THE COMMON RULES-PROJECT.
TOWARDS A COMMON LANGUAGE TO ANALYSE AND INTERPRETE COMMONS' REGULATION IN HISTORICAL EUROPE.

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Contents

Over the past three years a team of scholars at Utrecht University, the Public University of Navarra (Pamplona), and Lancaster University have been working on the digitization and analysis of the regulation of in total twenty-six 'historical' commons across England, the Netherlands, and Spain. In this document we first describe our intentions with this project, and how these relate to the wider debate on commons and institutions for collective action. Thereafter we describe the features of the database and the difficulties to compare commons across countries and time and we offer some preliminary analyses of the large database that is now available for other researchers to consult. Considering that we are currently still working on the analysis of all the data it is currently not yet possible to download the data as such. This online tool is intended to allow commons-researchers to use a structured and historically embedded environment to deal with the very interesting and useful but often hard to analyse material the historical commons have left behind. In this paper we describe the content of this database and offer some basic results of the comparative analysis so far. Please do note that this is a very first draft of some preliminary attempts to analyse our data. Of course comments and suggestions are most appreciated.

1. Why this research project?

Our present-day society is highly regulated and institutionalized: formal agreements have been made on various levels within society to make things go smoothly, from driving a car to disposing waste to taking part in the local and national elections, both as a candidate and as a rightful voter. A breach of any of the rules usually also goes together with a sanction. However, if rules are simply added without any attention

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for the internal coherence of the regulation, or the emergence of contradictory situations within the regulations, this may lead to ineffectiveness, whereby the rules are no longer understood by the stakeholders, or simply ignored (freeriding), and sanctioning is no longer executed. In order to avoid inertia of the institution, adequate actions to reduce complexity and increase complementarity of the rules are needed. Today's examples of overregulation, both at the level of the state and local administration, are the result of a long-term development whereby rules have been added, often without sufficient attention for coherence with already existing regulation.

The common rules project aimed at understanding how bodies of rules within the context of a specific type of an institution for collective action can be effective in avoiding freeriding- and how they can be developed in an efficient way, with the least possible effort in rulemaking, but with the best possible outcome. We hereby focus on commons, the common being an institution for collective action (Ostrom 1990) that could be found in the European countryside for centuries, and that was set-up to regulate the collective use of natural resources (grassland, woodland, water) for large parts of the rural population. Although the European commons largely disappeared under governmental pressure -in particular during the liberalization wave of the nineteenth century (Vivier and Demelas 2001, De Moor et al. 2002)- quite a few of the 'old' commons have survived, in particular in the UK and Southern Europe. In other regions new commons –although their function is often considerably different from their historical predecessors- are being set up (see e.g. ICAs today on www.collective-action.info). As our case studies will demonstrate, European history offers plenty of opportunities to study the very long-term history and the dynamics of commons.

2. Debates and Research Questions underlying the Common Rules project

The common rules-project engages with three different debates. First of all, by analyzing the formal rules and the functioning of a set of several communities over the very long-run, we aim at throwing some light on the institutional determinants of repeated and continuous human cooperation. As several authors have stressed, human beings are also exceptional in their ability to cooperate beyond the narrow boundaries of the family. Within the discipline of biology, the study of what makes individuals to cooperate has become a booming field in recent years. In this sense, hypotheses based on group selection or in the 'egoist gen' are certainly able to explain altruism and cooperative behavior among relatives. However, these theories encounter important limitations when approaching cooperation among strangers, one of the very distinctive human features. In this situation, non-biological explanations become necessary, e.g. tit-for-tat strategies. From an institutionalist perspective, the problem of cooperation has long been acknowledged as one of the most essential challenges in social life. In the end, if we think that individuals are fundamentally concerned with the maximization of their own utility, the danger of defecting mutually beneficial cooperation in order to obtain short-term gains becomes much more evident than when using other paradigms of human behavior. Rather than on motivations, the approach to this problem from the social sciences has therefore relied more heavily on the notion of constraints. How to make people cooperate even if they do not want to do so? Designing rules and organizations to make cooperation possible is then one of the key challenges which keeps social scientists and policy-makers busy nowadays– although it has been always central to the experience of human history. By analyzing how several human communities have established, maintained and adjusted the rules organizing their cooperation in environmental and economic matters over the long run, our aim is to provide some insights on this discussion.

Our very long-term perspective, which constitutes one of the distinctive features of our approach, unavoidably entails also a historical dimension. In this sense, our project also contributes to the discussion on the institutional determinants of the European prosperity. Since the publication of the seminal book by North and Thomas (1973), the predominant narrative in the social sciences stresses the role of individual property rights in the European take-off in the mid-18th century. According to these authors and their subsequent disciples, by balancing individual effort and rewards, the clear definition and enforcement of individual property rights from the 17th century onwards encouraged investment, innovation and market exchange, putting first England and then the rest of the Continent on the path of modern economic growth. Emphasis on a centralized state is also a frequent dimension of this debate. After all, state centralism not only would have been the main coordination device among conflicting agents but, particularly, it would have also become the responsible for the definition and enforcement of the individual property rights sustaining growth. Eventually, the balance between individual property rights and the state in the long-run – its existence and pre-conditions, but more often its absence in pre-industrial societies – has become a favorite topic among economic historians.

In recent years, however, several scholars have highlighted the role that, beyond this market-state approach, self-governed communities played in the institutional development of Europe (Reynolds, Greif, De Moor). According to this recent scholarship, communities would have been the most important coordination and property protection devices in most of pre-industrial (pre-1800) times, when a centralized state was simply not yet developed. Similarly, the advantages that these communities would have had in terms of access to local information would have made them in many occasions a more efficient arrangement than distant bureaucracies. The claims have gone so far as to suggest that a high density of communities in all the realms of the social and economic life could have been, precisely, a distinctive feature of the Continent in comparison with other regions of the world which had a slower economic development(China, Japan, the Islamic world). By studying how a set of pre-industrial communities were able to articulate and regulate cooperation over the use resources during the centuries, our aim is also to shed more light on what must have been the characteristic institutional infrastructure of the European continent for most of pre-industrial times.

The debate most interesting to specialists on the commons relates to the causes behind the beginning and the end of the presence of institutions for collective action as a dominant form of resource management in Europe. In line with the negative approach that usually has dominated the analysis of the collective exploitation of natural resources (e.g. Garrett Hardin), a majority of the studies on historical commons in Europe have been approached from the perspective of their enclosure and abolishment during early modern times. In this sense, the impact that their abolishment could have had both on overall economic performance as well as on the status of the peasantry have been favorite topics in the historiography for a long time. Despite a few exceptions, the origins and long-term development of these institutional arrangements have been, however, usually ignored by scholars. Questions such as which were the driving forces behind the expansion of communal arrangements from the late medieval period onwards or how communities were able to maintain these cooperative solutions over time remain largely unanswered. In line with the recent reassessment experienced by communal property in the last years, this paper adopts a relatively new approach by focusing on the internal functioning and organization of a set of communities over time.

We aim at contributing to these three different but interrelated debates in the fields of economic history and institutional economics: (i) the institutional determinants of human cooperation, (ii) the institutional determinant of western European prosperity, and (iii) the long-term analysis of the institutional dynamics of communal regimes in Europe.

3. Assumptions and Theoretical Framework

In order to clarify the terms of discussion and analysis, it seems advisable to make explicit from the starts which are the premises upon which our research questions builds. First of all, our analysis focuses on 'institutions' and 'institutional design', in the Northian sense of humanly-devised formal rules incentivizing and constraining human behavior. Admittedly, within the social sciences, the definition of institutions is not a straightforward one and we are somehow required to choose among competing candidates. By resorting to the Northian framework, we are therefore putting the weight on explicit regulations rather than on elements such as religious commands, social customs or moral precepts. We do not neglect the importance of these other elements and, in fact, we are keen to take them on board when we consider they have certain explanatory power. In any case, however, our main documentary evidence are the formal regulations agreed by the communities over time and to this source material we restrict the bulk of our attention.

Secondly, we take for granted the existence of cooperation both between individuals and between organizations (e.g. village councils) over the centuries in the communities of analysis. Formal regulations would be, in this sense, both the outcome of past cooperative (or conflictual) behavior and an attempt to harmonize future interaction. At the core of this assumption lies the premise that individuals within these communities are interdependent, that is, their individual welfare (or utility, in purely economic terms) depends not only on their own behavior but also on the actions undertaken by the other members of the community. Which are the specific motives behind this interdependence in welfare are, to some extent, of secondary importance – although some hypotheses can be formulated (see next premise). The simplest premise is, in any case, that interdependence between agents brings cooperation and that cooperation is reflected in the production of rules that can be formalized in actual bodies of rules.

