OUTSIDE THE WATER BOX

A report for the UN World Water Assessment Programme

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revised based on comments by UN-Water members and partners.

INTRODUCTION

The purpose of this assignment was to:

1. Conduct research on on-going processes and events of global/regional significance with a view to their impacts and interactions with water; identify those aspects/phases/organs relevant to water; suggest strategic partnerships and areas and methods of intervention for the UN system in general (with a focus on UN-Water and its programmes) and for the World Water Assessment Programme (WWAP) in particular.
2. Compile and classify the findings.
3. Identify priorities within each classification, including adequate descriptions of each element's relevance and significance.
4. Elaborate on those found worthwhile of or open to advancement, interaction, participation or partnership.
5. Suggest concrete, specific interventions as well as broader general recommendations.

The assignment was extremely wide in scope. The questions basically suggested an analysis of whatever is going on in the world outside the direct control of water managers – as symbolised in the now-famous illustration from the World Water Development Report 3 (WWDR3), reproduced below. Because of the limited means available, the objective had to be restricted in order to achieve any practical results.

As a result, the current document outlines an expert opinion on some of the major processes with which UN-Water, and especially WWAP, might be involved. This opinion is obviously coloured by the prejudices of the author. Therefore it might be more important to consider the first suggestion formulated below, which concerns the more active involvement of UN-Water. As a first step, the comments of UN-Water members on this document could provide an insight to processes in which the collective input of UN-Water and WWAP might offer added value.

A few words on the way this project was carried out. The potential usefulness of preparing such a report was first suggested during World Water Week in 2009. UN-Water made an initial call for input, although the response was not strong. Subsequently, an attempt was made to understand what the global agenda consisted of at that time. It was immediately obvious that this is indeed an area in which informed selection is essential. Rather than starting from the deluge of regular and upcoming events, seminars, conferences, workshops, meetings and webinars, an estimation was made of the most pressing subjects, drawing from stakeholder and expert input and consultations during preparation of the WWDR3 and the WWDR4.

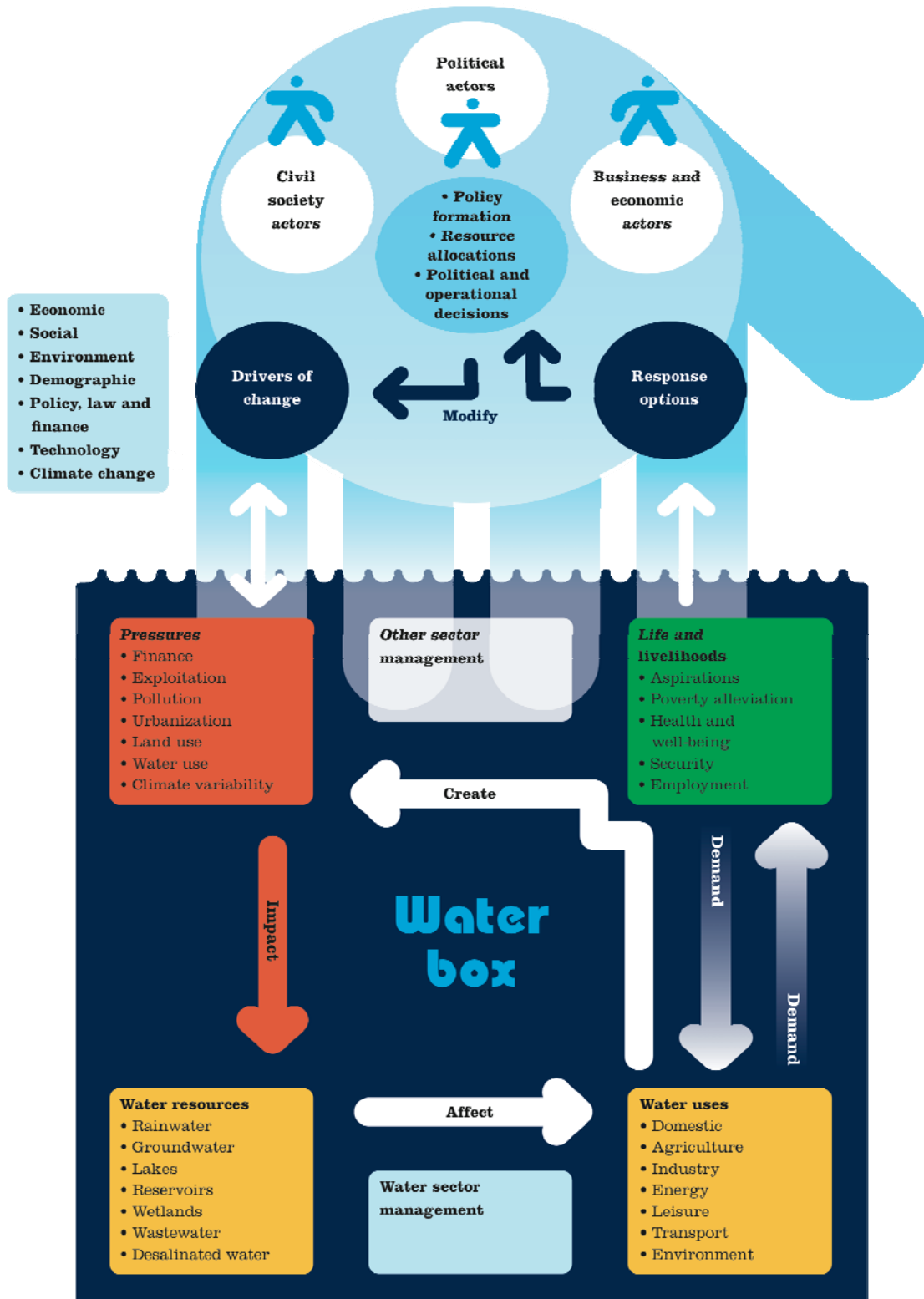This lead to the following list of core subjects:

- climate change
- agriculture
- trade
- energy
- risk
- global development agenda
- information & reporting
- ethics
- economics

Gender is an important cross-cutting theme and all of these subjects include a strong gender dimension. Gender mainstreaming must be recognized as essential in all of the actions and policy recommendations of UN-Water and WWAP.

In the text below suggestions are made on the involvement of UN-Water and especially WWAP in events and processes within these subject areas.

The report begins with three fundamental 'process' issues observed in the course of this study: the role of UN-Water in informing the non-'water box' processes, the selection of actors involved in the process, and the choices (implicit or explicit) in ethical dilemmas. After this 'process part' the key-topics mentioned above are discussed in some detail.

DECISION-MAKING AFFECTING WATER

Political actors

Civil society actors

• Policy formation
• Resource allocations
• Political and operational decisions

Business and economic actors

• Economic
• Social
• Environment
• Demographic
• Policy, law and finance
• Technology
• Climate change

Drivers of change

Modify

Response options

Pressures
• Finance
• Exploitation
• Pollution
• Urbanization
• Land use
• Water use
• Climate variability

Other sector management

Life and livelihoods
• Aspirations
• Poverty alleviation
• Health and well-being
• Security
• Employment

Create

Demand

Demand

Impact

Water box

Water resources
• Rainwater
• Groundwater
• Lakes
• Reservoirs
• Wetlands
• Wastewater
• Desalinated water

Water sector management

Affect

Water uses
• Domestic
• Agriculture
• Industry
• Energy
• Leisure
• Transport
• Environment

UN-Water & WWAP

Making an analysis of all relevant processes outside the 'water box' is not only a large task, maintaining it is also a permanent activity. However, establishing an initial analysis is a good starting point for discussion. The next step is to repeat the exercise and involve others.

As Arie de Geus observed from his years as a manager at Royal Dutch Shell, the board of directors was in fact a highly qualified learning structure. The members of the board did not have all the answers, but together they were able to formulate very good questions, and to process the answers they received. UN-Water and the World Water Assessment Programme (WWAP) could potentially function in a similar way: working together to learn more about the role of the medium (water) that brings them together.

WWAP does not have the capacity to work independently across all areas of the large agenda it has to cover. The mechanism that was created for this broader task is UN-Water. This means that the processes WWAP chooses to influence directly should be those with the greatest possible leverage.

The bulk of WWAP's actions will be focussed on its core activities, with only a very limited part devoted to involvement in other processes.

The aim of this document is to identify what those important external processes are and how WWAP can best become involved in them. Even in the programme's core tasks there is a major involvement of outside capacity. Organizations that see the importance of contributing to the World Water Development Report (WWDR) volunteer staff, time and information to its production process. The members of UN-Water take an especially active role in developing the triennial report.

