FULFILLING THE WORLD WATER VISION - HYDROSOLIDARITY

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1 Water Futures

1.1 The situation to-day

The states of the world water resources and their management are well known to participants in this congress of the International Water Resources Association. There really no need for me to do more than briefly remind you that well over a billion people, perhaps even closer to two billion, lack reliable access to safe water supplies. Close to half the world population is without adequate sanitation. Hundreds of millions live in areas that suffer from water stress calculated as an average yearly condition, - billions if we count those who alternately suffer from droughts and floods in the same year. Fresh surface waters and aquifers, wetlands and oceans continue to serve as sinks accumulating the wastes of human activities. Those who wish to know more details can readily find them in the first report of the World Water Assessment Program.[2]

A comprehensive report for the informed layman has recently been published in The Economist[3]. At one point the authors sum up the situations as follows:
"In truth, the story of water almost everywhere involves abuse, waste and even tragedy. Nor are things getting better; indeed, much of the worst damage has been wrought in the past 100 years. Water resources have been exploited with no heed either to sustainability or to the environmental consequences."

Of course this statement oversimplifies history, as during those hundred years the human population of the planet tripled, and water consumption for agriculture and other economic activities doubled while raising living standards for hundreds of millions. But fundamentally, the facts show that the heart of the message is true, and alarming.

During the past decade water scientists and managers have brought this situation to the attention of the world through activities such as the World Water Forums sponsored by the World Water Council. The Millennium Assembly of the United Nations established goals to halve the number of those without access to safe water supply and adequate sanitation by 2015, and to sustainably manage the earth's natural resources, including water. At the G-8 Summit in Evian following the 3rd World Water Forum in Kyoto the leaders gathered there issued an Action Plan for Water. It called for:

- Promoting good governance
- Utilising all financial resources

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[2] United Nations World Water Development Report; *Water for People, Water for Life;* UNESCO, Paris, March 2003.

[3] *Priceless - a Survey of Water;* The Economist, London, July 19th 2003.

- Building Infrastructure by empowering local authorities and communities
- Strengthening monitoring, assessment and research, and
- Reinforcing engagement of international organisations.

Some action is already underway. For example, as requested by the G-8 Plan of Action the World Bank has already examined options:

- to use financing instruments in a more flexible manner to allow loans to sub-sovereign bodies;
- to develop guarantee and insurance schemes for risk mitigation; and
- to address the issue of sovereign and foreign exchange risk coverage.

But many feel that these and the many other actions underway are "too little, too late". What does the future hold?

1.2 Predictions and scenarios

There is a tendency, particularly in the popular press but sometimes even in official publications, to make projections of water use in the future based on a few factors and to treat these as predictions. The reality is that no one can predict the future. Moreover, even if someone had the superhuman powers to do - and predicted a catastrophic future for the world's water resources - and even if this person was highly credible - there is little possibility that anyone would act to avoid the catastrophe. It would take exceptional courage and powers of persuasion in a leader to take the far-reaching decisions required by the prediction.[4]

While prediction of the future is useless, scenarios can help those faced with a problem to reframe their assumptions, values and vision for the future. Scenarios describe what the world would likely look like if certain key variables behave in certain ways. To help alter the mental models of water managers and others involved in the World Water Vision process a scenario development panel of 14 distinguished water experts, modellers and futurists developed three global level water scenarios. Simulation models were used to explore these scenarios.

Under the Business as Usual scenario - that is, a continuation of current policies and extrapolation of trends - about 4 billion people or half the world's population would live in countries with high water stress by 2025. Limited investments in new water infrastructure would reduce irrigation expansion and prevent water scarcity, but food scarcity would be the result. There would be an annual global deficit of 200 million tons of grain, with major deficits in many countries in Africa and the Middle East.

Under the Technology, Economics, and Private Sector driven scenario, private sector initiatives would lead research and development, and globalization would drive economic growth. However, the poorest countries would be left behind. Emphasis on technology and investments would increase primary water supply by 24%. China and India would become water short due to the expansion of irrigation. Several other countries would face economic water scarcity. While there would be a global surplus of 70 million tons of

[4] De Geus, A.P; *Modelling to Predict or to Learn?;* European Journal of Operational Research, 59, 1-5 (1992)

grain, the surplus would be in OECD and high-income developing countries while there would be a growing deficit in low-income countries.

