

# The impact of land fragmentation on property rights in Bulgaria

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**Abstract:** Property rights exist to secure individual interests when resources are scarce. The problems that may arise with a property system include: changes in formal institutions need time to be adopted by the social actors affected, cultural and social norms can influence patterns of institutional evolution, and a discrepancy may exist between legal rights and rights-in-practice. During the agrarian reform in Bulgaria, farmland was restituted to its pre-collectivization owners. All landowners have obtained their deeds even though land property rights are still absent in practice. One of the reform outcomes was severe fragmentation in terms of land ownership and use. As a result, benefits from farmland are low, and the cost component high.

The aim of the article is to examine the impact of land fragmentation on private property rights. In order to achieve this aim, I evaluate benefit and cost streams received by ownership, co-ownership, and land use rights. Multiple sources of information were used to analyze land property rights in Bulgaria such as legal framework, data about land fragmentation that was obtained by land administrative offices and the case studies from three study regions with different level of land fragmentation in Bulgaria.

Findings show that existence of co-ownership decreases the incentive of landowners to exercise their ownership rights; thus, land property rights are currently only partially exercised in practice. To counteract the fragmentation, farmers have started to exchange plots among them. The local co-owners have taken a leading position in land management vis-à-vis co-owners who live far from their mutual property. The state, meanwhile, is attempting to formalize the solutions that have emerged at the local level. Along with a softening of the farmland fragmentation problem, these state changes may lead to concentration of farmland in the hands of powerful actors.

## 1 Introduction

Land property rights exist to secure individuals' interests when resources are scarce. However, only well-defined ownership rights provide such protection and ensure an efficient use of resources. The necessity of determining the parameters of the private property regime is an incentive component for market economies. Individualization of property is a factor that generates a functional land market. For this purpose, land was constituted in many European constitutions as a freely tradable good. The problem that may arise for private property rights is that changes in formal institutions need time to be adopted by social actors (North, 1990); also, cultural and social norms can affect the pattern of institutional evolution (Platteau, 2000) and a discrepancy may exist between legal rights and rights-in-practice as well (Sikor, 2005).

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Changing a property regime through privatization or restitution might lead to a form of 'shock therapy' for the society (Ho and Spoor, 2005: 580). Governments across the CEEC have taken legislative action over the last decade to protect people's interests and to provide the necessary conditions for land market development. Under socialism, the production process was organized by state/collective cooperatives. After restitution (privatization) of the farmland, individuals were unable to fully realize the benefits of holding private property rights over the farmland. Ho and Spoor (2005: 583) called this process of restituting land an 'empty institution' rather than a 'credible one'. They describe land titling in the CEEC as, a 'paper agreement' between the owners and the government, because landowners still do not actively benefit from their land ownership rights.

Restoration of landed private property rights is a necessary but not sufficient condition for market development in Bulgaria. The results of land reform were both positive and negative. Among the positive effects have been allocation of land to landholders and creation of opportunities for increasing the income of the rural population. Among the negative effects are: high fragmentation in terms of legal ownership; legal rights and obligations having been provided to the owners without accounting for real 'economic potential' (Bromley, 2001); destruction of irrigation equipment, orchards and vineyard gardens. Land fragmentation and the ability of actors to benefit from their ownership rights affect the way land property rights can be exercised.

In this paper, I want to examine the impact of land fragmentation on private property rights. My research is guided by the following questions: (1) How does land fragmentation affect land property rights? and (2) How do these rights, affected by fragmentation, influence actors' behavior? Here I need to mention that the actors also have certain characteristics (not directly related to land fragmentation) that also affect land property rights system.

The chapter is structured as follows. Section 2 is devoted to property rights theory. Section 3 presents the methodology and the empirical setting. Section 4 investigates the existing property rights in practice. The last section, 5, summarizes the findings.

## **2 Theoretical background**

The objectives of land private property rights are to increase the total welfare of specific economic units, such as individuals, organizations, social groups, etc. and also to economize the costs of contractual arrangements (McChesney, 2003: 227).

Individualization has two dimensions: (1) range of rights held and (2) the extent of autonomy afforded to landowners in exercising these rights (Platteau, 2000: 122). The government's role, as an institution, is to define these private property rights through land reform, privatization or restitution. These changes of the institutional environment in society might become profitable for individuals: who can extract the benefits of defined private property rights, but must also bear the costs of exercising them (Anderson and Hill, 2003: 119).

A system of property rights is a mechanism that tells actors how a specific property should be used and by whom. Property is often considered as a relation regarding things. However, Hann (1998: 1-47) has pointed out that property must be understood in a connected sense as relations between individuals regarding things. Property rights

are, thus, social relations, power and a means of providing identity for owners. Verdery (2003: 15) considers property as 'a symbol, a set of relations, and a process'. She defines property not only as a social and cultural relationship, but also as an important part of power arrangements among actors. Property rights do not consist of only rights, but also entail duties. Owners have a number of obligations regarding their private property. They are not allowed to harm others by exercising their rights. Therefore, I need to consider the 'net' property value as a difference between rights and duties, since property generates not only a benefit stream but also a cost stream for owners.

There are different rights and obligation attributed to property rights. Demsetz (1967: 347) determines private ownership as a status that recognizes the right of an owner to exclude others from exercising the same rights. Rights specify how a person can benefit or be harmed if he or she owns property. In addition, they show who must pay to whom to modify the actions of the owner. De Alessi (1980: 4) adds that landowner has a right to choose how land resource he or she owns should be used, as long as this does not affect the physical attributes of resources owned by others. He defined private property rights as 'rights to use and to generate income from use, and a right to transfer property exclusively and voluntary to other individuals'.

Private ownership promotes efficient allocation and use of resources (Demsetz, 1967: 347), excludes other users (Alchian and Demsetz, 1973), increases control over resources (Alchian, 1965), and diminishes uncertainty (Furuboth and Pejovich, 1972), but holding property requires the owner to bear certain costs. Ownership can create a problem only when an owner does not know how to use and obtain benefits from his or her property.

