

## **Legal Regime Governing Bottled Drinking Water Companies in Pakistan: An Analysis in the Light of International Standards**

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### **Abstract**

Pakistani legislation is inadequate on bottled drinking water companies, which makes it difficult to hold such companies accountable for losses incurred due to the provision of unsafe drinking water. This research aims to highlight the shortcomings in Pakistani legislation regarding clean drinking water. It focuses on the need to analyze local standards in comparison with international standards, which provide relevant standards as well as the accountability procedure on bottled water companies. The significant issues for inquiry include; how the incorporation of international standards for drinking water in Pakistani legislation would ensure the quality of bottled water? What steps need to be taken to make Pakistani law compatible with international standards? The qualitative research methodology is adopted for this research. Main findings suggest, hurdles in combating the clean drinking water issues include the feeble mechanism of finding the real source of water which causes waterborne diseases and the weak governmental regulations on water distribution systems. Developing countries require introducing proper legislation to cover all drinking water issues based on the international legislative framework. The research concludes that the legal framework for the protection of consumer rights is already available in Pakistan, but the right to clean and safe drinking water still needs to be acknowledged. The government needs to take concrete steps to prohibit corporations from misusing underground water sources and from affecting public health by ensuring the implementation of national and international drinking water quality standards.

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**Key Words:** clean drinking water; Pakistan Standard and Quality Control Authority (PSQCA); Pakistan Council for Research in Water Resources (PCRWR); World Health Organization (WHO) Guidelines.

## 1. Introduction

The most essential thing for the continuity of human life is water, particularly fresh potable water. It is not a never-ending resource and if proper conservation efforts are not made then the vital supply of water may be exhausted. Many different benefits are derived from water preservation efforts like it carries economic benefits, and energy and equipment are also conserved due to these efforts.<sup>1</sup> Conservation also protects and maintains the continuity of life on earth, which is not possible to maintain if the adequate water supply is disturbed and not protected.<sup>2</sup> A large majority of the population around the world has been forced to buy bottled water instead of utilizing tap water and water from other sources, because of the poor quality of drinking water provided by these sources. A rapid increase has been observed in the growth rate of the bottled water industry worldwide in the last few years because of the changed preferences of people to buy bottled water as a healthy option and avoid using contaminated and unclean water.<sup>3</sup>

The bottling of natural mineral water was started in Europe and it was first presented for sale by the holy well bottling plant<sup>4</sup> of the United Kingdom in 1622. After Second World War, bottled water was extensively distributed as a beverage in cafes, restaurants and grocery stores. It was considered a medical remedy due to its healing and therapeutic effects and was sold as a medicine till the 1900s. The beverage companies cleverly sold

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<sup>1</sup>John Csiszar, "The Importance of Saving Water," *Sciencing*, December 05, 2018, <https://sciencing.com/list-jersey-state-natural-resources-7572666.html>.

<sup>2</sup> Ibid.

<sup>3</sup>Adam Hurly, "A Brief History of Bottled Water," *the kitchn*, May 01, 2019, <https://www.thekitchn.com/a-brief-history-of-bottled-water-228642>.

<sup>4</sup> Ibid.

their products by emotionally playing with consumers' fear of illness from contaminated tap water.<sup>5</sup>

Nowadays, branded bottled water is widely available in different packaging and formats, as an expedient and healthy beverage. The global trends on drinking water shortage show, that about 44 per cent of the Pakistani population has no access to safe, healthy and affordable water for daily use. However, Pakistani consumers have turned to bottled water as a healthy alternative for their well-being than drinking contaminated tap water. However, in reality, bottled water is an expensive and (sometimes) unhealthy alternative because of sporadic testing and inspection of contaminants and processing plants.<sup>6</sup>

The beverage industry especially the bottled water market has shown rapid growth globally over the past few years, and despite its high prices, it is increasing by an average of 7 % each year. The trends for the consumption of bottled drinking water in Pakistan show 40 % of its annual growth rate, with its consumption of 33 million liters per annum since 1999. However, this growth rate reaches an extent of 140% in 2000, with the introduction of Nestlé's Pure Life business in Pakistan. There are about 20 to 30 registered companies engaged in the bottled water business during the year, but during summers this number increases to 70, witnessing the growing bottled water business across the country.<sup>7</sup>

The major reason for preferring bottled drinking water over tap water is the confidence in the quality and purity of drinking branded water, unfortunately in Pakistan the purpose of bottled water is totally neglected by the companies and provides the quality cheaper than untreated tap water. The authorities really need to bind the companies for proper monitoring and

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<sup>5</sup> Ibid.