Under the Values and Lifestyles scenario, development would focus on low-income countries that face economic water scarcity. The emphasis would be on sustainable development and on research and development of technologies in the poorest countries that meet their particular needs. As a consequence, water and food scarcity would be limited. Through closing the yield gap, raising productivity in low-income countries, lower population growth, and more concern about the environment, the food deficit in low-income countries would be reduced. However, it would not be eliminated because many of these countries simply don't have sufficient economic growth to provide the funding for the infrastructure they need or the purchasing power to import the food they require.[5]

The initial five years of these three scenarios were assumed to be the same because of unavoidable lags in decision-making, the inertia of some processes, and the time required for investments to mature. It was anticipated that awareness of the impending water crisis would increase in the first years of the 21st Century. In response, governments would start putting water higher on the agenda. Now, nearly five years after work began on the development of these scenarios, recognition of the problem by the G-8 leaders and others provides hope that we will not follow the Business-as-Usual scenario. If anything, the approaches being proposed would seem to be those that will follow the path of the Technology, Economics, and Private Sector driven scenario. If the analysis of the scenario modelers was correct, this still would leave us a long way from achieving the Millennium Development Goals established by the UN General Assembly.

2 Water Rights - and Responsibilities

While scenario analysis showed that the Technology, Economics, and Private Sector driven scenario would not be enough to solve all our water management problems, it did demonstrate that these drivers could greatly improve the situation. One of the difficulties currently being faced is that some activists are opposed to the application of these measures on the grounds that access to water is a human right and that as such it should be provided by government (by implication at least at no cost). These activists were disturbed that the declaration of the Ministerial Conference that accompanied the 3rd World Water Forum[6] did not recognise this right - nor did the statement of the G-8 leaders.

The United Nations Committee on Economic, Social and Cultural Rights adopted a statement recognising the human right to water on November 26, 2002. The Economic, Social and Cultural Committee now has to introduce this decision to international legislation in order to enforce the right. Activist organisations such as Public Citizen are pushing for similar language to be introduced to the wider United Nations, the World

[5] Gallopín, Gilberto C. and Rijsberman, Frank; *Three Global Water Scenarios;* <http://www.worldwatercouncil.org/Vision/Documents/ThreeGlobalWaterScenarios.PDF>

[6] For this declaration see <http://www.world.water-forum3.com/jp/mc/md_info.html>

Trade Organisation, the World Bank and the International Monetary Fund. These are organisations that they claim have all moved against introducing this right and instead focused on privatisation and cost-recovery, thereby undermining the right to water.

Following are some extracts from the document adopted by the United Nations Committee on Economic, Social and Cultural Rights[7]:

"The human right to water entitles everyone to sufficient, safe, acceptable, physically accessible and affordable water for personal and domestic uses. An adequate amount of safe water is necessary to prevent death from dehydration, reduce the risk of water-related disease and provide for consumption, cooking, personal and domestic hygienic requirements…..

*"The Committee notes the importance of ensuring sustainable access to water resources for agriculture to realise the right to adequate food… Attention should be given to ensuring that disadvantaged and marginalized farmers, including women farmers, have equitable access to water and water management systems, including sustainable rain harvesting and irrigation technology… **S**tates parties should ensure that there is adequate access to water for subsistence farming and for securing the livelihoods of indigenous peoples……*

"The elements of the right to water must be adequate for human dignity, life and health…. The adequacy of water should not be interpreted narrowly, by mere reference to volumetric quantities and technologies. Water should be treated as a social and cultural good, and not primarily as an economic good. The manner of the realisation of the right to water must also be sustainable ensuring that the right can be realised for present and future generations……

"While the Covenant provides for progressive realisation and acknowledges the constraints due to the limits of available resources, it also imposes on States parties various obligations which are of immediate effect. States parties have immediate obligations in relation to the right to water, such as the guarantee that the right will be exercised without discrimination of any kind… Such steps must be deliberate, concrete and targeted towards the full realisation of the right to water…

"States parties have a constant and continuing duty under the Covenant to move as expeditiously and effectively as possible towards the full realisation of the right to water. Realisation of the right should be feasible and practicable, since all States parties exercise control over a broad range of resources, including water, technology, financial resources, and international assistance, as with all other rights in the Covenant".

