Towards the water policies for the 21st century

World Water Forum III, Kyoto, mars 2003 - The forthcoming 3nd World Water Forum has a clear mandate: to guide the process from principles through policies to actions. H2o mars 2003.

A review after the World Summit on Sustainable Development in Johannnesburg

TOWARDS THE WATER POLICIES FOR THE 21ST CENTURY

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H2o - mars 2003

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Abstract

Water is recognised as a key factor in sustainable development. Its direct links with human life society, poverty, natural disasters and ecosystem functioning render water a prime concern of the 21st century. Climate change, population growth, deterioration of water quality, scarcity and competition for this resource are the key challenges facing humanity. Therefore, comprehensive policies, based on common ethical principles and political will are needed to prepare humankind to face the "looming water crisis".

The 2nd World Water Forum (The Hague, March 2000), the International Conference on Freshwater (Bonn, December 2001) and the recent World Summit on Sustainable Development (Johannesburg, September 2002) clearly reveals the converging trend towards broadly shared principles and concepts to serve as the basis for national water policies and subsequent strategic and operational actions in national, basin and local levels. The "water world" is now encouraged to take a further step towards implementation. The forthcoming 3nd World Water Forum has a clear mandate: to guide the process from principles through policies to actions.

RÃ©sumÃ©

L'eau constitue un facteur clÃ© du dÃ©veloppement durable. Son implication dans les conditions de vie humaine, la pauvretÃ©, les catastrophes naturelles et le fonctionnement des Ã©cosystÃ¨mes hisse l'eau au rang des principales prioritÃ©s du 21Ã¨me siÃ¨cle. Le changement climatique, la croissance dÃ©mographique, la dÃ©tÃ©rioration de qualitÃ© de l'eau, la pÃ©nurie et la compÃ©tition pour sa maÃ®trise est l'un des plus grands dÃ©fis que l'humanitÃ© va devoir affronter. Des politiques d'intÃ©gration, basÃ©es sur des principes moraux et politiques communs, seront nÃ©cessaires pour surmonter une "crise de l'eau" qui apparaÃ®t Ã©minente.

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Introduction

The World Summit on Sustainable Development (WSSD) - popularly Rio + 10 - was held in Johannesburg between 26 August and 4 September 2002.

The popular media representation of this mega event reflects a certain weariness with summits, declarations and public commitments. Many critics pre-conclude that targets set in Johannesburg will not be achieved and they are quick to refer to the un-kept promises of the United Nations Conference on Environment and Development (UNCED) (Rio de Janeiro, 1992) to prove the point. Yet, human society has not produced more efficient means to reach political consensus, to formulate and adopt policies, other than large, international conferences, summits and meetings. In the series of the serious attempts to secure the sustainable future of the planet and its inhabitants, Johannesburg is thus the last event. Therefore, it is worth analysing, irrespective of the short time passed since its resolutions were negotiated and a declaration published, what impacts we may expect as the consequence of this summit.

The present paper reflects on the influence of the WSSD on water policies for the new century.

Irrespective of the primordial role of water in sustainable development and in the sustainability of life and biodiversity, the WSSD cannot be classified as an international event focusing on water. Out of the 170 paragraphs of the WSSD Plan of Implementation, less than 30 refer explicitly to water or water-related activities such as management, water supply, irrigation and sanitation. Thus, the real impact of the Johannesburg Summit on emerging water policies for the 21st century can only be estimated as part of the sequence of water-related global events in recent years. In fact, in the international context it is more precise to speak about principles rather than policies as these later ones have to reflect national, climatic and cultural aspirations and constraints. Without going back too far in time, the water-relevant contribution of WSSD should certainly be seen as embedded between the 2nd World Water Forum (2nd WWF, The Hague, March 2000), the International Conference on Freshwater (Bonn, December 2001) and the forthcoming 3rd World Water Forum (3rd WWF, Kyoto, March 2003). This last event will ultimately show how far the Declaration and Plan of Implementation of the WSSD influence water resources management worldwide.

The WSSD, while a full UN-led inter-governmental conference and summit, showed clear signs of the development, or better, search for new ways of communication between stakeholders and their respective representatives. The gradual opening of the intergovernmental dialogue to involve other stakeholders (NGOs) can be measured by the presence of several thousand non-governmental participants and the multitude of side events, organised by various combinations of NGO/IGO and government partners.

It is therefore not astonishing that next to the official declarations, Johannesburg can be associated with a large number of stakeholder statements (some much more explicit than the official ones), as well as by the emergence of the so-called type 2 (non-negotiated, yet endorsed) partnerships involving governments, IGOs, NGOs, the private sector and universities. The following paper embeds thus the WSSD into the dynamic reality of the "water world" at the turn of the millennium.

In this paper, the term "water world" will be used to describe the microcosmos of those concerned and dealing with water. In many respects it is not an exaggerated statement that we are all citizens of this "water world".

After a short review of the prevailing issues and the responses formulated by the Ministerial Declaration of the 2nd WWF, the outcome of the Bonn conference as well as the "water" component of the WEHAB (Water-Energy-Health-Agriculture-Biodiversity) position paper will be analysed, prior to an overview of the Johannesburg Declaration on Sustainable Development and the WSSD Plan of Implementation. How far would the WSSD influence water resources policies? How do they develop? The paper will attempt to assess the state-of-the-art and outline the development tendencies.

Water policies are very much shaped by international programmes and initiatives. Therefore, a sub-component of the UN-wide World Water Assessment Programme (WWAP), the UNESCO-Green Cross International "From Potential Conflict to Co-operation Potential: Water for Peace" (PC>CP : WfP) project will be presented to illustrate how to prepare the ground, secure the knowledge-base to translate conference recommendations like the Johannesburg statements and principles into practical water policies and actions.

