4D	Lead agency – responsibility Designer/project manager – assistance Local government – assistance Lead agency – responsibility Designer/project manager – assistance Land registration/cadastral agency – participation Local government – participation Lead agency – responsibility Land registration/cadastral agency – participation Local government – participation
Inventory of the existing situation (“plan 1”) Public meeting to present requirements for the preparation of “plan 1” Agreement with the land registration/cadastral agency Initial compilation of the legal record of land rights Initial compilation of the map Initial compilation of land values Field verification of the legal record of rights, map and land values Dealing with objections not resolved during the field verification Finalization of the record of land rights, map (“plan 1”) and land values	5A 5B 5C 5D 5E 5F 5G 5H	Designer/project manager – responsibility Lead agency – participation Committee of participants – participation Lead agency – responsibility Land registration/cadastral agency – participation Designer/project manager – assistance Designer/project manager – responsibility Lead agency – assistance Land registration/cadastral agency – participation Committee of participants – assistance Designer/project manager – responsibility Lead agency – assistance Land registration/cadastral agency – assistance Committee of participants – assistance Designer/project manager – responsibility Lead agency – assistance Committee of participants – assistance Lead agency – responsibility Designer/project manager – assistance Designer/project manager – responsibility Lead agency – assistance Committee of participants – assistance
Elaboration of the detailed land consolidation plan (“plan 2”) Public meeting to present requirements for the preparation of “Plan 2” Agreement form and terms	6A 6B	Designer/project manager – responsibility Committee of participants – participation Lead agency – assistance Designer/project manager – responsibility Lead agency – assistance



TABLE 1.2: Guide to roles of actors in a pilot project

Stage	Manual Section	Actors – examples of allocation of roles
Accounting system	6C	Designer/project manager – responsibility Lead agency – assistance
Identification of preferences of participants	6D	Designer/project manager – responsibility Committee of participants – assistance Lead agency – assistance
Initial development of options for the re-organization of parcels	6E	Designer/project manager – responsibility Committee of participants – assistance Lead agency – assistance
Review of options and negotiations	6F	Designer/project manager – responsibility Committee of participants – assistance Lead agency – assistance
Finalization of “ plan 2”	6G	Designer/project manager – responsibility Committee of participants – assistance Lead agency – assistance
Approval of “ plan 2”	6H	Lead agency – responsibility Committee of participants – participation
Implementation of the detailed consolidation plan (“plan 2”)		
Communication of the schedule for the implementation	7A	Designer/project manager – responsibility Committee of participants – assistance Lead agency – assistance
Coordination with the land registration/cadastre agency and selection of surveyors	7B	Lead agency – responsibility Land registration/cadastre agency – participation
Demarcation of boundaries	7C	Designer/project manager – responsibility Lead agency – assistance Land registration/cadastre agency – assistance Committee of participants – assistance
Surveying of boundaries and preparation of the cadastral map	7D	Designer/project manager – responsibility Lead agency – assistance Land registration/cadastre agency – assistance Committee of participants – assistance
Preparation of infrastructure contracts	7E	Lead agency – responsibility Designer/project manager – assistance
Supervision of infrastructure works	7E	Designer/project manager – responsibility Lead agency – assistance Committee of participants – assistance
Conclusion of the project		
Working out compensation and apportioning costs	8A	Designer/project manager – responsibility Lead agency – assistance
Preparation of transfer documents	8B	Designer/project manager – responsibility Lead agency – assistance Land registration/cadastre agency – assistance
Registration of transfer documents	8C	Land registration/cadastre agency – responsibility Designer/project manager – assistance Lead agency – assistance

2. GENERAL PRECONDITIONS FOR PILOT PROJECTS

2.1

This chapter identifies general preconditions that should be in place before the start of any land consolidation project. For further information on addressing these conditions, refer to the FAO Land Tenure Studies No. 6: *The design of land consolidation projects in Central and Eastern Europe*. In several cases, establishing these conditions will require an iterative process.

- 1) **Lead agency.** The Government should have assigned responsibility to a central government agency for the overall supervision and control of the pilot project. The lead agency is likely to be responsible for initiating the first pilot project. "Terms of reference" that could be considered for the lead agency appear in section 11A.
- 2) **Lead agency co-ordinator.** The lead agency should have identified the person within the agency who will be responsible for the pilot project.
- 3) **Legal framework.** The lead agency should have initiated an analysis to determine if it possible for the pilot project to be carried out under the current legal framework. For most jurisdictions the current legislation may be sufficient to carry out the pilot project. For other jurisdictions a legal analysis may show that some changes should be introduced for the pilot project area, for example through a decree or regulations. In such cases, the legal amendments should be in effect before the start of the pilot project.
- 4) **Preliminary consultations within central government.** The lead agency should have provided information on land consolidation to other key central government agencies, and discussed the design and implementation of pilot projects.
- 5) **Preliminary consultations within central government.** The lead agency should have provided information on land consolidation to other key central government agencies, and discussed the design and implementation of pilot projects.
 - i. The composition of institutional arrangements such as a national land consolidation steering committee. It may be desirable to create a steering committee to formalize the liaison of central government agencies, as well as local government agencies and other local actors. Such formalized coordination becomes increasingly important as the number of participating agencies grows. Complex projects may involve a number of ministries, and a national committee can be used to bring together these parties to supervise land consolidation in general and advise the responsible minister. In addition to including several departments and levels of government, such a committee could include representation from the private sector. "Terms of reference" that could be considered for a national land consolidation steering committee appear in section 11B.
 - ii. The criteria for selection of pilot project areas.
 - iii. The composition of a committee of participants for projects.
 - iv. The requirements for approval of the formulation of the project.
 - v. The requirements for approval for the new layout of parcels ("plan 2").
 - vi. The approaches to be used for managing the design and implementation of the new layout of parcels, i.e. the division of responsibilities between government staff (both central and local), the private sector, and beneficiaries.
 - vii. The approximate duration of projects.
 - viii. The use of state and municipal lands in the project through land banks and land funds.
 - ix. The maximum and minimum sizes of projects with respect to land areas and number of parcels and participants.
 - x. The types of parcels and the categories of land to be included in projects.
 - xi. The extent of voluntary participation, and approaches for overcoming limits or constraints to participation.
 - xii. The approach for dealing with objections to the preparation of the inventory of the existing situation ("plan 1") and to the elaboration of the detailed land consolidation plan ("plan 2")
 - xiii. The approach for preparing land consolidation maps, updating cadastral maps and other thematic maps, i.e. by manual techniques or GIS.

- xiv. The approach for valuation of land parcels.
- xv. The approach for the exchange/transfer of land rights, including the forms that will be used.
- xvi. The conditions, if any, that can be placed on the transfer of land by land owners.
- xvii. The approach for cadastral surveying of the final layout, i.e. technology (total station, GPS, photogrammetry) and personnel (government, private sector).
- xviii. The approach for preparation of transfer documents, i.e. by government staff or private sector lawyers.
- xix. The services that will be provided to participants, i.e. farmers and other interest groups.
- xx. The services that would be expected from the participants.
- xxi. The approach for sharing costs. The Government should make clear in advance the extent to which pilot projects will be subsidised, and what financial contributions are expected from local governments and from land owners and users.

2.2

Some preconditions should be firmly established by the start of any project. Included in this category are decisions regarding the suitability of the legal framework, the selection of the lead agency, and a clear understanding by key actors of the different components of the project and of their responsibilities.

2.3

Other preconditions, such as the preliminary determination of rules and procedures, should be seen as establishing a base which will be further developed when meeting specific preconditions for a pilot project (chapter 3) and in the formulation of the pilot project (chapter 4).

3. SPECIFIC PRECONDITIONS FOR THE PILOT PROJECT

3.1

This chapter identifies issues that should be addressed before a final decision can be taken on whether or not to proceed with a specific pilot project. In most cases, the lead agency will play an important role in ensuring that such local or “project-specific” preconditions are in place. “Terms of reference” that could be considered for the lead agency appear in section 11A.

3.2

For a successful pilot project, communication should be permanent and transparent. The series of meetings with land owners and users and other stakeholders that are initiated when assessing the suitability of the project (sections 3C, 3D) are part of a continuous process of communication which should last throughout the life of the project. Meetings and other forms of communication should be as frequent as necessary and should not be limited to only those identified in the manual.

A. Elaboration of the rules and procedures

3.3

The lead agency should further elaborate the rules and procedures to be used in the project (see chapter 2). These rules and procedures should be discussed and developed with partners such other central government agencies, the local government and the committee of participants. If consensus on the rules is not reached, some mechanisms will have to be created to solve the stalemate situation. Some flexibility in the positions of stakeholders may be created by recognizing that approaches in the pilot project are not necessarily those that will be adopted for projects in a long-term programme. That is, while the pilot project serves to test rules and procedures for use in a long-term programme, it may also require some pragmatic decisions to be taken in order to address particular constraints faced in the pilot project.

3.4

Issues to be addressed include the following, although not necessarily in the order in which they are listed here:

- 1) The contribution of institutional arrangements such as **a national land consolidation steering committee** to a pilot project. (See chapter 2.)
- 2) The criteria for **selection of pilot project areas**. (See section 3B.)
- 3) The composition of a **committee of participants** for projects (see section 3E).
- 4) The **approval for the formulation of the project**. The formulation of the project is discussed in chapter 4. Who will approve the project that has been formulated? (See section 4D.)
- 5) The approval for the **design of the new layout of parcels** (“plan 2”). The new parcel layout is represented in “plan 2” (chapter 6). Who will approve the proposed new layout? (See section 6H.)
- 6) The approach for **design and implementation of the new layout of parcels**. Will the designer/project manager be hired from the private sector or will the person be a government employee seconded to the project? (See section 3F.)