Thirdly, and although the specific reasons for this interdependence are of lesser importance, we assume that certain environmental and social conditions may have pushed the members of these communities to interact. In line with Lin Ostrom's analysis, the common-pool nature of many of the

resources at the core of the productive life of the communities (e.g. pastures forests, irrigation ditches) is a good candidate to explain interdependence. Specifically, the non-excludable and subtractable nature of these resources implies that what is not taken by a user may be appropriated by another, decreasing the possibilities of consumption and leading to lower welfare. The characteristics of the productive basis are not, however, the only reason encouraging cooperation in agrarian societies. Otherwise, it would be difficult to explain why, in face of similar environmental and bio-physical conditions, in certain communities it is possible to find a common-property regime whereas, in other, exploitation is organized along individual ownership. In this sense, the characteristics of the human group are probably equally important in creating the right conditions for cooperation. A relatively small size, a relative asymmetry in terms of power distribution and a particular level of interaction – beyond the family but below the state – are all factors probably strongly correlated with high levels of interaction between individuals.

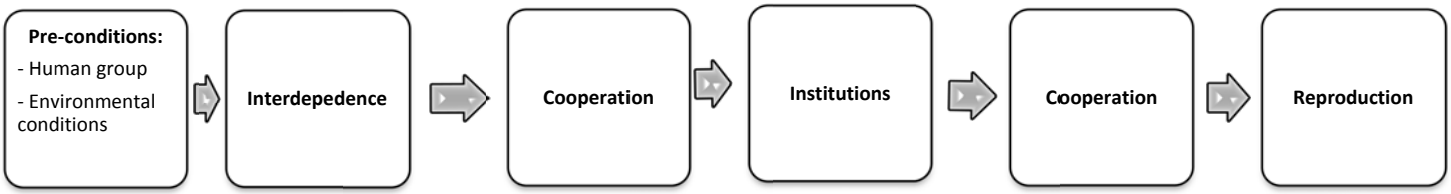
Finally, we also assume that the communities we analyzed have been successful in the organization and management of their cooperative practices over time, given their longevity. Evidently, the criteria to measure success in such pre-industrial agrarian communities are not related with growth or production but better associated with the idea of reproduction. That is, we understand that the institutional design of these communities, by fostering cooperation, has contributed to the preservation of the environmental and productive environment, therefore allowing the survival and reproduction, rather than the enlargement, of the human group over the centuries.

All this being said, the preliminary theoretical framework we use as a starting point to analyze our communities could be described in the following terms (see Figure below for a simple depiction). The environmental and bio-physical conditions partly define the system of economic exploitation deployed by the communities, a system which is fundamentally characterized by the nature of the resources employed. Partly determined by this economic system and partly independent from it, the human group presents specific features in terms of size, scale, settlement patterns, homogeneity in terms of wealth and other sources of power. These two main elements – on the one hand, the environmental and economic basis; on the other, the human group – create a distinctive level of interdependence among the members of the community. Consider, for example, the case of a mountain community, where factors such as altitude, steepness, temperature and rainfall make crop growing difficult but, however, encourage pastoral exploitation with seasonal migration between the winter and the summer pastures. Geo-physical features but also mobile flocks, risk diversification or scale economies may contribute to the common-pool nature of the most important resource of this community (i.e. pastures and meadows). Alternatively, think in an environment that makes agriculture possible in a small-scale basis and where each individual can own his own plot of land. Holding constant other factors, a pastoral nomadic economy probably creates higher interdependence among individuals (e.g. my flock may easily invade your pasture) and, therefore, makes much the need of managing potential conflict through the development of cooperative practices more pressing. Evidently, factors such as the size or the homogeneity of the group may increase or reduce this interdependence and the incentives to cooperate. If the interdependence among individuals is spread in a relatively even fashion (e.g. my flock invades your pasture *and* your flock also invades mine), then the incentives to develop this cooperation increase. Similarly, if the community is not too large and possibilities for communication and daily interaction are relatively high, possibilities for cooperation are probably expanded.

In a first phase, cooperation takes place in a rather informal way; subsequently, a formalization of the rules managing interdependences among individuals takes place. The need to make explicit the rules may be consequence of increased levels of complexity in the interaction among individuals (e.g. higher size) but also be the result of external factors. Additionally, social customs, moral commands and religious precepts, despite maintaining their original role, are also probably embedded with additional connotations in line with the need for cooperation within the community. Eventually, this institutional design can be approached from a double perspective. Usually, the development of these implicit norms may be seen as the outcome of past cooperation itself – since the intervention and agreement of several individuals, with a more or less different distribution of interests and power, must have been needed to develop them. But these rules act also as a constraint on future behavior and, therefore, direct in a particular direction future cooperation. Rules are, therefore, the attempt of a particular set of interests acting within a specific socio-economic environment at a given time period to manage interdependences and cooperation in a given direction also in the future, partly extending their present status and ambitions in time.

The reproduction of the socio-economic system would be, then, the outcome of a particular set of interests and the rules they have been able to design and put into practice within the community. It is important to stress that the survival of the human group over time is not the outcome of cooperative

practices *per se* but the result of certain cooperative practices. In this sense, the original environmental



and human pre-conditions, and the specific interests and rules they give rise to, are probably decisive in determining the ability of the human community to perpetuate itself over time.

4. From debate to dataset…

Building on the studies by Ostrom (1990) and Greif (2006), recent European-wide and global comparisons have suggested that Europe since the late Middle Ages experienced a bottom-up movement of new collective action institutions. With a previously unknown intensity Europeans created social 'alliances' that were not primarily based on kinship, but on other common characteristics such as occupation or domicile; perhaps the craft guilds are the best-known example, but they display many similarities with, for instance, water-boards, rural commons, and urban communes (Reynolds 2002, De Moor 2008). The movement was primarily based on at first tacit, later written agreements between princes and their subjects, both villagers and townsmen, most of which were the outcome of peaceful negotiations. All these institutions used collective action as a method to create economies of scale and to avoid risks—both natural and market-related, and to restrict outsiders from accessing scarce resources. Commons, for instance were created for the collective management and use of natural resources. These institutions limited the impact of harvest failures due to unpredictable weather, floods, or diseases, while on the other hand they saved on investments in, for example, fencing and drainage systems. Understanding the regulation of institutions for collective action is also a key-aspect of the links between macro-social and economic changes and the day-to-day functioning of those institutions. First of all, the evolution of rules and sanctions over time can often be read as a reaction to external changes. For example, many institutions restricted the conditions for access during the sixteenth century and this may be related to demographic growth and political changes in that period. What is written down in terms of rules, in various action fields (access, use, and management) and how misbehaviour is sanctioned, defines the limits of what the members of an institution can do on a daily basis. Secondly, institutions can also influence the economy and society, in particular if they manage to survive over long periods of time. The resilience of institutions has been attributed by political scientists and sociologists to factors such as self-governance and political embeddedness (Ostrom 1990). Other factors which need to be taken into account in order to understand collective action institutions include the property rights regimes within which they function and the cultural context, particularly conceptions of the 'right' use of natural resources. Finding out how these institutions were regulated on the basis of these and other factors will help us to further our understanding of what makes an institutions resilient. The interplay across time between property rights, management institutions and cultural change will form a key feature of our longitudinal analysis.

In order to "understand" the institutional diversity that can be found within the European boundaries we aimed at developing a collective "grammar" of institutions, in line with 2009 Nobel prize winner Elinor Ostrom's attempts to do so (Ostrom, 2005), but more applicable to longitudinal analysis. By our in depth analysis of rules we hope to move beyond the static picture of regulation we have today, and to contribute to putting historical analysis in the picture with other sciences as the way forward to learn more about the dynamics and diversity of institutions, such as commons.

The choice for commons as the type of institution to analyse is related to the involvement of the stakeholders in the design of the regulation. Commons have the advantage that the users themselves designed the rules, and that this presumably leads to a design and structure that is very closely related to the real needs of the commoners, but while at the same time the needs of the resources are also taken into account. Research has shown that regulation could provide an efficient use of the resource, even under severe external stress, but we do not know how the commoners made sure that the body of rules remained effective, efficient and sufficiently simple for all to understand and apply. Were old rules

replaced by entirely new ones, or were they simply adjusted to the new circumstances? Were rules always designed according to what the local users thought was needed, or were rules copied from other commons in the neighborhood? How was made sure that sanctioning was avoided as much as possible? Which level of sanctioning was sufficient to threaten potential freeriders? What role did social control play and how was this integrated in the regulation and how was this formulated?