No one will argue with the principles of rights expressed by the Committee. However the Committee itself recognises the need for progressive realisation and acknowledges the constraints due to the limits of available resources. It therefore calls on the States parties to move as expeditiously and effectively as possible towards the full realisation of the right to water. Where the Committee seems to underestimate the difficulties is when it declares that "Realisation of the right should be feasible and practicable, since all States parties exercise control over a broad range of resources, including water, technology,

[7] Committee On Economic, Social And Cultural Rights, Twenty-ninth session Geneva, 11-29 November 2002 Agenda item 3; *Substantive Issues Arising In The Implementation Of The International Covenant On Economic, Social And Cultural Rights (advance unedited version General Comment No. 15 (2002)*

financial resources, and international assistance." The reality is that in many states, especially the poorer ones, governments are far from being in control of these resources for historical reasons and as a consequence of the forces of globalization.

A greater concern though is that the Committee fails to recognize that those benefiting from the rights also have obligations or responsibilities. Each is responsible for sustenance and development of self and family. It is the responsibility of others to maintain their freedom and opportunity and assist those in need to learn how to care for themselves or to extend aid in times of emergency or distress. Neither individuals nor society have further responsibility for other unrelated individuals (except children) or societies. Each and all are to learn, in freedom, to develop their own capabilities and interests and make contributions that result in progressive returns useful for family and others, as needed or desired.[8]

3 Implementing the World Water Vision

3.1 Origins of the Vision

While the scenarios described above served as background for the World Water Vision[9] exercise, they were simply descriptions of worlds that could be in 2025 if we assume that drivers will behave in certain ways. Those who participated in the Vision process were asked to describe the world they would like to have in 2025. Unanimously they described a world that was not like any of the scenarios. They envisioned a world in 2025 in which almost every woman and man, girl and boy in the world's cities, towns, and villages will enjoy safe and adequate water and sanitation and have enough food to meet their nutritional requirements. It would be a healthy world for them, and for all species that inhabit the Earth with them. It would be achieved through the participation of all in decisions that affect them directly and in their implementation.

Some people think of visions as dreams. The Vision sought in this exercise was to be more than this. It was not to be something that received lip service. It was to be the framework of principles and goals that would determine our future actions. If participants believe that this Vision can be achieved, then they will do all in their power to achieve it. This Vision would leave no room for blaming other people for the situation and to complain about the past and present circumstances. It implies that all accept personal responsibility to carry out the changes that will transform the Vision into reality[10].

In fact, World Water Vision participants didn't just describe a dream world, but a Vision based on measures that could be taken to make it happen. They said that the Vision could be reached if the world's leaders accept that there is a spreading water crisis. They assumed this would happen as a result of increasing public awareness of the issues, and

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[8] Behrman, Jack N.; *Moral Buttresses and Obstacles in the Globalization Process;* Futures Research Quarterly, Winter 2002, Volume 18, Number 4; World Future Society, USA.

[9] Cosgrove, William J. and Frank R. Rijsberman for the World Water Council. 2000. World Water Vision: Making Water Everybody's Business; Earthscan, London

[10] Powell, John S.J.; *Through Seasons of the Heart;* Tabor Publishing, USA 1987.

commitments that would be made at the Second World Water Forum in The Hague following recommendations of the World Water Commission. They saw that it would be achieved in a world where people at the local level work closely with governments and non-governmental organisations. Together, using science of the "knowledge society" they would manage water resources to provide services to meet everybody's basic needs sustainably, without degrading the environment. Communities and governments would benefit in terms of economic development as well as by improved health.

The human values[11] that underlie the Vision, while not made explicit, are more fundamental than those of the Values and Lifestyles Scenario. Under the Vision these values are expected to cause behavioural change such that the Vision will be achieved, while under the scenario they would not be.

One approach to relating human values to water is currently being applied through education of children in a number of African cities under the sponsorship of UN Habitat.[12] Under this approach children learn as part of their normal curriculum the relationship between valuing water and the human values of Truth, Love, Peace, Right Conduct and Non-violence. Follow-up has shown that not only these children's attitudes to sharing water have changed, but their attitudes to life in general. Efforts like these should continue. However, research has shown that all societies respect these core values. Therefore it should not be necessary to wait until generations have been taught them and grown up to apply them to water. The problem is that around the world these values are being eroded - sometimes through the unintended consequences of actions of the state and international organizations that are intended to protect or improve life for the citizen. The result is that they are being replaced by the pragmatic values of "what works"[13]. This can lead to people doing "what works" even when it is counter to one or more human values, or even when it is outside the law.