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Le dossier H2o sur le 3Ã¨me Forum Mondial de l'Eau de Kyoto

The "Water World" at the Turn of the Millennium:

An Overview of the 2nd World Water Forum

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How can we characterise the "water world" at the turn of the millennium? The most comprehensive picture emerges from the Long Term Vision for Water, Life and the Environment (the World Water Vision for short) (Cosgrove and Rijsberman, 2000), which was presented to the 2nd World Water Forum in March 2000 in The Hague. This event, with more than 5 500 registered participants and 80 parallel sessions, was a real landmark. The Forum was the culmination of a, so far, unprecedented, massive public awareness-raising event, with its associated Ministerial Conference and its Statement (Final Report, 2000).

Since the 2nd WWF, water is high on the international political agenda. It is driven by the urgency to face and counteract the perceived water crisis, not to tolerate any longer that close to 3 billion people have no adequate sanitation, that more than 1 billion people have no safe water supply, that well over 3 million people, mainly children, die annually in water-related diseases. This sentiment was underlined in the Forum by statements like: "we know enough, we have enough data, stop talking, act now".

The prevailing intellectual environment of the "water world" entails deep contradictions. On the one hand, innovative approaches are advocated on the basis that the solutions of the world's water problems are not quick technical fixes, while there are loud voices claiming that there is sufficient knowledge and data available to rely on. While water is on the political agenda and humanity's water awareness is on the rise, funding for water-related research and education is on the decline. It is a sad fact for example that hydrological observation networks in crucial parts of the world are generally in a worse shape now than 20 or 30 years ago. Likewise, many signs and statements document that the environment, water quality and security are worse off than they were at the time of the Rio Conference. This is our biased "water world".

The intention of the Ministerial Conference in The Hague in March 2000 was to explore new avenues, to seek the dialogue of political decision-makers with the stakeholders of the "water world". With reference to the above contradictions, it is not surprising that water professionals were not considered originally as stakeholders. Finally, a single representative from science and the water professionals had the possibility to address, in five minutes, the assembly of ministers, next to stakeholder representatives of gender, youth, grassroots NGOs, trade unions and the business community. The dialogue with the ministers remained limited to these "new stakeholder" groups.

The motto of the World Water Vision (WWV) consultation and the subsequent Forum was: "Water is everybody's business". Yes! But first of all it is, and should be, the business of the professional community. How can we otherwise expect that these international forums would really influence water policy, strategy, planning and operation of water resources systems?

It has to be acknowledged that the WWV and the 2nd WWF revealed a credibility gap. The professional community is challenged to close it. Thus, the analysis of the Vision and the Forum is not that of a critic. It is rather a reflection that the professional and scientific community of the "water world" has to develop strategies on how to recapture the leadership in the debate. Water professionals always carry out a societal mandate. Because many previous water development projects are now regarded as "unsustainable", the professionals who built and managed them are considered responsible. But no one questions the wisdom of former social aspirations. This suspicion towards the professional community still exists. It can be seen as a serious hindrance to translate political recommendations into implementable water policies. Leaving out those from formulating policy principles, whom you expect to implement these, contradicts, next to common secure the principle of participative decision-making.

What are the prevailing water issues at the turn of the millennium? The Ministerial Declaration of The Hague summarises

the main water-related challenges. It is a fair assumption that this negotiated international document, accepted by 120 ministers and delegations from all over the world, reflects well the "public perception" of water problems and thus defines the "political environment" within which professionals, individuals and organisations alike, have to act. The key statement is "Water Security" for the 21st Century - an appealing slogan, since no one is against security. This term is interpreted in its multiple dimensions:

Table 1. Key Elements of Water Security for the 21st Century

(Issues defined by the Ministerial Conference March 2000)

Meeting basic needs (water supply, sanitation, health)Securing the food supply (equitable allocation of water for food) Protecting the ecosystems (integrity and sustainability)Sharing water resource (between different users and between different states)Managing risks (floods, droughts, pollution, etc.)Valuing water (economic, social, environmental, cultural, including "careful" (socially cushioned), pricing)Governing water wisely (good governance and stakeholders involvement)

We may subdivide these seven attributes of "Water Security" into two categories: that of the first three, describing and "politically" prioritising the legitimate water demands, and the remaining four highlighting the "hows" of water resources management. It must not be overlooked that, of these four categories, the three that are underlined: Sharing, Managing, Valuing, Governing, are almost entirely beyond the classical domain of water resources engineering.

The Ministerial Declaration is profuse in defining priority issues and steps to meet the above-outlined challenges.

The Integrated Water Resources Management (IWRM) was adopted as the framework for action to be taken. IWRM is defined as the approach which takes into account social, economic and environmental factors and integrating surface water, groundwater and the ecosystems through which they flow. Quantity and quality aspects are to be considered.

"Water Security" and the sustainable management of water resources are treated as synonymous. Collaborative partnerships across whole society and coherent institutional

policies to counteract fragmentation of the sector are called for.

The Ministerial Declaration reiterates the decision of the Commission of Sustainable Development of the UN to call on the UN System, its specialised agencies and programmes, to develop appropriate indicators and periodically reassess the state of freshwater resources as well as to document this in subsequent World Water Development Reports.

The Ministerial Declaration realises the need for a new strong "water culture" to be developed through the cooperation of all stakeholders.

"Best practices" are to be identified through enhanced research and knowledge generation, knowledge dissemination and sharing among individuals, institutions and societies. This includes, not only technological transfer and capacity-building in developing countries, but also strengthening humanity's capability to cope with water-related disasters.