Hereafter we will first describe the twenty-six cases that have been included in the database and have been analysed in detail, followed by a general description and comparison of the contents of the database. Thereafter we will deal with some specific questions that can be addressed with the data that have been collected. Some of the questions will be dealt with in a rather superficial way but the main intention of this paper is to demonstrate the wide array of research questions that can be addressed with these sources and what type of preliminary insights this delivers. The codebook which has been developed to analyse the regulation can be downloaded at: www.collective-action.info (> Projects > Common rules project).

a. Features of the cases included in the study

For the project we have in total collected data on regulation for 26 commons: 9 of them were located in the eastern part of the Low Countries, 9 Spanish commons were located in the northern are of Navarra, and 8 English commons, all located in Cumbria. For all commons, written regulation has been preserved; all cases complied with the selection criteria of having a lifespan of over 200 years, while also having changed their regulation at least once over these two centuries. In practice however, all cases changed their regulation many more times, as we will demonstrate further on, in order to adapt their rules to changing circumstances. In the selection underneath we have however also included some cases that did not fully comply with the requirements, e.g. did not survive 200 years.

Table 1: Overview of basic features of the cases

Dutch cases

	Marke Berkum	Marke het Gooi	Marke Rozengaarde	Marke Raalterwoold	Marke Bestmen	Marke Geesteren, Mander, and Vasse	Marke Coevorden	Dunsborger Hattemer Marke	Marke Exel
Year of origin[1]	**1300**	**1404**	**1417**	**1445**	**1458**	**1498**	**1545**	**1553**	**1616**
Year of dissolution	**1995**	**1972**	**1859**	**1840**	**1853**	**1847**	**1860**	**c. 1850**	**1852**
Nr. of years of existence	**695**	**568**	**442**	**395**	**395**	**349**	**315**	**297**	**236**
Nr. of occasions of changes	**37**	**9**	**34**	**14**	**17**	**12**	**39**	**8**	**7**
Nr. of years in between regulation changes	**19**	**63**	**13**	**28**	**23**	**29**	**8**	**37**	**34**
Nr. of individual rules in total	**220**	**729**	**264**	**751**	**156**	**332**	**211**	**246**	**371**
Nr. of rules per occasion of change	**6**	**81**	**8**	**54**	**9**	**28**	**5**	**31**	**53**

English cases

	Eskdale	Alston Moor	Nether Wasdale	Thornthwaite	Millom	Braithwaite and Coledale	Watermillock	Hutton-in-the-Forest
Year of earliest surviving rule 1]	**1587**	**c. 1500 (copy dated 1597)**	**1679**	**1612**	**1511**	**1671**	**1615**	**1637**
Year of latest rule **Year of dissolution**	**1841** **Existing today**	**1679** **1820**	**1857** **Existing today**	**1779** **Existing today**	**1669** **Partly existing today**	**1816** **Existing today**	**1706** **1835**	**1650** **1819**
Nr. of years of recorded regulations **Nr of years of existence***	**254** **338**	**179** **c.320**	**178** **246**	**167** **313**	**158** **414**	**145** **254**	**91** **220**	**13** **182**
Nr. of occasions of changes	**17**	**2**	**23**	**26**	**32**	**23**	**17**	**2**
Nr. of years in between regulation changes	**15**	**91**	**8**	**6**	**5**	**6**	**5**	**7**
Nr. of individual rules in total	**104**	**25**	**73**	**50**	**96**	**61**	**36**	**18**
Nr. of rules per occasion of change	**6**	**13**	**3**	**2**	**3**	**3**	**2**	**9**

*In the case of the English commons, this is a somewhat difficult concept, as the commons can be assumed to have had the status of common land for several centuries before the first surviving regulation. The figures have now been calculated from the earliest surviving regulation to either the date of dissolution or (where the common remains in existence) the year 1925, which effectively saw the end of most manorial courts.

Spanish cases

	Bardenas Reales	Sierra de Lokiz	Valle de Roncal	Irurre	Olejua	Etayo	Ancín	Murieta	Sada
Year of origin[1]	**1498**	**1357**	**1345**	**1541**	**1541**	**1585**	**< 1692**	**1574**	**< 1661**
Year of dissolution	**Existing today**	**Existing today**	**Existing today**	**Existing today**	**Existing today**	**Existing today**	**Existing today**	**Existing today**	**Existing today**
Nr. of years of existence	**516**	**657**	**669**	**473**	**473**	**429**	**> 322**	**440**	**353**
Nr. of occasions of changes	**2**	**3**	**4**	**2**	**3**	**3**	**3**	**2**	**2**
Nr. of years in between regulation changes	**213**	**94**	**59**	**113**	**69**	**46**	**44**	**67**	**0**
Nr. of individual rules in total	**411**	**126**	**206**	**77**	**110**	**343**	**148**	**203**	**60**
Nr. of rules per occasion of change	**206**	**42**	**52**	**39**	**37**	**114**	**49**	**102**	**60**

The first historical appearance of all Dutch commons included in this selection dates back to at least the early modern era, although most of them are already mentioned as a common in the late Middle Ages, the oldest one (Marke Berkum) dating back as far as 1300. The fact that most of these commons were dissolved in the course of the nineteenth century, was closely related to a worsening financial situation of most commons, in turn caused by new legislation. First of all, the Royal Decree of 10 May 1810, ordering all land to be taxed, including the uncultivated – and previously untaxed – parts of the *marken*, did put a strong burden on the financial resources of the common. Combined with the additional exemption from taxation for newly reclaimed land, many commoners who had a large number of shares in the common were tempted to sell their land. The minutes of the commoners' meetings also show an increasing concern about the financial longevity of the common.[2] The Royal Decree of 24 June 1837, which sought to revive

[2] The chairman of the assemblee of the marke Exel, for instance, draws at the general meeting of the commoners of 16 October 1835 the conclusion that 'although the esteemed chairman so far had always governed the community of the mark of Exel with pleasure, and had little to complain about his fellow-commoners, he now was forced, due to changing circumstances, to propose to the commoners to dissolve the community and to proceed with an either final or partial division of all the uncultivated land of the mark in the way and amount that would prove to be the most benificial one for the mark'. ['met hoe veel genoegen Zhwelgeb. tot dus ver altoos de gemeenschap der mark van Exel had bestuurt, en weinig zich voor zijne mede geerfdens had te beklagen gehad, hij evenwel door de veranderende

the earlier legislation of 1809-1810, may have been the final incentive for many commoners to dissolve their commons. However, some cases in our selection managed to survive the effects of the nineteenth-century legislation. The termination of marke Roozengaarde, for instance, was mainly due to the fact that the marke no longer had any value as an institution; all tasks that were previously performed by the commoners had, in the course of time, been taken over by other institutions, such as the waterboards. Two of the Dutch cases even survived until well into the twentieth century. In the case of Berkum, survival seems to have been quite coincidental: after the commoners had sold most of the land of the common, a few years later it was discovered that small parts of the common had remained unsold, hence prolonging the existence of the common *de jure*. Even after the sale of these small plots of land, the common continued to exist *de jure*, based on the revenues of the sale and interest, even though the common owned no actual land anymore. Formal dissolution of the marke Berkum lasted until the end of the twentieth century: in 1995, it was decided to dissolve the common as an institution.[3]

The earliest records of the English cases are a bit younger than the earliest records of the Dutch cases. Although the oldest example dates back to 1511, the earliest regulations of the other cases date from the end of the sixteenth, and in most cases from the seventeenth century. The legal context of common land in England differed from that of most commons elsewhere in Europe in that it was privately-owned land over which third parties had use rights. The common land of the English case studies had the status of 'manorial waste', that is waste ground belonging to a manor (or landed estate), ownership of which had been vested in the lord of the manor (the seignior) since 1235. An English common was therefore not an institution as such; nor was it governed by an institution specially created and solely responsible for the common. A common's regulation was part of the governance of the manor to which it belonged. The local institution which made regulations governing the exercise of use rights over common land was the manorial court, a seigniorial court with a jurisdiction limited to the boundaries of the manor. Called by the lord of the manor and presided over by his agent (the steward), the court generally required the attendance of all tenants of the manor, from whom was drawn a jury who determined cases and formulated rules. The rules formed a body of customary law which was particular to that manor – it was *lex loci* – and many of rules related to the use and exploitation of commons. Anyone in breach of these manorial byelaws was 'presented' at the court and, if deemed guilty, was 'amerced', that is fined. The terms used (the verb 'to amerce'; the noun for the penalty 'an amercement', from the Latin *misericordia*, 'mercy') reflect the origin of the penalty: the offender was placing himself at the mercy of the lord. Financial penalties were paid to the lord and formed part of the income from the manorial estate. Most manorial courts remained active until the eighteenth century, some continuing to make rules into the nineteenth century, but most courts had ceased to meet by 1860.