Schlagen and Ostrom (1992) developed a conceptual schema for distinguishing property rights regimes, based on the bundles of five primary institutional components: rights of access, withdrawal, management, exclusion and transfer. Access rights refer to permission of physical entry, while withdrawal refers to 'the rights to obtain products from the resource'. Management is the right to decide on the type of inputs and the patterns of use. Exclusion is 'the right to determine who will have an access right and how that right might be transferred'. Alienation is the right to transfer a right via sale, leasing or other arrangement. Moreover, different bundles of property rights, whether they are de facto (a right that is exercised, but is not recognized by authorities) or de jure (a right recognized formally by the law), affect the incentives that individuals face, the types of actions they can perform and the outcomes they may achieve.

Heltberg (2002: 200) investigated land property rights in the developing countries. According to him, the number of rights that an individual holds determines the type of land rights. This author finds that the traditional usufruct land tenure in Sub-Saharan Africa often comprises the following rights: (1) to cultivate the plot; (2) to keep the output; (3) to bequeath the plot; and (4) to sell sometimes, but only within the community. Heltberg concludes that this form of usufruct land tenure is a kind of property with full ownership rights, but the lack of formal title and the weak ownership status decrease the possibility of using communal land as collateral for credit in the formal bank sector.

According to Platteau (2000: 96), the different ranges of property rights not only improve allocation of land among different users, but also enhance the social status of the owners and provide incentives for investment, soil conservation and other

operations that raise productivity. Therefore, property rights focus on the *cost* and *benefit streams* entailed in using them. Property rights specify the norms of behavior with respect to those costs/benefits, and each individual must comply with them, or bear the costs of not-compliance (Bogale, et al., 2005: 136). Bromley (1991) also determines property rights as 'the capacity to call upon the collective stand behind one's claim to the benefit stream'. Thus, property rights involve a relationship between the rights' holder and an institution to back up the claim.

Hagedorn et al. (2002: 12) point out that property rights theory is often misunderstood as an approach explaining the definitions and distribution of rights over physical entities. According to the authors, actors only attribute values to a physical good because the rights' holder is favored by *benefit streams* or burdened by *cost components* that are connected with the physical good. In addition, the bundle of property rights concerning the manifold components and attributes of physical goods usually means that distribution of rights is decentralized. Dividing these rights between land users and agents automatically results in a higher degree of centralization of those rights and deprivation of them for the formal holders. This may have social and political consequences.

Verdery (2003: 18) points out that land property rights do not only regulate access to scarce resources and efficiency of allocation. They are also a cultural system, a set of social relations and an organization of power. Obtaining rights is not just about bundles but also about the entire process of bringing a good into use. Therefore, creating ownership means bundling not only rights but also prerequisites for their successful exercise.

Sikor (2004: 279; 2005) distinguishes between the rights found in legal texts and property rights-in-practice. Property rights-in-practice affect the actual power held by social actors with respect to land, and they form the actual social relationships. For instance, land use practices refashion property rights relations. People's reactions to agro-environment legislation are forming new sets of regulations that may someday find recognition in legislation. Such recognition is possible, because the overarching political-economic and cultural transformation has left a 'social vacuum' in the post-socialist CEEC. Consequently, on one hand, the gap between legislation and rights-in-practice constrains the new owners to exercise their legal rights and to derive tangible benefits from their land, but on the other hand, it creates conditions for various non-prescribed practices, ranging from avoidance to open defiance. Sikor suggests (2005: 197) that governments do not necessarily need to get involved directly in the co-ordination process, but they can create the conditions for local actors to do so through collective action.

Legal (official) land ownership rights have already been defined in Bulgaria. However, after having reviewed property rights theory, it becomes apparent that the legal definition of these rights does not necessarily guarantee that they will work in practice. There are several important issues regarding land property rights in practice that require attention. First of all, bundle of land rights, but also the process of bringing land into use (Verdery, 2003: 18), second, benefits stream and cost components related to the bundle of land rights (Hagedorn et al., 2002: 12; Platteau, 2000: 96), and third, relations between the actors regarding land (Hann, 1998: 1-47).

The main propositions derived from the property rights approach are: (1) land fragmentation in ownership increases the cost component and, hence, reduces net benefits to landowners; and (2) fragmentation in land use reduces benefit streams and increases the cost component; hence, reducing net benefits to land users.

### 3 Methodology and empirical setting

Bulgaria is characterized by substantial regional differences with respect to general performance of agriculture, soil characteristics and farm structure. After the transformation process, there were several forms of agricultural enterprises, such as cooperatives, farms registered under the Trade Law and small family/subsistence farms<sup>c</sup>.

Multiple sources of information were used to analyze land property rights in Bulgaria. First, data about land fragmentation was obtained from the ROAF and cross-checked with data collected via a short survey conducted with landowners and land users in the study regions. Second, the case study approach was used to evaluate land property rights-in-practice.

Land law provides the legal rules of the game in a country, while land ownership data presents an overview of the existing ownership structure. Inheritance patterns in the past and present are useful to explore the different practices for land distribution within families. This provides good ground for analyzing the transformation processes concerning landownership and understanding what value land has for the people involved. During the interviews, open-ended questions were used to study: (1) the effects of land fragmentation on property rights-in-practice and (2) informal solutions for solving the problem 'land fragmentation in ownership and use'.

**Table 1 Landownership structure in Bulgaria**

Type of Ownership	Farmland area (hectares)	Share of farmland area, %	Share of abandoned farmland, %	Number of plots	Number of owners
State Ownership	389 934.7	6.01	23	186 197	1
Municipal Ownership	777 497.2	11.98	20	908 970	1
Private Individuals	4 194 341.6	64.63	14	7 713 151	9 175 089
Public Organizations	94 002.3	1.45	17	48 123	95 441
Foreign/Juridical Entities	21 760.0	0.34	n.a.	24 820	26 243
Religion Organizations	18 878.6	0.29	7	9 663	4 723
Co-ownership	38 443.1	0.59	9	24 872	32 200
State Residual Fund	954 464.1	14.71	n.a.	1 243 264	-
Total	6489321.6	100.00		10159060	

*Source:* MAF, 2003

<sup>c</sup> More on the case of land fragmentation in Bulgaria can be found in Kopeva (2002), Dirimanova (2004), Penov et al (2006).