Beyond any doubt, the 2nd WWF set the stage for entering the 21st century of the "water world". The seven challenges identified in The Hague became the basis to structure the World Water Assessment Programme (WWAP), the ongoing UN-wide effort launched by the Director-General of UNESCO, Mr KoÃ¯chiro Matsuura, at the 2nd WWF. This programme aims to create the database, but also to develop the methodologies and concepts of policy-relevant assessment of the resource, its use and protection.

The 2nd WWF, through its success of bringing water to the political conscience of the world, proved the viability of "composite events", having parallel and interactive meetings of various stakeholder constituencies. Ever since, all major water-related events, including the WSSD, have been following this model.

Towards the World Summit on Sustainable Development:

The International Conference on Freshwater

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The "water world" and water policies after Johannesburg cannot be characterised appropriately without analysing the outcomes of major events shaping the "water world" and influencing the spirit and outcomes of the summit in Johannesburg. Without doubt, international conferences with a clear focus on water show the prevailing trends and describe the state and mentality of the "water world" more clearly than a global event, such as the WSSD. Therefore, it is warranted to highlight the outcomes of the most recent water conference, that of the International Conference on Freshwater, held in Bonn in December 2001, preceding by a mere 8 months the Johannesburg Summit. In this paper, only two outcomes of the Bonn Conference, the "Recommendations for Action" and the "Bonn Keys" will be analysed. Bonn's motto: "Water - key to Sustainable Development" clearly describes its aim: to prepare "water-wise" the WSSD to provide a "key" to open the "lock" in Johannesburg.

Recommendations for Action

The "Recommendations for Action", while politically "lower traded" than the Ministerial Declaration, is still a negotiated text. On 13 pages covering 27 points, it diagnoses the "water world" and prescribes the "medicine". Due to the nature of a negotiated text, the "Recommendations" contains several general statements. Yet careful reading enables the subtle order of priorities to be found. The following citation is an excellent example to prove it:

"Water is a key to sustainable development, crucial to its social, economic and environmental dimensions. Water is life, essential for human health. Water is an economic and a social good and should be allocated first to satisfy basic human needs. Many people regard access to drinking water and sanitation to be a human right. There is no substitute for water: without it, humans and other living organisms die, farmers cannot grow food, businesses cannot operate. Providing water security is a key dimension of poverty reduction."

While these are not in contradiction to the Ministerial Declaration of The Hague, the Bonn Conference achieved an additional step, to focus on priority actions grouped under three headings:

GovernanceMobilising financial resourcesCapacity-building and sharing knowledge

Furthermore, it identified specific roles for the most crucial stakeholder groups represented in the conference.

The above three main groups as priority actions reveal implicitly that we are very much at the beginning of the long process to secure a sustainable "water world". The framework of this paper does not allow a line-by-line analysis of the text. In fact, this should be reserved for a later scientific review of the evolving "water world" at the change of the millennium. Rather, the attempt is made to highlight the document on the basis of the "macro-level" of 21 recommended actions in the three groups and the list of the 6 stakeholder groups present.

Actions in Field of Governance

1. Secure equitable access to water for all people
2. Ensure that water infrastructure and services deliver to poor people
3. Promote gender equity
4. Appropriately allocate water among competing demands
5. Share benefits
6. Promote participatory sharing of benefits from large projects
7. Improve water management
8. Protect water quality and ecosystems
9. Manage risks to cope with variability and climate change
10. Encourage more efficient service provision
11. Manage water at the lowest appropriate level
12. Combat corruption effectively

Actions in the Field of Mobilising Financial Resources

13. Ensure significant increase in all types of funding
14. Strengthen public funding capabilities
15. Improve economic efficiency to sustain operations and investment
16. Make water attractive for private investment

17. Increase development assistance to water

Actions in the Field of Capacity-Building and Sharing Knowledge

18. Focus education and training on water wisdom

19. Focus research and information management on problem solving

20. Make water institutions more effective

21. Share knowledge and innovative technologies

Roles

22. Governments

23. Local Communities

24. Workers and Trade Unions

25. Non-Governmental Organisations

26. The Private Sector

27. The International Community

This simple list of 21 actions (to be pursued by the 6 stakeholder groups), reveals a lot of important features.

In the group of governance-relevant actions:Some actions, while obviously important as far as water management is concerned, are much for far-reaching than the "water world" alone. Actions 3 and 12 but also 5 and 6 belong to this sub-group.Some actions target the translation of ethical principles into management practices, like Actions 1 and 2, while Action 11 transposes the principle of subsidiarity into water resources management.- The remaining Actions: 4, 7, 8, 9 and 10 seem to be the ones focussing on the "how to manage what" issues.In the group of finance-relevant actions, the proposed actions indicate the need for activities on all fronts. This reveals a certain lack of strategy and in-depth analysis of real opportunities on how to raise the necessary financial means. (Important to note in this respect that, since then, the World Water Council (WWC) and the Global Water Partnership (GWP) convened jointly a high level Finance Panel addressing these issues and preparing a focused strategy for the 3rd WWF in Kyoto).In the group of actions relating to capacity-building, the four proposed actions are well-focused, covering a wide range from ethical imperatives, institutional changes through research reorientation to the human dimension. Being the least politicised of the three groups, the actions proposed reflect a professional concern and readiness to act. It has to be emphasised that the prominent place given to capacity-building and knowledge sharing in the Recommendations for Action underlines the acknowledged interlinkage. Improved financial provisions alone would not solve the problems without creating the broad knowledge base and institutional frameworks. Without knowledge and wisdom, the best governance model would fail.