The oldest preserved bodies of rules of the Spanish cases included in this selection date from the fourteenth century (Sierra de Lokiz), but most of them date from the sixteenth century. However, references in these documents to previous customs allow us to say that the origin of this commons must be dated in the Middle Ages. Spanish commons are different from English and Dutch commons in the sense that they are considered in the law linked to public administrative entities. From the nineteenth century onwards, they were assimilated to municipalities, with some exceptions. In our sample we have six cases of villages that became municipalities in the middle of the nineteenth centurie; three examples belong to the aforementioned exceptions. These three commons shared by several municipalities: seven in the case of Valle de Roncal, nine in the case of Sierra de Lokiz, and thirty-six municipalities in the case of Bardenas Reales. All three were governed by *juntas* (boards) appointed by the inhabitants of the villages and valleys with property rights on the intercommon. These corporative boards have been governing the commons until now. However, for this study we have only taken into account the regulations approved until the end of the nineteenth century; twentieth-century regulations have not been included).

As in any institution, circumstances in commons might change over time, causing the need for new rules, or for the adaptation of existing ones. Next to circumstantial changes, also very practical reasons sometimes caused the need to copy already existing rules into new bodies of rules. In both the Dutch case of Raalterwoold and the English case of Alston Moor, for instance, the reason for copying the old rules still in existence was just the state of decay of the old register (markeboek) (Grotenhuis s.d.).

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tijdsomstandigheden zich thans gedrongen gevoelde om de geerfdens te moeten voorstellen die gemeenschap te doen ophouden en over te gaan tot eene finale of gedeeltelijke verdeling van alle ongecultiveerde gemeene markengornden op zoodanen voet en wijze als in het belang der mark zal nuttig worden geoordeelt'] (Beuzel 1988, 81).

[3] The remaining resources of the marke, Berkum, were combined with the remaining resources of another dissolved marke (marke Streukel) into the current 'Marke van Streukel/Marke van Berkum-fund', which is administered by the Prins Bernhard Foundation and endorses three provincial cultural institutions.

Although change of rules usually was related to changing circumstances, this change of rules could not be implemented at will by those in charge of the daily management of the common. In countries as the Netherlands and (current territory of) Belgium, when rules needed to be changed, this had to be with the approval of the entire assembly of the commoners. General meetings of the assembly were mainly organized on fixed annual days, although some commons have appeared to lower the frequency of these meetings to biennial or even triennial meetings in times of relatively stable circumstances. In some cases, like in the Flemish case of the Gemene en Looweiden (not included in this paper), these meetings are still being organized every third year.

The announcement of such meetings would usually be proclaimed several weeks in advance on Sunday in church. The importance of these meetings for the management of the common was also stressed by the mandatory attendance of all members who were entitled to vote. Unauthorized absence at this meetings was punished, either by imposing a fine (usually in kind, like a barrel of beer), or by suspending or even withdrawing the member's rights on the common. Tenants of commoners who had the right to vote were summoned to notify their landlords whenever a general meeting was announced; if they failed to notify their landlord, and the landlord subsequently did not show up at the meeting, the tenants were sometimes also subject to punishment. However, in the case of acute events or developments regarding the common, if the regular annual meeting would not suffice, an emergency meeting could be organized, usually also requiring the attendance of all members entitled to vote.

The sources we studied so far do not contain specifications about the criteria for finally passing a proposed rule or a proposed adjustment of an existing rule (e.g. by stating that this should be done either unanimously, or by a simple majority of votes, or by two-third of all votes). However, based on the texts of the rules and on the fact that some rules of course might have been (potentially) harmful to the interest of the commoners, it seems logical to assume that decisions were passed in case a simple majority of votes were in favour.

Some situations however required more flexibility for the management of the common. In cases of legal disputes, for example, it would be inefficient to assemble the commoners to inform them about every detail of the developments, especially since legal disputes usually had to be brought before courts located far from the actual common. In those cases, the assembly usually used the 'delegation method', appointing some of the members (usually those already in charge of the daily management of the common), to represent the commoners. When rules were recorded in the Dutch *markeboeken*, it could concern:

- an unchanged repetition of an existing rule (usually in the case new bodies of rules were compiled);
- a new rule, not recorded previously in the body of rules (or recorded previously, but also annulled previously, thus not existing at the time the rule was re-recorded)
- an adjustment of an already existing rule;
- annulation of an existing rule.

As the tables above show, the frequency of rule changing varies not only between the various countries, but also between the separate commons of these countries, although among the cases of Spain the variation is limited. However, the figures overall seem to show that commoners would use one of two main management strategies: either they chose to have a relatively high meeting frequency, resulting in only a limited number of rule changes per meeting, or they preferred to have a limited number of meetings, this however resulting in a considerably larger number of rule changes per occasion.

The way in which regulation was written down, differed from country to country, but also within each country. The most obvious cases of regulation are the lists of rules, which can be found in each of the countries involved, such as the 'paine lists' in England, the *markeboeken* in the Netherlands, and the *ordenanzas* in Spain. These sources are a clear-cut form of regulation: they usually consists of a list of various articles, stating either a prohibition, an obligation, or a permission, usually also including a penalty for non-compliance with the rule concerned.

Next to these lists of rules, regulations are 'hidden' in the reports of for example commoners' meetings. This especially applies to the *markeboeken* of the Northern Low Countries, the court rolls and verdict sheets of English manorial courts, and the *Libros de actas* of the Spanish councils (not included in the study): commoners in the Low Countries used these books not only to write down the rules agreed upon at the annual meetings of the assembly of the common, but also to register the minutes of these (and other) meetings. Often, these minutes not only contain general decisions on the management of the commons (such as the sale of land), but do they also contain new or adjusted rules and/or the cancellation of older rules. In those cases, the rules were "distilled" from the minutes of the meetings; the selection criterion for entering a rule in the database was that the rule had to be related to the use and/or

management/governance of the common and also had to be of either a permissive or an imperative (one should/should not…) nature.

For some commons, the original sources have been used, for others existing transcriptions and sometimes the printed versions of the original sources have been used. A random comparison of the transcriptions with the original sources has been done for the Dutch cases and showed no major differences; small transcription errors that appeared did not have any effect on the content of the rules in transcription.

All rules found in either lists of rules or in the minutes of commoners' meetings were transcribed or copied to the database (indicated as the table named 'Original Rules' in the database) and translated into modern-day English. Some sentences of these 'Original Rules' comprised several rulings at the same time; in those cases, the rules were entered in parts, each comprising one specific subrule (to be identified as 'Individual Rules' in the table with the same name in the database); in the case there were several subrules "hidden" in an original rule, the researchers entered the various Individual Rules separately into the database. In case the Original Rule only consisted of one single rule, the text of the Original Rule was integrally copied and entered as the only Individual Rule related to that Original Rule. Hence, in the database there is a one-to-many relationship between the Original Rules and the Individual Rules tables with a minimum of one Individual Rule for each Original Rule.

The next step in the analysis was to determine for each rule which elements it contained and to determine the nature of its content. We also indicated whether the rule was a newly introduced rule, an adjustment of an existing rule, or a mere repetition of the same rule from a previous regulation. Especially for the Dutch cases this was a labor-intensive effort, since in a lot of cases this implied looking at previous regulations over and over again, in order to determine whether a (previous version of a) rule was mentioned in minutes of previous meetings. The results of this analysis were also entered for each Individual Rule in the Individual Rules-table.

A large number of the Individual Rules contained mention of some kind of sanction, both in the case of rules of a prohibitive nature (you are not allowed to…, you should not…,it is forbidden…), and in case rules stated either obligations or permissions for the commoners (you shall…, you are allowed to…). In case of obligations, sanctions could be set for those non-compliant to these obligations; in the case of permissions granted to commoners sometimes sanctions were mentioned for those who did not meet the conditions that had been set for obtaining this permission. Some Individual Rules did not contain any sanctions. Sometimes, this was clearly a result from the nature of the (usually permissive) rule, but in some other cases the rule mentioned only a prohibition or obligation without stating any sanction against those defying this rule. Elsewhere, we will explain more in depth how this can be explained in relation to the longevity of the common (but see already De Moor & Tukker, 2014). Part of the rules contained more than one sanction: in those cases, sanctions were differentiated, meaning that the sanction was different depending on the situation, the timing of the offence or the person who breached the rules. This is reflected in the following three types (that were as such distinguished in the database) of differentiation, but it should be noted that the following options are not mutually exclusive:

- Differentiation in case of recidivism: in those cases the sanction increased when the same offender would commit the same offence for the second, third, etc. time.
- Time-related differentiation: sanctions could be increased in case offences were committed at a specific time of the day (usually offences committed at night were punished more severely) or at a specific time of the year.
- Offender-related differentiation: sanctions in those cases were dependent on the position the offender had within the assembly of commoners; appointed officials who broke the rules they were supposed to guard and maintain were usually punished more severely than 'regular' commoners committing the same offence.

