



Institutionalization of common land property in Portugal: Tragic trends between “Commons” and “Anticommons”



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ABSTRACT

The use and exploitation of natural resources is generally structured by institutions, especially by property institutions. The main objective of this paper is to present a diachronic analysis of the institutionalization of common land property in Portugal. The several types of ownership may be largely explained by common land history. We intend to draw an outline of the emergence, evolution and transition of common land from the late nineteenth century to the present day, using the matrix proposed by Heller. The economic problem of the optimal level of appropriation is recurrent in studies that analyze the economic implications of property rights. Thus, it is imperative to analyze whether or not the dimension of common land ownership is relevant to its efficient exploitation.

In essence, we infer that common land ownership in the 1st period (1850–1926) may be classified as limited-access commons (limited access to commoners) with a relatively small average size of 50 ha. This common land was primarily used for grazing, firewood collecting and shrub extraction. In the second period (1926–1974), the State dictatorship invoked the public interest (forest easements) and took possession of more than 80% of common land, promoting the transition from limited-access commons to state ownership. The units of commons were aggregated in forest perimeters for Silviculture activity, the average size being greater than 3400 ha. Finally, we analyzed the institutionalization of common land ownership in the period after the democratic revolution on April 25th 1974. We concluded that the incipient legal and institutional frameworks revealed an inability to integrate an effective title to these territories to give way to a better classification of limited-exclusion anticommons. The Heller matrix approach revealed to be a useful tool, however insufficient to study holistically Portuguese common land institutionalization. In our preliminary conclusions the Heller matrix appears to be an ill-posed problem (no *continuum*). It allows for the reversibility between different property regimes that involve great simplifications in the epistemology of property rights.

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Introduction

At the beginning of our civilization, all resources were freely accessible to everyone. That is, commons in the broad sense. However, even before the creation of the modern Nation-State, social

rules were developed to maintain an implicit order associated with the consumption of these resources in environments with multiple users. With the institutionalization of the modern Nation-State this organization was clear; there was a transition from free access to legal systems based on property rights. The classic law and economic specialists suggest that the emergence of property rights is a story of evolutionary success (Coase, 1960; Demsetz, 1967). Agreement with this idea implies that the emergence of property rights has been a process toward efficiency, leading to more complex property regimes, and experimenting tragic trends along the whole process.

The concept of property rights is not easy to define. The key to understand this concept involves the notion of exclusivity. In order to claim the right of property, one or more individuals must first possess the ability to exclude all other potential users. With

Abbreviations: AFN, Autoridade Florestal Nacional – National Forest Authority; CAP, Common Agricultural Policy; DGRF, Direcção Geral dos Recursos Florestais – Government Department of Forest Resources; EU, European Union; JCI, Junta de Colonização Interna – Board of Internal Colonization; Natura 2000, – EU – wide network of nature protection areas; PNVTC, Programa Nacional para a Valorização dos Territórios Comunitários – National Program for the Upgrading of Common Land; SAC, Special Areas of Conservation; SPAs, Special Protection Areas.

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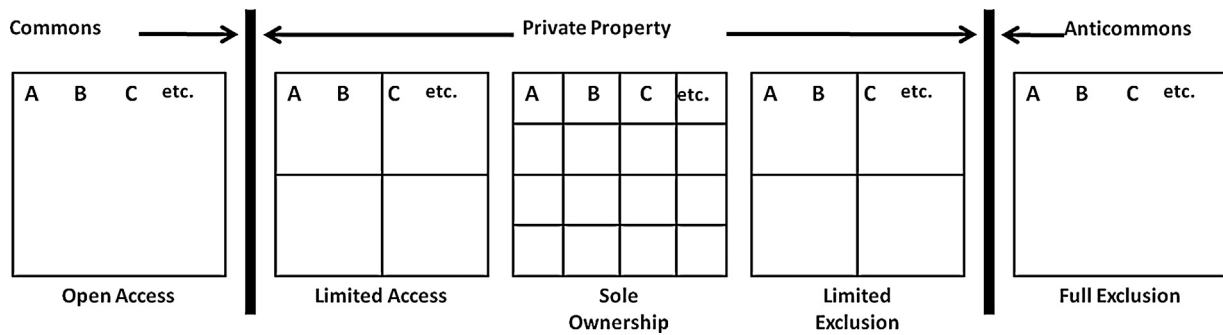


Fig. 1. Boundaries of private property, matrix analytical study on the transition of ownership of common land (source: Heller, 1999).

the competition excluded, the individual can then decide how to use the ownership and how to allocate the income from that property. Of lesser importance, but generally included in the concept of property rights, is the notion of transferability. This means that the owner of the exclusive rights can transfer them to another person in exchange for exclusive rights to other assets. When the transaction costs are low, the initial allocation of property rights is not important (Coase, 1960), because the rights can be freely adjusted and changed to promote increased production. However, when the transaction costs are high (which often occurs), the allocation of property rights is more critical, since the transfers are less fluid. Accordingly, the pre-existence of property rights has profound and lasting effects on the production and distribution of goods with a high transaction cost, such as land.

According to Demsetz (1967), the classic formula which states that increasing the values of resources leads to the creation of private property, implies that private property is established only when the benefits of this type of ownership outweigh the costs of institutionalization. Thus, the primary function of the emergence of collecting property rights is that of guiding incentives to achieve greater internalization of externalities. All costs and benefits associated with social interdependencies are potential externalities. This formula has been modified and improved over time, particularly in relation to common property regimes; proponents continue to apply a basic cost-benefit analysis to predict the evolution of ownership systems for efficiency and for the establishment of networks and social welfare. Accordingly, property is simply another legal institution that evolves to efficiency under the influence of certain competitive conditions (Fitzpatrick, 2006). At most, if property rights are fully defined and entirely implemented so that the network of private and social net benefits is equalized, there will be no externalities (Libecap, 1986).