Land law in Bulgaria allows three types of ownership: state, municipal and private (see table 2). There are two types of state and municipal ownership status: public and private. Land that is under public municipal/state ownership can be sold or rented out only with the permission of the local parliament or the corresponding state body. Land that is under private municipal/state ownership can be sold or rented out according to the decisions of the mayor/minister. The state and the municipalities own 18 percent of the farmland in the country.

Private individuals own most of the farmland (65 percent), while the other types of organizations own an average of 3 percent each. In the Bulgarian case, the main reason for the existence of co-ownership is that the owners have not yet settled their inheritance rights. The share of the co-owned land in the country, according to table 2, is less than one percent. Unfortunately, landownership data present only the registered co-ownership agreements. But, according to my assessment, the co-owned land is over 90 percent.

The 'residual land' is actually land with unclear ownership status. It accounts for about 15 percent of total farmland. This unclaimed (or improperly claimed) farmland will be kept for a ten-year period after the official end of land reform (Land Law, Article 19). It will be used for compensation of landowners who were not satisfied by the land restitution authority and had taken their disputes to court. The institutions presently responsible for managing this land are the municipalities. They have temporary rights over it. After a ten-year period, unclaimed land automatically become owned by municipalities. Abandoned land is land that is not cultivated. About 43 percent of the state and the municipal land are abandoned, while for the private and other entities' land, it is 14 percent and 17 percent, respectively.

Land property rights-in-practice are investigated in three regions with different levels of land fragmentation: Dobrich (low level), Plovdiv (average) and Gabrovo (high). In each region, two villages were selected based on three criteria: average plot size, number of plots and amount of land per owner, and then 80 interviews with landowners and farmers were conducted in total.

#### **4 Land property rights-in-practice**

As the previous chapter has shown, the formal land ownership rights are already well-defined in Bulgaria. In 2000, land reform officially ended. Most landowners have their official ownership documents: notary deeds, decisions of the land commission, maps or protocols. However, after restitution, land has a low value for most landowners in Bulgaria. The link between land and the people was cut off fifty years ago. Only landowners currently living in the rural areas consider land as an important asset. One of the reasons for this attitude is that, often, the notarized title includes a list of heirs of the original owner, not one owner. Therefore, the economic value of the shared property is low and the new co-owners need to act collectively. This creates a barrier to land transactions. In addition, the new owners' way of thinking about property and lack of interest in farming constrains the exercise of property rights-in-practice.

In this situation, interesting questions are: (1) who is reaping the benefits and who has been bearing the costs of private property rights under the conditions of

fragmentation in the legal ownership and land use and (2) how do the new co-owners/land users exercise their ownership and user's rights in practice?

#### **4.1 Benefits and costs received by landowners after restitution**

During restitution, some of the owners/heirs who had stronger local power succeeded in obtaining fertile and consolidated plots with easy access to main roads, while people without such power obtained fragmented plots of bad quality and in inconvenient locations. But, since most of the beneficiaries from the land reform were either not ready or not willing to start farming, the first option for many of them was either to become members of cooperatives or to rent their land out to one of the local actors (cooperatives, large and small farmers). Initially, the cooperatives, which were the dominant actors in agriculture from 1990 to 1995, asked their members to provide an installment per decare for covering production costs and, at the end of the year, they were paid rent in kind and/or in cash. The rents, however, were very low, and this created the incentive for many to withdraw land from the cooperatives.

There are several reasons for the lower level of rent provided by the cooperatives. First, at the beginning of the transition, the state put a price ceiling on most food products, while the prices of industrial goods (fertilizers, fuel and so on) were not regulated. Therefore, the cooperatives were forced to buy the inputs at competitive prices and to sell their produce at regulated prices. Later on, the price regulation policy was abandoned, but this did not improve the conditions for most of the cooperatives, which also exhibited serious weaknesses and lack of effective external and insufficient internal control over their management. This provided an opportunity for large-scale entrepreneurs to take over land withdrawn from cooperatives. The rent they paid was also low, but at least they increased the competition for land.

Although the farms became more profitable, comparatively good rents were only paid in the regions with a low level of land fragmentation (i.e. the Dobrich region). In the Plovdiv and Gabrovo regions, local agricultural producers were unable to work so efficiently, and the rents were low. In most cases, the amount of the rent (in kind) was so small that many owners did not bother to collect it. The lower rents were only part of the problem. Land was restituted to those who owned the land before collectivization. Most plots, however, had several heirs with rights over the land, among whom the benefits/land needed to be redistributed. This further complicated land property management.

#### **4.2 Inheritance patterns in Bulgaria**

The redistribution of property within the family is a complex process. After the death of the owner, the expectations are that each child will receive an equal land share. The transfer of land from the parents to the children certainly is a procedure that often leads to fragmentation of land. If land is given only to one of the children, the land is not fragmented, but, ironically, the family may become 'fragmented'.

There are many cases described in the anthropological literature (Binns, 1950, Bentley, 1987, Soltow, 1983) that provide evidence concerning how existing inheritance patterns cause land fragmentation that increases with each generation. However, this problem can be either avoided or provoked by informal practices and legislation. In his early studies, Binns (1950) finds that inheritance customs are the primary cause of land

fragmentation. Bentley (1987: 35) considers other factors (population, resource scarcity, land market etc.) which may cause land fragmentation, but he also stresses the importance of inheritance patterns. In the case of Portugal, Bentley finds that the inheritance pattern is 'like rules of a game, not like rules of law' (1990: 67). For instance, the larger farms in Portugal become fragmented faster than the smaller ones. The small farmers use inheritance patterns that constrain land fragmentation, while large farmers usually divide land equally among their heirs. Soltow (1983: 263), however, shows that the number of children does not affect land distribution. According to him, land fragmentation is not a continuous process, but rather stops after several generations.

