

## Implementation of Land Re-parceling Pilot Project in Moldova.

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### 1. Introduction

As the result of land privatization in the 90-ies of the XX century a lot of small ineffective peasant' farms have appeared in Moldova. Most of them are not market-oriented and are operating for their own subsistence. The national practices demonstrated and experience of other countries confirmed that it is impossible to achieve any positive results in agricultural production development in the conditions of the excessive fragmentation of agricultural land (Coletta A., 2000; Brooks K.,1993; Lerman, Z., C. Csaki, și G. Feder., 2004; Terry van Dijk. 2004 ). All of these have resulted in developing the Government Program for Land Consolidation adopted in 2006. As a component part of it was provided the implementation of the pilot project.

### 2. Current situation

Situation with distribution of land fund by the type of land categories is presented in the table 1:

Table1. DISTRIBUTION OF LAND FUND BY THE TYPES OF LAND CATEGORIES AND OWNERSHIPS (as of 01.01.2007)

LAND DESTINATION CATEGORIES	SURFACE AREA		PUBLIC OWNERSHIP		PRIVATE OWNERSHIP	
	thous. ha	%	thous. ha	%	thous. ha	%
1. Land of agricultural destination	1974,1	58,3	292,2	19,4	1681,9	89,67
2. Lands of cities, villages and other settlements	319,6	9,4	133,0	8,8	186.6	10,0
3. Land of industrial, transport, telecommunication, etc. destination	58,4	1,7	54,7	3,6	3.7	0,2
4. Land with destination for nature protection, health, entertainment, of historical and cultural value, etc.	3,7	0,1	3,6	0,2	0,1	0.01
5. Land of forestry destination	435,4	12,9	433,5	28,7	1,9	0,1
6. Land of water destination	84,8	2,5	84,3	5,6	0,5	0.03
7. Land of reserve fund	508,7	15,0	508,7	33.7	0	0
<b>Total lands</b>	<b>3384, 7</b>	<b>100</b>	<b>1510,0</b>	<b>44,6</b>	<b>1874,7</b>	<b>55,4</b>

Private ownership on agricultural land prevails. Land market development during reforming period (1995-2007) caused changes in the owner structure (table 2).

From cited data (Land cadastre, 1995, 2003, 2007) the tendency is that number of state farms is decreasing while its average sizes increase. As for private land owners the general tendency shows slight decrease of their number and insignificant increase of average surface area.

Number of corporate agricultural enterprises growth while average areas of owned land, decline. Also there is an increase of average areas of particular land use categories. All this evidences some changes in the land market and proves its growth.

Table 2. DYNAMICS OF AGRICULTURAL LAND OWNERSHIPS STRUCTURE CHANGES.

TYPES OF LAND OWNERS	NUMBER OF LAND OWNERS			SURFACE AREA, thous. ha			AVERAGE SURFACE AREA, ha		
	1995	2003	2007	1995	2003	2007	1995	2003	2007
1. Land owners on the state pub - lic property land	1199	331	295	456,2	247,9	270,1	403	748	916
1.1. State enterprises	296	88	75	365,8	176,8	176,6	1235	2009	2354
1.2. Scientific and didactic institutions	63	60	77	43,2	22,1	22,1	685,7	382	287
1.3. Auxiliary farms	31	23	21	0,5	0,5	0,51	16,1	21,7	24,3
1.4 Other	63	196	122	0,8	7,2	70,7	12,7	36,7	580
2. Land owners on the private property land	44 thous.	1,305 mln.	1,26 mln.	1594	1690	1682	37,0	1,30	1,34
2.1. Agricultural cooperatives	116	87	239	77,6	96,3	152,4	669	1107	638
2.2. Stock companies	100	70	116	190	39,51	50,4	1897	564	434
2.3. Limited liability companies	-	1139	1342	-	620	620	-	544	462
2.4. Peasant farms	42,9 thous.	530 thous.	390,4 thous.	54,9	733,6	572	1,3	1,4	1,47
2.5. Household plots	-	751 thous.	771,4 thous.	-	151,6	213	-	0,2	0,28
2.6. Gardens	-	19058	27968	-	1,24	1,95	-	0,65	0,07
2.7. Other	12	716	63400	1,3	7,0	71,4	9,78	34,7	1,13

Data concerning peasant farms are proving market development also. As could be seen, judging by quantity (99%) and by areas occupied (more than 80 %), prevail peasant farms of a size less than 5 ha.