In the light of this well-balanced list of actions, the more astonishing is to review the six classes of stakeholders and their assigned roles. It is fair to say that representation of the community of water professionals and that of the respective scientific communities would have been warranted, in particular with regard to actions referring to research, knowledge base and education. It is worth noting in this regard that IWALC (the International Water Associations Liaison Committee)

is actively rectifying this lack of professional presence as a stakeholder group at the 3rd WWF.

The Bonn Keys

Next to the Recommendations for Action the five "Bonn Keys" represent a very well-condensed message from the International Conference on Freshwater (Bonn, December 2001).

Table 2. The Five "Bonn Keys"

To meet the water security needs of the poorDecentralisation: the local level where national policy meets community needsThe key to better water outreach is new partnershipsThe key to long-term harmony with nature and neighbour is cooperative arrangements at the water basin level, including across water that touches many shoresThe essential key is stronger, better performing governance arrangements

From an ethical imperative (Key 1) to the embedding of water resources management into the overall responsibility of governments - and society as a whole - in Key 5, to create the effective legal and regulatory framework within which better water governance can be developed, the five keys cover a wide range of issues. These five keys - as presented by the facilitator of the conference, Margaret Catley-Carlson, Chairperson of the Global Water Partnership (GWP), are an excellent example of a combined conference summary, political manifesto and strategic programme in a nutshell.

Next to its strong ethical content, Key 1 refers to the looming vulnerability of the social fabric and the risk of irreparable environmental damages should the plea of the poor remain unanswered. Key 1 is also the link between the Millennium Development Goals on access to safe drinking water - and the commitment of WSSD to extend it by also halving the number of those without adequate sanitation.

Key 2 could be called the "battle cry" for a practical application of the principle of subsidiarity. It implies also that no policy (at national or global scale) can be effective unless addressing the "scale issue"; how to translate ideas and ideals to actions at "human scale". Key 2 is thus not only valid for water resources, but also for the management of other resources and for the administration of human society in general.

Key 3 is again a link towards Johannesburg. The "spirit of partnership"; the endorsement of the so-called "Type 2" partnerships at the WSSD has one of its roots in this statement of the Bonn Conference.

Key 4 links the ethical principle of good neighbourly behaviour, the practical necessity of arrangements over shared water resources with integrated water resources management as a practical framework. What is spelled out here for river basins must hold also for shared aquifers. The ideas expressed in Key 4 are germinating. In November 2002, in Thonon-les-Bains, France international river basin organisations will meet in an assembly to form their own network within INBO, the International Network of Basin Organisations.

Key 5 is a strong political appeal to the governments. It is rightly called the "essential" key. It implicitly admits that the good intentions, principles, approaches and methods specified in keys 1-4 can only be effective if an enabling "political climate" prevails. In this respect, the WSSD with its broad scope on sustainable development is more relevant than the water-focussed International Conference on Freshwater in Bonn. How far the WSSD improved this "climate" can only be judged once the "political seeds" sown in Johannesburg grow into "plants" of legal framework, regulations, institutions and human capacities enabling the realisation of the substance of keys 1-4. In fact, this key claims a global cultural adaptation with regard to water.

The Bonn Conference was convened in December 2001 with the claim of its organisers that it would be a link between the 2nd WWF and the WSSD. Legally, it was not recognised as part of the official inter-governmental preparatory process towards Johannesburg. Back in December 2001, it was to be seen whether, and what, would be the impact of "Bonn on Johannesburg". After less than one year the influence of the Bonn Conference on the "water world" and on the outcomes of the WSSD can be well-documented. It is an analytical recognition of a job "well done".

A very subtle prioritisation, which as well as being found in the WSSD declarations and objectives can also be traced back to Bonn. The last lines of the "Bonn Keys" read as follows:

"Water is essential to our health, our spiritual needs, our comfort, our livelihoods and our ecosystems. Yet, everywhere, water quality is declining and the water stress on humanity and our ecosystems increases. More and more people live in very fragile environments. The reality of floods and droughts touches increasing numbers and many live with scarcity. We are convinced that we can act, and we must. We have the keys."

This human-centred view can also be found in the WSSD declarations. It is a clear statement that sustainable human existence requires a sustainable environment without putting the cart before the horse.

Key Concern Areas:

WEHAB and the Preparatory Phase before Johannesburg

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The preparatory phase of the Johannesburg summit reflected several new tendencies in the international, political and, in particular in the resource and environment related arena. Obvious government reluctance on one side to make binding commitments on deadlines, quantified objectives and financial allocations and the growing importance of pressure groups, NGOs and direct stakeholder involvement on the other side, harangued a new type of summit. Already the evolution of the world water forums show that the hitherto separated events of scientific conferences, public rallies and ministerial conferences tend to merge into a new type of articulation of concerns, objectives, commitments and strategies. The WSSD certainly cannot be seen and separated from its side events. (As far as water is concerned the Water Dome in Johannesburg can be clearly identified as a melting pot of all stakeholders and their ideas).

The "unorthodox" preparatory phase for a new style summit is the background of a document summarising the key concern areas: Water, Energy, Health, Agriculture and Biodiversity (WEHAB). An inter-agency working group of the UN system was entrusted to develop what may be called a background or position paper. The five key areas of WEHAB again reflect a human-centred focus adopted and maintained during the WSSD.

In the subsequent drafts of the water chapter of the UN's WEHAB document the role of water in relation to all other four key concern areas are described and put it into the strategic axis of the Millennium Development Goals and sustainable development. The human-centred objectives relating to water supply and sanitation, the most urgent need to redefine and to reform water governance and integrated water resources management as the endorsed approach to achieve it, are shown in Figure 1.

