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# Part II: The General Principles of Oeconomy

# Chapter 2: The Different Categories of Goods and Services and their Systems of Governance

## Introduction : The Different Ways of Classifying Goods and Services and the "Share-and-Divide Test"

While reflecting on oeconomy's specifications, we have just reached two essential conclusions. The first was that exchange born from the production and use of goods and services does more than satisfy individual needs. It also creates bonds that contribute to building society, in addition to fostering relations between individuals, between societies, and with the biosphere. The second conclusion was that the production of goods and services incorporates different types of capital, in which there is always a public component, whether because this capital is the fruit of collective efforts, or because its use cannot be restricted to a single actor. We must now ask ourselves what goods and services we are talking about. To this end, let us return to oeconomy's definition. "Its purpose is to organize the production, the distribution, and the use of goods and services

[…]"; "it must make the best use of technical capacities and human creativity"; "it must preserve and enrich the biosphere"; "it must preserve the interests, the rights, and the capacity to act of future generations"; "it must act within conditions of responsibility and equity to which all can adhere." For this reason, "the purpose of oeconomy is to create actors, institutional arrangements, processes, and rules."

But are these actors, institutional arrangements, processes and rules the same for all goods and services, or do they vary according to their nature? In other words, does oeconomy encompass several systems of governance, each one specific to a particular category of goods and services? Are these goods and services equivalent from the standpoint of the collectivity, and should decisions about their use depend solely on individual preferences? Are they equivalent from the standpoint of the preservation and the enrichment of the biosphere? If one seeks to make the best use of technical capacities and of human creativity, are these freely accessible or limited to private ownership or use? Are goods and services equivalent from the standpoint of personal and social responsibility, as well as from the standpoint of equity?

To ask these questions is to have already answered them: no, goods and services differ from one another according to each of these criteria.

Consequently, oeconomy must be able to describe and characterize these various goods and services—in other words, to place them into relatively homogenous categories and to define the actors, institutional arrangements, processes, and rules—in a word, the systems of governance—corresponding to each category.

One of the classic questions faced by governance is that of determining what should belong to the market (which requires public authority only to define the rules and create the conditions in which it can operate) and what should belong to the public sector (on the basis of which taxation, redistribution, or direct public action in the form of public services are justified).

These questions are the subject of a lively debate. Like comparable debates, this one has more often been obscured than clarified by political and ideological positions inherited from history. Partisans of public service have opposed those of the market for so long that many distinctions and nuances have become blurred, rendering many general terms increasingly meaningless. Under the rubric of "public service," goods and services provided by local authorities because they are essential to human dignity (such as health, education, the environment, and water) are mixed in with economic activities that are called "public" because they face no significant competition; services that depend on public intervention, such as roads and railways; and services that are essential to a nation's future, such as research. This leaves us with quite mishmash. Further confusion ensues when it is inferred that because a good is public, its management must also be public: in this way, the good's nature and purpose are conflated with its management.

This debate leads us to even more appalling muddles, such as the defense of "French-style" public service against the temple merchants of the United States or Great Britain, or the fact that we applaud our state companies (such as EDF, Air France, France Télécom, and others) when they conquer foreign firms, even as we preach economic patriotism and scream bloody murder if it seems that the Americans might take over Danone or the Italians Suez. In the name of sovereignty—which we hastily invoke on

such occasions—we grow indignant at the prospect that on our own soil our champion companies might be subject to the very competition that serves them so well when it comes to acquiring little siblings abroad. The time has come, in short, to think a little more coherently.

From this perspective, it is fortunate that France belongs to the European Union. The fact that we must constantly compare how nations with very different traditions go about pursuing the same goals requires us to constantly reconstruct and deconstruct our own habits of thought. This is good for mental hygiene. Pierre Bauby, the former director of EDF's research group on "Electricity and Society" and the chairman of one of the committees of CEEP (European Centre of Employers and Enterprises providing Public services) insists that in the French tradition the term "public service" is confusing because it can refer simultaneous to several different things: a public assignment, a monopoly, a state company, an employee's status, and even the state itself.[1] In other European countries, public services differ from one another in terms of the categories they use, their doctrines and concepts, their territorial subdivisions, the commercial character (or lack thereof) of their services, as well as the nature of the actors involved (public, mixed, private, or associative). Even so, beneath this diversity lies a profound unity: in all European countries, public authorities have decided that certain activities must not be forced to obey the laws of competition and the market, but instead require their own specific forms of organization and regulation. The following reasons are invoked:

- To guarantee that each inhabitant has the right to essential goods and services;

[1] See Pierre Bauby "The Evolution of Thought Relating to Public Service at a European Scale", Institute for Research and Debate on Governance, June 2005.

- To insure economic, social, and territorial cohesion, and to build solidarity;

- And to foster sustainable development at an economic, social, and environmental level.

The principle of "undistorted competition," on which the European Common Market was built, has seriously shaken the conventional understanding of public services. It requires each state to justify why it thinks it should be exempt from the rules of competition that apply to all. The high point of these challenges to our understanding of public service was reached between 1986, when the Single Act was signed, and 1994, when the single market was fully implemented. But, as Pierre Bauby also notes, the traditional idea of public service was also called into question by several technological and cultural developments: the internationalization of sectors that had previously operated on a national scale, consumer demands that certain services be diversified, and the inefficiency of certain public services that had been protected by their monopoly status. The charge was enthusiastically led by neoliberals and by major firms—some of which had previously enriched themselves on public sector contracts, as was the case with the water industry in France—seeking to profit from the neoliberal wave. What I find particularly interesting in this debate is that it takes only a few lines for the heterogeneity of goods and services classified as "public" (as well as the heterogeneity of the criteria use to identify them) to appear. At times, we are talking about the way in which some goods and services are produced—one requiring the intervention of public authorities; at others, we are talking about the goods' recipients, by affirming that everyone should benefit from them; occasionally, their public character is justified on the grounds that they are not the object of genuine competition, and that allowing them to be

privately managed would privatize income acquired through a dominant position; at times, we are referring to a form of management; at others still, we mean a long-term and collective interest arising out of a concern for social cohesion and future generations.

Thus depending on which criteria one chooses to emphasize, one is led to different models of production and management.

### *The Criteria of Destination*

Let us begin by examining in depth the first criteria for classifying goods and services: the criteria of destination. This criterion should allow us to distinguish "public goods" from "private goods," and to see if it is possible to deduce specific governance systems from them. From the standpoint of their destination, so-called "public" goods and services are associated with the idea of right. Consider the case of health. The French association "Biens publics à l'échelle mondiale" (BPEM, or "Public Goods on a Global Scale") defines these goods as "things to which individuals and peoples have a right, [and which are] produced and distributed in conditions of equity and freedom that are the very purpose of public services, whatever the status of the companies that happen to assume responsibility for them." One must also refer[2] to the imposing edifice of universal rights which, since the Universal Declaration of the Rights of Man of 1948, has expanded and been filled out by a large number of conventions and two pacts, one covering political and civil rights and the other economic, social, and cultural rights. The notion of a global public good is thus intimately connected to that of universal economic, social, and cultural rights. "Global" is defined here as "that to which everyone has a right" and not as

[2] François-Xavier Verschave (ed.), *La santé mondiale entre racket et bien public,* Charles Léopold Mayer editions, 2004.

"that which must be managed on a global scale" or "that which belongs to humanity's heritage."[3]

Water, education, health, and an uncontaminated environment are thus—who would deny it?— fundamental conditions of human dignity, as much as freedom of speech and of conscience. An oeconomy that claims to promote humanity's well-being within conditions of responsibility and equity to which all can adhere must allow each human being to enjoy these elementary rights. The question then becomes: how does one get beyond simply declaiming this principle? How can each human being enjoy these rights in practice?

The International Covenant on Economic, Social and Cultural Rights of 1966 recognizes "the right of everyone to the enjoyment of the highest attainable standard of physical and mental health" and charges the signatory states to take the necessary measures to guarantee that these rights can by fully exercised. But we must note the unintended humor found in subsequent phrases. The Covenant speaks of "the highest attainable standard of physical and mental health": yet is this capacity relative to one's genes, to one's age, to the condition of one's environment, to the lifestyle that one has chosen or been forced into, or to one's economic means? And while the signatory states recognize that they have been charged with taking the measures necessary to achieve these goals, what exactly are their practical implications? Where are the courts before which "everyone" can sue a state denying them the highest attainable standard of health? Does the Covenant require states to devote all of their resources to achieving these goals?

[3] The definitions of global public goods are as numerous as the authors who grapple with this idea. A useful summary can be found in: Jérôme Ballet, "Propriété, bien public, bien(s) commun(s), in *Développment durable et territoires* 10 (March 2008).

What does it say about adjudicating goals that are mutually exclusive? Four observations follow from these questions.