All sanctions were entered into a separate table of the database (table Sanctioning) allowing us to give different labels to single sanctions. Therefore, the relation between the Individual Rules table and the Sanctioning table is a one-to-many relationship. The Sanctioning table consists of a main table, a nested table, and a sub-nested table. The main table, defined as Sanctioning_general contains data on the general characteristics of the sanction that was to be imposed: what was the trigger for imposing the sanction, who was the potential offender, who was the potential suffering party. This table also shows whether the sanction was graduated (in that case the sanction would increase in case of recidivism), or differentiated (imposing different sanctions for different moments or for different types of members), and for what kind of offence (e.g., damage done through negligence, damage done to animals, damage done through unjustified profit, et cetera) the sanction was imposed. In case a sanction was defined, the data of the

actual sanction was recorded in the nested table Sanctioning_specific. In this table, the data show the actual content of the sanction: e.g., which fine had to be paid, and the type of sanction imposed (e.g., monetary payment). In case the sanction was imposed per unit (e.g. per animal), the table also shows the unit the sanction refers to. The content of the sanction could be very specific (e.g., a fine of 12 *stuivers* per animal kept illegally on the common) or very adaptive (e.g., 'in accordance with the laws of the common'). In case a sanction was defined, the relationship between the Sanctioning_general and the Sanctioning_specific is on a one-to-one-basis; however, in case of differentiated and graduated sanctionings, this relation will implicitly be a one-to-many relationship.

One of the ways in which the management of the commons sought to enhance the vigilance of the commoners themselves, was to reward law-abiding commoners when they reported offenders to the management of the common or to those guarding the commons (*schutters*). The reward was paid out of the fine paid by the offender; the subdivision of such fines is registered in the sub-nested table Subdivision. As subdivision was not always used (often the fine paid would just be to the advantage of the common or, in England, to the lord of the manor as part of his manorial privileges), not all specific sanctions are linked to a subdivision; in cases where subdivision is used, this is usually in a one-to-one relationship.

b. Rules, rules, rules: discussion of the contents of the database

The total number of Original Rules that were collected from the commons' regulations was 3,331, including all 26 commons. From these 'Original Rules' a number of in total 5,428 Individual Rules was derived. The number of rules for the English cases is quite small as compared to the Dutch and Spanish cases. This difference is mainly due to the fact that these rules had a more formal judicial status than those in the Dutch and Spanish cases. In England, decisions on issues of the common could be taken by informal assemblies of the commoners, but only some of these – those which were reinforced by being endorsed by the court[4] - survive. By contrast, in the Dutch and Spanish cases the assembly of the common could take and implement decisions autonomously, recording the new or adjusted rules in the minutes of the general meetings.

The Individual Rules were categorized into four separate categories: access rules, use rules, governance rules, and management rules. To avoid misinterpretations, these four categories had been pre-defined before the classification (see the codebook in the Annex). Rules that did not fit into one of these pre-defined categories, were classified as 'Other'. The overall figures for the three countries involved show both resemblances as remarkable differences between these countries. The first resemblance is the relative small share of rules regarding access, although each country (especially Spain) has its outliers; we will discuss this elsewhere in this text. So, although rules about access will almost always be among the first and the oldest rules that can be retrieved, these category of rules seems to need little repeating or adjustment throughout time. A possible explanation for this might be that conditions for having access to the common may have been very clear and not open to discussion from the beginning and therefore did not need to be repeated and/or adjusted; analyzing the content of the outliers might shed some more light on this.

[4] Winchester, Upland commons (CORN 8), pp. 40-42.

Table 2: Overview of rules per type divided according to their content (access, use, management and governance structure), in percentages of total number of rules.

Dutch Cases

Type of rule	**Berkum**	**Marke Het Gooi**	**Rozengaarde**	**Raalterwoold**	**Bestmen**	**Geesteren, Mander and Vasse**	**Coevorden**	**Dunsborger hattemer marke**	**Exel**	**Total**	**Total N**
Access	3	4	1	7	2	1	8	5	2	4	133
Use	40	70	35	43	58	40	46	52	54	49	1,644
Management	17	18	25	19	8	18	17	17	10	17	564
Governance	41	10	39	31	31	41	29	26	35	31	942
Total	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**3.283**

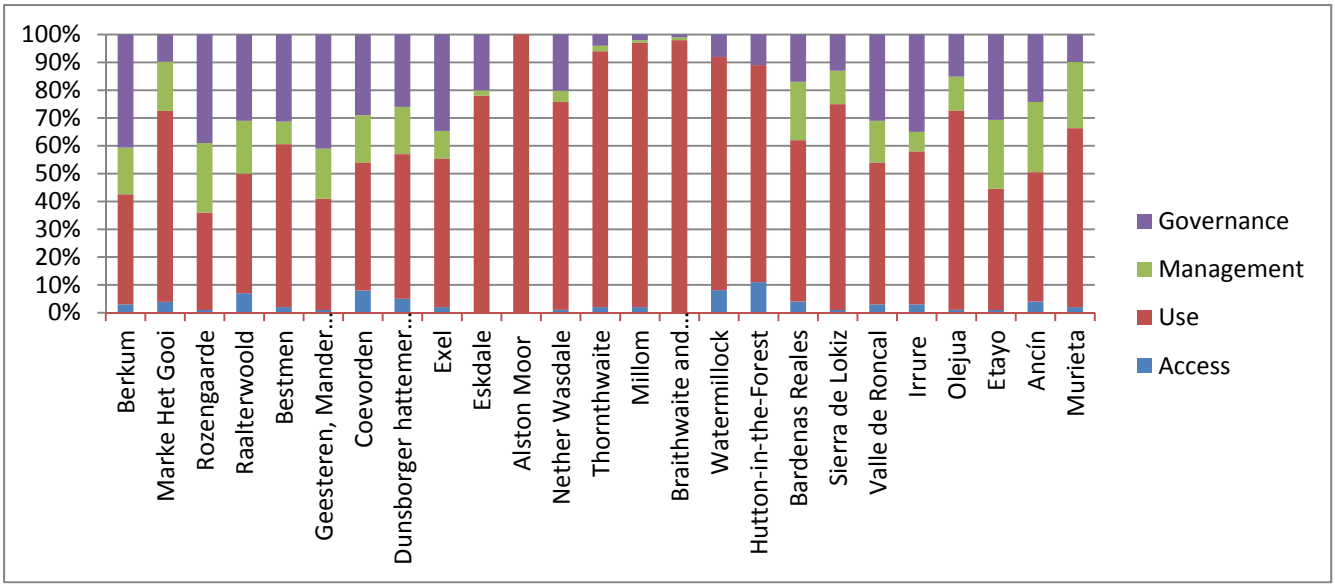
English cases

	Eskdale	**Alston Moor**	**Nether Wasdale**	**Thornthwaite**	**Millom**	**Braithwaite and Coledale**	**Watermillock**	**Hutton-in-the-Forest**	**Total**	**Total N**
Access	0	0	1	2	2	0	8	11	3	9
Use	78	100	74	92	95	97	83	78	88	410
Management	2	0	4	2	1	1	0	0	1	8
Governance	20	0	20	4	2	1	8	11	8	46
Total	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**473**

Spanish cases

Type of rule	**Bardenas Reales**	**Sierra de Lokiz**	**Valle de Roncal**	**Irrure**	**Olejua**	**Etayo**	**Ancín**	**Murieta**	**Total**	**Total N**
Access	4	1	3	3	1	1	4	2	2	39
Use	58	74	51	55	71	44	46	65	59	878
Management	21	12	15	7	12	25	25	24	19	319
Governance	17	13	31	35	15	31	24	10	21	345
Total	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**1.581**

Figure 1: Division of types of rules per case, for Spain, the Netherlands and England (al 26 cases)



A remarkable difference between the three countries can be observed from the figures on rules of governance. In the Low Countries, this kind of rules forms an essential part (28,7 percent) of all rules (with the outlier of Marke Het Gooi, the rules of which common are remarkably more focused on use), whereas the figures for the Spanish and English commons show a more diverse image, of which the top outliers however do not match the Dutch average figures by far. The overall average figures for governance rules for Spain and England do not provide a solid basis for analysis, since there is a considerable variation between the individual commons of these countries. Spain, for instance has a common with hardly any governance rules (Sierra de Lokiz, 0,33 percent of all rules) as well as commons of which one-sixth to one-fifth of all rules focus on governance (Bardenas Reales, 17,03 percent and Olejua, 19,35 percent). The figures for England also vary considerably: from a common with no governance rules at all (Alston Moor) to the common of Eskdale, of which common over 20 percent of the rules were governance rules.

