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PURE WATER IS THE FUNDAMENTAL RIGHT OF ALL

S. M. John Kennedy♦

1. Introduction

In 1995, the then World Bank Vice President, Ismail Serageldin said: "If the wars of this century were fought over oil, the wars of the next century will be fought over water." It is deeply disturbing to realise that with each passing day our deepest worry is the future of the planet's fresh water supply. "Fierce national competition over water resources has prompted fears that water issues contain the seeds of violent conflict," Kofi Anna, Secretary General of the United Nations said in a message for World Water Day (March 22, 2002). "But the water problems facing our world need not be only a cause of tension; they can also be a catalyst for co-operation," he added.[1]

Water is essential to life. Without water there is no life. Experts rank water as only second to oxygen as essential for the very survival of life.[2] It has been called the planet's livelihood – it pulsates through every crevice of our existence. It is fundamental to the very survival of every human being, rich or poor, urban or rural. Life without water is impossible. Yet, today, we are facing a crisis as the demand for freshwater outstrips supply and pollution continues to contaminate rivers, lakes, and streams.

Water is probably the only natural resource to touch all aspects of human civilization – from agricultural and industrial development to the cultural and religious values embedded in society. It is no exaggeration to say that, if water is in crisis, development is in crises too. From being a necessity, water has now become a luxury. People have died fighting over water. Unless we act now, the future is frightening. It is not water scarcity that is the problem today but our ways of using and managing it. Many of the problems of the water sector can be traced to the way water is planned, regulated,

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[1]"World Water Day 2002: Water for Development," IAEA Press Release March 2, 2002, 3

[2]P. Surya Rao, "Water: Balm of Life," *The New Indian Express,* April 2, 2002.

managed and financed.

The United Nations General Assembly (Resolution 55/196) had declared 2003 the "International Year of Fresh Water." The international community has finally realised that there is a global water crisis. "No water, no future." In the World Summit on Sustainable Development in Johannesburg, in 2002, water was considered a priority, crucial to development. Water is also a vital issue to global justice. Kofi Annan spoke of the need for a new stewardship of water resources so as to make them available to all. The paradox is that in a globe of which three-quarters are covered by water, there is scarcity of fresh water. At the heart of this ecological crisis is the misuse of the most pervasive constituent of planet earth. The challenge in sustainable development is the management of the water resources.

Water is a central symbol in the teaching and rituals of many religions. In India, water has been considered holy. In the Bible, water is a powerful element in the creation of God. The breath of God hovers over the face of the waters when his word creates the light. Water is also richly woven into the Christian liturgy and worship.

2. Fresh Water, a Scarce Resource

Of all the water on earth, only 2.5 per cent is fresh water; the rest is salty. This means that fresh water is a scarce resource. Two-thirds of this water is locked up in icecaps and glaciers in Antarctica, Greenland and the Arctic. Of the remaining water, 20% is in areas too distant for human access. Of the remaining 80%, because of monsoons and floods, three quarters are available at the wrong time. Even here, 70% of what is available is used for agriculture and the rest goes to household use and industry. Because of increase in population, demand for water is doubling worldwide every 26 years. Even this percentage of fresh water (less than 1%) is not distributed equitably. Moreover, studies on underground water tables show that they are falling by as much a meter a year in many parts of Mexico, India, Yemen, and China. For the poor countries of the global South (where three billion people live on less than $2.00 per day), clean water is becoming a scarce resource difficult to acquire.

Humans need water for drinking, cooking, washing, industries, energy, transport, rituals, fun, life, etc. It is about this good, which nature offers so liberally to all, that we face a multiple global crisis. Sustainable human development depends on the availability of fresh water. It is estimated that

more than one third of the global food production is based on irrigation, a significant portion of which may rely on unsustainable ground water sources. Irrigation accounts for the major use of water in developing countries – as high as 70% in India and 60% on average.

3. Water Crisis: A Major Threat to Survival

Water, the unique substance that gives our planet life, has become highly problematic. Parts of the world have too much or too little of it. In other places, it is polluted or unequally distributed. Rapid population growth, combined with industrialisation, urbanisation, agricultural intensification, and water-intensive lifestyles is resulting in a global water crisis. About 20% of the population currently lacks access to safe drinking water while 50% lacks access to a safe sanitation system. Falling water tables are widespread and cause serious concern, both because they lead to water shortages and, in coastal areas, to salt intrusion. Both contamination of drinking water and nitrate and heavy metal pollution of rivers, lakes, and reservoir are common problems throughout the world. The world supply of freshwater cannot be increased. More and more people are becoming dependent on limited supplies of freshwater that are becoming more polluted. Water scarcity, like food security, is becoming a major national and regional priority in many areas of the world. The sad and brutal truth is that the situation on the ground is worse, not better. Conflicts are worsening; pollution is unabated; ground-water levels continue to fall; rivers are drying up; and there is no sign of greater efficiency or prudence in using water.[3]

3.1. Global Population Growth

Global population has more than doubled since 1950 and reached six billion in 1999. The most recent population forecasts from the United Nations indicate that, under a medium-fertility scenario, global population is likely to peak at about 8.9 billion in 2050.