The first is that in oeconomy, some goods are public by virtue of their destination. These goods are defined through a collective adjudication standing over against the atomized expression both of the unrestricted preferences of individuals (i.e., demand) and of the unrestricted choices of producers (i.e., supply). This leads to a major question: how should collective preferences and individual choices be combined, and what kind of regulations of supply and demand are required—the public or private character of the actors charged with the providing these universal services notwithstanding?

The second observation concerns the institutional arrangements to be created. A declaration of rights, even when unaccompanied by positive measures prescribing how all can be made to enjoy them, at least establishes a principle of non-contradiction: any institutional arrangement that makes the enjoyment of these rights impossible becomes *ipso facto* illegitimate. Perhaps the notion of "manifest incapacity," which brings us back to the nature of the actors and their relations with one another, can provide a roadmap leading to future institutional arrangements.

The third observation concerns the multiplicity and thus the coherence of oeconomy's goals. Ever since the creation of the United Nations in 1947, the international community takes on every year more and more goals, which it then typically asks the signatory states to implement. However, the institutional arrangements adopted to ensure the implementation of these goals participate in (including at the level of states themselves) an outdated conception of governance, in which each institution is assigned a single goal. The question of the coherence between goals and means is thus settled

simply by juxtaposing institutions, despite the fact that they often have different purposes, without anyone ever bothering to adjudicate between them. Yet the public and private institutional arrangements that must be invented to provide these types of goods and service should, to the contrary, seek to pursue multiple goals simultaneously—something that we have only a very poor idea of how to do.

The fourth observation pertains to responsibility. The International Covenant on Economic, Social, and Cultural Rights of 1966 affirms that "States Parties will take appropriate steps to ensure the realization of this right." But this does not imply a penal responsibility. Rights cannot be effective unless it is possible to demand that they be enforced in a court of law; consequently, to be made effective, rights presume a division of responsibilities. Yet what all economic and social rights have in common is that while they depend on individual behavior (for instance, with regards to health, alcohol, tobacco, and drugs, or, in the case of housing, noise, respect for the occupied space, and the timely payment of rent and service charges), they are also managed by local and national authorities, as well as by the international community. Responsibility for these rights is thus necessarily shared, making it difficult for one to demand their enforcement by a single institution.

Michel Doucin, France's former ambassador to the Commission on Human Rights, has analyzed the meaning of economic and social rights in depth, demonstrating that they can only mean that that any given state must be as efficient as possible in fully enforcing these rights given the means at its disposal. This means that the policies and institutional arrangements that each state adopts must be examined by its citizens as well as by the international community, and must benefit from the successes and failures of

others and from the best available knowledge. This is precisely what is meant by the principle of active subsidiarity. The association "Biens publics à l'échelle mondiale" observes: "Universal human and ecological rights are the rule, legitimate international institutions are the guarantor, democracy is the permanent requirement, and social movements are the source." One should note both the strength and the weakness of this formula from the standpoint of oeconomy: a right is not a rule; international institutions have, regrettably, neither the legitimacy nor the means to guarantee that rules are obeyed; democracy is not one of public service's strongest suits; and as for "social movements," whether the social dynamic that historically played such a decisive role in pressuring states to adopt public health policies is adaptable to a global scale is unclear. Thus if the criteria of the destination of goods and services allows us to assert that the collectivity must step in to determine collective preferences, by guaranteeing that there is universal access to these goods, by punishing actions that violate economic and social rights, and by devoting itself to actually providing them, it tells us relatively little about the system of governance that it necessitates.

***Modes of Production***

Let us turn to the second possible criteria for classifying goods and services: their mode of production. This is the weakest criteria, for several reasons.

The first is that public goods are only defined, as it were, negatively. For neoclassical theorists, public goods are those that the market cannot produce: goods that are non-exclusive, and thus over which there is no rivalry. Everyone can use them as he or she wants, and doing so deprives no one else of them. However, from the standpoint of

oeconomy, this criterion is on its own not particularly relevant. It implies that in situations where the market is capable of producing, it is necessarily more efficient. Public action thus occurs simply by default, as a second choice, or when market mechanisms are unavailable. A broader examination of which institutional arrangements are best suited for achieving oeconomy's goals are thus required. Market mechanisms naturally have their place; they are, however, only one institutional framework among others, and should not be seen as an end in themselves.

The second reason is that this form of classification encourages us to see each mode of production as endowed with inherent attributes. It is better to judge the various possible institutional arrangements in light of their results, rather than in terms of their self-declared virtues. Public institutions can function purely for their own sake and become completely self-referential, indifferent to society's real expectations; but they can also be models of governance aimed at promoting the public good; private companies may be full of crooks and run by unscrupulous opportunists, but they can just as easily be driven by an ethos of the common good. It is thus more useful to imagine under what conditions the former might truly serve society and the latter serve the common good than to declare *a priori* that one form is superior to the other.

The third reason for the frailty of classification in terms of modes of production is that the kinds of goods that can be produced or reproduced by a market are very dissimilar. A monument or a landmark that has been declared to belong to humanity's heritage is a public good because it is not reproducible. Its value lies in its history; it is deemed a "public good" not by virtue of *how* it was produced, but by virtue of *what* was produced. Being an integral part of the richness of humanity, it should fall under the

purview of classical property law, which, as Roman law stipulates, authorizes the "use and abuse" of goods one owns. Private or public proprietors cannot do what they want with it without accountability. The notion of "common good" leads, for individuals as much as for states, to the idea of "functional sovereignty."[4] The right to use a good or a service is recognized only as long as one preserves resources that are held in common, achieves certain results, does not deprive others of their right to use it, and so on. Functional sovereignty (i.e., the right of usage or of conditional property) thus lies mid-way between several different modes of production.

The final reason for this frailty is that today, modes of production are mixed, as I demonstrated in a previous chapter: in a modern economy, most intangible, human, and natural capital necessary for production—including private production—is collective capital, in the sense that it has been either produced by the collectivity or is the outcome of multiple contributions made by its members.

### *The Nature of Goods and Services*

Over the years, another criterion for classifying goods and services has struck me even as even more decisive for oeconomy: that of the nature of goods and services.

The need I felt to create a typology of goods and services based on their nature arose from my unease when confronted with classic typologies that confuse, as we have just seen, criteria based on destination with criteria based on mode of production. This ambiguity is most apparent when considering services providing personal care. There is no inherent difference between different professions providing personal care. The

[4] I borrow the concept from René-Jean Dupuy, *La clôture du système international: la cité terrestre*, Presses Universitaires de France, 1989.

services that one requests of a doctor, a nurse, a hairdresser, or a housekeeper are fundamentally similar, as they simultaneously mobilize competencies and time and seek to engender feelings of well-being, the quality of which depends both on technical skill and the personal connection. In this case, even more than in others, economic exchange is a bond. This is so true that in hospitals, the rate at which the sick get well depends as much on how they are received, on the atmosphere, and on the food—in short, on matters relating to the hotel business—as on medicine as such. Anyone who has visited the elderly knows that a lingering hairdressers' or housekeepers' appointment—that is, time that is devoted to them and which proves that they exist and can still participate in society—is worth a great deal more than medical care—though it is medical care that is more commonly considered to be a "public service." Confronted with ambiguities such as these, it seems to me that the "dividing test" offers the most decisive criteria.

The "share-and-divide test" is what the gardener does when he thrusts his spade into the ground. If he cuts a worm into two, is there no longer a worm, or are there two? Similarly, what happens when one tries to divide up goods and services?

The ambivalence of the French verb *"partager,"* which can mean both "divide" and "share," leads oeconomy to some interesting insights. In French, one can say: *on partage un gâteau* ("we cut the cake into pieces"), *on partage un repas* ("we share a meal"), *on partage des convictions* ("we share the same convictions"), *on partage une même culture* ("we share the same culture").

*Partager un gâteau* means "to cut up a cake and to give everyone a piece." In this sense, *partager* means to divide and then to distribute the results of this division.

*Partager un repas* ("to share a meal") does not, however, necessarily mean that we divide up the main course. It means, rather, to be seated around a same table and to enjoy the presence of others. But clearly "sharing a meal" does not imply that some will stuff themselves while others eat nothing. We find ourselves here squarely within the realm of oeconomy: "the use of goods and services within conditions of responsibility and equity to which all can adhere."

*Partager des convictions* ("to share the same convictions") uses the word in a third sense. Here, it indicates something that is held in common, and which thus implies an exchange and a bond. It is something which makes being together and acting together possible. We are thus not far from the idea of a "functional economy," in which the goods that everyone produces can be used by all, thus ensuring that everyone's contributions are mutually compatible and possibly even interchangeable. For instance, the adoption of a common set of Internet standards can be a necessary foundation for enabling mutually beneficial exchanges. In any exchange, the reduction of transaction costs and related uncertainties implies numerous instances of sharing of this kind. The most evident example is that of a shared currency. It establishes a single standard of value, ensuring that everyone can understand what is being referred to. It does not create uncertainty, as do fluctuating exchange rate when different currencies are in use.

