

## Article

# Common Property in Italy. Unresolved Issues and an Appraisal Approach: Towards a Definition of Environmental-Economic Civic Value

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**Abstract:** Common property represents a particularly topical and complex issue in Italy due to the widespread (10% of) Italian territory, with millions of buildings built on it and the lack of a clear legal status regarding their alienability and eliminability. Usually known as civic uses, these rights include various forms of collective enjoyment that are recognized by the Italian legal system, such as grazing; hunting; and the right to fell timber, gather firewood, and sow crops. A recent legislative initiative overcame the concept of “eliminating” civic use by introducing the concept of “exchange”, but the unique indication given by the law on how to operate the exchange established the equivalence of the environmental value of the land subject to exchange itself. In the present article, the characteristics of the environmental value or Environmental–Economic Civic Value of land subject to exchange are defined. Consequently, appropriate evaluation procedures/models that could be adopted for ascertaining the environmental value of areas encumbered by civic use that are to be exchanged are identified, considering the different territorial conditions of the presence of civic uses and land areas (land currently encumbered/the land to be encumbered) where an exchange can take place.

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## 1. Introduction

Civic uses, many of which date back to medieval times, are, generally speaking, rights to various forms of collective enjoyment that are recognized by the Italian legal system. These rights include grazing; hunting; and the right to fell timber, gather firewood, and sow crops; they are often referred to as agro-forestry-pastoral functions, and they are extended to members of certain communities [1–3] (the inhabitants of these communities may not necessarily coincide with the residents of a given municipality) who are entitled to use land belonging to the municipality in which they live or land belonging to third parties (usually acquired long ago from feudal lords) [4] or even land situated in other municipalities (in this case, community members have “promiscuous rights”, because they share the enjoyment of this land with the residents of the municipality that owns the land). This kind of right concerns the European concept of collective property, which can be considered a type of common goods; these concepts will be specified in Section 2.

Outsiders who approach the issue of civic uses are sometimes inclined to think they are dealing with an anachronistic, outdated, and possibly unnecessary institution—in short, a meaningless legacy of the feudal system.

However, if the following points are taken into consideration, it becomes evident that civic uses are a particularly topical and complex issue in Italy:

- Civic uses are widespread: Land encumbered in the past by civic uses (and still encumbered today) accounts for about 3 million hectares (30,000 sq. km) in Italy, roughly 10% of Italian territory [5];

- As of 2022, neither legislation nor Constitutional Court rulings have explicitly clarified the legal status of civic uses. The Constitutional Court rulings have done little more than establish the legal regime to be applied to civic uses: Land encumbered by civic uses cannot be sold, nor can it be subjected to prescription or usucapion (except for limited cases involving privately owned land), nor can the use of such land be changed, which means land use is limited to agro-forestry-pastoral activities;
- Administrative difficulties have developed over time, partly because of the factors listed above and partly because most civic uses emerged through *de facto* behavior, without any formal procedures that would have provided them with appropriate publicity. There are no national or regional public registries and simple, reliable, accurate procedures for verifying civic use entitlements do not exist (at present, the only sources with legal certainty are the rulings made by regional commissioners in litigation regarding civic uses). In other words, civic use has been managed in a rather haphazard manner, and as a result, there are many examples of circumstances in blatant contrast with the characteristics of civic use (subdivisions, land released from its civic use encumbrance on the basis of Regional Laws that were later declared unconstitutional, land destined for civic use transformed into urban and/or built-up areas, etc.);
- It is estimated that there are several million buildings, nearly all of them unregistered, on land encumbered by civic use.
- These conditions, characteristic of land encumbered by civic uses in Italy, have led to problems over time:
- The transfer of legally constructed buildings (those built before 1967) and the implementation of measures designed over time to foster and facilitate building work on architectural heritage (e.g., special building law and tax bonuses) are both restricted/prohibited.
- There is only limited recourse for the special laws dealing with building amnesties, especially Laws 724/1994 and 326/2003.
- Agro-forestry-pastoral functions have been seriously compromised by urbanization processes that have already been implemented or are currently in progress.

It is now widely acknowledged that the fundamental issue regarding civic use, around which all these seemingly insurmountable problems are clustered, lies in the difficulties still associated (2022) with removing the encumbrance of civic use from large tracts of land.

Par. 2 will provide a more detailed discussion of the legislative changes and jurisprudential evolution that have affected civic uses, but it is worth noting that, from a regulatory point of view, the situation remained virtually unchanged from medieval times until 1927, when civic uses were codified for the first time. In fact, Law 1766/1927 and its Implementing Regulation, Royal Decree 332/1928, were the first legislative acts to deal with a liquidation assessment (the procedure adopted to remove all types of encumbrances from private land), the uses of public land encumbered by civic uses, and the responsibilities of the Regional Commissioner for civic uses.

Over the following years, several regional laws were enacted that regulated how land was to be released from civic use encumbrances; however, the prevailing trend in case law, based on a considerable number of judgements handed down by the Constitutional Court (see par. 2), underlined the exclusive legislative powers of the state and ruled that civic uses were to be maintained in order to safeguard the possible use of the agro-forestry-pastoral functions. The consequent prohibitions and limitations that this entailed made it very difficult to transfer ownership of land with a civic use encumbrance and/or to legitimize any changes brought about by urbanization.

During the parliamentary process of converting Decree-Law 77/2021 into Law 108/2021, an extra article—Article 63a—was added that contained innovations regarding civic use. Article 63a deals with the exchange and transfer of civic use rights in the case of land encumbered by civic use. These innovations could go some way to resolving the complex Italian situation.

Law 108/2021 also added three subparagraphs (8a, 8b, and 8c) to Art. 3 of Law 168/2017. These subparagraphs authorize the Regions (and the autonomous Provinces of Trent and Bolzano) to allow municipalities to transfer civic use rights and exchanges (In the case of lands belonging to the municipal domain, these transfers are permitted in situations of certified and irrevocable transformation.) to other land belonging to local and regional authorities. The two areas of land must be equivalent in size and environmental importance. This law also stipulates the conditions required for these transfers and exchanges to take place (see par. 2).

The land to which the civic use rights are transferred becomes municipal property, while the land no longer encumbered with these rights ceases to be municipal property but maintains any landscape constraints.

This recent legislative initiative overcomes the concept of “eliminating” civic use by introducing the concept of “exchange”. It is capable of safeguarding civic functions and is at the service of communities where civic uses are part of everyday life, so there is hope it may provide opportunities for improving and simplifying a complex situation.

The changes made to Law 168/2017 in 2021 revealed the vitally important role of valuation for ensuring that the exchanges contemplated in subparagraphs 8a and 8b are properly implemented; the legislation requires the valuation to define the environmental value of the land to be exchanged (the monetary value of the land is included in the environmental evaluation, as will be seen below).