Before collectivization, the farmland in Bulgaria was an important source of income for the rural population and, hence, land had a high value for landowners. In the past, the male heirs inherited equal shares of land. This inheritance pattern is called 'a patrilocal-life cycle': parents keep control over property until their death and, then, property is divided equally among their sons. Daughters usually marry out and receive only a dowry. In his study of Southeastern Europe, Kaser (1996: 381) classifies Bulgaria's inheritance system as mainly a form of 'patrilocal-life cycle complexity'<sup>d</sup>. In this system, the newly-wed family lives with the groom's parents and any of his married brothers or unmarried siblings. According to Todorova (1993: 384; 1996: 455), the patrilocal system was widespread during the Ottoman regime in Bulgaria and was strictly adhered to, because population density increased and land became scarce. In some parts of Bulgaria, however, a 'neolocal-nuclear household formation system'<sup>e</sup> was used, where new families establish their own households, obtain property and build their own houses in the same settlement where their parents live.

Figure 1 shows four different inheritance patterns in Bulgaria. These patterns were derived from the interviews and are strictly related to a particular region. To explain the transfer of property from the parents to their heirs in Bulgaria, I will use simple schemes that present different inheritance patterns. The starting point is a family with four children, two boys and two girls. The family's land comes from the father's side and the mother's side. Then the total land of the family needs to be transferred to the children according to one of the schemes listed below.

Pattern 1 represents equal land distribution among heirs, where each parcel is divided equally among the children. It was observed in all three regions: Dobrich, Plovdiv and Gabrovo. This pattern may further deepen land fragmentation in ownership.

Pattern 2 represents almost equal land distribution among the heirs, where each heir receives several whole parcels of similar size as the rest of the heirs. It is possible that farmland may remain in the hands of only one of the heirs; but, in this case, he or she must rent or purchase the parcels (share) of the other heirs. This pattern is common for

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<sup>d</sup> A patrilocal-life cycle household formation system is applicable only when there is scarcity of land or demographic instability (Kaser 1996: 381-2). This system was widespread in Hungary, Bulgaria and Greece. In Bulgaria, this kind of household formation cycle was dominant especially in the northwestern mountainous parts of the county, and western and central parts of the Rodopes Mountain. The reasons were high population density in the country and shortage of land at the beginning of the twentieth century (Todorova, 1993: 130).

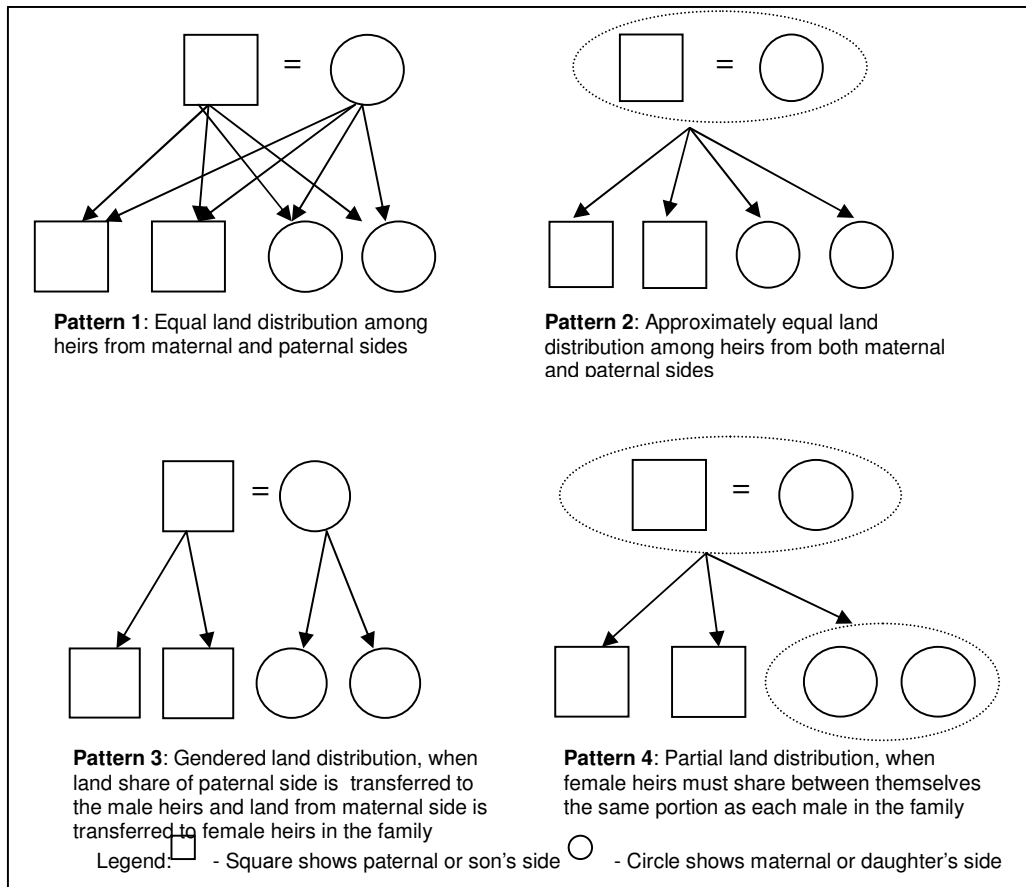
<sup>e</sup> A neolocal-nuclear household formation system is one in which boys receive their equal share of land at the age of marriage, then leave the parents' house and establish separate residence. The youngest (or the oldest) remains with his parents. This system is a typical system for East Serbia, Romania and some parts of Bulgaria (Kaser, 1996: 381).



heirs who are local and, partially, solves the problem of land fragmentation in ownership. The pattern was observed in Dobrich.

