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RESEARCH ARTICLE

WASTEWATER LEGISLATION: ANALYSIS AND REGULATORY PROPOSALS

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ABSTRACT

he research aims to bring up the discussion of the need for specific legislation for the reuse of wastewater, which is a practice of sustainable management of water resources. Having as main advantage the reduction of the demand for potable water, mitigating the pressure on the water sources. Thus, such reduction results from the application of reuse waters to the purpose that can be served by waters with less restrictive characteristics than the characteristics required for human consumption, in terms of agro industrial and industrial technology. Due the risks to both public and the environment, arising from the practice of reusing wastewater, the development of the use of this technology will require energetic State intervention, in the form of law, where there is a project, without, however, finalizing it. The purpose of this intervention will be to maximize the benefits gained from the practice and reduce of the harm associated with its management. So that this research aims to discuss the standardization of the practice of wastewater in Brazil. The legislative powers of the federal entities and successful cases of this filling. Therefore, a bibliographic review of the concept of water reuse was carried out, addressing its types and application, listing, also, the purposes of application of reuse waters. The literature review also aimed to survey the legal framework for water reuse in Brazil. Bases on the concept of water reuse. Based on the concept of water reuse, the relationship between the practice of water reuse and the objectives advocated by the National Water Resources Policy can be established. This way, qualitative research will be carried out with the use of data in the hypothetical-deductive method, observing the existing rules and the need for specific legislation, analyzing the federal bill about the subject and punctuating the necessary specification for minutiae, as well as making an exploratory research interviewing actors who are inserted in this specific need rule, given what is observed in the bureaucratic obstacle due to the absence of specific legislation

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INTRODUCTION

This article aims to analyze the need for legal regulatory framework for the reuse of wastewater in the agro industrial systems, since the present legislation about the theme lacks specialized regulation, based on sparse normative acts, in view of technical and specific norms for the theme both in industrial and agro industrial scope, however, we will stick in this research to the agro industrial branch.

It is what this research intends to answer, to immerse itself in the acts that already discipline the theme, analyzing each one of them and their role in the regulation of the method, as well as doing a bibliographic review in the main articles and theses about the absence of own legislation for the method, giving priority to the most recent theses, as well as the articles.

Without neglecting, the problem of social actors that need this method and that can be produced in the agro industrial fields in the midst of the water crisis, for this purpose, using case studies, interviews and data analysis what will be done in this research.

As known the reuse of water is not a method or even a new matter, once since the classic society, as Greece and Rome, methods of water reuse were used (MIERZWA; HESPANHOL, 2005).

Again, it entered the research agenda due to the water crisis that the country currently faces and in some regions (Northeastern semi-arid) recurrently, for both the analysis of a legal device, as well as the survey of normative acts on the subject is what will be done in this research, initially understanding the reason for using the method, as well as the conceptualized and situating in the practice that should be developed, as well as the care that must be taken to use this method.

This way, the first chapter of this research will talk about the problematic involving the lack of water resources, in the second chapter of this research we will make a brief exposition of water reuse and its classification, in the third chapter of this research we will make a survey of the normative acts that guide the activity of water reuse, as well as, analyzing them and chronological order of the development of these normative acts, in chapter four we will talk about the competence to standardize the legislation for water reuse contemplating

Some successful entities in the normative instrumentalization of the normative of this method, in the fifth chapter we will talk about the PL 58/2016 that seeks to broadly standardize this reuse to guide this method, being this a federal standardization, as well as, analyze together with the social actors who need it and those who work with credits for the development of this method, and demonstrate the problem of the specific normative absence and the damage they generate.

As the absence of regulation regarding water reuse in Brazil is observed, it is insufficient, since water reuse is a complex activity from the technical point of view and the development of this activity may inadvertently generate risks to the environment and public health, fines to a farmer without adequate advice to on this task.

Furthermore, considering that the practice of water reuse has risks associated with its development and that it may still have a harmful result for biota, the government, aiming to protect the ecologically balanced environmental, and in compliance with constitutional precepts, it has the duty to regulate the practice of water reuse, exercising its control function.

It is interesting to observe that to come up to the delimited study it was necessary a bibliographic survey to this and after searches, proceeded to a preliminary reading of the first ten results of each research. The objective of this preliminary reading was to select three scientific researches, that had substantial content and that were in line with the scope of this work, for an analysis.

The reading of the selected scientific research allowed the knowledge both of the bibliographic references that supported them and of the existence of the Centro Internacional de Referência em Reuso de Água (CIRRA), a non-profit entity, linked to the Department of the Polytechnic School of the University from São Paulo. The CIRRA website ((http://www.usp.br/cirra/) was used in a new stage of the research by key categories, since it allows to a database with doctoral theses, master's dissertations and monographs produced by the center and also, access to publications in scientific journals.

In the three databases used (Scielo, BDTD and CIRRA) were selected 48 scientific works to join the theoretical reference of this research. 13 articles published in scientific journals, 18 master's dissertation, seven doctoral theses and 10 monographs composed the selection.

Therefore, this way done this research and the method adopted was an exploratory research of what already was written about the standardization and reuse of water theme.