This article presents the results of research that had the following objectives: (i) Identify the characteristics of the environmental value referred to in subparagraph 8b of Art. 3, Law 168/2017 and its component parts; (ii) identify appropriate evaluation procedures/models that could be adopted for ascertaining the environmental value of areas encumbered by civic use that are to be exchanged, in accordance with the contents of Law 168/2017 amended in 2021; and (iii) identify land areas that could potentially be exchanged and select evaluation procedures/models to use for assessing the environmental value of the land currently encumbered/the land to be encumbered so an exchange can take place.

Our starting point was the acknowledgement in the scientific literature that the Total Economic Value (TEV) is a valid criterion for evaluating the environmental components of economic goods. We used historical-normative analyses of common property in Europe and civic uses in Italy to obtain the information required to better understand the nature of these institutions.

We achieved our first research objective by defining a new evaluation criterion for assessing the environmental value of land encumbered by civic uses, the Environmental-Economic Civic Value (EECV), which is configured as a variant of TEV. We then identified estimation and evaluation procedures (i) for assessing the value components (both monetary and non-monetary), which would allow the EECV to be determined in compliance with the objectives that constituted the philosophical basis of civic use: large plots of land, connected or contiguous, where it is possible to carry out civic functions or work for the community (the aforementioned agro-forestry-pastoral functions) and (ii) for considering “additional objectives” such as access, walking tracks, signs, and devices to allow users to benefit from the environmental qualities, which are part of the “environmental” component of civic use to which the regulatory innovations of 2021 refer.

Finally, we formulated a systematic classification of the possible categories of civic customs present in Italy, and we then associated the various estimative and evaluative procedures with these categories of civic use to provide a reliable EECV value.

Based on the above, par. 2 proposes a literary review of common property in the European Union (Section 2.1), a legislative review of civic uses in Italy (Section 2.2), and a brief analysis of TEV and the procedures adopted for its evaluation (Section 2.3); par. 3 reports the results of this research: the EECV is codified, and its component parts are described (Section 3.1), with the procedures for evaluating each individual component (Section 3.2) and, finally, the systematic classification of the cases in which civic uses may

occur and the related evaluation procedures (Section 3.3); in par. 4, the results achieved are discussed, and the conclusions are presented.

## 2. Materials and Methods

### 2.1. Common Property in the European Union

In an international discussion, the term civic uses can perhaps be better understood with reference to the concept of common property.

According to some literature [6–8], common property must be included within the broader concept of urban commons; generally speaking, urban commons are urban spaces that furnish the means of production and reproduction for the emancipation of the global working class by means of their own cooperative self-management and while struggling against capitalist enclosures. All of this is away from the state and from market relations to a great extent. In relation to the above, four are the types of urban commons:

1. Primary commons (cooperative self-managed property);
2. Extended commons (collective property linking primary commons);
3. Restricted commons (compatible with capitalism);
4. Aspirational-prefigurative commons (limited but challenging capitalism).

Therefore, it should be recognized that common properties are within the primary and extended commons. Civic uses can be defined as the rights in force on the common properties.

Civic uses have their roots in the distant past. The ancient Romans considered land, water, air, sky, flora, and waterways as common property or rest communes. In the last forty years, more flexible public/private alternatives and the increasing acceptance of the concept of common property have become central themes in many disciplines, ranging from those related to the economic and political sciences and psychological dynamics to those dealing with the territory.

Although this concept is ever more frequently adopted, there is still no univocal, generalized meaning that can be attributed to the terms common property or collective ownership outside the specialist groups who work on this theory [9]. These terms are often used to describe situations that are, in fact, very heterogeneous. When historians refer to common property or collective ownership, the realities of medieval times come to mind, with forests and grazing land used collectively by the village community living nearby. Elsewhere, for example, in the academic work of Ophulus [10], or in essays written by Gordon [11], Demsetz [12], and Alchian and Demsetz [13], these terms are used for resources for which no type of ownership is recognized, where there is a free-access regime.

A Special Issue of “The Ecologist” published in 1992 [14] provided the following definition of common property: “A system of social relations based on cooperation and reciprocal dependency that provides sustenance, security and independence, yet typically does not produce commodities.”

In her book *Governing the Commons*, Elinor Ostrom [15] identified three situations for an effective definition of the commons or common property.

Firstly, the so-called Res Nullius condition, described by Hardin [16] as a tragedy in which there are no barriers to accessing and exploiting resources, such as the atmosphere or international waters. Secondly, public assets owned by the state with no barriers to access and/or exploitation. In such cases, a public institution usually creates regulations that apply equally to all citizens. Thirdly, Ostrom recognized as a commons regime any failed attempts to regulate access to nonowners or failure to comply with allocated quotas, i.e., when authorized appropriators exceed established limits.

At the European level, common property still plays an important role [17], and, in recent years, European institutions have felt the need to express their own position on this matter, though they have yet to achieve significant results. The European Parliament has established a parliamentary intergroup that is working on this issue through consultations and in-depth studies. The main problem, which this group has to constantly deal with, is the difficulty of tracing a generally shared notion of common property and, in particular, the legal aspects thereof, because common property involves a variety of institutions present in

different European countries where the use of tangible and intangible goods is not strictly bound to the owner's domain.

In the countries of Northern and Central Europe, some forms of community management have been maintained [18]. They are regulated by statutes and regulations regarding uses and ancient customs, especially in the countries with a Germanic legal system. The original communities are concentrated in rural areas, in valleys and mountain pastures, where old structures and traditional ways of life can still be found. However, some communities are evolving as a result of new production technologies, and there are important economic initiatives in the agro-tourist and hospitality sectors [19,20].

In the Common Law countries, large open fields for grazing (commons land) steadily became smaller from the late 16th century until the end of the 18th century, partly as a consequence of industrialization. Large commons were enclosed by landowners, who thereby illegally prevented ordinary people from using the grazing land. The commons that still remain are now regulated by the 2006 Commons Act, which seeks to regulate relations between commoners and land owners. The two groups meet and work together in councils to regulate agricultural activities and to protect the green areas in order to avoid abuses and unauthorized use [20,21].

In France, collective grazing, *la vaine pature* and the *parcours*, ended with the fall of the Ancien Régime in the 18th century. Bloch [22] provided a detailed description of this, so we will just mention that Article 542 of the 1804 Napoleonic Code specified that the *biens communaux* were assets that the inhabitants of the community—not the common public body—were entitled to own or to use: those to the property or products of which the inhabitants of one or more municipalities have an acquired right.

In Southern European countries, the model of exclusive, individual ownership that characterized Roman law prevailed, and this prevented the development of any true form of community management, opening up numerous disputes in administering the vast territories earmarked for commons.

At a European level, the sharing of responsibilities between the European Union and its Member States, between public and private, has always been one of the central themes in the process of European integration.

In recent years, discussions within European institutions regarding the production of public goods has been focused on the concept of added value: European added value is additional to the value created by actions of individual member states. It may result in different factors, e.g., coordination gains, legal certainty, greater effectiveness, or complementarities. The resources assigned to European common property in the 2021–27 Multi-annual Financial Framework will be directed towards sectors with the highest added value for Europe, such as infrastructure, human capital development, research and innovation, managing migration, safety, and defense. This is an attempt to change, albeit gradually, visions for the future, the nature of the budget, its functions, and the types of resources it uses [23].