<sup>6</sup> "Pakistan Bottled Water Market," *Interested things*, August 23, 2013, [http://snnword.blogspot.com/2013/08/pakistan-bottled-water-market\\_8831.html](http://snnword.blogspot.com/2013/08/pakistan-bottled-water-market_8831.html).

<sup>7</sup> Ibid.

testing of bottled water, like in Europe; the quality of bottled mineral water is regularly tested, both by independent labs and by the company's internal services.<sup>8</sup> The bottled water industry could be made effective and more operational by introducing proper legislation and by adopting international standards for quality testing of bottled water and by holding the companies accountable for not complying with the national standards for the production and maintenance of bottled water.

## **2. Problems Faced Globally Due to Unclean Bottled Water**

A major role in human life progression is played by water, but with advancements water becomes polluted and contains various physical, biological and chemical impurities.<sup>9</sup> Bottled water is generally considered safe and suitable because it was assumed that it was properly filtered and healthy without any impurity, but actually, this assumption comes with different environmental and health problems. Air pollution and plastic pollution from chemicals used for plastic bottle production, marine life is badly affected by useless plastic bottles and garbage dumps filled with empty bottles cause numerous diseases.<sup>10</sup> Though the world is facing serious issues regarding the provision of safe drinking water but it has been a challenge, particularly in developing countries. Safe and healthy water means that it must be free of microorganisms, toxic chemicals and radiological hazards.<sup>11</sup> Microbial contamination like the presence of viral, bacterial or protozoan agents leads to an outbreak of diarrheal diseases, similarly, water contaminated with toxic substances like arsenic, cyanide, lead etc. have serious health consequences for consumers. Large portions of

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<sup>8</sup> Ibid.

<sup>9</sup> M.K. Daud, Muhammad Nafees, Shafqat Ali and others, "Drinking Water Quality Status and Contamination in Pakistan," *Bio Med Research International* 2017 (2017): 1-18. <https://doi.org/10.1155/2017/7908183>.

<sup>10</sup> Mark Acosta, "The Problem with Bottled Water" *Environment Today Magazine*, accessed April 20, 2023, available at <https://www.ets.org/s/research/pdf/>.

<sup>11</sup> Ibid.

the population around the world have no access to clean water resources; it becomes a lavishness which is not reachable by many people. The absence of safe and clean drinking water causes about 80 % of diseases and deaths in developing countries.<sup>12</sup>

Plastic bottles are typically made from crude oil and it releases pollutants such as nickel, benzene, and ethylene oxide during production, which badly harms the environment and air which a person breathe.<sup>13</sup> The source water for bottled water and kitchen tap water are usually the same but bottled water is less synchronized and monitored than the municipal water supplies. The reason is that most of the beverage companies who treat and test the water they sell, often adopt inferior quality standards for drinking water for removing the contaminants which damage public health.<sup>14</sup> Conventional water bottles are made of plastic, a material that generates pollution at every step from production to disposal. Many plastics contain chemicals that leach out into our water, and food and ultimately accumulate into our biological systems. Research based on finding the level of microplastic particles in bottled water reveals that a single liter of bottled water contains thousands of microplastic particles. Moreover, these microplastic particles contain toxic chemicals that can harmfully impact human health, wildlife and natural environment.<sup>15</sup> All the problems faced due to contaminated bottled drinking water will affect Human Health and cause a number of different diseases. To secure human health there is a dire need to replace these plastic bottles and ensure an uninterrupted provision of clean and healthy drinking water.

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<sup>12</sup> Ibid.

<sup>13</sup> Ibid.

<sup>14</sup> Marina Martinez, "Bottled Water: Unhealthy, Dirty and Costly," *Medium*, November 23, 2018, <https://marinatmartinez.medium.com/bottled-water-unhealthy-dirty-and-costly-6fb7eb608da2>.

<sup>15</sup> Ibid.