Therefore, this research will be centralized in the need of law implementation of legislation, in order to include these methods to benefit every part of a population in order to at least clear up doubts and got social programs that promote this type of method for water reuse.

HISTORY EXPOSITION OF HYDRIC CONTROVERSY

It is not from now days that we live a water crises in Brazil and mainly in the Northeastern semiarid, so that the literature (Vida e Morte Severina addresses this a lot) address a lot the challenges of the Brazilian in the fight against this unfair adversary, which resulted in the Northeastern diaspora for great centers in the past century.

In an exhibition in TCC we can see very well explained the current context of the controversy:

"(…) water is present in a large part of the surface of our planet in abundant form, which is why the different forms of life could develop, including the human being. This element shapes the landscape, changes the way human being lives, either because of its extreme lack, as seen in deserts, as in its abundance, like the wetlands. Water is essential for food, hygiene, health, and quality life. Virtually all human activities depends of water, from basic, such as supply, agriculture and fishing, to the most diverse, such as tourism. The availability of water is a determining factor even for the economy and development of a region. Despite the large amount of existing water, about 97,3% is salt water, and is found in the oceans and seas, that is, of all the water in the world, only 2,7% is fresh. However, this percentage is still divided in water from superficial sources – 0,3%; about 30% underground, and most, about 70% are found in glaciers (WWF BRASIL, 2006). The easily accessible water found in rivers, lakes and dams represents a small amount of the total fresh water available. This fresh water is present in different levels of availability all over the planet, where there are places facing floods and others in great water scarcity (SOS MATA ATLÂNTICA, 2016). Man's anthropic intervention has increasingly aggravated the effects of climate change, increasing periods of drought or flooding, causing various social and economic losses. Deforestation, occupation of river floodplains, misuse and waste of water, pollution of water sources by the release of domestic and industrial sewage make water increasingly scarce, unfit for consumption. Precipitations occur

more and more irregularly every day, which, combined with poor water management, causes a great restriction for the supply of the population (…) (SILVA, 2017)."

As we can see, the theme is recurrent and demands to much study and contemporary analyzes which is intend in this short article.

It happen that due to an excessive consumption policy, mainly in industry and in large rural properties, in addition to this, a water crisis that spread to regions, hitherto, rich in water resources, such as the State of São Paulo, there was a need to regulate methods that reduce the pressure of water sources, enabling the rational and economic use of water resources.

It is observed that the agenda of development and regulation of methods for economic use or even the reuse of water, had a great advance when this crisis occurred in large centers that in this century had not gone through this, such as the southeastern region of our country, on the other hand, the semiarid has faced this crisis since the middle of the 19th century.

It's interesting to note that in the thirties of the 20th century, the construction of dams in the northeast was a means of mitigation this spreading crisis, which at the time encouraged development to the region, and which resulted in an environmental impact that some legislations through the time tried to mitigate, since it was at the beginning of development in Brazil, as was the of São Gonçalo dam, and several others in the northeast (SOARES, 2017).

About our region it is interesting to note the case of São Gonçalo dam that in spite of does not have ended with the water problems of the region, at least changed the landscape of the local and, even it is not a definitive solution, mitigated the water shortage and helped the country person to develop a bit the region (SOARES, 2017).

How we can appreciate the clipping of this monograph on the theme, namely:

"(…) The guiding principles of this instrument were predicted in the 1930s when in 1934 the Water Code (decree nº 24.643, of July 10, 1934) came into force, and, later, by the National Environment Policy, of 1981 (law 6.938, of August 31, 1981), but only after a long debate about this legislation that, as from the 1990s, according to Leite and Vieira (2010), the water resources management model was reformulated and a new phase began with the approval of Federal Law nº 9,433/97. Another milestone was the approval of Law 11.455 (BRASIL, 2007), which established the national guidelines for basic sanitation, this regulation comprises a set of four aspects: the actions of water supply, sanitary sewage, solid waste management and rainwater management (PEREIRA, HELLER, 2015). In addition to bringing responsibilities to the municipal entity, with the implementation of the policy and preparation of the Municipal Basic Sanitation Plan, bringing within its guiding principles social control, efficiency and economic sustainability, among others. (DE ASSIS, 2017)."

As can be seen, the legislation sought greater legal protection in the waters, aiming at the contextualized aspect of criminal, civil and administrative liability.

In fact, the problem of the water crises has been plaguing Brazil for decades, perhaps centuries, so that, it is necessary to have means of rationalization, as well as methods aimed at reducing water sources.

APPROACH OF WHAT IS WATER REUSE

In this chapter is promoted an approach about what is water reuse and present a few classification in order to guide the reader.

That's because this research intends to go deeper into the legal aspect of the acts that regulate such method, the definition of this will be guided only in situating the reader in this method, without wanting to exhaust the theme, since the delimitations of this method are still in legal definition in a project which is being processed in the Chamber, however, in the analysis of the works already presented on the theme, I fear that the reuse of water consists of the reuse of certain water that was used as an input to the development of a human activity.

This way, this reuse occurs from the transformation of wastewater generated in a given activity into water for reuse. This transformation occurs through wastewater treatment.

Thus, wastewater is the water that contains waste from human activity (ABNT: NBR 7229, 1993, p.2). Simply put, reused water is treated wastewater, whose standards conferred by treatment meet certain application purpose.