Fundamentally, tragic trends emerge from commons due to lack of the fragmentation of entitlements. The users of scarce resources, apparently having full powers and prerogatives inherent to unrestricted ownership, can eventually cause the overuse and depletion of this resource, mainly due to overlapping and uncoordinated use. The negative effects of commons exploitation, in the presence of multiple beneficiaries (e.g., overuse, congestion, pollution, destruction, etc.), were associated with the users' non-cooperative behavior and their choice of acting, based on individual rationality rather than on group rationality. This resulted in the "tragedy of the commons" (Gordon, 1954; Hardin, 1968). Economic analyses of common property typically proceed under the hypothesis that extractors make independent choices with a view to maximizing their material well-being. Since each individual neglects the implications of their decisions on the payoffs of other extractors, this results in suboptimal extraction levels from the perspective of the group as a whole (Sethi and Somanathan, 2004).

Although Meade (1952) was the first author to introduce the concept of anticommons in the sense of being a positive externality,

the first successful example which illustrated this inefficiency was proposed by Heller (1998), who analyzed the transition from a Marxist economy to a predominantly market economy. This author pointed out that in the early 1990s many shops in Moscow remained empty, while small improvised street kiosks were full and performed numerous transactions. The problem was the fact that the many and various regulators (privatization agencies, local and federal government) had the right to exclude: no one could open a business without getting all the licenses from each of these regulators. Thus, legal and institutional frameworks revealed incipient failure to integrate efficient ownership. The tragic potential of anticommons arises from effective decomposition of entitlements on resources. Similarly in the commons the overlapping and uncoordination between these entitlements can lead to the same consequences. To this regard, Heller (1999) introduced the concept of "boundary principle". This concept refers to the legal doctrines that separate these property categories from one another and also help keep resources well-scaled for productive use, so this principle limits the right to subdivide private property into wasteful fragments. The boundaries between different forms of ownership can be easily understood using Fig. 1. The thick vertical lines in this figure represent the possible boundaries of private property in a developed and always functional society. Please note that commons, private property and anticommons are not contiguous realities (Heller, 1999). Among these categories there are intermediate situations of limited access commons and limited exclusion anticommons (Fig. 1).

The layout proposed by Heller (1999) is extremely simple and intuitive, corresponding to a proper analytical and prototype skeleton for extreme situations. We proposed to test this grip/disagreement in the real-world situation of the institutionalization of common land property in Portugal. These 3 regimes are ideal, analytical types. In practice, resources are usually held in a mixed combination of property rights regimes. As such, this paper attempts to outline the emergence, evolution and transition of the institutionalization of common land ownership in Portugal, from the mid-nineteenth century to the present time. It is a study of common land memories together with an interactive analysis of social and natural data, thus contributing to the rational and holistic understanding of common land ownership in Portugal. In this paper we focus on the economics of scale issues and on the optimization of land use of Portuguese common land. The economic problem of the optimal level of appropriation is recurrent in studies that analyze the economic implications of property rights (Araújo, 2008). Thus, it becomes imperative to analyze if common land ownership has the adequate dimension for efficient exploitation. In this dimension, the positive interdependence of individual members (commoners) along with the social interest of holders and non-holders should be guaranteed (Heller, 1998). Private property is often thought as a physical entity that can be physically divided. According to this view, we can fragment land successively. However, at some point

the lots may become so small that the land can no longer be used productively if each of the fragments is still labeled as private property. No owner can overcome the difficulties necessary to gain sole ownership of the underlying resource on a usable scale. Since too many people may have the right to use or to exclude, the resource may be wasted in a tragedy of commons or anticommons.

Once the different regimes of private property (limited access, sole ownership, limited exclusion) are established, the probability of going back to open access (commons) or total exclusion (anticommons) is relatively low, because the benefits of the institutionalization of private property are continuous, and other institutions will rise up to protect their existence (Heller, 1999). A conclusion which can be drawn is that property rights are tight in the sense that they have large initial costs, which makes it difficult to create them. However, once created, it is extremely difficult to end them, even if benefits progressively decrease to their socially acceptable minimum. The quantitative scale dimension of economic objects is an important issue in ecological economics (Gibson et al., 2000), centering on ‘the physical volume of the throughput’ (Daly, 1992, p. 186) or ‘the physical dimensions of the economy relative to the ecosystem’ (Foy and Daly, 1992, p. 296). The bequest value, a nonmarket value for future generations from an altruistic motive (Boardman et al., 2001), may also be a good instrument to achieve similar levels of resource use to those of private property regimes (Larson and Bromley, 1990).

The propriety rights in the Neoclassical approach: is the problem well-posed?

We do not want (or better, we cannot) go into mathematical formulations; however we will discuss whether or not Heller’s matrix is a well-posed problem. According to Hadamard’s definition a problem is well-posed if the solution exists, is unique, and depends continuously on the data (Hadamard, 1952), otherwise, a problem is ill-posed.

The purpose of this section is to present an initial and practical approach to propriety rights, trying to unify the Neoclassical and Institutional schools. The basic idea is to make constructive use of the notions by which we reject, on sight, the results produced by different schools approaches. Property is conflict and at the theoretical level, the different schools (Neoclassical and Institutional) are also conflicting. In section 1 we use the Neoclassical approach which suggest that economic institutions emerge spontaneously from the voluntary interaction of economic agents as they pursue their best advantage. Bromley (1989, 2006) suggests that Neoclassical approach (Harold Demsetz and Ronald Coase) misses the central fact that economic institutions are the explicit and intended result of authoritative agents – who volitionally decide upon working rules and entitlement regimes whose very purpose is to induce behaviors (and hence plausible outcomes) that constitute the sufficient reasons for the institutional arrangements they create. Bromley proposed a new approach, Volitional pragmatism: “*Volitional pragmatism addresses choice and action at the individual level, and it therefore holds profound implications for public policy—institutional change. Public policy is collective action in restraint, liberation, and expansion of individual action. The purpose of public policy is to change economic institutions*” (Bromley, 2008, p. 8). An institution is defined as collective action in control, liberation and expansion of individual action (Commons, 1931).