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Figure 1. Water - the Link and Key in Sustainable Development

Source: WEHAB document

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It is a fair statement that the chapter on water from the WEHAB document served as the most important basis for reaching the water-related objectives in the WSSD. Many of the priority actions identified during the Bonn Conference and the Bonn Keys are reflected in this document, thus clearly showing the "seepage path" and how the thoughts, concerns and dedication of the subsequent events and preparatory documents channelled thoughts to the WSSD.

The World Summit on Sustainable Development:

Analysis of Results from Water Resources Point of View

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Key Outcomes, Commitments, Targets and Initiatives

UN/DESA summarised the "results" of WSSD in a brief publication on the Summit website immediately after the Summit was over.

As far as "water" is concerned, as key outcome, the explicit acknowledgement is given that sanitation issues become critical and crucial elements of the negotiations and are reflected upon in the final declarations, in more depth than ever before.

Water can be seen as a "winner" of the WSSD. As far as water and sanitation are concerned, the Summit confirmed the water supply-related goal set by the UN Millennium Development Goals i.e. to halve by the year 2015 the proportion of people without access to safe drinking water. WSSD - in the spirit of the above cited outcome - added the quantifiable objective to halve by the year 2015 the proportion of people who do not have access to basic sanitation.

The achievement of these objectives implies that up to the target year 2015, annually, about 50 million people should be added to those having access to safe drinking water and approximately 100 million to be added each year to those having adequate sanitation. Even if the Summit does not come up with the inherent financial commitments, the political aim is well quantified, especially in comparison with the overwhelmingly verbal expression of aspirations for other aspects of sustainability.

Besides this clearly human-centred water and sanitation commitment, water also surfaces as part of the subheading on "Management of the Natural Resource Base". The commitment "to develop integrated water resources management and water efficiency plans by 2005" is, however, very vague. No specification is given as to whether these plans should be national or basin-oriented. Compared with the transitional provisions and implementation phases foreseen in the recent European Union Framework Directive on Water, it is highly unrealistic that the 2005 deadline can be achieved at global level. The more so that the IWRM still cannot be defined as a universally accepted, standardised methodology to be implemented routinely under whatever institutional framework. The lack of reliable databases is an additional factor making the 2005 target date illusory. While common sense can imagine and "invent" the content of a "Water Efficiency Plan", this terminology is entirely new. Again, no spatial (or temporal) reference is given to guide the scope and extent of these plans.

Among the key initiatives announced during the Summit, mention should be made of the "Water for Life" initiative of the European Union with its focus areas in Africa and in Central Asia. This initiative clearly reflects the emerging partnership "spirit" which is likely to be the strongest legacy of Johannesburg. Annex 1. shows the Johannesburg Declaration "Battle for the Planet" of Green Cross International to illustrate through this NGO statement the broad front of dedication to address the sustainability issues.

The Johannesburg Declaration on Sustainable Development

This is the political statement of the Summit. Among the 37 paragraphs only one, paragraph 18, refers to the afore-mentioned water and sanitation focus, besides a short reference to water pollution in paragraph 13. This relatively modest place in the political statement is "compensated" however by the fact that clean water heads the list of basic human requirements.

Annex 2 compares "waterwise" the final Declaration with its draft published one day before the end of the Summit in a Johannesburg daily newspaper "Star". A certain "downgrading" of water during the last minute negotiations can be sensed. This comparison, besides its historical value showing the evolution of a segment of the text through the last night of negotiations, also demonstrates that behind the negotiated text there are frequently well articulated, concrete aspirations capturing the spirit and momentum of a conference. This "untold" message is also a very important, invisible output of a forum, congress or summit.

The WSSD Plan of Implementation - WSSD/PI

While looking for the term "water" in a document to assess its importance with regard to other areas of concern may seem a mechanical approach, it is still a very legitimate and astonishingly accurate measure, if applied in the case of negotiated, political texts.

Out of the 170 paragraphs of the (unedited) 4th September version of WSSD/PI, "water" explicitly appears at least once in 24 paragraphs: 3 paragraphs in Chapter II - Poverty Eradication; 11 paragraphs in Chapter IV - Protecting and Managing the Natural Resource Base of Economic and Social Development; 1 paragraph in Chapter VI - Health and Sustainable Development; 2 paragraphs in Chapter VII - Sustainable Development of Small Island Developing States; 2 paragraphs in Chapter VIII - Sustainable Development for Africa; and 5 paragraphs in Chapter VIII bis - Other Regional Initiatives (2 for Latin America and the Caribbean, 2 for the West Asia Region and 1 for Europe). This confirms the importance of water in many facets of sustainability and in particular, its crucial role in developing regions.

The following Table 3 provides a quick reference to locate the water-relevant statements, goals and recommendations in the text of the Plan of Implementation.

Table 3. How to trace "water" in the Plan of Implementation of the WSSD

(list of paragraphs where water is mentioned)

II. Poverty Eradication / 6a,c,l,m; 7g; 9e

IV. Protecting and managing the natural resource base of economic and social development / 23; 24a-e; 25a-f; 26; 27; 28; 31c; 34; 35d; 36; 38b,d,l,k; 39d; 40b; 43

VI. Health and sustainable development / 47l

VII. Sustainable development of small island developing states / 52d; 54c

Sustainable development for Africa / 57; 60a,d

VIII.bis Other regional initiativesLatin America and the Caribbean / 67; 70

Sustainable development in the West Asia region / 71; 72

Sustainable development in the Economic Commission for Europe Region / 74

Without doubt the most comprehensive focus on freshwater-related issues are in paragraphs 23-28. Therefore, the entire text of these paragraphs is reproduced as Annex 3.