In fact, the practice of water reuse consists of capturing water that was used as an input to the development of a human activity, treatment and (re)utilization in a human activity, different or not from the first.

For a better understanding, we collect the definition of Lavrador Filho (1987) whose conceptualizes water reuse as the use of previously used water, one or more times, in some human activity, to meet the needs of other beneficial uses, including the original.

Therefore, the practice of water reuse is systemic: its input (input) are wastewater and its products (outputs) is both reuse water and sludge from treatment.

It is also interesting to talk about that the wastewater are classified in relation to its source in domestic and non-domestic wastewater or industrial wastewater (HESPANHOL, 2008), in this case, wastewater for use in agro-industrial activities, can be either domestic, use of destination water from the producer's home as well as non-domestic water from the agro-industries.

NORMATIVE ACTS THAT GUIDE RESIDUARY WATER

In this chapter, it is worth to highlight the epistemological limits of research, seeking to bring information that shows the evolution of legislation to deal with water reuse, an extremely necessary theme in times of water scarcity that also involves public health, since the fate of some reuses involves crops of water cultures that may be going for human consumption, something that is not yet well regulated, as we will see, let's see.

To do so, we will analyze each federative entity and its legislation for the theme, according to the following topics.

FEDERAL NORMATIVE ACTS

Initially, it is necessary to clarify that Law 9.433, of January 8, 1997 is the legal device that guides the management of water resources in the country. This law instituted the National Water Resources Policy, recommends that the management of water resources must be systematic, and provide for the multiple use of water, without dissociating from the aspects of quantity and quality. This Policy aims to guarantee to current and future

generations the necessary availability of water, in quality standards appropriate to their respective uses, as well as to promote the rational and integrated use of water resources (BRASIL, 1997).

Although, water reuse is not the direct scope of the policy, this practice perfectly meets the objectives of the policy under review and, therefore, must be considered in the context of water resources management.

Addressing the issue specifically, the Resolution of the National Water Resources Council nº 54, of November 28, 2005, established modalities, guidelines and criteria for the practice of direct non-potable water reuse.

According to this rule, the Basin Committees must integrate, within scope of the Basin Water Resources Plan, the practice of reuse with actions of environmental sanitation and use and occupation of the soil in the hydrographic basin.

Article 9 of the aforementioned Resolution establishes that the water reuse must be informed to the water resources management agency, for registration purposes, contemplating at least:

I. Identification of producer, distributor and user;
II. Geographic location of the origin and destination of the water reuse;
III. Specification of the purpose of water production and reuse; and
IV. Flow and daily volume of reuse water produced, distributed or used (CONARH, 2005).

Other legal provision do not specifically address the issue of water reuse, however, they must be observed in the development of this practice. They are:

a) The CONAMA Resolution 357/2005, which "provides for the classification of bodies of water and environmental guidelines for their classification, as well as establishing the conditions and standards for the discharge of effluents" and;
b) CONAMA Resolutions 397/2008 and 430/2011, which amend Resolution 357/2005;

In addition to the legal provisions, we have technical provisions from the Brazilian Association of Technical Standards (ABNT), namely:

a) The standard NBR 7229:1993, which addresses the "Design, construction and operation of septic tank systems";
b) The standard NBR 13969:1997, which addresses "Septic tanks – Complementary treatments units and final disposal of liquid effluents – construction and operation project" and complements the part referring to the treatment and disposal of septic tank effluents from NBR 7229.

The importance of these standards for water reuse lies in the provisions of item 5.6 (Local Reuse) of NBR 13969. In this item four classification are defined for the sewage treated in the septic tanks covered by the standards. Besides classifying, this standard addresses parameters and uses pertaining to each class.

STATE NORMATIVE ACTS

Although the competence to legislate on natural resources, protection of the environmental and pollution control is concurrent between the Union, the States and the Federal District, at the state level, we do not find, in Brazil, substantial initiatives to standardize the practice of reuse of wastewater.

The search for state laws that addressed the reuse of water theme pointed to laws with a very similar scope, which provided for the obligation of certain establishments to install equipment for the treatment and reuse of water used in vehicle washing.

In the State of Rio de Janeiro, the Law nº 6034, of September 8, 2011, provides for the mandatory of gas station, car wash stations, carriers and inter-municipal and interstate urbanbus companies, located in the State of Rio de Janeiro, to install equipment for treatment and reuse of water used in vehicles washing.

In the State of Espírito Santo, the Law nº 9.439, of May 3, 2010, provides for the mandatory of gas station, car wash station, carriers, bus companies and car rental companies to install equipment for treatment and reuse of water used in vehicles washing.

On the other hand, in the State of Ceará, the 14.844 Law, of December 28, 2010, provides about the state policy of water resources, institutes the Sistema Integrado de Gestão de Recursos Hídricos – SIGERH, and gives other measures addresses the reuse of water, but not in an imposing way, as the laws mentioned above.

This Law seeks to institutionalize and encourage the practice of water reuse and integrate it into river basin plans, 37 article of the Retro Law defines as the reuse of water as part of a more comprehensive activity of integrated management of water resources, where the rational or efficient use of water also includes the control of losses and waste, and the minimization of effluent production and consumption of water.