### **3. An Overview of the Legal Regime of Bottled Water Companies in Pakistan**

#### **3.1. The Constitution of Pakistan**

Water as a basic human right has not been particularly acknowledged rather it is covered under the chapter of fundamental rights in the constitution of Pakistan 1973, which states that “no person shall be deprived of life or liberty saves in accordance with law”.<sup>16</sup> The ‘right to life’ as interpreted by courts that humans require some basic necessity to live, and water is one of them for living a healthy life. The scope of the word ‘life’ used in the article is not limited rather it includes each and every right necessary for the existence of life. The constitution guarantees the dignity of man under article 14 and the right to life in article 9, if read together it leads to the question that whether the dignity of man is secured if his right to life is below the necessity line without proper food, clean water, clothing, shelter, education, health care, clean atmosphere and unpolluted environment. The Supreme Court held that the right to life includes the right to have unpolluted water is the right of every person wherever he may live.<sup>17</sup> When this right is provided by the Constitution it automatically makes the state responsible to fulfill the basic needs of citizens and provide them with clean drinking water.<sup>18</sup> In *Shehla Zia vs. WAPDA*, the Supreme Court held that Article 9 includes the right to a clean and healthy environment.<sup>19</sup>

The right to clean drinking water and proper use of water sources has also been recognized by Sindh High Court in one of the cases and said that, “No

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<sup>16</sup> Constitution of Pakistan, 1973, art. 9.

<sup>17</sup> *West Pakistan Salt Miners Labour Union (CBA) Khewra v. The Director, Industries and Mineral Development, Punjab*, 1994 SCMR 2061.

<sup>18</sup> Ms. Mette Hartmeyer, “Addressing the Drinking Water Challenge in Pakistan,” (Islamabad: Consumers Right Commission of Pakistan, November 2018), 7. <https://www.crcp.org.pk/images/PDF/Publications/Drinking-Water--Policy-Brief--Nov2018-Formatted.pdf>.

<sup>19</sup> *Shehla Zia v. WAPDA*, PLD 1994 SC 693.

civilized society shall permit the unfettered exploitation of its natural resources, particularly in respect of water.”<sup>20</sup>

### 3.2. The National Environmental Action Plan (NEAP) 2001

Pakistan National Conservation Strategy (NCS) was developed in 1992 and was reviewed in 1999 for the protection of the environment.<sup>21</sup> To address various environmental problems and challenges National Environmental Action Plan (NEAP) was approved by Pakistan environmental protection council in 2001. However, the National Environmental Policy was developed in 2005, which provides a complete framework for addressing environmental issues through the protection and conservation of the environment and by improving the quality of life through sustainable development.<sup>22</sup>

National Environmental Action Plan aims to develop the legal framework for providing equal access to safe drinking water. This could be made possible by enacting the Water conservation act and relevant standards, and by launching phased programs for gradual up-gradation of the quality of water bodies. A *Clean Drinking Water for All* scheme was started in 2008 by the Ministry of Environment<sup>23</sup>; under this program, 6035 water filtration plants were to be installed in every union council of the country.<sup>24</sup> A big initiative was taken but no practical steps should be taken to fulfill the objectives of the program. These steps provide no fruitful

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<sup>20</sup> Sindh Institute of Urology and Transplantation vs. Nestle Milkpak Limited, 2005 CLC 424.

<sup>21</sup>United Nations Environmental Program (UNEP), *Final Report of the International Water Resources Management Policies and Actions and the latest Practice in their Environmental Evaluation and Strategic Environmental Assessment* (Islamabad: Environmental Protection Department, 2007). [https://pcrwr.gov.pk/wp-content/uploads/2020/Water-Management-Reports/IWRM%20Report%20\(1-9-2021\).pdf](https://pcrwr.gov.pk/wp-content/uploads/2020/Water-Management-Reports/IWRM%20Report%20(1-9-2021).pdf).

<sup>22</sup> Ibid.

<sup>23</sup> Punjab Municipal Development Fund Company, “Clean Drinking Water for All,” accessed May 20, 2023 [https://pmdfc.punjab.gov.pk/clean\\_drinking\\_water\\_for\\_all#:~:text=The%20Government%20of%20Pakistan%20launched,each%20Union%20Council%20of%20Pakistan](https://pmdfc.punjab.gov.pk/clean_drinking_water_for_all#:~:text=The%20Government%20of%20Pakistan%20launched,each%20Union%20Council%20of%20Pakistan).

<sup>24</sup> Ibid.

results in achieving sustainable development for the provision of clean and healthy drinking water to every citizen.

### **3.3. Pakistan Standard and Quality Control Act (PSQCA) 1996**

Pakistan Standards Control Authority has been empowered by the Ministry of Science and Technology, to provide national standards and quality control services. The licensing, certification, inspection, testing and examination of manufacturing plant bottled water are all done by PSQCA under the Pakistan Standard and Quality Control Act 1996<sup>25</sup>. The authority is also empowered to cancel or suspend the license of any company working in derogation of the Pakistan Quality Control Act and Pakistan quality standards.

