

PROPERTY RIGHTS IN ROMANIAN FOREST POLICY

An Institutional Analysis in the Context of Societal Transformation¹

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Abstract

Property rights over natural resources represent a distinct area of inquiry in environmental economics and policy, but their role has not yet been investigated thoroughly. Given the spectacular evolution of political, economic and social conditions, driven by the major events of the last century, transition countries are an excellent opportunity to analyse various policies and institutional developments concerning the regime of use and management of natural resources. The processes of societal transformation had deep impacts on the Romanian forestry sector too, entailing land reforms and subsequent changes to its institutional and organisational framework. This paper presents an analysis of the reciprocal relationship between the evolving forest property rights and the conduct of policy and economic actors, in connection with their outcomes. The theoretical framework consists chiefly of (new) institutional economics, whose one core concept is that patterns of interaction between institutions and actors produce physical outcomes, assessable by criteria such as equity and efficiency. Following the analysis of three distinct periods and the applicable property regimes, the impacts of the socio-economic settings and the characteristics of the property regimes on the exercise of property rights' constituents were made visible. Following an overall analysis, patterns of relation between forest property rights and 'factors and actors' of forest policy were also identified. They were illustrated in two models of interaction, one in the framework of a given property regime and one in the context of institutional change. How efficiency and equity rationales are followed by different actors when designing and enforcing different institutional arrangements is also presented therein.

Keywords: *Romanian forest policy, property rights, land reforms, institutional economics, organisations, actors, outcomes, forest status*

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Introduction and research purpose

The process of transformation faced by countries in Central and Eastern Europe following the conclusion of World War II and the political changes of 1989 are unprecedented events in their history, with far reaching political, economic and social implications. They have directed governmental policy, affected all areas of economic activity and have impacted greatly on the social interactions. These countries therefore represent an excellent opportunity to analyse the progression and the impacts of various policies and institutional developments².

Not only society as a whole, but the forestry sectors has also undergone tremendous changes. In the Romanian case, three essential events of the last century, namely the two world wars and the political changes of 1989 were followed by the massive redistribution of forest resources, sectoral reforms and structural developments. Of paramount importance were the land reforms of the 1920s, the nationalisation of the forests in 1948 and the restitution laws adopted and implemented from 1991. This is the general framework of the research project whose main results are briefly presented herein. Other method-oriented rationales making up the research topic were that property rights *per se* are relatively new in economics and have only recently been ‘internalised’ by the economic analysis³, and that research on the role of property rights in forestry remains scarce⁴. The research was also a problem-oriented study, because there is a lack of related studies, given the previous experience, and because the land reforms adopted from 1991 have had far-reaching implications.

The research goal was to analyse the reciprocal relationship between evolving property rights over Romanian forests and the institutions and organisations engaged in forestry, in connection with their outcomes. To attain this abstract goal, which would help understand the role of property rights in forestry, the following objectives were set up: 1) to describe how and explain why property rights’ regimes evolved; 2) to analyse the causal and reciprocal relationship between forest property rights and the attitude and conduct of policy actors with regard to forests; and 3) to identify the impacts of these relationships on the status of forests, to support the patterns of interaction distinguished. The MCPFE criteria and indicators for sustainable forest management were useful tools in this respect⁵. This paper concentrates on the second objective.

Theoretical framework

Institutional economics, in either its ‘new’ or ‘traditional’ fashion, represents the theoretical framework of the research work. A core concept of *new institutional*

² See also Voigt and Engerer (2002: 150)

³ See Anderson and McChesney (2003: ff 13)

⁴ See, e.g., Glück (2002: 87-88), Solberg and Rykowski (2000: 16)

⁵ The research work rested on a simplified version of the set of “Pan-European Criteria and Indicators for Sustainable Forest Management” endorsed by the Vienna Ministerial Conference on the Protection of Forests in Europe, April 2003

economics (NIE) is North's theory, stating that institutional arrangements and economic organisation are key factors of socio-economic development, explaining the different paths of growth and development throughout the world⁶. An essential assumption is that institutions shape the conduct of policy and economic actors. However, this is a two-ways relationship, because motivated actors can react and alter institutions that no longer serve their interests and aspirations. This reaction can explain largely the path of institutional change.