## 2.2. Common Property, Civic Use in Italy: A Legislative Review

Over time, a number of laws and Constitutional Court rulings have reaffirmed the legal nature of common property [24–26], which, in the Italian judicial system, is referred to as civic uses. This section will briefly try to clarify the cardinal principles regulating civic uses in the Italian legislative system in order to clearly identify the elements relevant to defining the EECV or “civic value” [27–29]. The EECV is an integral part of the proposed methodological hypothesis for establishing a fair exchange value.

The first reference is Law 1766/1927, which tried to define a single legal system for collective rights to natural resources, rights that were not attributable to an ownership title or to possession by a single beneficiary or to an agreement under codified civil law. Law 1766/1927 provides for the assessment of civic uses and their consequent liquidation in favor of those claiming the title, in order to increase the amount of land available for the



free exercise of private property. The lands not freed as a result of these assessments were to be assigned to the municipalities or to hamlets.

Law 1766/1927 was inspired by a desire to liquidate civic uses and expressed the antipathy with which the legislators of the time viewed the mixed use of land resources and their desire to transform collective property into individual property [30,31]. In contrast, Law 431/1985 highlights the environmental values of civic uses and subjects them to landscape constraints [32]. These constraints are confirmed in the “Cultural Heritage and Landscape Code”, approved by Legislative Decree 42/2004, where land for civic use is considered to be a precious asset in itself. From the perspective of landscape regulation, civic uses are considered worthy of protection because landscapes shaped by centuries of their inhabitants’ work are worthy of general public interest and are therefore considered a common.

A further evolution occurs with Law 168/2017, which introduces the standard term “collective domain” to uniquely indicate all common property to replace the variety of names associated with different parts of Italy and different historical backgrounds. Law 168/2017 reaffirms the “perpetual agro-forestry-pastoral destination” of the collective domain and in general prohibits “inalienability, indivisibility and usucapion” of this domain, as did the laws of the past, but the perspective here is different. Without repealing the previous legislation, Law 168/2017 is oriented towards the prevailing need to safeguard the numerous forms, which vary from one area to another, in which the methods of shared and reserved enjoyment of land by the members of a community are realized, on the assumption that they are functional, not only to the realization of the private interests of the participants, but also to interests of a general nature, for instance, the protection of the environment, the landscape and Italy’s historical and cultural heritage.

Law 168/2017, therefore, protects civic uses because they play an important role in the life and development of local communities and in the conservation and enhancement of the natural and cultural heritage where they are stable components of the environmental system and of the historical institutions of the territories to which they belong; furthermore, civic uses help protect the ecological conservation of the national agro-forestry-pastoral landscape and are a source of renewable resources to be exploited and used for the benefit of local communities.

The Constitutional Court has handed down numerous rulings involving civic uses [33–35], in which it emphasizes the consolidated environmental vocation of civic uses and collective domains. This does, however, call into question the exclusive competence of the state legislator in matters relating to “civil law” and to “protecting the environment” and “the ecosystem”, pursuant to art. 117, second paragraph, letter s), of the Constitution (judgement 103/2017). This is also clearly stated in Law 168/2017 where, in the part that states that the recognition of collective domains is in fact an implementation of Art. 9 of the Constitution (judgement 71/2020), it establishes that, by imposing a landscape constraint, the legal system is protecting the interest of the general community to conserve civic uses so as to contribute to the protection of the environment and the landscape and it then adds that “this constraint is maintained on the land even if the civic uses are liquidated” (art. 3, par. 6).

Particularly relevant in this regard is the 2002 amendment to Articles 9 and 41 of the Constitution. Article 9 in particular, introduces the principle of protecting the environment and not just the landscape, in the interest of future generations. In this perspective, the environment is not considered as a mere commodity or issue requiring competent management but as a primary, systemic value.

The Court also referred (judgment 179/2019) to an “evolutionary process which was developing a new relationship between territorial communities and their surrounding environment, within fostered an increasing awareness of the land as a non-renewable, natural, eco-systemic resource, essential for the purposes of environmental stability, capable of expressing a social function and incorporating a plurality of collective interests and utilities, including those of an intergenerational nature”.

Judgement 71/2020 adds, “In this perspective, caring for the landscape, even when it is degraded or apparently devoid of value, is the responsibility of the entire region”, underlining that “landscape-environmental protection is no longer a discipline confined to the national context”, especially in consideration of the European Landscape Convention (adopted in Strasbourg by the Committee of Ministers of the Council of Europe on 19 July 2000 and ratified with Law 14/2006), which affirms that “the concept of protection indissolubly links land management to the contribution of the inhabitants of that land” (hence “the need to transition from purely conservative protection to the adoption of well defined measures for enhancing public interests and local communities”, including, in the case of judgement 71/2020, the acquisition and recovery of degraded land).

Furthermore, the connotation of collective domains as “inter-generational co-ownership” (Law 168/2017, Article 1, paragraph 1, letter c) is clearly diachronic so the environment and the landscape are also protected for future generations.

From this brief excursus it emerges that civic domains and land encumbered by civic use (Law 1766/1927 and subsequent amendments and additions, Law 168/2017 and subsequent amendments and additions, Royal Decree 332/1928 and subsequent amendments and additions) are an extremely important heritage for local communities, both socio-economically and for the environmental protection they provide.

These values have been consistently recognized in jurisprudence, and confirmed by numerous Constitutional Court judgements, but the management of situations—highly diverse and distributed throughout Italy—involving land encumbered by civic use is considerably more complex. These situations include land that has irreversibly lost its physical conformation or its original agro-forestry-grazing function and has been effectively transformed into built-up areas, modified by infrastructure and, in different ways and for a variety of reasons, privatized.

Until now it has not been possible to freely trade land encumbered by civic uses, nor any buildings existing on this land (with the exception of some limited cases of privately owned land), even if the land has been sold in the past and even where building permits have been granted.

Some Regions have tried to issue provisions for simplifying the procedure for decommissioning civic uses, procedures that were provided for in Law 1766/1927. However, the Constitutional Court has always intervened in these cases reaffirming the substantial unconstitutionality of these Regional Laws because the matter falls within the scope of the civil system, which is subject to the exclusive legislative power of the state (Constitutional Court 113/2018 and 178/2018).

Article 63a of Law 108/2021 was designed to unblock this situation, and it addresses the issues of transferring civic use rights and of exchanging land encumbered by civic use.

This article introduces three new subparagraphs (8a, 8b, and 8c) to art. 3 of Law 168/2017, which envisage that the Regions (and the autonomous provinces of Trent and Bolzano) may allow municipalities to transfer exchanges and rights of civic use—provided the land belongs to the civic domain and is in a situation of ascertained and irreversible transformation—to other land belonging to local and regional authorities that has an equivalent surface area and value.

