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**THEORETICAL ANALYSIS OF THE EFFECTIVENESS OF  
FORMAL RULES: THE PERSPECTIVE OF NEW INSTITUTIONAL  
ECONOMICS**

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**Abstract**

It is observed that, the Brazilian environmental legislation is one of the most advanced in the world. However, the enforcement or effectiveness of this legislation is still a great challenge. Thus, this article aims to comprehend the incentives theoretically, adopting formal rules that deal with the common good, particularly in the agriculture-based systems. This theoretical study aims, through the vision of New Institutional Economics (NIE), to understand the incentives and the environment involved in the process of adherence to formal rules. The study is characterized as exploratory in order to clarify its complexity through a review of the subject. Five propositions about the effectiveness of formal rules are developed. From the achieved analysis it is possible to observe that the process of adherence to laws is complex, on the other hand, it is important to consider in their formulation both the costs involved in monitoring by the State, and the costs for the economic agents to comply the laws, besides to consider the environment of informal norms. Regarding these points, it is expected that the effectiveness of formal laws may be more successful.

**Key words:** *formal rules, common goods, incentives*

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## THEORETICAL ANALYSIS OF THE EFFECTIVENESS OF FORMAL RULES: THE PERSPECTIVE OF NEW INSTITUTIONAL ECONOMICS

### 1. Introduction

It is observed that, the Brazilian environmental legislation is among the most advanced in the world. However, the performance or effectiveness of that legislation is still a big challenge. Lunardi states that (2011, p. 67), "the imbalance in the development and implementation of laws and official policies in the Brazilian state has been showing a great problem [...]." Allied to this, Rech (2009) in Lunardi (2011, p. 67) states that: "the effectiveness of law is the most important principle than the violation or requirement of the law [...]." From this arises the aim of the present study: to understand theoretically the incentives to adopt formal rules that deal in some way to the common good, particularly in agriculture-based systems. In this sense it is a theoretical study that aims through the line of New Institutional Economics (NIE), understanding the incentives and the involved situation in adherence to formal rules. In this sense, the study adopted the exploratory way.

When looking Agriculture-based systems, it is noted that the legal and regulatory issues have always had importance, since these are activities that involve issues such as food security, sustainable management, conservation and restoration of the environment, among others. Thus, in this paper, the concern will be on legal rules dealing with the environment and at the same time, it impacts on agricultural activities. "The law influences and is influenced by economics, and organizations influence and are influenced by the institutional environment" (ZYLBERSZTAJN; SZTAJN, 2005, p. 03). This statement notes the importance of considering the institutional environment in economic relations, and, simultaneously, the importance of understanding the institutions.

From this, and within laws in the universe of Agriculture-based systems, this study chose the environmental legal rules. This choice is explained by the importance of the environmental issue and the growth of its rigor from 90s. Thus, observing the activities related to basic agricultural systems, we note that, in their origin, such activities are based on natural resources or environmental assets.

According to Brazilian law the environmental assets are those of diffuse interest, indispensable to the maintenance of environmental quality. Therefore, it overlaps the public or private legal nature that a good may have (DIREITO AMBIENTAL, 2002). Holders of possession or ownership of any environmental asset should be at the same time the government and civil society. Thus, there is the possibility of having a private good of diffuse interest and public good of interest diffuse (DIREITO AMBIENTAL, 2002). In accordance with Article 225 of the Federal Constitution,

everyone is entitled to an ecologically balanced environment, good of common use and essential to a healthy quality of life, imposing to the government and society the obligation to defend and preserve the environment for the present and future generations (BRASIL, 2010, p.45).

Combined with the notion of environmental assets, the Environmental Law, by Federal Law 6.938/81, outlines the principle of sustainable development, according to the

definition given by the World Commission on Environment and Development: It is the one that support the present needs without compromising the survival of future generations (BRASIL, 1981). Through these concepts, it is observed here an example of the legal activity in defense of the environment. However, although we have a set of laws that protects the environment, there is no idea of the return of such legislation. In other words, it means that, in terms of environmental lawsuits, it is hardly to find information about: volume, percentage of previous cases, values collected in escrow and other relevant data (FREITAS, 2008). This information, according to the author who would help to identify the points of inefficiency, could be combated.

Therefore, the importance of this work lies in comprehending the incentives to comply with this legislation, based on the optical systemic approached by the notion of agribusiness system. Regarding this, it is observed that the process of implementation of the legislation, particularly in the environmental area, requires great financial, technical and human support (BENJAMIN, 1993). Hence, according to the author, the greater the inconsistency between the regulation and the behavior of the regulated group, the higher the costs of implementation. Following this guidance and the perspective of New Institutional Economics (NIE) this process to be operationalized must cope not only with "conventional" costs, but also with the called transaction costs.