Paragraph 23 calls, in particular, for the integrated management of land, water and living resources.

Paragraph 24 calls for an action programme (financial and technical) to achieve the quantitative objectives in providing

safe drinking water and basic sanitation. While this paragraph appeals to "mobilise international and domestic financial resources at all levels" it falls short of recalling the estimated increased investment need (World Water Vision 2000) of approximately US dollars 100 billion for each year or the respective estimates in the "Recommendations for Action of the Bonn Conference".This paragraph is more elaborate on management options and practices: Public information and participation; Focus on poor and gender sensitivity; Capacity-building and popularisation programmes; Setting water as priority in national and international development agendas; Intensifying water pollution prevention; Mitigating groundwater contamination; Exploring innovative technologies. No doubt, this list is quite exhaustive but does not reveal any new aspect which would not have been mentioned either in the 2nd WWF or in the International Conference on Freshwater (Bonn, 2001).

Paragraph 25 elaborates further the necessary/possible water management options: Development and implementation of national/regional strategies, plans and programmes in an integrated context; Improved efficiency and loss reduction within the water infrastructure and recycling; Full employment of policy instruments: regulation monitoring, voluntary actions, market mechanisms, land use management, cost recovery and integrated wide approach; Prioritisation of water uses to cover basic human needs and water allocation among competing uses; Programmes to mitigate the effects of extreme water-related events; Technology transfer and capacity-building including non-conventional methods, sea water desalinisation; Public, private partnerships, respect of local conditions, accountability, etc. This reads more like an (unedited) table of contents of a textbook on water resources management rather than a focussed political statement. It mentions all the components but gives little guidance or reports commitment on implementation.

Paragraph 26 calls for cooperation on behalf of developing and transitional countries to assess their water resources, create monitoring networks, databases and national indicators. Again, this paragraph addresses an important problem. However, monitoring and data collection is on the decline even in the so-called developed countries. Calling for national indicators in resource assessment seems to contradict the basin-wide integrated approaches advocated in most parts of the WSSD/PI.

Paragraph 27 is a welcome exception in a political text. It calls for science to improve the understanding of how the hydrological cycle functions. It calls for knowledge sharing, for capacity-building and for the application of modern earth observation technologies to create the science-based assessment of resource availability and variability.

Paragraph 28 calls for close cooperation of international and intergovernmental bodies in addressing water-related issues. It refers also to the International Year of Freshwater 2003.

In particular, paragraphs 26-28 are important as they provide the political endorsement and mandate for the World Water Assessment Programme of the UN System and for international science programmes, like the International Hydrological Programme of UNESCO.

The other references to water in Chapter IV. Protecting and managing the natural resource base of economic and social development addresses the role of water to carry pollutants from land-based sources to the seas, it refers to water as a source of risk (floods, droughts) and its vulnerability being affected by climate change.

Paragraph 38 refers to water in agriculture. Given that 70-80% of the water consumed worldwide is related to irrigation and other agricultural uses, the WSSD/PI is astonishingly short and general on this issue. The professional wisdom that water shortage can and must be dealt with first of all in an agricultural context does not seem to be adequately reflected and worded in the document. Calling for market-based incentives may be a sensible approach but it is also a very sensitive issue/subject. By avoiding to address this key issue adequately, the political document failed in this respect to be policy-relevant.

The role of water to combat desertification and secure mountain ecosystems, including their relationship with erosion, deforestation, land degradation and biodiversity, is, however, well documented.

The following chapters focus on the reciprocity between access to safe water and sanitation and health, as well as highlighting certain water issues in a regional context.

How Does the WSSD Influence the "Water World"?

As already stated, a consolidated assessment of the impact of WSSD on the "Water World" and consequently, on water (resources management) policies will be first possible after the 3rd WWF. Nevertheless, tendencies can be summarised in the following bullet points:

WSSD did not produce any substantial paradigm shift as far as water is concerned. It confirmed IWRM as the endorsed approach reflecting holistic concerns.WSSD, while remaining "holistic" at the level of describing components of sustainability, placed availability of safe water and sanitation, equitable use and integrated management of this resource, as the key factors for combating poverty and securing sustainable development. This role is convincingly visualised in the WEHAB document. Thus, calling "water" the winner of Johannesburg is justified.WSSD reconfirmed the Millennium Development Goals, hence further strengthening the political commitment of providing safe drinking water and adequate sanitation for hundreds of millions of people deprived of these basic human needs.By adding sanitation to the MDG on safe drinking water, a crucial step was made towards seeking comprehensive, remedial action for improving the quality of human life.With these human-centred core objectives, WSSD clearly set priorities. It is up to the UN system and governments, as well as a task of NGOs and the private sector, to act along these ethical lines.The Plan of Implementation of WSSD calls for integrated water resources management and water efficiency plans by 2005 and for the development of integrated land management and water use plans. However, it does not elaborate in detail on the key linkage between (frequently unsustainable) water use in irrigation and the inherent conflicts it creates, especially between food and environmental security.Water resources assessment and cooperative efforts among sovereign states are mentioned, yet the WSSD fell short of explicitly declaring hydrological and meteorological data-sharing as an imperative.

Water Policies for the 21st Century: the Legacy of WSSD

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The preceding sections clearly document the evolutionary process of the recent events shaping principles and concepts towards water resources policies of the "water world". The WSSD gave, in fact, a high level endorsement to these ideas. It even added, with the explicit call for "water efficiency plans", a new challenge and task to the professional community. The following Table 4 summarises and comments on the water policy and the planning of relevant WSSD/PI statements. This can serve also as a checklist to identify the areas of need for further research, development and knowledge sharing.