I call Pattern 3 'land distribution in terms of gender'. In this case, the farmland from the father's side is transferred to the male heirs and the farmland from the mother's side is transferred to the female heirs. This pattern is not as common as the first two, but it was observed in region Plovdiv. It can also partially solve land fragmentation.

**Figure 1: Inheritance patterns in Bulgaria**



Source: own figure

The last pattern, 4, represents partial land distribution, where two thirds of the farmland is acquired by the male heirs and only one third of the land is acquired by the female heirs. In most cases, daughters obtain their share (dowry) after marriage. This pattern was common in the past, but now it rarely occurs. I found a few evidences in mountain part of Gabrovo region.

The first pattern deepens land fragmentation. The second, third and fourth patterns preserve the existing land fragmentation, but may also lead to consolidation of landownership. Patterns 3 and 4 were typical inheritance patterns during the period before the collectivization process (patrilocal-life cycle system), while patterns 1 and 2 became typical following restitution.

### **4.3 Co-ownership**

Co-ownership is a type of ownership where the co-owners must share not only benefits but also cost components. Some heirs might choose to keep their land in co-ownership, while others might choose to split it up. However, the plots that are too small and cannot be further subdivided (below the legal minimum plot size) are forced into co-ownership. During restitution, some families obtained small land parcels, which were impossible to be further subdivided among the current heirs, due to the limitations introduced by the Land Law. In this section, I examine how the co-owners manage property and describe the problems that arise in this situation.

Land restitution in Bulgaria and the established inheritance patterns created conditions for co-ownership. Most of the people who owned land before collectivization and to whom land was restituted were very old and had several heirs. Many have passed away, but their heirs have not yet officially subdivided the land among themselves. Since there are at least two generations following the original landowners, they end up with at least several heirs among which the original land must be divided. Therefore, regardless of the inheritance pattern, I may expect more fragmentation in ownership after restitution compared to the period before collectivization.

In fact, most of the farmland is still registered to the former landowners. Official subdivision of property among the heirs is costly and time-consuming. In addition, most of the heirs are now living in towns and are not interested in agriculture. As a result, most of the land belongs to absentee landowners for whom land has a low value. The low land value, the existence of many co-owners, and the physical dispersion of the plots makes land management complex. Moreover, co-ownership may affect the decision-making process and the efficient use of property. The share of co-ownership in the official statistics of Bulgaria is less than one percent. Co-ownership is not registered in the Dobrich and Plovdiv regions, but some is registered in the Gabrovo region. However, the statistical data hardly indicates the existing level of co-ownership in the country.

To analyze this phenomenon, a detailed questionnaire was developed, including questions about the family's total land, the number of heirs in the past and present, and information about each plot (owner, size of the plot, quality, and cultivated crop). In addition, several questions were also asked in order to obtain information about how the co-owners manage their land and how they share the benefits/costs. From landowners and small farmers, I obtained information about the existence of co-owners, while from the large farmers I obtained information regarding the problems that co-ownership creates. The total number of the interviewees was 73 landowners. The results are summarized in tables 3 through 6.

Table 3 shows the average number of parcels, the average number of current co-owners and future heirs. From this comparatively small set of observations, I cannot generalize whether co-ownership is a significant problem for the entire country, but at least the results show that it exists. The average number of current co-owners in the villages from the Dobrich region is lower compared to the villages from the Plovdiv and Gabrovo regions. Regardless of the region, on average each co-owner/owner has two future heirs. If the first inheritance pattern (equal land distribution) dominates, I may expect that in the near future, the land fragmentation problem will deepen and co-ownership will increase. However, in my opinion it is more likely that the second type of

inheritance pattern will dominate (almost equal land distribution). In this case, the parcels will not decrease in size and co-ownership will stay at least at the current level.

**Table 3: Landownership and co-ownership in the study regions (2005)**

	Dobrich		Plovdiv		Gabrovo	
	V <sub>L1</sub>	V <sub>L2</sub>	V <sub>A1</sub>	V <sub>A2</sub>	V <sub>H1</sub>	V <sub>H2</sub>
Interviewed individual owners	5	11	4	6	3	3
Interviewed co-owners	8	8	9	7	7	2
Average number of co-owners	4	5	7	11	13	>15
Average number of future heirs	2.00	1.82	1.89	2.00	1.57	2.00
Number of plots per owner/co-owners	4	5	6	8	9	>12
Average plot size, ha	2.37	1.27	1.36	0.29	0.27	3.19

*Source:* own presentation

Co-ownership is a kind of ownership shared by at least two individuals; but in the Bulgarian land case, these individuals are relatives. Hence, I may expect a high level of trust. Is this, however, true? Although family relations are considered to be strong, opportunistic behavior and conflicts can often be observed. When land is divided among the heirs, the absentees often take the remote plots, while the locals take the plots located closer to the villages.

In one of the villages (V<sub>A1</sub> in Plovdiv), I met an absentee co-owner at the city hall who was trying to sell his parents' property (a house and land). A couple of years ago, his parents had passed away. To my question about his parents' agricultural land, the respondent was ironic, but honest, with his reply:

I just let land to the local cooperative, which never pays rent or pays only a little. I cannot travel to the village to retrieve a rent that would not even cover my transport costs. The local cooperative pays only '7 leva per decare'<sup>f</sup>, while the fuel costs three times more than the amount of the total rent. On the other hand, I should share this amount with my brother ... We do not see any sense in spending our time in order to obtain such a small amount of rent.... Before, when our parents were alive, we often traveled to the village, but now there is no good reason to come here. I am here because I want to sell my parent's house, but I cannot sell our agricultural land. The procedure for dividing the agricultural land among our relatives and then selling it is too complex. That is why we just let land to the local cooperative without getting any rent. At least the local cooperative maintains our family property and the land is not abandoned.

