Spans and suspensions: building bridges and water security through integrated water resource management

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Abstract There are three chasms that block the route to water security: the impact of population growth (and the associated urbanization); widespread malnutrition and poverty; conflict between agricultural demand and other human uses of water. To cross these chasms requires firstly education (primary education for girls is crucial) and the introduction of integrated water resource management. It requires the application of community energies and dedication, and the harnessing of private sector energies resources, but it will also need the development of innovative financial mechanisms. Above all it requires a major shift in the way we manage water, discarding prejudices and preconceptions, to address our water needs with imagination and commitment.

Keywords Integrated water resource management; water policy; water security

Introduction
Just over a year ago in The Hague, over five thousand people joined to express concern for the water security of the 21st century. There was common cause on the magnitude of the problems, there were some gaps and divides and rifts in how to respond, and who should respond. Even bigger chasms remained between the magnitude of the issues and the ability of our current mechanisms to address them.

The Colombia encyclopedia defines a bridge as anything that extends across a chasm or a divide to allow passage over the rift. As we move to address 21st century water quality and quantity issues, there are at least three great chasms needing to be bridged if we are to achieve water security. From here they look like huge gaps, each seeming too wide to be spanned by existing practice, or even existing technology.

I want to take us to the edge of three huge chasms that stand between us today and water security today and tomorrow. As we look across them we must ask ourselves: where must we build these all-important spans? And what are the suspensions we need to support essential spans?

First we must look for signs and portents: on the Victory Gate in Fatepur in India it is written

“The World is merely a bridge. Ye are to pass over it, and not to build your dwellings upon it.”

If the World is itself a bridge, we should be able to find our spans – and our suspensions.

First chasm: water for people’s food or water for people?
Most of us know at least parts of the story here – this abyss has three particularly deep gorges within it.

First, population growth. Although the rate of population growth has slowed dramatically, the rapid growth of the last few generations means that the momentum of this growth will continue, and we will add another 2 billion to the population of this world by the mid point
of the next century. While world population was trebling, water use increased by more than six times. Experts now see a leveling off at 9 billion population around 2070. Change here has been dramatic. Following unprecedented growth that at one point was adding close to a billion per decade, in the past 30 years, family sizes have dropped from over 6 children to below 3. This has not happened in the areas of deepest continuing poverty, continuing food shortage – and very little education for girls.

As a subtheme of population growth, we know that urbanization will continue at a pace faster than overall population growth. In many countries rural population decline will begin or accelerate. Within decades, most poverty will be urban poverty. And a dramatic manifestation of that poverty will be water shortage in cities, and increasing crises in quality and quantity. The decline of health for urban children is already measurable. Where will we find water for these cities, many already short of drinking water?

_The second is the deep gorge of malnutrition and poverty._ There are still about 800 million people living with malnourishment. This happens in a world that produces close to 3,000 calories per person per day. What do we know about these people? They are poor. And where once we thought that increasing food availability was the answer to malnourishment – and it helps – we now know that increasing the income of poor people is even more essential. This means that those living in rural areas must be able to grow food and sell it. These poor are definitely within the billion people who live on less than $1.00 a day; they live in areas where population growth continues to be high, and there is a high crossover with an absence of education for girls.

_Beside the third gorge are two large notice boards, the first reading:_ _This water is needed for more food production for more people:_ the other says simply _This water is needed for people._ Again, the story is a familiar one. Although less than one fifth of the world’s agricultural production is irrigated, that 17% produces 40% of the world’s food. The time-honoured formula says more people = more food needed = more irrigation. To feed these burgeoning cities, we will need more food – does this mean more irrigation? And will the cities be in conflict with the land to find it. And why do we find no sign saying _This water is needed for our ecosystem?_ Climate change will in all likelihood intensify all of these problems – not because the predicted warming necessarily diminishes the amount of food the world can produce, but because the poorest people – and it is being poor that is the fundamental precondition for malnutrition – live in many of the areas likely to feel the increasing impact of drought and increased temperatures. Of the close to 50 countries that are now short of water or will be by 2025, 40 are in the Middle East and North Africa or in sub-Saharan Africa.