- 7) The approximate **schedule** including dates for the start and end of the project, and indicative figures for the approximate duration of the important phases of the project. (See section 4C.)
- 8) The **availability of public lands** for the project. Can state or municipal lands in the project area or in the vicinity be used to facilitate the consolidation and enlargement of land holdings? Land banks and land funds can play an important role as access to additional lands allows for greater flexibility when developing options for " plan 2" . (See section 4B.)
- 9) The approximate **limits of the project area** and the approximate numbers of owners and parcels that might be included in the project. (See section 4B.)
- 10) The **types of parcels** to be included in the project (agricultural, forest, non-agricultural, etc) and types of parcels that are likely to be excluded (e.g. because they are under special crops). (See section 4C).
- 11) The **extent of voluntary participation**. Will farmers participate on a completely voluntary basis? Will anyone be forced to participate in the project against their will? In practice, it may not be possible to make participation compulsory if it increases the risk of failure of the project. (See section 1B.)
- 12) The approach for **dealing with objections** to the preparation of the inventory of the existing situation (" plan 1") and to the elaboration of the detailed land consolidation plan (" plan 2"). (See sections 5F and 5G; sections 6F and 6G.)
- 13) The approach for preparation of **land consolidation maps**. Will orthophoto maps be used in the preparation? Will " plan 1" and " plan 2" be prepared using manual approaches or with GIS (geographic information systems) technology. There is no single right answer, and the decision should depend on the particular conditions of a pilot project. (See section 5D.)
 - On the one hand, a GIS can be useful in compiling and revising maps if considerable digital data already exists, and if people already have the expertise to use such systems.
 - On the other hand, if the first project is of a relatively small scale, and especially if digital data and expertise do not exist, a GIS may be too slow and too expensive.
- 14) The approach for **valuation of land parcels**. Will values be determined through voluntary negotiations by farmers with assistance from project personnel? Will market prices be used when assessing land values? There are a number of options and a range of aspects may be subject to negotiation with the community. The choice of approach for valuation of land parcels is a critical decision, and implications of a particular choice must be assessed. (See section 5E.)
- 15) The approach for **transfer and consolidation of land rights**. Will land owners engage in transactions using legislation that governs conventional buying and selling? Will alternative procedures be used to transfer the land rights? What forms will be used in the process? (See section 6B.)
- 16) The **conditions for the transfer of land**. Will land owners be restricted from placing conditions on land they will exchange? (e.g. specifying who should not receive their land, or expecting that pre-fixed arrangements between specific parties will be automatically accepted). If such restrictions are applied, the process can be more flexible and allow for greater creativity. (See section 6D.)
- 17) The approach for **cadastral surveying** of the final layout. Will surveying be done by ground techniques (i.e. total station), satellite positioning (i.e. GPS), or photogrammetry (i.e. aerial photography)? Will cadastral surveying be done by government surveyors or by contracting out to the private sector? (See section 7B.)
- 18) The approach for **preparation of transfer documents**. Will documents to be registered be prepared by government staff or by private sector lawyers? (See section 8B.)
- 19) The services **that will be provided to participants of the project**. Will the designer/project manager provide a " one-stop-shop" for project participants? That is, would the designer/project manager, on behalf of the participants, interact with other agencies such as land registration/cadastre offices, planning and building authorities, etc. (See section 6B.)
- 20) The **services that will be expected from the participants of the project**. For example, will land owners and other

farmers contribute by marking their boundaries to facilitate the surveying for a new cadastral map showing the final layout of parcels? (See section 7C.)

- 21) The **cost-sharing formulae**. The Government should state clearly what contributions will be made towards the pilot project, e.g. through payment of subsidies. The contributions of the local government in which the project area is located should be identified. The expected financial contributions of land owners and land users must be determined. Low costs will encourage participation. Will participating farmers have to contribute? Will the participants be exempt from transfer fees and taxes? Will farmers be required to pay other costs of the pilot project? (See section 8A.)

B. Identification of the project area

3.5

The lead agency, in consultation with other key central government agencies, should prepare criteria for selecting and ranking communities that would be suitable for a pilot project. Box 3.1 lists some possible criteria for selecting project site.

BOX 3.1: Possible criteria for the selection of the project area

- The existence of small farms and fragmented parcels which have potential for consolidation and enlargement.
- An interest in land consolidation by farmers (e.g. expressed by their interest in enlarging their farms and/or consolidating their parcels, or by their willingness to sell or exchange parcels).
- An interest in land consolidation by local government.
- The absence of strong opposition to land consolidation.
- A relatively small number of absentee owners.
- The existence of adequate records documenting land ownership, e.g. because of a high level of completion of land reform and/or land registration.
- Few land disputes and no problematic ones.
- The availability of land from a land bank, etc., to allow the expansion of holdings and for the construction of new public facilities, etc.
- Potential for land consolidation to result in significant improvements. For example, if farmers already have established marketing channels they should be able to benefit immediately from increased production that would result from land consolidation. Close access to major highways could also be a factor.
- Location within a designated growth area of the country. This would allow benefits from consolidation to be linked to benefits arising from other development initiatives.
- Plans of other line ministries for the construction of public facilities, environmental protection, etc.

3.6

The lead agency, in consultation with other key central government agencies, should prepare a shortlist of communities that would be suitable for a pilot project.

3.7

The lead agency should test to confirm whether the pilot project should be implemented in the community that was ranked first. This manual describes an approach where the selection of the community is reviewed twice. In the first review, the lead agency initiates a preliminary assessment of the community (section 3C). If the preliminary assessment is favourable, a more detailed assessment should follow, and a decision should then be made whether to proceed with the project design (section 3D).

3.8

If the conclusion of any review is that the community would not be suitable for a pilot project, then another community on the shortlist should be selected and the process repeated until a satisfactory candidate is found. This review process is essential to reduce risk of project failure.

C. Preliminary consultation and assessment

3.9

The lead agency should initiate a preliminary assessment of the suitability of the community ranked first on the shortlist. The process is likely to be iterative in nature, and the lead agency should address the following issues, although not necessarily in the order in which they are listed:

- 1) Meetings with **other central government agencies** on the design and implementation of the land consolidation pilot project in the identified community. As part of putting in place the preconditions, the lead agency should have already disseminated information on land consolidation by arranging meetings with key agencies to assess their interest and possible roles in pilot projects. If useful, a national land consolidation steering committee could be established to improve coordination. (See chapter 2.)
- 2) Meetings with the **local government** in which the project area is situated. The lead agency should be in contact with the relevant local government to identify its local planning vision, the resources available, and to what extent it can contribute with concrete developments to a pilot project.
- 3) Meetings with **local farmers and other beneficiaries** in the community. The lead agency should initiate a meeting in the community to present information on land consolidation, and to assess the interest of local citizens in a pilot project.
- 4) Meetings with the **district offices of land administration agencies** that serve the project area. The district land offices should have detailed knowledge of ownership and the privatization process and they are involved in ongoing land registration. The lead agency should, firstly, ensure that the land offices are correctly informed about the land consolidation approach and, secondly, it should consider the possible role of a land office when a project is initiated in the area. Local agricultural advisors are often effective in preparing the ground for land consolidation. They have detailed knowledge of local land arrangements, production and people. In some cases, agricultural extension officers may participate actively in implementation. Both agricultural advisors and local land surveyors are key persons in the dissemination of the land consolidation approach and in assessing in local conditions and how public information might be handled.
- 5) **Preliminary assessment** of the potential application of land consolidation to the project area. If the lead agency concludes from the preliminary assessment that the community is not suitable for the pilot project, a decision should be made to select another community from the shortlist.

D. Initial concept plan and decision to proceed with the project

3.10

If the preliminary assessment is favourable, the lead agency should initiate a more detailed assessment of the suitability of

the community so that a final decision can be made. This more detailed assessment should reflect the findings of the initial assessment.

3.11

The lead agency should initiate the preparation of an **initial concept plan** that states the aims of the proposed project, what the project might include (i.e. what types of improvements), and approximate estimates of costs and sources of funding. The concept plan should identify various elements that could be included in the project, for example an "area development plan" or "territorial organizational scheme" that could be introduced as part of the redesign of the parcel structure and the provision of any infrastructure. The concept plan should serve as the basis for more detailed discussions with potential partners.

3.12

The initial concept plan should be supported by an analysis of the needs of the community to determine if a land consolidation pilot project will be beneficial. Such an analysis, using for example the SWOT (Strengths, Weakness, Opportunities and Threats) approach, should include the participation of the key people and institutions. The analysis should recognise that there will be various categories of farmers and owners in the community (such as subsistence farmers, part-time farmers, commercial farmers, owner-operators, lessees and absentee owners) with differing interests and needs. It should assess the impact of a land consolidation pilot project on these different groups.

3.13

The lead agency should meet with **other central government agencies** to discuss the initial concept plan and to get consensus on the basic elements of a pilot project in the community.

3.14

Similarly, the lead agency should meet with **the local government** to discuss the initial concept plan and to get consensus.

3.15

The lead agency should meet with **local farmers and other beneficiaries** to discuss the initial concept plan and to get consensus. This meeting should be convened by the lead agency, and it should be chaired by the lead agency co-ordinator.

- a) One objective of the meeting is to provide information on the purpose of the proposed pilot project and its implications. The basis of the information to be presented should be contained in the initial concept plan (what is intended to be done) and the preliminary determination of rules (how it will be done). The presentations should be made relevant to the local conditions of the community, and should show clearly what benefits should result. In particular, the proposed project should be seen to benefit all types of land owners and not only large commercial farmers.
- b) A second objective is for the lead agency to receive feedback on the initial concepts that are being proposed. It will be important for the lead agency to demystify land consolidation. Sometimes there is suspicion towards public initiatives and some people may even be hostile. The message in such meetings should be that certain actions will be offered by the state, and the rest is up to the community and its land owners, the local government and the private sector. The meeting tests whether the community can accept the combination of incentives and constraints in the rules.
- c) At the meeting, the local farmers and other beneficiaries should vote on whether they should participate in such a project. If the decision is to participate, a third objective of the meeting is for the local farmers and other beneficiaries to elect a committee to represent them (section 3E).

- d) A fourth objective is to establish a process of communication. The public meeting should not be viewed as a single event in communication. Instead, it will leave ideas for people to think about. At the meeting the lead agency co-ordinator should carefully explain the lines of communication for further contact. More meetings and contacts should follow during the project.

3.16

If the outcome of the various meetings is favourable, a committee of participants should be formed (section 3E), and the designer/project manager and other project specialists should be identified (sections 3F and 3G).

3.17

However, if the lead agency concludes that the community is not suitable for the pilot project, a decision should be made to select another community from the shortlist.

E. Establishment of the committee of participants

3.18

The committee of participants represents local farmers and other beneficiaries in discussions, negotiations, planning and decision-making. It also has an important feedback function in that it provides correct information to those whom it represents. The committee should include representatives of the various types of owners and users.

3.19

It is very important that participating land owners and other participants have confidence in the committee and support it. This is most easily accomplished by having the committee elected democratically by the local farmers and other beneficiaries following their decision to participate in the project.

3.20

Section 11E provides considerations for the " terms of reference" of the committee of participants.

F. Selection of the designer/project manager

3.21

The designer/project manager is the key actor in the land consolidation project, and is responsible for overall progress and for liaison with all involved actors and stakeholders. It is a many-sided task: the designer/project manager is at the centre of the project organization. The person is the link between land owners and their representatives on the one hand, and the administration, authorities, professionals and specialists, and utility companies on the other hand. The person selected must be able to communicate and work effectively with many partners from different backgrounds. The person should also be able to build confidence in participating land owners and land users about the work that will be done, and in the

people who will execute the project. The designer/project manager should establish relations of mutual confidence and should be motivated to accomplish the project.

3.22

A common principle is that there should be a clear separation between supervision and control of a project (i.e. the role of the lead agency) and execution (i.e. the role of the designer/project manager). This principle may be especially important in jurisdictions where there is limited trust between citizens and their governments. In some cases this principle of separation of duties may be achieved by selecting a consultant from the private sector to be the designer/project manager. This option may not always be possible, e.g. in jurisdictions where the private sector does not yet have the requisite skills, and it may be necessary for someone from a Government agency to be appointed as the designer/project manager. In such cases, additional "checks and balances" may be required to give local participants sufficient confidence in the approach, for example by building into the project some international consultancies.