In parallel with these changes, there have been profound demographic shifts as people continue to migrate from rural to urban areas in search of work and new opportunities. Since 1950, the number of people living in urban areas has jumped from 750 million to more than 2.5 billion people. Currently, some 61 million people are added to cities each year through rural to urban migration, natural increase within cities, and the transformation of

[3]A. Vaidyanathan, "Imperatives of Water Governance," *The Hindu,* March 20, 2004, 10.

villages into urban areas. Urbanisation creates new needs and aspirations, as people work, live, move, and socialise in different ways, and require different products and services. Urban environmental impacts and demands are also different. By 2025, the total urban population is projected to double to more than five billion, and 90% of this increase is expected to occur in developing countries. Many of them depend on ground water for living. But as cities grow, can subterranean water sources be sustained?

3.2. Water Scarcity on the Increase

Sustainable human development depends on the availability of fresh water. It is estimated that more than one kind of the global food production is based on irrigation, a significant position of which may rely on unsustainable ground water sources. Despite progress in the last two decades to improve access to safe drinking water, some 1.2 billion people today go without the same. 2.4 billion people lack proper sanitation and more than 3 million die every year from diseases caused by unsafe drinking water. Today the world's number one killer is polluted water. It kills more than 25000 people a day. It is the common route to the spread of infectious diseases. In India and other poor countries, many die of water-borne diseases. Diarrhoea alone kills four million a year. Thus, in one year alone, water pollution, poor sanitation, and water shortages will kill over 12 million people, said Klaus Topfer, Executive Director of the United Nations Environment Programme (UNEP). According to him, millions more are in bad health and trapped in poverty, much of their energy and time wasted in the quest for clean water.[4]

Areas of water scarcity and stress are increasing, particularly, in North Africa and West Asia. In the next two decades, total water demand is expected to increase by 40%. By 2025, two-third of the world's population may live in countries with moderate or severe water shortages. Nearly 7 billion in 60 countries will face water scarcity by 2050. The UNEP's report 'Global Environment Outlook 3' says that if we go on using water in the way we use it now, in thirty years two-thirds of the world will not have sufficient water. "Water, water, everywhere, not any drop to drink," cried the English poet, Coleridge.[5] Today our cry is: "Water, water, everywhere, no clean

[4]"World Water Day 2002: Water for Development," lAEA Press Release, March 2, 2002, l.

[5]S. T. Coleridge, "The Ancient Mariner," *The Norton Anthology of English Literature*, Seventh Edition, Volume 2, 416.

water for most to drink."[6]

3.3. Women are the Most Affected

In many societies, water is at the core of women's traditional responsibilities: collecting and storing water, caring for children, cooking, cleaning, and maintaining sanitation. These tasks often represent a whole day of work; in some regions, women spend up to five hours a day collecting fuel wood and water and up to four hours preparing food. Providing access to clean water close to each home can drastically reduce women's workload, and free up time for other more productive economic activities. Water stress leaves women the most vulnerable. Without a ready source of water they may have to walk for several hours everyday to find it, or send their children to fetch it. Child nurturing and education suffer as the available water may be unfit for human use.

3.4. Crisis of Water in India

Parched heavens, scorched earth, soaring thirst, water is the biggest crisis facing India in terms of spread and severity, affecting one in three people in cities and villages. Already in Chennai, Bangalore, and Delhi, water is rationed. With the lives and livelihoods of millions at risk, the nightmare has worsened.

India's population is expected to touch 1,650 million by 2050, which means the demand for water will rise from 634 bem now to 1,447 bem. Nearly, two-thirds of this will be for irrigation, as India would need to double its food production from the current 200 million metric tonne to 450 million.

4. Pure Water: A Fundamental Right of All

Michael Gorbachev remarks: "Water is the important single element needed in order for people to achieve the universal human right to a standard of living adequate for the health and wellbeing of individuals and families."[7] Without water, we cannot address the problems of poverty and disease. We can neither achieve sustainable development, nor can we conserve biodiversity, preserve habitats or restore ecosystem.