3.2 Fulfilling the World Water Vision - Pragmatic Approach

When one applies pragmatic values through "what works", the result is most important, not intentions or judgement of society. The means to achieve a given goal may vary considerably among countries, but all that matters is that the goal be achieved. Pragmatic acts, therefore, are related to a specific task or event, and the appropriate behaviour depends on technique and know-how. They are experimental and experiential - not bound by any moral or ethical code. They are aimed solely at achieving certain results. In the case of achieving the Millennium Development goals, the result would be judged to be "good" in the eyes of society. The approach or technique used to achieve these goals may be seen as either "right" or "wrong", "correct" or "incorrect", "workable" or "unworkable" - but not "good or bad" in an ethical sense, not "good or evil" in a moral sense.

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[11] For a basic discussion of human values see Kidder, Rushworth M.; *Shared Values for a Troubled World - Conversations with men and women of conscience;* Jossey-Bass; 1994

[12] United Nations Center for Human Settlements; *Water Education in African Cities - report of an expert group meeting, Johannesburg SA, April/May* 2001

[13] Behrman, Jack N; *ibid*

Pragmatic values, based on technique or know-how, are grounded in "objective science", so they are more widely accepted. But wide differences exist in the techniques for their application. Some will work in one society, but not in another. Some activists argue that they often leave much to be desired in terms of ethical results or moral purpose - such as the use of virtually any means to achieve a profit. The actions to which the G-8 leaders committed themselves at Evian, listed in Section 1.1 of this paper, reflect a pragmatic values approach. But a pragmatic values approach may be part of a formula for success without necessarily leading to practices or results that are in some way immoral or unethical - provided that they are part of a framework that incorporates the human values system.

3.3 Fulfilling the World Water Vision - Hydrosolidarity

Most of the World Water Vision tends to be pragmatic in its approach. However, those who participated in the process also insisted that it would be achieved through the participation of all in decisions that affect them directly, and in their implementation. Fundamentally, they were insisting that the World Water Vision could only be achieved through a human values driven approach. As individuals, they want their values to be reflected in decisions that concern them. They were recognising that they have the right and responsibility to determine the nature of their own development, and they wanted to exercise both this right and the responsibility. Greater responsibility would be delegated upwards to governments only after it had been decided through a participatory process in which all parties are represented.

To-day's communication technology has truly turned the world into the "global village" foreseen by Marshall MacLuhan - or at least into a "community of communities". The globalisation process that accompanies this is inexorably linking us in a global economy. To complete the process of subsidiarity up to the global level each country must participate to an acceptable degree in determining the distribution of benefits of development. By these means - from the level of the individual citizen to the global level - human values will become an integral part of the decision-making processes.

Malin Falkenmark of the Stockholm International Water Institute coined the term "hydrosolidarity". To most this refers to solidarity in decision-making surrounding the management of water in a basin - between those living upstream and downstream, between urban and rural dwellers, between human needs and environmental sustainability. It implies that a framework of human values will be respected. Participants in the World Water Vision exercise held the same view. Respect for shared human values will eventually prove to be the key to sound management of the world's water resources in the sustainable service of human development.

If society is to make progress towards the World Water Vision, and towards the Millennium Development Goals dealing with poverty and hunger, and surviving in slums without safe drinking water or sanitation, it must not repeat past history but make new history…. Most changes that have altered the course of history have begun by individuals who by their example and acts did what many thought impossible. Underlying each one

was a moral conviction, a fearlessness that refused to be subdued[14]. We must plan for and act to change society. But we cannot wait for our institutions and organisations to be renewed. We, as individuals, must assume responsibility for our personal transformation, and in doing so open the way to achieving the World Water Vision.

In the process we just might help to create a world-wide community in all of the political, economic and social sectors based on shared human values

[14] Drawn from Chowdhry, Kamla; Achieving Millennium Development Goals: A View from Gandhi's Window; (AVARD National Seminar at Wardha 22-24, July 2003)