### **3.4. Pakistan Council of Research in Water Resources Act (PCRWR) 2007**

The Ministry of Science and Technology has designated the task of quarterly monitoring the bottled drinking water brands and publicizing their results, to the Pakistan Council of Research in Water Resources (PCRWR).<sup>26</sup> The Authority is fully empowered under PCRWR Act to conduct and promote research on water-related issues; they also design and develop water conservation technologies used for all purposes. They also perform advising services to the government and submit Policies regarding drinking water quality and development and they also publish scientific papers, results and reports.<sup>27</sup>

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<sup>25</sup> “Pakistan Standard and Quality Control Act,” (1996), [https://na.gov.pk/uploads/documents/1329726893\\_317.pdf](https://na.gov.pk/uploads/documents/1329726893_317.pdf).

<sup>26</sup> “Pakistan Council for Research in Water Resources (PCRWR) Act,” (2007), [https://senate.gov.pk/uploads/documents/1658374710\\_896.pdf](https://senate.gov.pk/uploads/documents/1658374710_896.pdf).

<sup>27</sup> Ibid.



### 3.5 National Drinking Water Policy 2009

The Ministry of Environment has formulated a National Drinking Water Policy 2009 for ensuring the availability of safe drinking water to every citizen.<sup>28</sup> The Policy aims to provide a complete infrastructure for addressing the environmental issues and challenges in Pakistan regarding the Provision of clean drinking water<sup>29</sup>. To ensure protection and conservation of water resources it encourages Public Participation and awareness.<sup>30</sup> However, it also promotes research, development and public-private-partnership for enhancing the effectiveness of water supply systems.

A very important thing laid down under National Drinking Water Policy was regarding legislation on Pakistan's Safe Drinking Water Act and Water Conservation Act for ensuring compliance with the National Quality Standards and for holding the water supply Institutions answerable to the general public.<sup>31</sup> This Policy is fully monitored and implemented by the Federal Ministry of Environment in cooperation with Provincial Governments.

### 3.6. National Water Policy (2018)

It is based on the concept of Integrated Water Resource Management and aimed at promoting sustainable consumption and production throughout the water sector, against exploitation to utilization.<sup>32</sup> It also aimed at raising public awareness to reduce the wastage of water, addressing different issues regarding drinking water demand, sewage disposal, handling of wastewater and industrial waste.<sup>33</sup> It also highlights

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<sup>28</sup> National Drinking Water Policy (Islamabad: Ministry of Environment, 2009), 3, <https://mocc.gov.pk/PolicyDetail/YTA0ZDNkYjEtZTdlNC00N2M3LTg4YjgtNTIzMzUxYzg0MjEy>.

<sup>29</sup> Ibid, 4.

<sup>30</sup> Ibid, 5-6.

<sup>31</sup> Ibid, 12.

<sup>32</sup> National Water Policy, (2018), 5.

<sup>33</sup> Ibid, 6.

different issues like depletion and deterioration of groundwater, scarcity of freshwater due to increasing demand, and its adverse effects on the health and well-being of the people of Pakistan.<sup>34</sup> The Policy mentions the liability of the provincial government for the management of groundwater, and for keeping the quality of water and its provision to the public along with their participation.<sup>35</sup> The National Water Policy again emphasizes the enforcement of legislation for the protection of water resources from contamination with the help of provincial governments.<sup>36</sup>

### 3.7. Provincial Food Authorities Acts

After the 18<sup>th</sup> amendment food was made a subject of the Provincial Legislative List and provinces have powers to issue licenses to local food operators and manufacturers, but still, the war between PSQCA and provincial food authorities continues as both authorities are claiming their jurisdiction on food operators and issuing notices to food operators about their exclusive jurisdiction over them as well as banning the food operators licensed from the other authority.

Punjab Food Authority Act 2011 was the first provincial legislation in Pakistan aimed at resolving the issues regarding food safety and standards and establishing the Punjab Food Authority.<sup>37</sup> After that Baluchistan Food Authority Act and Khyber Pakhtunkhwa Food Safety Act were passed in 2014 aimed at protecting public health by providing safe and standard food<sup>38</sup> including Halal food, to promote trade between provinces<sup>39</sup> and to establish Food Authorities in their respective Provinces. Similarly, the

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<sup>34</sup> Ibid, 3-4.