The relationship between institutions and actors also impacts upon resources whose regime of use is regulated by institutional arrangements. Such patterns of interaction produce physical outcomes subjected to human evaluation, quantifiable by criteria such as *efficiency* and *equity*. The triangular relationship between institutions, actors and outcomes is best encompassed by the *institutional analysis and development framework* IAD, designed by Ostrom⁷, to which authors such as Bromley and Oakerson also made important contributions.

NIE generally consists of three distinct theories: 1) property rights theory; 2) transaction costs theory; and 3) principal-agent theory. Given the specificity of the research topic, the property rights theory was preponderantly employed in the empirical work. Although this theory explains the role and functioning of property rights over natural resources, and in part their emergence (*ex ante* design), it is of less help when the effects of the establishment of property rights are of interest (*ex post* enforcement). Transaction costs theory and agency theory filled this gap.

Methodology

The research referred to the Romanian country, from the inter-bellum period up to present, based on the presupposition that formal institutions (rules) were uniform across the centralised state ever since. It referred to all property regimes (i.e., state, common, private), so that forest property rights might be internalised in the analysis, and not taken as given. A historical approach to the research problem shaped the way in which data were gathered and analysed. Given the abrupt changes to forest property rights, three research periods were considered: 1) up to the conclusion of World War II and the nationalisation of forests in 1948; 2) during the communist period characterised by state forest ownership and centralised administration; and 3) following the political changes of 1989 and the subsequent land reforms.

The research inquiry was designed both deductively and inductively. The following methods were used for eliciting data: 1) interviewing and questioning; 2) participant observation; and 3) literature review and documentary analysis. The 'experts' approached during the empirical work were mostly forestry professionals and forest owners, two influential actors of forest policy.

⁶ See North (1990)

⁷ See Ostrom (1999)

Research data were analysed in two different steps. The first consisted of an integrated method of qualitative content analysis. The conceptualisation of raw data was made in a synthesised ‘story-line’ for each issue of the research inquiry, which was used as basis for the second data analysis step, the matrix analysis. Matrixes were designed for each research period and each property regime (eight in total, as private forest property did not apply for the communist period). They were meant to analyse synthetically the reciprocal relationship between the theoretical constituents of property rights⁸ and the ‘factors and actors’ of forest policy⁹, as presented below. Matrixes enabled comparisons between different periods and property regimes and the overall analysis.

Matrix analysis of the relationship between property rights and ‘factors & actors’ of forest policy
Table 1

Factors & actors Property rights’ constituents	Politics & law	Socio-economic & natural conditions	State forest administration	Citizens (local communities)	Owner (case- by-case) / administrator
State property regime					
Access & exclusion					
Withdrawal (use)					
Management					
Alienation (transfer)					
Common property regime					
...
Private property regime					
...
<i>De facto</i> open access is analysed in connection with the <i>illegal use</i> by superposition over the three formal property regimes					

Results

Of great interest for the institutional analysis were both the differences and similarities between matrixes’ cells, in relation to the three property regimes and the three research periods. They are presented in a row, in the following. This paper ends with the main conclusions regarding the role of property rights in forest policy and with a brief discussion regarding the research results.

Owners’ conduct in different property regimes

The centralised matrix analysis revealed considerable differences between the ways different constituents of property rights are exercised within different property regimes. These differences refer not only to the actors’ conduct in relation to both the forest

⁸ Adapted from Ostrom (2000)

⁹ To the three theory-based categories of ‘actors’ of forest policy, namely *owners*, *workers* and *citizens* (see, e.g., Krott, 2002), the general settings in which property rights are exercised (‘factors’) were added in the first two columns of the matrix’s abscise

resource and one another, but also to the physical outcomes of their actions. However, the matrix *per se* could not reveal thoroughly the differences between property regimes, within a given research period. These differences were attributed to three parameters considered as decisive for the conduct of forest owners: *interests*, *physical capacity* and *position*. A fourth parameter, namely the adaptation (action and reaction) to *institutional change*, was also identified as deriving from the three. A synthesis of the incentives for and the attributes of the conduct of forest owners under the three property regimes, expressed by the four parameters defining their ‘constitution’, is presented below.