The promise of life in abundance cannot be separated from abundance of fresh, clean water for all life and all humanity, a gift to be shared among

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[6]S. Arockiasamy, "Water, the Womb of Life" (Editorial), *Vidyajyothi* 6, 7 (July 2003), 577-578.

[7]See, for example, Universal Declaration of Human Rights, article 25.

all and conserved for all, including future generations of various living species. Water is the basis of life; it is the gift of nature; it belongs to all living beings on earth. It is not a private property but a common resource for the sustenance of all. Aqua robbery by corporates is becoming common in the industrially developing countries but dereliction of state duty is denying humanity the basic source of water. One instance from the state of Kerala in India can very well establish this.

The Hindustan Coca Cola Beverages established its unit in 1998-99 in approximately 40 acre plot (previously multi-cropped paddy lands) at Plachimada of Perumatty Panchayat in Chittur Taluk of Palakkad district, Kerala. On an average, about 85 lorry loads of beverage products (Mirinda, Thumbs Up, Coco Cola, besides Kinley Mineral Water), each load containing 550-600 cases and each case containing 24, 300 ml. bottles leave the factory premises every day. More than 60 bore wells (besides two open wells) are sunk in the factory compound extracting some 15,00,000 litres of water on a daily basis. The site is located a few metres away from the main irrigation canal from the Moolathara barrage. The site is located about 3 km away from the Meenkara dam reservoir, a few hundred metres west of Kambalathara and Vengalakkayam storage reservoirs and 2 km away from the main Chitturpuzha (river). Processing activities as purification of water, preparation of the bottled drinks, cleaning of bottles, etc., generate a large quantum of contaminated water and chemical waste besides plastic, paper, metallic, and other solid waste. Certain resources like air, sea, waters, and the forests have such a great importance to the people as a whole that it would be wholly unjustified to make them a subject of private ownership.

The nature's gift of water is God's blessing for his creation. This good is being commoditised, controlled, contaminated, and wasted, while vast millions remain thirsty.

4.1. Water: Basic Need for All

Water is a basic need for survival. So clean water is a basic human as well as environmental right of all, based on the right to life. It is a universal social and environmental obligation. As such, it is unquestionably the responsibility of governments (both at the national and the local level) to ensure that every one has access to his or her minimum requirements. Since water is a fundamental right, it cannot and should not be commercialised or privatised. By privatising water, the government allows the multinational corporations to 'steal' the water of the common people. According to Vandana Shiva, "No

government has the right to sell water since it is in the public trust that belongs to the people. The Government is only the custodian of this public trust. Water should not be made a commodity. There is no substitute to water and the talk of alternatives in the form of bottled water or soft drink was a myth."

Public systems are not always efficient, and there is a growing desire among economists and decision-makers to hand over the responsibility of delivering water to private companies. The trouble is that the primary job of private companies is to make profits, and they are not usually concerned about the rights of individuals or of the need for equitable distribution of their products. Market forces controlled by corporate agencies, besides contaminating water resources, have made water a commodity possessed, controlled and traded for profit. There clearly is good money to be made in delivering water, and the private sector is ready and willing to add this vital resource to its range of products, as, indeed, they have already done in huge quantities with bottled water.

Private companies run only five per cent of the world's water works and they are in 56 countries. Vivendi earned 12 billion dollars in water-related revenue last year. Thames Water, which unequally and controversially has ownership of London's water assets, earned $2.5 billion. Suez has contracts in 130 countries with 115 million customers.[8]

But efficiency alone is not enough to justify handing over such a resource to an outside agency, unless it is willing to take on a universal service obligation to ensure that all basic needs are met, on a transparent, accountable and permanent base.

4.2. On the Right to Water

The General Comment on the right to water, adopted by the Covenant on Economic and Cultural Rights (CESCR) in November 2002, is a milestone in the history of human rights. For the first time, water is explicitly recognised as a fundamental human right and the 145 countries which have ratified the International CESCR will now be compelled to progressively ensure that everyone has access to safe and secure drinking, equitably without discrimination.

The right to life is a foremost human right sans which society ceases to

[8]Darryl D' Monte, "A Bid for Water," *The Hindu* (Sunday Magazine), April, 13, 2003, 2.

exist. Air, water and everything without which life cannot exist are universal assets. Preserving every ounce of safe water and breathable air is humanity's highest priority. Under such circumstances every drop of rain has to be harvested, every well has to be conserved and every pool or pond has to be preserved.