Regarding the points above, it is reasonable to consider that the institutions do not always evolve efficiently (ZYLBERSZTAJN; SZTAJN, 2005). Williamson (1996) deals with intentionally inefficient institutions. The author states that, in many cases the implemented organizational form is less effective than the best feasible. It occurs because often there is no political support to achieve the best feasible arrangement (WILLIAMSON, 1996). Thus, there is an apparent inefficiency, namely inefficiencies by design, as the author classifies. Allied to this, North (1994a) gives the exact importance of the institutional environment for economic performance mentioning that economic performance is a function of the institutions and its evolution. Together with the employed technology they determine transaction costs and production. Based on this guidance, there is a need to consider the regulatory environment in which the agents are inserted to avoid the risk to get misleading or inaccurate conclusions (ZYLBERSZTAJN; SZTAJN, 2005).

It is possible to observe the importance of understanding the incentives involved in adherence to formal rules concerning the regulation of public goods in the agricultural environment. Thus, it is dealt with natural resources, good air and water quality, for example. These are issues that have impact in the society as a whole. Hence the importance of perspective on economic incentives, since that the agriculture-based activities, as well as all others, are essentially economic activities. Therefore, this article is composed on this introduction, literature review, development of propositions from the used concepts and conclusions on the subject.

## 2. The New Institutional Economics: important concepts

This study, as mentioned above, is guided by the concepts of New Institutional Economics (NIE)<sup>1</sup>. This manner, as mentioned by Ménard (2004), the NIE has developed in two main lines of action. The first focuses on a micro analytical analysis, in which the design of the firm, and its governance structures and coordination are discussed. The other line of action comes from understanding the nature of the institutions involved in economic growth and positioning of economic agents to interact with them (Menard, 2004). It is in this thought that fits the paper. Thus, the consideration of transaction costs helps in clarifying the design of

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property rights and regulation. Consequently, the NEI enables a greater understanding of human behavior, institutions and the results of the resources involved in economic activity (LIBECAP, 2005).

In order to identify and understand incentives that influence the adoption of formal rules it is necessary to comprehend certain concepts. In this way, It is approached, the concept and implications of institutions in costs to economic agents, the social cost, property rights and their connection to the commons, and the concept of Agribusiness System.

## 2.1 Institutions

The institutions consist of both informal constraints (sanctions, taboos, customs, traditions, and codes of conduct), and formal rules (constitutions, laws, property rights). Throughout history, institutions have been devised by human beings to create order and reduce uncertainty in exchange (NORTH, 1991, p. 97).

In a world of uncertainty, where no one knows the correct solution to the issues, the construction of "references" helps in the process of elimination and minimization of errors (North, 1994a). The institutions, therefore, create order and reduce the uncertainty in carrying out exchanges (NORTH, 1991). Thus, together with the characteristics of enforcement institutions, they are the incentive structure of society, specifically in the economy (NORTH, 1994b). Allied with the technology employed, they determine the transaction costs and involved production.

It is considered that the institutions that consist the legal system should grow with the economy, in other words, embedded in the economic system (RAPACZYNSKI, 1996 in RUBIN, 2005). Particularly, government regulation is an important part of the legal system. Rubin (2005) states that the legal system has two main tasks: a) the first is related to the private legal system, which the functions are to define property rights, allow the transfer of ownership (role of contract law) and protect property rights (according to civil and criminal liability), b) the second is the public law, which seeks the provision of public goods and the control of externalities, or other effects. It is this second legal system assignment that aims to prevent and control environmental damage. In this sense, government action seeks to avoid possible negative externalities caused by faulty or incorrect definition of property rights (RUBIN, 2005). In the case of the approached laws, which deal with environmental conservation or natural resources, both directly and indirectly, the aim is to control externalities and better adjust of property rights.

However, it is necessary to point out that all kinds of elaboration of rules are exposed to suffer inefficiency by being self-interest, incomplete information and bounded rationality of agents (ARRUÑADA; ANDONOVA, 2004). Therefore, according to the authors, not only legislators but also judges may fail because of private interests, or even the existence of such interests may fail in identifying which rules are more appropriate for each situation.

In this sense, North states that the inefficiency of the institutions may persist because the transaction costs of political and economic markets, along with the subjective models of the actors, do not induce economic systems to walk toward to more efficient outcome (NORTH, 1990). Allied to this, in a recent study, the author states that the transaction costs, in the societies are associated with the degree of development and the resulting ability to draw solid institutions (NORTH, 2003). Besides, in this study, some societies are exemplified. They have the ability to adjust in the face of abrupt changes that occur, and for this they have

the involvement of institutions that effectively deal with the altered reality, in other words the adaptive efficiency exists in those societies.

Based on these considerations, it should be noted that institutions change slowly, given its intrinsic characteristic. As an example of this, customs and traditions are built over time and do not change so easily only by imposing a formal standard. Moreover, legal frameworks are interrelated in various dimensions, and, therefore, it is often necessary to change many laws simultaneously to improve performance. It is through these, and other features and functions mentioned before that legal institutions matter for economic success. And the improvement of methods of implementing a legal system is an important way to increase social wealth (RUBIN, 2005). Below there is a taxonomy made from the perspective of economic laws.

### 2.1.1 The historicity of the norm

The historicity the norm may help to understand the "difficulties" or "facilities", the incentives, which the formal rules meet in the process of adherence to them by economic agents considering the context in which the rule will act. Therefore, the historicity of the norm is characterized here as the way to be of the norm in history (ARIDA, 2005).