Parameters of the conduct of forest owners under different property regimes Table 2

Parameter	State property regime	Common property regime	Private property regime
Interests	<ul style="list-style-type: none"> - multifunctional use: satisfying people’s demands, international commitments, macroeconomic ends - externalities’ regulation - agency problem: private interests of employees 	<ul style="list-style-type: none"> - local (e.g., rural development) - co-interest and involvement of local communities - likely externalities internalised - agency problem: private interests of communities’ leaders or forest agents 	<ul style="list-style-type: none"> - narrow interests of individuals (e.g., income, transfer, household) - entrepreneurship linked to direct benefit stream - owner ego - externalities most likely
Physical capacity	<ul style="list-style-type: none"> - economies of scale certain - exchange between economic branches - specialists, logistics, etc. available - pressure exerted by non-owners entails large enforcement costs 	<ul style="list-style-type: none"> - economies of scale likely - suitable for forests (i.e., extensive cultivation area) - reasonable capacity to provide resources for administration - congruence with informal institutions; low enforcement cost - limited capacity of reaction to, e.g., market disruptions 	<ul style="list-style-type: none"> - economies of scale usually restricted - resources for management usually poor, dependent on timber sale (legal and illegal) - high costs incurred by establishment and enforcement
Position (power)	<ul style="list-style-type: none"> - power to establish and enforce property rights - considerable authority, yet questionable legitimacy 	<ul style="list-style-type: none"> - threatened by land reforms (unwillingness of the state to ensure property rights) - threatened by self disintegration (e.g., desire of individuals to leave the condominium) 	<ul style="list-style-type: none"> - limited power to enforce property rights in the long and short run - limited state-enforcement of rights and limited recourse to informal enforcement
Action towards change	<ul style="list-style-type: none"> - strong opposition to privatisation / restitution - state forestry favoured by forestry professionals 	<ul style="list-style-type: none"> - opposition to state confiscation, but limited capacity to resist - significant capacity to influence land reforms in their favour 	<ul style="list-style-type: none"> - opposition to confiscation, but no capacity to impede it - low capacity to stop nationalisation, significant influence upon restitution
Reaction to change	<ul style="list-style-type: none"> - large capacity to adapt to the nationalisation and centralised administration - limited capacity to adapt to restitution and downstream reforms 	<ul style="list-style-type: none"> - poor capacity and willingness to live with the nationalisation - forest restitution seen as a tool for rural development 	<ul style="list-style-type: none"> - good adaptation of the small ‘decision unit’ to changes - considerable capacity to adapt to confiscation, limited capacity to deal with the restitution

Given the theoretical framework, it came as little surprise that *interests* regarding the forest resources represent the first parameter defining the conduct of the three categories of owners. However, they vary considerably from state to local communities and individuals. Even though the general socio-economic conditions enhanced one feature of forest utilisation over another, the state never focused exclusively on one common use of

forests, such as timber harvest. Even during the communist regime, when the economic dimension of forestry activity played a crucial role, the multifunctional use of forest resources was assured to some extent. On the contrary, the interests of local communities and individuals were directly related to sustaining livelihoods, most often and particularly in the ‘transition’ periods, on the short run. Directly related to the multifunctional use is the externalities issue, which can be far better regulated in the case of state and common property than in the case of private property. The latter retains, however, the strength of limited threatening by agency problems and superior motivation and entrepreneurship encouraged by the straightforward benefit stream.

The *physical* (material) *capacity* of forest owners to deal with the management is the second parameter defining their attitude towards forests. It also varies considerably from one ownership category to another, and is not attributable only to the characteristics of the resource at stake, such as the size, but also to the ‘constitution’ of forest owners. An organised state is usually capable to manage forests at a reasonable level. In contrast to the situation in the developing world¹⁰, the nationalisation of forests did not lead to a *de facto* open access followed by the resource degradation. State administration proved always able to administrate forests. Regulations and exchanges between different branches of the economy, the appointment of experts and other resources are tools at the state’s hands. Local communities and individuals proved also able to deal with the forest management task and sometimes they did it at a level acknowledged as superior to the state counterparts. In this case they took advantage of their own strengths, including lower enforcement costs and less agency problems. However, both communities and individuals performed poorly in some cases, particularly when the state intervened limitedly with policy instruments.