Finally, *partager la même culture* ("to share the same culture") resembles the preceding example, save for a few subtle nuances. It means having a common basis that makes us what we are and nurtures us. Unlike norms such as the Internet, this culture is produced by history; however, it is not the outcome of explicit agreements, and thus cannot be easily reproduced.

The "separating" and "dividing test" thus leads us to distinguish four major categories of goods and services: those that are destroyed when divided (category 1); those that are divided as they are shared and are finite in number (category 2); those that are divided as they are shared and are indeterminate in number (category 3); and those that multiply as they are shared (category 4).

In the remainder of this chapter, I will try to explain each of these categories, to illustrate them with examples, and to deduce the system of governance that is best suited for each.

## 1. "First Category Goods," Which Are Destroyed When Divided

### Examples and Characteristics of First Category Goods

First category goods are those that are indivisible, or which, if they were divided, would be destroyed. They consist of two major types: those that are the product of a single action, and those that are the outcome of a myriad of actions and decisions.

One can say, for the sake of simplicity, that the criterion of first category goods is that of Salomon's judgment: if one cuts an infant in two, and gives half to each mother who claims it as her own, there would no longer be any child at all. In relation to indivisible goods, we must behave like the good mother in the story of Salomon's judgment: "I would rather that the other mother have the child than that there be no child at all." It is a frustrating category, as it is both self-evident and difficult to explain. To define its parameters, we will consider a list of possible examples, explain why some

seem to belong to this category of indivisible goods, and then try to identify the category's general properties.

Let us take as our first example a monument or land classified as belonging to "humanity's heritage." These are clearly not divisible: if one broke the monument down into its component materials, or divided the land up into strips, one would destroy the very thing that makes them valuable. These are goods whose different parts form a system and whose quality is an emergent property of this system. Furthermore, what makes this heritage valuable is the fact that it is not reproducible, since it is a product of history and history cannot be rewritten. A crazy billionaire could recreate the château of Versailles or the temple of Angkor in America or China; but they would not be considered humanity's heritage, as they would simply be imitations. It is true however that *any* building or piece of land can meet the twin criteria of indivisibility and non-reproducibility, without for that reason deserving to be included in humanity's heritage. A third characteristic is thus necessary: an artifact's irreducible value. It is irreducible in the sense that its value has no monetary equivalent. Humanity's heritage cannot be bought. It is a product of civilization that we judge to be important for ourselves and for our children. It thus satisfies one of oeconomy's criterion: "the preservation of the interests, the rights, and the capacities of future generations." We do not have the right to deprive them of the château of Versailles or of the temple of Angkor. To call it humanity's heritage is to say that it is important for the whole world and that the whole world is the guarantor of its integrity.

A second example is to be found in the biodiversity of ecosystems. We find the same criteria that we applied to the château of Versailles and the temple of Angkor.

Biodiversity is a property of the ecosystem itself, an emergent property, irreducible to its parts. A second characteristic is that biodiversity is not reproducible, precisely by virtue of the fact that it is the result of an infinite diversity of regulations that we do not know how to reproduce artificially. Thanks to biotechnology, we know how to produce beings that do not exist in nature—they are unfortunately constitutive of the very dreams that these technologies allow us to entertain. However, in the case of biodiversity, we are incapable of doing more than participating in its upkeep. A third characteristic is that the existence of this good or service is essential for us. We know that by undermining biodiversity, we would also be undermining the interests, rights, and capacities of future generations; we would fail to achieve one of oeconomy's major goals, the preservation and enrichment of the biosphere.

We thus have already identified three interesting characteristics of first category goods: their value is an emergent property of the system and thus indivisible; they are non-reproducible; and they have qualities that are valuable for the future. Biodiversity is not only defined globally; it also applies to a more local level. For example, when one converts—as the Charles Leopold Mayer Foundation recently did—a major agricultural property from conventional to organic agriculture, one increases very visibly and quickly the local ecosystem's biodiversity, because in regenerating it benefits from the biodiversity of a much vaster system, which it then contributes to maintaining. Biologists have shown that the biodiversity of the whole cannot be maintained, as some once imagined, by creating biodiversity conservatories, such as natural parks or gene banks. We thus find ourselves considering a fourth characteristic: system properties can only be

maintained on the basis of a totality of local actions. In other words, we all share responsibility for the creation and the preservation of the common good.

Let us now consider a third example, that of the climate and the ocean. Our three characteristics—non-reproducibility, non-divisibility, and value for humanity—can be easily recognized in these examples. Even more than with biodiversity, it is clear that the climate and the ocean's equilibrium are affected by the sum of our involuntary actions. No one intentionally destroys the ocean's equilibrium or deliberately modifies the climate. And yet, the cumulative effect of billions of decisions produces these outcomes. This type of common good thus necessarily entails shared responsibility. It must be exercised by imposing constraints on behavior, but these constraints must be consistent with a principle of equity to which all can adhere and fall under the jurisdiction of an authority recognized as legitimate. This point will be developed in the chapter dedicated to oeconomy's legitimacy. Finally, thanks to this example we encounter another property that is dear to economists, that of non-exclusive use: in other words, the fact that one person uses it does not prevent someone else from using it.

Cities and networks are our fourth example. With them we again find, though to a lesser degree, several characteristics found in the preceding cases. First of all, their values lies in emergent properties. A city is not merely the sum of its buildings; a network is more than the sum of its paths. A private highway is valuable only insofar as it exits on to the regular road network. Otherwise, it would simply be a cul-de-sac that nobody would use. Furthermore, it is generally the product of actions that have built on and completed one another over the course of history. That said, one could not claim that these goods are strictly speaking indivisible. One can divide up a network, cut off one of

its branches, or assign it to several managers; one can tear down a neighborhood; one can even, with enough time and money, build an identical replica of a town. However, this good or service still serves as a common ground on which people are able to plan their own activities. Its *raison d'être* lies in the fact that it is shared, even if one cannot, in the narrow sense of the term, speak of non-exclusive use: anyone who has been caught in a traffic jam or been unable to send an email via the internet can easily confirm this. But I am rather attached to the idea that there are goods and services to which anyone can have access. This is one of the meanings of *partager:* something that is held in common and on the basis of which action is possible.

The fifth example is the intangible and human capital that we described in an earlier chapter as one of the major preconditions of the modern economy. This again brings us back to the first shared characteristic: that of emergent properties of the system, where the whole is more than the sum of the parts. For instance, a stockpile of scientific and technical knowledge is a totality that cannot be broken down into discrete items of knowledge. In the same way, there is no doubt that the mass of knowledge and know-how available on the labor market is simply the sum of individual knowledge and know-how; even so, the fact that they coexist in a single urban space and on a single labor market make it possible to organize their mutual complementarity into a valuable production factor. As in the case of the climate, we can say that this good is the product of a large number of actions. Consequently, we must thus think of it as being managed according to the principle of shared responsibility. As in the case of a city, we cannot say that strictly speaking this good or service is non-reproducible; however, it would certainly be lengthy, costly, and laborious to reproduce. Preserving and enriching it are a

duty that preserves the interests, the rights, and the capacity for initiative of future generations.

A final example is what Victor G. Gorshkov (cited above) calls "*biotas,"* that is, vast natural spaces, such as the Central Asian steppes or tropical forests, which, he argues, play a central role in maintaining the stability of those parameters upon which life on earth depends. They share several characteristics with natural ecosystems. *Biotas* are non-divisible. The capacity to stabilize the parameters of life on earth is an emergent property of the system. Stabilization mechanisms cannot be reproduced artificially, because they bring into play millions upon millions of rules. Their existence is determinant for life on earth. On the other hand, even more than in the case of biodiversity, they are "territorialized" goods; their preservation and management are everyone's concern, but they are essentially dependent on the actions (whether or not they are actually taken) of individuals or authorities living on a specific territory. As in the case with oceans, the world community must involve itself and property and sovereignty must be limited—in other words, subordinated to a certain number of rules made in the common interest. We must also consider the issue of solidarity: because these goods are being preserved in the interest of the world community, the latter must contribute to their preservation and management.

From the comparison of these different examples, several principles arise. First category goods and services can be in the global interest, yet still require local management. They require that all levels of governance, extending from the local to the

global, be carefully gradated, and that the various territorial levels respect the shared obligation to produce results.

In oeconomy, the totality of goods falls neither under the purview of the market, nor of traditional property rights—which, to the contrary, imply a possibility of being divided, reproduced, used exclusively, and a free choice as to whether to produce or not produce, or to use or not use.

**Systems of Governance for First Category Goods**

*First category goods are clearly not to be situated in the same realm as commercial goods. They possess none of their characteristics. Yet this does not mean that they fall under public management.* We are condemned to impotence if we lock ourselves into the opposition between centralized public management and private management based on decentralized regulation.

The first reason for transcending this opposition is that first category goods, as we have seen in the case of oceans, natural or domesticated biodiversity, or intangible assets, are important factors of production and exchange. A large number of economic actors benefit from them. In many instances, it is due to the financial contributions of these innumerable beneficiaries that one can hope to gather the resources to preserve and maintain first category goods, which are essential to humanity's survival.