From the perspective of research in economics about the norm, according to the author, it is essential not only understanding the history of the norm itself, but also considering how the norm may evolve under different circumstances. In fact, this understanding is important to support proposals for economic policies. Thus, from this perspective, it is considered the norm along with future developments in economic life. The economic thought is able to capture the effect of the norm on economic life and also understands the norm as an adaptation to the changes in economic life or as a result of the action of interest groups. However, the economic thought cannot, by itself, understand the evolution of the norm as a result of regulatory or internal dynamics of the legal system (ARIDA, 2005). It is important to note here that research in economics which the author refers is from the neoclassical program.

Considering the points above, Arida (2005) presents a taxonomy research in economics about the norm in four distinct categories. He points out that this taxonomy is overly simplified, but this categorization is useful to illustrate the gap of economic thought about the norm. Thus, it is presented the four categories identified by the author. The first category is called "*the norm as distortion*", this refers to the rules published aiming to impose values, but often they end up distorting market equilibrium. The assumption mentioned here is that the market equilibrium, in the absence of the rule, has the attributes of Pareto-optimal. Therefore, the impact of the norm is judged in terms of wealth creation, which in this case is negative. The second category is called "*corrective norm*", it is related to situations in which there is a market failure or malfunction, so in this case, the market equilibrium is not Pareto-optimal. In this situation arises corrective norms that is rules that can correct the distortions observed, for example, the externalities<sup>2</sup>.

The penultimate category is called "*the founding norm*", this category is presented as the norm as from which the contracts and markets are structured. This strand of research has been developed into two camps, the first of contractualist tradition pursue to know which is the ideal constitution. Thus, it is dissolved the legislature's abstract figure, of whom derive norms to correct or distort, and in his place comes a plurality of legislators without common purpose and that does not act necessarily to maximize the welfare of society. The second field has comparative character, and it started in the comparison of regimens common law and civil



law. The argument posed is that countries where the legal system facilitates and encourages the respect for individual property rights and private contracts tend to have better performance compared to others which do not have these characteristics.

The last category is called "*the evolution of the norm endogenously determined*". It has an emphasis on adaptability. It seeks to understand the evolution of the norm as a result of innovations from the dynamics of the market itself or as a way of appropriating externalities. This strand shows as an important impulse for modification of the rules. From this categorization is observed that norms can evolve being not necessarily relating to the economic system. In this sense, the author points out that under certain conditions, experimentation in the social level of formulas that challenge the economic rationality can be beneficial in the long term.

Another point about the rules that Arida (2005) discusses is related to throwback, norms that are issued in contrary to what is desired. The response that the economic research suggests encompasses three factors: pressure from interest groups; distortions in the process of representation that make the parliamentarians voting in disagreement with the preference of their constituents, and the ignorance of the legislator about the economic effects of the promulgated rules. Afterwards, it is made a discussion of the social and transaction costs.

## 2.2 Transaction costs and social costs

Ronald Coase in his article "The problem of social cost" (1960) states that the factors of production under his viewpoint treat, indeed, of the right to perform certain actions. For instance, Coase (1960) points out that we can refer to a person who owns land and uses as a production factor, but what the owner really the owns is the right to carry a list of defined actions. Thus, according to the author, the rights of the owner are limited (in many cases by government action). Under this point of view, Coase (1960) states that the cost of exercising a right (use a factor of production) is always the loss that happens elsewhere as a result of the exercise of this right (externality). Consequently, the author points out that, when it is designing and choosing between social arrangements should be alert to the total effect of such arrangement, the social costs.

These observations take into consideration that once the costs of market transactions are made, the reallocation of rights only occur when the increase in production value generated by this configuration is greater than the costs incurred to implement it. Thus, the initial delimitation of legal rights influences market efficiency (COASE, 1960). In this direction, it is needed to say that the government administrative machinery does not operate free of cost and that the regulations do not always increase the efficiency of social arrangement. Therefore, the cost of using government regulation must be less than the gain generated with it (COASE, 1960).

Therefore, it is essential to the notion of transaction costs for evaluating the effectiveness of social arrangement. Transaction costs are costs related to the transfer, capture and protection of property rights (BARZEL, 1997). From the perspective of Arrow (1969, p.48 in WILLIAMSOW, 1985) transaction costs are translated into costs of running the economic system. In these two conceptions, we can observe that institutions, especially legal institutions, are involved in the realization of economic activities, leading to higher or lower transaction costs for the arrangement in question. Thus, the State can affect the net benefit of a community through the redefinition of the structure of property rights, and by the provision of public goods, which reduce transaction costs (EGGERTSSON, 1990). It is in this way that is built the logic of the research objective. If the cost of adherence of formal rules is less than

the benefits that it generates, the efficiency of social arrangement is assured. Accordingly, consideration of transaction costs it is essential in the evaluation of the efficiency of social arrangement, as well as the efficiency of the activity of each economic agent system participant. The following section discusses about the concept of property rights.