But when we take a closer look at these UN-Water members, something interesting draws our attention: most, if not all, of the sectors outside the 'water box' that influence processes within the box are represented in UN-Water. UN-Water itself in fact embodies a sort of Integrated Water Resources Management (IWRM) at the global level: this is where the integration of information and strategies that are linked to water could take place.

The added value of WWAP / UN-Water informing processes outside the 'water box' is perhaps not yet acknowledged sufficiently as a collective asset by the members of UN-Water. It has, however, great potential, when used wisely.

Each of the 27 organizations that make up UN-Water will be aware of the key processes and events happening or planned in their particular field. The 'water-person' within each organization is best placed to evaluate whether water is an important issue (whether directly or indirectly). If it is, this person can notify UN-Water and WWAP and together establish how they might inform the process in relation to water concerns. This would not only be the cheapest and fastest way to work, it would also reinforce the functioning of UN-Water and harmonize the approach of United Nations organizations to water issues and related concerns.

The decision on the actual informational route to take is probably best made on a case-by-case basis. In large organizations, it may be an advantage to take a shortcut through UN-Water or WWAP, if an internal route would be too long. In cases involving smaller member organizations, however, the extra cloud of that organization taking the floor for water might help the cause. Combinations of arguments can also be used.

As a structure of the major UN organizations, UN-Water can also mobilize international attention that is hard to match.

Members of UN-Water are actively involved in developing each WWDR; they should also be part of the advocacy process that is linked to this shared report. The continuous process of producing the next WWDR is a good way of maintaining a productive relationship among these institutions, provided that all members of UN-Water are part of the production process. This active involvement is an essential element of their link with WWAP and UN-Water. WWAP should do its utmost to secure the active participation of each member of UN-Water in the production of the next WWDR.

But all this requires a shared understanding of the role of UN-Water. It is likely that this role can only be successfully assumed if UN-Water shows the kind of 'servant leadership' that allows member organizations to be at the forefront of attention, with UN-Water helping to integrate and coordinate their efforts, especially in relation to the overarching issues. From an operational point of view, the most logical step in this reasoning is to combine WWAP and the UN-Water secretariat.

Recommendations:

1/ It is recommended that the following steps are taken to mobilize UN-Water to inform the 'out-of-the-water-box' processes:

- Agree with members on roles and processes.
- Involve strategic partners of UN-Water to represent major groups and to ensure that information reflects the reality on the ground, to bridge the gap between abstract policy-making and practice.
- Carry out a first round of analysis, maybe using this report as a starting point.
- Carry out periodic update reviews (every six months, for example), organized by UN-Water and/or WWAP.
- Create a blog or message board to provide regular (perhaps bi-monthly?) summaries and send regular alert messages on its contents to UN-Water members. This would stimulate and activate networks and increase participation of all parties involved, and enhance information exchanges by creating a dynamic process. Moreover, it would provide an excellent instrument with which to analyse the evolving process for future learning.

2/ To improve its effectiveness, UN Water should be informed by experts on the ground or people with first-hand experience, to better understand the challenges of those affected by a lack of water and/or sanitation.

3/ The decision on the actual route of informing the process is probably best taken on a case-by-case basis. In large organizations it may be an advantage to take a shortcut through UN-Water / WWAP. In cases involving a smaller member-organization, the extra cloud of that organization taking the floor for water can help the cause. Mixes of arguments can be used.

4/ WWAP should seek the participation of all UN-Water members in producing the next WWDR.

5/ Consider combining WWAP with the UN-Water secretariat to maximize the use of resources and to work in an integrated way with other organizations, in order to cut across issues and regions and become an influential reference point for water managers across the world.

KNOWLEDGE NETWORKS

In its work, the WWAP depends to a very large extent on its networks. These networks are the consequence of people that are actively involved in the centre of UN-Water and more specifically the WWAP (secretariat, key advisors).

As much as the earlier points have been made where it comes to linking sectors and (UN) organizations, there is also a need to have a representation of regions. A look at those taking part in the strategy meetings of WWAP justify the thesis that people involved in WWAP do not represent the people or the regions that are most affected, unless water recently started to affect the lives of elderly white men from Europe, South Africa and North America in a big way.

WWAP should actively seek people from Asia, Africa, South and Central America and Oceania in its strategic processes and in its activities. This will lead to other networks being part of the work of WWAP, and it will eventually change WWAP.