As this table reveals, the summit of Johannesburg can serve as a reference point in shaping water policy and its inherent activities. Its strongest legacy is expected to be its endorsement of concepts and appeals elaborated by preceding water-related conferences and ministerial declarations. Simultaneously, the WSSD passes the mandate to subsequent events, first and foremost to the 3rd WWF to follow up its water legacy. The shift from commitment to action refers also to water policy and planning to move from concepts to implementation. Water did not only win in Johannesburg. We also obtained a water mandate.

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STATEMENT OF WSSD/PI
COMMENT
CONSEQUENCE, FOLLOW UP

1.Integrated Water Resources Management (IWRM)
Endorsement of previous statements by other conferences and declarations
Further development and practical use of the concept needed

2. Integrated sanitation into IWRM
Should be an obvious part of IWRM
Monitor in practical implementation

3. IWRM to optimize upstream/downstream benefits
Political mandate of IWRM to be a tool of water conflicts resolutions
IWRM to be implemented also in international context

4. Effective Integrated management over all uses
Should be an obvious part of IWRM, Mandate to resolve sectoral water conflicts
Monitor practical implementation

5. Integrated land management and water use plans (in agricultural context)
Should be a focused subject of IWRM
Should result in land use changes and better use of water irrigation

6. Land use and linked water resources management plans to offset floods & droughts
Should be a focused subject of IWRM
Develop as part of disaster preparedness + links to IWRM

7. Combat desertification: land-water-forest management plans
Explicit linkage of IWRM with creeping environmental degradation
Implement plans and monitor impacts improvements

8. National strategies for disaster management
Identification of a serious need. Lacking in most of the countries
Link plans with IWRM at all scales

9. Watershed planning
Should be an obvious part of IWRM
Assess efficiency both locally and basinwide

10. Freshwater Programmes for small island developing states
Recognizing particular vulnerability. Not spelled out who should do it
Additional focused funding and capacity building needed

11. Transboundary Water Treaties
Explicit acknowledgement of the need of legal framework for water sharing

Â Prepare concepts, review best practices

12. Promote better land use and water management practices
Awareness raising, outreach mandated
Develop dissemination strategies and material

13. Water Efficiency Plans
New term, not defined contentwise
Develop concept and guides for this plan

Table 4: Statements with Relevance to Water Policy and Planning in the WSSD/PI

From Potential Conflict to Co-operation Potential: Water for Peace

Table 4 contains two statements (3 and 11) related to the principle of equitable sharing of water-generated benefits along a river. One in context of IWRM in general and one in particular by referring to the possible international implications of this task.

In recent years, there has been an emergence of the fear of "water wars" in the 21st century, after several related statements in the media. UNESCO and Green Cross International took the initiative to launch a comprehensive programme to investigate how far these fears are justified and how could the "water world" be prepared to respond to challenges inherent in the management of shared water resources in order to avoid these gloomy prophecies becoming true. This ongoing programme is to illustrate how science, but also public awareness raising programmes, should be conceived to provide policy relevant advice, background information, change perception and develop methodologies.

Background

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During the 20th century, the world population has tripled while world demand for water has increased seven-fold. The signs of a looming water crisis are evident. Since water is essential to every aspect of life, this crisis affects everything - from health to human rights, the environment to the economy, poverty to politics, culture and civilization to cooperation and conflict. Just as water defies political boundaries, the crisis is also well beyond the scope of any individual country or sector and cannot be dealt with in isolation. The need for integrated, cooperative solutions is particularly urgent in the 261 river basins which are shared by two or more sovereign states. These basins cover nearly half of the world territory and provide home for almost 50% of the world population.

The Hague Ministerial Declaration, signed at the 2nd WWF in March 2000, identified seven key challenges for achieving water security (see Table 1). One of these challenges "Water sharing" gives the proper context for the project "From Potential Conflict to Co-operation Potential: Water for Peace".

UNESCO and GCI are contributing to this international initiative by jointly examining the potential for shared water resources and how to become a catalyst for regional peace and development through dialogue, cooperation and participative management of river basins. An increasing number of states are experiencing permanent water stress, yet in most cases, mechanisms and institutions to manage conflicts over water resources are either absent or inadequate. Competition over this precious resource could increasingly become a source of tension - and even conflict - between states and water use sectors. But history has often shown that the vital nature of freshwater can also be a powerful incentive for cooperation; it can impel stakeholders to reconcile their diverging views, rather than allow opposing interests to escalate into harmful confrontations, which could jeopardize water supplies, for all parties involved in a dispute.

A team of scientific researchers from the Department of Geosciences at Oregon State University, led by Prof. Aaron T. Wolf has been conducting an interesting work confirming this aspect of the resource as a unifier. They have compiled a systematic database for water conflict/cooperation reported during the last 50 years in the international media. Of the 1,831 events - 507 conflictive, 1,228 cooperative, and 96 neutral or non-significant have been identified. To define the intensity of the events a scale going from -7, the most conflictive (war), through 0 (neutral events), and up to +7, the most cooperative (voluntary merging of countries) were used. The events, measured on this scale revealed the following:

No events were observed on the extremes;Most interactions are cooperative;Most interactions are mild;Water acts as an irritant;Water acts as unifier;Overall, the major water-related issues likely to lead towards conflicts are quantity and infrastructure related;Nations cooperate over a wide variety of issues.

UNESCO has launched the project "From Potential Conflict to Co-operation Potential" (PC -> CP) to assess the available material for the prevention and the resolution of water conflicts, as well as to develop decision-making and conflict prevention tools for the future. The "Water for Peace" project initiated by Green Cross International - developed with the input of civil society in several international basins - aims to enhance the awareness and participation of local authorities and the public in water conflict resolution and integrated management, through facilitating more effective dialogue between all stakeholders.