### 2.3 Property rights and the common good

Alston and Mueller (2005) define property rights as a set of formal and informal rights of use and transference of resources. Accordingly, such rights determine the incentives for the use of resources. Alchian (1965) in Eggertsson (1990, p. 33) considers that the system of property rights is "a method to assigning to particular individuals the 'authority' to select, for specific goods, any use from unprohibited class of uses" Therefore, the concept of property rights adopted by NIE is broader than the legal concept of the term, including social norms. Alchian (1997) in Eggertsson (1990) states that the rights of individuals to use resources in a given society are built and supported by the power of social customs and by power of punishment of the State.

Eggertsson (1990) distinguishes three categories of property rights. The first is defined as the usage rights of a good, including the right to physically transform and even destroy it, is called rights of use. It is important to consider what restrictions of rights that reduce the set of permitted uses will decrease the economic value of the asset if the uses with significant value are excluded. The second is the right to earn income on the asset and on the contract with others. The last refers to the right to transfer permanently to other parts, the property rights on an asset, in other words, the right to transfer or sell an asset. From this definition, it is understood that property rights are often partitioned or restricted in some way, for example, by means of regulations that govern fishing seasons and fishing equipment or marketing of medicines (EGGERTSSON, 1990).

Another important aspect to be considered in the definition of property rights is the concept of good. According to Barzel (1997), a good is constituted by a finite and potentially great set of attributes. Attributes, in their turn, correspond to features and possible uses of the good. Therefore, if the State controls only a fraction of such attributes, firms (economic agents) will likely make compensatory adjustments on the unregulated fraction (EGGERTSSON, 1990). However, as the assets are composed of multiple dimensions, it is often expensive for the State to define property rights in all valuable dimensions, and also expensive to apply the enforcement of property rights in all dimensions (ALSTON; MUELLER, 2005). Thus, some attributes can be either *de jure* or *de facto* left as free access. It is when the State leaves the rights of use on attributes being free. In this way, individuals and groups have incentives to expropriate them. Furthermore, running contrary, the more exclusive property rights, the greater the incentive to maintain the value of the property.

Without some limits about the individual behavior that better reflect the expanded notion of the common good, benefits and social costs, only the private calculations of net benefits will control the decisions of utilization of resources (LIBECAP, 2005). Moreover, another factor to be considered in State regulation of commons, according to the author, is the value of the resource in question. The more valuable, the greater the tendency of competition for its control, and, potentially, the greater the losses of income of the parties that compete for good. Thus, according to Alston and Mueller (2005, p. 573) "one role of the State is to define, interpret and enforce property rights." The definition is a legislative function, the interpretation is the judicial function of the State, and the enforcement is the function of State police. All these functions entail costs and for this reason, some rights may be left by the State

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as free access. Accordingly, Barzel (1997) states that the right of ownership of an asset is a result of his own efforts to protect the asset of the capture by other agents<sup>3</sup>, and the protection of the State.

In this sense, it is interesting that a legal system provides clear definitions of property rights, in other words, it is important that the parties are able to unequivocally determine who owns the good and to know exactly what this set of property rights implies (RUBIN, 2005). Although not always this clarity occurs, it is this that formal laws always seek: to make clear the rights and restrictions on goods; benefits and obligations when using a good, especially the goods of public domain, so the social welfare is preserved. In this line of thinking, it is observed that the need for clear legal definitions of property rights arises with increase in number and heterogeneity of the involved parties (LIBECAP, 2005). Consequently, with the increase in number of people, many will claim the resource and many will be excluded from its use (OLSON, 1965 in LIBECAP, 2005), and with the increasing heterogeneity, the costs for producing the property rights and access to information will increase, therefore, it becomes more difficult to reach a political consensus and enforce the agreement (LIBECAP, 2005).

It must be emphasized that private property rights are those that best align the incentives for the efficient use of resources, because in this configuration the "owners" are the residual claimants. In the case that the property belongs to the State, there is not evident residual claimant. However, if there are third part effects associated with private ownership, this setting might not be socially optimal, even when the values of resources are high. Often very special goods or goods of invaluable value are maintained and managed under public property. National parks with important role in the management of natural areas may be a good example of this occurrence (LIBECAP, 2005). In sequence, it is made an analysis of the contribution of the concept of agribusiness systems for a better understanding the agriculture-based systems.

## 2.4 Agribusiness Systems

The study of the Agribusiness Systems has a wide application and can be used in a vast range such as the design of public policies, business organizations and corporate strategies (ZYLBERSZTAJN, 1995). This occurs because of the systemic analysis that this concept provides. The analysis of Agribusiness Systems, thus, characterizes the dependence on inputs industries, agricultural production, food industry and distribution system (ZYLBERSZTAJN, 2005). This systemic perspective has its origin in the studies of Davis and Goldberg (1957), defining the term agribusiness as: the sum of all operations associated with the production and distribution of agricultural inputs, agricultural operations units as well as the actions of storage, processing and distribution of products, and also by-products.

From that, Goldberg in his subsequent studies starts studying the *agribusiness* focusing on specific products such as wheat, soybeans and orange. Besides, in his study of 1968, he advances one more time developing the concept of Agribusiness Commodity Approach (CSA).

A CSA encompasses all actors involved in the production, processing and distribution of a product. This system includes the market for agricultural inputs, agricultural production, storage operations, processing, wholesale and retail, marking a flow ranging from inputs to the final consumer. The concept encompasses all institutions that affect the coordination of the successive stages of the flow of products, such as government institutions, future markets and trade associations.