3.23

In any project it is important that the local participants accept, and are able to work with, the designer/project manager. Section 1B identified the need for a good "marriage" between the local community and the designer/project manager. If the lead agency is responsible for selecting the designer/project manager, how and when are the views of the community towards the designer/project manager to be taken into account? Do the lead agency and committee of participants jointly approve of the selection of the designer/project manager? Or does the lead agency first select the designer/project manager who then assists the lead agency in the public meeting that leads to the selection of the committee of participants? For the first pilot project the relationship between the designer/project manager, the committee of participants and the lead agency is likely to be determined in part by the personalities and personal skills of the people involved.

3.24

The lead agency should prepare terms of reference for the designer/project manager, and should identify a suitable candidate. Section 11F gives some considerations for such terms of reference.

G. Selection of project advisors

3.25

A land consolidation project may require a wide range of technical expertise. The designer/project manager should be expected to have broad knowledge and experience in relevant areas. However, at times, the experience of the designer/project manager will have to be supplemented to ensure that necessary expertise is brought to the project.

3.26

Such expertise may include the following:

- Surveying and mapping.
- Land registration.
- Land valuation.
- Land use planning.
- Land management.

- Agricultural economics.
- Rural sociology.
- Computer applications including geographic information systems (GIS).
- Negotiation and mediation.

3.27

The extent to which skills can be sourced from within the country must be assessed. At the early stages of the implementation of pilot projects, certain types of expertise is likely to be missing or insufficient. Local expertise may need to be supplemented through the use of specialists from Western Europe. An assessment will be required to determine what international technical assistance is needed, how it will be acquired, and how it will be paid for.

4. FORMULATION OF THE PROJECT

4.1

This chapter identifies issues that should be addressed during the stage when the project is formulated. The lead agency should further elaborate the project proposal expressed in the initial concept plan (section 3D), with the support of the designer/project manager and in consultation with other central government agencies, the local government and the local community.

A. Design principles

4.2

Useful design principles include:

- 1) **Keep the first pilot project simple.** An early phasing consideration could be to acknowledge that the very first project may have its innovative impact with a comparatively limited number of farmers. Exchanges between a relatively small number of owners may provide many, if not all, of the classical issues in land consolidation that will be encountered with a larger number of owners in subsequent projects. The first project tests all the steps in the process and provides a basis for adjusting the procedure. A simple project also permits a shorter time horizon. In addition, in some cases the first project can serve as a first phase that gains important local knowledge and introduces the approach and project team locally. It thereby can be an effective preparatory phase for successive projects in the same geographical area.
- 2) **Aspects of the first pilot project can be phased.** Even if the first pilot project does not include the construction of roads and other infrastructure, the project may be used to secure the space required for such planned improvements. In a transitional period (e.g. until the finances become available for the road construction and other complementary measures), an agreement could be made with land owners that they could use such land in the short term until construction can begin. It may be simpler to finance and tender out road construction if the reserves for new roads are already established.
- 3) **Subsequent pilot projects can be more complex.** When sufficient expertise exists, projects could include physical and social infrastructure together with the re-organization of agricultural land. Phasing of activities in more complex pilot projects may still continue to be important.

B. Selection of specific boundaries of the project area

4.3

The lead agency should define the limits of the project area in consultation with the local government and with the assistance of the designer/project manager. If the project is to be entirely voluntary, it is possible that not all land owners in the selected community will wish to participate. The lead agency should identify the core areas of the project, i.e. those areas that are critical for the composition of a sensible land consolidation. When preparing "plan 2", the designer/project manager should

concentrate efforts to motivate these owners and to develop options for them while other parcels and owners in other areas may be given lower priority.

4.4

The boundaries of the project area should be kept flexible if possible, as small changes during the project will often give a better result. Such situations may arise if people who originally did not want to participate change their minds when they see the project being implemented.

4.5

The identification of project boundaries should take into account the availability of state or municipal lands for the project. Including public lands in the project area can facilitate the consolidation and enlargement of land holdings. Land banks and land funds can play an important role as access to additional lands allows for greater flexibility when developing options for “plan 2”.

C. Formulation of the project

4.6

Once the area is identified the lead agency, assisted by the designer/project manager, can begin to formulate a project appropriate for the needs and conditions of the selected community.

4.7

The objectives of the project should be clearly defined, for example:

- Consolidating parcels and/or enlarging farm sizes to improve the productive base of the various types of farms according to their needs.
- Improving access to roads.
- Improving irrigation systems.
- Managing risks of land and soil degradation.
- Preserving characteristic landscape features.
- Providing land reserves for envisaged investments in infrastructure or town developments.

Some of these issues are discussed in Box 4.1. As the number of objectives increases, the cost and complexity of the project is likely to rise accordingly.

BOX 4.1: Factors to be addressed in project design

Agriculture. The regime of ownership, notably the combination of ownership, leasing arrangements and absentee ownership, determines the character of the land consolidation project and its possible contributions. Design criteria depend very much on the type of land use, the terrain, type of crops, extent of livestock production, etc. There may be land policy guidelines to be observed, for example, ceilings for size of farms and priorities for enlargements of farms under certain size.

Environment. The project may have to address specific governmental regulations regarding the protection of the environment.

Infrastructure. Detailed design of infrastructure can be combined with the land consolidation planning process.

4.8

The process for project formulation should include:

- 1) **Consultation with the local community.** The designer/project manager should carry out an analysis of the needs of people in the local community as seen by them. Consultation with the committee of participants and individual members of the community is important. This analysis should reveal the prevailing farming systems, the social context, the character of the natural resources, and the potential for solving land disputes. Feasibility of a project could be assessed on such general impressions during the dialogue in the information process including an assessment of their ability to perform a certain measure of internal mediation. If engineering works are included in the project, the iterative planning process with feedback from the community and land owners allows for the greatest possible agreement with preferences and thereby the best possible satisfaction and support. In practical terms, it minimizes the number of objections and appeal cases.
- 2) **Consultation with the local government.** The designer/project manager should liaise closely with the local government throughout the process.
- 3) **Consultation with other central government agencies.** If a project includes infrastructure components, there should be direct contact between the designer/project manager and the engineering team designing the infrastructure. Possibilities in re-organization of land that are discovered during the land consolidation planning may influence the design of roads, bridges and other infrastructure. The reverse may also occur: new options of access may influence the motivation of some owners to consider options of land exchange not previously thought of. The consultation process is usually effective in revealing unknowns that are relevant for engineering works, e.g. information on the physical environment (such as frequency of flooding), on unexpected opposition to part of the project, or on particular preferences (such as hunting or fishing rights and related access).

4.9

The lead agency, in consultation with other parties, should finalize the selection of the types of parcels to be included in the project (agricultural, forest, non-agricultural, etc) and types of parcels that are likely to be excluded e.g. because they are under special crops. (See section 3A.)

4.10

The lead agency, in consultation with other parties, should finalize the choice of approaches to be used. (See section 3A.) In a number of cases, the choice of approach will have implications for the project costs, schedule and required expertise.

4.11

The project design should be based on a solid analysis that can effectively demonstrate that the pilot project will be beneficial to the community and that the project will provide the greatest possible added value. This analysis should build on the preliminary analysis using, for example, the SWOT (Strengths, Weakness, Opportunities and Threats) approach. (See section 3D.)

4.12

How detailed the project design should be will depend on the requirements of the project:

- On the one hand, if infrastructure and other development works are to form part of the project, their inclusion will require a relatively high degree of planning. For example, if a road is to be constructed, matters such as its location and quality will have to be determined at an early stage for purposes of costing and scheduling.

- On the other hand, if the project is a simple one of a voluntary exchange of land rights and without the provision of infrastructure, the design can be relatively simple. In such a case, details of changes in layout would emerge during the interview and negotiation stages (chapter 6). Detailed scenarios can be discussed as part of the information process but need not be required as a condition for project approval. Instead, the detailed plan for re-organization of parcels would materialise only as agreements are signed.

4.13

Regardless of the nature of the project, the design should be sufficiently detailed to:

- Define the scope of the project (e.g. re-organization only, or with various types of improvements).
- Define the costs of the project, and assess how they will be paid.
- Define the schedule for the project.

D. Approval of the project design

4.14

The project design should be approved or endorsed by the authorities deemed competent in the rules (section 3A). Approval or endorsement may be required from the following:

- The lead agency.
- Other central government agencies, if any, that will participate in the project.
- The local government.
- The committee of participants, on behalf of all the participants.

4.15

At the early stages of pilot projects there is likely to be limited expertise in land consolidation within a country. In such cases it may be useful to have the opinions of international experts with practical experience in the design, approval and implementation of land consolidation plans.

5. INVENTORY OF THE EXISTING SITUATION

5.1

This chapter identifies issues that should be addressed as part of the preparation of an inventory of the existing situation. To some extent, the inventory is a continuation of the initial planning process as it results in a more detailed assessment of the terrain, landscape, the people, and the type of land use and production. One output of this stage is a graphical plan (referred to here as "plan 1") which describes the situation before the re-organization of land parcels.

5.2

The process defined here for this stage comprises the following elements:

- 1) Collection of information from official records on ownership and other rights, parcels and their boundaries, land values and land conflicts, and on the terrain and landscape (e.g. soils, hydrology).
- 2) Collection of information from the land owners in the field.
- 3) Filling gaps in the information and reconciling inconsistencies.

5.3

The inventory of the existing situation should also include the collection of information on spatial plans being developed for the project area at the local, regional and central levels of government.

A. Public meeting to present requirements for the preparation of "plan 1"

5.4

Before the first real project activities begin, the designer/project manager and the committee of participants should convene a public meeting to:

- Review the relevant rules and procedures for the project.
- Describe "plan 1", its role in the project and the activities to be carried out for its preparation.
- Establish the schedule of activities, in particular regarding meetings with individual land owners and others.
- Answer questions from participants.

5.5

This meeting is part of a continuous process of communication, and it should not be seen as being sufficient by itself. Meetings and other forms of communication should be as frequent as necessary and should not be limited to only those identified in the manual.

B. Agreement with the land registration/cadastral agency

5.6

The lead agency should enter into an agreement with the land registration/cadastral agency to ensure that property data is provided to the project in a timely manner.

5.7

The agreement should address the cost of data provision and the establishment of lines of communication and procedures for the ongoing updating and provision of maps.

5.8

Based on this agreement, the designer/project manager should arrange to receive from the land registration/cadastral agency information such as the following:

- Extracts from registered documents of rights.
- Extracts of cadastral records specifying area and other attributes of parcels.
- Copies or digital versions of any cadastral maps.
- Extracts of official values of land parcels.

C. Initial compilation of the legal record of land rights

5.9

The situation of ownership is established largely on the basis of existing records. The situation may be affected by pending land restitution claims and the extent to which the land registration process is completed in the project area.

5.10

Information on land ownership rights received from the land registration/cadastral agency should be filed for easy reference in the project office. For example, a physical file could be created for each owner or parcel to hold the records associated with the owner. (See section 9D.)