The neoclassic economists tend to view common-property institutions as having a longer history than private-property institutions and in part explain the growth of modern Western societies as the result of the change from the common property regime to private property (North and Thomas, 1976; North et al., 1983). Private property is considered by most economists as an essential

ingredient in economic development due to the incentives associated with diverse types of property relationships (Welch, 1983). Powelson (1987) easily concluded that dispersed ownership and management were related with economic development. However, he had difficulty to assess how conditions which are conducive to maximal production occur, or, how a society shifts from concentrated power over land to a dispersed tenure system.

In studies done on collective action, several authors, (Runge, 1981; Larson and Bromley, 1990; Ostrom, 1990; Bromley et al., 1992; Baland and Platteau, 1996) have emphasized the distinction between open access and common property regimes in order to make a comparison between private property and common property. When there is free access, the absence of rules implies high competition in the exploitation of resources, which results in negative externalities due to unlimited access. Common property can internalize the externalities of resource users through multiple rules with limited access and coordinated management, ensuring compliance (Runge, 1981; Libecap, 1989). Common property theorists point out that ‘communal’ does not always imply ‘open access.’ Stevenson (1991) argued that when ‘common property’ is properly understood, there is a delineated group of individuals (i.e. the ‘commoners’) who have the right to ‘use’ such property.

Stuart (2002), who is a skeptic of Demsetz, a proponent of the public-choice explanations for the transition of property rights, stated: “*Over the long run, transitions between property regimes do generally seem to have run in the direction of efficiency. . . [It is] quite hard to think of examples of. . . increase[s] in a resource’s value coinciding with the abandonment of exclusive rights. . .*” (Stuart, 2002, p. 361).

Methodology and data collection

Common land property in Portugal has currently reached its maturity. It is expected to assume its identity and proclaim, without modesty, its virtues. Nevertheless, it also requires the progressive formation of a scientific attitude and the responsible analysis of its weaknesses. Common land areas are owned and managed by local communities. In contemporary Portugal, land tenure, ownership structure and typology are profoundly asymmetric. Let us take as reference the forest property. In Northern Portugal, smallholders predominate: private property is divided into many plots and associated with appreciable common land territory, especially in mountainous regions. In contrast, large ownership with extensive private holdings predominates in the south. In this way, private property is by far the main type of ownership. Most of the country’s forest areas are owned by private owners (about 85.5%), local communities have appropriated around 11.8% of these areas, leaving only 2.7% to the State (DGRF, 2007). Within the European context, Portugal is the country with the lowest percentage of forest land owned or managed by the State.

The data on which this article is based are derived from governmental agencies, including the Board of Internal Colonization (JCI) (JCI, 1939, 1939–1941), the National Program for the Upgrading of Common Land (PNVTC) (AFN, 2010) and from former associated projects devoted to the characterization and deepening of commons insight, such as Brower (1995) and Baptista (2010).

Institutionalization of common land ownership in different chronological periods

Throughout the process of the institutionalization of common land ownership, we shall analyze the normal and efficient allocation of land. The trends associated with the tragic institutionalization of common land ownership will only make sense from the

perspective of economic efficiency, with inevitably unproductive consequences.

We tried to adopt a broader and holistic analytical scale: conceptually larger in spatial scale and longer in terms of temporal scale (Daly, 1992). A Period division is frequent in studies about the Portuguese forest (Devy-Vareta, 1993; Radich and Alves, 2000; Radich and Baptista, 2005). Baptista (2010) goes even further by introducing the concept of the decline of a long time, which to our understanding is a generation of a biological time of approx. 50 years. According to Radich and Baptista (2005), the relationship between actors, expected functions and forest extent are the elements in the definition of the periods to be considered. Nevertheless, Devy-Vareta (1993, p. 60) refers to it as “the periodization of long and short term nature scheduling” and mainly “the history of societies who built and destroyed their own... or faraway environments” to be considered in the delimitation of periods.

In order to analyze the institutionalization process of common land ownership in Portugal, we will consider three chronological periods, with biological scales of about 50 years, where we can observe certain continuity: the political system, public policies, and State intervention, specifically in the application of certain standards. Namely, we will consider three periods: (i) from 1834 to 1926, corresponding to the Constitutional Monarchy and Republic; (ii) from 1926 to 1974, the “Estado Novo” period of dictatorship, and finally; (iii) from the 25th of April, 1974 onwards. In this way, we intend to present the issue of institutionalization of common land ownership in a holistic way, as a real political problem in the broadest sense, constantly emerging on the political agenda since the constitutional monarchy, through Salazar’s dictatorship and in the post 25th of April 1974 mature democracy.

Results and discussion

This paper proposes a formal synthesis of the problems of institutionalization of commons land in Portugal, from the eighteenth century to the present time. Private property is a more subtle institution than scholars and judges have often realized. In our hypothesis, the institutionalization of common land property has relatively long periods (ownership is a regular harmonic function with an approximate period of 50 years). In order to define the cycles inherent to the definition of land ownership, we need to step back in time to 1820.

Definition of common land property: from the Constitutional Monarchy (liberal revolution of 1820) to the first Republic (1926)

The socio-economic context of the rural mountain communities at the beginning of the 19th century was characterized by an extraordinary state of poverty, with a widespread lack of food. Most of the rural population depended on subsistence farming, which had an “umbilical” dependency on common land. The mountain economy was essentially dependent on production systems based on forest pasture, where sheep, goats and cattle prevailed (Devy-Vareta, 1986). In each small village, the spatial organization was articulated with the physical mountain. Sole ownership was consolidated around the village, with better soil for agricultural farming, leaving aside more or less extensive areas, further away from the village with reduced ability to farm, especially used for common use grazing. In the case of common property, the right of use was defined as belonging to the common land, which allowed all families, regardless of their social status, the use of the land common ownership. Thus, this mode of operation and ownership of space, allowed a social balancing effect, decisive in the reproduction of the social system, especially in times of increased population pressure. Access to basic functions such as collecting firewood, the

possibility of herding a flock of sheep or cultivating a portion of cereal, were guaranteed even to families who were not landowners, or whose ownership of land was very low.