The second reason is that the development of these goods proceeds from a large number of decentralized decisions. The oeconomy of first category goods must thus

consist of regulations that are themselves decentralized, seeking to encourage protective behavior, such as, for instance, agricultural modes of production that contribute to maintaining biodiversity and that emit few greenhouse gasses.

The third reason for not seeing the two spheres as impermeable relates to the efficacy of incentives and sanctions. Because many first category goods are global in scale, managing them runs up against the weak legitimacy and inefficiency of global governance, whose wavelets disintegrate against the solid ramparts of national sovereignty. Moreover, countries who are economically militarily powerful enough to impose political constraints on recalcitrant countries are the first to exempt their own sovereignty from such constraints when their interests are at stake. They often go quite far in imposing on others constraints that are needed to preserve and develop first category goods. Can one imagine the United States requiring Russia to preserve the Siberian steppe or Brazil to preserve the Amazon rainforest when, over the past two centuries, it has so thoroughly exploited its own resources, as well as the world's? Clearly not. On the other hand, if one acts by regulating production and exchanges, by banning certain modes of production, or by involving consumers in the struggle against modes of production that imperil first category goods, this political obstacle can be bypassed.

In general, first category goods can be classified in terms of what I earlier called the "four types of capital": tangible capital, intangible capital, natural capital, and human capital. One also speaks, to refer to important landmarks such as monuments or cities, of "humanity's heritage." They all belong to what oeconomy, by its very definition, seeks to preserve and to improve.

Over the past several decades, scientific knowledge of these goods has increased, become better inventoried, and made more available at an international level. This is evident in inventories and classifications carried out by UNESCO on a number of sites belonging to humanity's heritage; in the Cartagena Protocol on Biosafety; in international commissions on the greenhouse effect; in progress in the understanding of oceans; and so on. It is easier to pursue these kinds of improvements than to force the Russian or Brazilian government to make decisions, in the name of humanity's interests, that would be domestically unpopular or contrary to their short-term economic interests. Moreover, as the work of the World Watch Institute demonstrates, such inventories and oversight is a major area in which global civil society can invest.

*Systems of governance for first category goods stem from the fact that those who are responsible for their preservation are different from those who benefit from them.* I have already mentioned the cases of the Siberian steppes and the Amazon rainforest. The preservation of first category goods is often tied to a territory that places the people and communities who live where these goods are located into a kind of servitude through, for instance, restrictions placed on rights of usage, or prohibitions on forest clearings or the destruction of coastal mangroves—through, in short, limitations on property rights or sovereignty, or through requirements concerning the proper upkeep of certain locations, such as buildings, cities, or sites classified as belonging to humanity's heritage. But the beneficiaries are elsewhere, and exist on a completely different scale—namely, that of humanity as a whole.

For governance occurring on a local or a national scale, this problem is an old one, harking back to the origins of public finances.

In France, during the sixties, there was a vivid debate on this very matter: should the easements of urban planning be financially compensated? When an urban planning document declares "in the collectivity's interest" that a particular zone is unbuildable, even when construction there is technically possible, property owners are deprived of a potentially valuable good.

Should they be compensated on the grounds that they have been harmed by a decision made in the public interest? At the time, the answer was no, but the debate was never fully resolved. The non-compensation of urban planning's easements has perverse consequences. An urban planning document can be revised, and many property owners in unbuildable zones will speculate on this probability. Thus, in the Mediterranean zone, many forest and scrubland fires occurred because land was poorly kept by property owners who had no interest in its upkeep. In some cases, the fires were a direct response to the arguments that had been made against them. Was the zone declared unbuildable because it was forested? If my zone is unbuildable because it is forested, replies the property owner, then a fire or two should sort that out. This is why some collectivities developed much more reliable plans, which involved purchasing notarized private easements, making it possible to introduce a distinction between ownership of the land and ownership of its usage.

*The oeconomy of first category goods requires a combination of regulation mechanisms.* Let us begin by considering two cases in which the oeconomy of first category goods requires a cap on total consumption: the emission of greenhouse gasses and the number of fish likely to be caught. To grant the use of such goods to those who can pay whatever it takes would amount, in the case of greenhouse gasses, to allowing

developed countries to continue their emissions of carbon dioxide without restriction, while prohibiting poor countries from raising cattle on the grounds that cows produce methane, which is a greenhouse gas! Such a requirement would clearly be untenable. There is no escaping the principle of justice that usage quotas be allocated equitably, even if they are subsequently renegotiated on the free market.

The next question is that of knowing exactly who will negotiate the sale of the "usage rights." Let us take the example of halieutic resources. The experience of attributing catching rights in fishing zones demonstrates, particularly in Africa, that the attribution by states is unsatisfactory: a state may deprive artisanal fishermen of their catching rights and sell them to foreign industrial fleets in order to bring in opportune hard currencies that pay bureaucrats' salaries. It is thus important to look quite far down the ladder when deciding how to allocate quotas. The allocation of "usage rights" must in the last resort be aimed at individuals or, in the case of catching rights, at local fishermen communities. They alone can decide to yield them, to negotiate, or to delegate negotiations to states. But these usage rights, as their name suggests, must not be conflated with property rights.[5] Their purpose is to preserve the common good by guaranteeing that it is "well used." To stick with the example of fishing, the distribution of catching rights could be made contingent on the respect of fishing practices and coastal management that protects the halieutic potential.

The examples of biodiversity or of preserving the halieutic potential brings into focus other possible forms of regulation. Experience has demonstrated that it is

[5] In many traditional societies, usage rights were highly differentiated, as shown by the variety of words used to qualify them. Because we have lost sight of the important of first category goods, our vocabulary has become impoverished and reduced to such binary opposites as property/non-property. On this subject, one should refer to the work of Etienne Le Roy on Africa.

impossible to preserve shared goods in the name of the general interest when it is at the expense of those who use them most immediately, who live on the affected territory, and who need them in order to subsist. The latter must be treated as potential allies and not as predators or enemies. Arrangements must be made to ensure that they see that preservation is in their own interest. Numerous devices guaranteeing this end can be imagined.

In the case of domestic biodiversity, the first step is obviously to banish those existing economic rules that run completely counter to the goal of biodiversity. This is the case, for instance, with rules relating to the normalization of seeds. They have been adopted over the past few decades to benefit of major seed companies on the pretext that they increase security, when in fact that undermine the preservation of domestic biodiversity. I will return to this example when considering the oeconomy of fourth category goods. The second step is to promote, through a combination of norms and incentives, agricultural practices that contribute to the preservation of diversity. The European Common Agricultural Policy will come around to these practices over time.

*The regulation of production and exchange must contribute to the oeconomy of first category goods.* Another efficient means of preserving first category goods is to act upon the conditions of production and exchange of the commercial goods that depend on them. This is effective in the first place because it is easier to tax or prohibit a good that is exchanged than to impose easements at the source. Next, and primarily, exchange involves a minimum of two parties. Exchange presupposes an agreement between someone who is selling and someone who is buying. This agreement has the advantage of

bringing people out of their confinement in sovereign states. To put it in a more trivial way: if one cannot prevent a state from wanting to sell, it is possible to arrange things so that other states or consumers do not want to buy. This is the reason that it was possible, through the World Trade Organization, to establish an organization for settling differences and imposing sanctions that it has been impossible to set up in other domains of international life.

These mechanisms belong to the systems of governance applicable to first category goods. They can go as far as embargoes, as in the case of endangered species, but they can also include labels and citizens' campaigns. It is not to far-fetched to imagine that an attack on first category goods in one country could result in trade sanctions initiated by a group of other countries, and not only those, as occurs today within the framework of the WTO, who are harmed from the standpoint of free trade.

Our laws recognize a duty to assist persons in danger. This could be extended to a duty to protect shared goods. This principle has inspired a number of initiatives taken by local communities in Europe, in which a region, a department, or even a municipality decides to prohibit GMOs on its territory on the grounds that allowing them would endanger biodiversity, at a domestic or natural level, in spite of the loud complains of the European Commission or of states claiming a monopoly of the right to legislate in this domain.

**The Oeconomy of First Category Goods Demands the Specification of Levels of Governance**

The examples that have been considered have demonstrated that most of the first category goods are territorialized, that they are spread across vast territories, or that they are determined by a maze of individual and local decision-makers. They are "glocal" goods. Consequently, their system of governance must combine different levels of regulation and public decision-making, and different levels of governance.

## 2. "Second Category Goods," Which Are Divisible When Shared and Finite in Number

Second category goods are divisible when shared but finite in number. They are not, at least as far as their quantity is concerned, the fruit of ingenuity and human labor. Examples include water, energy, and fertile soil; they will serve as reference points for our discussion. Let us again remind ourselves of oeconomy's definition: "the production, the distribution, and the use of goods and services" which "makes the best use of technical capacities and human creativity, out of a constant concern to preserve and enrich the biosphere, to preserve the interests, the rights, and the capacity for initiative of future generations within conditions of responsibility and equity to which all can adhere."