Recommendations
- Seek a much larger participation of persons from the south, preferably in a leading role, in WWAP and in UN-Water;
- Involve Major Groups that know the real impact/result on the ground, which factors work, and the influence of local socio-cultural conditions;
- Create Regional Task Forces to provide the space for discussion;
- Use exiting networks of UN-Water members and partners at all levels [GWA has over 10 years of experience in collecting, exchange and analysis of knowledge, particularly from Asia, Africa, The Middle East, South and Central America and Oceania, through its membership network];
- Create 'in-crowds' with rotating representation of members, partners, experts and all Major Groups.

ETHICS

The various sector-linked organizations of the UN are each developing their own answers to the combination of crises linking them to water. But the more integrated picture that emerges through UN-Water and the WWAP is not only confronting these answers with each other, it also reveals an increasing amount of ethical dilemmas, with water as a linking element. With an ever-increasing pressure on the limited resource 'water', these dilemmas are becoming increasingly important in more and more places.

The ethical questions that come up circle around a number of themes[1]:
- Anthropocentrism vs. Non-Anthropocentrism; do lakes, rivers or the oceans have a value in-and-of-themselves outside of human use?
- Responsibility to Natural Systems; does it make sense to speak of a responsibility to a natural system; to protect it in some way for its uniqueness, its integrity, or its value to species other than humans? How would such responsibility be defined?
- Cross Cultural Environmental Equity; what ethical considerations are at stake when water crosses national boundaries? What international treaties or agreements give consideration to cross-cultural needs and responsibilities of water systems? How do we protect water contamination across national boundaries?
- Intergenerational Equity; what responsibility do we have to future generations for water source and quality protection?
- Gender equality and equity;
- Representation of vulnerable groups and minorities;
- Social Risk Management; what is acceptable risk of water contamination, flood protection, drought provisions? What evidence is sufficient to restrict contaminants in the water supply? The <u>amount</u> of health and ecological risk of water contamination, floods and droughts is a scientific question; what constitutes <u>acceptable</u> risk is a value question.

Ethical dilemmas do not have one answer. They require an ongoing dialogue of key actors to discuss and reflect on necessary choices. The 'Global IWRM' character of UN-Water and the WWAP quite naturally puts them in the driving seat for organizing the debates around these dilemmas: they have the overview and the convening power.

Not organizing the debates is likely to result in strong criticism from those linked to the affected interests. But organizing the debate is likely to be complex too, and will probably result in pressure from the member organizations, since it is likely to affect their freedom to operate within their domain.

The outcomes of some ongoing processes can be used as a basis for these discussions. UNESCO has organised a process on ethics and water through the World Commission on the Ethics of Scientific Knowledge and Technology (COMEST).

Recommendation
This is an agenda where UN-Water can and should take the lead (and WWAP can support this) as the outcomes are the basis for the advice and decision processes they are involved in. The existing UNESCO COMEST process could be a start for working on issues in UN-Water.

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[1] After Sheldon Krinsby,

CLIMATE

The changing climate is obviously a major if not THE major point of attention. It will be linked to the monitoring activities of WWAP, as well as to the strategic advice given through briefs. In the recent climate negotiations in Copenhagen water was set aside as a sector. This is not acknowledging the role of water as a medium through which many of the climate related problems express themselves. Much more advocacy is needed to get its importance acknowledged within the climate negotiations. This is important, because the increasing uncertainty requires monitoring at all levels to enable informed choices, and most likely the adaptation to a changing climate will require serious investments in infrastructure to increase the resilience of communities to deal with both droughts and floods. The 'global IWRM' aspect is expressed in this issue: water is in all major interventions, and should be acknowledged as such.