In order for this to happen, the land:

- must have irreversibly lost its physical conformation or agro-forestry-grazing function and this transformation must have taken place before Law 431/1985 came into effect and any works carried out must have been authorized by the municipal administration;
- must have been used in compliance with current urban planning measures;
- must not have been transformed without the appropriate landscape authorizations and these authorizations must have been complied with.

Exchanges and transfers of civic use rights can take place when land belonging to local and regional authorities, with an equivalent surface area and environmental value to the land from which the civic use rights are to be transferred, is available. These lands become

part of the civic domain, while those from which the rights of civic use are transferred are no longer part of the civic domain, although they are still subject to landscape constraints.

Previous municipalities were unable to issue certificates relating to the ownership of works carried out, in accordance with urban planning requirements, on land encumbered by civic use, and Law 108/2021 Art. 63a seeks to resolve such critical issues.

However, numerous questions remain open when this issue is examined from an estimative-evaluative and urban planning point of view. The law has to be interpreted in such a way as to make it compliant with the Constitution, as the previously cited Constitutional Court judgments have underlined; this requires following the principle of giving the civies an asset corresponding to that of which it is deprived both in terms of surface area and of value, and this includes environmental value.

This article addresses the issue of the value of assets no longer in the civic domain by introducing the concept of an Environmental-Economic-Civic Value (EECV): this Value is made up of different components, which will be described below.

### *2.3. Methods for Assessing Environmental Value*

The review of the legislation on civic uses reveals that, at present (2022), the validity of Law 168/2017 implies that when evaluating land encumbered by civic use for the purpose of exchange, there must be equivalence between the surface area and environmental value of this land, defined as the “take-off” area, and of the land identified for transferring the civic uses, which will become part of the civic domain, defined as the “landing” area [36,37], to use the terminology often adopted to define the circulation of building rights.

It is a relatively simple task to ensure the surface area equivalence between “take-off” and “landing” areas: all that is required is to compare the size of the areas being exchanged.

Ascertaining the environmental value, though, is more complex. There is no single definition of environmental value in the scientific literature. However, an increasing number of scholars now consider the Total Economic Value (TEV), the totality of the goods and services that a given ecosystem can produce to benefit its inhabitants, as capable of accurately assessing the environmental value, taking into account both use and non-use values.

The literature on TEV indicates that it is considered as an aggregate of different value components, each generated by a particular form of utility. In other words, the TEV depends on the sum of use values (direct, indirect and optional), and non-use values (inheritance and existence).

Direct use values derive, as the name itself implies, from the current or future use or consumption of a given resource or from current or future participation in a given activity. In summary, it is the satisfaction (direct or indirect) that an individual derives from the use of a certain asset or service, or even simply from the fact that this asset/service exists.

Direct use values are linked to the satisfaction that can be derived from the use of a certain asset or service such as, for example, the revenues deriving from the use (e.g., agro-forestry-pastoral) of an area of land. Bernetti and Romano [38] describes in detail the components of TEV and classifies direct use values into (i) impoverishing values (consumptive use), where the quantities consumed of a given resource will no longer be available for other consumers and non-impoverishing values (non-consumptive use), where the use of a given resource does not imply its consumption i.e., it is still completely available for others; (ii) on-site values and off-site values depending on whether the services offered by the resource are consumed in the place where the resource is located or not.

Indirect use values, on the other hand, are associated with the benefits that an environmental resource generates for individuals who do not directly use it. They measure the impact of the ecological, regulatory and recreational functions of a given asset on the environment.

The option value is another use value [39]; it is defined as a benefit associated with the possibility of deciding how a given resource will be used in the future (this potential future



use does not imply that the resource will be used in the future, only the possibility that it may be used).

Non-use values, on the other hand, are values that do not arise from the use of the resource but from the increased utility obtained due to the existence of an environmental asset.

The existence value (or intrinsic value) of an asset is equivalent to the satisfaction that is felt for the existence of that asset, regardless of the use that can be made of it. It is a value that arises from ethical, ideological or moral reasons, from “compassion” towards animal and plant species and the habitat in which they live. In other words, this value arises from a recognition of an asset’s right to exist and therefore has its own intrinsic value regardless of whether the asset is used or not. Intrinsic value is created by the fact that this asset exists, and has no direct effect on the life of individuals.

The value of bequests (or hereditary values) derives from an impersonal, intergenerational altruism associated with the desire to conserve a resource for future generations.

Different approaches to evaluation have been proposed and codified so they can be used in estimating TEV. Bernetti and Romano [38] note that the methodologies adopted for the economic evaluation of natural resources can be divided into two main categories: Direct methods and indirect methods. Direct methods estimate the value of a resource using preferences declared directly by individuals during the simulation of a hypothetical market. Indirect methods, on the other hand, attribute the value of the resource indirectly, using the values individuals attribute to market goods whose price or demand are influenced by the presence or use of the resource itself.

In estimating the direct use value, which is equivalent to the market value of the asset considering its productive or usage capacity, it is possible to resort to traditional methods of estimating agricultural and grazing land and forestry.

In estimating the other TEV components (indirect use value, option value, existence value and bequest value) the aforementioned direct and indirect methods can be used.

Direct methods are better known as hypothetical valuation methods or Contingent Valuation Methods (CVM) [40–42]. These methodologies use direct interviews and the simulation of a hypothetical market to reveal consumer preferences.

Indirect methods include the Travel Cost Method (TCM) [43,44] and the Hedonic Price Method (HPM) [45,46]. These can only be used when there is “weak complementarity” between an environmental asset and certain private assets. In this case, following quantitative-qualitative variations in the availability of a natural resource, consumers directly manifest their reactions by increasing or decreasing their demand for, or the price of, goods that complement or substitute the environmental asset.

Bernetti and Romano note that evaluating the TEV is a complex operation subject to critical issues [38]. The estimate of some TEV components, specifically those without monetary value (direct use value), may involve the risk of distorting the estimate because the monetary value is obtained by processing data and declarations that are subject to margins of error, and this can affect the quality of the final evaluation.

Moreover, Bernetti and Romano [38] considered that the individual values that, together, make up the TEV are not completely independent of each other; evaluating these values separately could in itself create the risk of errors because the interrelationships between competitiveness and complementarity that the change in one value might induce in other values would not be taken into account. In other words, Randall recognizes that the TEV can be assessed either integrally (one shot valuation) or step-by-step (piecewise valuation), i.e., by estimating each component individually and then adding the results together, but he notes that assessing the value of each component separately and subsequently adding them together may lead to an over-estimation of the TEV.

