Transnational Private Regulation and the Production of Global Public Goods and Private ‘Bads’

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Abstract

The article focuses on the role of private regulators in the production, access regulation, and protection of global public goods (GPGs). It addresses transnational private regulation (TPR) as a public good in itself and as an instrument to produce and protect GPGs. It makes three major claims: (1) private actors have incentives to produce and protect GPGs, thereby challenging the conventional partition between markets, producing private goods, and states producing public goods; (2) the production and protection of GPGs has to combine procedural and substantive features, making private governance a determinant of the club or public nature of the global good; and (3) ownership, both individual and collective, and contracting can be used to produce and protect GPGs. The article analyses in particular the proliferation of regulatory agreements between private actors or between private and public to regulate production, protection, and access, and shows that their limited legal enforceability is often functional to alternative compliance mechanisms devised through innovative private governance. It concludes by suggesting that the increasing role of private actors in the production of GPGs requires governance reforms of public–private cooperation at transnational level.

1 Global Public Goods and Transnational Private Regulation: Assessing Production, Protection, and Access

This article addresses two main issues: (1) the role and the limits of transnational private regulation (TPR) in producing, protecting, and granting access to global public goods (GPGs), and (2) the prerequisites that private actors have to meet to govern GPGs with legitimacy.1

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Conventionally, the economic theory of public goods suggested that these goods, characterized by non-rivalry and non-excludability, could hardly be generated by the market and must therefore be produced by states in order to avoid their undersupply. Accordingly, private goods can be produced by markets, whereas public goods ought to be produced by states. Following this approach, implications on the supply side are inferred from the demand side; from characteristics of consumption consequences are drawn about modes of production and their governance. We suggest that the definition of GPGs depends on the supply side as well as the demand side, and that more attention to the issues of the identity of producers and modes of production may shed light on the ‘publicness’ of global goods.

On the supply side, two changing features have to be highlighted: (1) the exclusive link between public goods and public actors has long been challenged; and (2) the production of public goods may differ according to the power of the actors and a distinction between weakest link and best shot should be made. The assumed inability of private actors, and market players in particular, to produce public goods, characterized by non-rivalry and non-excludability, by virtue of purely market mechanisms, should thus not lead to the conclusion that private actors do not have adequate incentives to produce public goods. In fact, we observe, empirically, the opposite: increasing private production of GPGs partly associated with states’ failures. This is true not only for market players, including individual firms and trade associations, but also, a fortiori, for civil society, in particular NGOs. The possibility of the private production of public goods is today commonly recognized, in both academic and policy circles. This empirical observation should not drive normative judgments on the desirability of the increasing role of private actors. In relation to specific GPGs there may be good reasons to maintain the dominant role of public actors, especially when distributional implications are taken into account. There is a risk that shifting from public to private production may change the nature of the goods, their accessibility, and enjoyment even if the total supply by private actors is the same or even higher than that by public ones. The ‘pie’ may be larger but its distribution can follow undesirable patterns when production is primarily private. As we shall see, governance requirements have to be met to ensure that private production of GPGs fulfills fair distribution criteria together with addressing collective action problems.

The importance of governance reflects also on the distinction between global and local PGs and the related distributional concerns. Global PGs present different features from local ones, calling for different governance responses. The equivalence principle stated by Breton has long been challenged. The multi-level structure was

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5 Sometimes states’ regulations may hamper the production of GPGs by creating barriers to transnational cooperation in the production and exchanges of public goods.
proposed to describe the relevant institutional levels where GPGs are produced and protected. Then, more attention was paid to local, territorial, and non-territorial governance, to look into the various wealth and power transfers that occur across levels where PGs are produced and used. Transnational spillover effects characterize goods’ consumption and require cooperation among states and/or private actors, in both production and protection. The differences between local and global public goods are generally focused on the difficulties in providing the right incentives to cooperate between public actors at the state and transnational levels.

Once the contribution of private actors is acknowledged, the institutional design question broadens to the modes of cooperation both between private and public and within each category. GPGs require global governance not only for the fiscal equivalence principle stated by Breton but also because international cooperation is fundamental to increasing coordination and minimizing the negative effects of conflicting global regimes affecting the same GPGs. Private production of GPGs therefore calls for new forms of global governance, enabling multi-stakeholder organizations to ensure that affected interests are accounted for and that both social and economic impact assessment is accurately performed. This article focuses on how private actors address collective action problems, focusing on ownership and contracting as complementary tools to influence production and protection.

A Linking GPGs and TPR

In the debate concerning patterns of transnational regulation, the link between GPGs and private regulation is often neglected, losing the analytical benefits potentially associated with it. We will try to fill this gap.

TPR concerns those regimes where private actors, ranging from trade associations, to NGOs from professional groups to technical standardization bodies are involved in setting standards, monitoring compliance, and enforcing rules. TPR in these new forms differs from conventional self-regulation because private actors also include civil society and NGOs well beyond professionals and industry. Furthermore these regulators design and enforce standards with potential effects over a much larger group than the members of their organizations or the signatories to the regulatory contract. Their reach and scope are wider and characterized by the aim of fostering the interests of third parties, the regulatory beneficiaries. In some cases (when NGOs are the main drivers) it is even claimed that it is a form of implicit delegation to regulate on behalf of dispersed communities. This delegation would take place precisely when

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7 See F. Cafaggi and K. Pistor, Dividing the Regulatory Space, on file with the authors.
9 See S. Barrett, Why Cooperate?: The Incentive to Supply Global Public Goods (2007), elaborating on the distinction between single best efforts and weakest links as different means of producing GPGs.
10 See Breton, supra note 6.
the global public good, like the environment, makes it difficult, costly, or impossible to identify specific regulatory power ‘wielders’ who should regulate production, access, and protection.

The use of TPR for the production of GPGs poses two problems: How can incentives to produce public goods be improved with regard to private actors? What distinctions should be made within the private sphere among profit-making and non-profit-making producers of GPGs?13

The differential features from public regulation are related to the relationship between regulators and regulated. Unlike the public domain, where separation and distinction between regulators and regulated is the dominant feature, even when mitigated by regulatory capture, in private regulation, there may be partial or complete overlap between regulators and regulated entities. Such a distinction is however less significant at the international level where there is some degree of coincidence between regulators (states) and regulated (states) even in the public domain.

Four major challenges have been addressed in respect of the conventional approach, which minimizes the role of private actors in production, protection, and access regulation:

(a) Private actors producing PGs do not coincide with market players. Non-profit-making organizations have incentives to produce public goods even when there is over-consumption and they can effectively address collective action problems.