5.11

Information on land rights should be entered into a computerized "summary of information" to assist in referencing and managing the data. Depending on the complexity of the project, the information could be entered into a database or a simple spreadsheet. Relevant data could include:

- Name of owner/user.
- Contact information for the owner/user.
- Parcel identifier for parcels in which the owner/user has rights.
- The nature of rights (e.g. ownership, co-ownership, lease, servitude, etc.)
- References to the legal proof of ownership (e.g. document registration number).

D. Initial compilation of the map

5.12

The approach for preparing the map for the consolidation project should have been identified during the initiation and formulation of the project (chapters 3 and 4). Options include:

- The lead agency may arrange with the cadastral office to produce a map for the land consolidation project.
- Otherwise the designer/project manager will have to prepare the land consolidation map. This could be a useful activity because the designer/project manager thereby becomes acquainted with the details of recorded ownership.

5.13

The approach for compiling the map will depend in part of whether manual or GIS technologies are used. There is no single right answer, and the decision should depend on the particular conditions of a pilot project:

- On the one hand, a GIS can be useful in compiling and revising maps if considerable digital data already exists, and if people already have the expertise to use such systems.
- On the other hand, if the first project is of a relatively small scale, and especially if digital data and expertise do not exist, a GIS may be too slow and too expensive.

5.14

Where cadastral maps exist, they will usually be line maps showing parcel boundaries and the parcel identification numbers. A common approach is to overlay the cadastral map on an orthophoto map. The combination of landscape features and parcel boundaries makes it easy for people to link the map with reality.

5.15

In order to give a visual image of the character of fragmentation and of the different parcels held by individual owners, a separate colour or representation could be used for the parcels owned or used by each farmer. It may be useful to distinguish between:

- Parcels owned by the same owner (parcels under the same ownership may be listed under one identifier in the land registration records or they may have separate identifiers.)
- Parcels co-owned where one owner may be the single owner of some parcels and a co-owner of others.
- Parcels leased in and/or leased out by the owner.

5.16

It may be useful to prepare an overlay of the user structure which typically differs from the ownership structure.

5.17

It may also be useful to represent additional themes on the map. For example, showing cultivated land can be useful as it gives a picture of the agricultural production interests.

E. Initial compilation of land values

5.18

Some official valuations may exist, for example based on soil surveys and other factors which indicate relative differences in the value of agricultural parcels. Such official values may not be based on land prices, but may still provide a useful basis for the establishment of values for the purpose of the land consolidation project.

5.19

Any provisional values of land parcels should be added to the computerized "summary of information" (section 5C).

5.20

The designer/project manager should develop procedures for establishing land values. Approaches typically include:

- Basing the relative valuation on soil characteristics, perhaps supplemented by such features as terrain slope, location of infrastructure, etc. For example, use might be made of any existing 100-point soil evaluation system prepared during the Soviet era. Such valuations can be based on technical indicators and performed by specialists.
- Basing the relative valuation on market prices in co-operation with land owners. The aim is here to agree on prices which are acceptable to both sellers and buyers. Such an approach draws on the local knowledge held by land owners and it assumes their commitment. Indicators could be prices in recent sales and also the levels of rent on various types of land. In the first pilot projects there may be an absence of a land market. That is, there is no pre-existing level of relative prices from recent selling and buying.

5.21

The advantage in a conventional systematic valuation is that it sets relative values in a predictable manner. A disadvantage is that it may be too complex for a project of a limited volume and, especially, that it may divert attention from the issue of exchange to focussing on controversies of relative price.

5.22

Direct valuation has the advantage that it leads to an agreement between seller and buyer. It is technically simpler but it is a demanding task for the designer/project manager to facilitate and yet set certain limits for the bargaining. To address the lack of market information usually found in a pilot project, the designer/project manager can facilitate negotiations on prices directly between seller and buyer. Generally, a simplified land consolidation procedure could be used if parties agreed that differences in land values of parcels exchanged can be dealt with by one party paying the other the difference in money.

5.23

In the final analysis, preparation of a "valuation scale" on soil characteristics or market prices can be very complicated and the choices should be carefully assessed. The particular circumstances of the project area may influence the selection of the valuation approach to be used.

F. Field verification of the legal record of rights, map and land values

5.24

Certainty about the existing situation on the ground is essential for a land consolidation project. However, unless discrepancies are extreme and conflicts are common, the principle should be that incomplete registration is not necessarily an obstacle for land consolidation. The critical factor is what people want, what they can agree upon, and what they can afford.

5.25

It is likely that legal records from the land registration/cadastral office are incomplete, that errors exist in the cadastral maps, and that there are discrepancies in valuation. Before carrying out the field verification, the lead agency should define principles with the land registration/cadastral agency for discrepancies. For example:

- Agreements in a land consolidation project do not necessarily require strict geometrical accuracy. Only such corrections and clarifications should be made that matter for making agreements on land exchanges. The project should not be diverted from a focus on land consolidation to one of correcting the cadastre. Only in exceptional cases in a pilot project would it be necessary to make a new cadastral survey of the existing situation.

5.26

The designer/project manager, assisted by the committee of participants, should carry out a field investigation by meeting with each land owner. The designer/project manager should visit the land owner rather than the owner being called to the project office. The designer/project manager should conclude the meeting by explaining to the owner the arrangements for keeping in contact directly and through the committee of participants.

5.27

The meetings should address:

- 1) **Land records.** Each owner should be consulted to see if there is any disagreement with the preliminary compilation of the land records. Types of inconsistencies that might arise include:
 - An owner may claim the right to pass over the neighbour's land.
 - Another owner may explain that some years ago portion of unused land of the neighbour's land was fenced off and a house built, and now that land is being claimed through this possession.
 - A person may claim that he or she should be declared the owner (instead of the owner of record), offering as proof the fact that rent has been paid by a farmer leasing the land.
 - A transfer may be in progress but not yet recorded.
 - A person may claim co-ownership of land, for example through inheritance.
 - A person may claim pre-emptive statutory rights. This can cause difficulties as it may restrict the flexibility in re-organizing the land ownership, and a failure to detect a pre-emptive right could lead to the holder of that right claiming compensation from the lead agency. However, it may be possible for pre-emptive rights to be used to support land consolidation processes.
- 2) **Map.** Each owner should be consulted to see if there is any disagreement with the preliminary compilation of the map. Types of inconsistencies that might arise include:
 - Errors arising from the use of old photo maps.
 - Errors arising if there has been a confusion of features in the terrain.

- Disputes may exist over boundaries and access routes to land parcels.
- Some disagreements may surface only during the process.

3) **Values.** Each owner should be consulted regarding the value of parcels held. Types of inconsistencies that might arise include:

- If official land values exist, land owners may argue that they do not reflect values for the purposes of exchange of land within a consolidation project.
- Owners may have quite different prices in mind for parcels of land that appear to be of similar quality.
- Different co-owners of the same piece of land may insist on different price per hectare for their share.

Land owners typically lack experience and require assistance in evaluating their land and understanding how this value can be used.

5.28

The designer/project manager, with assistance of the committee of participants, should try to reconcile any differences by mediating minor disputes over boundaries and land rights. They should also assist those people who wish to exchange land in the project to negotiate the value of the parcels. Objections that cannot be resolved at this step may have to be deferred (section 5G).

G. Dealing with objections not resolved during the field verification

5.29

During the preparation of the inventory of the existing situation, land owners and others may object to the determination of:

- 1) The person who holds rights to a specific land parcel.
- 2) The location of boundaries of land parcels.
- 3) The value of land parcels.

The designer/project manager, assisted by the committee of participants, should attempt to resolve these objections through mediation and negotiation during the field verification stage (section 5F).

5.30

If any objections cannot be resolved during the field verification stage, and the owners wish to participate in the project, matters could be resolved using existing adjudication procedures. However, the use of such procedures should not adversely affect the schedule of the project. For example, resort to the courts for clarification may not be helpful if the court process is excessively lengthy.

5.31

If it is not possible to satisfactorily resolve objections, then parcels affected by major uncertainties and disputes may have to be omitted from the project. There are likely to be situations when a land owner may make unrealistic demands. If participation in a project is to be entirely voluntary and not compulsory, a pragmatic consideration could then be whether it is necessary to include or exclude such an owner. The designer/project manager, the committee of participants and the lead agency may have to decide who can participate. Such an arrangement can strengthen the negotiating position of the designer/project manager as it signals that owners do not necessarily have an automatic right to be included in a land

consolidation pilot project. This can be important to ensure that all types of interest are considered and that an overall fairness is maintained.

H. Finalization of the record of land rights, map (“plan 1”) and land values

5.32

The designer/project manager should ensure that changes arising from the resolution of doubts and disputes as a result of the field verification are reflected as follows:

- 1) Computerized “summary of information”. This should be updated to contain data such as:
 - Name of owner/user.
 - Contact information for the owner/user.
 - Parcel identifier for parcels in which the owner/user has rights.
 - The nature of rights (e.g. ownership, co-ownership, lease, servitude, etc.)
 - References to the legal proof of ownership (e.g. document registration number, etc.)
 - Value of the parcel.
- 2) “Plan 1” (map of the land consolidation project). This should convey an instant graphical impression of the agreed-upon ownership structure before the re-organization. Together with the “summary of information”, “plan 1” identifies the persons that are the legal owners and decision-makers for each parcel, as well as those people who use each parcel.

5.33

“Plan 1” is an important tool for the designer/project manager and for others. The map should be easily available to participants. Members of the committee of participants should each have a copy of the map. People are often keen to see such a visual image of ownership in their locality, and especially of their own lands, and some owners may request a copy of the map or at least of the portion where their own lands are located. Provision of maps is a simple way to facilitate active participation, and the use of the maps is convenient when discussing scenarios for the preparation of “plan 2”.

5.34

The designer/project manager should establish a procedure for reproducing copies of “plan 1” during the project. In some cases, there will be a need to make revisions as discrepancies are subsequently identified and resolved. In other cases, there will be a need to replace copies of the maps which have worn out because of frequent use.

6. ELABORATION OF THE DETAILED LAND CONSOLIDATION PLAN

6.1

This chapter identifies issues that should be addressed during the preparation of the plan ("plan 2") that shows the proposed re-organization of land parcels. The process defined here comprises the following elements:

- 1) Identification of preferences of the participants.
- 2) Negotiation of interests and the development of options for the new parcel layout.
- 3) Selection of the final layout.

A. Public meeting to present requirements for the preparation of "plan 2"

6.2

The designer/project manager and the committee of participants should convene a public meeting to:

- Describe "plan 2", its role in the project and the activities to be carried out for its preparation.
- Establish the schedule for activities, in particular regarding meetings with individual land owners and others.
- Answer questions from participants.

6.3

This meeting is part of a continuous process of communication, and it should not be seen as being sufficient by itself. Meetings and other forms of communication should be as frequent as necessary and should not be limited to only those identified in the manual.