As a result, from this description it is possible to note the author's concern with the other involved agents in the productive process, including institutions, approaching in some way the North's logic. Moreover, with this concept the author demonstrates his concern with coordination among agents of the system. In his view, the analysis has two levels of aggregation: the first is the level of the firm, and the second considers the macroeconomic and institutional environment, that affects the coordination capacity of the system as a whole (ZYLBERSZTAJN, 1995). Accordingly, Zylbersztajn (1995) adds that the consideration of transaction costs and institutional environment are important determinants in the governance modes, and equally important in the understanding and design of governance structures among agents in agribusiness systems.

Therefore, it is in this thought that this paper seeks to examine the incentives for organizational agents adhering to rules in question. Using the concept of agribusiness system, it is assumed that all actions performed on the macro level (institutional environment) will reflect in the exchange conditions among the organizational agents, affecting both the level of the firm, and the coordination of all system. In this sense, the institutions matter in resource allocation, having important role in the dimension of transaction costs in the economic environment (ZYLBERSZTAJN, 1995).

The institutional environment is thus characterized by legal systems (laws and regulations), traditions, customs, macroeconomic policies, tax, tariff, commercial and sectorial adopted by government and other countries, trading partners and competitors (PEREIRA; SOUZA; CÁRIO, 2009). The provision of public and collective goods is up to the organizational environment, which the supply is subject to State action or private interest organizations (PEREIRA; SOUZA; CÁRIO, 2009). Thus, according Zylbersztajn (2005) organizations are the real agents that make the agribusiness systems move. These are characterized, according to the author, by developed structures to support the functioning of the systems, which are companies, universities, cooperatives and producer associations, research institutes, among others. For this reason, in the concept of agribusiness system, the institutional and organizational environment presents as the actors who move the activities of the systems.

It is also emphasized that the State's role is central in certain issues related to the agricultural environment, such as rights to land ownership, minimum pricing policies, land reform, food security policies among others (AZEVEDO, 2000). Considering this, Zylbersztajn (1995) proposes that the view of agribusiness systems has as unit of analysis the transaction, adding the institutional and organizational environments as vectors of the displacement of the equilibrium, not forgetting of the consideration that the agribusiness systems have transactions technically connected. Thus the concept brings two dimensions of analysis for coordination. The first is the analysis of modes of governance resulting of the transaction characteristics and the second focusing on the characteristics of governance resulting of institutional and organizational environments. In sequence the propositions are developed based on the concepts described in this section.

### 3. Application of concepts: the propositions

Considering all, it is observed that the issue of non-adherence to laws is a topic that relates to various areas and affects various sectors of society and economy, and, hence it reflects the importance of the discussion of this question. Therefore, the understanding of the context in which the legal rules are inserted is a key issue to be explored.

And, specifically, dealing with the commons, the concept of transaction costs, brought by NIE, is a great help. These costs are related to the negotiation that must occur among the heterogeneous parts, private agents, politicians, bureaucrats and judges, all of whom will act with limited and/or asymmetrical information. Regarding this, the NIE helps to explain why the regulation or property rights take on the forms they take on, because it makes possible a better comprehension of real human behavior, institutions and outcomes of resources (LIBECAP, 2005). Following, some considerations are made about the five propositions that sought to meet the study objective.

### 3.1 Proposition 01: Adherence the legal rule to social norms

The first proposition presented here is that *the laws that have low effectiveness are formal rules that come into total or partial conflict, with informal norms, socially accepted*. De Soto in Buscaglia and Ratliff (2000) states that the compatibility between social norms and written laws ensures that the law is followed by the majority of citizens, he emphasizes the fact that, in the absence of a clear and enforceable formal law, people will replace it by clear and enforceable customs and social norms. “[...] From an economic standpoint, State-sponsored systems of legal rules detached from customs may not be as efficient as an enforced set of legal rules deriving from the community itself” (RATLIFF; BUSCAGLIA, 1997 in BUSCAGLIA; RATLIFF, 2000, p. 04).

Thus, according to Buscaglia and Ratliff (2000), when only informal rules, in other words, rules of behavior are captured by formal legislation, the law actually promotes the best possible efficiency. Laws that try to implement and enforce standards of behavior unrelated to market or region tend to increase friction and transaction costs of production, according to the authors.

Cooter (1996) in Buscaglia and Ratliff (2000) believes that the ineffectiveness of laws enacted by parliaments in many countries today reflect the absence of links between the essence of what is required by law and social norms followed by people and by traders in their daily activities. When regulations or laws have no such compatibility, the costs to follow and enforce such laws become larger. These are called *badlaws* mentioned by de Soto (1989), which show that there is an increase in transaction costs to enforce formal laws in relation to social norms followed in an informal market (BUSCAGLIA, RATLIFF, 2000). Consequently, only when laws and regulations reflect the practices of the people, the transaction costs in social interactions will decline, and, therefore, the path toward efficiency will happen.