(b) The public or private nature of a global good is not only a natural attribute of the (consumption of the) good but it is also the outcome of a social and institutional construct, where law and governance can influence both its production and protection.14 In particular, fundamental rights can contribute to the definition of GPGs and their production and protection. Thus rivalry and excludability appear not only regarding the final product but also through the process (including its regulatory component).

(c) Conflicts may arise between private and public regimes regulating GPGs. The conflicts between the free flow of information and authors’ rights, e-commerce and data protection, and information and privacy provide illustrations of how contested the production of GPGs may be. These conflicts exist regardless of the public or private nature of the producers, but the means to solve them differ, depending on the type of transnational regulation and the nature of the good.

(d) The public or private nature of a good is not necessarily incompatible with forms of ownership and contracting. In TPR use of ownership and contracting, related to the production of GPGs, has become frequent. Recent regulatory regimes have used private ownership, both individual and collective, to stimulate the production and protection of GPGs. Partial excludability via the creation of property rights should therefore be considered compatible with the public nature of global goods.


14 See Kaul et al. (eds), supra note 1, at 81 ff.
This article tries to link together the four challenges, showing that (1) GPGs are increasingly produced by private non-profit-making and profit-making actors, (2) transnational private law, and in particular transnational private regulation (TPR), can play a significant role in shaping the legal framework to stimulate production in regulating access and in granting the protection of GPGs, and (3) new regulatory forms have arisen, broadening the scope of ownership and contracts to regulate production and protection of and access to GPGs.

The focus here is not limited to production but it also includes access regulation and the protection of GPGs. The claim is that private actors are increasingly playing a role in regulating access to GPGs and protecting them from threats, often coming from other private actors and sometimes even from states. The extent to which ‘delegation’ to private actors is legitimate and desirable largely depends on the governance arrangements of the actors producing, regulating, and protecting the GPG. It is suggested that only when specific governance conditions are met is it likely that private actors can produce GPGs. It follows that not all forms of TPR are aimed at producing GPGs: some TPRs maximize private benefits at the expense of public goods; others produce public goods while reducing externalities. Access, enjoyment, and distribution of opportunities are all dimensions driven by supply as much as by demand conditions.

The article is divided into three parts. The first explains when, and upon what conditions, TPR itself can qualify as a global public good. The second explores the instruments deployed by TPR to produce, protect, and regulate access to GPGs, looking in particular at property and contracts. Concluding remarks then follow.

2 TPR as a Privately Produced Global Public Good

A General

In this article we look at transnational private regulation (TPR) both as a potential global public good itself and as an instrument to produce, regulate access to, and protect GPGs. What has often been considered as an oxymoron, i.e. the use of private...
regulation to produce GPGs, can become a consistent concept if governance requirements of the private regulators and the regulatory process are spelt out.

The starting proposition is that not all forms of TPR constitute a public good. Consequently not all forms of TPR translate into production or protection of GPGs. TPR, in the conventional form of self-regulation, where regulators and the regulated coincide, is a form of private global good, or more precisely of a club good, which produces and protects private benefits: those of the insiders. Often in these circumstances private players, both market and non-market, create barriers in order to exclude others from accessing or even producing the goods. Exclusion and rivalry, giving rise to private regulatory competition, are the characteristics of this type of regulation.

These implications are important for instances of ‘spontaneous’ production of GPGs by private regulators, but even more relevant for cases of implicit or explicit delegation of rule-making powers by domestic states or IOs to private global actors.

An important distinction should be made between different types of private regulators: that between TPR generated by the GPGs’ producers and TPR generated by private meta-regulators, which could subsequently be used by private producers of GPGs. A second distinction concerns means and outcomes. In many fields, the use of TPR is instrumental to the production and protection of, or access to, the public good. Codes of conduct in CSR, for example, are aimed at fostering environmental sustainability, fair trade, and fair labour. Policy guidelines in online advertising are aimed at protecting consumers’ privacy rights and their ability to choose the quality of data they want to disclose. Food safety private standards are aimed at protecting consumer health and safety. TPR is not the final objective; rather it is the means of producing, regulating, and protecting GPGs. Consequently when we consider TPR relating, for example, to information on the World Wide Web, the public good is represented by production and access to information flow rather than by the regulation of the process through which the internet permits the production of information.

Lately, however, the emergence of meta-private regulators has suggested that there is scope to think about TPR as an independent GPG to be subsequently deployed by sector specific regulators. These are private producers of rules not immediately associated with one specific GPG. While the case of meta-private regulators producing general rules to be used by individual regulators in various fields is one worthy of attention, we shall primarily consider forms of TPR instrumental to the production and protection of and access to GPGs.

19 See on the distinction between public and club goods Cornes and Sandler, supra note 11.
20 Meta private regulators are those private organizations the objective of which is to produce general rules in the form of codes or guidelines to be adopted and adapted by individual regulators.
B When Can TPR Qualify as a GPG?

The importance of the supply side for the definition of GPGs was underlined earlier. While the demand side is mainly associated with the final product (the standard and its implementation), the supply side will in this article be related to the regulatory process, for example, how the standard concerning the GPG is produced and implemented. The relevance of the supply side is related to the significance of the production process of the public good. We contend that rivalry and excludability should concern not only the GPG (the final product) but also its production process via regulation. The public good nature of a legal rule depends also, if not primarily, on how it is produced. We link the traditional non-rivalry and non-excludability requirements to TPR and verify when it can be considered a GPG.

The key feature in relation to TPR producing, protecting, or granting access to GPGs is non-excludability, while rivalry is less significant, albeit not totally irrelevant. Rival rules do not necessarily generate private goods. On the contrary, rivalry concerning private rules can result in private regulatory competition, which, under certain conditions, can translate into the production of public goods. Thus rivalry in rule-making can produce different results. TPR can therefore be qualified as a GPG primarily when it satisfies non-excludability requirements. These requirements concern the identity of the regulators, and how accessible the regulatory processes and products (e.g. the accessibility of the standards and their effects) are. They have to fulfil both procedural (access to the production process) and substantive (access to the final good) non-excludability requirements. This implies that only those private legal standards which are not propertized or, if propertized, are nonetheless made freely/easily accessible can in principle be considered to be GPGs. Access however is not the only relevant dimension. The public nature of TPR should also be measured in terms of its effects. Only those standards that produce positive effects on third parties, the regulatory beneficiaries, can be considered to be GPGs. If they produce effects only within the circle of those who made the rules then we remain in the domain of club goods.