If the rural populations in these countries have even less water for their livelihood than is now the case, how can they grow? If they cannot grow, how can they earn? If they cannot earn, how can they buy? _The World Water Forum in Kyoto in 2003 will highlight climate change and its implication for water management; important meetings at this session in which GWP will play a major role will set that exercise on its course._

Some of the facts and figures behind these three interlinked phenomena are very sobering indeed:

- Slightly more than half of available freshwater supplies are now used for human purposes, and world water demand is doubling every 20 years – about 70% in aggregate for agricultural use.
- 25% of India’s agricultural production comes from water sources not sustainable over the long term.
Building the first span

We must continue and enforce the priority for girls’ education particularly at the primary level. There is no other tool that has proven results in: food production, community level income, fertility decline, later age of marriage – all of these simultaneously. Where girls are not being educated, not a lot of good things are going to happen – in food, in population – and probably in water management.

Since I appear before you as Chair of the Global Water Partnership, you will not be surprised if I state that integrated water resource management is also essential to bridging this particular chasm. And just to remind you, integrated water resource management is that process which:

…promotes the coordinated development and management of water, land and related resources in order to maximize the resultant economic and social welfare in an equitable manner without compromising the sustainability of vital ecosystems.

The first principle of integrated water management is that users of the resource come together to share information, understand data and solve problems. In practical terms, this means that our agricultural users of water have to sit down now and talk business with other current and potential users. Absolutely no useful purpose is served by characterizing irrigation as one of the enemies or obstacles to finding solutions to water problems. The task is to “reinvent irrigation for the 21st century”, grounding this process in an appreciation of both the benefits and costs of irrigation systems to date, and the development, dissemination and working through of new options revealed by research, by comparisons of global experience.

There is a wide technology gap between required irrigation practices for wheat, barley, corn, cotton, sugar beet, potatoes and tomatoes and actual water application in most areas. Improved water use efficiency means high potential water savings. And we are going to need this, as the “free ride” we have had while we have depleted groundwater resources comes to its inevitable end.

The objective must be that each cubic metre of water should be applied at the right time – efficiency comes by applying even a small amount of water to alleviate severe moisture stress during the most sensitive stages of crop growth and seed filling – applying before stress affects plants’ yield potential. As Malin Falkenmark so lucidly reminds us, agriculture is very much a matter of making the best use of the “green water” of rain, as much as the “blue water” of rivers and groundwater.

New technology can and will help in this process. There are many new and exciting techniques we can use to help us make water go further:

- Watershed modeling.
- Integrating simulation techniques with GIS projections.
- Maps and graphs for natural resource impact.
- Daily temperature data, soil and land management data collected from meteorological data.
- Satellite imagery.
- Surface flow processes, erosion, nutrient transport, grazing effects, yields.

The evidence that these techniques can work is provided in compelling figures; let me quote some from the work of ICARDA (International Center for Agricultural Research in the Dry Areas) as I am proud to be a director of ICARDA and it has special expertise in the area most likely to be most affected by climate change.

- A 50% decrease in irrigation water use in the ICARDA area for wheat irrigation gives only 10–20% loss in cereal production.
- Winter sowing of cereals reduces water needs – ICARDA has found that lentil and chickpea yields are doubled if they are planted earlier to catch the Mediterranean rain.
• Water harvesting yields small and big miracles – in India and around the world.
• New drought tolerant cultivars offer huge potential for improved yield in dry conditions.
• Improved forage crops – it is estimated that if 70% of the 30 M hectares of land left fallow in CWANA (Central and West Asia and North Africa) every year could be sown to forage legumes, that this would produce enough feed for 80 million sheep, and could increase the nitrogen fixed by 1.4 M tonnes.

We can find “new” water for food if we redirect research priorities and put in place effective regulatory frameworks.
• Water harvesting.
• Brackish water.
• Treated effluent – the issue here is how much treatment? But this has to be one of the most exciting potential areas for “finding” water as each 100 cubic metre increase in a city results in 70 cubic metres wastewater production, and at the present only 500,000 hectares of cropland worldwide is treated by municipal wastewater.

It is highly appropriate and very welcome that the 2001 Water Prize will be awarded to Professor Takashi Asano of the University of California at Davis for his outstanding work in wastewater reclamation, recycling and reuse. We need both his work on theoretical developments and his advice on practical research. And we need to join him in the task of worldwide adaptation and promotion of these findings.

In this third gorge, there are two sets of voices not yet well enough represented in dialogue about the food and people and water debate: the poor and the ecosystem. As we go forward to find the water saving benefits of new improvements to our irrigation methods, we also need some real knowledge on:
• How irrigation schemes have affected poorest farmers.
• Innovative capital/financing schemes – do they exist? Have they worked?
• Particular obstacles facing women agriculturalists.
• Groundwater access for poor – new technologies.
• In other words, improved on-farm production practices, developed in collaboration with farmers.

