Book Preface WATER, ENVIRONMENT, DEVELOPMENT AND HUMAN RIGHTS 20 YEARS OF THE LAW OF NATIONAL POLICY OF WATER RESOURCES Jerson Kelman

The fundamental concepts of the National Water Resources Policy (NWRP) were formulated and intensely debated in the years prior to the enactment of Law 9433/1997, the so-called "Water Law". The most relevant ones occurred in the Brazilian Association of Water Resources - ABRH, which was created in 1977 by a small group of university professors to house a forum for discussions of technical topics related to hydrology and hydraulics. Over the years, ABRH officials realized that the sustainable use of rivers and lakes could not be achieved exclusively through technical expertise. It would be necessary to go further, creating the legal framework and the institution in order to actually manage the water resources. The legal framework was conceived thanks to the intense interaction of ABRH with other organizations and with parliamentarians dedicated to the subject, resulting in the "Water Law".

The success of the implementation of water resources management in France starting in the 60s of the twentieth century has had a great influence on the elaboration of our Law. In a simplified way, the "French model" was designed to solve the pollution of rivers due to the untreated discharge of urban sewage and large industries. The diffusion and acceptance of the "polluter pays" principle was central to the fact that the French rivers, until then intensely polluted, became reasonably clean in "only" a few decades (it is not possible to perform such a complex task in a snap of fingers). The recipe was to hurt the pockets of polluters and create a financial fund to enable corrective actions, mainly construction and operation of sewage treatment plants.

The polluter pays principle is simple: companies must bear the costs of negative environmental externalities. That is, those who pollute must pay for the use of the natural resource (the river) to dispose of polluting material, as a kind of compensation for the damage caused to the environment and society. The corresponding collection should be used in actions that help polluters to stop polluting. For example, to finance the infrastructure for collection and treatment of effluents. With this policy, companies receive a clear economic signal to cease or reduce pollution. By striving to maximize their own interests, they serve the interests of society.

In the case of sanitation companies, the situation is more complicated. Unlike industries, sanitation companies do not cause pollution to benefit the private interests of their shareholders. They are part of the solution to a problem inherent in human nature. Solution that is usually implemented in stages. In France, as in the rest of the developed world, sanitation began by bringing clean water to people's homes. This is what plunged infant mortality in the early twentieth century. The abundance of drinking water in the homes has created a new problem: an abundance of sewage near where people live and work. This led to the second stage of sanitation: to remove the sewage and to lead it to the rivers, lakes and seas. In this process, a new problem has been created: the pollution of rivers, lakes and seas. This led to the third stage of sanitation: to conduct the sewage to treatment plants to remove the pollutant load prior to release into the receiving water body. When it launched the water resources management policy, France was committed to implementing this third stage on a large scale. However, it was well known that the cost would be much higher than in previous steps. As "there is no free lunch", the cost of constructing sewage treatment plants would have to be borne by consumers or taxpayers. The French parliament has authorized the sanitation companies to pass on to consumers the "fine" for not being still treating sewage. With this arrangement, the government coffers were filled with large amounts, in line with the amount of investment that was needed. In order to preserve the destination - decontamination works - the payment of each polluting company was and continues to be sent to the corresponding "basin agency". It is a governmental entity (six of them throughout France), responsible for planning and financing the decontamination of rivers with resources from polluters, adopting the river basin as a geographic unit of planning and management.

Sanitation companies, pressured by their consumers to treat sewage to eliminate or reduce the "fine" built into the water bills, sought funding from the respective basin agencies to build the infrastructure that would meet their clients' demands, thus closing the virtuous cycle. Because sanitation companies are public service providers, they have often been and are benefiting from non-repayable financing. Unlike those intended for the industry, which are generally repayable, albeit at modest interest rates.

The French model includes another principle, analogous to that of the polluter-payer: that of the user-payer, applicable to those who draw water from rivers and lakes. That is, the French model disciplines the use of rivers and lakes in both qualitative and quantitative aspects. The levy from the user-payer principle is used to finance the recovery of springs, the control of water losses in distribution systems and the construction of dams, which regulate the river regime, mitigating floods and droughts. In principle, there can be no "cross subsidies" between quality and quantity. That is, the money collected from the application of the user-pays principle can not be used to finance actions to combat pollution, and vice versa.

The "French model" was completed with the creation of the basin committees, called "water parliaments", one for each basin agency, where the corresponding basin plan, including investment financing program, is discussed and approved. The committees are made up of government representatives, civil society and the water user segments (sanitation, hydroelectricity, irrigation, and industry) and have roles that resemble those of the boards of directors of large corporations.

The influence of the French model on our Water Law could have triggered a virtuous process of depollution. However, French law was successful because pollution was financed by polluters, including natural persons. Our Law does not allow for the inclusion of the cost of pollution, due to the lack of sewage treatment plants, in water bills, including residences.