The first implication is that economic theory of public goods and its application to GPGs has to be qualified when the public good coincides with regulation, and particularly when it consists of privately produced regulation.

The variables that make TPR a GPG are thus associated with accessibility to, participation in, and enforceability of TPR (legal or non-legal), and its reviewability by independent bodies (primarily procedural features). Only if the production of regulation is accessible to the regulatees and the beneficiaries, in different forms, can it be characterized as a GPG.

How should accessibility of regulatory regimes be defined for this purpose? Legal rules concerning access to regulatory processes and to products have to be combined. Participation in the regime and availability of the standards should be considered jointly. When participation in a regulatory regime is based on membership (i.e., where

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23 On these dimensions see Stewart, The Enforcement of Transnational Public Regulation, in Cafaggi (ed.), supra note 13, at 41 ff.
only those who belong to the organizations are allowed to use the standards), procedural accessibility is measured according to the membership requirements. The stricter the requirements for membership the more club-good oriented the regulatory products are. As we have already suggested, access to the product (e.g., the standard) is also important to define the public nature of the global good. When standards are produced to be freely used, the price of buying the standard may also become a significant variable. In theory the non-excludability requirement of regulation is met only when the standard is available for free. In practice, even when the standard is available for sale but the price is ‘accessible’ to the general public it can still be considered a public good.

But the accessibility of and to standards and the ability to use them do not alone satisfy the requirement of ‘publicness’ for a public good associated to procedural and substantive access. In this framework, non-excludability concerns not only the regulatees, individually or collectively, but also third parties potentially affected by the standard, for example, the regulatory beneficiaries. Thus, a standard can be considered a public good when its production has given access to the relevant constituencies and it produces positive effects (externalities) on third parties while conversely negative externalities are non-existent or very limited.

3 Private Regulation of Production, Access, and Protection of GPGs through Ownership Rights and by Agreements

After examining the nature of TPR as a GPG, we now turn to the link between transnational regulatory instruments and GPGs. The claim is that processes affect outcomes; therefore the qualities of a GPG will depend on its production process, which in turn will be influenced by the regulatory instruments chosen. As stated before, the supply side is relevant well beyond the issue of under-supply. The link between under-supply and over-consumption is well known but the problems on the supply side are not limited to under-supply.

Ownership is seen as a regulatory device that allocates rights over resources that belong to resource systems. Ownership can be integrated by contracts, which regulate the interdependence among various property rights.

Agreements have regulatory content and can take different forms, ranging from Memoranda of Understanding (MoUs) to international framework agreements, codes of conduct or commercial contracts incorporating regulatory provisions. Therefore, the public or private nature of a global good is often the consequence rather than the premise of policy and regulatory choices.

The choice between ownership and contracting or the type of combination of the two strongly affects the expected regulatory outcome: that is, ‘optimal’ supply of GPGs,

24 See Cafaggi and Schmidt, Transnational Regulatory Cooperation – Comparing Networks and Agreements, on file with the author.

25 This conclusion reverts to the correlation between the nature of goods and policy implications commonly associated with (global) public goods.
their protection, and their fair distribution. The role of cooperation among different actors is crucial and alternative modes of cooperation translate into different types of governance arrangements, which, in turn, will affect the public nature of the good. As we have seen, one of the main challenges for governance is represented by a failure to cooperate in producing or protecting GPGs. One aspect of failed cooperation is free-riding. One of the main challenges for the production of GPGs is the control of free-riding problems, which concern both access to the resource and fair contribution to its production. Ownership models and agreements address the responses to failures associated with collective action problems differently. The next section will outline the various scenarios for production, access, and protection of GPGs through ownership rights or by means of agreements.

A Private Production of GPGs, Multiple Functions of Individual and Collective Ownership: Expanding the Scope of GPGs

Individual and collective ownership constitute potential instruments to govern the production and protection of GPGs. Individual property rights or collective ownership can stimulate or hinder the production of GPGs depending on the specific attributes of the GPG. The alternative governance regimes are summarized in the taxonomy between commons, anticommons, and semicommons. Individual or collective property rights can also help to protect GPGs and in some cases to promote access to global commons. Their regulation contributes to defining whether and how discrimination can occur.

Property rights may perform different functions depending on their design, policy scope, and domain. Their allocative function is frequently specified by linked agreements. Often ownership regimes are associated with contracts that regulate access to and use of the common resources and prevent, or at least mitigate, collective action problems. We address three issues: (1) the alternative between the creation of new property rights and the regulation of existing ones; (2) the alternative between collective and individual ownership; and (3) the alternative or complementarity between private and public production of GPGs and its influence on ownership.

(1) Legal regulation may either create new property rights, as often happens with trading emissions in environmental regulation or copyrights in the field of

26 The concept of commons has been analysed by R. Hardin, that of anticommons was originally developed by Michelman and then developed by Heller, that of semicommons developed by Levmore and subsequently by Smith.

27 Often, e.g., it is useful to discriminate between competitors (to be excluded) and consumers (to be included). This might be particularly difficult in those systems adopting, within property, a bright distinction between effects erga omnes (in rem) and effects towards individuals (in personam). See Smith, Exclusion versus Governance: Two Strategies for Delineating Property Rights, 31 J Legal Studies (2002) 453.

information, or limit existing ones, imposing quotas that regulate and reduce individual enjoyment or consumption in the interest of the natural or cultural preservation of existing commons. The latter example occurs when regulating the relationship between agriculture and environment. But the choice of whether and how to propertize units of a GPG is only the first governance step. Often the \textit{ex ante} definition or powers of the interested constituencies serves to engage in transactional behaviour, to define shared use or consumption of the resource units among different categories of potential users. The public good often coincides with a resource system, which can be broken down into single units. While single units can be propertized the interdependence of these property rights, associated with the same resource system, remains and influences the legal framework and, in particular, the use of agreements to regulate enjoyment and consumption.

Collective ownership may provide alternative responses to collective action problems, and it is another form of a transnational private regulatory regime. Examples range from collective ownership of perishable resources to collective ownership of information. Collective ownership has been conceived as an alternative to no ownership and to individual property rights. Collective ownership can be applied to global and to local public goods. An illustration of collective ownership for the protection of GPGs is that exercised by indigenous communities over their traditional lands.