<sup>35</sup> Ibid, 22.

<sup>36</sup> Ibid, 18.

<sup>37</sup> “Punjab Food Authority Act,” (2011). <http://punjablaws.gov.pk/laws/2460.html>.

<sup>38</sup> “Baluchistan Food Authority Act,” (2014). <https://faolex.fao.org/docs/pdf/pak190929.pdf>.

<sup>39</sup> “Khyber Pakhtunkhwa Food Safety Authority Act,” (2014). <https://faolex.fao.org/docs/pdf/pak189941.pdf>.

Sindh Food Authority Act was passed in 2016 which aimed to provide safe, healthy and standard food and establishes Sindh Food Authority.<sup>40</sup>

According to Pakistan Quality Standards,

Bottled drinking waters are waters other than natural mineral waters which are filled into hermetically sealed containers of various compositions forms and capacities that are safe and suitable for direct consumption bottled drinking water are considered food.<sup>41</sup>

The Pakistan Standard Specification was established in 2001, it was then revised in 2002, then in 2003, and after that, it was revised in 2004. The “Pakistan Standard and quality control Authority Standards Development Centre” adopted Pakistan Standards on January 24, 2018.<sup>42</sup> Pakistan Quality Standard specification for bottled water provides the National standards for bottled drinking water, but it does not mean that it set aside the international standards provided for bottled drinking water. The said revision specifically mentions that no packaged water shall contain harmful substances dangerous to human health and, they shall comply with the standards provided under “Guidelines for Drinking Water Quality” published by the World health organization.<sup>43</sup> It means that along with the National standards compliance with international standards is equally important and compulsory.

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<sup>40</sup> Sindh Food Authority Act, 2016.  
<https://www.pas.gov.pk/uploads/acts/Sindh%20Act%20No.XIV%20of%202017.pdf>.

<sup>41</sup>Pakistan Standard Specification for Bottled Drinking Water (3<sup>rd</sup> and 4<sup>th</sup> Rev), 2004,  
<https://mocc.gov.pk/SiteImage/Misc/files/Drinking%20Water%20Quality%20Standares%20MAY%202007.pdf>.

<sup>42</sup> Ibid.

<sup>43</sup> Ibid.

#### **4. Lacunas Due to Ineffective Legislation**

There are many lacunas because of ineffective legislation as explained in following section.

##### **4.1 Absence of Proper Law**

The major hurdle in the protection of human rights to water and life is the insufficient legal framework to cover all issues regarding drinking water and a clean environment. Since after the drinking water policy in 2009, no step should be taken to fulfill the objectives of the policy and to introduce proper legislation which not only covers the national drinking water supply systems but also introduces new standards, code of compliance, proper check and balance system, the criteria for monitoring, penalties in case of non-compliance and compensatory system for bottled drinking water companies.

##### **4.2 No Record of Damages Caused Due to Contaminated Water**

Many problems arise due to the absence of proper records of diseases, damages and deaths caused due to unclean and contaminated bottled drinking water.

##### **4.3 Lack of Public Awareness**

Another shortcoming in controlling substandard bottled water companies is the lack of public awareness about contaminated Bottled water, the national and international standards for bottled water and their drinking water rights. These issues can be addressed by the collaboration between federal and provincial governments in introducing the legal framework which provides a complete code of compliance and legal framework to the institutions for maintaining the quality of bottled drinking water obviously this could only be possible with the help of consumer participation.

Consumers can actively participate in helping government, control such corporations selling poison in the form of pure water and earning

millions out of it. This is possible only if the consumers are well aware of their rights associated with clean water and the law associated with maintaining the quality of water. This is again the responsibility of governmental and non-governmental associations to spread public awareness about the importance of clean drinking water, the rights associated with water, the national and international water quality standards, damages caused by unclean water and the long-term effects of controlling water wastage.

#### **4.4 Non-Registration of Cases against Substandard Bottled Water Companies**

The major flaws in Pakistani Legislation and regulatory system were very well pointed out by Chief Justice in *Suo Moto's* case against Bottled Water Companies selling substandard water in Pakistan. Supreme Court raised numerous issues which need attention and should be handled smartly. The most important concern shown by Chief Justice was regarding the non-registration of cases against companies selling poor quality water and he also showed displeasure for these companies who are earning billions of rupees by selling poison in the form of water. The issue raised by the Environmental Protection Agency before SC was, that companies did not establish their own laboratories to examine the ingredients of the water being extracted by them, except Qarshi who have their own certified laboratory, and all other companies used to send their samples abroad for analysis.<sup>44</sup> This issue is again of grave concern because of why the authority does not take action against such companies who had not established independent laboratories in accordance with regulations provided by PSQCA.