The third prerequisite for economic conduct and political action is the *position* of forest owners in the political arena. The great difference between the state and other forest owners is that whereas the former accomplishes, within the triadic social relation of property rights¹¹, both the role of owner and rule-enforcing organism, the latter fulfil only the first role. Thus, the state benefits from the stream of forest goods, like any owner does, but in addition, it is in the position to establish and enforce property rights through its own authority. Forceful transfers of forest property rights between actors with different, yet changeable bargaining power, was a characteristic of Romanian politics. Another threat for non-state owners is the tendency to transfer forests by their own, due to external incentives, such as the development of market relations. This was the case with the disintegration of several forest condominiums, through the individualisation of common property rights at the beginning of the 20th century, or with the absorption of small-scale private properties by land or wood agents following the implementation of forest land reforms proclaimed in the preceding decade.

The *action* of forest owners for or against the *institutional change* differs in accordance with its direction. Logically, those who may lose out from the likely change will impede it, while those who are to win will favour it. This is the context in which the conflict

¹⁰ See, e.g., Bromley (1991: ff 105)

¹¹ See Bromley (1991: ff 2) for a thorough definition of property rights over natural resources

between the forestry professionals and new forest owners emerged in the 1990's should be understood. Another important issue is that although it was assumed that non-state owners are powerless with regard to abrupt institutional change, some expressed a significant persuasion power even in the conditions of authoritarian rule, such as with the establishment of the communist communal forests.

The *reaction* of forest owners to the *institutional change* differs from one property regime to the next and with the direction of change. When the state assumed exclusive ownership of forests in 1948, it reacted by establishing a solid centralised administration. It did not prove, however, the same capable to cope with the restitution of forests and the change of socio-economic conditions. As forests represent a highly valuable asset in rural areas, local communities proved unable to cope with the nationalisation of 1948 and this led to the temporary establishment of communal forests in the 1950s. For private owners who lost forest property following the unassailable confiscation, their option was to scale back the extent of resource use or even change the occupation. For them to reclaim forest property following the political changes of 1989 proved a grater challenge though, whose impacts are known in the recent literature.

Property regimes and the general settings in which they are embedded

It has been shown above that significant difference exists between the ways property rights are exercised within different property regimes. If these differences derived exclusively from the intrinsic characteristics (*constitution*) of forest owners, it would mean that the nature of property is decisive for the outcomes of resource use and management. This would have most likely been the ultimate result of the institutional analysis at a given moment in time, shaped by definite political, social and economic settings. But property rights are embedded within a general framework of conditions that are not necessarily related to the property rights *per se*. This was the rationale for extending the analysis over a longer period of time, and this is why the general settings made up the first two columns of the matrix above (table 1).

The expression of forest property rights can vary significantly with the political regime and socio-economic conditions. An extremely different situation is the one between democracy and authoritarian rule, on the one hand, and between free-market and centrally planned economy, on the other. Under the communist regime, for example, state forests were abused because of the need to solve some stringent internal and external problems, facilitated by the lone role of the state in forest policy. In the following period, however, abuses resulted rather from poor governance, caused by agency problems and limited reaction of the state administration to reforms. Differences between the outcomes of the state forest administration during the two political regimes came also from its different design, that is, forestry ministry holding all administrative functions in the past and autonomous enterprise at present. That creates different incentives for economic conduct (i.e., plan fulfilment vs. profit), different sanctioning of rule-breaking or rent-seeking behaviour and so forth. The concern and the outcomes of the state administration moved from an accentuated economic appreciation, based on investments toward increasing the

production capacity, with little social and ecological considerations, under the communist regime, to the present short-term profit-making strategy, with increased, political, social and ecological consideration, determined by the struggle of various actors for power, income and wellbeing.

Non-state forests followed also distinct paths of development during different political regimes. Communal forestry under the communist regime, for example, failed largely to fulfil the designated goals. Given the institutional design stipulating that forest ownership is retained by the state, the restrictions to the use of communal forests and the unclear specification of attributes and duties of all actors, the incentives for the promotion of community-based forest management were not created. This did not happen, however, with local communities having a long tradition in forest management, in the period before the nationalisation of 1948. They developed a proper set of rules for the use and management of forests, which even served as model for the forestry law enacted later on at the central level. They established viable administration services, for which the incentives for sustainable use and management were the result of the historical process of property consolidation. Correspondingly, the perspectives for community forests established following the restitution law of 2000 are also encouraging, given the favourable legal framework, the establishment of specialised forest administration structures and the increasing awareness regarding the role forests can play in rural development.