Buscaglia and Ratliff (2000) cite the perspective De Soto (1997), which indicates that the size of many informal sectors around the world is closely related to the way that the laws fail to capture social practices. In the following studies of Cooter (1996, 1994), Matei (1996) and Buscaglia (1993), they argue that laws that generate voluntary compliance are those that are truly compatible with the code of ethics that prevails in society. Therefore, social norms from different societies must be discovered and transformed into formal legal rights and obligations (BUSCAGLIA; RATLIFF 2000).

Thus, in order to deepen the analysis of Cooter, Buscaglia and Ratliff (1993) in Buscaglia and Ratliff (2000), who claim that, to enhance the efficiency, politicians should not only follow the market, but also follow the social norms that do not belong to marketplace. According to the authors, the rules of the society to the market and the rules to social interaction provide a guide to enactment of laws to the Legislative and the Judiciary. Therefore, making laws that are understandable to ordinary citizens and at the same time allow the reduction of the costs to human interactions, the efficiency can be achieved in

society, both in market activities and those that do not belong to the market (BUSCAGLIA; RATLIFF, 2000).

### 3.2 Propositions 02 and 03: The influence of private interests and the concerns of the State

The second proposition in question is: *the greater the interest of private agents in law, the greater the possibility to its getting adherence*. Private interest is the interest of influence groups, which may be unions, associations, class organizations among others. In this sense, we must know, in society, who is in favor of the change, or alteration in legislation (ALSTON, 1996). Identifying the claimants of the law is important to determine the relative political power of the concerned groups reaching the general public. Thus, it is necessary to know who has the political power to "command" the change or maintain the status quo and what are the incentives to lobby for the change (ALSTON, 1996).

Therefore, it should be considered that individuals or influence groups may lose with the adoption of more socially efficient laws, and thereby blocking the adoption of proposed improvements (ACEMOGLU; ROBINSON, 2002 in RUBIN, 2005), or, conversely, contributing to the adoption of more effective laws in the social point of view, in case that they should obtain gains from it. Note that government restrictions on economic activity are diffuse facts of life, and considering that such restrictions that can give rise to different forms of income. It is necessary to understand that there is competition to generate rents, which interfere with the effectiveness of laws (KRUEGER, 1974).

In this sense, coming to a general agreement maybe is not an easy task. If the data are controversial, if the involved parties are very different in how they access and react to data, the situation is further aggravated (LIBECAP, 2005). All these considerations are involved in the process of institutional change. Therefore, how these problems are solved, how long the whole process takes and how the nature of the involved institutions is, all these items will impact the treatment of common goods.

According to the third proposition that relates to the interest of the State it can be translated into: the greater the interest of State in the law, the greater the possibility of its getting adherence. According to this proposition it is important to return the notion that all rules are subject to suffer inefficiency due to the bounded rationality, the existence of self-interest of actors involved and incomplete information (ARRUÑADA; ANDONOVA, 2004). Thus, both legislators, the judges may contribute to the inefficiency of a particular law.

In addition, it is necessary to understand that the laws are designed, approved and decreed by government entities, in other words, it is governments that supply formal institutions (ALSTON, 1996). Government actors often have the power to change or modify the rules regardless of their constituents. Besides, the State is the only agent that has the police power. Government officials that supply the institutions and make the State often have greater power and means to do a particular interest rule to be approved and implemented.

### 3.3 Propositions 04 and 05: Costs to State and to organizational agents

The propositions 04 and 05 are relate, respectively, to the cost to the State in monitoring the implementation of laws, and the costs of the organizational agents to adhere the laws. Both will treat the transaction costs and monetary costs. The proposition four is: *the higher the monitoring costs of law enforcement, the lower its level of adherence*. Starting from the idea of Barzel (1997) that a good is a set of attributes, it often becomes prohibitive for the State to protect all the attributes that compose the good. Therefore, despite knowing

the damage to the commons, it is not always interesting tackle the problem entirely, because many resources may be needed in comparison to the benefits achieved (Libecap, 2005). Thus, the transaction costs for defining and enforcement restrictions may often be prohibitive for the State.

From the perspective of Barzel (2001), information costs are the source of transaction costs. Specifically, the author highlights the importance to measure the cost of information in the analysis of institutions. For the author, the process of transaction implies the exchange of information which has costs for being measured, or externalized, so the level of difficulty of measuring such information will determine the type of relationship. It is possible to extend this logic to the relationship between the State (inspection agents) acting as a control entity and organizational agents affected by the laws. Thus, the lower the level of difficulty of measuring the attributes involved, the greater the incentive for State officials to put into practice the norm, and also the greater the incentive for organizational agents to fit the norm.

Libecap (2005) when discussing the protection and preservation of common goods emphasizes that in observable attributes and fixed resources the costs of measurement are low and, conversely, in attributes that are not observable and mobile resources the costs are higher. This view shows the difficulties of regulating the use of the commons, since in their majority, they are compound by attributes that are not readily observable, and often the losses affect not only the causative, but all around it. It is why that the costs of measuring the information are in the base of definition and application of the restrictions imposed by the laws. Following this, the higher the costs to obtain the information of noncompliance with the rule, the smaller the incentive to ensure implementation of the rule.