UN-Water has created a taskforce on climate change to acknowledge the importance of climate change. In preparation for the COP15 it brought out the following advice:

> *Adapting to increasing climate variability and change through better water management requires policy shifts and significant investments that should be guided by the following principles:*
> 1. *Mainstreaming adaptation within the broader development context;*
> 2. *Strengthening governance of water resources management and improving integration of land and water management;*
> 3. *Improving and sharing knowledge and information on climate, water and adaptation measures, and investing in comprehensive and sustainable data collection and monitoring systems;*
> 4. *Building long-term resilience through stronger institutions and water infrastructure, including well-functioning ecosystems;*
> 5. *Investing in cost-effective adaptive water management and technology transfer;*
> 6. *Releasing additional funds through increased national budgetary allocations and innovative funding mechanisms for adaptation through improved water management.*

> *The sense of urgency for climate change adaptation and the recognition of the centrality of water therein, have not yet permeated the political world and are not systematically reflected in national plans or international investment portfolios for adaptation.*
> *It is imperative for the Parties to the UNFCCC to recognize the pivotal role of water in adapting to climate change in order to increase resilience and achieve sustainable development.*

The WWDR4 will be published quite some time before the 5th IPCC report, and would be an opportunity for a UN overview of where we stand on such issues as the hydrological cycle. After the recent reported errors on glaciers, that should appear quite prominently as well, requiring preparations.

With uncertainty being at the heart of adaptation, and governance in uncertainty being the theme of the next WWDR, WWAP in coordination with the UN-Water and CC task force can take an important role being involved in the major pilots in climate change adaptation taking place, to be able to report about these pilots, and to inform these pilots. An example is the policy process in the Netherlands. Their policy approach to uncertainty could also serve as a model for developing countries. Another example is the quite advanced analysis of the adaptation by the agricultural

sector in South Africa. A third link here is the Strategic Environmental Assessment (SEA) approach, which is now recognised as one of the strong decision support tools for integrating climate risk in national policy planning. There is a SEA task-team, hosted by OECD-DAC that has many partners working together (http://www.seataskteam.net/).

Financing mechanisms are being developed for climate change adaptation. WWAP should be there to inform the process about the need for monitoring in any programme, and to inform the process about the need for infrastructure (the UN general secretary's High Level Advisory Group on Climate Change Financing, the Climate Investment Funds (CIF), GEF, REDD). WWAP and UN-Water have a role there, most prominently in arguing for an investment in monitoring and data-management, and in arguing for developing governance capacity around uncertainty.

With huge investments needed in times of limited budgets, there needs to be clarity on reporting on results. The current discussion on 'climate-gate' illustrates the vulnerability of the topic. This also comes back to WWAP: being the UN assessment programme of the worlds' waters it should be part of the discussion on the standards for reporting on the worlds' water resources, if not the institution setting those standards.

Major coming events:
Meetings UNFCCC:
   This is an intensive process with an agenda that is likely to change regularly (check: http://unfccc.int/meetings/items/2654.php)
Meetings Climate Investment Funds (CIF):
   22-24 June 2010, subcommittee meeting, Washington (http://www.climateinvestmentfunds.org/cif/june_meeting_sched)
   8-12 November 2010 Trust Fund Committee and Sub Committee Meetings (http://www.climateinvestmentfunds.org/cif/november_mtgs_2010)

Recommendations
   - Through the Climate Change task force and through the UNFCCC, UNEP and WMO there is a direct link to the climate policy process. Through almost all other members there is a link to specific parts of the link between water and climate change. These links should be used.
   - Work with Major Groups working on adaptation measures.
   - Engage in climate change negotiations (CC Task Force / UNFCCC).
      o *Message*: get water in the middle again. Water is a medium, not a sector. The majority of climate problems are expressed through the change in the hydrological cycle.
      o *Message*: reporting on water as part of the climate-reporting is vital, an this requires investing in monitoring of the hydrological cycle and monitoring of water uses
      o *Message*: uncertainty needs to be introduced in water governance
      o *Message*: investments are needed to increase resilience to droughts and floods (for example storage)
   - Work with the IPCC on the 5th Assessment Report.
   - Provide case studies to showcase successful stories (or not) to policy and decision makers.
   - Improve the information on the quantity and quality of the resource, on the demand for water and the potential major impacts related to the risks and uncertainties of variability in supply.
   - Be involved in the Netherlands climate adaptation process: to be part of a full scale pilot that will be a much referred example in the near future

- Be involved in the CIF process
    - *Message*: reporting on water as part of the climate-reporting is vital, an this requires investing in monitoring of the hydrological cycle and monitoring of water uses
- Be part of the upcoming GEF strategy-meeting in South America.
    - *Message*: make sure they get the factors right on projects / monitoring / analysis
- Be part of the REDD process
    - *Message*: reporting on water as part of the climate-reporting is vital, an this requires investing in monitoring of the hydrological cycle and monitoring of water uses
- Join the SEA task-team hosted by OECD DAC

AGRICULTURE

Globally the single biggest sector in water use, it is under extreme pressure for a host of reasons: food-security, bio-energy, land-degradation, rural poverty, lack of infrastructure etc. For good reasons there is a renewed interest from many parts of the international community for agriculture.
There are a few logical entry points to the sector: trade (WTO), innovation (CGIAR, new research programme) and financing (development banks, insurance companies, donors).