Private owners also acted differently with regard to forest property in the period prior to the 1948 nationalisation and following the 1991 restitution law. Thus, the management practices of private forest owners differed from both good and bad in the past to a quasi-absence of sustainable management at present¹². This difference was not only the result of the long absence of private owners from forestry processes, entailing changes to their ‘constitution’, but also to the evolving settings in the ‘transition period’ (e.g., decreased state authority), and not least the deficient adoption and implementation of the restitution laws, granting forests to persons with little commitment and capacity to manage forests (e.g., privatisation instead of restitution).

Two models of interaction between property rights and factors and actors of forest policy

Essential for the scientific knowledge are not only the differences between property regimes and their general framework, but also the similarities, illustrated by two models of interaction between the research variables. The first ‘model’ illustrates this interaction in the general settings determined by the existing property rights’ regime. The second model refers to the institutional change.

¹² *Romania libera* newspaper, 31.03.2006 indicated that as of the end of 2005, some 100,000 ha of newly created private forests were massively exploited, of which some 40,000 ha were clear felled. They represent some 15% of private forests and 1.5% of the country’s forests

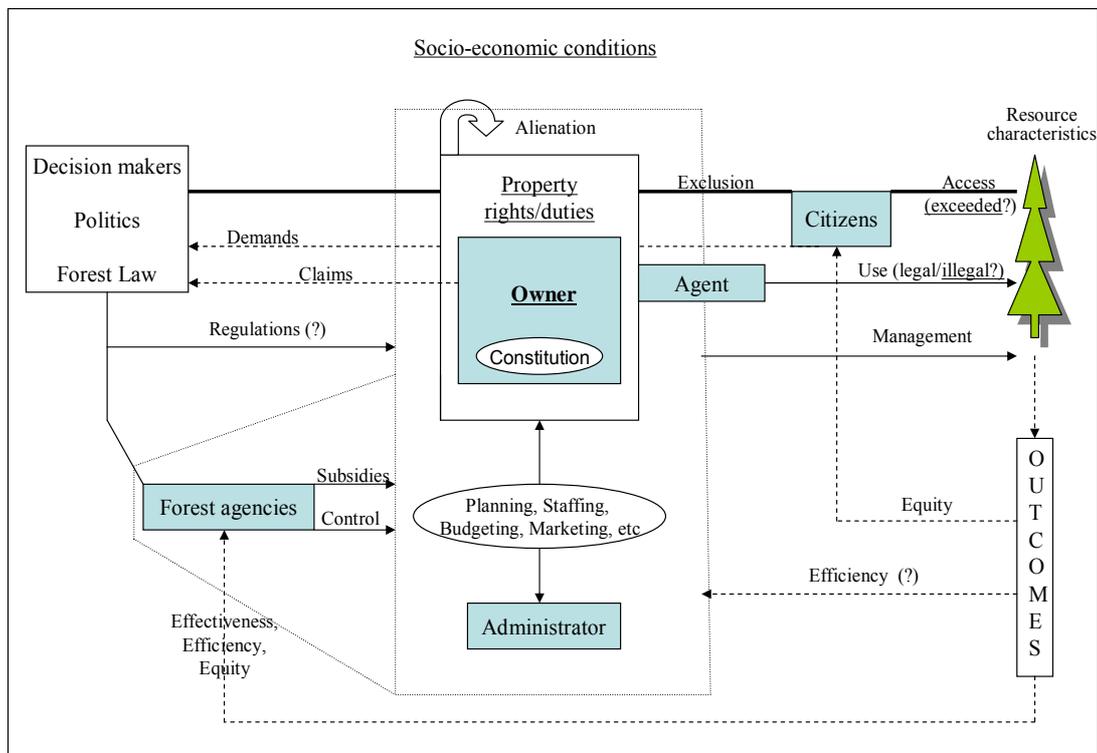


Fig.1 : Model of the interaction between the prevailing property rights and factors/actors of forest policy

The ‘factors’ of forest policy are represented by the political processes and their outcomes, the socio-economic conditions and the natural conditions. The actors are represented in the highlighted boxes. They are those included in the property rights’ triangular relationship between owners, non-owners and the state, illustrated above by the thickest line, plus the state agencies, administrator and forestry agents.

The continuous arrows indicate the action of policy actors, given the existing institutional design. The state grants property rights to different entities, but it can also redefine them, by regulations. Passing from the transfer of comprehensive property rights to their definition was a crucial step for the creation of a forest administration service in Romania. The state intervenes with subsidies too, but the information and financial instruments were fewer than the regulative ones.