Rules on management are almost, and in some cases completely, absent in the English cases. For most Spanish cases however, management rules formed an essential part, with the only exception of Olejua. The figures for management rules in the regulation of Dutch commons show that the Low Countries were right between the Spanish and English with only relatively small variation.

From the figures on use rules, the English regulations appear to have a very strong focus on this type of rules: over three-quarters of all rules are use rules, the most extreme example being the regulation of Alston Moor, which regulation solely contained use rules. Also for the Dutch and Spanish cases, use rules formed a major part of their regulation, with the only exception of Ancín in Spain.

When we look at the intention of rules (obligation, permission, or prohibition), we can also observe a significant difference between the intention of the rules of English commons and those of the Dutch and Spanish commons. Whereas the Cumbrian rules are mainly of a prohibitive nature and have almost no rules at all regarding appointment of officials, the regulations of both Spanish and Dutch commons are mainly intended to promote co-operation by focusing on permissions and obligations. This is likely to reflect the 'top-down' structure of the manorial courts, which were run by the manorial authorities, with the lord's steward controlling the agenda. Most courts appointed officials to oversee the use of the common, but these were officers of the court, rather than grassroots representatives of the commoners as a body.

The overall percentages per country per type of rule are however for both England and the Low Countries significantly affected by some outliers: regarding the Dutch cases, Marke Het Gooi has remarkably few rules on appointment of officials and at the same time a relative high percentage of rules with a permissive character (over 40 percent). The overall percentages for the Spanish cases are mostly affected by the figures for Ancín (high percentage of rules regarding appointments) and Sierra de Lokiz (relatively high percentages of rules of a general nature, mostly of permissive nature). Permissive rules do appear in the regulations of English commons, however to a far lesser extent: in the cases of Watermillock and Alston Moor rules granting permissions to commoners are completely absent, probably because

English law provided a strong legal framework determining access to common resources. The figures on rejection of existing rules may be an indication for the longevity of regulation within commons: only a very small percentage of the existing and added rules were rejected later on.

The longevity of regulations seems to be confirmed by the figures on the sequence of rules. Some rules only appeared once in lists or in meetings minutes, never to be repeated or mentioned ever again. Although one could suggest these rules must have been the most clear ones because they did not ever had to be adjusted, it seems far more plausible that these rules (in our database marked as 'Singular mentioning') only applied to specific situations, events, or periods of time, after which those specific rules were no longer needed and therefore did not have to be repeated and/or adjusted. This option is also more plausible, since even very clear and well-defined rules sometimes had to be repeated, if only for the fact that old sets of rules still in effect after some time had to be copied into new registration books. A more detailed analysis of the content of rules that were mentioned just once might confirm this hypothesis.

The Dutch and English commons on the other hand seem to have had previous regulation in a large number of cases, even though this previous regulation has not been preserved; the textual content of the rules however indicated that the rules of the oldest preserved version of the regulation was based on unpreserved regulations of an even earlier date, which explains the relative low level of rules mentioned for the very first time. Although annulation of existing rules hardly ever occurred, rules of commons in England and the Low Countries had to be adapted frequently, as shows from the percentage of adjusted rules within the regulations. Unchanged repetition of existing rules in the regulation Spanish and Dutch commons did occur, but to a far lesser extent than in most Spanish cases (with the only exceptional case of the Dutch marke Het Gooi, which repeated more than half of its rules unchanged). The English and Dutch commoners also made more use of incidental rules, dealing with temporary circumstances, as shows form the figures on rules that were mentioned only once.

In 365 Dutch rules, it was explicitly expressed which group of commoners had made the decision to introduce, alter, or annul a specific rule. This was hardly ever expressed in the Spanish (14) and English (27) cases, but in those cases where it was mentioned, the decision was an almost exclusive prerogative of legislative bodies: for English commons, the regulation was almost always composed by a jury, in the Spanish cases, decisions on regulation were mainly made by the court. For as far as the Dutch cases are concerned, the figures show that only very few decisions were made by the chair(wo)man of the assembly of commoners by him-/herself); in a considerable part of the cases decisions appear to have been joint decisions by the chair(wo)man of the assembly of commoners and appointed members, in some cases supported by the local government. Remarkably, in about one-third of the cases, it was explicitly mentioned that the decision involved was made by the commoners (*geërfden*) as a group.

The resources mentioned in the various regulations we studied, obviously were dependent on the natural circumstances and the local features of the common involved. In all countries, however, a large part (in England, even the major) part of the rules concerned animals. Remarkable is the importance of sheep within the rules of the Spanish commons, as well as the fact that about 13-14 percent of all English and Dutch rules involving animals referred to animals in general, without any further specification about species.

Although the number of rules that dealt with border conflicts of commons is relatively small, one can however observe some differences between the various countries. In the English situation, the common belonged to the lord of the manor and hence the boundaries of the manor (both in its spatial and its social extent) determined the boundary of the common. However, there were numerous disputes between manors over boundaries across common land in 16th and 17th centuries in particular, but these have been recorded elsewhere than in the statements of byelaws we have analysed in the database. The Spanish commons also have very few actual rules regarding border conflicts as compared to the Dutch cases. On the other hand, the regulations of English and Spanish commons contained more rules about setting fences and borders. A specific issue for the English cases is the concept of 'right-of-way', on which the Spanish and Dutch commons have almost to no rules at all. Some of these are related to the limitation of an individual's use rights to a particular part of the common – in other words, the need to spell out rights of way is a product of the way the common is managed.

There are also relatively few rules on infrastructural issues of the commons. It may be that those issues were dealt with by other institutions, such as water boards, but this needs further research into these specific issues. Based on the body of regulations we have analyzed to date, slightly more attention in regard to infrastructural aspects is given to dyke maintenance in the Low Countries and the construction

and maintenance of roads in Spain. Infrastructural elements are hardly ever mentioned in the regulations of English commons.

Regarding the natural resources, Spanish commons have almost no rules regarding resources that have to be dug: nearly all of the Spanish rules on natural resources deal with resources that can be found on the surface, such as grass. The rules on natural resources for the Dutch and English commons focus more on the use of extractable resources such as peat, top peat (*schelturf*), and turf, that are hard to replace. There is, however, a considerable number of rules for the Dutch commons, which are currently designated 'unclassified'; re-classification of these rules might change the figures significantly. Not surprisingly, rules on water reflect the different functions of water as resource in differing environments: as an irrigation resource, water only appear in the regulation of Spanish commons, ; whereas the Dutch and English commons usually had to cope with a surplus of water (due to high level of ground water in the areas involved and weather conditions), the Spanish commons often had to deal with shortages of water supply.

A proper analysis of the governance rules of the various countries is partly hindered by the fact that a considerable part of the governance rules of the English and Dutch commons could not be categorised; for England this was the case for almost 90 percent of all rules involved. On the other hand, of all governance rules on Spanish commons, only a very tiny percentage (.33 percent) could not be specified. Another remarkable difference between Spain on one hand and the Low Countries and England on the other is the attention paid in the Spanish regulations to more or less 'judicial' items: rights of access, appointing officials, issues of jurisdiction.

The jurisdiction of the assembly of the common was usually confined to the common itself and its members / entitled users of the common. However, some rules explicitly state that they apply to everyone ('No one should…', 'No one is allowed to…'). These 'universal' rules are only found in the regulations of Dutch and Spanish commons; regulation of English commons usually only addresses members and rightholders of the common (usually the tenants of the manor), or to a specified group of members or rightholders. Most of the 'non-universal' rules in the Dutch and Spanish cases by the way also only apply to members and rightholders of the common, or to a specified group of members or rightholders.