In this regard, two measures need to be adopted when estimating the TEV: (i) Use a single framework during the sequence of estimating the TEV components, to take into account the fact that each individual component can influence the others, i.e., the value of each component depends on which other components have already been evaluated (theoretically, though, even if these values do vary according to the order followed, the

TEV as a whole should not be influenced by the sequence); (ii) verify if any components are superfluous with respect to the object being assessed and, if they are, do not consider these components when estimating certain environmental assets. Bernetti and Romano [38] maintain that it is not always necessary to determine all the TEV components; rather the evaluation should concentrate on the components that are affected by the positive or negative effects of implementing “alternative planning” (the management of agro-forestry-pastoral activities in the case of civic uses); in this second case, the effects of interdependence and the order of evaluation of the individual components should not exist.

In the light of the critical issues set out above, it should be noted that additional methods can be used to estimate the TEV when the objective of the valuation is not a monetary value (in the discussion above the TEV estimate is an equivalent monetary value), but an a-dimensional score or equivalence check, as in the case of the exchange referred to in Law 168/2017.

Specific applications of Multi-Criteria Decision Analysis (MCDA) or Checklist can be used to identify relevant non-monetary values.

Among the MCDA applications, the ELECTRE methods stand out because they allow the alternatives/measures under evaluation to be classified [47,48]. ELECTRE III is particularly interesting because it allows a threshold of indifference, preference and veto to be defined for each evaluation criterion; in this way, differences that are considered insignificant for the purposes of the choice have no effect on the order in which the measures/alternatives are classified.

Checklist offers a simpler verification process. Given a series of requirements/conditions, equivalence is verified when the “take-off” and “landing” areas have the same requirements and are subject to the same conditions.

In light of the above discussion, the question that this research intends to answer, the results of which are presented in this work, is as follows: How should the environmental value referred to in Law 168/2017 art. 3 sub-par. 8b be configured?

Briefly, the first step is to use TEV to define the environmental value, which is evaluated during the exchange of land encumbered by civic uses.

The following paragraph illustrates the results of this research work, the outcome of the historical-normative and methodological investigation reported in par. 2. The EECV will be defined, on the basis of this research as a variant of the TEV, to be used in the exchange of land encumbered by civic use. Firstly, we will identify the components to be taken into consideration in the preliminary evaluation operation of the exchange referred to in Law 168/2017; subsequently we will provide procedural indications for estimating these components; finally, we will prepare a taxonomy of the cases associated with the exchange of land encumbered by civic use and provide a list of the estimation procedures to be used.

### 3. Results

#### 3.1. Economic–Environmental Civic Value

The environmental value defined as EECV, a variant of the TEV, is used in the context of exchange procedures for evaluating land encumbered with civic uses.

Specifically, in the light of the analyses referred to in par. 2, the EECV is considered to be dependent on:

- direct use value, related to the value of agricultural, pastoral or forestry production;
- indirect use value, related to the indirectly usable environmental benefits (the positive effects of the agro-forestry-pastoral use destination on the environment);
- option value, related to the availability of the resource for further future collective uses (also associated with new civic values, for example usability of the resource, etc.).

Some comments need to be made regarding existence value and bequest value in the EECV. Where land is encumbered by civic use, the related “legal” function is strictly linked to the livelihood capacity of the community residing on that land. In other words, land encumbered by civic use only exists in relation to its useful function and to the effects this land generates as a productive resource. However, the environmental vocation of land

encumbered by civic use also needs to be considered. This question requires an evaluative approach, and it should be noted that the environmental vocation of civic use only results in indirect environmental benefits, and so, it is included in the indirect use value. Furthermore, since the valuation must be framed within the context of an exchange, rather than as a suppression of the civic encumbrance, it is probable that the existence value component of the EECV involves risks of overvaluation, thereby distorting the valuation of the areas subject to exchange rather than contributing further detail to the estimated values. Only in a situation in which the assessment relates to the suppression of a civic encumbrance, which current Italian legislation does not allow, does considering the existence value as a component of the EECV contribute to making the assessment more accurate.

As regards the bequest value, in analogy to the above, in the case of civic areas that have a “practical” function of sustaining a community, the overlap with the concept of option value, which in itself already indicates the value of the component associated with the availability of the resource for future generations, should be noted.

There are two reasons, one theoretical and one practical, why the component associated with the existence value and the legacy value is not considered applicable when assessing the EECV of an exchange.

From a theoretical point of view, within an exchange in which the dimensional equivalence, the direct use value, the indirect use value and the option value have already been verified, the equivalence of the existence value and the bequest value is implicit. It is the exchange itself that guarantees the maintenance of the “civic availability” of certain areas, implicitly admitting that this right will continue to exist and will be passed on to future generations. In other words, the passage of the encumbrance between two areas of land already confirmed to be equivalent according to the above-mentioned criteria, in fact, safeguards the existence and legacy of the civic law of an area, as only the geographical position of the encumbered land changes.

The practical problem lies in the fact that the estimate of the existing value and the bequest value would need to be carried out using the Contingent Valuation Method, preferably with the application of the maximum WTP (Willingness to Pay). The possible distortions in the implementation of this analysis are well known and would run the risk of altering the valuation rather than providing further details.

Furthermore, the existence value and the legacy value are unproductive in the case of an exchange because the existence of the resource, of equal environmental value, is guaranteed in any case.

### *3.2. Evaluating Environmental-Economic Civic Value*

This section provides the methodological and operational support for estimating the EECV and, therefore, for evaluating the “environmental value”, referred to in Law 168/2017, of land encumbered by civic use, which has to be exchanged with other vacant land to which the civic use encumbrance is transferred.

#### *3.2.1. Direct Use Value*

The direct use value component of the EECV appears to be vitally important as it is specifically associated with the market value of the land encumbered by civic use, and therefore intrinsically linked to the productivity/usability of this area, the primary objective of civic encumbrances.

A joint analysis of estimation principles and legislative evolution as it relates to the subject of civic uses—in particular, on the estimation principle, which affirms that the value of an asset depends on the purpose of the estimate [49]—reveals that the complex legal condition of land encumbered by civic use, even when privately owned, gives rise—during the evaluation—to the need for an ad hoc monetary estimate criterion closely linked to the “civic value” of this asset, “land encumbered by civic use.” This is an economic aspect that co-exists, for a given asset at a given time, together with other more recognizable economic

aspects such as market value, transformation value, complementary value, subrogation value, etc.

The meaning of civic value (here intended in a monetary sense) as deduced from the legislative principles, would appear to be an expression of the economic aspect of an asset—land—in relation to the direct utility of this land deriving from the its “natural vocation” (agro-forestry-pastoral functions).

It should be noted that the exchange referred to in Law 168/2017 art. 3 subpar. 8b applies to land encumbered by civic use when the civic function has been compromised, i.e., the land has been subjected to urbanization and/or construction, or inadequate identification of the areas encumbered by civic use has resulted in building potential being attributed to encumbered land in the planning stage, and on the basis of this provision the process of transforming encumbered land or areas nearby has already begun.

Building areas encumbered by civic use have a market value that is equivalent to their transformation value (related to the indirect utility of the land as a factor of production for the settlement transformation that has taken place or is planned to take place); however, this market value is “conceptually distant” from the concept of EECV or civic value as “civic” functions are diametrically opposed to “building” ones, following the principle that building rights are in contrast with the protection of the civic rights whose objective is to guarantee the subsistence of a community.