MUNICIPAL NORMATIVE ACTS

At the forefront of the standardization of water reuse in Brazil, ate the Municipal level, the municipalities of Curitiba, in the State of Paraná (PR) and Campina and Guarulhos in the State of São Paulo (SP). These Municipalities have laws that address the issue, albeit in a secondary way. In other words, they are not laws that specifically deal with the theme, but laws that cover the theme of water resources and that approaches the theme of water reuse as a development (MUFFAREG, 2003).

Due the broad scope of these laws, they do not talk about the water reuse properly. They are not concerned with defining specific purposes for reuse, do not identify an environmental agency to register users who practice water reuse, and do not outline minimum parameters pertaining to each purpose of reuse.

Despite being at the forefront of standardization of the theme, these municipalities still need to improve its laws, and create a specific proposed law to water reuse practice, considering the importance of the theme.

See bellow a brief description about the Municipal Laws cited:

Campinas – SP

The municipality of Campinas – SP, with the goal to implement measures that induces the conservation, the rational use, the reutilization of wastewater and also rainwater in the municipality, promoting users' awareness of the importance of water conservation, published Municipal Law nº 12..474 of January 16, 2006, creating the Municipal Program for the Conservation, Rational Use and Reuse of Water in Buildings.

This Law states that this Program will be developed by the followings actions:

a) The rational use of water;
b) Conservation;
c) Reuse of rainwater;
d) Encourage the reuse of water from Sewage Treatment Stations.

Guarulhos – SP

The municipality of Guarulhos published in December 28, 2010, the Municipal Law nº 6.739. This law address about the launching, collection and inspection of the Propriedade Predial e Territorial Urbana – IPTU.

In its 61 article, the law in question deals with the granting of a discount on the value of the property tax of municipal residences. This discount is granted to municipal properties that adopt the environmental measures provided for by law.

Among the environmental measures, there is the implantation of wastewater reuse system. The standard in question grants a discount of 3% in the value of the IPTU for built properties that adopt water reuse systems.

Although it addresses the term "water reuse system", this law does not define exactly what this system is. In addition, this law does not cover a clear definition of water reuse or even the purposes of water reuse in a home.

Curitiba – PR

The municipality of Curitiba published in September 18, 2003, the Municipal Law nº 10.785. This Law created in the Municipality the Programa de Conservação e Uso Racional da Água nas Edificações – PURAE. This program aims to institute measures that induce the conservation, rational use and use of alternative sources for capturing water in new buildings, as well as raising users' awareness of the importance of water conservation.

This Law addresses the term "wastewater" to refer to the water used in the tank or washing machine and in the shower or bathtub. Since the water from these sources is subject to reuse.

To address the purpose to which the wastewater must be applied, article 8 of the law in question specified that the wastewater collected must be directed, through its own pipeline, to a reservoir intended to supply the flushing of the toilets and, only after such use will be discharged into the public sewer network.

Therefore, this Law, although it does not detail how the practice of reuse in a residence should develop, it detailed the source of the wastewater and specified for what purpose this water can be used.

Despite being a breakthrough in terms of standardization, this standard did not specify the need for wastewater treatment before use.

COMPETENCE FOR STANDARDIZATION OF WATER REUSE

The current 1998 Constitution established nodal points for a supranational protection, establishing among these fundamentals free initiative, this institutional parameter must be made possible by the State, not in the form of state intervention, but in the liberal sense of promoting tools for citizens to reach their entrepreneurial goals, be it an industrial or even rural entrepreneur.

This way, since the moment that the urgent need for some techniques must be used, the legislative power must collaborate for this new fabric, in this case making these means viable and less bureaucratic.

Indeed, there is an urgent need for national regulation for this method, which can greatly contribute to production in times of drought.

This way, can be seen that this method included reducing the water use, since it is reusing it, not for human consumption, but for the production of inputs such as palms for example.

In this hypothesis, we understand that the discussion is necessary and the making will be urgent, since the use of the method and reducing bureaucracy will be end with the advent of this lege ferenda, so that research will contribute to academic circles in the sense of encouraging new researches already focused and something regulated by specific law and therefore unlocking credit lines specific requirements for the reuse of wastewater.

Although the benefits obtained from the practice are evident, the development of this practice is associated with the risks to the environment and public health, due to the presence of chemical and biological pollutant in wastewater.

The risks in question come from the possibility that the water that will be reused is not captured, treated, distributed and applied adequately in a purpose compatible with the treatment provided by the practitioner of the water reuse.

Thus the F.C, in its 225 article, says that it is the responsibility of the Public Power and the community to defend and preserve the environment for present and future generations (BRASIL, 1998). To this end, the Magna Carta mandated the Public Power to control the production, the commercialization and use of techniques, methods and substances that carry risks to life, to the quality of life and to the environment.

Considering the practice of reuse of water has risks associated with its development and that the concretization of these risks will result in pollution, the Public Power aiming the protection of the environment ecologically balanced, and given the constitutional precepts, it has the duty to regulate the practice of water reuse, exercising its control function.