Table 3: Overview of the percentages of the rules that were not or were accompanied by a sanction

	Non-sanctioned	**Sanctioned**	**All**	**Total N**
THE NETHERLANDS				
Berkum	70	30	**100**	**220**
Rozengaarde	67	33	**100**	**264**
Raalterwoold	66	34	**100**	**751**
Bestmen	51	49	**100**	**156**
Geesteren, Mander, and Vasse	60	40	**100**	**211**
Coevorden	69	31	**100**	**334**
Dunsborger Hattemer marke	52	48	**100**	**246**
Exel	48	52	**100**	**371**
Total	**62**	**38**	**100**	**2,553**
ENGLAND				
Eskdale	36	64	**100**	**104**
Alston Moor	0	100	**100**	**25**
Nether Wasdale	34	66	**100**	**73**
Thornthwaite	24	76	**100**	**50**
Millom	13	87	**100**	**96**
Braithwaite and Coledale	36	64	**100**	**61**
Watermillock	8	92	**100**	**36**
Hutton-in-the-Forest	17	83	**100**	**18**
Total	**21**	**79**	**100**	**463**
SPAIN				
Bardenas Reales	**75**	**25**	**100**	**411**
Sierra de Lokiz	**68**	**32**	**100**	**126**
Valle de Roncal	**51**	**49**	**100**	**206**
Irrure	**58**	**42**	**100**	**77**
Olejua	**53**	**47**	**100**	**110**

Etayo	**57**	**23**	**100**	**343**
Ancín	**49**	**51**	**100**	**148**
Murieta	**49**	**51**	**100**	**203**
Total	**54**	**46**	**100**	**1.637**

The absolute figures for the presence of a liability clause already seem to indicate that especially the Spanish commoners used this clause far more often in their regulations than commoners from both other countries. An overview of the percentages per country provides us with an even clearer indication of the importance of liability clauses in Spanish regulations: in average more than 25 percent of all Spanish rules contain some form of a liability clause, mostly referring to commoners who would actively assist offenders in committing in an offence. The overall average percentage for Spain however threatens to conceal the variation between commons: on the one hand there were Spanish commons with no liability clause at all, whereas in the regulation of the Sada common every rule contained a liability clause. In the Low Countries and England, differences between the individual commons in the use of liability clauses were less extreme than in Spain, although there were remarkable outliers (in the Low Countries, of all the rules of Marke Het Gooi, 17.9 percent contained a liability clause on active participation with offenders, in England this was the case for 22.6 percent of all rules on Alston Moor.

For a total of 2,641 Individual Rules we were able to identify who or which group would be the main 'victim' if that specific rule was broken. In 92.8 percent of all such cases, the group of commoners as a whole would be the 'designated victim' of that offence; only in a few cases the rule would identify an individual or small group of individuals as being the victim of the offence. The only remarkable exception in this is the common of Valle de Roncal, where in almost 75 percent of all (171) cases the victim could be characterized as a 'class of subjects' rather than as 'the common in general' or as a specific individual.

For the same number of Individual Rules we were also able to identify the type of offender the rule referred to. Rules could be 'universally' addressed, i.e. direct towards each and everyone, regardless whether one was member, appointed official, or otherwise, or they could specify the exact type of offender (members, non-members, officials) to whom the rule was directed. For the Dutch and Spanish cases, it is nearly impossible to draw any general conclusions based on the overall average for both countries. For both countries, there is a wide variation between the individual commons regarding the type of offenders their rules relate to, although one might conclude that in most cases the 'designated offender' was a member of the common, since only a small proportion of the rules were directly directed at offenders from outside the common. This conclusion is however not to be generalized, since each country also has its remarkable outlier (Low Countries: Marke Raalterwold, Spain: Bardenas Reales, England: Hutton-in-the-Forrest) with a significantly higher percentage of rules directed against non-members. The rules of the English commons, by the way, are never directed against 'general' offences, but always directed against specified (types of) offenders.

The regulations of English commons are however, somewhat less specific regarding the 'trigger' for the execution of the sanction. In almost all cases, the simple breaking of the rule was sufficient for 'activating' the sanction. Although these percentages are also high for the commons in England and the Low Countries, especially the Dutch commons also made use of the 'time trigger'-mechanism: a sanction in that case was activated only when the offence was committed at a certain time of day or in a certain part of the year. Extreme outlier here however is the Marke Het Gooi, which has no time triggered sanctioning whatsoever.

The use of graduated sanctioning seems to be a way of sanctioning almost exclusively used by Dutch commoners. As we categorized the sanctioning part, we decided to make a difference between offences (deliberately and actively breaking rules) and non-compliance (not complying to orders and obligations). For both types of these punishable activities the figures however show the same image: the figures referring to the sanctioning of a second consecutive offence / negligence are slightly increased as compared to the figures of sanctions described for first-time offences. Remarkably, the number of rules relate to third-time offenders is considerably lower, which might provide an indication that warning twice was sufficient in most cases (although further research on this should still be done).

Next to increasing fines and punishments for recidivism, sanctions could also be differentiated based on the time of day/time year that the offence was committed. This type of differentiation is completely absent in the rules of the English commons, though there are rules which specify times (before sunrise, for example) or dates (Michaelmas, for example) before or after which an action was forbidden and when, therefore, a sanction would be applied. Although the Dutch had some differentiation (mainly referring to offences committed at night), the Spanish made most use of this differentiation option. In the case of Bardenas Reales, sanctions were differentiated according to the time of day the offence was

committed, whereas in the cases of Irurre and Olejua differentiation was based on the time of year the offence was committed.

Finally, from the text and context of the rules analyzed here, we can also define what kind of damage the offence would cause according to the commoners. Although the Dutch commons focus significantly more on damage to resources compared to the Spanish and English cases, the rest of the damage classifications are relatively similar, mostly focusing on the damage caused by unjustified profit for the offender (although also in this case the general averages slightly conceal the outliers per country).

c. Some first analysis results

The mass of data that has been collected has now gone through a first phase of analysis, whereby we focus on several specific issues from which we might draw some conclusions for a specific country or for all three countries involved in a comparative perspective. Underneath two limited examples of possibilities for further analysis are given, but many more possibilities can be given.

i. What is the role of sanctioning in long-enduring commons?

An analysis of the Dutch commons hows that not all types of regulation that were mentioned in the markeboeken needed sanctioning. About 12% of all rules were general rules and appointments. A sanction is rarely attached to these types of rules – in less than 5% of all cases. Especially rules on administration, financial matters, and the management system – which make up almost a third of all rules recorded – were often not sanctioned. This is not surprising, as these rules often specified tasks to be performed and procedures to be followed. On average 62% of the rules were not accompanied by a sanction, but this varied quite substantially per common. The picture that emerges when comparing the number of sanctioned with non-sanctioned rules is most interesting: there seems to be a relationship between longevity and sanctioning. On the whole, the commons that survived longest had far more rules that were not accompanied by a sanction than those that survived a shorter period of time. Only one-third of the rules in Berkum were accompanied by a sanction, whereas the commoners of Exel came up with a sanction for more than half of their rules. This seems to be a trend across other cases as well, although there are some exceptions to this rule.

Table 4: Percentage of rules accompanied by a sanction, per case study.

	Non-sanctioned	Sanctioned	All	Total N
Berkum	70	30	**100**	**220**
Rozengaarde	67	33	**100**	**264**
Raalterwoold	66	34	**100**	**751**
Bestmen	51	49	**100**	**156**
Geesteren, Mander, and Vasse	60	40	**100**	**211**
Coevorden	69	31	**100**	**334**
Dunsborger Hattemer marke	52	48	**100**	**246**
Exel	48	52	**100**	**371**
Total	**62**	**38**	**100**	**2,553**

ii. How were commoners encouraged to pursue sustainability?

Although not always explicitly mentioned, depletion of the common resources was definitely on the agenda of the commoners who were in search of methods to deal with this. Here we will show how the use of peat and the use of the common for pasture land were regulated in the cases of the marke of Exel, of the Dutch cases. Many of the English cases are also dealing with the regulation of peat digging but have not been analysed as yet. This one single example already offers a wealth of information that in combination with more examples can show how supply of resources and demand – through rules and sanctioning – were interacting. A depletable resource like peat is very vulnerable for substraction: every resource that is taken from the resource will take a very long period to be replaced; with resources as peat this will take more than a life time. Other resources like trees may grow back within a life time, but still the regeneration speed is not comparable with a resource like grass and herbs that regenerate even within a year. The fact that peat is depletable and has an extremely long regeneration time gives us a situation