Without significant resources available for decontamination works and without the political pressure of society, few basin committees created in Brazil in these twenty years remain on the right track. Most have lost their way and use the meager resources available, usually from the taxpayer rather than the consumer, to manage the committee itself, as if its existence and functioning were an end in itself and not to better manage rivers and lakes.

There is a macroproblem in Brazil that, given the lack of a semi-arid climate in continental metropolitan France, is of less relevance there: the lack of water security. This is a challenge that will only be solved by improving the supply of water, through engineering works, and by demand management, through the issuance of water rights guaranteed by Government.

The importance of water rights in semi-arid regions can be explained by way of example. Suppose John, the farmer, has a water right to irrigate his property. After a few years, Carlos, neighbor upstream of John, decides to use a large amount of water to irrigate a new crop. To dramatize, let's imagine that Carlos consumes so much water that none is left to be used by John. What happens? In a situation where there are not water rights, John loses his plantation. The tendency in this circumstance is to maintain underdevelopment, given the lack of guarantee regarding the availability of water, assumed as the basic input of the production process. If, on the other hand, the water right is unquestionable, Carlos would not venture to divert the water because John could activate the police.

As can be seen, a water right has economic value. Without its existence, users would behave like rude diners sitting around a table in the center of which a cake is found: everyone tends to eat quickly and stupidly because any postponement of consumption may result in the disappearance of the "resource" "In the mouth of others. With the bestowal, each user knows that he has a piece of cake reserved in his name.

In Australia and the western United States the grants may be marketed. Thanks to this, Australia's agricultural GDP did not decline during the drought that stoke in the begining ofnthis century, which lasted several years. If water right transactions were possible, Carlos from the example above could buy or rent John's water right if his crop was of very high productivity. And the two would win. However, our Brazilian Water Law does not allow the trade of water rights.

This obstacle derives in part from the ideological battle that contrasts the concepts of water as a good with economic value and water as a basic right of the human being. The persistence of this sterile discussion prevented the inclusion of the possibility of water right trade in the Brazilian Law and made it difficult to charge bulk water users, which is allowed in the Brazilian Law.

This ideological debate is unreasonable because the amount of water a person needs is very small, of the order of 100 liters per day. Removing from the river this small amount of raw water (without treatment) is undoubtedly a basic human right. This should not be confused with the non-existent "right" to receive treated water for free. In this case, one has to pay the sanitation company for the transformation of raw water into drinking water and its transportation from the river to the place of dwelling or work.

Another situation is to extract large amounts of water from a river to serve as input to the productive process. For example, irrigation of a single hectare consumes an amount of water that would be enough to meet the basic needs of more than 400 people. Suppose a property of 100 hectares. Would it be reasonable to admit as a "basic human right" of its owner access to enough water to serve 40,000 people?

The reasonable thing would be to charge this irrigant for water that, when used privately, is no longer public. In other words, it is legitimate to charge for the private use of a public property, provided that the user has ability to pay. The irrigator, when charged for the use of water, will consider using more economical irrigation methods. This means producing more food and generating more jobs with the same amount of water. The same reasoning applies when water is used in other production processes, for example in industry.

Charging for the use of water or allowing the water rights to be marketed does not mean that water is being privatized. It means managing the use of water in a way that guarantees sustainability. Without these measures, the tragedy of the use of common goods can occur: when there is no limit to the use of a finite natural resource, such as water, the resource is degraded or overused, making it unavailable to everyone.

Our Water Law admits granting and charging for the use of water resources, both qualitatively (polluter pays principle) and quantitative (user-pays principle), but it did not create the "institutional muscles" to transform intentions into achievements. This deficiency was perceived by President Fernando Henrique Cardoso, who decided to create the National Water Agency (ANA), with the task of putting into practice both the WRNP and the National System of Water Resources Management (NSWRM), foreseen in item XIX Art. 21 of the Brazilian Constitution. With this purpose, he sent two bills to the National Congress. One that created the National Water Agency - ANA, approved in 2000, and another - regrettably not approved - that described how the NSWRM should work.

Today, ANA has a technical staff of exceptional quality, as a result of the rigorous selection and training of its staff. Thanks to this, many advances have been made in the implementation of the NSWRM and Brazil is seen as a model to be imitated by nations still taking the first steps to organize the use of their water resources. But much remains to be done, which is nevertheless frustrating for those who assumed twenty years ago that by 2017 everything would be working well. Our rivers would be clean and our Semi-Arid would be as prosperous as other semi-arid lands that knew how to use water wisely, such as Israel, Australia, and the western United States. The glass is half full, half empty. It could be quite full. We could have done more.