Some of the most prominent examples in this regard are cultural and natural heritage regimes (e.g., at a national level, the English Heritage (www.english-heritage.org.uk/about/)) or at a global level, the UNESCO which protects both natural and cultural (as well as mixed) properties). The idea behind these incentive schemes, as well as any other national or regional one, is to preserve areas, sites, objects, etc. that are classified under a heritage regime for a particular group or for mankind as a whole. See, e.g., UNESCO Convention Concerning the Protection of the World Cultural and Natural Heritage, which states in its Preamble: ‘[c]onsidering that parts of the cultural or natural heritage are of outstanding interest and therefore need to be preserved as part of the world heritage of mankind as a whole.’ The notion of property is not entirely coincident with the conventional one. See Francioni, Beyond State Sovereignty: The Protection of Cultural Heritage as a Shared Interest of Humanity, 25 Michigan J Int’l L (2004) 1209.

Ownership by indigenous peoples of their ancestral lands has received acknowledgement in international law as an important element of the indigenous culture, and thus of a regime protecting special rights of indigenous peoples. See, e.g., the Inter-American Court of Human Rights in \textit{Case of the Mayagna (Sumo) Awasa Tingni Community v. Nicaragua}, Ser. C No. 79, Judgment of 31 Aug. 2001, at para 149, which states: ‘[f]or indigenous communities the land is not merely a matter of possession and production but a material and spiritual element, which they must fully enjoy to preserve their cultural legacy and transmit it to future generations’. See also on the special link of indigenous people with their land. The Inter-American Commission on Human Rights therefore explicitly included the special right of indigenous people to landownership into the Proposed American Declaration on the Rights of Indigenous Peoples, which states:

1. Indigenous peoples have the right to the legal recognition of their varied and specific forms and modalities of their control, ownership, use and enjoyment of territories and property.
2. Indigenous peoples have the right to the recognition of their property and ownership rights with respect to lands, territories and resources they have historically occupied, as well as to the use of those to which they have historically had access for their traditional activities and livelihood.'
Collective ownership of the resource systems may be combined with individual property rights of individual units of that resource system. Individual property rights, as in the area of environment and culture, may contribute to stimulating production and to increasing protection of GPGs, which coincide with the resource system.

(3) In some areas, private production of GPGs has simply complemented public production. In other areas private actors, especially non-profit-making ones, have radically modified production processes of GPGs. Information is a classic example of a GPG collectively produced by private, both profit- and non-profit-making actors, at the transnational level which has witnessed radical transformations. New forms of decentralized non-hierarchical production of information systems have developed with the use of the internet. They are socially coordinated outside the traditional mechanisms of price (market coordination) and hierarchy (state coordination).

Another area undergoing similar changes is innovation. Applications of technological and scientific knowledge have been increasingly ‘propertized’ to stimulate the public good of innovation. However, individual propertization can be quite costly and also produce inefficient results as the anticommons literature suggests. Not all innovation processes call for individual property rights, or at least not of the same kind. Open innovation has developed on the basis of new business models, driven by modularity. This development has favoured collective or shared ownership rather than individual, as the case of patent pools with licensing agreements shows. Open source and individual property rights in innovation today co-exist.

Concretely these rights are often exercised in a communal manner. This means that it is not individual indigenous people who own land rights but the group as a whole or parts of a group. This special form of common ownership was well illustrated in a decision by the Navajo Supreme Court (Begay v. Keedah) No. A-CV-09-91 (Nav. Sup. Ct. 1991): [t]raditional Navajo land tenure is not the same as English common law tenure, as used in the United States. Navajos have always occupied land in family units, using the land for subsistence. Families and subsistence residential units (as they are sometimes called) hold land in a form of communal ownership.


This distinction was used by E. Ostrom, Governing the Commons: The Evolution of Institutions for Collective Action (1990), at 38.


We finally concentrate on the relationship between ownership and excludability to analyse when the enjoyment of a public good can be allocated via property rights, either individual or collective. Conventionally, excludability has been associated with the private nature of the good and its modes of consumption. Conversely, so the claim goes, only if a good is not excludable does it have a public nature. Partial excludability leads to the production of impure public goods.37

But who decides, and in accordance with which criteria, whether or not the consumption is (or should be) public or private, determining the degree of excludability? How relevant are conflicting interests over the publicness?38 Among the many legal factors that contribute to this decision, human rights seem to play a growing role. Human rights have become relevant in providing answers to these questions affecting the ‘publicness’ of global goods.39 The recent evolution of human rights to access technology, culture, education, environment, and information demonstrates that the qualification of the public or private nature of GPGs, associated with the right, does not derive naturally from the intrinsic attributes of these goods. Rather these are policy choices, often conflicting, concerning whether and how consumption rights are defined and allocated at the global level. The focus on consumption is also shown to be too narrow. The problem of overconsumption of scarce resources is but one among many issues concerning conflicting interests in GPGs and the role of ownership. As the case of information on the internet demonstrates, the production process of information has radically changed, thereby calling for a wider definition of public good, which includes not only consumption but also, at least for some GPGs, production.40

Information is considered an impure public good since propertization has permitted at least partial excludability and rivalry. Depending on the type of information the value increases or decreases with its diffusion. When it increases there is no rivalry but there may be distributional conflicts; when it decreases there is rivalry and there are problems of allocative efficiency. The degree of propertization and its modes may be correlated to both the objective of maximizing the value and that of permitting the widest possible access.

The higher the level of enjoyment, the higher the social and economic value of the good, so overuse and overconsumption may not be the problem. Clearly there are other instances where information has private value, which would be lost if and when the information becomes public. In this circumstance only keeping the information secret preserves its value. Modes of diffusion are linked to the use of legal instruments, which can differ according to the now well established tripartite distinction between commons, anticommons, and semicommons. Thus governance schemes concerning information have to differ depending on the nature of information and the desirable allocation of rights to use it.

Conflicting interests may influence the boundaries between the private and public nature of the global good. Information also illustrates the problem of how conflicts among competing interests might undermine the production of GPGs. The problem is the extent to which other competing and legitimate interests can reduce the degree and quality of the public nature by propertizing news and information. Major concerns relate to privacy, security, and creativity. These interests may require limitations on the flow of information, call for governance schemes complying with collective privacy and security policies, and to the extent permitted by freedom of expression, with copyright of content producers. We shall return to information later when discussing instruments.


The extent to which propertization as a mechanism for stimulating production of GPGs works across sectors is hotly debated. In the field of global information, the increasing use of property rights to protect authors as an incentive to decentralize and democratize production is highly contested. A one-size-fits-all policy is not a viable option. But how free are states and private actors to propertize GPGs? How does international and transnational private law influence and constrain these decisions?