Concerning land ownership, this period is essentially characterized by considering individual private property as “perfect” in opposition to common land ownership considered as “imperfect”, not economic, anachronistic and obsolete, a relic of a long-lived past incompatible with modernity and progress. It is also considered as the main cause of the huge delays in agriculture: “the existence of commons is one of the most serious obstacles to the progress of agriculture among us” refers Herculano (1949). This speech points out that this type of property is imperfect and prevents the expected development of the rural areas. It implies that the resulting action would be to develop all efforts to suppress this form of ownership, facilitating the transition from collective ownership to individual ownership. This doctrinal thought led to a legislative production that had as its main factors: (i) the process of enclosure: division of common land, for neighbors of a particular place, so that they may cultivate it; (ii) administration of common land by municipalities and parishes, with the authority to sell and generate their own income. This meant the confiscation of common land, which had formerly been inalienable.

The results of these two factors were, in most cases, a partial failure. The successive legislation was always going in the same direction: to promote the division of common land and its subsequent transmission to the owners’ heirs, aiming to transform land ownership from common to individual.

The establishment of the Republic at the beginning of the twentieth century (1910–1926), went on the same policies for the countryside. With liberal ideals, more legislation was enacted in order to affect land distribution and increase production.

According to what was described above and by using the matrix analysis proposed by Heller (1999), we infer that common land at the time of this analysis (1850–1926) could be classified as limited-access commons (Fig. 2), where only residents of a village or of a smaller community had access to grazing, firewood and manure, without much interference from authorities. In short, the problem of establishing and enforcing property rights was closely linked to problems of a social and natural order.

Common land ownership resisted to liberalism, as a result of the geographic isolation of rural economies, grounded on the umbilical link between common land – private land and technological processes based on indigenous resources, animal traction, the driving force of water (wind and water mills) and essentially solar energy. The industrial revolution was slow in reaching the countryside of Portugal.

Definition of common land property: the Authoritarian Dictatorship (1926–1974)

In the early 1900s the fascist dictatorship governed the country and imposed its policies on afforestation and colonization of common land. The State took the initiative, through the Board of Internal Colonization (JCI), to prepare the first credible and documented inventory of common land (JCI, 1939, 1939–1941). In Fig. 3 we present an overview of the distribution of common land by the districts held by JCI.

The work done by JCI (1939, 1939–1941) recognized a total of 7.638 units of common land, with a total area of 507,365.5 ha.

These are staggering numbers in the order of magnitude that attest the fragmentation of common land property at the beginning of the twentieth century. Table 1 presents the number of common land, its areas, aggregated by districts. The Government considered common land as non-private and abolished it without any compensation given to commoners. The Forest Easement is therefore defined as “a set of provisions designed not only for the

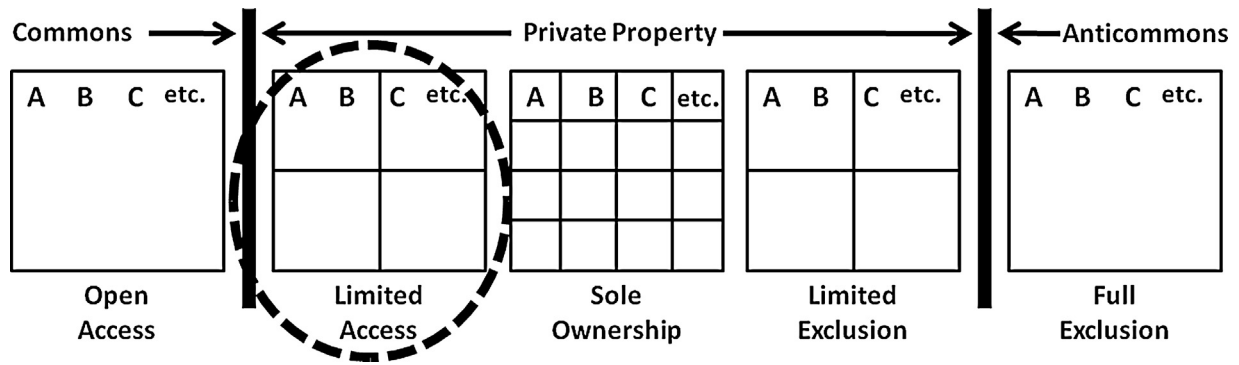


Fig. 2. Classification of common land in the period 1850–1926: private property: Limited Access, restricted to residents of a village.

creation, management and conservation of forestry wealth, under the national economic point of view but also the lining of the forest land where trees are of public utility". The Forest Easement was instituted with the Acts 1901, 1903 and 1905 and tried to answer the needs of the forestation of large tracts of common land, so as to reduce the degradation of forest resources and the serious effects of erosion caused by a predatory, undisciplined use of common land in mountains. Its most important aim was perhaps to meet the growing needs of the industrial development of forest products.

The first indicator, although very simple, to measure the common land fragmentation developed in this study was the ratio between the number of common land and number of villages (Table 1). Using this indicator, we found a high fragmentation of common land by village in the districts of Coimbra, Viseu, Vila Real, and Bragança. In order to further analyze common land fragmentation, we analyzed the distribution of Commons recognized by class area (JCI, 1939, 1939–1941), thus obtaining more solid indicators.

The fragmentation of common land was a great reality: over 35% of commons had a surface lower than 0.5 ha corresponding only to about 1% of the total area. On the opposite hand, only 1% of commons had areas exceeding 1000 ha, corresponding to 37% of the total area. This dimension is efficient for the rural economy as it establishes a close connection between natural conditions, ownership structures and land use. The private property of smaller size is established around the village, on land with improved agricultural practices, whereas large and uncultivated lands distant from the village are mainly pastured by common use.

After the common area identification by JCI (which in 1939 accounted for 7683 "units of common"), the Forest Plan Act from 1939 determined that the common land described as "the most suitable for forest culture" should be submitted to forestry and become ownership of the office of the Ministry of Agriculture as they were cultivated (Rego, 2011). The areas submitted to this program were mainly common lands. This plan predicted the forestation of 420 thousand hectares between 1938 and 1968. The Forest Plan was designed to run for 30 years and to create many forestry administrations and considerable infrastructures: 2455 km of roads, 26 administrator houses, 1000 guard houses, 140 lookout posts, 1159 km of telephone network and 5800 phones (Radich and Alves, 2000, Vieira, 2000). This network infrastructure worked to avoid the physical isolation of many of the mountain villages of northern and central Portugal, which in a first analysis should lead to an increase of free access.