Cited data demonstrate irrationality of such farm dimensions for scale production of majority agricultural crops. Moreover, peasant farms are usually divided in 3-4, or even 7-12 plots of irrational shape, located at 5 - 15 km between each other, the longest side of parcel being

placed along the slope. Such parcels are not very demanded on the land market and price of 1 ha fluctuates between 300-1000 \$USD. Only around big cities prices reach 3000 \$USD (Bannicov A., 2007).

Table 3. GROUPING PEASANT FARMS ACCORDING TO THEIR TOTAL SURFACE AREA (as of 01.01.2007).

SURFACE AREA GROUPS, ha	NUMBER		TOTAL AREA, ha		OWNED AREA	
	Number	%	thous. ha	%	thous. ha	%
< 1	146542	37,54	87,21	15,24	87,2	17,054
1-4,99	239494	61,35	372,4	65,10	370,8	72,55
5-9,99	3307	0,85	24,5	4,27	24,0	4,7
10-49,9	746	0,19	14,6	2,55	11,6	2,26
50-99,9	105	0,063	7,5	1,31	3,3	0,65
> 100	186	0,05	66,0	11,53	14,1	2,80
<b>Total</b>	<b>390380</b>	<b>100</b>	<b>572,0</b>	<b>100</b>	<b>511,0</b>	<b>100</b>

Such excessive fragmentation of land holdings is a real serious obstacle not only for rational management of land but also affects land market. From this reason land consolidation is considered to be core issue on the way of effective and rapid development of agricultural production land market.

### 3.Current activities

With the purpose of analyzing the current situation on Moldovan land markets and land management practices and give recommendations on goals, procedures and best modern practices for land re-parceling, 6 pilot re-parceling projects supported by the World Bank started in 2007. Land re-parceling activities in Moldova are focused on the improvement of individual land holdings, and not on the creation of larger corporate or cooperative farms. The objective is to create more efficient small holdings, though the creation of larger farms may follow through market forces as a result of better land arrangements and higher land prices. Pilot projects are considered to be a useful tool which creates baselines for the national land consolidation strategy. Pilot projects should accumulate experience and knowledge in the land management. It is important that the pilot project will serve as a successful example to other communities.

Among the specific objectives of pilot projects are to:

- provide design, elaboration and testing of methods/ways of land consolidation which could be used in the on going land program.
- reveal all possible problems, related to consolidation, which can appear in different stages of the project implementation.
- test the demand for and feasibility of land re-parceling with small landowners as the primary target group;
- use the pilot experience as the basis for designing a potential national-level approach, including techniques, resource requirements and legislative framework;
- assess the impact of re-parceling at the local level, including on land markets, agricultural production and equity.

Actual implementation of this project began with the selection of the international consulting company. The winner was consortium of companies consistent of Niras AB (Sweden), Orbicon (Denmark), Terra Institute (USA) and ACSA (Moldova).