The owner has direct relationship to the appointed administrator, implying the provision of technical input by the administrator, and remuneration and control of the resource flow, by the owner. To this end, a set of administration tools is employed. This relationship may vary, however, from case to case. The communist administration, for example, assumed all possible roles regarding the forest property. It appropriated forest resources, enforced state property rights and controlled the compliance with the forest

law. Contrariwise, non-state forest owners concluded administration contracts with specialised administration units, being controlled by state agencies.

Forest owners are in relation to non-owners, the local communities being the most influential. The law enables the owner to enforce its rights over goods transacted privately on the market, but it also permits common people to access social goods. If the access rights are overstepped, which happens usually in *de facto* open access (i.e., property rules are in place but not enforced), it is an illegal use of property. Besides the exclusion of non-owners, the forest owner exercises three other property rights. First, it can transfer rights to another entity, either thoroughly (e.g., by sale), or partially (e.g., by leasing). Second, the forest owner uses forest resources, whether or not in compliance with the forestry regulations. Cases of owners exceeding the use rights were often revealed by research findings. It would be safe to assert here that the illegal use of forests occurs within the framework of formal property regimes, rather than under informal open access. Put different, illegal logging is mostly attributable to the owners themselves, and not to the lack of formal and informal enforcement of property rights. Third, the owner exercises its management 'right', usually with the help of the administrator.

The analysis of the relationship between 'use' and 'management' rights identified a conceptual difference between them. Whereas 'use' expresses the right to appropriate resources, 'management' is a duty. Another important result was that management is not the exclusive prerogative of the forest owner, but a part of the administration task, to which several entities contribute. Correspondingly, the 'use' right does not belong exclusively to the owner, due to the agency problems. Challenging the traditional association owner - use right and administrator - management right implies the analysis of the 'contract' concluded between the parties.

The arrows with broken lines illustrate the reaction of policy actors to the existing institutional arrangements, following the assessment of the outcomes in their own terms. There are three main parameters according to which these outcomes should be assessed: *efficiency*, *equity*, and *effectiveness*. For *citizens*, a 'fair' distribution of rights, by means of either full property titles or entitlements to goods, plays the greatest role. Efficiency rationales may also concern the natural capacity of forests to provide for public goods, such as protection against natural hazards. With increasing negative impacts of deforestation, people demand the politicians to alter property rights for a better use of resources.

Given the existing rights, the main concern of the *owner* and *administrator* is for 'efficiency'. The critical point here is, however, whether efficiency means the long-term preservation of forests' capacity to provide for private and public goods or merely short-term economic efficiency, expressed by the balance sheet of the forestry enterprise. The research revealed no common pattern of conduct for all forest owners, but only depending on a set of conditional and causal relationships to the general settings, on the one hand, and to the owners' constitution, on the other, as shown before. The 'effectiveness' parameter is largely disregarded by both owner and administrator, as far as objectives are formulated by planning. The preservation of a unique 'forestry regime',

without designing an accompanying set of economic instruments, contributes to this conduct.

Compared to other actors, the *state* with its forest agencies has no choice but to regard all three parameters defining the outcomes of property rights. However, history shows that the political power often relinquished to the citizenry claims for forest property. ‘Equity’ therefore played an essential role in state action. Much consideration was also given to the fulfilment of the objectives set down in forestry programmes. Sometimes, as was the case with the one adopted in 1976, they were proven wrong and renounced to them. In other cases, ambitious programmes were hampered by the limited institutional and financing capacity. The most critical issue remains the development of a forest strategy oriented towards ‘efficient’ outcomes. There were plenty of political deliberations concerning the distribution of resources, but less forestry programmes which considered the given property regimes. How land reforms affected the outcomes of property rights is best represented by the second model of interaction, presented below.