Finally, sometimes the only bridge across this gorge will come through allocation decisions. Pragmatic but sometimes difficult steps can lead to dramatic consequences
• Jordan – a 5% transfer from agricultural use would increase domestic supplies by 15%.
• Morocco – where 92% of water is used for agriculture, a 5% diversion would effectively double the supplies in the domestic sector.
• San Diego and Imperial Valley accord sees the municipality pay for water that allows investment in improved irrigation facilities. The water used in Imperial Valley agricultural use would provide for domestic use for 12 million people.
• Costa de Hermosilla in Mexico – proposals to improve the agricultural use pattern could avoid the need for a desalination plant (100 km from coastline).

We must build better bridges now between the agricultural research community and the water community, and link them both so that climate changes can be anticipated, made known, and as far as possible alleviated. This work is beginning. The Consultative Group of International Agricultural Research Institutes is beginning to examine how they will respond to climate change. Improved on-farm production practices are being developed in collaboration with farmers. And this World Water Week in Stockholm will see the important launch of a Dialogue on Water, Food and Environment – a partnership arrangement that GWP is proud to be part of with the International Water Management Institute (IWMI) and many other partners. The purpose of this dialogue is to apply integrated water resource management principles and techniques to exactly these issues – and to provide global guid-
ance on how to balance agriculture and ecosystem needs. All of the players will be called to
the table. All of them will be needed.

**Second chasm: finding the financing**
The World Water Commission, on which I served, reported to the Hague Ministerial
Conference last year that while $70 billion dollars are currently being spent on water
management, $170 billion per year is needed to be spent if the world is to address the
problem of 1.2 billion without water access, 2 billion without sewage AND to take on some
of the environmental damage.

It is estimated that the total of developing countries’ investment in all infrastructure is
about 4% of their combined GDP (Briscoe, 1998). In 1996, this was equivalent to some
US$ 230 billion. It is estimated by the World Bank that total investment in water and sanita-
tion is around US$30 billion per year, averaging about 0.5% of GDP, the remainder of the
$70 billion in water investment going to hydropower and irrigation.

The level of wastewater treatment in developing countries is relatively low, with proba-
bly no more than 10% of urban discharges undergoing treatment, and the level of invest-
ment in new sanitation also very low, probably no more than US$1.5 to 2.5 billion per year,

In the decade of the 1990s, the private sector invested about $600 billion in close to
2,000 infrastructure projects in the developing world – or 3.5 times the World Bank total
lending. Very little of this amount went to water projects.

Total investment in water infrastructure of all types is outlined in Table 1.

Where does the investment come from? Again, for water supply and sanitation services
the domestic public sector contributes by far the most at about $20 billion (bn) (67%), the
domestic private sector only about $2 bn (7%), donors contribute some $3.7 bn/yr (13%)
and the international private sector some $3.7 bn (13%). Governments are thus by far the
most significant investors in water supply and sanitation services. Although the period
1990–97 saw a significant increase in international private sector investment this was from
a very low base of about 8 contracts worth $8 bn (period 1980–89), to about 97 contracts
worth some $25 bn (period 1990–97). Most of this was for concessions or management
contracts in a few countries mainly in large urban centres in Latin America and the Far East.
It is still a small part of the total for water supply and sanitation.
• World Bank lending is not increasing in this sector, reflecting decreased demand by bor-
rowers and Bank program diversification.
• Export Credit financing has declined perceptibly, particularly given the controversy
over dams.
• Public financing is under new pressure with globalization.
This is a deep chasm indeed. Can we build a bridge here?

**Table 1 Investment in water infrastructure in developing
countries in 1996 (amounts in /billion) US$**

<table>
<thead>
<tr>
<th>Sector</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Irrigation and drainage</td>
<td>30–35</td>
</tr>
<tr>
<td>Water and sanitation</td>
<td>30</td>
</tr>
<tr>
<td>Hydropower</td>
<td>11–19</td>
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<tr>
<td>Other</td>
<td>??</td>
</tr>
<tr>
<td>Total</td>
<td>Estimate 70–80</td>
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</tbody>
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Source: Author’s analysis and from Briscoe (1998)
Building the financial span – new solutions

Building this span over this chasm will take three important components. *First, community energy and dedication* is one of the great underused resources which can be mobilized to meet these water supply and sanitation needs. The Vision 21 exercise of the Water Supply and Sanitation Collaborative Council has given us roadmaps and examples and suggested that a great deal of this gap could be filled for relatively small amounts IF the world were serious about community mobilization.