The mayors of the villages that I visited, the managers of the cooperatives, and my own observations during the fieldwork confirm that, for many absentee co-owners, it is not worth the transport and time costs to come and collect their rent. Simply put, co-owners make a rational decision by leaving their 'right to use' to someone who at least can maintain their family land. In most cases, the benefits are small and the costs for them are high. For this reason, absentee co-owners even prefer to leave their share of the

<sup>f</sup> 7 leva per decare rent is approximately 35 EUR per ha.

rents to the local agricultural producers or the local co-owners. The above-cited case is not unique, and I will further illustrate this situation by describing the case of maintaining my own family's land, located in the Plovdiv region: At the end of my three-month fieldwork, I visited the cooperative that cultivates my family's land (13 plots, in total 4.5 ha), which officially belongs to my great-grandfather. Currently, the ownership is shared among 15 co-owners; I just wanted to obtain my part of the rent, which I had to share with them. The amount for my part of the rent was one bag of grain. Unfortunately, I did not need the rent in kind, and I wanted the manager to pay me in cash. According to her calculations, my rent was only 17 leva for 15 decara (8.5 EUR for 1.5 hectares), which I had to share with my aunt. I had paid 20 leva for the fuel to drive to my ancestors' village.

The above two cases demonstrate that co-ownership further decreases benefits to the individual landowner, and some do not even take their rent. This situation is beneficial for land users, who pay for less land than they actually cultivate. In many cases, the absentee landowners have local relatives (co-owners) who work part of land, and the rest (the remote parcels) is rented out to the local large farmer or cooperative. These local relatives get rent in kind (grain) to feed the domestic animals and a part leave to the local bakery, which then provides them with cheap bread. In the Dobrich region, however, the rents are higher, compared to the other two regions, and most of the absentee co-heirs personally go to the villages to receive their rent or they have the rent transferred to their bank accounts.

Often, the local co-owners obtain the rent and then distribute it among the other co-owners. Sometimes, however, they try to acquire a larger share of the rent. Since the absentee co-owners cannot actively participate/contribute in managing the property, they are forced to accept the situation and support the local co-owner who has the initiative and willingness to manage the land. In such cases, however, conflicts often arise among the co-owners and are rarely brought to court.

The local co-owners who benefit from the family land often try to compensate the absentee co-owners. The absentees, especially in the Plovdiv and Gabrovo regions, rarely collect their rent, especially when it is in kind. Indeed, most of the farmers/cooperatives prefer to have the whole rent given to only one of the co-owners, and then she or he can share the rent among the rest. One of the local co-owners in Gabrovo describes his agreements for using the family land with his relatives:

My relatives are always welcome to my house. They know that, if they want their rent, they can always receive their half bag with grain. In fact, up to now nobody has wanted his/her rent. I know that they do not need grain and do not have time to collect the rent. When they visit me, once or twice per year, I compensate them with vegetables or fruits from my garden and fresh milk from my cow. Honestly, they are not interested in land, even though it is partly their property. They are busy with their work in the town and do not know anything about agriculture. They are happy that I maintain well our family property, even though the land officially is not mine and may well never become mine.

In the above case, the local co-owner behaves cooperatively. Even though he uses the property, he also attempts to compensate the rest. This practice is common in many villages. If such cooperative behavior is present, with time people will find a mechanism for compensation. However, if the co-owners have opportunistic behavior, land is left abandoned and the co-owners cannot get any rent. During restitution, land was a

source of many conflicts, which later constrained cooperative forms of behavior. These conflicts often 'fragmented' the families. In the Gabrovo and Plovdiv regions, where land fragmentation is considerably high, it was impossible for land parcels to be further subdivided, or co-owners had special preferences for a certain plot. In the Dobrich region, the conflicts have been fewer compared to the other two regions and are mainly regarding the size or the location of the plots. In cases where the co-owners cannot solve these problems by themselves, they turn to the court. In Bulgaria, however, the court procedures are very long and most of the problems are solved at the local level. In such cases, the role of the local authority becomes important. They act as mediators, trying to settle the disputes, though they do not have the authority to impose decisions. Penov (2004: 308) also indicates the importance of the local authority, especially the mayors, for resolving conflict among the local actors.

In the Dobrich region, co-owners seek their rent. Since, the rent is comparatively high and the number of co-owners small, the individual can obtain significant benefits, even after sharing. In Plovdiv and Gabrovo, co-owners receive low rent. In these two regions, the co-owners might benefit if land is cultivated by only one or two of the co-owners and the rest are compensated in some way. In Gabrovo, the number of co-owners is large and the benefits from land low. If the co-owners do not demand their rent, a third party (i.e., local farmer or unknown user) may profit from this situation.

Therefore, co-ownership decreases the motivation of an individual owner to exercise his or her property rights. However, I have more often observed cooperative behavior among the co-owners than opportunistic ones. Nonetheless, the existence of co-ownership creates opportunities for a third party to benefit from the situation.

#### **4.4 Land use rights**

As property rights theory suggests, the people who can use the 'bundle' of property right are the real owners of the resource. The benefit for landowners is rent, while the benefit for land users is the profit they obtain from cultivating land. The situation in Bulgaria, with the existing land fragmentation in terms of ownership and physical land parceling, prevents landowners and users from extracting maximum benefits. In this situation, the rights of access, use, withdrawal are constrained and the obligation to maintain farmland has become difficult to fulfill.

In order to organize the production process in a competitive way, each farmer has to negotiate with many owners. In some cases, the field looks like a puzzle. To arrange this puzzle in an efficient way, the farmers need to find a mechanism for overcoming the problem of land fragmentation. In most cases, this mechanism is costly, but this is the only way to soften the problems associated with fragmentation in ownership. In the following section, I will (1) present the links between physical land parceling (and co-ownership) with land use patterns and (2) discuss how land users solve the problem of land fragmentation in ownership.

