

## IMPLICATIONS OF VALUE THEORY ON THE FEASIBILITY OF CONSTRUCTING A FUNDAMENTAL RIGHT TO WATER

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### *Abstract*

#### *Importance and relevance of the subject in the field of law and economics*

Water is the basic need in every living being's life. Without water, no living being can survive. Water has always had the greatest utility. Sadly, its value has been underestimated, because of its previously perceived abundance. But as society started growing economically, socially, politically, technologically and populously, the resources started depleting. It has caused strain on the existing water resources.

Thorough examinations of the laws and judicial decisions reveal that they are not based on consistent and sound policies. Ground water and surface water has been treated differently. These bring in more conflicts. Particularly in the present times when India has seen grave violations of peace and security on account of unfair distribution of water and the demand for clean potable water. Interestingly a price tag on water is viewed as an aberration of human rights. No government worth its name can put a price tag on water. Hence the importance of research in the above mentioned subject.

Economic theories offer help in the form of a more realistic analysis, offering practical reasonableness in the way water management is done. The diamond paradox, the value theory and even the subjective theory can help lawyers and policy makers analyze and understand the present day problems with respect to water and find an efficient way of carving out a meaningful right to water. Hence this paper explores into the following research questions.

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## RESEARCH QUESTIONS

1. What economic theories govern the existing right to water?
2. How can economic theories help in determining the value of water and thereby help in carving out and ensuring a meaningful right to water?
3. What basic characteristics of water make it a distinctive commodity to handle?
4. What are the arguments raised in favour and against treating water as an economic good? What complexities may arise out of treating water as an economic good?
5. Can treating water as an economic good help in better water management? Are there any other plausible viable options to ensure meaningful water rights?

## METHODOLOGICAL APPROACH

This paper is a purely library research that seeks to analyze the value theory, subjective theory and the diamond paradox and its implications on the existing normative system on the right to water. It uses the method of systematic analysis of primary data that is the Indian laws pertaining to the right to water and the judicial decisions relating to the same. These would be analyzed from the perspective of the economic theories to find whether a more efficient way of water management and distribution can be ensured.

Applying the value theory to a scarce resource that is water, we may be able to discern the existing problems regarding water management and throw light on the feasibility of constructing a right to water.

The father of our economic science wrote that water has a great utility and a small value. Today our views differ. Water has the greatest utility and the greatest value. In the present, we do not have enough water and there are different states fighting for water. Water is a basic need unlike diamonds. Water is essential to the sustenance of life unlike diamonds. The diamond-water paradox does not seem to be correct.

The awareness that water is a scarce resource that needs to be judiciously handled has made the value of water goes higher. But the biggest hurdle that is typical only to 'water' is that, it's a life-sustaining commodity that raises an expectation that the State is responsible to make it available at an affordable price to the masses. Moreover, till this date water drawn from the well has been available for free, and water supplied at homes has invited a minimal tax.

People are willing to pay a higher price for goods with greater marginal utility. Diamonds are scarce. Because they are harder to find and attain, marginal utility (additional satisfaction), for adding a diamond to a collection is much higher. This cannot be likened to marginal utility of

water. A person may not have much value for an immediate additional unit of water but may have a dire need of water after a lapse of time. If one is dying of thirst, then this paradox might not make sense, and the marginal utility from another unit of water would be much higher than the additional satisfaction of owning a diamond. This explains the subjective theory of value developed in the late 19th century. It introduced the idea that an object's value is not inherent, and is instead based on how much the object is desired. The subjective theory of value places importance on how scarce and useful an item is rather than basing the value of the object on how many resources and man-hours went into creating it. This explains the current day situation of water.

There seems to be a general agreement that water has to have a price. That entails a discussion of what price can be attributed to a unit of water? The determination of price will require a determination on entitlements. Certainly all the water cannot be exhausted by the present generation leaving nothing for the future generations. A determination of the demand depends not only on the population but also on the quantum of the entitlement. The determination of the supply would depend on the ascertainment of the stock and the capacity of replenishment.

Additionally problems arise out of conflicting entitlements under the law. Surface water is handled by the State whereas ground water is treated as individual's property. A discussion on the feasibility of carving a fundamental right to water cannot be apart from finding solutions to the above-mentioned problems.

While the resource is getting scarce with each passing day, a determination of the value and putting a charge on the consumer would go a long way in changing consumption patterns, preserving and efficient management of the resource. It will help in the optimal utilization of the resource and the realization of a meaningful right to water.