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<sup>44</sup> Amir Riaz, "SC Orders Closure of Bottled Water Company," *The News*, November 21, 2018, <https://www.thenews.com.pk/print/396497-sc-orders-closure-of-bottled-water-company>.

According to the report submitted by Punjab Food Authority before SC, the companies are totally not aware of what the water contains that they extract from the ground and they use 90 million liters of water a day. The groundwater which they used to sell contains Arsenic and Fluoride and these companies also pollute the aquifers by releasing the arsenic into the sewerage system.<sup>45</sup> The Environmental Scientist, Dr Ahsan Siddiqui also informed the court that bottled water companies are extracting 7.4 billion liters of water every month without paying any cost and it is also decreasing the level of underground water. It is also observed during the inspection that the concentration of minerals mentioned in the bottled water was not correct, upon which CJP said that water theft should not be allowed and companies extracting groundwater would have to pay and it also directed that actual and accurate concentration of minerals should be mention on bottled water label and special measures should be taken to minimize the plastic waste generated by the companies.<sup>46</sup>

The most important step suggested in this suo motu case was that the bottled water companies are directed to sit down with the water-appointed court commission and decide on how to improve the quality of bottled water and the treatment methods to be employed<sup>47</sup>. The Supreme Court in its Judgment focused on the registration of food products, imposing taxes on the bottled drinking water companies (Rs. 1 per liter on the use of surface water), environmental approvals, installation of water treatment plants, and inspection of manufacturing units by the authorities.<sup>48</sup> The

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<sup>45</sup> Ibid.

<sup>46</sup> Hasnat Malik, "SC Warns to Shut Down Mineral Water Companies," *The Express Tribune*, December 3, 2018, <https://tribune.com.pk/story/1859329/sc-warns-shutdown-mineral-water-companies>.

<sup>47</sup> Ibid.

<sup>48</sup> Shahid Bhatti, "Tax on Mineral Water and Beverage Companies Through Supreme Court's Judgment," *Courting the Law* accessed February 12, 2019, <http://courtingthelaw.com/2019/02/12/laws-judgments-2/judgment-analysis/tax-on-mineral-water-and-beverage-companies-through-supreme-courts-judgment/>.

question is why such important issues are being neglected by the companies and especially by the authorities. Why the authorities didn't take action against such corporations on time? Why there is always a need to look at the higher forum to take notice of such an important issue? Who will stop these corporations from playing dirty games with the people of Pakistan? When the Government of Pakistan gives importance to the Universal issue of safe drinking water, and part from signing international treaties when the actual steps should be taken to give a healthy life to the people of Pakistan?

### **5. An Overview of International Legislation for Protecting Bottled Water and Steps Taken to Make Pakistani Law Compatible with International Legislation**

Following are some illustrations of international law for protecting bottled water and steps taken to make Pakistani law compatible with international legislation

#### **5.1. European Union Drinking Water Directive**

The European Council directive 98/83/EC aims to protect human health from adverse effects caused due to drinking water contamination. This applies to all public and private water distribution systems and is also applicable to water used in the food processing industry<sup>49</sup>. The directive laid down the quality standards at the European Union level but in general, the World health organization guidelines are used as the basis for developing quality standards of drinking water. The member states can also include additional standards relevant to their territory, but they are not allowed to set low standards because maintaining the level of human health below the standards is not possible. In addition to this member states can also depart for a limited time from chemical quality standards and this is called

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<sup>49</sup> European Union, "European Council Directive 98/83/EC November 3," *Official Journal L 32-54 (1998)* <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A31998L0083>.

derogation, provided that it does not affect human health. The member states are also under obligation to report the drinking water quality to European Commission every three years.<sup>50</sup> Pakistan being a dualistic state should adopt international legal norms by incorporating them into their national legislation. International Human rights law demands that all states should work in achieving universal goals and human rights principles, of providing equal access to clean drinking water.<sup>51</sup>

## **5.2 World Health Organization (WHO) Guidelines for Drinking Water Quality**

These guidelines were adopted in 1984 and their primary objective is the protection and prosperity of human health, by providing quality drinking water in accordance with WHO standards.<sup>52</sup> These guidelines are likely to be used as the basis for the improvement of national standards of drinking water by the member states, which should be as close as possible to WHO guidelines because Proper compliance with WHO guidelines ensures the safety and protection of drinking water.<sup>53</sup> To achieve these goals the Ministry of Health Pakistan and the World Health Organization have reviewed the drinking water standards provided for quality control in Pakistan and updated them in accordance with drinking water quality standards provided by World Health Organization.<sup>54</sup> The guideline values

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<sup>50</sup> Ibid.