1 How Human Rights Principles and Policies Affect the Production of GPGs and the Ownership Choices

The decision on whether and how to ‘propertize’ global commons is driven/constrained by various factors, among which respect of human rights plays a major role. The identification of which definitions of human rights are adopted is therefore relevant to determine the degree and extent of GPGs production/protection. In particular, different definitions can affect access, models of ownership, and therefore influence the collective dimension of excludability. We shall consider some human rights and their implication for the production and protection of GPGs and influence on instruments choices. For example, the human right to information and the constitutional principles of freedom of expression/speech both inform this allocative decision.

When regulatory power of private actors exists, within the limits defined by the constitutional protection, different dimensions of the freedom of expression or of the right to information may influence the nature of information (e.g., about facts or opinions) and its accessibility to the general public. But how does freedom of expression relate to the supply and demand side of information as a GPG? The right to produce information may lead to different regulatory policies from those related to the right to be informed, for example, the right to receive information, to the extent that production and consumption of information are kept separate. The right to produce information may imply the configuration of property rights to provide the producer with incentives to engage in the activity. The right to be informed, on the other hand, may require free access and call for minimal or no propertization. As such, the features of information as a GPG depend on the balance between the right to inform and the right to be informed, and ultimately on the adopted definition of freedom of expression.

41 Helfer and Austin suggest that human rights underline the distributional aspects of innovation and intellectual property looking not only at incentives but also at how the benefits coming from innovation are distributed across countries and actors: R. Helfer and G.W. Austin, Human Rights and Intellectual Property: Mapping the Global Interface (2011), at 237.

42 As is well known the scope of freedom of expression varies substantially across legal regimes and these differences have an impact on how information and knowledge are produced. See the La Rue Report, supra note 16.

43 Illustrations of this are expressions protected by copyrights which are considered to be compatible with freedom of expression. In the US see Eldred v. Ashcroft, 537 US 186 (2003). In Europe the relationship between freedom of expression and copyright is more contentious see Hugenholtz, ‘Copyright and Freedom of Expression in Europe’, in R. Cooper Dreyfuss et al. (eds), Expanding the Boundaries of Intellectual Property (2001), at 343 ff and, more broadly, Helfer and Austin, supra note 41.
The debate often concentrates on public and private regulations that ‘reduce’ freedom of expression, and that define its limits. Little is said about forms of transnational regulation that can enhance freedom of expression, or at least some of its dimensions. For example, TPR concerning professional activities by journalists may be seen both as freedom-enhancing and freedom-limiting, depending on the approach towards the right to be informed and its protection against professional malpractice. In relation to the production of global information, we shall distinguish between forms of TPR that can enhance, specify, or limit freedom of expression. Different conclusions should be reached if the focus shifts to new modes of news production based on user-generated content when consumers and producers coincide.44 In both cases, the production of GPGs has to be compatible with other fundamental rights like privacy and data protection.45 Often, the conflicts among GPGs produce different regulatory regimes even within private spheres, which then have to be coordinated in order to ensure compatibility between different human rights.

The separation between the rights to inform and to be informed is increasingly blurring. Clearly the stark increase of end-user information production is redefining the boundaries between production and consumption and the very definition of global information as a GPG. The creation and management of the internet, and the presence of social and commercial networks, producing, aggregating, and disseminating information and knowledge, constitutes an illustration of the importance of global private actors, both individual and collective, in the production of GPGs.46 Creative Commons, The Open Software Foundation, and the Wikimedia Foundation all represent instances of governance of GPGs by way of transnational private regulation.

Ownership may be an instrument to prevent conflicting uses of information. Trends towards propertization of information and knowledge are determined by different conflicts over overlapping GPGs: from those between service and content providers to those between content providers and users.47 The governing principle of net neutrality as an institutional precondition for the production of information is under increasing pressure, deriving from the unequal distribution of revenues among the different market players.48

44 See Benkler, supra note 40, at 59 ff.
46 See OECD Communiqué, supra note 33.
47 See ibid., at 6: ‘[n]ew and complementary approaches balanced to ensure effective protection of intellectual property should also be encouraged when necessary, and should also ensure protection of legitimate competition and fundamental principles such as freedom of expression, access to lawful content and internet services and technologies, fair process, and privacy. Sound internet policy should encompass norms of responsibility that enable private sector voluntary cooperation for the protection of intellectual property.’
    For a broad discussion see L. Lessig, Remix: Making Art and Commerce Thrive in the Hybrid Economy (2008).
48 See Cafaggi and Pistor, supra note 7.
Increasingly after a period characterized by pure private governance, the internet is moving towards a different regime, led by multi-stakeholder organizations including governments, using primarily private instruments like codes of conduct or guidelines but enforcing them through administrative or judicial bodies. Proposals for further publicization of internet governance are currently on the table, to rebalance the allocation of power associated with the current imbalance. These governance modifications are partly driven by the effort to avoid privatization of the information produced and disseminated on the web by increasing exclusion of or, at least, forms of barriers to entry for newcomers.

Fundamental rights policies and instruments shape the production and protection of many other GPGs. The fundamental right to enjoy the benefits of science and technology, which includes access to technological and scientific innovation, shapes allocative decisions concerning whether and how both the production of and access to science should occur at the global level. This right affects ‘if’ and ‘how’ inventions should be patented and who should decide whether and according to what conditions they should be made accessible to firms and consumers; for example, what kind of patent pooling should be designed. While it is important to keep separate the fundamental right of creators from intellectual property rights, it is clear that the correlation has recently become stronger, especially in relation to global science and technology. Clearly, the private production of science has to strike a balance between the interests of communities in accessing and enjoying the benefits and the protection of authors’ rights. Often however the authors and communities stand on the same side, while the conflict exists between different competing content providers. Different forms of transnational regulation, by individual or collective content providers, have emerged to regulate the conflicts. Forms of commons coexist with forms of semi-commons and individual property rights.

A similar issue arises in relation to the fundamental right to culture. The current conflicts concerning the protection of authors, which have progressively also included information production and, particularly, news aggregation, can be expressed in different ways. There is an inner conflict between the right to participate in cultural life,
which includes the right to access different forms of culture, and the rights of authors to be remunerated for the works of art that they produce. Ownership can partly solve the problems by defining both access and use.

Finally, the human right to food contributes not only to defining how land should be allocated, thus influencing how property rights should be defined, but also to the identification of the contracting structure to be adopted along the supply chain. Food production, access to food, and land protection from ‘grabbing’ are all regulated along supply chains by private actors whose collective activities contribute to both the quality and safety of food. Many global and local ‘bads’ relating to environmental choices affect agricultural practices and the opportunities to grow for smallholders’ communities. Food constitutes the illustration of how ownership and contract regulation should be combined to ensure production and fair distribution.