The next very important and crucial for a successful implementation of the project step was selection of 6 localities, where pilot projects will be realized. Based on a list of 100 candidate communities appointed by the raions authorities, MAFI prepared a so-called “short-list” of 20 villages. A document was prepared to try to show how these 20 communities meet the selection criteria recommended by FAO with only one additional. As many villages in Moldova are dominated by big corporate farms that use (mainly through lease agreements) from 300 – 2000 hectares or more, often in more than one village, development of private family farms, which are the main target group of the land re-parceling project, is very difficult in this conditions. Therefore an additional selection criteria has been added: *absence of big corporate farms in the village*. It has been the intention of MAFI that the 6 pilot locations should be selected in different geographical areas of Moldova in order to ensure that different rural conditions are reflected in the project and also to spread project experiences to different parts of the country. Therefore, it was the intention to select two villages in the North, two in the Central and two in the South. The evaluation process has been carried out by the established technical Working group which made the final evaluation and selected the six best villages (Fig.1)

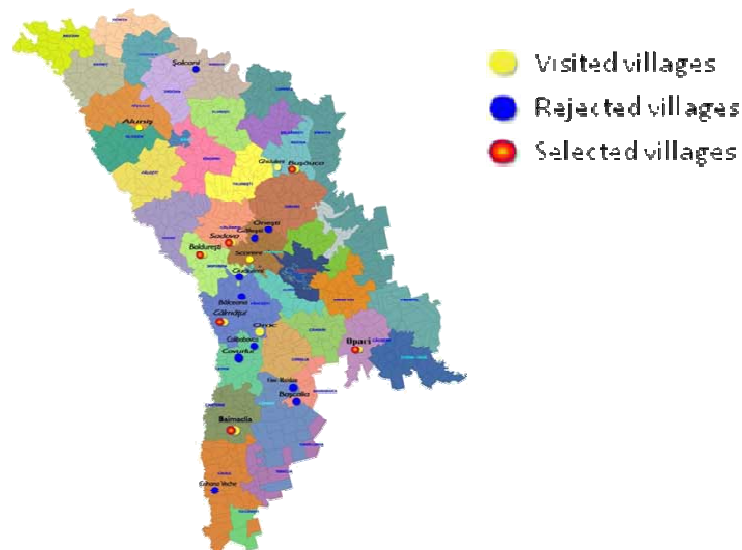


Figure 1. Selected pilot villages

After that a high level Project Steering Committee has been established according to Governmental decree to ensure a smooth implementation of the project, and to coordinate the interest of different line ministries. To supervise and coordinate the on-going activities and practical project implementation, a Technical Working group has been established too.

To assist GOM in identifying international best practice for developing cooperation procedures for the project implementation (between MAFI, other government agencies and local government) a number of initiatives have been put forward:

- A memorandum of understanding for the cooperation between MAFI and the Cadastre Agency has been concluded.
- Staff from the regional agricultural departments was involved in the land re-parceling activities
- To ensure the good cooperation with the Primaria's office in the six villages, the contractor has signed an agreement of cooperation with each of the Primaria's.

In order to prepare ownership map (Plan 1) for each pilot village digital maps in MapInfo format in scale 1:2000 and registration records in Excel format was being obtained from Cadastre

Agency. As registration data were provided in Arc View format the identification of the ownership of land parcels is done manually (Fig. 2).