## INTRODUCTION

The urban water supply and pricing policies are incompatible with the rational economic thinking. When a resource is genuinely scarce, rising prices do not serve to ration demand. The widespread effects of an imminent water crisis are a clear evidence for the failure of our present water-related policies and also the instruments and foundations through which they are implemented. It is presently time to look for more resistant, however politically harder and in technically challenging, alternatives like the institutions of water rights system. Also, the economic conception of water and how economists think about water is important. This makes us review the concept of value of water, how it is measured, and how it has been applied to water in various ways. The next question would be whether or not water can, or should, be treated as an economic commodity. While there are some distinctive features of water, there are also some distinctive economic features that make the demand and supply of water unique and more complex than that of most other commodities.

*The diamond-water paradox*

Why does an economy put a much lower value on something vital to sustaining life compared to something that simply looks shiny and sparkles? Economists sometimes slip into older ways of thinking and characterize economic value in terms that are inadequate or misleading. Rarely do we think about the disparity of price among the myriad products that surround us. Understanding why the paradox exists can be helped by understanding the economic terms known as marginal utility and scarcity. Scarcity can be simply defined as how readily available a good, skill, or service is. Marginal utility is the additional satisfaction or gain someone gets from using or purchasing an additional unit of a particular good or service. People are willing to pay a higher price for goods with greater marginal utility. There is plenty of water in most parts of the world (not scarce), which means that as consumers, we usually have a low marginal utility for water. In a typical situation, we aren't willing to pay a lot of money for one more drink of water. Diamonds, however, are scarce. Because they are harder to find and attain, our marginal utility (additional satisfaction), for adding a diamond to our collection is much higher than someone offering us one more drink of water.

Adam Smith in one of his lectures said, 'It is only on account of the plenty of water that it is so cheap as to be got for the lifting, and on account of the scarcity of diamonds...that they are so dear.'<sup>1</sup>

The next question that is to be answered is the value of water. The word value can be categorized into two namely 'value in use' and 'value in exchange'. Value in use is the utility or the usefulness of a particular product and value in exchange is the power of purchasing other goods which the possession of that object conveys. Nothing is more useful than water; but it will purchase scarce anything; scarce anything can be had in exchange for it. A diamond, on the contrary, has scarce any value in use; but a very great quantity of other goods may frequently be had in exchange for it.<sup>2</sup>

If water does have a scarcity value, then the price of that scarcity should be determined by competitive markets and all users should pay the same scarcity price as a resource rent (with any adjustments for transmission wastage). The "law of one price" should prevail. Here we assume that water demand exceeds supply. This means that in a river basin, urban users in the same basin as rural irrigators should be charged the same scarcity rent per kilolitre and vice versa. Further, if 30% of water is lost in transmission downstream then a rural irrigator downstream should pay 30% more than an urban or rural user water upstream. In other words, there is a natural comparative advantage to using water where it falls ex caelis, which should not be eroded by cross subsidization through prescribing identical water abstraction charges.<sup>3</sup>

#### *Water as an economic commodity*

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<sup>1</sup> <<http://www.economictheories.org/2008/08/adam-smith-theory-of-value.html>>

<sup>2</sup> The paradox of value: Water rates and the law of diminishing marginal utility, Melanie K. Goetz, Journal (American Water Works Association), Vol. 105, No. 9 (September 2013), pp.57-59

<sup>3</sup> <[http://www.icrc.act.gov.au/wp-content/uploads/2013/02/Terry\\_Dwyer\\_Submission.pdf](http://www.icrc.act.gov.au/wp-content/uploads/2013/02/Terry_Dwyer_Submission.pdf)>

The question that comes in all our mind is, is water an economic commodity, and can it be analyzed using the conceptual framework of economics in the same way as any other commodity.

One of the four Dublin Principles, adopted at the 1992 International Conference on Water and the Environment in Dublin, holds that “water has an economic value in all its competing uses and should be recognized as an economic good.” Similarly, Baumann~ Boland (1998) write: “water is no different from any other economic good. It is no more a necessity than food, clothing, or housing, all of which obey the normal laws of economics.” Per contra, Barlow & Clarke (2002) proclaim it as a “universal and indivisible” truth that “the Earth’s freshwater belongs to the Earth and all species, and therefore must not be treated as a private commodity to be bought, sold, and traded for profit...the global freshwater supply is a shared legacy, a public trust, and a fundamental human right, and therefore, a collective responsibility.” Vandana Shiva (2002) writes in a similar vein about a clash between two cultures: “a culture that sees water as sacred and treats its provision as a duty for the preservation of life and another that sees water as a commodity, and its ownership and trade as fundamental corporate rights. The culture of commodification is at war with diverse cultures of sharing, or receiving, and giving water as a free gift.”<sup>4</sup>