Fundamental rights therefore may influence the demarcation between the public and private nature of GPGs and their modes of production, which are linked to consumption. They affect the choice among instruments, in particular nature as a common or semicommon and the type of compatible propertization of the common resource. The latter point emphasizes that the separation between production and consumption, upon which traditional attributes of (non-)rivalry and (non-)excludability are based, is weakening and needs to be revisited in the light of the third industrial revolution. Often, rivalry in consumption decreases and benefits accrue if production opportunities increase due to technological innovations. These changes suggest that increasingly compatibility between the use of property rights and human rights exists even to ensure fair allocation. Ownership, in particular collective ownership of resources ranging from information to science and innovation, from environment to education, can stimulate the production of GPGs. The examples above show how the design of ownership regimes by transnational private regulation may be influenced by human rights concerns relating to accessibility and enjoyment, which reshape excludability and rivalry and affect governance.

B Transnational Contracts and Agreements Regulating Production, Access to, and Protection of, GPGs

After describing how individual and collective property rights can promote or hinder the production and protection of, and access to GPGs, and the influence played by human rights, we now turn to regulatory agreements, community protocols, and international contracts. Traditionally, within the domain of agreements, reference is made to international treaties and conventions. In this article, we focus on different forms of agreements, which may be concluded among private actors or between public

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54 See De Schutter Report, supra note 21, at para. 6 ff.
55 See Heller and Austin, supra note 41.
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and private entities for production, access to, and protection of GPGs. Some of these private agreements emerge independently from international treaties and conventions; others are functionally linked with public international regimes. They present different features, being more or less detailed, of various degrees of binding force, in relation both to individual clauses and to different parties affected by them. They promote cooperation, regulate production, as well as access to and protection of GPGs.

The objective of private regulatory agreements, unlike many international treaties and conventions, is not necessarily the harmonization of substantive rules; rather it is the definition of common principles to promote international regulatory cooperation or to avoid conflicts among divergent objectives, fostered by the various actors holding regulatory power. Rather than harmonizing they make compatible potentially conflicting uses of the same immaterial resource (information) or balance conflicting interests over the use of a natural resource, as revealed by the conflicts between environment and agriculture or between environment and fishing. They also differ from traditional international commercial contracts whose primary focus is to define the terms of exchange between two or more commercial actors.

Agreements are the primary instruments to regulate procedural features of GPGs production and protection, defining who should be involved in the regime and, within the insiders, who is entitled to design and implement the rules. They show how the quality of a public good is shaped by the nature of the regulatory process that defines what is produced and how the resource is distributed.

Agreements sometimes represent alternatives to ownership, while at other times they constitute instruments to regulate collective ownership, allocating rights to produce and use the common resource. In fact it should be stated at the outset that collective ownership is often complemented by agreements directed at regulating the use and enjoyment of commons or semicommons by global private actors. As highlighted by Elinor Ostrom in relation to local public goods, contracting helps to define incentives to control free riding, govern collective action problems, and minimize negative spillovers.

56 Conventionally international treaties are not and cannot be implemented via agreements of private actors unless so specifically provided by the treaty itself. For example, an agreement among fishermen, which allocates quota on the basis of a multilateral treaty concerning the use of seas for fishing purposes, cannot be characterized, according to the current view, as a means of implementation of the treaty. Often the management of these resources requires specific agreements between states, between states and private actors, or between private actors. This article highlights the divergence between empirical reality of connected agreements of different type, regulating management of global commons and the divide between public and private, which often artificially segments the transnational regulatory chain.

57 As suggested by R. Stewart in relation to international environmental agreements, within this set of instruments there are also differences, since some have pursued harmonization objectives more while others leave states wide discretion on instrument choice. See Stewart, ‘Instrument Choice’, in: D. Bodansky, et al. (eds), The Oxford Handbook of International Environmental Law (2007), at 147, in particular at 168.

58 Involvement may entail different types of roles ranging from direct rule making, to monitoring compliance with regulatory objectives, to enforcing legal and social norms.


60 See Ostrom, supra note 32, at 15 ff.
More recently, however, agreements have covered production of GPGs, replacing or complementing ownership arrangements that used to be predominant. When there are multiple conflicting GPGs, agreements may contribute to partitioning the regulatory space as well as to reducing and mitigating conflicts discouraging overconsumption and undersupply.\textsuperscript{61} Here they represent an alternative rather than a complement to ownership as a governance device.

Agreements may have a comparative advantage over ownership to induce cooperation but are more expensive to enforce even when non-legal mechanisms are in place. The feasibility of agreements and regulatory contracts as transnational regulatory tools depends on several features, among which looms large the level of transaction costs, concerning both drafting and monitoring implementation of commitments.\textsuperscript{62}

1 General: Transnational Contracts and Agreements Creating Access to GPGs and defining Procedures

Agreements regulate the production and protection of GPGs in a variety of areas: trade, environment, e-commerce, data protection, intellectual property rights, corporate social responsibility, food and product safety, to name but a few. In trade, they have introduced fair trade and sustainability standards in commercial relationships between suppliers at different levels of the global chain; they regulate e-commerce and protect copyright and trade mark owners from counterfeiting practices; they regulate advertising practices of online providers to protect the privacy of potential users; they regulate safety of products and services defining common standards along the supply chain; they define labour and social standards; and they regulate access to and protection of environmental resources.

Following the distinction between club and public goods outlined above, we distinguish within private regulatory agreements between (a) those that establish cartels, creating barriers to accessing standards and the goods regulated thereby, and (b) those regulatory contracts, which promote access to new processes and products. Only the latter contribute to the creation and/or protection of GPGs. They can create GPGs either in the form of the regulation itself (then by granting access to the procedure by which the good, e.g., the regulation, is created),\textsuperscript{63} or


\textsuperscript{63} Here one can name in particular the MoUs between ISO and the OECD, as well as the Global Compact and the ILO, which all include participation of the respective international organizations in the drafting of the ISO 26000 standards on social responsibility: available at: www.oecd.org/dataoecd/51/11/45330481.pdf (last visited 16 August 2012); http://www.scribd.com/doc/16810157/20061109-Memorandum-of-Understanding-between-ISO-and-Global-Compact (last visited 16 August 2012); and http://inni.pacinst.org/inni/corporate_social_responsibility/Moi%20ILO%20&%20ISO.pdf (last visited 16 August 2012).
by regulating access to the resource (then by granting access to the GPG and by protecting it).64

Private regulatory agreements may emerge as an instrument to implement the management of common global resources like the environment and agricultural resources, the rules of which may or may not have been defined via international treaties. The preservation of forests constitutes a paramount example of the combined use of property-like arrangements and agreements which emerged out of the failure to reach political consensus over a hard law instrument.65

As in the case of ownership so also in that of agreement the influence of human rights is relevant as the example of CSR shows. The ISO 26000 standard on CSR reflects the Ruggie framework endorsed by the UN and by the OECD. The MoU between ILO and ISO specifically defines the purpose of the agreement to ensure that all ISO standards are consistent with fundamental rights.