Based on the above:

- without considering the merits of legal disquisitions on the validity of building permits and/or planning provisions on land encumbered by civic use,
- leaving aside considerations regarding the landscape protection of these areas, in view of the complexity of the legal aspects of these matters,
- focusing only on the validity of the administrative act that “sanctions” a building right or “legitimizes” a construction;

A double co-existing value is generated on the land encumbered by civic use: (i) A current market value related to the building and/or urban functions, forecast or implemented, and a potential civic value associated with the collective functions that, in fact, are no longer viable. The market value of an undeveloped area will be entirely potential as building is inhibited by the civic encumbrance.

It would seem, therefore, that In accordance with the philosophy underlying the evaluation of civic assets, that only the component connected to the civic functions should be taken into consideration, independently of whether these functions are still exercisable or not.

If the civic functions are still exercisable, the civic value will depend on the agro-forestry-pastoral performance of the area; if the area is compromised then a probable value, based on the performance that the area could have achieved if it had not been compromised by urbanization and/or building episodes, needs to be estimated.

In this circumstance, the presence of comparables makes it feasible to prepare an estimate using traditional estimation procedures (see below); where there are no comparables an estimate can be prepared, with specific reference to the Italian situation, using Average Agricultural Values (AAV).

Art. 16 of Law 865/1971 introduced AAV essentially for use in the context of public utility expropriation procedures for land in areas where building was not permitted, and in particular for determining additional expropriation allowances for small farm owners/professional agricultural entrepreneurs and for tenants/settlers on land about to be expropriated. AAV are applied in agricultural regions, including groups of municipalities with similar natural characteristics (climate, geology, relief, etc.) and agricultural uses. The relevant data are provided by the Revenue Agency (an agency of the Finance Ministry, with taxation functions), and is available and readily accessible; AAV also constitute a precious patrimony for the estimation of civic (monetary) value.

On this basis, when comparables are available, traditional estimation procedures, outlined below, are adopted.

When estimating the value of an agricultural area, the procedures adopted for estimating the value of farming land should be used [50].

When estimating the value of grazing land, the most probable value can be estimated by using the direct procedure, or the analytical-indirect procedure, based on the rent of the land being valued [44].

As regards the estimate of land used for forestry (or an estimate of wooded areas), Serpieri [51] and Medici [50] identified three possible estimates: (i) the valuation of land capital (V0), where this term means “everything that remains in the forest after all the trees that existed have been cut down”; (ii) valuation of the forest, i.e., the complex resulting from the valuation of the land capital and the stand; and (iii) valuation of the stand.

As the civic encumbrance is presented as a perpetual condition for exploiting “forest” assets, it follows that the objective of the estimate must be to define the value of the “forest” resource in its entirety, as expressed in point (ii) above.

AAV have to be used when there are no comparables. The procedure for estimating the AAV appears similar for each category and is implemented by multiplying unit prices by the surface area of the land being valued.

### 3.2.2. Indirect Use Value

The indirect use value component of the EECV is associated with the benefits that the maintenance of the agro-forestry-pastoral function brings to the land being considered.

This is, to all intents and purposes, a non-monetary value, which can be determined using the Contingent Value Method (CVM).

A variety of approaches can be used to implement the CVM, most of them based on interviews, which arrive at an estimation of the economic value of a given natural resource through the preferences declared directly by individuals during the simulation of a hypothetical or contingent market.

Respondents are usually asked what the maximum amount is they are willing to pay in order to use a given resource. Sometimes the inquiry relates to the maximum Willingness to Pay (WTP) in order to improve the initial situation, or to the minimum Willingness to Accept (WTA) to put up with a worsening of the initial situation, so the CVM can be usefully deployed in the case of qualitative and quantitative variations in the availability of any “unpriced” natural resource.

Numerous approaches have been used with the CVM. Bernetti and Romano [38] identified those that have been used most frequently:

- the open-ended technique, where the interviewees are directly asked to express their WTP/WTA for hypothetical changes to the initial situation.
- the iterative bidding game technique, where the interviewer makes a series of offers to the interviewees to try and make them reveal their maximum WTP or their minimum WTA [52];
- the payment card technique where the interviewee is shown a card that lists a series of values that individuals would be willing to pay and has to choose one of these values. This is very similar to the open-ended technique, except that in this case more information is provided to the interviewee [53];
- the contingent ranking technique: interviewees are not asked to directly express a value judgment, but rather to express their degree of preference by classifying in ascending or descending order a set made up of both market goods and priceless assets. The economic value of the priceless asset is then estimated through a statistical inference with the prices of market goods based on the preference rankings;
- the close-ended/dichotomous choice technique where interviewees are presented with a certain monetary value to which they have to respond either YES or NO [54,55];

The CVM is useful when the objective of the valuation is to determine a monetary value; where, however, the valuation (exchange) is aimed at verifying equivalence between two land areas subject to exchange (see par. 2.3), and there is no need to determine a monetary value, the analyses used in the various CVM, which require direct contact with a

significant sample of subjects/stakeholders, are replaced by MCDA and, in particular, by the ELECTRE methods, techniques whose output includes a classification, and check-lists that are an effective response to the evaluation problem. In order to implement both MCDA and the checklist, it is necessary to identify all the evaluation criteria on the basis of which it is possible to evaluate the characteristics of the land areas being exchanged. Depending on the method chosen, it is possible to obtain an indirect a-dimensional use value or to proceed directly to an equivalence check.

### 3.2.3. Option Value

The option value component of the EECV is associated with the possibility of using land encumbered by civic use in the future. It includes the value associated with a possible different use of this land with respect to its agro-forestry-pastoral function, uses related to the “new additional objectives” associated with accessibility, walkability, signage and devices for benefiting from the environmental qualities of a given area. The current economic system tends to be oriented towards a global market and this, together with the location of primary activities throughout the territory, which generally took place independently of civic encumbrances, might result in there being no need to use the encumbered land. This land, though, could be “rediscovered” in a new civic guise, associated with the concept of territorial endowment [56].

The notion of territorial endowment [57–59] took shape with the approval of the National Strategic Framework 2007–2013 (CIPE resolution 82/2007), which attributed a central role to the production and promotion of collective services essential for citizenship rights and proposed replacing urban planning standards, regulated by the D.M. 2 April 1968, n. 1444, defined as the maximum ratios between spaces intended for residential and productive settlements and public spaces or spaces reserved for collective activities, public parks or parking lots.

The introduction of territorial endowments—as indicated in the National Urban Planning Institute’s proposal for a state law that would reform territorial governance (2008) [60] and in the contents of the bill prepared by the Ministry for Infrastructure and Transport, “Principles relating to territorial public policies and urban transformation” (dated 24 July 2014)—proposes some conceptual innovations that relate to both the transition from quantitative assessments, typified by urban planning standards, towards considerations relating to the achievement of urban quality levels, and to an extension, of the services considered essential for citizenship rights. Some of these services are of particular importance to this research paper: they include the introduction of the right to enjoy the landscape, the historical artistic heritage, and the environment, along with the right to exercise the freedom of ethical–social expression, to associate for community and cultural purposes, to enjoy free time, and to use public parks.