Innovation in many directions is needed. Just in food there is a doubling of production needed by 2050. The CGIAR is currently formulating its agenda for the agricultural research under its guidance and/or finance. WWAP should seek collaboration with the consortium board of the CGIAR.

Trade regulation is crucial for agricultural development (see: TRADE).

Financing agriculture is quickly getting back on the top of the development agenda, as illustrated by the choices made by some key donors (the US and the BMGF) and an alarming report from Worldbank (World Development Report, 2008).

The World Committee on Food Security has been proposed at the G8 to be revitalised[2], with an expert group advising them. UN-Water / WWAP in coordination with FAO and IFAD could consider being part of this.

Recommendations
- Through FAO and IFAD there is a direct and permanent link to all parts of agriculture. Use those links.
- Inform the CGIAR agenda process (consortium board), to steer the agricultural research agenda. They expressed their interest in partnerships and global structures. First contacts were created.
    - *Message*: water conservation through farming systems, farming methods, choice of crops and new varieties is the only sustainable way towards reaching the production goals. Extending resource use is not an option
- Be part of the WTO process (see below)
- Work with Local Authorities Major Group to put water central in 'out of the water box' processes. LAs are practical and sensitive to integrated approaches on for instance food security, water & sanitation, income generating and climate change adaptation.

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[2] Quote by UN sec gen advisor on food security David Nabarro, during GCARD meeting in Montpellier.

TRADE

World trade regulation affects the way water is used in the world. It affects both industrial and agricultural production. According to many, the key decisions affecting agriculture are taken at the World Trade Organization (WTO).

The WTO process is a complicated one. Apart from the ongoing regulation process, it also includes a major set of negotiations affecting developing countries: the Doha round (http://www.wto.org/english/thewto_e/whatis_e/tif_e/org2_e.htm). This process has already taken nine years.

A subject relevant to the governance of water resources and public services is the effect that international trade and investment agreements may have on national capacities to manage natural resources and to regulate public services. As a consequence of globalization, many public services are provided and water rights held by companies within foreign investment protection systems or special conflict resolution regimes, which means that external jurisdictions can intervene in local matters. These agreements, which override national laws, restrict the power of governments to act in the public interest and in that of local communities. The countries have yet to assess the consequences that international investment agreements may have on the economic, social and environmental sustainability and efficiency of natural resources utilization and provision of public services. Such an assessment is necessary when formulating public policies, adopting natural resources legislation and regulatory frameworks for public services, granting water rights and wastewater discharge permits, and entering into contracts related to economic activities in which water is an input or end product.

The WTO needs to consider the importance of the other two pillars of sustainable development (people and planet) and acknowledge that they are equal partner to the process of restoring the balance between the economic, social and ecological dimension of sustainable development of which the UN has laid the foundation.

The upcoming annual global report of the WTO will be called: Trade in Natural Resources: Challenges in Global Governance (due July 2010). The discussion forum of the report shows how interesting contributions can be generated through a global report (http://www.wto.org/english/res_e/publications_e/wtr10_e.htm)

Recommendations
- Explore the amount and hidden cost of water associated with every production process
- Inform the WTO process about water to influence trade negotiations.

ENERGY

Energy needs water and water needs energy.

Energy needs water and the demand for energy from whatever source can sometime leads to threats for water, be it the exploitation of tar-sands in Canada, the construction of nuclear power in all parts of the world, the increasing use of coal everywhere, the push towards bio-fuel or the construction of (large) dams for hydropower, the production of solar panels with steam, etc.

Water needs energy, for example thermal desalination and wastewater cleaning require energy and energy is needed for the pumping and transportation of water from increasingly deep or remote water sources.