### Examples and Characteristics of Second Category Goods

The first characteristic of these goods is that they are limited resources. Consequently, the notions of production, distribution, and utilization become unusual in this context. It is better to speak of preservation, exploitation, improvement, and degradation. One produces drinkable water or one pollutes water. One exploits a waterfall in making use of its potential for producing hydraulic energy. One extracts and

transforms coal, oil, or gas. One maintains, improves, or degrades soil fertility. These goods resemble first category goods in terms of their non-reproducibility. They differ from them because they are clearly divisible. Strictly speaking, they lack emergent properties of the system. Water resources and hectares can be either added up or handed out. In keeping with oeconomy's definition, the distribution of this type of good and service must adhere to conditions of responsibility and equity. This is all the more necessary in that all three examples—water, soil and energy—are goods "of the highest necessity," that is, goods whose consumption is indispensable to the well-being of humanity as well as of each of its members.

Their second characteristic stems from the fact that they are numerically finite, divisible, indispensable, and used in an exclusive way: these are all conditions that ensure that individuals will compete to control and use them. This is also the case in that all three of the examples cited can be used in multiple ways. Land is desired for agriculture, infrastructure, cities, industry, and recreation. Water is involved in all human activities, as is energy. One can only be terrified by the extent to which consumption of these goods varies per person, ranging from a bare minimum in some societies, to the lifestyles common in the richest countries.

The third characteristic of these goods is that they can be defined both as "flows" and as "stockpiles." One consumes energy, but one draws on fossil energy. One uses soils for agriculture, but one can deplete their fertility. One can waste water, but one can deplete or pollute the water table. In this way, the other criteria of oeconomy—"a constant concern to preserve and enrich the biosphere"—becomes essential. One can

over-consume for a period, but it will be to the detriment of the "interests, rights, and capacity for initiative of future generations."

Though the finite quantity of these goods owes little to human ingenuity—this is their fourth characteristic—it plays an important role in their conservation and in their mobilization in society's service. A "natural resource" is not something that we pick or gather, but something that is quantitatively finite. Second category goods thus presuppose the creation of "actors, institutional arrangements, processes, and rules that seek to organize their exploitation, their development, and their reproduction (terms that replace, in this definition, that of production), the distribution and utilization of these goods and services," in a way that "makes the best use of technical capacities and human creativity." It presupposes the use of often sophisticated techniques and the creation of organizations that are capable of mobilizing them.

**Equity and Efficiency: Two Necessary Conditions for the Oeconomy of Second Category Goods**

The characteristics of second category goods immediately situate them at the crossroads of two worlds: on the one hand, that of pure distribution, founded on the principle of justice, of the kind associated with gifts; on the other, that of economic activity and the financing of maintenance and reproduction costs. "Between water, a gift of god that by its very nature is free, and the transformation of water into a commodity by the hands of private companies; between agricultural reforms seeking to redistribute land purely according to principles of social justice, and their appropriation by the richest if they are in a position to maintain their fertility, one must find the just path that meets the

double requirement of equity and justice."[6] These goods and their consumption are at the forefront of efforts to strike a balance between our way of life and the reproduction of the biosphere; their system of governance must enable the reconciliation of equitable distribution with the preservation and enrichment of the biosphere.

Like first category goods, these goods are by their nature situated. Some are mobile, notably oil and gas, and, to a lesser extent, water. Others are immobile, like the earth. The processes and rules of extraction, exploitation, distribution, and preservation that are applicable to them thus necessarily involve different levels of territory and governance.

A final and frequent characteristic of this type of good is the asymmetry that typically exists between those on the supply-side and those on the demand-side. In the case of water as much as that of energy, management today is dominated by supply-side policies. "Bringing water and fossil energy to the market requires powerful extractive organizations, whereas the consumption of these resources, which occurs in all human activity, is carried out by a very large number of users. Hence the emergence in the energy industry, and more recently in the water industry, of large corporations that dominate the supply." [7]

**The Inadequacy of Traditional Responses to the Imperatives of Equity And Efficiency**

To manage scarcity, several hypotheses would appear at first glance appealing: the goods in question could be nationalized; they could be distributed in an authoritarian

[6] Pierre Calame, *La démocratie en miettes*, 228.
[7] Ibid., 230.

fashion; or they could be relocated to where they are produced and used in a way that ensures that everyone lives off of local resources and thus feels responsible for them. In actual fact, none of these solutions has proved entirely satisfactory.

Nationalizing land or water had led in practice to inefficient bureaucratic management. This is notably the case with land in the former communist countries. Their fertility has been damaged, often dramatically, by an instrumental and mechanical vision of nature—in Russia, which was once at the forefront of the scientific study of soil ("pedology"), or in China, where peasants, with the care of gardeners, maintained the fertility of the soil for millennia. Agricultural reforms are indispensable in many countries because of inequalities in the distribution of land and the poor use that is made of it when it is concentrated in only a few hands. However, their results are often disappointing, because they do not take into account the actual capacity of families to farm the lands that they are granted and because land redistribution is not accompanied by complementary measures, such as training and increased access to credit. The idea of freely distributing water contradicts the need to conserve it. It also leaves the problem of financing water networks, water processing, and water distribution completely unresolved. Some have suggested that water should be managed by public services at a territorial level. My own experience of working for the French government convinced me that this approach is not always advantageous. In practice, it too often runs up against the inflexibility of administrative and political limits, which were rarely conceived with an eye to the reality of ecosystems or drainage basins.

As for drastic relocations of resources and their usage, they are utopian, ridiculous, and unjust. It would mean that the Saudis would consume their oil while the

Danes froze. Water, for its part, is not equally distributed across any territory, making it absurd to impose uniform rules concerning its preservation. To say that access to water is a fundamental human right cannot mean that the collectivity—which incidentally is an abstract concept—must commit itself to providing water to every family wherever it may choose to live. On the other hand, the principle of justice implies that a certain amount of water per person—an amount that varies with the climate—must in some way be guaranteed at a low price, with greater consumption being taxed proportionately, according to schedules comparable to the progressive ones use for income taxes. Efforts have already been made in this direction.

**Quotas Negotiable at Different Levels: The Example of Energy**

It is also possible to consider generalizing the option adopted in the realm of energy in the Kyoto Protocol by creating "rights to consume." Let us suppose, for instance, that everyone, at the beginning of the year, has in his or her electronic billfold a right to consume fossil energy that her or she can either use or sell to someone else. Available information systems make such a hypothesis entirely plausible. Let us consider it at a European scale. Suppose that each European was entitled to the same amount of tonnes of oil equivalent (the measure used for fossil fuel). This would be rationing, but negotiable rationing. At what territorial level and according to what form would this negotiation occur? We saw in the first part of this book that energy efficiency strategies allow for several different spatial and temporal scales.

This means that energy quota negotiations must first occur at the local level. Some energy is in any case directly consumed by the collectivities themselves, whether it goes to energy distribution, public facilities, or industry. A local market for energy and an assessment of how much energy enters and how much leaves complement one another. Next, various local collectivities from the same region negotiate exchanges, with accounts being consolidated at the regional level, and then at the national and international level. This means that while each individual's electronic billfold is the starting point, the system quickly develops a hierarchical structure spanning from the local to the European level. At each level, surpluses and shortfalls are consolidated.

**The Oeconomy of Second Category Goods and the Principle of Active Subsidiarity: The Example of Water**

One can achieve, through a comparable mechanism, the same objectives of justice and conservation in relation to water. Imagine that in a given territory, everyone has in his or her electronic billfold the right to a certain quantity of water at a price corresponding to the average cost of its reproduction. Everyone in this way becomes a shareholder of the local water company and, by the same token, acquires an interest in it being managed efficiently. On this basis, everyone can sell on the local water market amounts that they have not used or purchase what they need. Once again, the quantities allocated to cities, industry, and agriculture must be taken into consideration. In France, for example, even if these institutions have become bureaucratized over the years, it is certainly possible to take advantage of the expertise acquired by the Basin Agency to determine mechanisms for distributing water between various uses and various actors and

options for remunerating water treatment. Redistributive mechanisms of this kind are already present in some countries, such as contracts struck between farmers and cities, in which the latter compensate the former to modify their farming practices in ways that protect water tables.

According to this scenario, what is the role of the European Union, and specifically the Commission? This role has already been outlined in the water directive, in its conception of services of general interest (SGI), and in the organization of a market for rights to consume energy that was first created to implement Kyoto's goals. One can imagine the Commission taking on four roles:

- It could define the conditions under which undistorted competition between public or private organizations seeking water contracts on a given territory could occur. The project requirements for this operation would include, in keeping with the twin goal of justice and efficiency, financing, distribution, treatment, and the organization of the local exchange market.