Thus, the duty of standardization, referred to above, is based on the environmental principle of prevention, which seeks to make human development compatible with the preservation of the environment, as well as the principle of supremacy of the public interest over the particular. This standardization aims to keep the environment ecologically balanced, a common use of the people and essential to a healthy quality of life.

In this sense, the provision in item II of 5 article of Federal Constitution, that no one will be obligated to do or fail to do anything except under the law. This is the principle of legality, which is the direct basis of the direct notion of the Rule of Law, since it establishes that the obligation imposed on the citizen must be regulated through specific legislation.

In this sense, the statement of this item conveys the most general notion of the principle of legality. With regard to individuals, it has as corollary the statement that only the law can create obligations. On the other hand, it refers to the assertion that the absence of a prohibitive law for a certain conduct implies that it is allowed.

This item of the Constitution answers one of the central questions of this work. Namely: what is the legal instrument to standardize the practice of water reuse?

Based on the aforementioned article, it is necessary to regulate the reuse of water, imposing a particular obligation, as well as sanctions in case of non-compliance with the rule, the legal instrument is the law, given that our Constitution did not allow the Executive, through regulation, by itself, interfere with people's

freedom or property.

It should be noted that the function of the regulation is to enforce the laws, that is, the existence of a law is necessary to have a regulation, which is based on it. In these terms, some maters raised by the law depend on further specifications, as a result of the need for administrative action, the Executive is placed in the contingency of issuing complementary rules to it.

Therefore, for the Public Power to protect public health and the environment from the risks associated with the improper practice of water reuse, we must regulate it by law, given that it is the correct instrument to impose obligations or restrictions.

Nuances of Competences regarding the standardization of water reuse in Brazil

To explore the competences regarding the standardization of water reuse in Brazil, it is necessary to briefly discussion about the constitutional model for the division of competencies adopted by Brazilian Constitution.

The Constitution uses the "Competence Sharing" technique to share the different activities of the Federal State among federal entities. In Brazil, the division of powers is provided for in constitutional text, which constitutes an important guarantee, due to the rigidity of the Constitution of the Republic. There are two basic models for sharing competences: the horizontal model and the vertical model. The original constituent chose to adopt the vertical distribution model in Brazil (PAULO; ALEXANDRINO, 2008).

Vertical distribution occurs when the Constitution grants different federative entities the competence to act on the same matters, but establishes a subordinate relationship between the types of action envisaged for each one. Federated entities act on the same matters, but do not have the same powers in this task (PAULO; ALEXANDRINO, 2008).

This way, the characteristic feature of the vertical distribution is the existence of a subordinate relationship between the levels of performance attributed to the different federated entities regarding the matters within their scope.

Legislative powers, as the name suggests, establish the power to regulate, to establish norms on the respective matters. They do not concern the performance itself, the execution of an activity, but the edition of the rules that will regulate a specific performance (JUNIOR, 2007).

Common Competence

The 23 article of the Federal Constitutions lists the matters that make up the so-called common, parallel or cumulative, providing which competencies are common to the Union, the States, the Federal District and the Municipalities.

Common competence is administrative competence, embodied in the grating to the Union, the states, the Federal District and the municipalities in power to act, in parallel, on the respective matters. All federative entities exercise it on equal terms, without any subordinate relationship. For this reason, it is said that there is a parallel action by the federated entities, because they operate under conditions of equality, and the performance of one does not exclude that of the others (JUNIOR, 2007).

The main characteristic of the common administrative competence is, therefore, the inexistence of subordination on the performance of the different federative entities: all act in conditions of full equality, without the performance of one distancing them from the others (JUNIOR, 2007).

Note that the matters covered by the common competence are typically of interest to the community – the so-called diffuse interests -, which is why the common action of all entities of the Federation is justified.

Concurrent Legislative Competence

The 24 Article of the Federal Constitution establishes concurrent legislative competence, and provides for matters that are responsibility of the Union, the States and the Federal District to legislate concurrently.

In the context of concurrent legislation, the competence of the Union will be limited to establishing general rules (FC, 24 Art., § 1st).

The action of the Union, setting general rules, does not exclude the supplementary action of the States and the Federal District (FC, 24 Art., § 2nd). Thus, once the general rules are established by the Union, it will be up to the States and the Federal District to complement the federal legislation, in view of regional peculiarities, by issuing specific state and district rules. It is the so-called supplementary competence of member-states and the Federal District.

It is important to observe that there is a subordinate relationship between the action of the Union's role in editing general rules and that of the states and the Federal District in complementing them through specific rules, as these cannot contradict those.

Finally, it should be noted that the municipalities were not included in the concurrent competence, that it, the municipalities do not compete with the Union and the states in the scope of maters subject to the concurrent legislation (FC, 24 Art., caput). The municipalities do have generic constitutional competence to "supplement federal and state legislation where applicable" (FC, 30 Art.. II). They can also "legislate on matters of local interest" (FC, 30 Art, I), in this case, regardless of whether they are supplementing other rules (JUNIOR, 2007).

This legislative action by the municipalities, however, does not mean competition with the Union and the member sta tes. It is clear that, in matters subject to competing competence (items of 24 article of the Constitution), if there is a federal law of general rules, and also a state law on specific aspects, the eventual supplementary legislative action of a municipality located in that state, based on 30 article, item II, will be quite similar to the typical competition system described in §§ 1st and 2nd of 24 article of the Political Charter (JUNIOR, 2007).