B. Agreement form and terms

6.4

In a project based on voluntary participation and negotiation, "plan 2" emerges as the owners make their decisions as to what transactions they are willing to engage in. In other words, owners are not presented with a proposal to which they make suggestions. The planned re-organization of the land parcels appears as the decisions by owners materialise in the form of signed agreements. The first pilot projects may be likely to implement the agreement through existing procedures, such as conventional subdivision, preparation of various documents by notaries or lawyers, and final registration.

6.5

To simplify matters, all land transactions and attached conditions including financial payments for each owner should be written into one single document. This gives the owner an overview of all changes and it is an important aspect of the

“one-stop shop” concept in that the owner needs to sign only one document. This can be one of the attractive incentives of a land consolidation project especially when owners realize that the preparation of the document and the subsequent registration are arranged as part of the project. The “one-stop shop” concept can be extended if the designer/project manager, on behalf of the participants, interacts with other agencies such as land registration/cadastral offices, planning and building authorities, etc.

6.6

The agreement form should specify all the transactions and the terms for each owner. It lists key information of the owner and the affected land parcels. It specifies which parcels of land are exchanged, what is bought, what is sold, the differences in value of land being transferred and thereby any money that is paid by one party to another. Particular terms (e.g. regarding rights of way or a future position of a boundary point or a boundary line) can be added to the text. Sometimes conditions of rights of water, hunting or fishing may need to be specified. A particularly important aspect is to make the owner accept that the areas of the parcels are only approximate; this reduces the need for re-survey of the existing situation. In short, the agreement contains the basic information that defines the new property situation. Formally, the agreement form expresses the intention of the owner or, in other words, can be seen as an “offer” to make specified exchanges of land.

6.7

The fact that exchanges in a land consolidation are interrelated means that exchanges for one owner depend on those of other owners. It is possible to give the agreement form an asymmetric responsibility so that it commits the owner but only commits the lead agency when all the other interrelated agreements are made. This gives the designer/project manager the possibility to make agreements with owners one-by-one as their exchanges become clarified. Nonetheless, the designer/project manager should only sign agreements with owners when it is certain that the interrelated exchanges can materialise.

6.8

Chapter 12 gives an example of an agreement form used in a Lithuanian pilot project.

6.9

Box 6.1 provides examples of how multiple transfers could be arranged with changes to the legal framework.

BOX 6.1: Possible arrangements if the legal framework is changed

A new legal framework for land consolidation may provide that the agreement form becomes an alternative transfer document for multiple and simultaneous transfers. The land consolidation agreement form could be accepted as the basis for registering transfer of ownership as specified in the land consolidation “plan 2”. The lead agency should design the agreement form together with the land registration/cadastral agency. In this way land consolidation will be an alternative formal procedure for transfer of ownership, in addition to the conventional ones of individual transactions between a seller and a buyer. The legislation would also specify the specific rules for such agreement that may be annexed or printed on the reverse side of the form. These may specify margins within which owners accept deviations in estimates of areas and amounts. There may also be conditions of “freezing” of transactions, and rules with respect to taxation, etc. The new legislation would also provide a procedure for a “one-ruling-system” whereby all agreements are considered and ruled legally effective in one decision.

C. Accounting system

6.10

In a project where farmers exchange land through buying and selling, differences in land values will have to be tracked. If land parcels being exchanged are not of the same value, one owner may have to pay the other owner the difference in value. The designer/project manager should have an accounting system that keeps track of all land parcels and of all payments. Simple controls are that the total of all land received/bought is equal to the total of all land surrendered/sold, and that the total of payments equals the total cash received.

D. Identification of preferences of participants

6.11

One of the rules to be defined prior to the project's implementation relates to the conditions for the transfer of land (section 3A). Will land owners be restricted from placing conditions on land they will exchange? (e.g. specifying who should not receive their land, or expecting that pre-fixed arrangements between specific parties will be automatically accepted). If such restrictions are applied, the process can be more flexible and allow for greater creativity.

6.12

The designer/project manager should meet individually with each land owner to identify his or her preferences. (This stage can be viewed as the "wishing round".) These discussions can be regarded as a continuation of the dialogue started during the preparation of "plan 1". They allow the designer/project manager to learn more about people in the community, and they enable the land owners to get to know the designer/project manager personally. Unlike the process for "plan 1", the focus here is on the future: what would the owner like to sell, buy or exchange. The designer/project manager should assess the environmental and other implications of proposals, e.g. the potential or actual risks of degradation of the site and/or soil.

6.13

The designer/project manager should visit the land owner rather than the owner being called to the project office. The designer/project manager should conclude the meeting by explaining to the owner the arrangements for keeping in contact directly and through the committee of participants.

6.14

By the end of this stage, the designer/project manager should have an impression of the character of all the land owners and their situations, and should have an appreciation for what kind of solutions each may be prepared for and the extent to which they may change their perception in the process. The designer/project manager is likely to have learned "the stories of the community" and probably in several different versions. The key issue is that the designer/project manager must be able to see the situation from the side of almost all of the land owners and must win their confidence.

E. Initial development of options for the re-organization of parcels

6.15

The designer/project manager should prepare a range of possible options for the re-organization of land parcels, based on the discussions with each land owner. In preparing the options, the designer/project manager should take into account:

- Preferences of land owners and other beneficiaries.
- Environmental regulations and other restrictions on land.
- Requirements for land for roads and other infrastructure.
- Provision of additional lands from the state land reserves for exchange or compensation.

6.16

These options should be represented graphically in order for people to understand their choices more easily.

F. Review of options and negotiations

6.17

The designer/project manager should meet the committee of participants to discuss the range of options. At this stage the designer/project manager should avoid putting forward a final proposal. Discussing scenarios together with the committee of participants can be a creative process: the feedback from committee members may reveal new information that leads to the development of new options. Throughout this process the designer/project manager should take into consideration that the committee members are not only representatives of the participants but are also participants themselves. The designer/project manager should assess which proposals coming from the committee are of common interest to participants and which proposals are of interest to committee members.

6.18

Discussing scenarios directly with owners can be a good way of uncovering new options. The creative process influences preferences. (See Box 6.2.) The designer/project manager is in a position to combine preferences (i.e. of those who wish to sell land, those who wish to keep land but perhaps exchange some of what they hold, and those who wish for some combination of selling, buying and exchanging) in a much wider way than owners may be able to do themselves. The designer/project manager may be able to come back to an owner with an option for land exchange which had previously never been considered by the owner. Once land owners grasp the technique in a land consolidation project they often come up with their own proposals that tend to promote their own case.

6.19

It is sometimes easier for people to consider an option of land exchange when they see the new situation demarcated on the ground. The designer/project manager should be able to improvise with simple ways to take the provisional layout on the map and to set it out on the ground.

6.20

The designer/project manager should strike the delicate balance between appreciating the creativity of owners and being faithful to the overall design principles intended to maintain fairness. Real cases are always complex. It is critical that the designer/project manager is able to consult with senior personnel in the lead agency. It is also critical that the designer/project manager informs the lead agency as to how particular cases are being decided. The lead agency should be in agreement with the outcomes.

BOX 6.2: Preferences and the design of options

An intriguing thing about preferences is that they can only be partly known in advance. Only when a land consolidation project has been implemented will participants reveal what they are prepared to decide. Preference is something that develops through the process of consultation and planning. This is the main reason why the final outcome of a participatory land consolidation project cannot be known beforehand and sometimes only emerges in its final stage. Aspects of this include:

People's perception of land consolidation. When a project is initiated people gain a clearer understanding of how it works. Various misunderstandings become clarified and people get a better understanding of the advantages of land consolidation. Another aspect is that people get to know the designer/project manager and they have genuine attention given to their situation. The elected representatives of the participants and the community have an important role because they meet with the project management as well with people in the village on an informal basis. Gradually some people change their attitude to the project and may decide to participate in the project.

A screening process. By offering a combined land planning/registration procedure, the land consolidation project creates a temporary situation in which transaction costs for participants are absent or significantly reduced. This situation enables the individual land owner to concentrate on what he or she wants. The designer/project manager presents each owner with specific choices of land exchange and the terms such as payments to be made or received. The land consolidation project thereby has a screening process where the land owner faces specific options and their consequences. Those who wish to enlarge their holdings and expand farming will need to make investment decisions based on evaluations of their production possibilities, and on assessments of the ability to raise the required finances. Farmers in a more dynamic market often need to consult their advisors in the agricultural extension service on these matters.

Preferences develop during the process. The designer/project manager may be able to develop proposals that owners could not devise themselves. This is because the designer/project manager is an external agent and consults all owners and has the perspective of the whole area. The solutions proposed by owners tend to be limited to their individual perspective and immediate options. The designer/project manager can instead prepare proposals that the land owners could not imagine. This is especially so when there is good co-operation between the designer/project manager and the committee of participants. It is the combination of each owner's re-appraisal of the situation and new options offered by the designer/project manager that often allows owners to change their minds as to what they are willing to do with their land. An option of land exchange may occur that is particularly attractive for an owner; an option that was not known before and therefore could not have been considered. An absentee owner who may have previously thought about selling unused land may decide to go ahead with the sale because of the relative ease of doing so within the project.

G. Finalization of “plan 2”

6.21

The deadlines for the project define the schedule for the planning and negotiation. This is often what forces people to make up their minds. The last stage can be quite hectic, for example, when owners who have not committed themselves change their mind at the last moment and decide to participate. The designer/project manager then will have to revise the plan accordingly.

6.22

Once a definitive solution emerges, the designer/project manager should prepare an agreement form for each owner. This form specifies the exchange and the conditions including payments calculated as a function of the valuation, etc. Relevant terms are inserted for each owner. Each form should be signed by the owner and the designer/project manager. A copy of the form should be kept in the project file of the land owner.

6.23

The final layout to have emerged from the series of individual negotiations is represented in the compilation of "plan 2". If the designer/project manager is not primarily responsible for the preparation of "plan 2", he or she should be closely involved with its production as many details are difficult to communicate. There must be a clear linkage between the agreement form and "plan 2".

6.24

The designer/project manager should document any objections of participants, and assess the objections concerning their relevance. The assessment should include considerations as to whether amendments of "plan 2" are necessary.

6.25

The designer/project manager should refer remaining objections to the lead agency for a ruling.

6.26

The lead agency should decide how to deal with objections not resolved by the designer/project manager, using for example procedures developed for "plan 1" (section 5G).

H. Approval of "plan 2"

6.27

The layout of "plan 2" should be approved by the competent authorities as specified in the rules adopted for the project (section 3A).

6.28

The designer/project manager should enter final figures for transactions of buying, selling and exchange into the accounting system (section 6C).

7. IMPLEMENTATION OF THE DETAILED CONSOLIDATION PLAN

7.1

This chapter identifies issues that should be addressed during the steps to implement on the ground the layout as defined in "plan 2".

A. Communication of the schedule for the implementation

7.2

The designer/project manager and the committee of participants should inform the participants of the schedule for activities, for example when their new parcels will be demarcated and surveyed. This information should be disseminated at a public meeting or by notice.