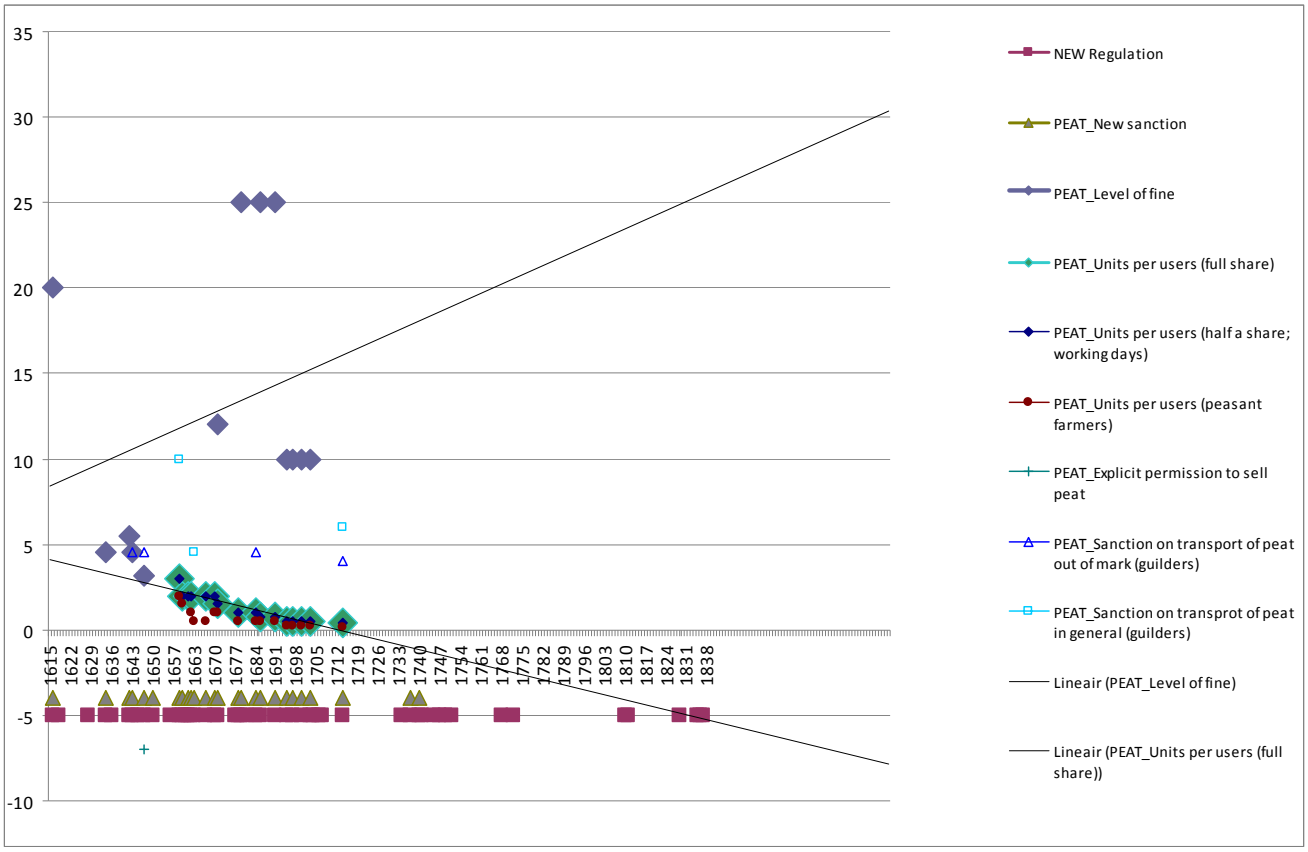
whereby resource use had to be very strictly monitored to avoid overuse, and if commoners did so, this clearly indicates that sustainability is an implicit but intrinsic goal of their management.

The digging of peat, as a resource important for warming the commoners' houses, was already mentioned in the initial regulation of 1616. This resolution stated no exact amounts of peat that were allowed to be dug. Instead, each household was allowed to 'dig no more than the amount it necessarily needed'[5], but this in itself is interesting as it shows the importance of the common to the subsistence economy of the commoners: no more than you really needed as a household. The additional rule that transporting the peat out of the marke was explicitly forbidden and sanctioned at 5 *goudgulden* per transport reinforces this idea of self-sufficiency further: allowing transport of the peat out of the would have been equal to selling it to others. Such commercialization would have encouraged overuse and misuse. In the same context, gaining additional profit by selling peat was sanctioned more severely: offenders caught selling peat had to pay a fine of 20 guilders, of which 5 guilders would be to the benefit of the fellow-member reporting this offence. Between 1616 and 1647, the regulations remained prohibitive in nature: selling peat was explicitly prohibited and sanctions were set for breaking those rules. In 1647, however, the regulation no longer contains an explicit prohibition, but instead permits shareholders (allowed to sell up to five transports of peat) and peasant farmers (who were allowed to sell a maximum of two transports) to sell a limited amount of peat. The next regulation however, dating from 1650, once again explicitly mentions the prohibition to dig peat to those not entitled to do so. In the second half of the seventeenth century and the beginning of the eighteenth century the main focus of the regulations regarding peat in the marke of Exel is on the amounts of peat that are allowed to be dug up as well as on the ways this diggings should be done. The regulations made up in the mentioned period are really detailed, but also indicate an increasing pressure on the available resources. The regulations dating from the third quarter of the seventeenth century are very specific in describing the way in which the peat should be collected. This even resulted in publishing two consecutive regulations within the same year (1659). The details mentioned in the second regulation of 1659 seem to indicate that the initial regulation of the same year appeared not to be sufficient; it may have been that the less exhaustive limitation mentioned in the first regulation of 1659 (prescribing the use of a maximum of 1 cart) was stretched to the limit by the users; the far more detailed description provided in the second regulation of 1659 at least limited the possibility for members of the marke to bend the rules. The details of consecutive rules also seem to confirm this alleged tendency of the members of the marke.

The process described above is presented in the graph underneath. The graph gives a graphic overview of – underneath the X-axis – the mentioning of new regulation and the years in which a sanction on various aspects that had to do with peat use was mentioned. Above the X-axis, the level of the monetary fines can be seen and the number of units (expressed in days of work) of peat per year per different category of users (those with full share, half a share, and peasant farmers) that could be taken from the common is registered. When comparing the level of the fine and the units it becomes clear that on the one hand the commoners tried to restrict the usage of the peat as it was becoming increasingly depleted, and that simultaneously fines were going up. The restriction of the number of units per user does however not start until the middle of the seventeenth century, showing that first they tried out sanctions, before reducing the level of appropriation below the self-sufficiency level. The graph also shows the sanctions that were set for transporting peat, either in general, or specific for transporting peat out of the marke.

[5] Beuzel, *Markeboek Exel*, 1.

Figure 2: Graph of the evolution of the fines on peat collection, the number of units of peat per category of user, and the timing of new regulation on the common as a whole, and sanctions on peat in particular (case Exel, the Netherlands)



The graph shows the fluctuating level of fines for the collection and digging of peat throughout time. It also shows the difference between the amounts of peat that were allowed to be dug by the owners of full shares and the peasant farmers (being to the disadvantage of the latter group). Whereas the sanction for transporting peat in general also fluctuates throughout time, the sanction for transporting peat out of the remains fairly at the same level throughout time. The straight lines show the linear development of the level of the fine (increasing line) as well of the amount allowed to be dug by owners of full shares (decreasing line).

The content of consecutive rulings on the amount of peat and the way in which the resource should be collected seem to imply that members tried to seek their maximum profit and were trying to stretch the limits of the regulations to their maximum: the consecutive regulations show an ever increasing degree of detail as well as an ever decreasing timespan during which the inhabitants of the were allowed to dig, leading to a mere three-sixteenth of a day for peasant farmers at the end of the studied period.[6] Increasing scarcity of the resource thus seems to have been the central issue in the regulations of the final quarter of the seventeenth century and the beginning of the eighteenth.

In due time, the comparison of the sanctioning processes applied to use of resources that regenerate at different – faster – paces (pastureland (fast regeneration), woodland (regeneration of

[6] The resolutions of the meeting of the assembly of the mark Exel of May 31, 1714 state that 'objections have been made regarding the digging [of peat] in the moorlands; if one would continue to keep doing so like before, the moorlands would soon be destroyed; in order to make an arrangement on this issue it has been approved that the farmer owning a full share will be allowed to dig and collect for half a day, those owning half a share one and a half *schoft* [*schoft* = 0.25 working days], and the peasant farmers three parts [meaning three-quarters] of a *schoft*, and all those entitled [to dig and collect peat] on the common should dig, one party after another in the aforementioned order; nobody will be allowed to bring any of the peat produced to the market or to anyone outside of the mark, each offender to be fined 6 *gulden* for each transport; anyone who will catch someone bringing peat to the market or to any other location, will be paid 1 *gulden*; anyone caught transporting peat, will be fined at 4 *gulden*.' (Beuzel, *Markenboek Exel*, 50).

approx. 60 years) would be most interesting. One can assume that the use of quickly depleting and slowly regenerating resources was monitored more intensively than in the case of other resources such as grass that could regenerate within a year's time.

5. Get involved in the Common Rules project

At the moment the research team that has been responsible for putting to for composing the codebook, the database structure, and the entering of the data is working on several publications which are based on the analyses of the above described case studies. In the meanwhile, several other researchers working on commons or similar institutions for collective action have shown interest to use the data, link it to their own datasets, or add the regulation of their own cases to the common rules database. We'd like to welcome scholars with an interest in longitudinal analysis of the regulation of institutions for collective action to consult the codebook, browse the database and send us their comments or express interest in further collaboration. The codebook on which the database is based can be found as an appendix to this paper.

To view the data in the database: go to http://www.collective-action.info/commons/menu.php and use as login: view, password: database.