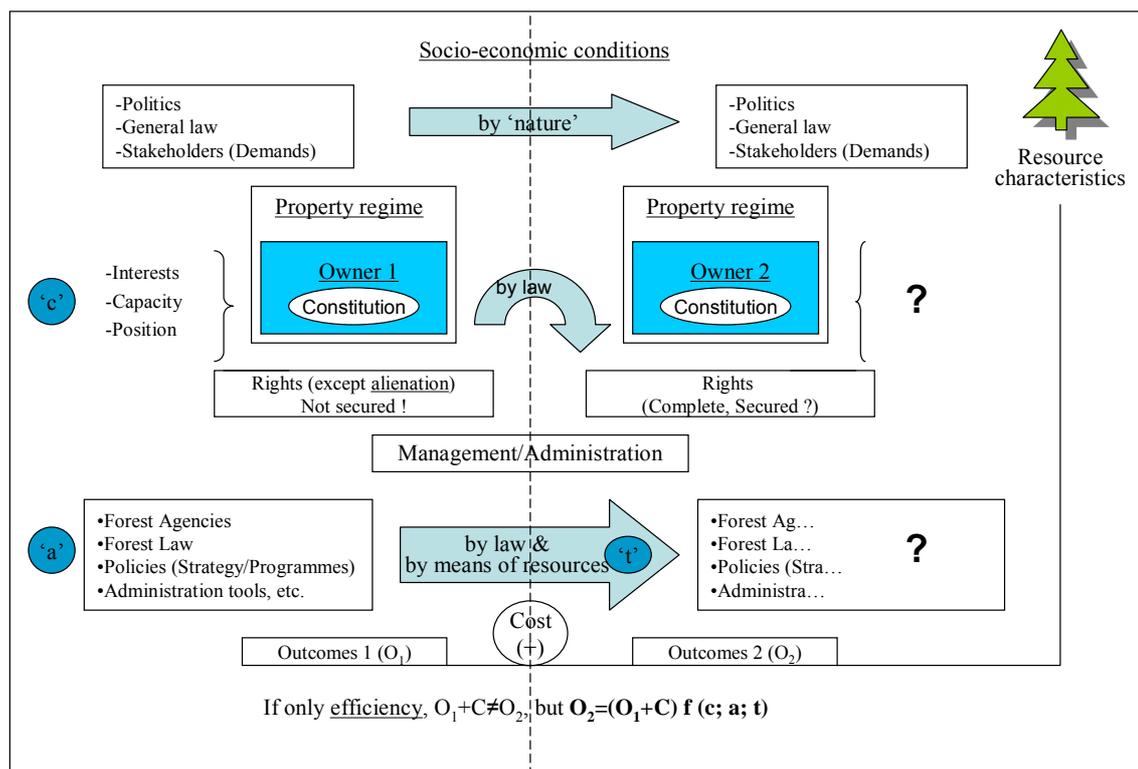


Fig. 2: Model of transfer of forest property rights

The left half of the figure encompasses forest owner 1, acting within a given property regime, producing outcomes 1. The transfer of property rights from owner 1 to owner 2 implies that the latter assumes the rights and duties of the former, and produce outcomes 2, presented in the right half of the figure. Hypothetically, the two halves are

symmetrical, but due to the transaction costs incurred in the alienation of property rights, the difference between settings 1 and 2 can be considerable. Of particular interest here is the extreme case of the change of property regime.

The transfer of property rights from entity 1 to entity 2, by law, means that the property rights of the former were neither clearly defined, nor secured. When entity 2 is granted forest property rights by forceful transfer, it does notwithstanding mean that they are fully defined and secured either. According to a principle of both civil and common law, the new owner cannot have more rights than the former. The new owner was given property rights, but the point is for how long. The saying 'easy come, easy go' may apply here, so that the security of property rights cannot be guaranteed when the state engages freely in property transfer.

Another critical point here is in how far the general settings and the required institutional and organisational adjustments can follow the course of property transfer. It is most likely that the political processes governing land reforms, the law pertaining to forest property, and the society's demands regarding forest would make the transition between the two settings safely. However, it is unlikely that the 'constitution' of the new forest owner ('c') would do the same, particularly when the transfer is made between property regimes, such as from state to individuals. Moreover, it is not certain whether the necessary prerequisites for the perpetuation of forest management within a proper administration service ('a') will accompany the transfer of property. The forest restitution started in 1991 in Romania, but was only followed by a new forestry code five years later, by state agencies responsible for private forestry nine years later, by policies seen as inappropriate for private owners, and by no administration service for a large part of private owners. Passing from one setting to another is not something that just happens, but occurs over a period of time ('t') and through the allocation of significant resources. They incur a cost ('C'), which is always positive. Usually, this is paid by the beneficiary of the transfer, as was the case following the 1948 nationalisation, when large investments were made in forestry. The state also claimed that it would pay for the reverse transfer, so as not to make the new owners to seek incomes to compensate the initial investment, but the results were mostly disappointing. The new owners sought to generate incomes anyway and the state was unable to create an institutional and organisational framework suitable for non-state forestry in due time.