Regarding Proposition 05, which deals with costs for organizational agents, the statement is: *the higher the cost of adhering to the law, the lower its level of compliance*. As stated above, this proposition is related to transaction costs and also monetary costs to adhere to certain law. In this sense, the definition of transaction costs according to Arrow that are the costs of running the economic system is quite appropriate at this time. Thus, for the farmer to fit the law, he may need to modify his way of producing, or spend a lot of time, increasing the number of procedures to be performed, and, consequently, leading to an increase in transaction costs, and often in the monetary or administrative costs. As a result, the incentive to adhere to certain rule decreases.

#### 4. Conclusion

Considering the analysis above, and the analysis expressed in other propositions, it is important to mention that when a rule is designed or modified, in other words, when it is performed an institutional change, it is necessary to pay attention to several points. Some parts will predict a worse situation with change, with compensation absent, even in face of potentially large aggregated gains. Others can predict improvements, as long as their profits are little or nothing taxed. In this sense, an accurate analysis about the severity of the issue, the nature of the solution, the identity of who wins and who loses, the compensation to be paid and its form are items that should be considered when treating the commons (LIBECAP, 2005). It is necessary to consider that even if the intervention reduces the losses in the aggregate, it is, indeed, the policy that determines the nature of the result, and benefits and costs of distribution. Therefore, the institutional response may have little resemblance to what could be the ideal solution (LIBECAP, 2005).



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## References

- ALSTON, Lee J. Empirical work in institutional economics: an overview. *In*: Alston, Lee J.; EGGERTSSON, Thráinn; NORTH, Douglass C (Org.). **Empirical Studies in Institutional Change**. 1<sup>a</sup> ed. Cambridge University Press, 1996. p. 25 – 30.
- ALSTON, Lee J.; MUELLER, Bernardo. Property Rights and the State. . *In*: MÉNARD, Claude; SHIRLEY, Mary M. (Org). **Handbook of New Institutional Economics**. Netherlands: Springer, 2005.
- ARIDA, Pérsio. **A pesquisa em Direito e em Economia**: em torno da historicidade da norma. *In*: ZYLBERSZTAJN, Decio; SZTAJN, Rachel (Org.). **Direito & Economia**: análise econômica do Direito e das Organizações. 1<sup>a</sup> ed. Rio de Janeiro: Campus, 2005. p. 60-73.
- ARRUÑADA, Benito; ANDONOVA, Veneta. **Jugdes' Cognition and Market Order**. Working Paper n. 768. Barcelona: Universitat Pompeu Fabra, 2004. (Working Paper Series).
- AZEVEDO, P. F. Nova Economia Institucional: referencial geral e aplicações para a agricultura. **Agricultura em São Paulo**, São Paulo, v. 47, n. 1, p. 33-52, 2000.
- BARZEL, Y. 1997. **Economic Analysis of Property Rights**. Cambridge University Press.
- BARZEL, Y. 2000. Property rights in the firm. *In*: Machesney Eds. Princenton University.
- BARZEL, Y. **A theory of organizations to supersede the theory of the firm**. **Working Paper** – Department of Economics, University of Washington, 2001. Available on: <<http://www.econ.washington.edu/people/detail.asp?uid=yoram>>. Accessed on: 03 mai.2012.
- BENJAMIN, Antônio H. de V. A implementação da legislação ambiental: o papel do Ministério Público. **Justitia**. São Paulo: v. 161, n. 55, p. 75-83, jan. – mar. 1993.
- BRASIL. Constituição da República Federativa do Brasil: Texto consolidado até a Emenda Constitucional n<sup>o</sup> 64 de 04 de fevereiro de 2010. Available on: <[http://www.senado.gov.br/legislacao/const/con1988/CON1988\\_04.02.2010/CON1988.pdf](http://www.senado.gov.br/legislacao/const/con1988/CON1988_04.02.2010/CON1988.pdf)>. Accessed on: 19 abr. 2012.
- BRASIL. Lei n<sup>o</sup> 6.938, de 31 de agosto de 1981. Available on: <[http://www.cetesb.sp.gov.br/licenciamentoo/legislacao/federal/leis/1981\\_Lei\\_Fed\\_6938.pdf](http://www.cetesb.sp.gov.br/licenciamentoo/legislacao/federal/leis/1981_Lei_Fed_6938.pdf)>. Accessed on: 19 abr. 2012.
- BUSCAGLIA, Edgardo; RATLIFF, William. 2000. **Law and Economics in Developing Countries**. 1<sup>a</sup> ed. Stanford: Hoover Institution Press.
- COASE, R. H. 1960. The Problem of Social Cost. *Journal of Law and Economics* 3. October: 1-44.
- DAVIS, John H.; GOLDBERG, Ray A. **A Concept of Agribusiness**. Division of Research. Graduate School of Business Administration. Harvard University, Boston, 1957.
- DIREITO ambiental**. Juristas Leigos, 2002. Available on: <<http://www.aatr.org.br/Programas/JL/direitoambiental.pdf>>. Accessed on: 24 out. 2011.
- EGGERTSSON, Thráinn. **Economic Behavior and Institutions**. Cambridge: Cambridge University Press, 1990.
- FREITAS, Vladimir P. de. O Poder Judiciário e o Direito Ambiental no Brasil. **Justitia**. São Paulo: v.198, n.65, p. 95-107, jan. – jun. 2008.
- GIL, Antonio Carlos. **Métodos e técnicas de pesquisa social**. 4 ed. São Paulo: Atlas, 2002.
- GOLDBERG, Ray A. *Critical Trends for Agribusiness Commodity Systems*, 1968.
- KRUEGER, Anne O. The Political Economy of the Rent-Seeking Society. **The American Economic Review**, v. 64, n. 3, p. 291-303, jun. 1974.