<sup>51</sup> Catarina de Albuquerque, "Realizing the Human Rights to Water and Sanitation: A Handbook by the UN Special Rapporteur," (India: Precious Fototype, Bangalore, 2004), 7.

[https://www.pseau.org/outils/ouvrages/ohchr\\_realizing\\_the\\_human\\_rights\\_to\\_water\\_and\\_sanitation\\_a\\_handbook\\_2014.pdf](https://www.pseau.org/outils/ouvrages/ohchr_realizing_the_human_rights_to_water_and_sanitation_a_handbook_2014.pdf).

<sup>52</sup> Sombo Yamamura, "Drinking Water Guidelines and Standards" (Geneva, Switzerland, World Health Organization), 6, accessed: 20.05.2023 <https://pdf4pro.com/view/chapter-5-drinking-water-guidelines-and-2ecf4c.html>.

<sup>53</sup> Ibid, 3.

<sup>54</sup> Dr Mahmood A. Khwaja, Anum Aslam, "Comparative Assessment of Pakistan National Drinking Water Quality Standards with Selected Asian Countries and World Health Organization" (Sustainable Development Policy Institute, Islamabad: 2018), 2, <https://sdpi.org/sdpiweb/publications/files/Comparative-Assessment-of-Pak-National->



provided by WHO are not mandatory limits, they should be set by national authorities by considering the local, environmental, social, economic and cultural conditions. When comparing the quality standard values of drinking water in Pakistan with WHO guidelines, it is observed that our National Standard values of a few parameters (Total dissolved solids, Arsenic, cadmium, copper and lead) are of serious concern and need to be reviewed and revised in accordance with WHO guidelines. There is only one parameter (chromium) in which Pakistan follows WHO standard values (0.05mg/l).<sup>55</sup> Pakistan also needs to include additional parameters provided by WHO guidelines like pesticides, phenol compounds, sulfates and other hazardous aromatic hydrocarbons to National drinking water quality standards for improving and securing the quality of water from all kinds of contaminations.<sup>56</sup> It is very encouraging to see that in acknowledging the basic right of humans to water and sanitation Pakistan became a signatory of different International and regional declarations and treaties on drinking water and sanitation.

### 5.3 United Nations Resolutions

The Committee on Social and economic rights recognized the ‘right to water’ on November 2002, which defines it as “a right of everyone to sufficient, safe, acceptable, physically accessible and affordable water for personal and domestic use”.<sup>57</sup> The human right to water and sanitation resolution 64/292 was adopted in 2010 by the United Nations Organization.<sup>58</sup> This resolution provides everyone with the right to safe,

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[Drinking-Water-Quality-Standards-with-Selected-Asian-Countries-and-WHO\(PB-60\).pdf.](#)

<sup>55</sup> Ibid, 6.

<sup>56</sup> Ibid, 7.

<sup>57</sup> General Comment No. 15. “The Right to Water,” *UN Committee on Economic, Social and Cultural Rights*, November, 2002, <https://digitallibrary.un.org/record/486454?ln=en>.

<sup>58</sup> Resolution RES/64/292 United Nations General Assembly, July 2010. <https://digitallibrary.un.org/record/687002?ln=en>.

affordable and accessible water for daily use.<sup>59</sup> Resolution no 64/292 and 15/9 are a part of International human rights law and Pakistan being its member state is automatically bound to acknowledge the rights provided under international legislation.<sup>60</sup>

Pakistan also signed United Nations Habitat Agenda on Human Settlement in 1996. This Conference elaborates that, “Everyone has right to adequate living for themselves and for their families which includes food, clothing, housing, water and sanitation”.<sup>61</sup> In 2011, Pakistan adopted resolution 16/2 of the United Nations which reaffirms the right to safe drinking water as provided under the Habitat Agenda. However, in recognizing water rights further Pakistan has adopted Human Rights Council Resolution 24/18 and General Assembly Resolution 68/157, these resolutions bind all the member states to recognize the basic right of every human regarding the provision of safe drinking water and sanitation<sup>62</sup>.