7.3

Such a meeting or public notice forms part of a continuous process of communication, and it should not be seen as being sufficient by itself. Meetings and other forms of communication should be as frequent as necessary and should not be limited to only those identified in the manual.

B. Coordination with the land registration/cadastral agency and selection of surveyors

7.4

The lead agency, in consultation with the land registration/cadastral agency, should prepare specifications for the cadastral survey. This is to ensure that the results of the survey will be accepted as suitable for registration. Such co-operation with the land registration/cadastral agency is important if the project is to explore the scope for adapting approaches within existing regulations and available techniques. The lead agency should insist on pragmatic methods needed for the land consolidation agreements.

7.5

Land consolidation allows for the use of techniques that bring benefits through economies of scale. Instead of operating with each parcel on an individual basis, land consolidation affects a number of parcels simultaneously. The cadastral survey approach should be selected to reduce the unit cost per parcel. Options for surveying include:

- GPS technology may be a suitable technique for an "as-built" survey.
- Aerial photography and mapping may be suitable in cases where large scale rural development efforts are envisaged. In such cases it would be important to co-ordinate this mapping with land consolidation activities and cadastral surveys to ensure that pre-marking of boundaries is done to appropriate specifications and at the appropriate time.

7.6

The lead agency, in consultation with the land registration/cadastral agency, should decide who will perform the cadastral survey of the parcels as defined in “plan 2”. (See section 3A.) Options include:

- Government cadastral surveyors, for example from the local district office. If this option is selected, the lead agency should agree on the work to be done and the payments to be made.
- Private sector cadastral surveyors by contracting out the work. If this option is selected, the lead agency should issue a tender, select the winning survey company, and sign a contract with it to provide the required services.

C. Demarcation of boundaries

7.7

The lead agency, in consultation with the land registration/cadastral agency should prepare specifications for the marking of boundaries. This is particularly important if the project includes aerial photography to be taken after the re-organization as the boundaries or their corner markers should be visible from the air. The cadastral surveying thus becomes an “as-built” survey, which is technically simpler.

7.8

It may be possible for the land owners to participate by demarcating their boundaries in which case demarcation becomes part of the planning/design process. Making owners responsible for demarcation and maintenance of boundaries and corner markers can prevent new uncertainties and disputes. If this option is selected, the lead agency should provide participants with information on the specifications for marking the boundaries, and the schedule for doing so.

D. Surveying of boundaries and preparation of the cadastral map

7.9

The designer/project manager should:

- 1) Supervise the surveying operations.
- 2) Ensure that the quality of the work is in accordance with contract requirements.

In doing so, the designer project manager should liaise closely with the lead agency and the land registration/cadastral agency.

7.10

The land registration/cadastral agency should use the new cadastral data to update the land register/cadastral. A benefit for the land registration/cadastral agency is that the land consolidation project results in a new cadastral map. Parcels are less fragmented, clearly defined and systematically surveyed and with good data quality. (See section 8C.)

E. Implementation of infrastructure

7.11

If the project includes the provision of infrastructure, the approach adopted for the preparation and implementation may be defined in part by the relationship between the lead agency and the designer/project manager.

7.12

The lead agency may, for example:

- Prepare the specifications.
- Issue a tender.
- Select the contractors.
- Approve the quality of work.

7.13

The designer/project manager may, for example, be responsible for supervising the contractors in their work.

7.14

Regardless of the approach adopted, the lead agency and the designer/project manager should liaise closely with any relevant agency.

8. CONCLUSION OF THE PROJECT

8.1

This chapter identifies issues that should be addressed during the final stage of the project.

A. Working out compensation and apportioning costs

8.2

The designer/project manager, in consultation with the lead agency, should make a final assessment of compensation, if any, to be paid to participants as a result of the re-allocation of their land.

8.3

If during the project there has been any changes in agreed-upon costs, the designer/project manager, in consultation with the lead agency, should make a final assessment of costs to be paid by:

- Other central government agencies, local governments, etc., in accordance with any cost-sharing agreements.
- Participants for any specific services, in accordance with agreements established at the start of the project.

8.4

The lead agency should ensure the collection of financial contributions and charges arising from the pilot project.

B. Preparation of transfer documents

8.5

The lead agency, in consultation with the land registration/cadastre agency, should decide how the transfer documents are to be prepared. (See section 3A.) Options include:

- Government staff, for example from the local district office.
- Private sector lawyers. If the private sector is used, their fees should be treated as a project cost, instead of as transactions between a lawyer and individual clients.

8.6

The designer/project manager should supervise the preparation of transfer documents as required by law. In doing so, the designer/project manager should liaise closely with the lead agency and the land registration/cadastre agency.

C. Registration of transfer documents

8.7

The land registration/cadastral office should register the approved transfer documents and the new cadastral map.

9. PROJECT MANAGEMENT ISSUES

9.1

This chapter identifies issues of management that are relevant throughout the project.

A. Phasing

9.2

The capacity and detailed information needed to resolve the entire planning and design of land consolidation, whether sporadic or part of a larger and integrated project, cannot in practice be possessed by one actor at one moment. Inevitably, therefore, the overall planning task or project needs to be split up in a number of smaller tasks – sequenced over time and delegated to various actors giving the particular actor a particular task or role. The capacity for implementation depends in part on the ability to organize such phasing. Generally, those activities and decision that require complex and detailed knowledge of people and local environment should be decentralized to the level where the information lies.

B. Communication

9.3

Effective communication is essential during the project. Communication should be permanent, transparent and repeated as often as necessary until the message is clearly understood. Meetings and public notices should contribute to a continuous process of communication. They should occur as frequently as necessary and should not be limited to only those identified in the manual.

9.4

The designer/project manager should ensure that information is regularly shared with:

- The lead agency.
- The land registration/cadastral agency.
- The local government.
- The committee of participants.
- Individual members of the community.
- Surveyors who do the cadastral survey.
- Lawyers or others who prepare the transfer documents.

C. Scheduling, Gantt charts and “critical path” analysis

9.5

Careful attention in project management is needed to ensure that the project schedule does not slip. A successful pilot project is needed to build support for future land consolidation projects. Conversely, failure to complete the project as scheduled could be disastrous for the goal of promoting land consolidation as an effective instrument in rural development.

9.6

The use of tools such as Gantt charts and critical path analysis can be valuable in the initial resource planning and scheduling of the project, and in subsequent monitoring of activities.

D. Information management

9.7

Information, whether in digital form or on paper, must be able to be retrieved when it is needed. The office record-keeping systems should be easy to use and easy to maintain. For example, files should be established for each owner. This will allow the designer/project manager to quickly and easily get all relevant information before meeting with an owner (sections 5F and 6D).

10. STRATEGIC ISSUES

10.1

This chapter identifies some strategic issues that should be considered when evaluating the experiences of the project in order to inform the design of subsequent projects.

10.2

The chapter emphasizes that land consolidation is complex and open-ended. The uncertainties are illustrated by the character of preferences and by the many issues of land law existing in a context of absentee ownership, leasing arrangements, co-ownership, pre-emptive rights, incomplete registration and with many owners unfamiliar with market transactions with land. Land consolidation raises at the same time the need for the development of legislation, capacity building and research. Problem-based education and research and international exchange within the region are suggested as aspects of capacity building.

A. State owned land and land consolidation

10.3

Relocation of state owned land. In some countries restitution processes have resulted in remaining public land being in inconvenient locations and shapes. While claims are still pending, the restitution process cannot be terminated, and until the process is completed, state lands may have to continue to be reserved for restitution. However, it may be possible to re-locate or consolidate remaining public lands into more rational parcels. This allows land to be reserved by the state to meet possible future claims while at the same time allowing the value of the land to increase. The state may therefore have the same interest as other land owners in participating in a land consolidation project, and it should have the same legal status as any other participant in the project.

10.4

It may be that provisions for the relocation of public lands are not in place. A pilot project can contribute by drawing attention to this issue. Even if the state cannot sell land but must retain its lands until restitution is complete, it could still contribute to a land consolidation pilot project where there are owners with fragmented lands who are willing to relocate.

10.5

Privatization. When the direct sales of state lands takes place or is envisaged, there is great scope for using land consolidation as an alternative procedure for disposing of state land. By doing so, the state achieves its goals of disposing of land while at the same time it allows farmers to improve their land holdings. The state would then participate in a land consolidation project the same as any other seller of land. For this to happen, available state land must be close to the areas with fragmentation and small holders. The state may also have fragmented holdings and may wish to improve the shape and size of its parcels through a land consolidation project. Alternatively, a new owner of a privatized farm may have an interest in land consolidation. Managers of a pilot project should look out for such possibilities and approach the relevant state agencies if such opportunities arise.

10.6

A dynamic land policy. Provisions for use of state land in land consolidation projects may not exist at the stage of a pilot project. However, the pilot project can contribute in drawing attention to the possible role of public lands in restructuring land holdings. Perhaps there are some state-owned parcels in the area and special permission can be granted to relocate them. This may serve to illustrate the scope for actively using public lands in a dynamic land policy. In the larger perspective, there is important potential in using remaining state lands to catalyse the restructuring of land ownership by sale in land consolidation projects.

B. Feed back processes

10.7

Development of land law. Land consolidation projects contribute to ongoing innovation and development of land law. Existing land law sets the principles for various types of problems but new issues arise that were not considered when the law was drafted. This is especially so because the situation often found is one with various combinations of absentee owners, high frequency of inheritance issues, co-ownership, leasing and pre-emptive rights. Once the number of transactions increase there will be an increased need for the land law to provide certainty, and for the rules and procedures to be streamlined.

10.8

In addition, pilot projects will most likely identify provisions in various land laws that give unnecessary complications for the negotiations. For example, priority lists for buying land (e.g. giving users priority before neighbours) may limit flexibility of the designer/project manager when preparing options for "plan 2".

10.9

Land consolidation projects bring uncertainties to the surface and dispose of them through mediation or rulings. Pilot projects provide raw material for the subsequent refinement of laws. As experience is accumulated, procedures and rules should be refined. Adjustment of principles and criteria in the law and refinement of the technical approach implies an adjustment of the guidelines under which the designer/project managers operate. There are, therefore, ideally two feedback processes:

- One process is *from the field*. Documentation should be prepared of the experience of the design principles that have been applied, criteria for re-distribution to increase farm size, and pragmatic procedures devised with existing law. Documentation is also required for the experiences of the protocol of rulings, experiences with various methods of valuation, and with the processing of objections.
- The other process is *to the field*. The ongoing updating of instructions, guidelines and information material should be undertaken as experience is accumulated and the best practices are discovered.

10.10

Land consolidation skills. Land consolidation is a skill of its own even if it is more interdisciplinary in nature than, for example, conventional cadastral surveying. As the champion of the project, the designer/project manager should have organizational skills, be dynamic and be able to take sound decisions. Technical skills include basic knowledge of mapping,

surveying, valuation, spatial planning and land registration. In addition, a critical feature is the ability to maintain confidentiality and remain impartial throughout the process; otherwise the whole project can be discredited. This is where and how the principle of "transparency" is implemented. Above all, the designer/project manager must have a talent and a liking for dealing with people. The designer/project manager must pay attention to every owner and be prepared to insist on the principles of good land consolidation when subjected to pressure from powerful land owners.