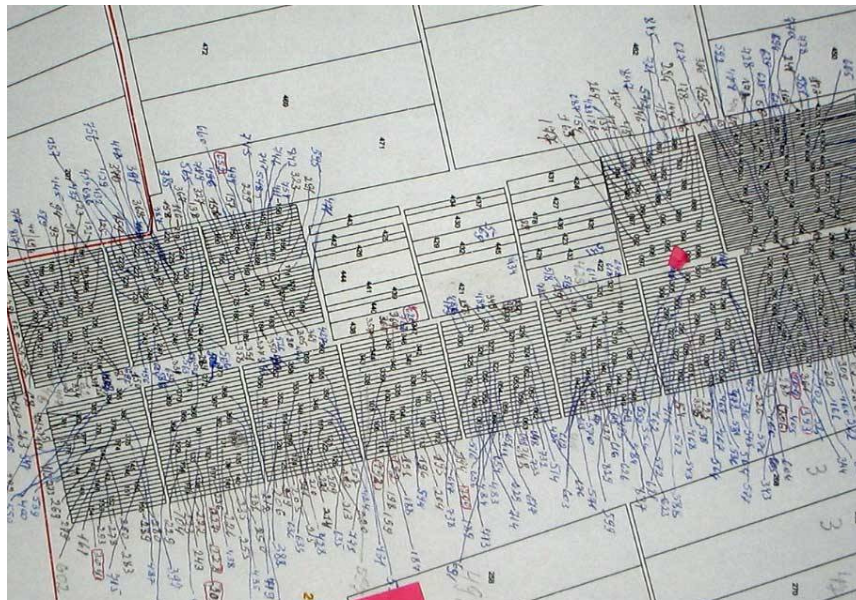


Figure 2. Attribution of identification serial numbers

During the landowner interviews as part of the preliminary investigation, each field team verified the information on the map through the interviews with the landowners. The final versions of these maps showing the owner structure before and after the re-parceling project will be prepared in the final stages of the project. The draft maps (Plan 1) have been used during the landowner interviews and will subsequently be used during the detailed re-parceling negotiations and preparation of the re-parceling design (Plan 2).

In addition, newly produced ortophotos were purchased for all six pilot locations from the Agency for Land Relations and Cadastre which are used as background for the land mobility maps and the community development maps. The ortophotos will also be very valuable for the re-parceling planning.

The data on land ownership received from ALRC has been checked during the interviews and compared with the title documents that most landowners have brought with them. This procedure has detected a number of registration problems in all pilot villages that needs to be solved before land transactions implemented through the project can be registered. The main types of registration problems identified so far are:

- Heritage cases
- Not registered land reform / privatization,
- “Simple” mistakes and errors in land registration and title documents.

The first main objective of the project is to contribute to the development of the agricultural structures in the pilot sites through reduction of fragmentation of parcels, enlargement of farm sizes and development of the family farms. All countries in Western Europe have been through the same process since the end of World War II. The result in the most countries has been agricultural structures that are competitive in a globalizing economy. However, a side-effect in many countries has been a decline in valuable types of nature and loss of biodiversity. It is very important to ensure that there is no adverse environmental impact from project activities. So the project activity has as an output that the field teams in each village prepared a brief environmental impact assessment (EIA) as an integrated part of the project activities in the pilot

villages. It is crucial for a sustainable implementation of the project that procedures are set up to avoid decline in valuable types of nature and loss of biodiversity when preparing and subsequently implementing community area development plans. Based on the EIA screening checklist and guidance on screening plans and projects, provided by the International Expert, the national expert in community development planning has facilitated the elaboration of community area development plans in the six pilot villages

This activity was implemented together with the elaboration of a community area development plan for each pilot.

An important component in the initial stages of a land re-parceling project was to provide information to a wide range of institutions, stakeholders and individuals about the project concept. The information was targeted towards different audiences as part of the project implementation: communities and local authorities in potential pilot areas (as part of the selection process), communities and individuals in the 6 selected pilot sites, staff from relevant Government agencies and institutions, other interested persons. Information about objective of the project, expected outcome, main principles and selection criteria and process has been given as part of the selection process during meetings with local government and further during implementation of the six land re-parceling pilots, during project workshops. As a part of the public awareness campaign was preparation of project brochure and establishment of project website in order to disseminate information about the project to a broader audience in-side and out-side of Moldova.

As mentioned the local project team in each of the six pilot sites has interviewed the landowners and other stakeholders. The purpose of the interviews has been to collect data about the local agricultural structure (production data and user data) and to identify the individual landowners initial interest in the land re-parceling project (willing to participate or not, sell land, buy land, exchange land, lease land in or out). Since the project concept is completely voluntary, it was most important to discuss and explain the project concept directly with the individual landowners and observe their interest in participation. The main results are summarized in table 4.