The impacts of property change on the forests can be expressed mathematically too, if only efficiency, expressed in monetary values, is considered. This is appropriate when equity was only a matter of propaganda, such as the case of 1948 nationalisation, or when forests were 'returned' to some opportunists without legal or moral right. As shown above, the outcomes of setting 1 and setting 2 may differ, given also the costliness of land transfer, so that $O_1 + C \neq O_2$. Basically, the outcomes corresponding to the second setting (' O_2 ') are a function of the three main variables identified above: the 'constitution' of the forest owner ('c'), administration prerequisites ('a') and time ('t'), respectively, multiplied by the sum of outcomes 1 (' O_1 ') and the costs of property change ('C'). This formula demonstrates that the structural reforms required for the new forest property

structure may lag behind the rate of property change and that a certain impact on the status of forests is most likely.

Conclusions

Generally, property rights are required because they slow down the race for capturing rents from the flow of resource units and determine the entrepreneur concentrate on stock; regulate externalities between actors; establish patterns of use and management; stipulate entitlements and responsibilities; and represent the prerequisite for the enhancement of resource utility. Ideally, they are the results of a historical process that makes them compatible with the users' customs and therefore enforceable at a reasonable cost.

Specifically, it can be said that property rights have as great a role in forest policy as the decision making gives them. It is certainly untrue that different property rights' regimes produce equal outcomes, as in the utopian 'zero transaction costs world' hypothesised by the Coaseian theory. In the literature the property regimes are associated with definite strengths and weaknesses, and this study demonstrated how different property regimes are exercised differently on the basis of the so-called internal 'constitution' of the owners. However, different property regimes may acquire different values and dimensions in different conditions. Moreover, it is the general course of socio-economic development that influences property rights at different points in time. The 'constitution' of forest owners is important indeed, but it is often the case that the impacts of different general settings on the same property regime are larger. Agency problems, legal enforcement, policy instruments, forestry infrastructure, market conditions are not necessarily related to the inherent structure of incentives property rights create, but were influential for all property regimes. Even though the issue of land property is highly political per excellence, the main issue should therefore not be the regime of property rights *per se*, but rather the political, economic and social conditions in which property rights are established and exercised. This assertion is the more important since the impacts of the establishment of alternative property regimes may be greater than the outcomes of the initial structure of property rights. The following policy advice regarding the property change can be drawn based upon the research findings:

- If the political power is committed to ensure continuous supply of forest goods for both owners and non-owners, 'equity' rationales, although important, cannot surpass 'efficiency' rationales. There are certain means of satisfying forest-related demands other than merely granting formal property titles. A possible extreme negative impact of the property change is that neither the new owner benefits from the resource flow to the extent expected, nor the desired public goods are continuously provided by the degrading forests.
- Whenever land reforms are deemed imperative, the transfer should consider the whole bundle of property rights. Thus, 'use' as 'right' cannot supersede 'management' as 'duty'. In addition, for property rights to be safeguarded, formal

enforcement by the state and informal enforcement by the owner must allow for the exclusion of non-owners from the free appropriation of resources. Whether the right to further transfer forest property should complete them, it remains an open question.

- The redistribution of forest property requires the consideration of the constitution of potential owners, the structural reforms they entail, the likely outcomes of the new property rights' regime, as well as the costs incurred during the 'transition period'. The institutional change should therefore not be seen merely as a diversion of the direct benefit stream, but as an entire process with serious implications for the status of the resource at stake.

Discussion and outlook

The research lacks quantification of relationships between the research variables. Only the outcomes of these relationships were quantified by means of secondary statistical data. It was possible to identify and explain the relationships between actors and institutions, but the 'how big' question could not be thoroughly answered. The quantification of some critical relationships identified herewith, for theoretical or practical ends, may concern future research projects. Another hint for further research is the organisational design of actors involved, since this study concentrated solely on institutions. A weakness of the methodology employed may have been the simplifications used to arrive at some conclusions and 'models'. The main criticism regarding the interpretation of the results may stem from the analysis of a large 'population', which still differs with regard to the 'informal institutions', in relation to the 6.4 millions hectares of Romanian forests. The research only arrived at 'common' or 'average' patterns of interaction, which may be inapplicable in some extreme situations.

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