- LIBECAP, Gary D. State Regulation of Open-Access, Common-Pool Resources. *In: MÉNARD, Claude; SHIRLEY, Mary M. (Org). Handbook of New Institutional Economics*. Netherlands: Springer, 2005.
- LUNARDI, Tarciso. **A efetividade da legislação ambiental e suas bases constitucionais**. 2011. 95 f. Dissertação (Mestrado) – Universidade de Caxias do Sul, Caxias do Sul, 2011.
- MÉNARD, Claude. The economics of hybrid organizations. **Journal of Institutional and Theoretical Economics**, n. 160, p. 345-376, 2004.
- MILGROM, P. & ROBERTS, J. **Economics, organization and management**. Englewood Cliffs, NJ: Prentice-Hall, 1992. 621p.
- NORTH, Douglass C. 2003. Understanding de process of economic change. **Forum Series on the Role of Institutions in Promoting Economic Growth**.
- NORTH, Douglass C. Custos de transação, instituições e desempenho econômico. Tradução de Elisabete Hart. Rio de Janeiro: Instituto Liberal, 1994a.
- NORTH, Douglass C. Economic performance through time. *The American Economic Review*, v. 84, n. 3, pp. 359-368, 1994b.
- NORTH, Douglass C. *Institutions, Institutional Change and Economic Performance*. Cambridge: Cambridge University Press, 1990.
- NORTH, Douglass C. *Institutions*. *The American Economic Review*, vol. 05, n. 01, p. 97 - 112, 1991.
- PEREIRA, Laércio Barbosa; SOUZA, José Paulo de; CÁRIO, Sílvio Antonio Ferraz. **Elementos básicos para estudo de cadeias produtivas: tratamento teórico**. In: PRADO, Ivanor Nunes do; SOUZA, José Paulo de (Org.). **Cadeias Produtivas: estudos sobre competitividade e coordenação**. 2<sup>a</sup> ed. Maringá: Eduem, 2009. p. 17- 38.
- REZENDE, Cristiane Leles. **Pacta sunt servanda? Quebra dos contratos de soja verde**. 2008. 144p. Tese (Doutorado) – Universidade de São Paulo, São Paulo, 2008.
- RUBIN, Paul H. Legal Systems as Frameworks for Market Exchanges. *In: MÉNARD, Claude; SHIRLEY, Mary M. (Org). Handbook of New Institutional Economics*. Netherlands: Springer, 2005.
- SZTAJN, Rachel; GORGA, Érica. Tradições do Direito. In: ZYLBERSZTAJN, Decio; SZTAJN, Rachel (Org.). **Direito & Economia: análise econômica do Direito e das Organizações**. 1<sup>a</sup> ed. Rio de Janeiro: Campus, 2005. p. 137-196.
- WILLIAMSON, O. E. **The mechanisms of governance**. Oxford: Oxford University Press, 1996.
- WILLIAMSON, Oliver E. **The economic institutions of capitalism: firms, markets, relational contracting**. New York: The Free Press, 1985.
- ZYLBERSZTAJN, Decio. Conceitos gerais, evolução e apresentação do sistema agroindustrial. *In: ZYLBERSZTAJN, Decio; NEVES, Marcos F. (Org.). Economia e Gestão dos Negócios Agroalimentares*. 1<sup>a</sup> ed. São Paulo: Pioneira Thomson, 2005. p. 01-21.
- ZYLBERSZTAJN, Decio. **Estruturas de governança e Coordenação do Agribusiness: uma aplicação da Nova Economia das Instituições**. 1995. Tese (Livre Docência em Administração) – Programa de Pós-Graduação em Administração, Faculdade de Economia, Administração e Contabilidade, Universidade de São Paulo, São Paulo, 1995.
- ZYLBERSZTAJN, Decio; SZTAJN, Rachel. Análise Econômica do Direito e das Organizações. *In: ZYLBERSZTAJN, Decio; SZTAJN, Rachel (Org.). Direito & Economia: análise econômica do Direito e das Organizações*. 1<sup>a</sup> ed. Rio de Janeiro: Campus, 2005. p. 01-15.



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<sup>1</sup> The NIE has as assumptions bounded rationality of agents, defined by Simon (1961 apud Williamson, 1985, p.30) as behavior that is “intentionally rational, but only limitedly so”.

<sup>2</sup> According to Milgrom and Roberts (1992), externalities are positive or negative effects that the actions of one economic agent have on the welfare of others, and are not regulated by the price system.

<sup>3</sup> It is what Barzel (2000) calls the economic property rights, which deal with the ability to benefit itself from a product or service, having their value represented by the costs of capture and protection.