The examples are there, and they are not sufficiently built upon.
• Governments must seek out, offer financing and support these efforts.
• If they cannot do so with existing Government departments, special national commissions must be created. Something must be done NOW. It is not sufficient that national plans exist if there is absolutely no possibility of those plans being financed by the tax base, borrowing or donor funds. Examples must be studied and emulated, e.g. Orangi and Gilgit.

*Second, the energies of the private sector* need to be harnessed where this can be done and where there is an appropriate regulatory climate. We know this can work for middle class areas – but what about the poor?

A World Bank finding:
“The reality is that the private sector has the capacity and the interest to serve the poor, is willing to experiment with low cost options, and different levels of service, and with greater efficiency can benefit all consumers”.

It is particularly noteworthy that these can and do involve NGOs, community and neighborhood groups as well as the concessionaires.

Experience has taught that there are necessary preconditions for success:
• Structures must be created and accompanied by a continuous and focused consultation process.
• Capacity building among elected representatives and civil society is needed in order to fashion and conduct a constructive debate on the issues.
• Returns to the private sector, in the form of profits, need to be discussed – what is an acceptable rate of return, and the best way to measure it and regulate it.
• Quality and reliable information must be available and its availability specified.
• Consumers must be informed about the inefficiencies and high costs of the current system.
• Privatization cannot be undertaken without reform, where reform of the tariff structure is needed.
• For the poor, affordability of access safeguarded is probably more important than the tariff.
• Transparency, transparency, transparency.

*Third, we desperately need new and innovative financing mechanisms.* The infrastructure needs of the developing world will amount to trillions of dollars in the next decades, and public institutions – whether governments or offshore donors – will not be able to produce the needed funding. It is laudable and essential that international financial institutions have diversified their portfolios into social and sectoral lending. But this intensifies the gap between the needed infrastructure and the ability of international banks to finance these.

As noted above, in the decade of the 1990s, the private sector invested about $600 bn in close to 2,000 infrastructure projects in the developing world – or 3.5 times the World Bank total lending. Not enough of this went to water projects. Why? What has to change within the water sector to attract a bigger share of this capital? Might we build on the fact that each
of us uses water every day, and that at least in some parts of the world, there is a growing realization that we must each contribute to the costs of bringing that water to our taps, our doorstep, our standpipe, our irrigation ditches?

We must find ways now and urgently to involve global capital markets. The international financial institutions must continue their essential role. But there may well be a role for commercial banks in analyzing and structuring the risk. There is a role for new instruments to secure the needed loans. Would it be possible to find a way for commercial banks to assist in this infrastructure financing, without taking on permanent assets on bank balance sheets, in order to be able to obtain fresh money for new infrastructure projects? Private banks have expertise, rather than the investor, in the service role of ensuring that the infrastructure project is realized. This expertise must be much more involved. This could also reduce borrowing costs for developing countries – given the 3% margin currently demanded for investment in many developing countries vis a vis 1% expected in countries with more sound legal frameworks.

Water organizations are preoccupied with this search for new financial mechanisms. Very soon we in the GWP hope to announce with the World Water Council and the organizers of the Kyoto Forum that important steps will be taken to answer some of these questions.

Chasm three: widest and deepest of all: changing the way we manage water

Water governance today in most countries tends to reflect age-old religious, social and ethical views including:

- The best way to guarantee that all have water is to provide it free of charge.
- There must be primacy of private property rights.
- Man’s role is to be the master of nature.
- Nature always restores itself.
- Constant economic growth and industrial expansion will bring general good.
- All nations must grow their own food.
- Water expertise is best held in sectoral ministries
- Governments know best and can be trusted to act in the best interest of all.
- Governments should themselves deliver water to their citizens.

These precepts served some handsomely. But they no longer serve the water world well. In fact, the growing consensus among those who study water and work in the field runs in quite other directions from the traditional.

- Governments may not be the best managers of water delivery; once public authorities have established the policy and regulatory framework, the private sector may have a role that improves overall performance markedly – even for poor people.
- And what does this mean?
  - We must reform and develop institutional frameworks, and build capacities in these institutions: governments must become effective regulators by tackling the weak institutional and legal structures in many countries.
  - We must realign economic and financial practices: water pricing mechanisms – whether to charge, what to charge and how to charge – have to be worked out and the role of the private sector and water markets determined.
  - Governments are the ultimate authority but people need a much stronger voice in deciding about water use – and unless the voices of all who use and are affected by water use are heard, the right solutions are unlikely to emerge.
- And what does this mean?
  - We must devolve responsibilities to water users: reforming and increasing the capacity of government structures to manage water sustainably, and involve communities in the decision making process.
• Constant economic growth, where not accompanied by appropriate pollution regulation and enforcement has devastated water supplies, and imperiled rather than safeguarded the future.