The percentage of landowners interviewed (out of the total number of landowners) varies between 75% (Calmatui) and 94% (Sadova). There are several reasons why not all identified landowners have been interviewed. A small number of owners have refused to be interviewed because of lack of trust in the project, the local elected council and/or public authorities in general. Some landowners have been absent from the village in the period of the interviews, typically because they have temporary work assignments away from the village.

The total number of agricultural land parcels in the six villages vary between 1.757 in Calmatui, the smallest village, and 6.006 in Bolduresti, the biggest both in relation to number of parcels and number of owners.

The typical situation is that each owner was allocated 3 or 4 land parcels during the privatization process in the 90ties. Often the villages had three categories of agricultural land: arable land, orchards and vineyard. Landowners received 1 or 2 parcels of arable land, 1 parcel of orchard and 1 parcel of vineyard. Parcels of orchard and vineyard are often much smaller than the parcels of arable land.

The average number of agricultural land parcels per owner varies between 3, 19 in Opaci and 5, 08 in Baimaclia. Even though the majority of landowners still have the same 3-4 parcel that they were allocated during the privatization, all the pilot villages have a varying number of landowners / farmers that have bought up land parcels in the last 10 – 12 years (see example in figure 3 below).

The average parcel size is smallest in Sadova village where it is only 0, 21 ha. The largest average is 0, 73 ha in Baimaclia. No clear connection between the average parcels size and the distribution between arable land, orchard and vineyard can be identified. The agricultural structures in all six pilots (except Calmatui) are dominated by small-scale family farmers that farm their own land and use the products only in their own households or are semi-commercial. Only few bigger farms (family farms or corporate farms) exist in each village. These are

however the main agricultural producers in the villages and run their farm on a fully commercial basis.

Table 4. RESULTS OF THE INTERVIEWS WITH THE LANDOWNERS AND OTHER STAKEHOLDERS IN THE PILOT COMMUNITIES.

	<b>Busauca pilot site</b>	<b>Sadova pilot site</b>	<b>Bolduresti pilot site</b>	<b>Calmatui pilot site</b>	<b>Opaci pilot site</b>	<b>Baimaclia pilot site</b>
Total no. of registered agricultural land parcels	3.088	5.922	6.006	1.757	5.626	4.204
Identified no. of landowners	708	1.319	1.786	634	1.762	1.048
No. of interviewed landowners	640	1.300	1.400	476	1.409	828
Interviewed in % of all	90%	94%	78%	75%	80%	79%
Average parcel size	0.50 ha	0.21 ha	0.29 ha	0.40 ha	0.60 ha	0.73 ha
Average number of parcels pr. owner	4,72	4,49	3,36	3,69	3,19	5,08
No. of landowners who are willing to participate in re-parceling	426	535	1.202	286	589	540
% of landowners who are willing to participate in re-parceling	60%	41%	67%	45%	33%	52%
No. of land parcels for sale	792	808	1.692	227	829	830
No. of land parcels for exchange	50	432	189	194	69	77
% of landowners who lease out land	9%	0%	46%	90%	26%	25%
% of landowners who Lease in land	0.4%	0%	0.2%	0.3%	1.4%	0.7%
% of landowners who Lives permanent in village	86%	85%	89%	95%	87%	90%
Public owned agricultural Land that will be available for the project (hectares)	15 ha	45 ha	46 ha	1.4 ha	19 ha	7 ha

In the pilot villages, between 0% and 1.4 % of landowners lease in land. These are the bigger commercial farmers. When it comes to the percentage of owners who lease *out* their land, there is a huge variation between the pilots. In Calmatui, 90% of all owners lease out their land. In Sadova, on the other end, there are no registered lease agreements, only a few in-formal agreements between owners.

Around half of the landowners (49.3 %) in the six villages (3.578 out of 7.257 landowners in total) have stated that they are interested in participating in the re-parceling. The variation is between 33% in Calmatui and 67% in Bolduresti. But it can be expected that a relative high degree of landowners will change their mind during the process. Some will want to participate when they see that neighbors and relatives have good results. Others may have unrealistic expectations towards what will be practical.