The joint PC -> CP: Water for Peace project will address the obstacles, identify the incentives and promote the means to achieving the integrated, equitable and sustainable management needed to make international watercourses natural thoroughfares for stability and sustainable development across the world. The following summary refers to the PC -> CP component.

Scope of PC -> CP

PC -> CP addresses specifically the challenge of shared water resources primarily from the point of view of Governments and intergovernmental organization. All PC -> CP efforts were conceived with the idea that, although shared water resources can be a source of conflict, their joint management should be strengthened and facilitated as a means of cooperation between various water users. Thus PC -> CP aims to demonstrate that a situation with undeniable potential for conflict can be transformed into a situation where cooperation potential can emerge. PC -> CP's thematic focus is on this very transition - from PC to CP.

The goal of PC -> CP, in accordance with the mandate of WWAP, is to render services to the Member States and to foster cooperation between Nations. It is also guided by UNESCO's paramount mandate: to nurture the idea of peace in human minds. In its first phase (2001-2003), PC -> CP gives priority to water conflicts, which are international in nature and may cause tension or even open conflict between sovereign states.

Target Groups

PC -> CP's role is to help water resources management authorities to tip the balance in favor of cooperation potential away from potential conflict. The priority target groups of PC -> CP are therefore institutions and individuals that manage shared water resources. These include Governments, to which the WWAP is essentially addressed, then donor and funding agencies, which need information on actual or potential water conflicts.

Objectives of PC -> CP

The purpose of PC -> CP is to promote water security through cooperative management of shared water resources. PC -> CP aims to foster cooperation between stakeholders in the management of shared water resources and mitigate the risk that potential conflicts turn into real ones. It will help the parties involved in potential water conflicts to negotiate the way towards cooperation. PC -> CP's overall purpose can be reached through the achievement of these following five operational objectives:

Defining and surveying conflicts in water resources management;Developing indicators to monitor cooperation in large basins;Developing educational material targeting all respective levels;Providing decision-support tools, by indicating how best to transform PC into CP;Disseminating results and good practices.

PC -> CP activities will be guided by these operational objectives and will develop along three major tracks:

A disciplinary track, which will investigate the professional approaches as well as the scientific background to conflict management, water-related negotiations and cooperation building techniques and methods;A case study track, which will survey and consider a selection of real-world cases of water conflicts and cooperation, in order to draw lessons on both the root causes of such conflicts as well as the successful cooperation in shared water resources management;An educational track, which will concentrate on how to develop skills for successful management of shared resources, at all levels - from professionals to decision makers. This track will also focus on public information needs.

Disciplinary track

The disciplinary analysis will develop along the following four main axes: History and future; Law; Negotiations, facilitation, mediation; Systems analysis techniques.

Outputs - Think pieces or essays on the history and future of shared water resources; A state of the art report on the role of law and institutions in the transition from PC to CP; and another one on the legal protection of water facilities during

time of war; A report on the negotiations techniques; A report on the role of NGOs and the civil society in negotiations; State-of-the-art report on the negotiation process in the international context; A report on systems analytical techniques and their role in cooperative water resources management; Critical analysis of management models of shared water resources.

Case study track

The case study track analyses "real-world" cases in an interdisciplinary context. In line with the philosophy of PC -> CP, the case studies selected are examples of good practices, and rely on existing and evolving institutional mechanisms which facilitate cooperation. The project's objective is not to achieve a full geographical coverage but to prove as much as possible that the transition from PC to CP is possible.

Outputs - The following in-depth case studies are envisaged for the 2001-2003 period: Rhine River basin; Aral Sea basin; Incomati River basin; Mekong River basin; Jordan River basin; Danube River basin; Columbia River basin; Nile River basin.In addition to an overview of several other cases.

Educational track

The most valuable contribution to future education in water conflict management will come from the other two tracks of PC -> CP: the generic research through the disciplinary track and the empirical material elaborated through the case study track. Therefore, the main educational use of PC -> CP outputs will follow after the current phase of the project.

The educational track will develop an interface with the present and future users of PC -> CP outputs, generate a vehicle for self-instruction of actual and future decision makers, experts, and trainers. It will produce educational tools and the experience gained will be put at the disposal of educational institutions with an interest in water management.

Outputs - The outputs of the educational track in the First Phase are the following: Design one postgraduate course module on Conflict Prevention, Diplomacy and Cooperation in International Water Resources. On the basis of the above-mentioned module, a short (5 days) course specifically targeting highly placed decision-makers and diplomats will be developed and tested: workshops, role-plays, simulation games, meta-plan sessions, lectures, small group works and exercises.

International symposia and conferences are among the most efficient means to disseminate the results and ideas of a project. In November 2002 an international conference on issues, concepts and challenges in the area of international water resources management will take place in Delft in order to prepare the presentation of the results of the first phase of PC -> CP in Kyoto at the 3rd WWF. In the spirit of the partnership of Johannesburg, UNESCO suggests a partnership with the new International Basin Network of INBO to develop regular water cooperation assessment of river basins thus contributing to implementation and monitoring of shared water resources in response to the water policy imperative identified at the 2nd WWF. .

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ResSourcesAnnex 1 - GCI Statement: Battle for the Planet Annex 2 - Reflection on Water in the Johannesburg Declaration on Sustainable Development. (â€œwaterwise" comparison of the draft and the final declarations). Annex 3 -- Excerpts from the World Summit on Sustainable Development Plan of Implementation (key paragraphs concerning water).