• Nature can no longer restore itself – the disappearance of wetlands, and habitats and species attests to this fact. If humanity’s role is to be master of nature, we haven’t done well of late.

• And what does this mean?
  • We must balance the ecosystem approach with national water governance, i.e. allocate water between users and the ecosystems in an effort to achieve sustainable development and reduce poverty.
  • Not all nations can grow all of the food they need. Some will need to import this form of “virtual water”, and we need to rethink the trade regimes and guarantees that will ensure that this happens.
  • Poor people may well need subsidies to meet their water and sanitation and livelihood needs – but their drinking water and sanitation and livelihood needs for water will be better met when direct users, rather than the general taxpayers, pay the costs and maintenance of water systems and the associated resource costs – as quickly as possible incorporating an opportunity cost element and environmental costs too.

Building the third span

The Global Water Partnership is dedicated to tackling these huge issues – we work not through major projects or investments, or hierarchies, but through the force of ideas, concepts and organizational arrangements that respond to and accelerate change.

• We recognize that there is a wealth of experience worldwide in actions, investments, policies and approaches that can be used for improving water resource management, held variously by practitioners, policy makers, theorists, experts and users of water.

• We realize that not all these groups can be aware of all the options.

• We build and encourage regional and national structures to implement the concept.

• We make linkages between various national dialogues on water policy. The added value of GWP is in bringing together all stakeholders; NGOs, academics, etc.

We have nine regions now and three more developing, each directed by part-time regional coordinators, in South East Asia, South Asia, Southern Africa, West Africa, Central Europe and the Mediterranean, Central and South America. Each region, to a greater or lesser extent, is working on four major thrusts that we see as the key to IWRM:

• Establishing partnerships and mobilizing political will.

• Building strategic partnerships for action.

• Promoting good practice in IWRM.

• Developing and promoting regional actions.

Together with our Associated Programs, autonomous organizations that address important cross-sector and IWRM issues, these regional offices and our HQ direct programs to:

• Establish – or push for – the creation and/or enforcement of appropriate water policies, laws and regulatory frameworks.

• Establish – or push for – proper institutional structures at the river basin and aquifer level, as the pertinent reference for IWRM, and reinforce their mandates and powers.

• Establish – or push for – participatory processes at all levels (national, basin or sub-basin, municipal, local community), that accept the sharing of power in the consultative and decision-making processes with all the stakeholders, including the people that are directly involved.

• Establish – or push for – more transparent arrangements for water allocation decision making between and within sectors.
• Establish – or push for – arrangements for improved and equitable service delivery by public and private operators.

• Establish – or push for – the realignment of economic and financial practices with appropriate mechanisms to ensure the provision of adequate services to the poor.

**Integrated Water Resources Management** is a process which promotes the coordinated development and management of water, land and related resources, in order to maximise the resulting economic and social welfare in an equitable manner without compromising the sustainability of vital ecosystems.

The IWRM toolbox represents an important step in building a network of information and ideas for strengthening a global movement towards IWRM. The aim of the toolbox is to bring together this global experience into an accessible and helpful compendium of options, to support the practical and effective development of IWRM:

• The enabling environment – the general framework of national policies, legislation, regulations and information for water resource managers.

• The institutional roles and functions of various administrative levels and stakeholders.

• The management instruments – or tools – which are needed for effective regulation, monitoring and enforcement.

This toolbox offers a listing of policies and actions that can be taken within this broad framework. Most importantly it shows where these tools have been used, and builds on the global experience.

The toolbox is not prescriptive; it does not say this action will achieve this result – and should therefore be implemented widely. What is does say is – here are various things which can be done, and this is where they have worked, and these are some of the things to be aware of in using these tools. Some of the exciting examples we hope to include soon will describe the new laws to clean up water – Brazil, new water for irrigation laws and regulations in Syria, the laws on water pricing – Chile, the management regimes of water basins – Murray Darling, and the collaborative arrangements beginning with the Nile and other basin arrangements. We will talk about building in disaster prevention into governance mechanisms, and prevention techniques in the Rhone, India, Mozambique.