Modernization of energy sources is a key development issue: roughly 3 billion people rely on biomass for cooking and heating [WWDR2], and about 1,5 billion people do not have electricity at all and another 1 billion have unreliable electricity. Energy is linked to water in many ways. It is in the center of climate change mitigation. [IEA. WEO-2009 new Electricity Database]

Within the UN system there is a similar structure as there is for water, called UN-Energy. Since 2009 there is also an advisory group on energy and climate change to the secretary general (AGECC) that is linked to UN Energy. The AGECC has just published a strategic document that contains a call for two strategic goals[3]:
- Ensure universal access to modern energy services by 2030
- Reduce global energy intensity by 40% by 2030

Recommendations
- Coordinate with UN ENERGY (through UNIDO/UN DESA) to make maximum use of existing UN networks
  o *Message*: a decrease in CO2 should not lead to an increase of the water crisis. The water-footprint of energy needs to be reduced. This influences the mix of solutions.
- At international level: promote decentralized approaches; raise awareness, including on the need to facilitate and support local actors; inform decision making processes and governments.
- At local level: support the development and implementation of tailor-made solutions.

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[3] Energy for a Sustainable Future, 28 Apil 2010
(http://www.un.org/wcm/webdav/site/climatechange/shared/Documents/AGECC%20summary%20report%5B1%5D.pdf)

RISK

Linked to the effects of climate change, urbanization, and food-insecurity, the outbreak of disasters will increase, be it man-made disasters, natural disasters, or a combination of the two. The main mechanism for coordinating disaster preparedness is the Hyogo Framework for Action. There is already a clear link to the Hyogo Framework for Action through the UNISDR.

Major coming events:
The agenda presented at www.preventionweb shows the incredible amount of conferences linked to disasters, where almost all have a link to water:
http://www.preventionweb.net/english/professional/trainings-events/events/?pid:50&pif:3

Recommendations
Hyogo Framework for Action is the main mechanism. Through UNISDR WWAP / UN-Water can influence its agenda

GLOBAL DEVELOPMENT AGENDA

The current Millennium Development Goals (MDGs) are formulated for the end-date 2015, and the process for formulating the global goals after this has started. The water and water resources agenda needs to be formulated as part of this process. A key meeting will take place in September 2010.

One question that is coming up is how the concept of 'aid' develop will develop. Gyawali argues that we might see it replaced by a different mechanism. Maybe the climate change agenda will be the basis for a new mechanism (Gyawali, 2010).

Shortage and haste will boost corruption around water. A pressure to respond quickly to climate change by building infrastructure is likely to generate even more corruption in the water sector than there is, according to TI. Transparency International / the Water Integrity Network are becoming recognised vehicles for discussing corruption and transparency in relation to water. The OECD is making an increasing impact through the anti-bribery convention. The question is how a difference this makes in the poorest countries. The annual conference of Transparency International will be on corruption and climate change: http://14iacc.org/programme/global-challenges/

There is a UN summit planned from 20-22 September 2010 for heads of state to discuss the POST 2015, POST MDGs. This process is driven by UN ECOSOC. The meeting is just prior to the start of the Assembly's annual General Debate, which usually brings dozens of heads of State and government to New York.
(http://esango.un.org/irene/ecosoc.html?page=calendar&month=4&year=2010&room=, http://www.un.org/millenniumgoals/summitstroy.shtml).

Recommendations
- WWAP / UN-Water should be part of the post 2015 process, looking at the targets after the current MDGs
    o _Message_: no water means no development. Water is a medium that connects most sectors of development
    o _Message_: uncertainty will increase, and the poor will be hit hardest. Governments need to be equipped with tools to deal with uncertainty
    o _Message_: the increase in variability will increase the need for infrastructure, both for dealing with drought (increased storage) and for dealing with floods.
- Extend the link with TI / WIN and the Worldbank to mobilize attention for corruption linked to water and to spread experience in fighting it.
- Work with and support the involvement of Major Groups in the policy development and implementation process.
- Support bottom-up approaches to create ownership and make solutions sustainable.

INFORMATION & REPORTING

The developments in communication (internet, mobile phones, computing power) have resulted in:
- new ways of generating raw data
- new ways of processing and sharing data
- new ways of social organising
- new ways of business
- new ways of politics

All these innovations are on-going as the technology expands and people realize the possibilities of these technologies. WWAP is linked to all the themes mentioned above, and it should become linked to the innovations to avoid becoming obsolete.