The implementation of the Forest Plan was achieved under the control of the state, with the forestation of large blocks, giving way to a coherent political and technical model. Collective ownership, subjected to the forest easement by legislation from 1901 and 1903 and other secondary legislation, was now structured in forest perimeters that were mainly set by the aggregation of different units of common land and local government lands submitted to the forest easement (Table 2).

Parallel to the implementation of these policies and as a result of increasing external openness, immigration, the shrinkage of cultivated area and technological transformation, land became less

Table 1

Inventory of the number of common land, and its surface in 1939 (source: adapted from the JCI, 1939, 1939–1941).

No. in Fig.	Districts	Total no. of commons	No. of known surface commons ^a	No. of villages	No. of commons by village (%)	Areas of common land recognized hectares (ha)	Common land already under to forest easement (ha)	Total area of common land hectares (ha)
1	Viana do Castelo	689	687	290	2.4	56,587.59	9573	66,160.59
2	Braga	448	448	514	0.9	6140.09	12,443	18,583.69
3	Vila Real	844	803	266	3.2	10,7005.1	22,000	129,005.13
4	Bragança	1149	1149	298	3.9	25,233.1	5682	30,915.66
5	Porto	272	271	383	0.7	2530.12	14,000	16,530.12
6	Aveiro	299	298	208	1.4	8760.5	6654	15,414.5
7	Coimbra	780	776	208	3.8	34,241.5	14,388	48,629.59
8	Viseu	1279	1278	372	3.4	73,391.3	1369	74,760.3
9	Guarda	477	443	336	1.4	29,360.9	2566	31,926.9
10	Castelo Branco	135	131	160	0.8	13,216.9	2224	15,440.9
11	Leiria	420	409	148	2.8	19,617	1384	21,001.0
12	Santarém	157	156	191	0.8	14,024.6	0	14,024.6
13	Lisboa	444	425	222	2.0	1225.5	5269	6494.5
14	Setúbal	29	29	82	0.4	184.2	0	184.2
15	Portalegre	40	36	86	0.5	3682.24	391	4073.2
16	Évora	52	52	91	0.6	940.8	0	940.8
17	Beja	55	55	98	0.6	7156.6	0	7156.6
18	Faro	69	62	84	0.8	4244.8	1876	6120.8
Total		7638	7508			407,543.5	99,820.1	507,363.6

Table 2
Aggregate areas of common land, subject to the forest easement, in forest perimeters (period 1926–74).

No. in Fig.	District	No. forest perimeters	Total area of forest perimeters (ha)	Total area of commons (ha)	% of area subject to legal forestry
1	Viana do Castelo	9	51,458	66,160.59	77.8
2	Braga	4	15,092	18,583.69	81.2
3	Vila Real	10	114,202	129,005.13	88.5
4	Bragança	10	33,601	30,915.66	108.7
5	Porto	1	8065	16,530.12	48.8
6	Aveiro	6	13,246	15,414.5	85.9
7	Coimbra	16	33,899	48,629.59	69.7
8	Viseu	16	63,238	74,760.3	84.6
9	Guarda	8	32,049	31,926.9	100.4
10	Castelo Branco	13	14,396	15,440.9	93.2
11	Leiria	8	5988	21,001.0	28.5
12	Santarém	4	12,209	14,024.6	87.1
13	Lisboa	4	4901	6494.5	75.5
14	Setúbal	0	0	184.2	0.0
15	Portalegre	1	1618	4073.2	39.7
16	Évora	0	0	940.8	
17	Beja	7	7276	7156.6	100.0
18	Faro	3	1397	6120.8	22.8
Total		120	412,638	507,363.6	81.3

scarce and its importance declined in the economy of agriculture and in the ability to capture income.

By invoking public interest, Salazar's dictatorship (through the use of the Forest Easement) authoritatively allocated the right of common land ownership, which was configured at the time as

restricted semi-common from the ownership point of view (see Fig. 2), as state ownership (Fig. 4).

State property or State governance means that the rights over the resource are vested exclusively in the government, which controls its access and regulates its use.

Definition of common land property: contemporary Portugal, after 25th April 1974

In Portugal, democracy romanticized the countryside. It lacked (and still does) pragmatism in the process of returning common land, and subsequent accountability, to its legitimate owners in the new context of globalization.

The fall of the “fascist dictatorship” in 1974 had practically immediate effects on common land property, which had been until then subordinated and owned by the state. In the following year, the return of commons to their traditional users was announced. The legislation that allowed the return of commons to people, meaning the transfer of management and control of the Forest Service to local communities, also changed the very concept of legal Commons. “The delivery of Common land to the communities who were dispossessed of them” became a reality with the Act 39/76, being recognized in the Constitution of 1976 as “common land property”. The legislation also aimed to specifically involve the return of common land and the institutionalization of democratic forms of local organization, which were recognized with broad powers of decision and deferred broad responsibilities in the choice of the management model (Rego, 2011).

Along with this evolution of commons, the action of the Forest Development Fund continued until the first half of the eighties and, in this same time, the Portuguese Forest Project/World Bank was launched. This fund would forest about 70,000 ha from 1975 to 1983 (Carvalho and Morais, 1996). The Portuguese Forest Project/World Bank marked the decline in the direct state intervention in forestation. With the end of this project, the state intervention was withdrawn from the afforestation process, and the owners' responsibility was established (Radich and Baptista, 2005). This postulate was not true for common land. It was expected that the return of common land should mark the end of the state control over the vast forest area subjected to partial Forest Easement in the previous period. The state now owned only 76,000 ha (Rego, 2001) aggregated in National Forests. The perception of small size compared with the surface of common land (about 500,000 ha) led to an institutional reluctance against the return process. As already