**Physical land parceling and land use:** During the interviews, all land users pointed out that physical land parceling is among the main problems that constrain their production activities. Particularly the large farmers have to negotiate with many landowners, most of which do not live in the area. Some farmers, especially in the Plovdiv region, first plough a plot of land; if somebody comes and shows them ownership documents and demands their rent, they pay it.

In the Dobrich region, most farmers complained that they could not efficiently use their heavy machines and aircraft services for spraying with chemicals against diseases. In addition, since each owner must have access to his plot, the result is that part of the fertile land is lost to roads, which also demarcate property lines. However, when the farmers do not respect these boundaries, access to property becomes difficult and a reason for serious conflicts. The following interview with a small farmer from the Dobrich region illustrates the problem:

The land parcel that I cultivate is only 30 decares. Unfortunately, the parcel is located in the middle of a large field. Every time I try to reach the field, I face serious problems in getting there. The person who farms land around me is one of the largest grain producers. He tills the whole field, including the roads. He left for me a small track, which is so tiny that I cannot reach my land, and the only way is just to go through his land. Afterwards, I always have problems with him or his employees. The situation is abnormal. Sometimes I ask the municipal agricultural office to solve our conflict. Of course, my neighbor follows the rules for a certain period, but after some time his machines again till outside the outlined boundaries. Once he offered me to exchange my own parcel for a parcel close to the village, with better location, but I did not accept the suggestion. I have my own land, and I want to work on it. I do not want to make a long-term investment on land that is not mine.

In the above case, both farmers behave rationally. The small one does not want to move from his field, because this will limit his opportunity to invest in land. The larger farmer is trying to compensate him by offering a better parcel of land close to the village. In the Dobrich region, the large-scale grain farmers dominate and most of the roads connecting fields have disappeared. Formally, the municipalities own the internal roads. Therefore, the local mayors are trying, often unsuccessfully, to obtain rent from the farmers. The large farmers seem to be strong economically and politically, even compared to most of the local mayors. The situation differs in Plovdiv and Gabrovo, where land is more fragmented and there are only a few large farmers. In these regions, the routes among the parcels have been maintained.

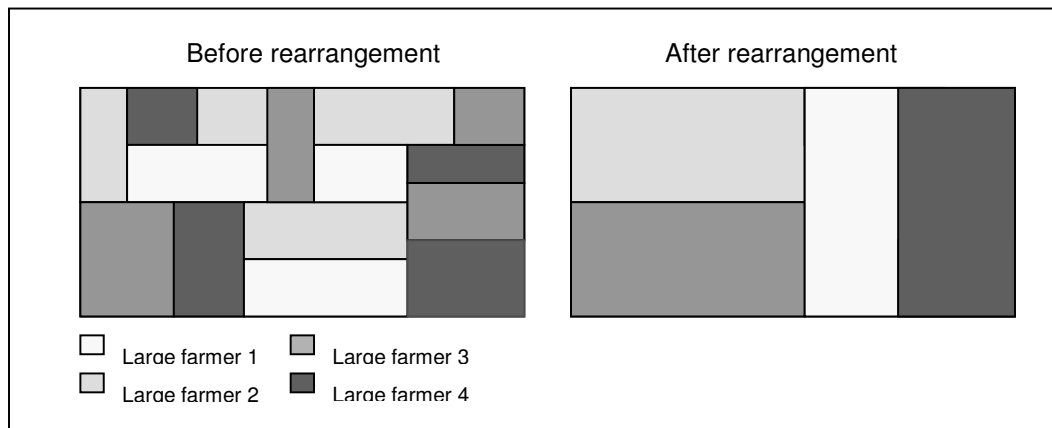
**Co-ownership and land use:** co-ownership also plays a significant role regarding land use. Although this factor does not directly influence the production process, as the physical land parceling does, it further complicates the contractual process. In the case of co-ownership, land users have to negotiate for a single plot with all co-owners. The high costs of contracting lead the land users to contract informally with only one of the co-owners. Since the farmer, in this case, does not have a formal contract, his access to state support programs and bank credits is constrained.

**Informal solutions to land fragmentation in ownership:** Land users apply an informal resolution mechanism for solving the LF problem. Nearly 10 year ago, land users started to exchange plots among themselves. In the following paragraphs, I shall discuss two schemas for parcel exchange: (1) between large agricultural producers (typical in the Dobrich region) and (2) between small individual producers (typical for the Plovdiv and Gabrovo regions). This informal mechanism I found to be a common practice — not only in the three study regions, but everywhere in the country.

- *Separation of fields around a village among large farmers (figure 2):* This method for overcoming land fragmentation is very common practice in the Dobrich region. All producers — small, medium or large lessees, co-operatives or individual producers — take part in this process and share the belief that they need to cultivate large blocks of

agricultural land. In this way, they can more efficiently use their machinery and properly perform common technological practices. Normally, the process takes place at the beginning of the crop year. All interested parties attend a meeting in which they determined who will cultivate which part of the agricultural land around the village. The main principle that land users follow is that the quantity of consolidated land received by a producer after the division has to be equal to the land owned or rented by him. In these meetings, the mayor often participates as an independent arbiter.

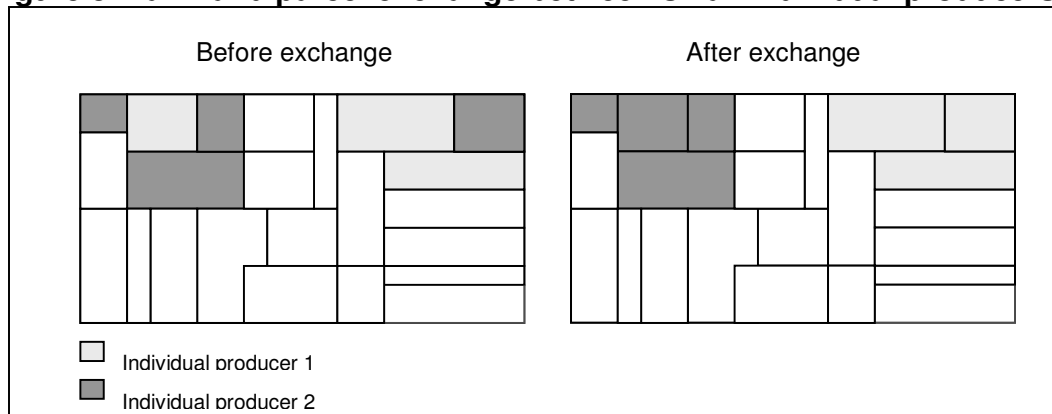
**Figure 2: Rearrangement of fields around a village among large farmers**