Then a *Land Mobility Map* has been prepared for each pilot community (example in figure 3). The maps give an overview of the re-parceling possibilities in the different sub-areas of the pilot communities. It is characteristic that most of the landowners, that want to take part in the project, want to sell parcels, some want to exchange parcels and few want to buy parcels and enlarge the production. In four of six villages, the ratio between parcels for exchange and parcels for sale is less than 1:10 (large majority of sellers). In Sadova this ratio is around 1:2 and in Calmatui it is 85:100. Again, the situation in Calmatui is a little different from the other villages. Since 90% of



landowners lease out land parcels, it could be expected that many of them would sell. The identified potential buyers (who want to enlarge size of owned land through the project) are a diverse group of landowners. Very few of the potential buyers in each pilot already are big dominating commercial farmers. However, all pilots have a number of smaller family farmers that are interested in purchasing additional 2-20 ha of agricultural land.

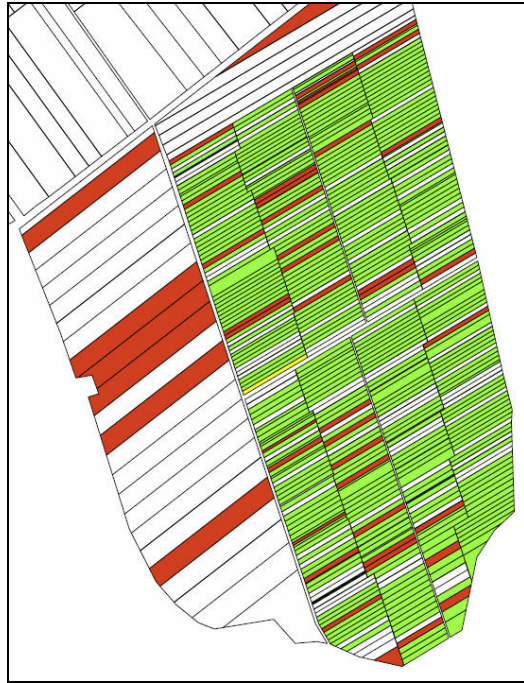


Figure 3: Calmatui pilot community (parcels owned by biggest family farmer with green, parcels for sale with red and parcels for exchange with light green)

The second main project activity is the elaboration of a community area development plan for each of the pilot communities. At the beginning of period most activities in relation to the elaboration of community development plans were concentrated on initial discussions about the process and content of development plans in the villages with the Primaria (and staff), the local councils and main stakeholder groups. All existing relevant materials and plans (development plans and spatial plans) were collected and have been taken into consideration when preparing the new community development plans. All these plans have been prepared through a participatory process facilitated by the national community development expert, the other national and international experts.

The content of the community development plans vary considerable between the villages based on local preconditions, problems and possibilities. The content of the development plans is much wider than the re-parceling activities. For example, among the planned activities in Bolduresti pilot community are to:

- repair the main road in the village,
- rebuild the village hospital and a social rehabilitation centre,
- reparation of kinder garden,
- build water supply system in the old part of the village,
- build pipelines for distribution of natural gas to the households,
- plant new orchards and vineyards in specific area of the village,
- create a local market for agricultural products,



- repair irrigation system to allow irrigation of parcels near rivers and water bodies,
- plant forest belts to prevent from soil erosion.

The land re-parceling project only has the funding for the activities in the village directly related to re-parceling (re-parceling planning and costs of land transactions). For implementation of the other elements of the community development plans additional funding will be needed.

So at this moment 10 of 17 project activities have been implemented and the others remained are carrying out. We expect that all goals of the pilots will be achieved:

1. Methodology and procedures of mass agricultural land consolidation will be developed.
2. Management of the land consolidation process will be improved.
3. Legislation will be amended.
4. Approaches to prepare public awareness of land consolidation will be elaborated.

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