**Suspensions**

Bridges may have trestles and caissons, supports and buttresses. But major bridges that cover long distances, in other words, really important spans, can only be achieved by the technique of suspension. Anyone who lives near a major suspension bridge and has had the opportunity to learn how it was put together knows that the strength comes from the process of weaving together many many lesser strands into the major cables that actually allow the suspension process.

It is a nice trick of the English language that among the other meanings of the word suspension is the idea of setting aside, holding back or stopping something, which would otherwise go forward. We say we are willing to suspend our lack of belief, we suspend a penalty or sanction, and we create a suspense account for that which we are willing to hold in abeyance. There are some very important beliefs and practices which must be suspended and put aside if we are to build the cables which will give the strong supports we need for these major spans.

**First essential suspension: we must suspend the belief that we can continue as we have**

Water tables are declining; many rivers no longer reach the sea. More than 1 bn people do not have consistent access to freshwater and more than twice that number lack access to sanitation. Freshwater aquatic species are in peril. Deltas and wetlands are disappearing.
Aquifer water levels are falling. Water quality everywhere is in decline, nowhere more so than in the burgeoning cities of the developing world where the major part of the world’s population will live after the first decade of the 21st century.

**Second essential suspension: we must eliminate rigidities and allow new roles and new accountabilities to emerge in the water sector**

Civil society must be at the table:
- To establish an enlightened social dialogue on the different issues associated with water projects including aspects of equity and water pricing.
- To facilitate dialogue on the different options – their costs and their benefits.
- To serve as an effective watch group for water resources development and management and thereby indirectly enforce social accountability for such projects.
- To do that which we all have such difficulty doing: organizing women at the grass root level for the activities associated with watershed development programmes or for water management on the farms.

Professional associations have a key role:
- Voluntary professional associations at the national and international level.
- We need to build on such mechanisms as the environmental checklist for irrigation development projects which was developed by the international commission on irrigation and drainage (ICID) and which has found a very wide application.

The private sector must be made more welcome:
- We need their technology and their increased efficiency.
- We need to harness tools such as triple bottom line reporting so that companies can be – and be seen to be – effective integrated water resource managers.
- The ten commandments of good water practice for professionals must become global.

**Our third and most important suspension – suspending the habits that are destroying our water systems**

No matter what our ideological viewpoint on who should pay them, let us acknowledge together that there are costs involved in the supply and use of water, and let us be transparent about what those costs are so that we begin the task of finding out how to meet them.

Let us acknowledge that there are costs:
- Let us tackle head on the question of how cost recovery should apply (household level, city level, metropolitan area level, economic sector or national level)?
- What is the desirable field of cross subsidies among water users? The response may be different for drinking water, waste water or irrigation.

Let us suspend the habit of moving without involving the populations that will be affected – it is shortsighted and ultimately more costly to do so. New techniques exist for:
- Stakeholder analysis, meeting the European treaty requirements, community water management – decision making. There are water users’ associations, on-farm research – and participatory devices to find alternative water uses.
- We must involve people in development of technologies, not just testing.

Let us suspend our tolerance of pollution:
- Let us be against pollution, from any sector – let us agitate together against the conditions which allow it and work together to clean it up.

Let us begin to work on water basin management:
- Where no structures exist, let us advocate for these – from the private, the NGO or the public sector.
- Let us create even the simplest annual consultations on what is happening in and around a river – from this small beginning great things can grow.
Let us suspend our habits of passing judgment – let us above all move judgment about process to judgment about outcome.

- Let us be against badly planned, badly executed water storage systems that trample on the rights of others – not against dams.
- Let us be against thoughtless use of water for any purpose – not against irrigation.

Let us suspend our tolerance of corruption and be implacably opposed to corruption in the water sector:

- Let us not battle about whether the private or public sector is more or less corrupt.
- Let us put these energies into fighting corruption. It has been done in other sectors. It must be done here.

Let us be determined that poor people will have access to water and sanitation:

- Let us not battle about who delivers these services but let us hold systems accountable now for creating the environment, finding the investment, putting in place the arrangements to deliver this water now.

Let us work together – private and civil society and public authorities – for transparent accountability and better regulation – in every system, public, private or civil society. Our task is Herculean, but the very urgency of current and looming water crises gives us the opening to build these spans, and weave these suspensions.

John O’Reilly in *A Builder’s Lesson* gives us a poetic description of the process of crossing these chasms – let us end with his thought:

First across the gulf we cast
Kite borne threads, till lines are passed
And habit builds the bridge at last

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