- It must make the best use of available experience to formulate shared guiding principles aimed at optimal management. These "obligations to produce results" remain at the heart of active subsidiarity. Water being a scare resource, it is legitimate to demand that each local collectivity do the best that it can given the state of the art.

- The Commission can also, by drawing on this exchange of shared experiences, action, provide collective experience and advice to institutional arrangements that have proven themselves.

- It can, finally, be the forum for negotiating the management of major drainage basins, notably the Rhine or the Danube.

## 3. "Third Category Goods," Which Are Divisible When Shared But of Indeterminate Quantity

### Examples and Characteristics of Third Category Goods

Goods and services belonging to the third category are divisible when shared but are above all the product of ingenuity and human work. They are primarily industrial goods and services providing personal care. Most of the consumer goods and appliances that fill our homes, from food to furniture, and from furniture to machines and computers; most of the services that make life agreeable; the organization of our cities, transportation, and recreation; most of the goods and services, finally, that are necessary for production, which naturally incorporate matter—metal, wood, silicon, many kinds of natural or synthetic molecules—but matter that, thanks to human work, intelligence, and creativity, has undergone a complete transmutation, to the extent that the service provided has only a distant relationship to the matter incorporated in it. One finds in these goods and services everything that has already been mentioned: exchange is society's constitutive bond; oeconomy is a vast process for harnessing our accumulated knowledge and know-how to the service of our well-being. Thus according to a first assessment, these goods are of an indeterminate quantity. By this I mean that unlike first or second category goods, if they are divisible, they are also reproducible, and have no limits—at least, none other than the time that we devote to other people through artificial products and services, and the time which they in turn devote to us; and none other than the human ingenuity required to offer more services with less matter. The complex molecules in

medicine; nanotechnology, which allows us to intervene at matter's deepest level; a computer chip; the regulations with which everyday machines are riddled; telecommunication networks—not one of these, if I can express myself in this way, is matter, but rather a distillation of intelligence, creativity, and organizational capacity caught in a bottle. They are symbolized by the increasing miniaturization of modern machinery—as if every day our capacity to distill intelligence into matter increased.

**The Decentralized Oeconomy of Third Category Goods: The Role of the Market**

At first glance, third category goods would appear to be those to which market mechanisms apply most normally. Through billions of regulations, our needs and desires—whether they be the expression of our personality, an imitation of our neighbors, or the impact of advertisements (an idea dear to Monsieur Le Lay[8]) is another question—seek to coincide at a planetary level with products and services that not only exist, but are also available and within our reach whenever and wherever we feel the need for them.

Whoever walks in a European city and enters a store can only be fascinated, terrified, or astounded—depending on his or her mood or philosophical inclination—by the incredible profusion and apparent diversity of available goods and services. They are the reflection of a well-oiled system, of perfectly polished institutional organizations, be they organizations that are internal to production systems or that link production to distribution networks. This fascinating mixture of centralized organization on the part of major producing and distributing companies and of decentralized adjustment mechanisms

[8] Monsieur Le Lay, the director general of TF1 (a French television station), made himself famous in 2004 during an interview with a journalist by saying out loud what had previously only been said by activists: "his station's job consists in selling to Coca-Cola available human brain time."

is hard to match. In any case, centralized planning, which one might have thought would allow for an even more efficient allocation of resources than this combination of micro- and macro-regulations, has over time revealed itself incapable of rivaling it.

**Traceability: The Heart of Third Category Goods**

To reflect on oeconomy, to undertake a radical critique of current modes of production and consumption, as well as the economic doctrines that underpin them, is not to deny the operational efficiency of the "market economy" or to blame it for all the evils under the sun (before taking advantage of all its practical benefits in one's daily life!); it is rather to question these mechanisms in light of oeconomy's goals. This questioning occurs in two stages: first, that of examining the market's legitimate scope; secondly, that of considering whether, in areas in which it is technically legitimate, it meets oeconomy's goals.

As we have begun to see, the market's legitimate scope is that of goods and services that are divisible and the nature and quantity of which depends essentially on human labor.

As for its capacity to meet oeconomy's goals, this question will be explored in depth later, but we already laid down a few markers in the preceding chapter. According to oeconomy's definition, we must "organize the production, the distribution, and the use of goods and services (that is, third category goods) in order to guarantee for humanity as much well-being as possible […] out of a constant concern to preserve and enrich the biosphere." It is thus necessary that the production and consumption of third category goods keeps track of the human labor and the quantity of resources incorporated into

them, measured, for instance, in terms of the MIPS (Material Input per Service Unit) defined by the Wuppertal Institute. Is this utopian? I do not think so.

Classical theory is, ultimately, much more utopian. It posits the existence of perfect information, that is to say, perfect knowledge of everyone's desires and of all the possible ways to combine the means of production. This hypothesis is completely unrealistic, not only for practical reasons (i.e., the enormous mass of information that would have to be stored), but also for theoretical ones, which George Soros has analyzed in his demonstration of the intrinsic instability of financial markets: we are always dealing with human beings who have a mutual influence on one another. The system is reflexive: the behavior and preferences of some influence the behavior and preferences of others. There is no reason that systems like these should be stable.[9]

The hypothesis of perfect traceability is, in comparison, far more modest and realistic. It states that we have all the technical means necessary to indicate, at each stage of its production and distribution, the quantity of labor, resources, and energy that has been incorporated into a particular good or service. I have no doubt that when Paul Delouvrier created the valued added tax (VAT), many people complained of the terrifying complexity of the system, since it required, in order to avoid double counting, recording, for every transaction involved in the production of a good or a service, the added value that had been incorporated at earlier stages. The idea of the perfect traceability of a product is a mechanism of exactly the same nature. Traceability provides consumers with essential information: does the good or service depend on human labor, which strengthens their relation with the rest of society, or does it depend on resources or finite energy reserves, which brings them into competition with others and impoverishes

[9] George Soros, *Crisis of Global Capitalism.*

the biosphere? It is also technically feasible. Today there are electronic systems that allow one to pass a shopping cart in a supermarket through a scanner which calculates how much the shopper must pay upon exiting. This kind of traceability and computation make it possible, at a territorial level, to determine the flow of resources and human labor that enter and leave in a much more detailed way than do current calculations of "ecological imprints."

Moreover, even if we don't dispose of precise data about a product's path throughout the value chain, we do have access to summary estimates of the "ecological rucksack" of basic industrial products.[10] Beyond raising consumer consciousness, traceability could also serve as a basis for electronic billfold mechanisms of the kind considered in relation to second category goods, in which the only limit on buying human labor would one's purchasing power, while consumption of resources and energy would be limited by quotas. Moreover, this type of computation is necessary to bring our considerations of water and energy to their logical conclusion: one must take into account not only their primary, but also their secondary usage—that is, insofar as they are incorporated into the third category goods that we consume.

The Wuppertal Institute became famous several years ago for calculating the quantity of liters of water and fuel consumed in Brazil needed to produce orange juice consumed in Germany. In *La Consommation Assassine (Murderous Consumption),* Sandra Postel and Annie Vickers observe that industries, especially in the agro-alimentary sector, are responsible for 59% of global usage of soft water. Suren Erkman, in his book *Vers une Ecologie Industrielle (Towards an Industrial Ecology),* provides

[10] See, for example, Noah, "Ecological Rucksack for Materials Used in Everyday Products," in *Friends of the Earth*, Denmark, 2005.

many examples of resource consumption being incorporated into consumer goods. He shows, for example, that the consumption of oil and water required for one liter of American orange juice is infinitely superior to the Wuppertal Institute's calculation for the consumption of Brazilian orange juice in Germany. His statistics are mind-boggling: one liter of American orange juice requires a total of one thousand liters of irrigated water and two liters of oil.[11] Given the nature and lightness of electronic chips, the numbers for electronics are, again according to Suren Erkman, even more mind-boggling. To produce 750 tons worldwide of pure silicon for our electronic chips, 800,000 tons of metallurgical-grade silicon, 100,000 tons of chlorine, 200,000 tons of various acids and solvents. Thanks to these examples, the meaning of traceability becomes clear. An electronic billfold that would keep track of the consumption of both human labor and the consumption of resources would radically transform the organization of production, exchange, and ways of life.

Traceability has a second merit, one that relates to human labor: it makes social bonds concrete. When farmers in France, Argentina, or Canada haul wheat to the world market, they produce an anonymous good that goes to anonymous users. From the standpoint of oeconomy, this anonymity implies loss of human contact, and thus a diminution of life's value. When consumers are attracted to regional products, it is often out of nostalgia: the idea of a "regional product" is bound up with that of artisanship, tradition, and quality. But more profoundly, they are also attracted to products that are not anonymous, but refer to a concrete reality—and it matters little if it is real or mythological.