To calculate the option value component of the EECV essentially requires the market value of the land to be estimated, taking into consideration the economic aspect associated with the possible future use of that land as a territorial endowment or something similar, i.e., as a provider of services considered essential for citizenship rights, and these services would be evaluated to ascertain whether or not they reached high quality levels [61,62].

There are different ways of estimating this option value. If the land is configured as a resource (territorial endowment) capable of generating income (directly or indirectly, perhaps in the surrounding area, not necessarily within the land area being estimated), the incremental income volume needs to be estimated using data relating to similar contexts as a reference and the valuation then proceeds using income estimation approaches.

The approaches associated with the Contingent Valuation Method (CVM) remain valid, but when estimating the option value, the expression of judgments/preferences/availability needs to consider the indirect utility, which derives from maintaining the availability of an asset in view of its future use in the context of territorial endowments, rather than the direct utility.



In cases where it is particularly complex to implement the aforementioned procedures, it is considered admissible to proceed using a direct synthetic approach considering the values of comparable land areas that have a similar intended use (for example, adopting the values assigned for urban planning compensation and/or expropriation values).

In these cases, similarly to the estimate of indirect use values, the equivalence check can be implemented through MCDA or checklist.

#### 3.2.4. Dimensional Verification

The land being exchanged must have an equivalent area: This pre-condition virtually assumes the role of “protecting” civic law over time.

The value of an area of land encumbered by civic use, according to the above, is largely influenced by its agricultural value; this is a “natural” value dependent on a set of natural characteristics that determine its fertility (production) or the capacity to produce plant species for the spontaneous feeding of animals (hunting) or the timing and quantities of forestation (wood). The characteristics that determine the “quality” of a land, are not immutable, but can change over time; in this sense, the dimensional balance, even when—in the case of exchange—it concerns land areas with different unit values, should always be pursued as it “guarantees”, in a certain sense, the “sustainability” of civic use over time. The dimensional equivalence between the “take-off” area and “landing” area, among other things, makes it unnecessary to consider using the component associated with existence value and bequest value (see above).

### 3.3. Taxonomy of Civic Use Situations and Related EECV Estimation Procedures

Based on the regulatory analysis referred to in par. 2.2, a taxonomic analysis was carried out on the possible conditions characterizing land encumbered by civic use. Three different categories emerged:

1. land encumbered by civic use that still maintains the possibility of civic use; the conditions for exchange pursuant to Law 168/2017 art. 3 sub-par 8a do not apply to this category;
2. land encumbered by civic use that has lost its agro-forestry-pastoral vocation; the conditions for exchange pursuant to Law 168/2017 art. 3 sub-par. 8a can be applied;
3. land encumbered by civic use that is a hybrid of the above two cases.

#### 3.3.1. Land Encumbered by Civic Use That Maintains the Possibility of Civic Use

There are two categories:

1.a Land in a natural state (not built up) outside urbanized areas, for which collective use is still feasible.

In areas such as these, agricultural, pastoral and forestry activities are still feasible as the land still preserves its natural condition, free from urban contamination. These tend to be areas that over time municipal urban planners have destined as “agricultural” or “wooded areas”.

1.b Land falling within a semi-urbanized area, which has not been built on, for which collective use is still feasible.

This category includes land in which civic use is still feasible even though it is situated in areas where urbanization processes are ongoing. This land is often empty and surrounded by urban sprawl, it is part of an infrastructure network that has already been defined or is in the process of being defined, but this network does not adversely affect agro-forestry-pastoral use.

As previously noted, these two cases do not fall within the criteria referred to in Law 168/2017, art.3, sub-par. 8a, because they do not comply with the conditions referred to in sub-par. 8a, 8b and 8c.

### 3.3.2. Lands Encumbered by Civic Use That Have Now Lost Their Agro-Forestry-Pastoral Vocation

Four different categories can be identified:

2.a Encumbered land, without buildings, which lies within an urbanized or semi-urbanized area; collective use is no longer possible because the area now has other vocations of a public nature or new civic values.

This category includes encumbered land, which, although without buildings or infrastructure at present, will be affected by ongoing urbanization processes; the characteristics and uses of this land are such that private buildings will not be permitted and only allow public uses will be allowed.

2.b Encumbered land, without buildings, which lies within an urbanized or semi-urbanized area; collective use is no longer possible as the land now has other vocations of a private nature.

The land referred to in point 2.b falls into the same category as the land referred to in point 2.a but the category 2.b land retains a vocation to be transformed with procedures of a private nature.

2.c Encumbered land, built up legitimately or with buildings eligible for an administrative regularization (to obtain building permits), which does not lie within an urbanized area; the buildings compromised a collective use that is no longer feasible.

Encumbered land in this category has been subjected to transformation even though it lies outside urbanized areas. Unauthorized buildings prevail and these will require an administrative regularization. Illegal buildings will be subjected to specific recovery plans, but the conditions for reviving the civic function would seem to no longer exist.

2.d Encumbered land with legitimate buildings, or buildings that could be administratively regularized, within an urbanized or semi-urbanized context, where the buildings compromise a collective use that is no longer feasible.

This category includes urbanized and built-up fabric, which make it impossible to restore civic functions.

### 3.3.3. Land Encumbered by Civic Uses, in a Hybrid Situation That Has Aspects of Categories 1 and 2

Category 3 includes:

3.a Encumbered land with buildings that are legitimate or could be condoned with sanctions, generally lying outside urbanized areas, where the buildings do not entirely compromise the collective use that is still partially feasible.

This category includes encumbered land partially compromised by buildings where appropriate intervention measures and sub-divisions could, at least in part, restore the civic function.

The taxonomic classification of the categories into which collective domains may be divided, and in particular the categories where exchange is allowed in accordance with Law 168/2017, art. 3 sub-par. 8b (categories 2.a, 2.b, 2.c, 2.d and 3.a) is an essential preliminary for identifying an operational proposal for estimating the EECV so areas encumbered by civic use can be exchanged.

Table 1 summarizes the results of this research work by associating each of the potential exchange categories with the corresponding procedures for estimating the EECV. Dimensional verification is required for all categories of exchange, and this, as explained above, absorbs the component connected to the existence and legacy of the environmental asset.