10.11

Land consolidation is a specialization that is learned through experience. Land surveyors often assume the task of land consolidation design. Agronomists with experience from the extension service also have relevant background knowledge. They are used to deal with farmers and are familiar with their production and land ownership. Other professionals such as foresters may have an equally relevant background. Experience of those who participated in the land reform process is most relevant. As the land reforms are completed, the experience gained by many professionals should be channelled into other activities such as land consolidation.

10.12

Training and supervision. Land consolidation is a largely new phenomenon in Central and Eastern Europe and there may be few, if any, professionals in transition countries with direct, extensive experience in land consolidation. The lead agency must appreciate and build on the qualifications of each professional. An ongoing activity of the lead agency therefore, will be in-service training. The lead agency should design the training to build upon previous experience of the staff and should add the missing elements. The practical form of training could include workshops or seminars followed up by field visits and clear lines of communications in daily functions.

10.13

The lead agency itself may need training and education on project design and management, and other new aspects of land consolidation. External support and assistance may be required. Partnerships between West and East European administrations should be used to promote the exchange of knowledge and experiences.

10.14

The task of the designer/project manager is demanding because he or she deals directly with many people. A lawyer defends the interest of one party in a transaction, whereas the designer/project manager has to observe the interests of all parties and deal directly with all of them. One of the most critical issues for the lead agency is to ensure is that the designer/project manager, even though operating locally, is never "alone". There must always be a back-stopping person in the lead agency with whom the designer/project manager can at any time discuss a problem, share experience and report progress.

10.15

National exchange. Opportunities should be created to promote the exchange of knowledge and experience between municipalities in the same region of the country, and between regions of the country. For example, committees of participants can learn from each other. In addition, the lead agency can promote a network for sharing information between designer/project managers in a country. The Internet could be used to promote such interaction within the language of the country.

10.16

International exchange. Experiences from other countries can be a source of inspiration. Contact between land agencies and designer/project managers in different countries could be an opportunity to exchange field experience. Workshops in

localities where a land consolidation project is ongoing could give insight into the concrete issues and techniques and can provide a good basis for exchange of views. A network among designer/project managers involved in project implementation could be mutually beneficial. Activities could involve a combination of workshops arranged in turn at different project locations, combined with intervening contact through the Internet. Once colleagues have met and have seen their respective working environment the Internet can be an effective way of exchanging experiences and discussing specific issues. Such networks could be set up to provide direct assistance to field staff in the first land consolidation projects, thus compensating for limited supervisory capacity in the early stages.

10.17

Problem-based learning and research. One aspect of feedback is the relationship with universities and other higher education sites of relevance for rural development, land management and land administration. Linking research and higher level teaching directly to ongoing and innovative projects enables the academics to orient their efforts towards urgently needed issues. The pilot experiences in land consolidation are good cases for projects for final year students and for graduate students. Students can assist with documentation and might contribute with creative inputs. From a larger perspective this means the orientation of teaching towards real problems.

10.18

When the lead agency has experience from the first pilot projects it should be useful to establish contact with the educational institution. The lead agency could propose to make short presentations to faculty and students which may lead to the formulation of a module on land consolidation. As the students will become employees in the various government agencies and the private sector, it is important they have broad knowledge of land consolidation as an instrument for rural development. Some students may even choose land consolidation as a specialization in their final year thus making a research contribution. Projects may also serve as case studies, thus facilitating the development of "live" documentation and giving the students some valuable field experience.

C. Indirect measures

10.19

Capacity versus size of task. The size of the task to restructure ownership, in combination with rural development initiatives, is enormous and may exceed the capacity of a lead agency. In the short to medium term it is likely that there will be only a limited capacity to implement land consolidation projects. To what extent can "simple" land consolidation projects (i.e. focusing only or largely on parcel re-organization) have an effect on the rural sector? The lead agency could consider a range of simple measures that require fewer resources than direct intervention through projects. Such "indirect" measures may be able to reach a large number of land owners and land users, improve their knowledge and influence their individual decisions with respect to land. Two such indirect measures are discussed below: the provision of information and support to individual practices.

10.20

Information, awareness, exchange. The lead agency could conduct an information activity aimed at creating awareness about the problems of fragmentation and the use of land consolidation as a tool of rural development. Constraints to agricultural production, the difficulties in co-ownership and the problems arising from inheritance practices that maintain fragmentation are examples of issues that such an awareness campaign could bring in focus. The lead agency could prepare

small information leaflets to inform broadly on the problem of fragmentation and what can be done about it. The lead agency could also participate in public meetings and in programmes on the radio and television. The purpose should be to improve awareness of alternatives that people can then discuss and choose.

10.21

It is usually professionals who travel to other countries. There is, however, great potential in involving other people in study tours. The lead agency might be able to arrange visits for farmers and other local stakeholders to villages in other countries where land consolidation is in progress. The host village could, in turn, visit another community the following year. Distances in Europe are not prohibitive. Exchange broadens the general outlook. Arranging such study tours would be a gesture that shows an appreciation of the local community. In addition, such activities often build a relation of mutual trust that later can be the basis for project implementation.

10.22

Facilitating individual practices. In parallel to project activities, the lead agency may promote land consolidation by responding constructively to ways in which people, sometimes informally, seek to adapt their forms of land use and ownership to circumstances. Some countries have provisions that land consolidation agreements made between owners on their own initiative can be registered, perhaps even with exemption of certain fees. It may be possible to not only accept, but to deliberately promote, such sporadic initiatives. For example, the lead agency could provide land consolidation maps and guidance in the form of some general rules for land consolidation and some technical guidance to owners who engage in such initiatives. In any case, there is a need to clarify how the resulting situation shall be registered.

10.23

Facilitating leasing may provide the basis for a subsequent stage where land consolidation can be based on ownership. Leasing has proved to be a common way to consolidate fragmented land into more rational land holdings. However, there may be great difficulties to contact absentee owners and to travel to land offices. Appropriate assistance could be given to make leasing easier. Certain requirements for registration of short-term leases could be cancelled. A lead agency or land office could serve as a broker to match demand and supply in leasing, or may support private sector brokers by making land information more easily available to them.

10.24

Property-related extension service. Extension services are commonly associated with providing advice to farmers on primary production, for example, on improved seeds and breeds. Extension services for land and property may be equally needed. Many new owners of land lack experience with property transactions. Some become easy prey for others to manipulate. Some owners do not know the options they have and cannot assess the cost or consequences of various ways of disposing or otherwise dealing with their land. The lead agency could establish a practice of providing free information and consultation for land owners. Whatever the practical aspects, a person from the lead agency should be accessible to land owners. Access to such impartial and free counselling can be helpful to owners before a land consolidation project. The contact person from the lead agency in such situation should have good local knowledge.

11. TERMS OF REFERENCE

11.1

This chapter identifies responsibilities which may be assigned to different actors during the project. In some cases, these responsibilities should be expressed in formally prepared terms of reference. One example of where this would be appropriate is that of the designer/project manager, and particularly so if the person is being contracted to do the work. In other cases, formal terms of references may not be necessary.

11.2

In all cases, however, there should be a clear understanding of who is responsible for doing what at which time. Table 1.2 provides a guide to the roles of actors at different stages of the pilot project. As with the rest of this manual, this section can provide only general guidance and the responsibilities of each actor will have to be adapted and defined according to the particular requirements and circumstances of each pilot project.

A. Lead agency

11.3

The lead agency is the central Government agency that is assigned overall responsibility for land consolidation, including initiating and supervising pilot projects. The lead agency is often housed within the Ministry of Agriculture.

11.4

The lead agency should assign a person ("lead agency co-ordinator") who will be responsible for ensuring that the day-to-day activities related to the project are undertaken.

11.5

Before starting to look at project preparation in detail, the lead agency should have:

- Determined that the pilot project can be carried out under the existing legal framework.
- Consulted with other central government agencies, local government, and farmers.
- Prepared criteria for selecting the project area.
- Identified preliminary rules and procedures that would be used in the project.

11.6

During the immediate preparation of the project and its implementation, specific responsibilities of the lead agency could include the following:

- 1) Preconditions for the project
 - a) If appropriate, initiate the establishment of a National Land Consolidation Steering Committee and provide its chairperson (chapter 2).

- b) Lead the elaboration of the rules and procedures (section 3A).
 - c) Select the project area (section 3B).
 - d) Undertake preliminary consultation and assessment (section 3C).
 - e) Lead the preparation of an initial concept plan and co-ordinate the decision to proceed with the project (section 3D).
 - f) Supervise the selection of the committee of participants (section 3E.)
 - g) Identify and recruit the designer/project manager (section 3F).
 - h) Identify and recruit other technical advisors as appropriate (section 3G).
- 2) Formulation of the project
- a) Supervise and approve the determination of the project boundaries (section 4B).
 - b) Lead the formulation of the project, in consultation with other central government agencies, local government, and the local community. The formulation should address the following (section 4C):
 - The scope of the project, i.e. what elements will be included (re-organization of parcels, provision of infrastructure, etc.)
 - The costs of the project and how the project will be financed.
 - The schedule for the project.
 - c) Ensure that the project design is approved or endorsed by relevant parties (section 4D).
- 3) Inventory of the existing situation (" plan 1 ")
- a) Provide backstopping support to the designer/project manager for a public meeting to present requirements for the preparation of " plan 1 " to the community (section 5A).
 - b) Enter into an agreement with the land registration/cadastre agency to provide property data required for the project (section 5B).
 - c) Provide backstopping support to the designer/project manager in the preparation of the inventory:
 - Initial compilation of the legal record of land rights (section 5C); map (section 5D); and land values (section 5E).
 - Field verification of the legal record of rights, map and land values (section 5F).
 - d) Review and decide how to treat any objections not resolved during the field verification (section 5G).
 - e) Provide backstopping support to the designer/project manager for the finalization of the record of legal rights, map and land values (section 5H).
- 4) Elaboration of the detailed land consolidation plan (" plan 2 ")
- a) Provide backstopping support to the designer/project manager for a public meeting to present requirements for the preparation of " plan 2 " to the community (section 6A).
 - b) Provide backstopping support to the designer/project manager in the preparation of " plan 2 " :
 - Development of agreement forms (section 6B).
 - Development of an accounting system (section 6C).
 - Identification of preferences of participants (section 6D).
 - Initial development of options for the re-organization of parcels (6E).
 - Review of options and negotiation (section 6F).
 - Document the objections of the participants (section 6G).
 - Finalization of " plan 2 " (section 6G).
 - c) Ensure that " plan 2 " is approved or endorsed by relevant parties as specified in the rules adopted for the project (section 6H).
- 5) Implementation of the land consolidation plan
- a) Provide backstopping support to the designer/project manager for a public meeting to present requirements for the preparation of " plan 2 " to the community (section 7A).