Monitoring of the state of land and water resources can be done through a mix of remote sensing and diffuse ground proofing, using various sources. Providing development assistance and monitoring of success can be done by using internet and mobile phones. This is a fast-developing combination that is the result of the expanding internet and the rapid spread of mobile phones and mobile internet: acquiring raw data, processing data, both on the state of the planet and regarding the management of development activities.

The increasing importance of 'crowdsourcing' as a way to create tangible results as well as awareness needs to be explored further. After the earthquake in Haiti in January 2010 there was no proper map of Port au Prince. Within days the global community started using fresh satellite images for filling the OpenStreetMap database. The result was the best map possible, including all the blocked roads, refugee camps and other temporary situations (http://wiki.openstreetmap.org/wiki/WikiProject_Haiti). AKVO is developing an application for mobile phones that have a gps-capability. The application will take encrypted pictures containing satellite-time and the exact location. The pictures can be part of 'crowd-sourced' monitoring systems. Other examples are the world water monitoring day and of course the biggest of them all, Wikipedia.

 Examples are www.web4dev.org, www.km4dev.org , www.waterwiki.net , www.wwmd.org , www.ict4d.org.uk, www.akvo.org.
- web4dev: Web4Dev is the UN community of practice focused on applying the Internet for the achievement of MDG goals. It includes many of the UN-Water members (www.web4dev.org).
- km4dev is a very active knowledge management community that includes professionals from all backgrounds: international organizations, small NGOs, governments, consultants.
- Waterwiki is an initiative from UNDP, trying to create a crowd-sourced encyclopaedia on water (www.waterwiki.net).
- World Water Monitoring Day is an example of crowd-sourcing monitoring. It is also an example of combining awareness-raising with data-collection in a very elegant way (http://www.worldwatermonitoringday.org/).
- The ICT4D collective, a London based organization, housed at University of London. It was initiated in 2004, and in 2007 it was awarded the status of a UNESCO Chair in ICT4D. In 2009 it became an official Research Centre at the College. The Collective works in partnership to undertake research, teaching (undergraduate and postgraduate) and consultancy relating to the appropriate and sustainable use of ICT for development: (http://www.ict4d.org.uk/)
- AKVO is a Swedish-Dutch initiative for combining knowledge on small-scale water supply and sanitation with involvement in implementation and reporting about result. With a

relatively small budget they have been shaking up some more established organizations (www.akvo.org).

WWAP is working on indicators, both within its own mandate, and as part of the UN-Water process for developing indicators. WWAP should identify processes where similar attempts are being made, but also sources of information that may develop as a result of new data-concentration taking place because of internet development. WWAP should consider becoming an information-hub for raw data on water, data that will be used by WWAP, but also by others for making their own analysis. This would require convincing UN-Water partners of the importance of making the relevant information available to the world. In a recent appearance at TED the inventor of the Internet, Sir Tim Berners-Lee showed some vivid examples of the use of datasets by outsiders, as well as the tremendous potential of crowd-sourcing a data-need (http://www.ted.com/index.php/talks/tim_berners_lee_on_the_next_web.html).

WWAP has itself generated new approaches to involving people and organizations in preparing the WWDR3. There was a very new way of getting contributions from participants in a workshop 'self-reported' to the team using mobile computers and Wifi in the workshop location, and this was complemented with the possibility of any registered outsider to be part of the same process, thus creating in fact a global workshop. This experience should be promoted more widely, to show how new technologies can provide access to a key document like the WWDR. WWAP should identify the promising experiences from others in using the Internet and connect to them.

WWAP has a process for developing scenario-based tools. It should identify strategic links with similar processes. This can be processes aiming at the same tool and processes aiming at the same target groups, and processes doing both. UNEP has done scenarios for their GEO4 report. They are now also working at country level in Africa.

Recommendations
- Connect to various internet-related developments (web4dev, AKVO, ICT4D, aid information challenge, world water monitoring day), to be part of the innovation in reporting and managing, both on the state of resource and use, and in doing development activities.
- Become instrumental in opening up raw data to other analysts (see Röslings 'gapminder' , Sir Tim Berners-Lee and others), and thus become a hub for getting access to water-info, as well as improving the monitoring (other users of data will come with suggestions to improve the current data-sets).
- Link with other scenario processes, including the UNEP process for developing scenarios at country level
- Research Cognitive Edge and their Sensemaker Suite software as a methodology to quantify qualitative/narrative data and hence structure data collection and impact measurement globally. [WfWP is most interested to act as a pilot case.]

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