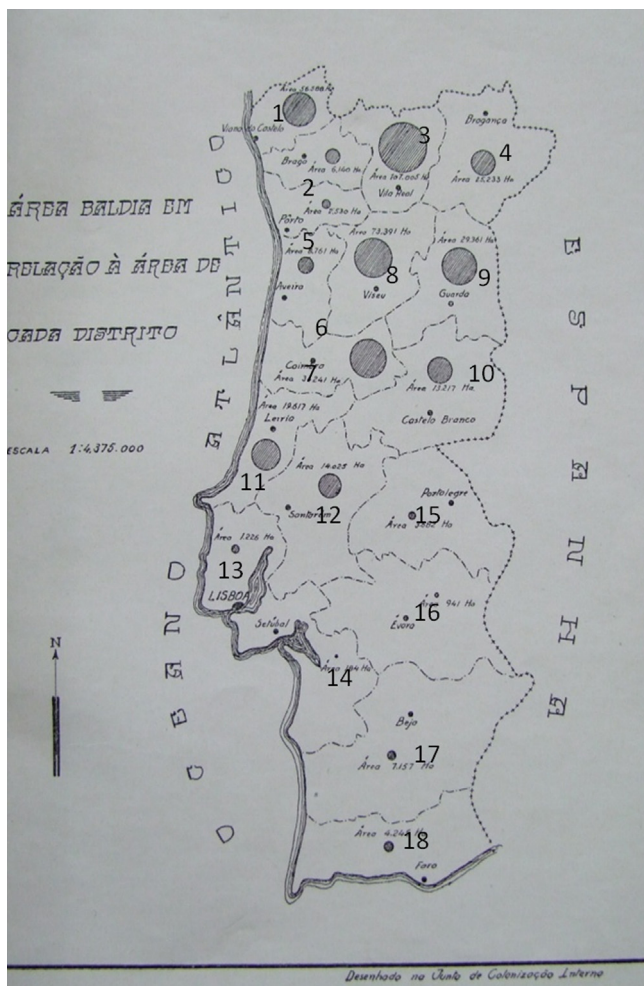


Fig. 3. Distribution of common land in Portuguese districts (source: JCI, 1939, 1939–1941).

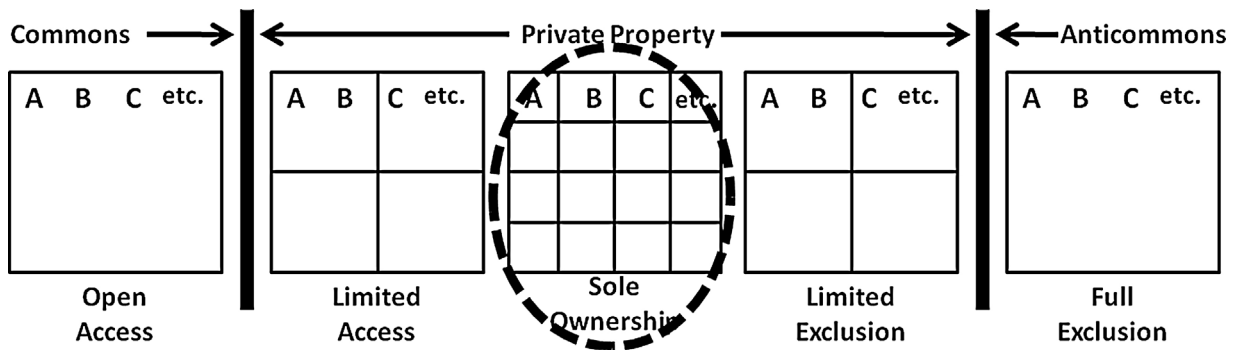


Fig. 4. Classification of common land property in the period 1926–1974: state ownership (land subject to forest easement).

mentioned, ownership rights are permanent: once created, it is extremely difficult to end them.

In Table 3 we present the evolution of the number of “common territories units” post April 25th 1974. We use different sources to infer these developments.

With the addition of Portugal to the European Union (EU), the Land issue was once again considered. The surplus earth for agriculture began to widen with the guidelines of the Common Agricultural Policy (CAP), expressly providing the abandonment of cultivation in large areas, proposing a policy of nature and landscape protection. With the European Union adhesion in 1986, the idea of networks of protected areas (Natura 2000 network) across Europe became a reality.

The aim of this network is to assure the long-term survival of Europe’s most valuable and threatened species and habitats. It is comprised of Special Areas of Conservation (SAC), and also incorporates Special Protection Areas (SPAs). Once again, the inclusion of Portuguese common land in this network of nature protection was substantial: more than 60% of this network includes common land in Portugal.

Another phenomenon, very characteristic of this period and with proved tragic consequences, is that of major forest fires causing great harm to society. The exodus from rural areas led to the

abandonment of farming areas available for agricultural forest and to the emergence of weeds, and shrub encroachment resulting in patches of solid fuels. The absence of owners led to the abandonment of traditional forest management (clearing of forests, selective cutting and gumming) leading to the accumulation of biomass (DGRF, 2007).

During this period, the most significant forestation movement, perhaps with potentially tragic consequences, was seen in the eucalyptus plantations for pulp, an attempt to increase the industrial production capacity in Portugal. In this way, large areas for eucalyptus forestry were needed.

Finally, we refer to some changes in the social and economic dynamics associated with common land. These territories are less used nowadays, both due to the exodus of population as well as the decline of the relationship between the individual commoners’ economies and the common land resources. This has progressively led to a reduction of the local social control of common land (Baptista, 2010). The influence of common land in the evolution of the agrarian system was blurred; the traditional rules for the regulation of common land spaces disappeared; many of the current individual and institutional interests for common land tend to be conflicting and mutually exclusive.

Table 3

The contemporary “common territories units” of common land in Portugal. Breakdown of forest perimeters, emergence the common units.