**Table 1.** Exchange categories for areas encumbered by civic uses and the appropriate evaluation procedures.

EECV	Methodologies/Appropriate Evaluation Procedures	Categories of Encumbered Land That Can Be Exchanged
Direct use value (potential, associated with agro-forestry-pastoral functions)	Farming land value or evaluation of grazing land or land capital + forest + stand;	2.a; 2.b; 2.c; 2.d; 3.a
	AAV	2.a; 2.b; 2.c; 2.d; 3.a
Indirect use value (potential, associated with environmental benefits deriving from the agro-forestry-pastoral function)	Monetary: CVM	2.b; 2.c; 2.d; 3.a
	Monetary: Income approach	2.b; 2.c; 2.d; 3.a
	Non monetary: MCDA	2.b; 2.c; 2.d; 3.a
	Non monetary: Checklist	2.b; 2.c; 2.d; 3.a
Indirect use value (potential, associated with environmental benefits deriving from the use of new functions introduced to the encumbered land)	Monetary: CVM	2.a; 2.b; 2.c; 2.d
	Monetary: Income approach	2.a; 2.b; 2.c; 2.d
	Non monetary: MCDA	2.a; 2.b; 2.c; 2.d
	Non monetary: Checklist	2.a; 2.b; 2.c; 2.d
Option value (the possible use of a resource in the future, whilst maintaining agro-forestry-pastoral functions)	Monetary: CVM	2.b; 2.c; 2.d; 3.a
	Non monetary: MCDA	2.b; 2.c; 2.d; 3.a
	Non monetary: Checklist	2.b; 2.c; 2.d; 3.a
Option value (the possible use of a resource in the future with the introduction of new functions)	Monetary: Income approach	2.a; 2.b; 2.c; 2.d
	Monetary: CVM	2.a; 2.b; 2.c; 2.d
	Non monetary: MCDA	2.a; 2.b; 2.c; 2.d
	Non monetary: Checklist	2.a; 2.b; 2.c; 2.d

#### 4. Discussion and Conclusions

The entry into force of Law 108/2021, which converted Law Decree 77/2021, has brought important innovations in terms of civic uses that could help resolve the complex Italian situation. Three new subparagraphs (8a, 8b and 8c), added to art. 3 of Law 168/2017, make provision for the Regions (and the Autonomous Provinces of Trent and Bolzano) to allow municipalities to transfer civic use rights and exchanges (In the case of lands belonging to the municipal domain, these transfers are permitted in situations of certified and irrevocable transformation.) to other land belonging to local and regional authorities, with an equivalent surface area and environmental value. This law also stipulates the conditions required for these transfers and exchanges to take place (see par. 2).

The changes made to Law 168/2017 in 2021 reveal the vitally important role of valuation for ensuring that the exchanges contemplated in subparagraphs 8a and 8b are properly implemented; the legislation requires the evaluation to ascertain both the environmental and the monetary value of the land to be exchanged.

The research presented in this article had the following objectives: (i) Identify the characteristics of the environmental value, referred to in subparagraph 8b of Art. 3 Law 168/2017, and its component parts; (ii) identify appropriate evaluation procedures/models that could be adopted for ascertaining the environmental value of land areas encumbered by civic use that are to be exchanged, in accordance with the provisions of Law 168/2017 as amended in 2021; and (iii) select appropriate evaluation models and procedures for evaluating the EECV (environmental value) for the various categories of encumbered land potentially eligible for exchange.

We achieved the first research objective by defining a new evaluation criterion for assessing the environmental value of land encumbered by civic uses, the Environmental-Economic Civic Value (EECV), which is configured as a variant of TEV.

With regard to the second objective, Section 3 of this paper illustrates the specific values that make up the EECV; the direct use value, associated with the value of agricultural,

pastoral or forestry production; the indirect use value associated with indirectly usable environmental benefits (the effects on the environment of the intended agro-forestry-pastoral use); and the option value, associated with the availability of the resource for further collective uses in the future (new civic values such as utilizing available resources, for example). The estimation and evaluation procedures required for determining the EECV were then determined.

Finally, a taxonomy of the various situations in which civic uses can occur in Italy was formulated and used to propose a methodology in which the various procedures for evaluating the EECV and its components are associated with the various categories of encumbered land.

The research, thus summarized, leads to some reflections:

1. The method proposed for determining the EECV complies with the objectives that formed the philosophical basis of civic uses as invoked by Law 168/2017 and numerous judgments of the Constitutional Court; civic uses are considered for the role they play in the life and development of local communities, in the conservation and enhancement of the natural and cultural heritage as stable components of the environmental system and of the historical territorial institutions to which they belong, in the ecological conservation of the national agro-forestry-pastoral landscape, and as a source of renewable resources to be exploited and used for the benefit of local communities. This philosophical basis was developed as an expression of three values incorporated within the EECV: Direct use value, an expression of the economic aspect of an asset—land—in relation to the direct utility of the land deriving from its “natural vocation” (agro-forestry-pastoral functions); indirect use value, associated with the benefits that the maintenance of the agro-forestry-pastoral function provides to the area in question; option value, where the economic aspects associated with the use of the area are analyzed using a concept similar to territorial endowment, i.e., the land is considered to be a provider of services deemed essential for citizenship rights, and the valuation assesses whether high-quality levels of service are effectively achieved.
2. The various methodologies and evaluation procedures, found in the scientific literature and used for evaluating the TEV, appear to be suitable for evaluating the EECV as well. However, the potential problem associated with implementing the CVM, given that the valuations take place within a context of “exchange”, suggests that a non-monetary performance equivalent between “take-off” and “landing” areas, adopting MCDA or a checklist, can be effectively used to verify the equivalence of the environmental value, the EECV, referred to in Law 168/2018, art. 3, subparagraph 8b. In any case, the monetary estimate of the direct use value component of the EECV appears essential.
3. The option value allows us to take into account the qualitative and effectively usable component of the civic good, because its purpose is to consider the “new additional objectives” associated with accessibility, walkability, and signage, as well as devices for enjoying environmental qualities, which are believed to belong to the “environmental” component of civic use to which the regulatory innovations of 2021 refer. This introduces a different parameter to the evaluation that is linked less to the value per se of the land encumbered by civic use and more to this land’s potential use as a collective right. Therefore, the profile that appears to be of greatest interest is access to the land, which, through specific devices, must be available to all those who have an interest in it, but, at the same time, this access must be regulated to ensure the land is preserved for the future [63,64].
4. This point raises the issue of civic use management in the future: It will be organized using specific plans, as is already the case today for UNESCO assets [65] or Natura 2000 sites [66] (Sites of Community Importance and Special Protection Areas). These plans could take the form of territorial governance instruments, which would ensure not only the protection but also the enhancement and coherent management of civic uses.

In conclusion, this research has attempted to develop a scientifically studied methodology that will help resolve the complex issue of civic uses in Italy. Before this can happen, though, the methodology we have developed will have to pass through the operational sieve and be tested on real case studies in the field, so that the procedures hypothesized here can be modeled in greater detail. In this regard, the objective of further research should be to develop a step-by-step evaluation procedure that identifies the most suitable tools among those described in this article and determines their use in the exchange of land encumbered by civic use, making the appropriate operational variants, where necessary, in order to obtain evaluation results consistent with the purposes of the exchange instrument itself and with the principles inherent to the institution of civic uses.

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