However, the similarity goes not further. In fact, if there is no federal general norms law or state law, municipalities do not acquire a possible "full legislative competence" that allows them to edit general norms and specific norms. On the contrary, as the competence of the municipalities has the purpose of "supplementing federal and state legislation as appropriate" (FC, 30 art., II), the lack of federal and state legislation about an matter makes the exercise of this competence by the municipality unfeasible.

It is true that this does not prevent the municipality, in the event of needing to discipline a subject of local interest, to do so based on item I of 30 article, even if there are no federal and state rules on the matter, but this performance has nothing to do with the "concurrent competence" established in 24 article of the

Constitution.

The competence of municipalities can be divided into legislative and administrative competence. The legislative competence corresponds to the exclusive competence to legislate on matters of local interest (FC, 30 art, I), and to the supplementary competence, to supplement federal or state legislation, as appropriate (FC, 30 art., II).

Composition of legislative competence and its practical aspects

As seen, 23 Article of the Federal Constitution was responsible for enumerating the integral matters in the so-called common, parallel or cumulative competence. In this article, item VI states that "protecting the environment and combating pollution in any of its forms" is a common competence.

The 24 article of the Federal Constitution stablishes concurrent competence legislative. In this article, item VI states that it is up to the Union, the State and the Federal District to legislate concurrently on "forests, hunting, fishing, fauna, and nature conservation, defense of the soil and natural resources, protection of the environment and pollution control".

The equivocated development of the water reuse practice can cause pollution. Pollution under the terms of item III of the National Environment Policy is the degradation of environmental quality resulting from activities that directly or indirectly:

a) Harm the health, safety and well-being of the population;
b) Create adverse conditions to social and economic activities;
c) Affect biota unfavorably;
d) Affect the aesthetic or sanitary conditions of the environment and;
e) Release materials or energy in disagreement with the established environmental standards (BRASIL, 1981).

The same law defines polluter as "the private or legal person, of public or private law, directly or indirectly responsible, for an activity that causes environmental degradation".

Therefore, it is up to the Union as well as the States, Municipalities and the Federal District to promote actions that ensure the proper practice of water reuse. When it comes to legislative competence, we have that the Union, the States and the Federal District must legislate concurrently on the reuse of water, since the development of this practice in a wrong way directly affects the environment and can cause pollution. The municipalities will be required to supplement Federal or State legislation.

In summary, we have common competence regarding the protection of the environment and pollution control and concurrent legislative competence regarding "defense of the soil and natural resources, protection of the environment and pollution control".

Thus, the Union, the States and the Federal District are responsible both for the promotion and appropriate development and for the standardization of the practice of water reuse. Municipal competence to legislate on the theme stems from the provisions of items I and II of 30 article of the Federal Constitution, since the practice of water reuse has local influence, even though the environment is a diffuse asset and there are no defined territorial limits for environmental impacts.

COMMENTS TO THE DRAFT LAW NUMBER 58/2016 AND ITS MISSION TO STANDARDIZE WATER REUSE

The water crisis reached such a point that all methods of saving water and limit consumption and waste were put on the agenda, both in academia with incentives for this type of research and, in legislative production this also occurred with the reuse of water that until then had incipient treatment as to standardization, causing a bit of confusion as to the powers of the entities, for this purpose ANA made this generic standardization by resolutions, being in charge of the federal entities to legislate its minutiae as observed in the previous chapter of present research.

Occurs that the absence of specific legislation brought some flaws to the practical way to encourage the method, because the agents that promote the case, such as the Credit Agents, had difficulties in establishing credit lines for people who would like to use the reuse of water in their for example, rural properties, they did so through lines for the construction of artesian wells, a kind of analogy to see this incentive enjoyed.

Thus, a PT senator from Acre, observing this normative vacuum, presented a draft law number 58/2016 which seeks to give command and guidelines for this reuse, disciplining water supply by alternative sources and changes Law number 11.455, of January 5, 2007, that establishes national guidelines for basic sanitation; number 10.257, of July 10, 2001, which regulates 182 and 183 articles of the Federal Constitution, establishes general guidelines for urban policy; number 9.605, of February 12, 1998, which provides for criminal and administrative sanctions arising from conduct and activities harmful to the environment and number 9.433, of January, 1997, which institutes the National Water Resource Policy.

As observed, such project seeks to change and minimize these normative vacuums by establishing parameters and guidelines for the use of water reuse, as well as penalties for misuse and the form of accreditation and inspection that is incipient today.

Therefore, it is interesting to collect the justification of the project that is pressing for research:

"The water crisis experienced in the country makes us aware of how valuable and important our water resources are. We are experiencing an unprecedented crisis that, paradoxically, denounces scenarios of scarcity and, at the same time, floods. More than ever, the theme of efficient water resources management comes up, necessary to ensure the availability of water in quality standards appropriate to the respective uses.