District	Fascist dictatorship (1926–1974)		April 25 (after 1974)			
	No. forest perimeters	Total area of forest perimeters (ha)	“Units of common”			
			1987 ^a	2001 ^b	2010 ^c	2010 ^d
Viana do Castelo	9	51,458	132	148	207	213
Braga	4	15,092	26	30	97	95
Vila Real	10	114,202	193	251	323	333
Bragança	10	33,601	58	57	97	160
Porto	1	8065	10	7	24	15
Aveiro	6	13,246	27	37	22 ^N	33
Coimbra	16	33,899	75	67		70
Viseu	16	63,238	70	187	50 ^N	254
Guarda	8	32,049	2	8		42
Castelo Branco	13	14,396	2	1		12
Leiria	8	5988		4		28
Santarém	4	12,209		3		1
Lisboa	4	4901	1	1		1
Setúbal	0	0				
Portalegre	1	1618				
Évora	2	6133				
Beja	5	1143				
Faro	3	1397				
Total	120	412,638	596	801	820	1257

^a Rodrigues (1987).

^b Germano (2001).

^c Baptista (2010) (only quantifies the number of “units of common land” within the district included in the North (NUT II).

^d AFN (2010) “units of common land” listed in the database to support the implementation of the Protocol: DGRF/Baladi, DGRF/Forestis.

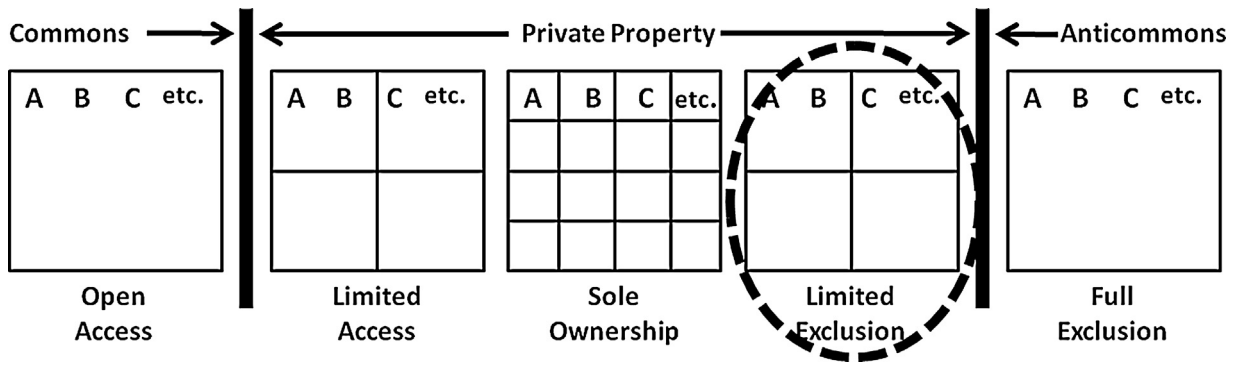


Fig. 5. Classification of common land property of the territories in contemporary Portugal: limited exclusion.

Concerning the institutionalization of common land ownership, this period (after 25th April 1974) is essentially characterized by a relatively complex situation. There is the decline of a State which had maximized power to exclude the access to common lands, as a result of its tight connection to a distributive instance, supposedly with few coordination troubles, but very bureaucratic and a heavy consumer of financial resources. In 2006, the weakened forestry police corporation was integrated into the national police office, decreasing the local visibility of State authority. On the other hand, as previously mentioned, Forest Services sought to maintain their authority over common land; the forest perimeters continued to be its favorite territory units.

So with 25th April 1974 there was the spraying of common land ownership, primarily as a result of the presence of several

institutions asking for exclusion powers; the persistence of the previous administrative authorities (Forest Service) is then tied with the incipient institutionalization of the new commoners committees and the sustained wishes of small farmers. Outside, there are people who want to enter and look suspiciously at the new distributive instances (as the Commoners Assemblies), seeing them as uncoordinated and opaque institutions. According to this analysis we can classify common land ownership as limited exclusion (Fig. 5).

In short, after 25th April 1974, the administration introduced an overabundance of instruments, most of which were classified as command and control, accompanied by a series of financial instruments and, particularly in the forest, increased the role of local spatial management. One consequence of this way to assume