Agreements can regulate access to GPGs by virtue of defining modes and conditions of access to protected environmental areas or water basins or relevant sensitive information belonging to individuals or communities in the field of data protection. In addition to providing standards for extra-contractual liability, agreements can define obligations and liabilities in respect of reducing the use and consumption of GPGs, like clean air with carbon emission, water or soil with pollutants, security with information, and so on.

Agreements can also contribute to partitioning the common regulatory space in order to prevent or mitigate regimes’ conflicts affecting GPGs.66 As in the case of ownership, agreements can regulate the use of resources in order to prevent free-riding. Regulatory agreements determine the regulatory space within which resource regimes can be defined. In this case they are designed to ‘regulate’, coordinate, or facilitate regulatory activities by the individual signatories whose regulatory domains may at least partly overlap and generate conflicts about the modes and nature of GPG production. Often they set out a framework to govern cooperation between complex organizations, which have thereafter to engage in regulatory activity.67 Some are project-oriented, as is the case of the ISO’s cooperation with the Global Compact (GC), the OECD, and with the ILO, for the purpose of drafting ISO 26000,68 or, alternatively, they can be aimed at long-term cooperation or even some form of systems integration.69 One possible mode

64 See MoU between the FSC and LEI on cooperating through a joint certification programme (see below, note 65), or the Memorandum of Understanding between the World Wildlife Fund (WWF) and GlobalGAP on Aquaculture Standards, available at: www.globalgap.org/cms/front_content.php?idart=881 (last visited 16 August 2012).

65 In this area several private organizations emerged to regulate sustainable forestry management. Two of those organizations have now started approaches to cooperate in their private regulation: see MoU between the Forest Stewardship Council (FSC) and the Lembaga Ekolabel Indonesia (LEI), available at: www.fwi.or.id/sertifikasi/sertifikasi34.pdf (last visited 16 August 2012).

66 See Cafaggi, supra note 61.

67 The cooperation as provided for in the MoUs ensures the consistency between the different incentives (public and private ones) and therefore also a consistency in the creation of the public good.

68 See the respective MoUs signed between the ISO and the OECD, as well as the Global Compact and the ILO.

69 See, e.g., the UNEPs Sport and Environment Programme, available at: www.unep.org/sport_env/.
of cooperation could also translate into softer forms, such as liaison agreements or expert groups existing between different regulators. Finally, a permanent cooperation programme between sectors is also possible when different, and at times even conflicting, policy goals have to be balanced.

As we have repeatedly stated, processes influence outcomes and processes are defined by choices of instruments. In relation to agreements to a greater extent than ownership, processes are considered to ensure the publicness of GPGs. CSR provides interesting illustrations of the use of agreements for procedural matters directed to influence the final regulatory product; furthermore it offers good illustrations of how human rights may influence the production and protection of GPGs. In the CSR field one can offer multiple examples of agreements the content of which is influenced by the objective of complying with fundamental rights, linked to labour and the environment. The ISO 26000 standards constitute an interesting contribution to the creation of GPGs concerning social and environmental standards. ISO 26000 is an example of a global public good privately produced where processes and outcomes are linked. The ‘core subjects’ of the ISO 26000 approach are: community involvement and development, human rights, labour practices, environment, fair operating practices, and consumer issues. The scope of the standard is defined partly by the processes through which it was drafted and the procedural rules that were adopted in the MoUs between the ISO and other organizations. The development of the ISO 26000 standards was preceded by MoUs that regulated the involvement of international organizations (ILO, OECD, UNGC, as well as other public and private organizations) in the drafting process.


See www.iso.org/iso/iso_catalogue/management_and_leadership_standards/social_responsibility/sr_discovering_iso26000.htm#std-1.

The procedural provisions outlining the participation of the three public organizations (OECD, ILO, UNGC) in the ISO 26000 standard setting process are rather detailed. One core pillar of the agreements is participatory rights that ISO grants the public organizations in the working groups drafting the social responsibility standards (Art. 5 ILO-MoU; Art. 4.1 OECD MoU; Art. 4.1 UNGC MoU). The participation rights that ISO is granted in the OECD and in the UNGC (Art.4.2 OECD MoU and Art. 4.2. UNGC MoU) is also notable; the second core pillar is the notice and comments procedures set in place. All three organizations are guaranteed to be consulted on issues linked to their organization and to have a right to comment. The goal is generally full support of the respective organization, although there is no obligation (Art. 2.1.12.1.3 ILO-MoU Art. 2.32.5 OECD-MoU; Art. 2.32.5 UNGC-MoU). There is, however, a provision in all three Agreements that demands consistency of the new ISO standards with the respective standards by the public organizations (OECD Guidelines (Art. 2.1 OECD MoU); ILO Standards (Art. 2.1 ILO MoU); GC 10 Principles (Art. 2.1 GC MoU)); Furthermore Art. 2.3 ILO-MoU stipulates that in the event of conflict the ILO standards will take priority.
MoUs are often employed between different regulatory organizations, for example, between two or more international organizations, between two or more private regulators, or between public and private bodies.

In the case of ISO 26000 intergovernmental organizations were granted great influence in their respective areas of expertise within the drafting process by the MoU. Certainly the argument can be made that ISO as a (at least partially) private regulator participates in the efforts (of the CSR movement) to produce public goods. The agreements preceding the drafting of the standards were instrumental to avoiding conflicts among organizations protecting specific interests within the broader sphere of CSR.

A further example of MoUs establishing cooperation in the creation of GPGs is the public/public cooperation between the ILO and the FAO. But agreements in the area of food safety take place among private actors as well. Global risk management is protected by the adoption of regulatory agreements ranging from mutual recognition to common substantive or procedural standards.

In the field of internet governance we find agreements to regulate conflicts or to enhance cooperation in contexts where interests are coincident. MoUs are, for instance, used between private actors to regulate conflicts between content producers and news aggregators. They may also have the goal of enhancing cooperation between private actors with overlapping interests; for example, those between internet platforms (ISP) and copyright owners to monitor unlawful behaviour. These include not only procedural rules but principles concerning the protection of IPRs when they are violated by third parties. This is another example of agreements complementing ownership arrangements concerning the production and diffusion of online content.