Brazilian legislation that governs the use and protection of water has come a long way in recent decades. Since the Federal Constitution of 1988 established the concurrent competence of the Union and the States to legislate on protection of the environment and combating pollution, in the 1990s the Política Nacional de Recursos Hídricos (PNRH) was approved, by the Law number 9.433, of January 8, 1997, which advocates the systematic management of water resources, without dissociation of the aspects of quantity and quality, integration of water resource management with environmental management and articulation of water resource management with that of land use. It also establishes as objectives, the rational and integrated use of water resources.

In this context, water reuse, being a sustainable management practice, is one of the main technically and economically viable alternatives, as it provides the rational and environmentally appropriate use of water resources. A solution promotes a reduction in water demand and increases the availability of this resource. The practice of reusing water, as observed in several countries that discipline the matter, such as Portugal, Canada and

the United States, allows the application of water with a quality standard lower than that required for human consumption. Consequently, it reduces the need for external supply and allows an additional source of water of a lower quality than less restrictive use systems. However, Brazil did not regulate this issue by law, but only by infra-legal rules. The lack of regulation is a worrying fact, since the reuse of water, if carried out without complying with procedures and quality standards can cause damage to the environment and public health. Considering that the development of this activity has risks of a collective and diffuse nature, and with the objective of protecting the environment and combating pollution, in addition to giving effectiveness to the PNRH's normative command regarding the rational use of water resources, we present this proposition, whose purpose is to standardize the practice of water reuse. In addition to establishing concepts, disciplining the permitted uses with the use of reused water and specifying the performance of the competent agents, the Law aims to maximize the benefits obtained from the practice of reuse and minimize the risks, as well as to discipline the liability of the agent, in cases of non-compliance with legal requirements. In view of the importance of the theme, we request the support of our Peers for the approval of this important Project. Sessions Room, Senator JORGE VIANA".

It is important to highlight 6 article that speaks of the registration of those interested in using the method, something that is very muddy today, since the grant for reuse is not yet regularized, so we have collected this chapter of the retro draft law:

"6th article the supply of water by alternative sources will depend on prior registration with the respective regulator of the water supply and sewage services.
Single paragraph. Domestic potable, aquaculture, agricultural reuse and the use of rainwater for these purposes will be subject to the registration referred to in the caput and also to the authorization by the competent health surveillance agency, which will assess the control of human exposure".

Such project is on the path of cohesive formation for water reuse, however, some singularities must be observed at the local and regional level, this includes a broader discussion with public hearings in the constitution and justice commission.

It is interesting to note that in 16th article item I, of this project, there are incentives for the use of water reuse method, something that contributes to the XXI agenda, and, therefore, with sustainable development, note:

16th Article. The instruments for promoting water reuse are:
I - granting tax, financial and credit incentives to the producer, distributor and user of reused water, as well as to manufacturers, traders and importers of parts and equipment used in water reuse and rainwater recovery systems;

In effect, the retro item characterizes precisely the incentive of the public power to use the method, which is a good thing for rural producers, since today there is no incentive in practice.

In Chapter III of the PL, we observe that the legislator who tries to mandate that public undertakings use reuse, note:

OF THE MANDATORY SUPPLY BY ALTERNATIVE SOURCES

12th Article. New residential, commercial, industrial buildings and buildings, public or private, built with resources from the Union or from the federal credit or development agencies themselves or managed by them, must have supply systems from alternative sources.
§ 1st The provision in the caput will be mandatory for new private buildings of any nature with a built area of 600 m² (six hundred square meters) or more.
§ 2nd The requirements contained in the caput may be waived in cases of technical unfeasibility or excessive economic burden, attested in a report prepared by a qualified professional or in regions with high water availability attested by the respective body responsible for the management of water resources.
13th Article. Public services for landscape irrigation and washing of roads and public areas in areas of public domain must use, partially or totally, reused or rain water as a source of supply.
14th Article. Water reservoirs for firefight of public or private new buildings, must use, partially or totally, water from reuse or rain water as a source of supply.
15th Article. Water users granted, pursuant to 12th article of Law number 9.433, of January 8, 1997, that adopt rainwater reuse and water reuse systems will receive a discount, in the charge for the use of water resources, equivalent to the amount of reused water and rainwater used from those system.

How to observe the retro law project aims to compel the public power to reuse water again in the wake of the XXI agenda and sustainable development, in this line the legislator was very certain, this because, the duty of reuse must start from the public entity so that so the population does.

In chapter V, 21st article to 25th of this PL we observe that the legislator dealt with administrative infractions due to the misuse of water reuse, let us see:

ADMINISTRATIVE INFRINGEMENTS

21st Article. Supply from alternative sources without prior registration in the respective regulatory authority of water supply and sewage services.
Penalty: daily fine and immediate suspension of supply by alternative sources.
22nd Article. Let the installer of an individual water supply solution from alternative sources obtain accreditation with the regulatory body for water supply and sewage services.
Penalty: fine and suspension of activities.
23rd Article. To exploit reused water services as an economic activity, by producers and distributors of reused water, without entering into a contract with the respective holder of the water supply and sewage services.
Penalty: fine and suspension of activities.
24th Article. Failure to send annually, to the respective regulatory body for water supply and sewage services, a report on the quality of water served signed by a technical person in charge of individuals or legal entities that use an individual water supply solution from alternative sources and responsible for the public water supply system for reuse.
Penalty: fine.
25th Article. Leave, that one who has the obligation, to have supply systems for alternative sources or use of alternative sources of

supply.

