

*Rakesh Munjal\**

**N**otwithstanding, water, good sanitation and waste disposal are the basic ingredients of overall good health and productive development in any good society. They are part and parcel of infrastructural development of a society which must be understood in view of WHO's declared goal of "health for all by the year 2000" and this is possible through global health law and or any good health law and policy must encompass in it the sanctity of human life, unfailing emphasis on protecting the weak, dedication to minimise human suffering, respect and equal treatment to all human beings".<sup>1</sup>

'A popular and meaningful health promotion slogan has been 'water is life'<sup>2</sup>. In International Water Supply and Sanitation Decade (1981-1991) it was the declared theme<sup>3</sup>. Any improvement in water supply in the developing countries is considered to be boon for the survival and bettering health of the people in millions particularly in places where water shortage is so acute that it threatens their very survival.

Impure water may also create many problems and health hazards, i.e. that water may include numerous pathogens and other organism or substances having the cause of health hazards<sup>4</sup>. On the other hand pure and wholesome water with adequate supply is directly related with hygienic environment. Hence the best slogan could be "water is life - but clean water is better life and ensures better life span".

Globally, one quarter of the world's people do not have clean drinking water and sanitary system for human waste disposal.<sup>5</sup> Consequently diarrheal diseases are endemic in the developing countries and are the world's major cause of infant mortality<sup>6</sup>. Cholera, typhoid fever, Guinea worm, Schistosomiasis and intestinal parasites also infect

hundred of millions of people<sup>7</sup>. In rural areas people normally fetch water from rivers and swampy areas and thus run the risk of developing malaria, river blindness and sleeping sickness<sup>8</sup>. This could be eliminated by the supply of sanitary water. In this regard the exponents of global health law believe that water and sanitation system should receive higher priorities and national law on water and sanitation should be moulded according to the well accepted health norms and resolutions adopted by WHO from time to time.

Peter Bourne, President of Global Water Inc. an organization created to help implement the goals of the International Drinking Water Supply and Sanitation Decade narrated two stories which attach the importance of water for human beings<sup>9</sup>. Firstly, an African woman asked whether she understood the importance of encouraging her children to wash their hands after defecation particularly before eating. She replied, "I have to carry our water seven miles every day. If I caught anyone wasting water by washing their hands, I would kill them".<sup>10</sup> Secondly, another African woman was asked how having water taps installed in her village had changed village life. Her instant reply was that the babies no longer die"<sup>11</sup>.

It is the right thinking that water and sanitation systems should get higher priorities and allocation of funds than to have major reservoir projects<sup>12</sup>. Many countries do not have high priority on clean drinking water and four fifths of rural population of 73 African and Asian countries do not have access to clean drinking water<sup>13</sup>. It is alarming that 1.3 billion people around the globe do not have clean drinking water and 1.7 billion lack adequate sanitation.<sup>14</sup>

Cholera and diarrhea declined very much in the United States and Great Britain in the last century due to improvements in sanitary conditions. A Chilean study said that availability of drinking water cut the rate of diarrhea by 74 percent. A case study in the Philippines revealed that toilet construction reduced cholera incidence by 70

\* Advocate, Supreme Court of India; Treasurer, International Conference on Global Health Law, Member, Governing Council, the Indian Law Institute, New Delhi.  
Secretary General, Environmental and Consumer Protection Foundation, New Delhi



percent.<sup>17</sup> Privy construction in Costa Rica according to World Bank reduced the death rate in half for diarrhea and related diseases between the years 1942 and 1954.<sup>18</sup> However, high project cost, attitude of the people and cultural approach can make and unmake successful water and sanitation development plans. In Cameroon one toilet and drinking water project failed because capital cost exceeded the entire village's annual disposable income by 15 percent<sup>19</sup>. In Central America, one project failed because villagers were of the view that structures could be better used as chicken coops and grain bins<sup>20</sup>. In the same way villagers in India want quality food, housing, fuel than pure water and toilets and they are seen as part of luxury and not as necessities of life<sup>21</sup>.