- b) Lead, in collaboration with the land registration/cadastral agency, the definition of specifications for the cadastral survey (section 7B).
 - c) Provide backstopping support to the designer/project manager for:
 - Demarcation of the new parcel layout (section 7C).
 - Surveying of the boundaries and the preparation of the cadastral map (section 7D).
 - d) Lead, in collaboration with appropriate other agencies, the preparation of contracts for infrastructure and the selection of contractors to provide infrastructure and other improvements as part of the project (section 7E).
 - e) Provide backstopping support to the designer/project manager for the execution of infrastructure works (section 7E).
- 6) Conclusion of the project
- a) Provide backstopping support to the designer/project manager for finalizing financial matters including the payment of compensation, if any, and the apportionment of costs (section 8A).
 - b) Provide backstopping support to the designer/project manager for the preparation of transfer documents (section 8B).
 - c) Provide assistance to the land registration/cadastral agency for the registration of transfer documents (section 8C).

B. National land consolidation steering committee

11.7

A country might decide to bring together government parties and other stakeholders in a national land consolidation steering committee.

11.8

Composition of the steering committee: Complex projects may involve a number of ministries, for example, those responsible for agriculture, environment, justice, land bank/land fund, land registration/cadastral, public works, rural development and transportation. The committee may also include representation from local governments and the private sector, including farmers' organizations.

11.9

Specific responsibilities of the steering committee could include:

- a) Identify issues relevant to land consolidation in general.
- b) Review and provide expertise during the preparation and implementation of land consolidation projects.
- c) Advise the minister responsible for land consolidation.

C. Land registration/cadastral agency

11.10

The land registration/cadastral agency plays a key role in the initial delivery of property data to the project and, following agreement on re-organizing parcels, in the preparation and registration of transfer documents and the cadastral map.

11.11

The land registration/cadastral agency should assign a person ("land registration/cadastral co-ordinator") who will be responsible for ensuring that day-to-day activities related to the project are undertaken.

11.12

The land registration/cadastral agency should facilitate the role of the local district land office if one exists, and provide backstopping support to district personnel.

11.13

Specific responsibilities of the land registration/cadastral agency could include:

- a) Participate in the national steering committee (chapter 2).
- b) Participate in the formulation of the project (section 4C) and its approval or endorsement (section 4D).
- c) Enter into an agreement with the lead agency to provide property data required for the project (section 5B).
- d) Assist the lead agency and the designer/project manager in:
 - the preparation of specifications for the cadastral survey (section 7B).
 - the demarcation of the new parcel layout (section 7C).
 - the surveying of the boundaries and the preparation of the cadastral map (section 7D).
 - the preparation of the transfer documents (section 8B).
- e) Register the transfer documents and new cadastral map (section 8C).

D. Local government

11.14

The local government in whose jurisdiction the project area is located should play an active role in the project. An important criterion for the selection of the project area is typically that the local government has already expressed an interest in using land consolidation to improve conditions.

11.15

Specific responsibilities of the local government could include:

- a) Participate in the formulation of the project (section 4C) and its approval or endorsement (section 4D). In particular, the local government should identify its local planning vision, the availability of resources, and extent to which it could contribute with concrete developments to a pilot project.

E. Committee of participants

11.16

Land owners and farmers should elect a committee to provide a link between people in the community and the project. Ideally the committee should participate actively in the planning and implementation of the pilot project.

11.17

Specific responsibilities of the committee of participants could include:

- a) Represent the interests and views of local farmers and land owners in the planning and decision-making processes of the project, including the preparation of "plan 1" and "plan 2".
- b) Participate in the organization of meetings and in the meetings themselves.
- c) Provide correct information on the project to members of the local community.
- d) Identify issues relevant to the project.
- e) Participate in the supervision and review of the project.
- f) Provide expertise during the preparation and implementation of the project.
- g) Provide appropriate feedback.
- h) Assist the designer/project manager to mediate or otherwise resolve disputes that arise during the project.

F. Land consolidation designer/project manager

11.18

The designer/project manager is the key actor in the land consolidation project, and is responsible for overall progress and for liaison with all involved actors and stakeholders. It is a many-sided task: the designer/project manager is at the centre of the project organization. The person is the link between land owners and their representatives on the one hand, and the administration, authorities, property specialists and utility companies on the other hand. The person selected should be able to communicate and work effectively with people from different backgrounds.

11.19

The designer/project manager is responsible for a dynamic planning process in which the rules and principles for good land consolidation are applied. But reality is complex and text book examples are rarely encountered in the field. The designer/project manager deals directly with people, and a measure of flexibility is needed. As the ideal solution is seldom possible, the designer/project manager inevitably has to make judgements and take decisions. In the planning process some land owners will try to influence the designer/project manager when particular solutions are proposed. The process will reveal technical discrepancies such as maps that have errors and also disputes between neighbours. The designer/project manager will in some cases have a mediating role. In other cases there may be a need to refer the case to the relevant dispute resolution authorities. The designer/project manager is responsible for meeting the deadlines of the project. This requires ensuring that feedback to, or responses from, various government agencies is available in time.

11.20

Specific responsibilities of the designer/project manager could include:

- 1) Formulation of the project
 - a) Assist the lead agency to determine the project boundaries (section 4B).
 - b) Assist the lead agency in the formulation of the project (section 4C):
 - The scope of the project, i.e. what elements will be included (re-organization of parcels, provision of infrastructure, etc.)
 - The costs of the project and how the project will be financed.
 - The schedule for the project.
- 2) Inventory of the existing situation (" plan 1 ")
 - a) Organize and participate in a public meeting to present requirements for the preparation of " plan 1 " to the community (section 5A).
 - b) Assist the lead agency in reaching an agreement with the land registration/cadastral agency to provide property data required for the project (section 5B).
 - c) Lead the preparation of the inventory:
 - Prepare the initial compilation of the legal record of land rights (section 5C); map (section 5D); and land values (section 5E).
 - Verify in the field the legal record of rights, map and land values (section 5F).
 - d) Propose options to the lead agency for the treatment of objections not resolved during the field verification (section 5G).
 - e) Lead the finalization of the record of legal rights, map and land values (section 5H).
- 3) Elaboration of the detailed land consolidation plan (" plan 2 ")
 - a) Organize and participate in a public meeting to present requirements for the preparation of " plan 2 " to the community (section 6A).
 - b) Lead the preparation of " plan 2 " in consultation with the lead agency:
 - Draft agreement forms (section 6B).
 - Develop an accounting system (section 6C).
 - Identify preferences of participants (section 6D).
 - Develop an initial set of options for the re-organization of parcels (section 6E).
 - Review the options and facilitate negotiations (section 6F).
 - Finalize the " plan 2 " and submit the plan to the lead agency for approval (section 6G).
- 4) Implementation of the land consolidation plan
 - a) Inform the community through a meeting or public notice of the schedule for implementation, including demarcation and surveying of new boundaries (section 7A).
 - b) Assist the lead agency and land registration/cadastral agency to define the specifications for the cadastral survey (section 7B).
 - c) Supervise the demarcation of the new parcel layout (section 7C).
 - d) Supervise the surveying of the boundaries and the preparation of the cadastral map (section 7D).
 - e) Assist the lead agency in the preparation of contracts for infrastructure and other improvements to be undertaken in the project (section 7E).
 - f) Supervise the execution of contracts for infrastructure and other improvements (section 7E).

- 5) Conclusion of the project
 - a) In consultation with the lead agency make a final assessment of financial matters including the payment of compensation, if any, and the apportionment of costs (section 8A).
 - b) Supervise the preparation of transfer documents (section 8B).
 - c) Assist the land registration/cadastral in the registration of transfer documents and the new cadastral map (section 8C).
- 6) Project management
 - a) Ensure good communications throughout the project with the lead agency, the project steering committee, the local government, the committee of participants, and other participants (section 9B).
 - b) Apply effective techniques for project management (section 9C) and information management (section 9D).
- 7) Strategic issues
 - a) Identify, assess and document experiences that can be used to improve the design of future projects (sections 10A, 10B and 10C).

11.21

Qualifications and experience should include:

- 1) Basic surveying and mapping skills, and an understanding of the practical aspects of land registration, land use, agriculture and the situation of the land owners.
- 2) An excellent understanding of the planning process, the administrative framework and the role of various agencies.
- 3) Strong skills in facilitation, mediation and negotiation.
- 4) Strong communication skills with demonstrated ability to communicate effectively with people from different backgrounds.
- 5) An ability to ensure confidentiality. Each person or owner must feel that he or she is treated fairly by the designer/project manager.
- 6) An ability to build confidence in participating land owners and land users about the work that will be done, and in the people who will execute the project. The designer/project manager should establish relations of mutual confidence and be motivated to accomplish the project.

12. EXAMPLES OF FORMS

12.1

This chapter provides an opportunity to learn from experiences of other pilot projects. It currently shows an example of an agreement form used in a Lithuanian pilot project.

12.2

It is intended that this manual will be periodically revised and improved by drawing on the experiences gained as additional pilot projects are implemented. These projects could provide additional examples of documents they consider useful, for example:

- Minutes of negotiations.
- Examples of "plan 1" and related documents.
- Examples of "plan 2" and related documents.
- Requests for payment of charges.
- Equalization payments for compensation.

FIGURE 12.1: Example of an agreement form used in a Lithuanian pilot project

Land Consolidation Agreement					
Owner:	_____				
Address:	_____				
Cadastral No:	_____				
The undersigned offers by my signature to participate in The Sasnava Land Consolidation Project , on the conditions printed on the reverse of this paper.					
Owner selling	to serial no.	Size ha.	Price Ltas.	Owner buying	from serial no.
	Total	0.00	0.00	Buying	Total
					0.00
					0.00
Net area:	The property increased by ha.	0.00	Net payment:		The owner has to pay net ltas.
	The property decreased by ha.				The owner will receive net ltas.
Seller vouches that the sold areas can be released within the price stipulated.					
Buyer provides a guarantee for payment of the price stipulated					
Remarks: _____					
This offer is binding for the offeror until it is accepted by the offeree.					
This offer is annulled if acceptance has not been given on or before the _____					
Date: _____	Place: _____	Owners signature		Land consolidation designer/project manager:	

This *Operations manual for land consolidation pilot projects in Central and Eastern Europe* has been prepared to support project managers and other land administrators who are responsible for the management of land consolidation pilot projects. The manual complements FAO Land Tenure Studies Number 6: The design of land consolidation pilot projects in Central and Eastern Europe. These documents show how land consolidation can be an effective instrument in efforts to make agriculture in the region more competitive and to promote rural development, and they provide advice on how to design and implement land consolidation pilot projects.

The manual concentrates on the practical aspects of defining and implementing the first pilot projects. It identifies the main conditions that should be in place before the project starts, and it defines potentials and constraints. It draws attention to issues that should be addressed and it discusses methods, tools and techniques. The manual identifies the main activities in a pilot project and their sequence. It considers how to cope with the fact that, at this stage, the concept of land consolidation is unfamiliar to most people, and there is usually little or no experience with land market transactions.