In State of Tamil Nadu versus M/S Hind Store (AIR 1981 SC 711), it has been observed as follows: "Rivers, forests, minerals and such other resources constitute a nation's natural wealth. These resources are not to be frittered away and exhausted by any one generation. Every generation owes a duty to all succeeding generations to develop and conserve the natural resources of the nation in the best possible way. It is in the interest of mankind. It is in the interest of the nation."[9] The General Comment in the verdict states that "the human right to water entitles everyone to sufficient, affordable, physically accessible, safe and acceptable water for personal and domestic uses." It requires governments to adopt national strategies and plans of action which will allow them to "move expeditiously and effectively towards the full realisation of the right to water." These strategies should have the following qualities: 1) based on human rights law and principles; 2) cover all aspects of the right to water and the corresponding obligations of countries; 3) define clear objectives; 4) set targets or goals to be achieved and the time-frame for their achievement; 5) formulate adequate policies and correspond achievement indications.

Generally, governmental obligation towards the right to drinking water under human rights law broadly falls under the principles, respect, protect, and fulfil. The obligation to respect the right requires parties to the covenant to refrain from engaging in any conduct that interferes with the enjoyment of the right, such as practices which, for example, deny equal access to adequate drinking water or unlawfully pollute water through waste from state-owned facilities. Parties are obligated to protect human rights by preventing third parties from interfering in any way with the enjoyment of the right to drinking water. The obligation to fulfil requires parties to adopt the necessary measures directed towards the full realisation of the right to drinking water.

4.3. Water for the Future

It is our fundamental obligation to prevent water scarcity and pollution and to preserve it for generations. During the Summit in Rio de Janerio, UNESCO

[9]V. R. Krishna Iyer, "The Right to Water," *The Hindu*, January 28, 2004, l0.

offered the following vision of the future: "Every generation should leave water, air and soil resources as pure and unpolluted as when it came to earth. Each generation should leave undiminished all the species of minerals it found existing on earth." The present generation needs to make a sustainable use of water so that earth's water supply will remain abundant and clean for future generations. We cannot accept that the powerful few with means to control the resources destined for all should destroy it. We cannot allow our generation to be butchers of the next. The goal of all actors in the management of water resources should be to meet human needs rather than to control and dominate.

Water is a common good and is a basic need for all. It is to be received as a gift, used responsibly and shared equitably. We have to conserve and enhance the diminishing resources and pass on this precious gift, clear and abundant, to future generations. This calls us to a shared ethical responsibility and a new quality of stewardship for which we need not only efficient and participatory management strategies, but also a new spirit nourished by the value perspectives of cultures and religions. A control and misuse of this resource by the powerful few which deprives the poor by mega projects for profit and pollutes it without social accountability is a negation of the values of justice and equity, sharing and solidarity.

5. Towards Alternatives

5.1. Need for an Attitudinal Change

Water is treated as though it were available in unlimited quantities. We cannot keep treating water as if it will never run out because there is only a limited quantity of it on Earth. To manage it better, we need to work together and set priorities that respect the limits. We need to change our fundamental attitudes towards water resource management. We need a more holistic approach that emphasises gender, social justice, and human rights. It should be based on a better analysis of patterns of use, knowledge, and skills regarding conservation and sustainable use of the resources.

Management of the water resources should be participatory and involve users, planners, and policy-makers at all levels to promote a sustainable water use. A sustainable use means a new style of life guided by responsibility for sharing, conserving, enhancing this stream of life, and a renunciation of profligacy of this vital element.

The right to conserve, use and manage water was fully vested with the

local community. This was the very basis of water democracy. Any attempt to reduce or deny this right is a crime. Governments and other public sector organisations, businesses, and NGOs need to demonstrate a greater commitment to environmental sustainability, gender equity, and social justice in integrated water resources management. What we need today is to arise and awake and share what belongs to all through social justice.

5.2 Integrated Water Management

The International Year of Freshwater 2003 offered an opportunity to refocus our attention on protecting and respecting our water resources. It gave an opportunity to be aware of many threats to our water resources and the ecosystems on which we depend, including the conversion of natural ecosystems to pasture and farmland, pollution, over exploitation and extraction, alien invasive species, mass tourism and climate change.[10] We must recognize that the earth's life-sustaining cycles are delicately inter-linked. The hydrological cycle, the erosional cycle, and the nutritional cycle are delicately interlinked, and that any interference with the linkages leads to serious environmental and ecological imbalances. As population increases and technology grows, the linkages are affected by human actions.[11]

The goals of protecting our water sources and Earth's ecosystems, therefore, cannot be separated. We must do both, now. For modem water resource managers, the protection of nature goes hand in hand with the pipes and pumps that ultimately bring water to homes and fields. Decades ago, for example, the New York council calculated that it was cheaper to purify drinking water by draining it through forested catchments than by building a new treatment plant. With none of the controversy that surrounds wildlife conservation, the forests were protected, and New Yorkers enjoy exceptionally fine drinking water.