In India during fifty years of independence merciless exploitation of natural resources have substantially eroded the gains made in all spheres of development and water is no exception. The Tata Energy Research Institute remarked that poor social and human development has put unbearable burden on nature and natural resources in rural areas and civic amenities in urban areas.<sup>22</sup> Consequently, per capita available fresh water resources has fallen from 6000 cubic metres to 2300 in last fifty years and by 2017. India will become "water stressed" with 1600 cubic metres as low availability.<sup>23</sup> If ground water is being overexploited surface water is being grossly wasted, in such a prevailing serious situation, India is not even bothering to think about technological processes for conserving water. The cumulative effects of deforestation, erosion, water logging, salinization, and nutrient depletion will result in to massive economic losses to India to the tune of approximately Rs. 8900 crores to Rs. 23,200 crores by the end of 1997.<sup>24</sup> This is very alarming situation.

In view of the state of affairs of water and sanitary conditions and attitudes prevailing in the developing world, a comprehensive water code as a part of global health needs to be emerged expeditiously. Global health law should develop a concept "clean water for millions to preserve human health globally". Any global health law should define water and land use in relation to agricultural land and agricultural practices and use of chemicals or the possible excreta for fertilization<sup>25</sup>. Deforestation, however, affects the formation of ground water as well as the quality of surface water through increased run off<sup>26</sup>. Industries and their location, industrial production, urban use of land and population's living pattern affect the quality

and quantity of sewage which inter alia affect the quality of downstream water sources<sup>27</sup>. The amount of water in lakes, rivers and streams is considered to be small totalling 200,000 km of water<sup>28</sup>. Global hydrological system is also related with the availability of water ranging from the rain forests of Amazon to deserts of Sahara 25. This amounts to have limited water, hence also limits for human life.

Notwithstanding, global health law has to evaluate and provide the remedies for the use of unsafe water. The percentage of unsafe sanitation over 1.7 billion people and higher waste disposal<sup>29</sup> are the core issues to be dealt by the emerging global health law. The other areas relate to transmission of water related or water borne diseases and means of intervention of environmental health hazards<sup>30</sup>. Means of intervention in controlling water and hygiene - related diseases<sup>31</sup> should also occupy the most important place in global health law. Improved water supply, sanitation, sewage and waste disposal are achievable goals through the means of controlling environmental health hazards altogether with measures in controlling use of chemicals and bettering hygiene practices<sup>32</sup>. Water supply and options for improving water supply should be examined carefully. The sources of water supply are surface water, ground water, rain water harvesting etc. These must be protected from any kind of contamination or pollution to ensure safe supply to protect and preserve human health<sup>33</sup>. A good sanitation is very much crucial for preventing the spread of several waterborne and water - washed diseases. It also affects the prevalence of various vector - borne diseases<sup>34</sup>. Environmental health conditions are directly interlinked with safe sanitation and scientific sewage facilities.

Water is very much part of "fundamental right to health" of every human being irrespective of age, region, status, country or continent<sup>35</sup>. It is a state of complete physical, mental and social well being and complete alienation or freedom from disease<sup>36</sup>. All these aspects invariably need to be vital contents of emerging global health law for the remaining part of this century and another century to begin soon. Water and human civilization are interdependent and intimately related with each other. Nevertheless, Professor R.K. Nayak articulately opined :

Water is intimately related with the human civilisation. Climatic changes and drought are



considered to have compelled man to leave grasslands of Africa and Asia and to migrate for his existence into the river valleys of the Nile, the Euphrates, the Indus and the Congo where the earliest recorded civilisations were established. In spite of this ancient phenomenon in international law on the use of water for irrigation and other

consumptive purposes was still in early stage of development the late 19th century when Mexico and United States began to differ over their border streams. Neither country was able to find solution through a well defined or organised body of law on the subject and was unable to define and solve bitter conflicts.<sup>37</sup>

### References and Notes

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29. **Ibid.**
30. **Id.** at 68.
31. **Id.** at 69.
32. **Id.** at 71.
33. **Id.** at 73.
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37. R.K. Nayak, "In Quest of New Water Code For India : Law, Problems and Policy", p. 1 (formulated for the Minister of Irrigation, Government of India, 2 November, 1980) (Unpublished).