73 According to the MoU between these two organizations which is based on cooperation since 1947, ‘FAO and ILO share a commitment to support people-centred, sustainable development and fair and inclusive globalization. Joint activities will combine the respective capacities of the two organizations to help countries address more effectively the need to combat hunger and rural poverty by improving and diversifying the livelihoods of the rural poor and hungry‘: MoU available at: www.fao-ilo.org/fileadmin/user_upload/fao_ilo/pdf/ILO_FAO_MoU_2004.pdf. Although the wording of this MoU is kept rather general, it is possible to see numerous possibilities for cooperation to promote the protection or creation of GPGs.

74 See Memorandum of Understanding 7-6-2011 Center for copyright information (CCI), available at: http://www.copyrightinformation.org/sites/default/files/Memorandum%20of%20Understanding.pdf (last visited 16 August 2012).

75 The MoU on online infringements defines an alert system which obliges the Internet service provider to alert the copyright holder and to implement a copyright alert program. This program includes a mitigation measure copyright alert program which will be applied to those who have subscribed to the program. These agreements involve at least three parties: Internet service providers, copyright holders, and subscribers which manage websites. The objective is to ensure that culture and cultural creativity are protected from copyright infringements at the same time preserving freedom of expression and access to culture. It is another example of agreements complementing ownership allocation.
4 Concluding Remarks

The article focuses on the role of transnational private actors in the production, access to, regulation, and protection of GPGs. It makes three important claims: (1) private actors have incentives to produce and protect GPGs, thereby challenging the conventional partition between markets, producing private goods, and states, producing public goods; (2) the production and protection of GPGs has to combine procedural and substantive institutional features, making private governance a determinant of the club or public nature of the global good; and (3) ownership, both individual and collective, and agreements can be used to produce and protect GPGs.

The production, protection, and access regulation of GPGs is not the exclusive domain of states and international organizations. Private actors also play an important role. The link between processes and outcomes has thus been emphasized: how a regulatory global good (a rule or a set of rules like a code) is produced has an impact on its public nature and quality. This is particularly important if private regulation is at stake. The correlation between processes and outcomes has been widely recognized within public domestic law and global administrative law. In relation to TPR, the relationship between decision-making processes and regulatory outcomes is as important, but the specific features linking governance and regulatory output differ.

Private production of GPGs complements rather than substitutes production by states and international organizations. After clarifying that for the most part production and protection are the outcomes of public–private cooperation, the analysis defines criteria to distinguish between global public and club goods. According to the adopted perspective the definition of a GPG does not depend exclusively on the features of consumption, i.e., on non-rivalry and non-excludability, but also on the modes of production, and thereby on the supply side. It encompasses the characteristics of the production process, including governance and procedural features. Not all forms of transnational private regulation translate into the production of GPGs; only those characterized by specific governance and procedural requirements ensuring ‘publicness’ in economic terms do so. Among these requirements some are worth referring to. On the governance side, the non-profit-making form of the organization managing public goods, associated with the non-distribution constraint, provides

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77 See Cafaggi, supra note 22, at 20.

better incentives to internalize third parties’ effects than profit-making forms. On the procedural side, providing participatory rights linked to impact assessments of regulatory choices, third party compliance monitoring and independent enforcement can contribute to reinforcing the ‘public’ nature of the global good. On the contrary, governance of the regulator, modelled on the features of a club, with almost full coincidence between regulators, regulated, and beneficiaries is most likely to give rise to global club goods, characterized by rivalry and excludability.

Law and governance at the global level thus contribute to defining the public or private nature of the global good. Whether, for example, information should be freely consumed or whether its producers could decide (1) who the final beneficiaries are, excluding some from the enjoyment, and (2) how access to its consumption should be organized is a decision ultimately dictated by policy goals, and influenced by legal principles to a much greater extent than the physical characteristics of the good’s use or consumption. To what extent and in relation to whom the consumption or the production of a resource is made excludable may depend on whether and how it is propertized. The degree of exclusion from the resource’s production and consumption (which powers belong to the entitlement holder and which ones can be used collectively), and the ability to discriminate between different categories of excluded beneficiaries, are all policy matters that transnational law can address with a combination of various instruments.

Then the instruments were examined to determine their influence on the regulatory processes and their outcomes. The private production, protection, and access regulation of GPGs implies the use of private law tools: in particular of ownership and contracts. Both ownership arrangements and agreements assume distinctive features from those traditionally associated with domestic systems. They are influenced by the function they perform. Ownership and agreements may regulate production or protection of GPGs and/or be used to avoid or to mitigate conflicts. In particular collective ownership and regulatory agreements emphasize the link between the process and the outcomes, between production and consumption of GPGs, forcing one to revise the conventional theory of public goods. Agreements are primarily used to regulate procedural dimensions (addressing the ‘who’ question), while ownership is mainly used to define substantive issues (addressing the ‘what’ and ‘how’ questions). Depending on the specific global good, they can be used as alternative or complementary governance devices. Complementarity may entail the use of agreements to define ownership arrangements (in this instance they precede ownership) or implement ownership agreements (when they follow the definition of ownership).

Agreements are made by actors holding regulatory power over the existing resources (environment, agriculture) or over new resources like information, knowledge, and

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79 See Davis, supra note 13, at 211.
80 See Ostrom, supra note 32, highlighting that there is at least a third way beyond centralization and use of individual property rights: the use of self-enforced agreements. The focus of Ostrom is on local rather than global public goods, but some form of contracting has also been used in relation to global goods.
innovation. Traditionally we find agreements primarily as instruments to regulate access and to protect existing GPGs. They can promote the production of GPGs when they govern overconsumption, minimize collective action problems, and constrain free riding. They do not necessarily presuppose the definition of individual property rights, as is rather the case for exchange contracts, and can thereby regulate the collective production, protection, and consumption of global commons.81

A transformation similar to the ones caused by the crisis of the regulatory state at the domestic level is occurring at the international level and the institutional consequences are in front of us. The role of private actors in production, protection, and access regulation suggests that both public policies and the international institutional framework should be rethought in the light of the increasing role of private actors, in combination rather than in competition with states and international organizations.

81 Whereas exchange contracts presuppose the definition of property rights, regulatory agreements can contribute to the definition of rights to use and enjoy common resources. When collective ownership is difficult to manage regulatory agreements can provide second best solution.