[11] Suren Erkman, *Vers une écologie industrielle.*

The same desire to relinquish anonymity leads checkout assistants in supermarkets to wear badges bearing their first names. Because there is a personal bond, transactions evoke, however trivially, the idea of a social contract. For these reasons, the personalization of services continues to grow, even in large public services with bureaucratic traditions. When one knows the name of the person who took care of you, or who looked after your file, service once again has a human face. There are even industrial products produced on a mass scale in which one finds the name of the individual who was responsible for quality control. I doubt this has much impact if the product has some kind of deficiency, but its symbolic value remains important.

For social bonds also imply mutual responsibility. For instance, clean clothes campaigns still only affect a fraction of international trade, but they have a powerful symbolic role in the way that they affirm that consumption of third category goods and services have a human impact which it is important to be aware of.

### *The Oeconomy of Third Category Goods and Collective and Individual Preferences*

Let us turn now to the organization of the production and distribution of third category goods and services. Through billions of more or less independent decisions to produce, to distribute, and to consume, the relationship between supply and demand is formed and adjustments occur. The system is profoundly asymmetrical. Supply is more and more organized and concentrated, while demand is more and more atomized and decentralized. The immediate adjustments that occur through the price mechanism plays only a secondary role, at least in the short term. Only in open-air markets are a kilo of tomatoes a bargain at the end of the day! Price-fixing strategies and competition between

essentially identical products is an enormous subject that is discussed in an abundant literature, which I will not attempt to address. This is not where the essential lies.

There is another question, however, that does merit consideration: that of the relationship between individual and collective preferences. Collective preferences are not the sum of individual preferences, nor are the latter immune from the effects of imitation or prestige—in other words, from collective preferences. This phenomenon is particularly striking in the case of children and adolescents: to be like others, to play the same games, or to wear the same clothes count infinitely more than the nearly meaningless question of whether these clothes are attractive or comfortable "in themselves." Companies and marketing departments know how to play on the link between individual and collective preferences when they bring a product to the market. It is, after all, their job. Our society, however, lacks the tools to formulate collective preferences. Though we are quick to mock our schizophrenia as consumers, which makes us advocate as citizens organic agriculture that is respectful of the environment, but ill disposed as consumers to pay the extra cost at the checkout counter, there is no escaping the fact that we express ourselves differently when we speak of collective rather than individual preferences. But if we return to oeconomy's definition—"the distribution and use of goods and services in order to guarantee for humanity as much well-being as possible"—it clearly implies collective reflection on the production, distribution, and use of goods and services. In the following chapters, I will propose, on an experimental basis, a new mechanism for expressing collective preferences at a territorial level, a level at which collective preferences can be made to resonate more easily and tangibly with individual preferences.

## A Misleadingly Clear Concept: Added Value

The oeconomy of third category goods raises another question—that of added value. Does all activity have value? Does it bring value to goods and services that are consumed? The notion of "added value" plays, however unintentionally, on the ambivalence of the word "value" itself: is it something added to the commercial value of things, or is it the very thing that makes them appear valuable to us?

Added value, for a company, is measured by the difference between the product when it is sold and intermediate consumptions. Strictly speaking, added value is not measure by the intrinsic quality of the product, but simply by the possibility of finding clients willing to buy it at a particular price.

The added value of human labor is measured, in the first instance, by the price of salaries.[12] It thus consists of "added labor" rather than "added value"—an essential distinction. Salary is a cost; it tells us nothing about the actual value that this labor adds, but only that the consumer has consented to pay it. While analyzing ten years ago the operation of financial markets and the role of middlemen,[13] I concluded that in the case of service activities it was impossible to distinguish "added value" from "subtracted value." What these terms measure are management costs paid to a financial middleman; in other words, his capacity to withhold a share of the economy for his own profit. The obvious question is why the business owner is prepared to pay for these services if they are not really useful. What service is actually rendered to the client and to society as a whole? A service clearly must be rendered—if not, the economic world would be composed entirely of simpletons. But is the service proportional to the size of its cost? There is

[12] Thomas Piketty, *L'économie des inégalités*, La Découverte, 1997.
[13] See in particular Paul Dembinski, *Marchés financiers, une vocation trahie ?*, Éd. Charles Léopold Mayer, 1994.

reason to doubt it. In any case, this means that the cost of management in relation to supply and demand is considerable.

**The Inevitable Revolution of Intermediation**

What has been said about financial services can also be more or less applied to industrial goods. From a narrowly productive perspective, added value is, strictly speaking, the direct activity of producing a product—in other words, the sum of the hours of labor that went into it. Everything else seems, somewhat naively, to be a parasitic expense. But, in reality, the immediate production costs of goods that we consume amount to somewhere between 10% and 20% of the price we pay. And where does the rest go? I mentioned this when discussing Daniel Cohen's example of a pair of Nikes. All that is required is a consideration of the evolution of the job structure in underdeveloped countries and of how we live. Design, organization, research and development, accounting, public management, financing, quality control, marketing and commercial expenses, distribution, insurance, and risk management: economic actively is essentially tied to transaction costs. We thus find ourselves very far from an efficient and inexpensive mechanism in which supply meets demand. Transaction and intermediation costs are such that there are always innovations appearing that seek to reduce them. This is the constantly recurring cycle of mass retail, which begins with discount stores that scale back on displays, product variety, advertisement, and margins, which then evolves towards more "high class" functions while expanding its margins by introducing more product variety, only to be ultimately marginalized by a new wave of discount stores that adopt the same approach.

The internet, and, more generally, the combination of computer technology and telecommunications that makes the internet possible, will, in the upcoming twenty years, modify the way that supply and demand interact in even more radical ways. A new wave of de-intermediation between producers and consumers can be anticipated. Will we know how to combine it with the need for traceable products and the search for more sustainable production and consumption models? This is one of the challenges of the years to come.

## 4. "Fourth Category Goods," Which Multiply as They Are Divided

### Goods that Multiply as They Are Divided: The Oeconomy of the Holy Spirit

A vast redistribution of wealth from formerly developed countries to the rest is desirable, inevitable, and already underway. Will this redistribution be achieved through a pitched battle or through collaboration? Will the citizens of currently rich countries consent to sacrifice their way of life, or will they launch a desperate resistance? These are the essential political questions of the twenty-first century. Sapper Camember[14]—an old French comic-book hero—knew only one way of filling up a hole: digging another one, and then using the latter to fill up the former. It is imperative to get out of the Sapper Camember economy and take a greater interest in goods and services that multiply as

[14] Translators note: Fireman Camember (*Sapeur Camember*) was the hero of one of the first French comic strips, *Les Facéties du Sapeur Camember* (1890-1896). He represents an illiterate and simple-minded French soldier.

they are divided, rather than simply being cut up. Life in society, in small groups, in families, or in communities is nourished by sharing and by relationships that lie outside of commercial relations and are founded on a kind of sharing that multiplies what everyone receives. Love, joy, and friendship network are like this: what I give to someone else is not something that I lose.

In a heavily populated, fragile world with finite resources, in which the purpose of oeconomy is to "guarantee for humanity as much well-being as possible by making the best use of technical capacities and human creativity […] and in conditions of responsibility and equity to which all can adhere," the well-being of all cannot be achieved simply by working more. Jesus "ordered the crowds to sit down on the grass. Taking the five loaves and the two fish, he looked up to heaven, and blessed and broke the loaves, and gave them to the disciples, and the disciples gave them to the crowds. And all ate and were filled; and they took up what was left over of the broken pieces, twelve baskets full."[15]

Must we count on the Holy Spirit to resolve the delicate problem of how to share the planet's scarce resources for us? Without going quite so far, it still might inspire us to seek out, in the contemporary world, goods and services that multiply when they are shared. To grasp what we are talking about, we will again flesh out the concept with the help of several examples.

**Examples and Characteristics of Fourth Category Goods**

Our first example is life, or, specifically, the genetic code. From the cell to the human being via plant seeds, life is a process of duplication and multiplication. "Be

[15] *The New Oxford Annotated Bibe, with Apocrypha,* Matthew 14:19-20.

fruitful and multiply," says the Book of Genesis. Naturally, duplication requires external resources, nutrition, and energy; but these are incommensurable with the sophistication of the organism that is thus reproduced and multiplied. It thus becomes clear that one of the meanings of the phrase "to multiply while sharing" is modest costs of duplication, costs that bears no relationship to the object or the organism itself. Computer technology and the internet opened the door very suddenly to mechanisms allowing for multiplication and duplication at low cost. The costs of stockpiling, of distributing, and reproducing a musical CD now approach zero. The entire classical economy of books, music, and entertainment has been called into question by this new reality.

Let us now take a second example: farming seeds (*sémences paysannes*). These are seeds that have been selected by growers. By putting their selections together, they increase considerably the biodiversity of the shared gene pool. But it is important to understand that when we say that this gene pool is "shared," we mean that every member of the network has access to the gene pool's entirety. In this example, unlike the preceding ones, two mechanisms come into play. In the first, which has already been described, duplication costs little or nothing. The second is mutualization: by giving, I not only keep what I already have, but in exchange for my gift, I receive a similar gift from my partner. The gift and counter-gift are not balanced out because the sacrifices made by each party in pursuit of its goal are equivalent. On the contrary, each party held on to what it gave away. Balance here does not imply proportionality but reciprocity. The mutualization involved in this case is not one of risks, as with insurance. It refers to symmetry of attitudes rather than an equivalence of gains. It involves everything related to information and knowledge; it follows the axiom: one divided by two equals two.