These resolutions were evident in the fact that Pakistan has recognized the human right to water by signing different international legislations and by introducing a number of domestic-level policies and programs on water and sanitation. It could not be said that this right has been fully realized in Pakistan because the government fails to even refer to the term ‘right to water’ in policies or constitutions.

#### **5.4 Global Sustainable Development Goals (SDGs)**

Pakistan has not only recognized the Global sustainable development goals but has also taken practical steps by establishing its office at the Ministry of

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<sup>59</sup> Khairpur Rural Development Organization (KRDO), Integrated Regional Support Program (IRSP), “Realising the Human Right to Water and Sanitation,” *Islamic Republic Of Pakistan briefing*, August 2015 <https://www.endwaterpoverty.org/sites/default/files/oldfiles/EWP%20Islamic%20Republic%20of%20Pakistan%20Briefing%20FINAL.pdf>.

<sup>60</sup> Ibid.

<sup>61</sup> Ibid.

<sup>62</sup> Ibid.

planning commission. This shows the state's commitment and desire to achieve the targets provided by United Nations Organization. Under one goal, there are several targets such as target number (6.1), according to which the availability of clean, healthy and affordable water to everyone around the world shall be achieved by 2030.<sup>63</sup> According to facts and figures provided under goal 6, on average three out of ten people have no access to safe and healthy drinking water services. These goals emphasized the need to maintain a freshwater ecosystem and sanitation facilities at the local level, which will improve Sanitation and access to drinking water.<sup>64</sup>

### **5.5 Dublin Statement on Water and Sustainable Development**

Pakistan signed the Dublin Statement in 1992, which recognizes that freshwater is a susceptible resource and should be considered an economic good. It emphasized the participatory approach including every user for the development and conservation of water resources, and on the other side, it recognizes the provision of clean water for human consumption at an affordable price.<sup>65</sup>

### **5.6 Delhi Declaration**

Pakistan is one of the 8 countries that have signed the Delhi Declaration of the third South Asian Conference on Sanitation (SACOSAN) and it also recognizes that the availability of water for drinking and sanitation is a basic human right.<sup>66</sup>

## **6. Conclusion and Recommendations**

Clean and safe drinking water ensures a prosperous and healthy life. Unfortunately, the Bottled water industry in Pakistan has failed in

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<sup>63</sup> Facts and Figures Goal no. 6, Clean Water and Sanitation (Sustainable Development Goals), January 1<sup>st</sup>, 2016, United Nations <https://www.un.org/sustainabledevelopment/>.

<sup>64</sup> Ibid.

<sup>65</sup> Hartmeyer, *Drinking Water Challenge*, 7.

<sup>66</sup> KRDO and IRSP, *Human Right to Water*, 2015.

maintaining the quality of bottled drinking water and instead of resolving the water shortage issues they become the cause of pollution and the depletion of underground water resources. The majority of bottled water companies working in Pakistan have failed to follow the National and International Drinking Water Quality Standards; the reason for such violations is weak authoritative control over this industry and a lack of penalties for the violation of the law. Therefore, there is a need for proper legislation for the companies to abide by, in providing the citizens with dirt-free and safe drinking water, and to carry on their business by lawful means.

United Nations recognizes the right to water as a basic Human right and provided millennium development goals for the conservation of water resources and the provision of water to everyone. If proper steps are taken in making Pakistani law compatible with international legislation and adopting the best practices will help in combating the water crises in Pakistan.

To make Pakistan a better and healthy place to live Government need to introduce legislation on clean drinking water which acknowledges the human right to have affordable, healthy, safe and clean drinking water because it has already been affirmed by national and international instruments and covenants. Apart from signing international legislation; Pakistan requires practical steps to fulfill the directives provided under them. There is a need to increase cooperation between national and international development. To create a healthy environment public awareness should be made regarding the quality of bottled drinking water, standards and labeling of bottled water, forums to complain against substandard bottled drinking water brands and measures for maintaining the quality of underground water used at homes.

To curb waterborne diseases government should take concrete steps for protection, proper functioning, examination, sample analysis and

treatment of drinking water plants. It is also recommended that competition commission and provincial food authorities will have to take serious action in controlling the deceptive marketing practices done by bottled drinking water companies in order to secure the rights of consumers violated by such companies and to hold the culprits accountable for violating the environmental laws and damaging the environment and public health.

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