The fact that water, unlike other household commodities, arouses such passion speaks for itself: for better or worse, water is perceived as having a special significance that most other commodities do not possess.<sup>5</sup> Water has some economic features, and is both a public good and a private good. The variability of supply is yet one more point of divergence between water and land, and it explains why the property rights regimes are different: it would surely be difficult to apply the ownership rights in land to so variable a resource as water. Besides the variability in supply, the demand for water may be intermittent.

Prices of commodities produced from quickly exhaustible natural resources, even where controlled by a monopoly, have always been too low rather than too high. This means, the government’s efforts to keep down such prices are against the public interest. The government should be trying to keep up the price rather than down. The question that comes up is how high should the price be fixed and what level of price would be socially justifiable. The answer to this question depends on the substitutes available for the same commodity. In this case, water does not have an equal substitute. When there are no substitutes available, at what level must the price be fixed will be our next question. This question will depend upon how fast we wish to use up these resources, or, what amounts to the same thing, how important future wants should be rated in comparison with present wants. The rate of consumption, and, therefore, the amount left for the satisfaction of future wants, will depend absolutely upon the prices fixed. To put it in another way, present prices will determine the rate of consumption and the amount of the resource left for the future, and therefore

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<sup>4</sup> The economic conception of water, W. M. Hanemann University of California, Berkeley, USA

<sup>5</sup> This is true in rich as well as poor countries -in the USA, for example, it is notoriously difficult for publicly owned urban water utilities to obtain political approval for even trivial rate increases while other household utilities such as cable television raise their rates with impunity; Glennon (2004) makes a similar observation.

will determine future prices.

The next question that has to be answered is how much difference is we justified in making between present wants and future wants. The human mind might rate the present wants and the far future wants equally<sup>6</sup>. This would mean extremely high prices, and almost infinitesimally small consumption. On the other side, we might rate future wants of no importance whatever, and consume with absolute disregard for anything but the present. Both these extremes are logically untenable.

For various reasons it is more feasible that quickly exhaustible resources should be sold at prices approximating the cost of producing substitutes, if substitutes are assumed to be possible. Prices fixed according to this principle would immediately stimulate efforts to find a variety of substitutes. When there are no available substitutes, it would be necessary to regulate the use of such resources and fix the price accordingly. Thus where substitutes could not be found, we should gain immeasurably by learning the truth before the resource is exhausted.

Thus, as far as substitutes are assumed not to be possible, prices of quickly exhaustible resources should be fixed high enough so that they would rise not more than two per cent each year; and as far as substitutes are assumed to be forthcoming, prices should approximate the cost of producing those substitutes.

Prices of quickly exhaustible natural resources should be much higher than they have ever been in the past. Higher prices would not only stimulate the development of substitutes, as already indicated, but, on the side of demand, would have the desirable effect of reducing the amount consumed, of conserving for higher uses. Higher prices would bring consumers face to face with the situation which is coming soon anyhow.

Somewhat the same reasoning applies to all exhaustible and irreplaceable natural resources, even to those of long probable duration, as for instance ground water, the supply of which will perhaps last for a few decades. The supply of ground water is so great that its present resource value is practically nil, yet it must be recognized as absolutely essential to civilized life; and a society which is willing to look forward to a life of more than a few decades must somehow prolong the life of its water. Its cheapness- not in the market, but as a resource encourages every form of waste, and nothing would encourage economy more surely than an increase in its value. The life of our ground water supply could be doubled with very little sacrifice on the part of the present generation, but neither a monopoly nor competing owners would ever fix the price of fresh water high enough to encourage the economies necessary to accomplish such a result.

Thus it is certain that competitive owners of quickly exhaustible resources will establish prices far too low; and it is almost certain that a monopoly also would find it profitable to sell too cheaply.

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<sup>6</sup> The Theory of Value as Applied to Natural Resources, John Ise, The American Economic Review, Vol. 15, No. 2 (Jun., 1925), pp. 284-291

### ***Ground water regulation***

Water located beneath the ground surface. Groundwater is water that is found underground in the cracks and spaces in soil, sand and rock. Groundwater is stored in and moves slowly through layers of soil, sand and rocks called aquifers. Aquifers typically consist of gravel, sand, sandstone, or fractured rock, like limestone. These materials are permeable because they have large connected spaces that allow water to flow through. The speed at which groundwater flows depends on the size of the spaces in the soil or rock and how well the spaces are connected. The area where water fills the aquifer is called the saturated zone (or saturation zone). The top of this zone is called the water table. The water table may be located only a foot below the ground's surface or it can sit hundreds of feet down<sup>7</sup>.