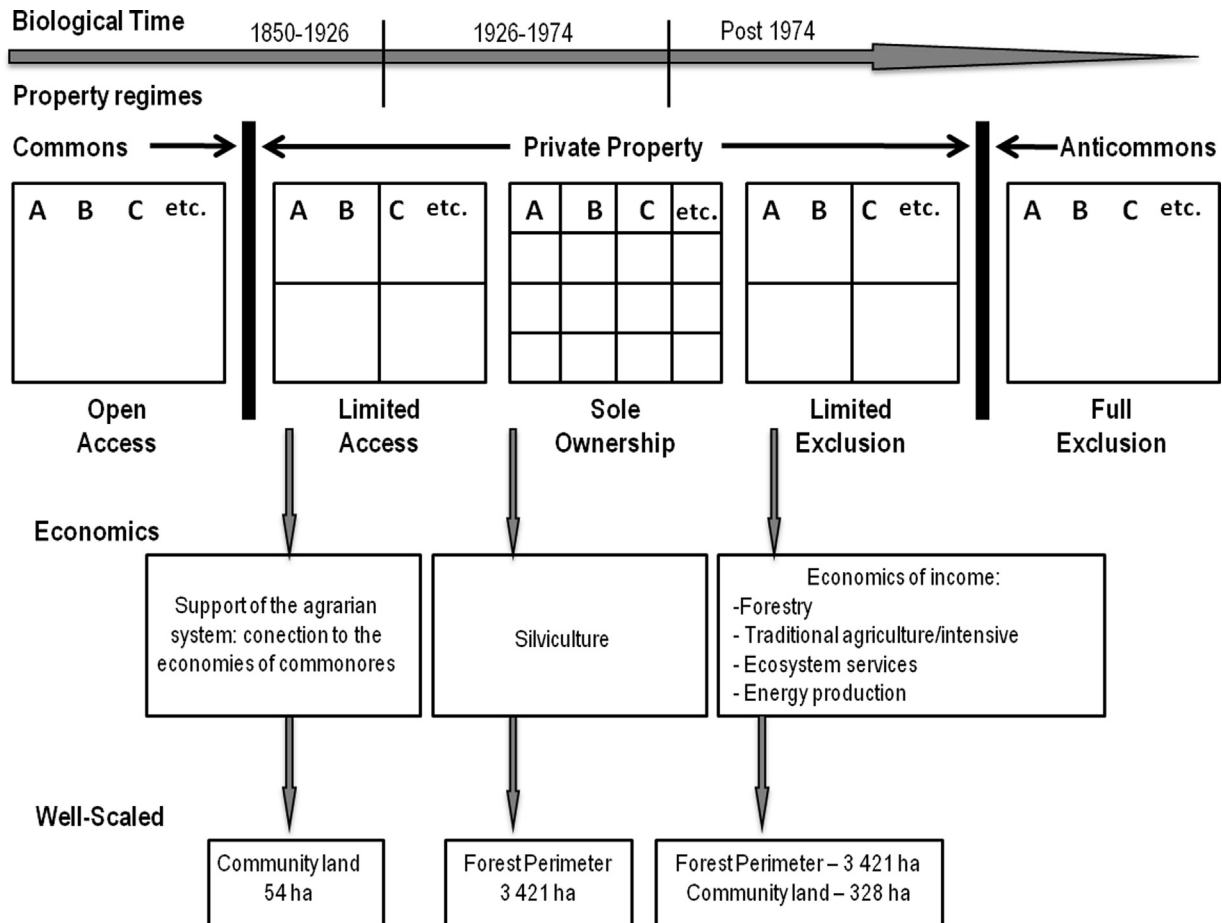


Fig. 6. Transition of common land property in the three study periods: 1850–1926, 1927–74, post 1974, the dominant economies and well-scale.

forestry policy was the confusion and lack of knowledge of forest owners about legislation and regulations. Another consequence was that within such an institutional dilution of authority, there was a lack of local coordination and regulation. As a result, nowadays in the country, there is an overlapping of powers of exclusion. In our opinion, the assumptions to classify the ownership of the common land in contemporary Portugal as semi-anticommons (Fig. 5) are satisfied and the path for the tragic underutilization of natural resources is open.

Conclusions

The World Bank recognizes that communal tenure may be more cost effective than formal titles. It has abandoned its earlier privatization policy delineated in the 1975 Land Reform Policy Paper (Deininger and Binswanger, 1999) and now favors communal tenure systems.

In the first period (before 1926) we considered the common land as limited-access commons where access was conditioned to the inhabitants of a place. The rivalry in the use of these areas during this period was very high; the struggle for survival was the primary concern of people, implying potential tragic trends of over-use and natural resource depletion, mainly by overlapping and uncoordination. Our study revealed that these tragic trends were not verified in the national common land. Social organization around the village fostered coordination and compliance with the rules of natural resource management. During this period the peasant economy established a close relationship between natural conditions as well as ownership structures and land use (Rodrigues, 2000). These were times where a balance prevailed between human society and natural resources; this sustainable system was only achieved through a strict relation between the rural economy and the cycles of nature. At the end of this 1st period, the areas of common land remained a close match to those existing today, similar to what happened in the rest of Europe, namely in England and Wales (Short, 2008). The concern with the excessive fragmentation of rural ownership is old. In 1887, the renowned Portuguese economist Oliveira Martins, proposed a law for rural development (Martins, 1889). He was concerned with what he called the “mistake in the law” which promoted the division of an estate in equal shares among the heirs of an owner. In his opinion, the division and fragmentation are concomitant phenomena of hereditary succession; these phenomena result in the eviction of the peasant due to his inability to farm properly. Portuguese common land ownership does not suffer this type of fragmentation since it is not transmitted from parents to children. Its possession is only guaranteed to the inhabitants of a village and cannot be transmitted by blood.

In the second period (1926–74) we concluded that common land should be considered as state proprietorship (sole ownership). Invoking the public interest, the state appropriated the largest and best common land, its main aim being the practice of forestry in the hills. Just over 80% of common land area was submitted to the forest easement to be forested. The institutionalization of forest perimeters resulted from the aggregation of numerous common land units. These perimeters were then patrolled by forest rangers, which exerted the exclusion power of the state. Paradoxically, the implementation of forestation allowed for the end of the physical isolation in which many mountain villages were found, thus contributing to the growth of open access. The scale forestation was efficient for the perimeters of the Forest. It led to the decrease of the agrarian system in which common land was deeply articulated with the individual economies of commoners, see Fig. 6.

In the third period we conclude that common land property should be considered as limited exclusion, in which the powers of exclusion increased significantly. It is possible that we are facing an

atypical form of tragedy, no longer resulting from over-harvesting but rather from sub-production; in short, the tragedy that is usually associated with public goods.

The country is now sparsely populated and has blurred the influence of common land in the evolution of the agrarian system; the traditional rules of regulation of common land spaces have declined many of the individual and institutional interests that now use common land and thus, tend to be hanging in conflicting exclusion. The common land units tend to generate income obtained by the transfer of property rights. Therefore, the right of ownership is atomized, resulting in incipient legal and institutional frameworks, unable to regulate an efficient ownership.

Today, we infer and state that the common lands are closer to the anticommons than to the commons, which makes us alert to the fact that anticommons may have even more serious consequences than the commons. It is supposed that the “boundary principle” limits fragmentation of legal things (Heller, 1999). However, we have found that the land in Portugal was increasingly fragmented along the 3 periods studied. In our preliminary analysis it seems that the Heller matrix is an ill-posed problem since it does not guarantee that a unique solution exists. The solution does not depend continuously on the data, which allows for the reversibility between different property regimes. Unlike Heller (1999), Libecap (1986) argues that property rights exist as a continuum: “They range from open-access conditions at one extreme to limited and vague rights definitions, and to specific, exclusive property rights at the other extreme” (Libecap, 1986, p.235).

We concluded that property rights are embedded in complex social systems. The application of property rights depends on the “natural order of things” and the social and economic strength of these “things”. The application of ownership is more than a question of law or institutional choices between agreements, court decisions and state regulation.

We hope that the different actors in this “play” can identify the signs in order to avoid a potentially tragic outcome. For there is a thin line between tragedy, comedy and drama, and its transposition can be easily made. In future developments: why not consider the institutionalization of propriety rights an evolutionary process? The economy becomes (Bromley, 2006).

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