Penalty: fine and embargo of the work.

26th Article. The amount of the fine referred to in this chapter will be fixed in the regulation of this Law, with a minimum of R$ 1,000.00 (one thousand reals) and a maximum of R $ 1,000,000.00 (one million reals).

Single paragraph. The application of the penalties provided for in this article does not exempt the agent from other administrative and criminal sanctions provided for in Law Number 9.605, of February 12, 1998, and in other specific rules that deal with the matter.

It is interesting to note with the retro chapter, that although administrative sanctions have provided for financial penalties, that is, corrections based on the polluter pays principle, a certain revision is required for penalties based on the Environmental Crimes Law, something more consistent for misuse , even so, it is interesting to note that there is no pedagogical form of the penalty, that is, it does not incur courses or anything similar for this pedagogical character, one more inaccuracy in the project that can be rectified with the contribution of civil society in public hearings.

Indeed, the present project very much fills the present normative vacuums, however, there are still minutiae that must be brought up for discussion before the approval and future presidential sanction, however, it is already a great evolution of the current situation that we live in and of the uncertainties due to the absence of legal regulation, an advance that will contribute significantly to the better reuse of water by the Brazilian population.

FINAL CONSIDERATIONS

Although, if there is no perfect legislation the PL 58/2016 brings a set of measures that seek to rectify some situations and pacify them, that is, it brings a good normative sense so that the population that needs this methods has minimal legal support, since the uncertainties brought about by the absence of legislation end up making the method paralegal, requiring the developers to use an analogy to obtain credit lines for this.

This way, the present research tries to make possible and to sensitize the legislator for a legal and social analysis of the present research observing regional and social factors beyond the legal bias.

Thus, the epistemological and ontological construction was present in this small research.

However, as this work should be faced as a theorist of new discussions on water reuse and its standardization, it should be emphasized that Water Reuse is a new issue that has minimal discussions from a normative point of view has been reduced to a minor aspect, given that only by resolutions has it been dealt until then.

Therefore, there is an appeal to the Legislator, an invitation to a bigger discussion so that this Law is a normative mark to the method that is not isolated there, without the discussion with the academic forums and user population.

So that the management of water resources has as main objective to assure the current and future generations the necessary availability of water in quality standards, appropriate to the respective uses.

Thus, the National Water Resources Policy recommends the systematic management of water resources, without dissociating the aspects of quantity and quality, the integration of water resource management with environmental management and the articulation of water resource management with that of land use.

At this rate, alternatives are needed to reduce the gap between the growing demand for water and the availability of this resource in both quantitative and qualitative aspects.

So that the reduction of this gap involves solutions that promote the reduction of the demand for water and increase the availability of this resource, as it is present in the project.

Obviously, the main solution for reducing water demand is the rational use of water resources and this rational use includes the reduction of waste, the review of water uses, the control of losses, especially in public supply systems, sustainable practices irrigation, and others.

To increase the supply of water resources, solutions are needed that promote the preservation of water bodies (surface and underground), such as the revitalization of riparian forests, the protection of water bodies recharge zones, the control of water bodies pollution, and others.

In this paradigm, water reuse is configured both as a solution to reduce demand and as a solution to increase the supply of water resources.

This is because this practice allows the application of reuse waters for purposes that can be served by waters with quality standards lower than those required for human consumption, something that is not detailed in this draft Law.

Thus, the practice of reuse reduces the need for external supply and still allows an additional source of water of inferior quality, to be used in less restrictive uses.

The benefits of the proper execution of this practice reach both the user who uses these waters for a specific purpose and the other users of water resources, especially in the local context.

Thus, the establishment of this standardization is essential in order to avoid or at least reduce the risks to public health and the environment associated with the practice, the establishment of inappropriate water reuse practices, conflicts with public utilities water and sewage and the violation of environmental legislation.

In this sense, to standardize the practice of wastewater reuse is to establish wastewater that can be reused, the purposes for which reuse water will be used and the characteristics that the treatment must give to wastewater.

Such standardization aims at the sanitary security of the practice of water reuse, but it needs to reflect the balance between this security and the costs resulting from it, so that the practice of reusing wastewater is not made unfeasible, due to financial aspects.

Lastly, it is important to emphasize the importance of the standardization of the practice by the public power, because users who would need incentives for this practice were protected for this purpose, without the need, for example, to enter injunctions to exercise this right.

At the Federal level, the Resolution Number 54/2005 of CONARH established general modalities, guidelines and criteria for the practice of direct non-potable water reuse. However, it did not specify which wastewater can be reused and what are the characteristics that the treatment of these waters needs to give them, considering the various purpose of applying reuse water, and the PL 58/2016 tries to do it, however, this PL is not yet in force and that Resolution cited remains the norm.

In the end, once this standard is established, the public authorities will provide security, both to the proponent of a wastewater reuse system and to society that the development of this practice will take place in a safe manner and its benefits will be enjoyed mainly by the wastewater use, but also for the collectivity.

In this path, the maxim of Minister Celso de Melo is valid: "to theorize is to inspire the legislator".

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