Biodiversity conservation and water management are two sides of the same coin. Both are essential for alleviating poverty, and both require integrated ecosystem management. For example, in the southern Yunnan province of China, poor forest management upstream has affected an entire watershed. Deforestation of mountain slopes has led to severe erosion, after

[10]Yolanda Kakabadse, "Where Life is Welcome in World Conservation: Moving Water," *The IUCN Bulletin* 1 (2003).

[11]T. N. Narasimhan, "Water: A Broader Understanding," *The Hindu*, March 9, 2004.

torrential run-off, heavy deposition of silt in paddy fields and wetlands. The economic impacts on small-scale agriculture are compounded by a marked decline in forest products such as mushrooms and timber.[12] Tree felling reduces evapo-transpiration and allows saline groundwater to rise close to the soil surface. Salinity may be reduced by planting trees in these upstream areas to increase evapo-transpiration and lower water table once again.[13]

5.3. Some Water Saving Measures

With respect to the physical alternatives to fulfil sustainable management of fresh water, there are two solutions: finding alternate or additional water resources using conventional centralised approaches, or better utilising the available limited amount of water resources in a more efficient way. At the core of solutions stands our knowledge of earth's water cycle, and how fresh water resources are renewed.

India receives an annual precipitation (snowfall and rain) of around 4,000 bcm. Of this, the run off accessible water is 1869 bcm, of which barely 690 bcm is used. Nearly 1,179 bcm of water drains into the sea, much of it in the 100 days that define India's wet season. India's water problems stems from disparate precipitation and the fact that while nearly 70 per cent of precipitation occurs in 100 days, the requirement is spread over 365 days. Among the various alternative technologies to augment fresh water resources, rain water harvesting and utilisation is a decentralised, environmentally sound solution, which can avoid many environmental problems often caused in conventional large-scale projects using centralised approaches. Rainwater harvesting, in its broadest sense, is a technology used for collecting and storing rainwater for human use from roof tops, land surfaces or rock catchments using simple techniques such as jars and pots as well as engineered techniques. Water-saving measures include improving irrigation techniques and preventing water loss as high as 40% from transportation, distribution, and storage systems.

5.4. Water for Global Peace

Gorbachev called for 'water for peace' and 'peace for water', contrary to the popular belief that the next world war will be over water, not oil-triggered off by a remark by former World Bank Vice-President, Ismail Serageldin, now

[12]Ton Van Der Zon, "The Complete Ecosystem, World conservation: Moving water," *The IUCN Bulletin* 1 (2003).

[13]David Lamb, 'Restoration: An Inexact Science," *The IUCN Bulletin* 1 (2003).

in the world water council. Conflicts over water take a long time to build up. They do not present flash points, although they can remain a fostering sore between hostile countries.

Not many may be aware that the Indus Water Treaty, now 43 years old, sharing the tributaries between India and Pakistan, has never been abrogated even during two wars. The agreement was brokered by the World Bank and remains a model for amicable sharing of resources. Short-sightedly, the Jammu and Kashmir Legislative Council had passed a resolution, asking the centre to review the treaty. Local politicians have alleged that Kashmir suffers a loss of Rs. 6,5000 million due to it. The Mekong treaty, between Thailand, Cambodia, Laos, and Vietnam, is yet another example where countries have chosen to cooperate on sharing resources. Without powerful agreements, it has the potential to bring about the opposite results.[14] Therefore, governments should involve interest groups at all levels of decision making, and facilitate the participation of all stake holders, particularly women, as far the water resource management is concerned.

6. Conclusion

In view of introducing a rationalised use of water, the following practical suggestions could be made: 1) Stress should be laid on building water storages, increasing capacity in basins and working on inter-basin transfers wherever possible. 2) Pricing and efficiency to be introduced in irrigation management. Pricing to depend on the benefits and electricity used to pump water. Now public irrigation is highly subsidised. There is increasing intensity of competition to access the water available in public systems, competitive deepening of wells in the face of declining ground water levels. The cost of acquiring water at the user end to be substantially increased along with tighter management and stricter enforcement of regulations by the state and the user communities. Governments should ensure that allocations and scheduling of water in public systems conform to clearly specified rules and enforce regulations concerning groundwater extraction. 3) Change in the cropping patterns. 4) Systematic monitoring of trends in water tables, volume, and quality of water extracted and their use. Let us unite, agitate, protect, and demand our right to water!

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[14]Darryl D' Monte, "A Bid for Water," *The Hindu* (Sunday Magazine), April, 13, 2003, 2.