Groundwater is a necessary part of the environment, and subsequently can't be looked upon in isolation. There has been a lack of adequate attention regarding water conservation, efficiency in water use, water re-use, groundwater recharge, and ecosystem sustainability. An uncontrolled use of the borewell technology has prompted the extraction of groundwater at such a high rate, to the point that frequently recharge isn't adequate. The causes of low water accessibility in numerous regions are likewise directly connected to the reducing forest cover and soil degradation.

The measures proposed in the draft bill were in keeping with the policy paradigm of the early 1970s when a model Bill was first introduced. It focused on adding some State-level control over new, additional uses of groundwater but did not address the iniquitous regime giving land owner's unlimited control over groundwater.

The Union Ministry of Water Resources had put up a Model Bill for Conservation, Protection and Regulation of Groundwater in its official website in 2016. The bill seeks to move groundwater away from the hands of the people under the Easements Act as a private property resource to a Common Pool Resource. The State will hold groundwater as a resource in public trust. The objectives of the Bill include<sup>8</sup>:

1. Ensure the realisation of the fundamental right to life through the provision of water.
2. Meet food security, livelihoods, basic human needs, livestock and aquatic life.
3. Protect ecosystems and their biological diversity.
4. Reduce and prevent pollution and degradation of groundwater.

One of the greatest difficulties for feasible administration of groundwater originates from overexploitation and overuse, past the annual revive. Alternate originates from pollution, from

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<sup>7</sup> An Insight On Legal Aspect Of Ground Water Use By Industries And Water Tax / Rate / Fee

<sup>8</sup> Draft National Water Framework Bill, 2016



characteristic mineral events, for example, with fluoride and arsenic and with man-made sources, for example, industrial effluents, manures and sewage. To battle this, the Bill proposes the division of 'groundwater assurance zones depends on the most recent dynamic asset appraisal of the Central Groundwater Board and State offices and the mapping of aquifers and sub-aquifers, a procedure which is progressing. This at that point will prompt the advancement of a groundwater security arrange for which through a procedure of energize and request administration will bring about fulfilment of adequate amount of safe water forever and reasonable employment and guaranteeing water security even during dry spell and surges. For the institutional system, the Act sees the setting up of a groundwater sub-advisory group under the town water and sanitation board of trustees by the Gram Panchayat. This will be directed by a Block Panchayat, which will merge the groundwater security designs of all Gram Panchayats in its ambit.

In urban territories, the Model Bill visualizes the setting up of ward groundwater advisory groups which will design, affirm and encourage the usage of Ward Groundwater Security Plan. This will be administered by a Municipal Water Management Committee. Over these layers will be a District Groundwater Council and State Groundwater Advisory Council to fittingly incorporate and take choices at their scale.

The Model Bill looks to put certain responsibilities on the groundwater client: for instance, its efficient utilizes, its prevention from pollution, replenishing and recharging groundwater. For industrial clients there are a few checks and incorporates the suggestion to charge for groundwater utilize, the monies so generated being contributed for the sustainability of the asset.

While the bill has been drafted with mind and is exhaustive, yet it is at a draft organize and will require a few sources of information, particularly from industrial clients of groundwater and those in the peri-urban regions. It is far-fetched that the bill will work in urban territories, being to a great degree hopeful in its suspicion of the presence and abilities of local governments. This remains constant for gram panchayats as well. In the end the bill should be embraced by States and will be altered in view of their local conditions, institutional, legal and governance related and in addition aquifer related contrasts.

## **CONCLUSION**

The dilemma with which this paper started was that if water is an economic commodity and if groundwater needed a regulation. The rising depletion of natural resources, especially resources such as water which does not have an equivalent substitute needs to be regulated and channelized for its sustainable use. Also, keeping in mind the doctrine of intergenerational equity, it is necessary to save the resources for the future generation. Considering water to be an economic commodity with a value, it is important to give it a monopoly price as there is a high demand rate and very low supply rate with no readily available substitute. Treating water as an economic good will help in better water management and thus helps in achieving the goals of sustainable development. This will make sure water is saved for the next generations without any shortage.