Source: own figure

- *Farmland parcel exchange between small individual producers (figure 3):* The small and medium individual producers often use this system. The exchange is usually for a period of one crop-year, with an oral agreement; payment is not usually required. Here it is mainly the each farmer's own land that is exchanged, between people who know each other. This mechanism, however, provides only a short-term solution and does not stimulate long-term investment in the land. It also creates other problems related to crop rotation and improper treatment with fertilizers and chemicals, thereby threatening the sustainability of land use.

**Figure 3: Farmland parcel exchange between small individual producers**



Source: own figure

Although the process of voluntary exchange of parcels was initiated by the farmers, soon the local officials of the MAF became interested and began to formalize it. In 2005, when the survey was conducted, an MAF official in Dobrich asked the farmers to come into his office and show on a map which areas they would cultivate. Official contracts were not required. Later on, in 2007, all of the MAF local offices began to ask farmers to indicate on a map the areas they currently cultivate. The intention is for this system to be further developed and to become a base for per hectare subsidy distribution.

From the description of the cases and the discussions presented in the previous sections, I can conclude that I have evidence to support the first proposition set out above: Land fragmentation in ownership increases the costs of managing land property and, hence, decreases net benefits to landowners. Co-ownership further complicates the problem, but I see that, in most cases, the co-owners tend to co-operate to obtain benefits rather than behave opportunistically. I also find evidence to support the second proposition that land fragmentation decreases the net benefits to land users. Although fragmentation may increase the likelihood of conflict among land users, I find more cooperative behavior than conflict (see table 7).

Obviously, the actors have joined their efforts to extract benefits from land. However, it seems that land users have seized the initiatives. The local landowners or co-owners are more active in managing the land. The local farmers sometimes plough land that is not theirs, especially when they see it has not been cultivated for some period. In this case, they only pay rent if the owner comes and demands it.

In conclusion, the formal property rights on agricultural land are partially exercised. The owners and the users obtain part of the potential benefits, but also bear part of the cost. The higher land fragmentation in ownership is the less benefit can be extracted by landowners/co-owners. The same is also true for land users. Therefore, land fragmentation decreases the efficiency of land property rights. This creates opportunities for the local actors, especially the farmers, to take over property.

## **6 Conclusions**

Formal land ownership rights in Bulgaria are well defined in the legislation and all landowners have obtained their land deeds. However, the prerequisites for successful operation of land property right are still absent. The new landowners have insufficient experience concerning how to bring land into use and obtain benefits therefrom. Land fragmentation further complicates the process.

The benefit streams from land to landowners are low and do not provide sufficient incentives for active land management. There are several reasons for this situation. First, most of the beneficiaries from land restitution are now living in the towns and have no relationship to agriculture. For them, land has a low value. Yet, some are sentimental, because this land used to belong to their grandparents. Second, after restitution, most of the people living in the rural areas were not ready to farm independently. As a result, land and other assets in agriculture are underused. This further reduced land value. Third, the low interest of people in land as a production resource provided the ground for the domination of the cooperatives during the initial stages of the transition process. In the middle of the nineties, however, many cooperatives experienced severe financial difficulties. One of the reasons was the state



price policy at the beginning of the transition. All industrial-good prices were liberated, but the prices of foodstuffs were fixed, resulting in low incomes generated in the agricultural sector. Later, more serious problems regarding the cooperatives become apparent. There was virtually no external control over the activities carried out by the cooperatives, and their internal control mechanisms were insufficient. All of these factors resulted in lower profitability and the ability of the cooperatives to pay land rent. This made room for the large farmers who began to dominate, especially in the Dobrich region, after 1995.

With the benefit streams from land already being low, land fragmentation imposed additional costs to landowners and land users. First, since the families received land located in different places and often in different villages, monitoring of all these plots became problematic. Second, the existing inheritance pattern, allowing equal rights to all heirs, increases the cost of negotiation when a collective decision needs to be taken. Land fragmentation imposes additional costs also on land users, since they need to negotiate with many small land owners or co-owners, thus reducing the net benefits that they derive from the production of agricultural commodities.

The actors, however, have started to adapt to the existing situation. I observe more cooperative than opportunistic behavior. Where cooperation among the actors does not work, land lies abandoned. In order to counteract the above problems, absentee landowners delegate rights to local ones. Facing competition from the large farmers, the cooperatives began to either behave competitively or go out of business. The increased competition in the sector plays the role of external control mechanism for the coops. The large commercial farmers began the process of voluntary plot exchange. Some began to plough land without land contracts; but even in this case, do pay rent if a person shows them ownership documents. The state authorities are making efforts to formalize solutions, which have emerged at the local level. All of these actions decrease the costs imposed by land fragmentation in ownership over land use. However, the process of property rights adjustments is at its beginning, and the benefits from land are still low. This situation still does not provide sufficient incentives to landowners to actively manage property.

Land fragmentation decreases the efficiency of land property rights-in-practice. Landowners and land users obtain part of the benefits, but at the same time, they avoid bearing part of the cost for maintaining land. Formal property rights are clearly defined in the formal legislation and, with the sufficient time, the market should lead to efficient redistribution of land property rights-in-practice.

There will be two types of land redistribution in the near future. The first is redistribution between heirs, which is likely to decrease the size of land per owner, but not the average plot size. Interesting will be the second type of land redistribution between local actors.

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