Let us turn to the case of free software or to the sharing of experience. Free software satisfies the two criteria that have already been identified: the duplication of part of a program or of a few lines of code cost nothing; by mutually offering one another parts of a program, a program is completed. This exchange has a third property, which in relation to first category goods we called an emergent property of the system. A combination of programs produced the software: it is the assemblage and complementarity of the parts that gives the software its value. In the example of free software as in that of farming seeds, the process of mutualization is a gradual one. Improvements never end. The back-and-forth between use and improvement guarantees that the software or the seeds are adapted to needs. Better still: it is by using the good that it becomes more available. Those who belong to my generation remember the advertisement: "Wonder batteries only run down if you use them." To the contrary, fourth category goods run down only if they are *not* used.

A further characteristic is that the very activity of producing farming seeds or of improving free software, far from being experienced as "work" in the negative sense of the term, is actually inherently gratifying: the direct bond between production and usage, as well as that between the pleasure of creating and the pleasure of sharing transcends the conception of work as drudgery. I have already cited the works of several sociologists who discuss what "living well" means. We must recall them here: "societies organized around 'living well' encourage interaction between family, friends, and neighbors […], [as well as] a more sustained attention to accomplishment, completeness, and creative expression, rather than the accumulation of goods." This clearly means that the inclusion of individuals in the activity of mutualization is worthwhile not only because of what one

receives from others but also, and perhaps primarily, because of the pleasure of participating and developing connections. The dazzling success of Wikipedia offers a perfect example of the developmental logic of fourth category goods. Thousands of volunteers interact daily, according to clear rules that distinguish between the tasks of editing, correcting, and oversight, to produce and to make freely available to all a common encyclopedic knowledge.

Let us now consider the case of exchanging experiences. For years I have been convinced that the kind of knowledge that is most useful to action is born from action itself and the experience of others. This intuition led me to become interested in the mechanics of how experiences are shared. In this context, we find first of all the two basic elements of fourth category goods: the costs of reproduction or duplication are modest or nil; and one keeps what one gives at the same time that one receives something new. But an analysis of processes for exchanging experiences brings two additional insights. The first is that representing one's own experience is a source of satisfaction. When our Foundation began to support programs for sharing experiences, it overlooked this psychological phenomenon and thus misinterpreted it. Our system of exchanging experiences was founded on the idea of barter. We began with the hypothesis that what would make someone interested in sharing his or her own experiences was the desire to learn about that of others, following gift/counter-gift dynamic that I mentioned earlier. But in practice, people experience a deep satisfaction in representing their own experience, and in the end express relatively little curiosity concerning the experience of others! How does one explain this paradox? By the fact that in transforming lived experience into a story deemed worthy of transmission, one affirms oneself as subject and

as the author of one's own destiny. This overlaps perfectly with the definition of "living well": it is a product of "creative expression rather than the accumulation of goods."

Based on this observation, one could almost conclude that one must reverse the classic argument: the unbridled consumption of material goods, far from being a prerequisite for happiness, is simply a compensation for the frustrations of life and, in particular, for the absence of creative activity. We have all yielded at some point to impulsive purchases in response to one dissatisfaction or another.

Close observation of experience exchange also taught us another lesson. Exchanging experiences at an international level on a particular subject allowed us to detect deep similarities lurking beneath contextual differences in a way that generated radically new knowledge. The description of a single experience makes it impossible to grasp what, in the chain of events, is the product of particular circumstances or chance occurrences and what is the consequence of the inner structure of the situation. Only exchange makes it possible to distinguish between the two. Exchanges of experience thus have their own emergent properties, that of producing knowledge that would be inaccessible without the possibility for comparing different experiences. Not only do I hold on to what I have given, and not only do I receive—we also produce together: the new "whole" is greater than the sum of its parts.

Until now, our reasoning has focused on the moment of the exchange. But what happens when it occurs over time? Let us take the case of knowledge and experience. We previously described a capital of knowledge and experiences as a first category good, one that is neither divisible nor reproducible. Are we not now contradicting ourselves by describing the processes of exchanging knowledge and experience as fourth category

goods? No; simply there is a considerable similarity between first category goods and fourth category goods. The latter maintain and nurture the former. The example of farming seeds illustrates this well. A network for exchanging farming seeds is a means for maintaining or developing biodiversity, which is itself a first category good. To say that the totality of available knowledge is neither divisible nor reproducible means that dismantling it would destroy essential emergent properties of the system. Similarly, if everyone in a factory took off with a piece of machinery under his arm, the process of production itself would become impossible.

Let us take another case, that of what is usually called "social capital"—the network of social relations in which everyone is enmeshed. Social capital is an extension of ourselves into our relations with the world; it is an essential element of our well-being. Social capital is also a good that multiplies as it is shared. And yet the cost of its duplication is neither modest nor nil. On the contrary, social capital builds up slowly. At the same time, sharing one's social capital with others by no means involves losing it.

**The Two Functions of Fourth Category Goods: Direct Usage and Factor of Production**

The examination of social and knowledge capital brings us not to the nature of fourth category goods, but to their use. I will distinguish between two kinds: the direct use of these goods as sources of well-being, and their use as means of production or governance.

Social exchange, access to information, the sharing of knowledge, and music are goods and services whose use engenders well-being, and this is the reason that many

would like to transform them into saleable goods. If one analyzed the way that individuals or societies budget their time or use their monetary resources, one would see that the poor devote the largest share of their budgets to survival and subsistence, while the rich devote the most to leisure, in the broadest sense of the word. There are good reasons for thinking that this shift gives ever an expanding place to what could potentially be fourth category goods.

The incorporation of fourth category goods into the processes that produce and distribute goods and services of all kinds has become considerable. They constitute most of what we call intangible capital, and they are determinant for transaction costs, whose central role in the economy we have discussed.

**Free and Mutualized: The Two Wellsprings of the Oeconomy of Fourth Category Goods**

Recognizing the importance of fourth category goods for the future of the economy, hardcore proponents of the free market stumble over themselves to attempt, despite all evidence to the contrary, to force them into market mechanisms by appealing to intellectual property and patent law—laws invented for other purposes, and in the framework of other technological frameworks. Authors' rights were invented several centuries ago to protect the interests of the weak against those of the strong and to compel recognition of the right of an artist to control the use of his or her intellectual production. But today they tend simply to provide guaranteed income to the publishing and media

industries, as they become ever more concentrated.[16] Similarly, patent law was invented to remunerate technical innovation that increased the efficiency of production factors or that created a new product or a useful service. But by definition, these innovations were difficult to reproduce. It is thus a complete misinterpretation, as well as an abuse of dominant market positions, to now claim that the very same law can be extended to knowledge and—even worse—to life itself. Activists who are firmly opposed to this evolution have made no mistake. Nor is it an accident if the popularity of Monsanto, the firm that so enthusiastically promotes genetically modified organisms (GMOs), collapsed when, with astonishing obliviousness, it dubbed "Terminator" a gene that, when introduced into plants, made them incapable of reproducing. The firm claimed, perhaps in good faith, that it wanted to protect ecosystems from the risk of the uncontrolled reproduction of genetically modified plants that were resistant to pesticides. But, in so doing, it left no doubt that at least symbolically it had sided with death over life. It is for the same symbolic reasons that activists call "merchants of death" pharmaceutical firms that oppose the reproduction of medicines necessary for fighting AIDS in poor countries in order to secure their return on investments.

To touch the symbol of life itself, to sequestrate the living by privatizing it, to forbid someone, in the name of the sacrosanct rights of intellectual property, to freely reproduce a living mechanism upon which one's survival depends, is to let the market economy penetrate into domains where it is not legitimate.

## 5. Summary of Systems of Governance Applicable to Different Categories of Goods

[16] This information was collected in September 2004 during the International Forum of Culture in Barcelona, specifically the talk by Joëlle Farchy during the roundtable on "Rights and Cultural Policies at the National, European, and Global Level."

This consideration of different categories of goods and services has shown their extreme diversity. Even if the "share-and-divide test" that led to their classification into four categories proves itself to be particularly pertinent for oeconomy, each of these categories contains goods and services with different characteristics, leading to systems of governance that themselves may be quite different. We are far from the simplicity of the market economy, which considers all goods and services to be similar. But this diversity is the very condition of their relevance! Is not the art of governance that of coordinating different kinds of action? And is not one of the five fundamental principles of governance to find institutional arrangements adapted to the goal pursued?

You will find on the annex on page 539 conceptual charts that recapitulate the ideas appearing on the preceding pages.

*Translated from French by Michael C. Behrent*