



National Stakeholder Consultations on Water: Supporting the Post-2015 Development Agenda

Brazil

21 March 2013



The Post 2015 Water Thematic Consultation

BRAZIL

National Consultation on water in the post-2015 development agenda

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Chapter 1: Importance of water in national development

Brazil is a federal republic of 8.5 million km² with a population of nearly 200 million inhabitants. The country is divided in 26 states and a Federal District, where the capital, Brasilia, is located. Brazil is known as a country plentiful of water, with the highest total renewable fresh water supply of the planet (Gleick, 1998). The average availability 'per capita' is well above the 1700 m³/person/year, estimated to be the threshold below which the country will not provide itself with sufficient food production ((Postel, 1997 apud Gleick, 1998) *apud* Kelman and Porto, 2004).

However, the estimated figure of 6950 km³/year in fresh water is to be viewed as merely an indicator of the average country's situation. In fact, 70% of such availability is in the Amazon Basin where only 7% of the population lives. The rest 93% of the country's population will depend on the remaining 30% of the water availability. The 'per capita' availability varies from 1460 m³/ person/year in the semi-arid Northeast to 634 887m³/ person/year in the Amazon region.

Four major different areas are in contrast. The North, including the Amazon basin with abundant freshwater resources, is very sparsely populated and poor. The Northeast, semi-arid with a constant threat of severe droughts, struggles to sustain a population of 40 million people living in oppressive poor conditions. The West, with two dominating ecosystems, the savanna and the wetlands, is dominated by cattle raising activities and intensive agriculture development. The South is where the industrial and financial centers are located, with its water resources under a very unbalanced supply/demand relationship, due to excessive consumption and pollution of the large urban areas.

In each region, a different problem: Water is a fundamental resource and a critical issue in Brazil. The highest consumptive use is for irrigation which is about 54% of the total, followed by urban water supply amounting 22%. The potential area for irrigated agriculture is in the order of 26 million hectares, of which some 25 % is actually developed, meaning that food production is highly dependent on water availability. Irrigation is developed by private and public initiatives.

Regarding water supply and waste water collection around 80% and 46 % of residential units have access to public networks, meaning that urban water supply coverage is quite high, whereas sanitation is still lagging behind. At present, governmental initiatives and investments

are giving high priority to both fields, but a big effort is still needed to reduce organic load in water bodies. In this connection a program is under way by the National Water Resources Agency, in which more than R \$ 250 million were invested, taking into account performance indicators.

On the other hand hydropower is of paramount importance in the country accounting for 70% of the total electrical power produced, and will continue to be developed.

As a result of the intensive use of the national water resources, conflicts are growing and a modern water policy was necessary to implement updated water resources management instruments and invigorated institutional arrangements.

According to the Federal Constitution of 1988 all national water resources are considered as public assets, under the administrative domain either of the Union or of the 26 States and the Federal District, that must be used and managed considering equal rights of access by all present and prospective users, as well as the environmental, social and economic aspects.

The challenges are mainly due to institutional management difficulties and to insufficient funds to finance studies, planning and implementation of the infrastructure, especially those of the sectors that depend upon public actions and financing. However, some regions suffer from mild to severe water availability scarcity, with consequent and increasing conflicts among users, either due to quantity or quality problems. Water efficiency in integrated management plans should be emphasized and receive more attention in the water policy implementation. The issue constitutes a serious challenge to the urban potable water distribution and irrigated agricultures sectors. In other regions flooding and water related disasters are becoming increasingly serious requiring means and better approaches to deal with them. Overall weak coordination of public policies and articulation among government instances were ingredients of the emerging problems that are now tend to be more adequately managed.

In this respect, outstanding steps were taken in the implementation of the Water Resources Policy such as the creation of the National Water Agency – ANA in the year 2000, and the elaboration of the National Water Resources Plan, with a considerable social participation. The Plan was issued in 2006 for the first time in the country's history, coping with the MDG. In parallel, many States have also issued or are preparing their State Water Resources Plans which altogether are seen as necessary instruments to orient sustainable development and institutional action to improve integrated water resources management, although their implementation at the sub-national level is still very slow.

Nevertheless, the National Water Resources Policy is perceived to be a solid one and that it is adequate for the present moment. Better governance, public participation and dissemination of the planning process and the implementation of the Policy instruments are recognized as major advances in the legal and institutional structure, even though the results are still rather meager regarding improvement of water quality, water efficiency and integrated management.

Undoubtedly, the first lesson to be learned from the Policy implementation so far is that it is a complex and time consuming task when new cultural values and technological means are

needed to promote a significant change in the *status quo*. Moreover it is necessary to recognize that it takes quite some time for the results to be attained and be felt by the community in general. Continuous promotion of public policies integration and public participation based on capacity building towards the understanding of the Policy principles is essential for the sake of consistent participatory decision making and advancing the water resources management.

The present Consultation process reveals some views on the challenges, priorities and expectations regarding water resources management practices and other related public policies.

Chapter 2: Key national priorities for the sustainable development of water		
2.1 Water Resources Management		
Challenges	Priorities	Sustainable Development Goals - 2030
<p>1. Strengthening the implementation of the National Water Resources Policy</p> <p><i>Additional emphasis is needed on:</i></p> <ul style="list-style-type: none"> - strengthening water resources management offices at the sub-national (States of the Federation) level; - recruiting and training human resources for the water resources management; - providing adequate funding for the basin committees; - investing in capacity building of local actors; - making participatory decision-making effective. <p><u>Rapporteur remarks:</u> Brazil is implementing its National Water Resources Policy and a National Water Resources Management System since 1997. All Brazilian waters are in the public domain, under the administration of either the federal or the States' governments. At the federal government level significant accomplishments can be mentioned whereas at the sub-national level implementation is very slow and advances in improving water resources management are just slightly noticed</p>	<p>1. Promote clearer messages about critical water issues to politicians and decision-makers in the public sector.</p> <p><i>The proposed actions are:</i></p> <ul style="list-style-type: none"> - strengthen leadership in promoting water issues; - proceed with the implementation of the National Water Resources Policy in a continuous and systematic bottom-up fashion; - implement basin committees and executive water agencies in all Brazilian regions; - provide funds specifically for the elaboration and implementation of basins water resources management plans ; - promote water governance and bottom-up social control in the whole country, starting at the municipal level. <p><u>Rapporteur remarks:</u> Two major programs (INTERAGUAS and PROGESTÃO) to increment the implementation of the Water Resources Policy and to support the State's Water Resources Management offices were launched recently by the National Water Resources</p>	<p>1. Decision making instances strengthened</p> <p><i>Expectations:</i></p> <ul style="list-style-type: none"> - basin committees installed and fully operative from sub-basins to the basin as a whole; - basin committees empowered for decision-making; - water resources management performed mainly through larger social participation and smaller government intervention. <p><u>Rapporteur remarks:</u> These expectations imply that the National Water Resources Policy will have been fully implemented and stakeholders capable to carry out duties in the basin committees.</p>

<p>so far. However the implementation of the National Water Resources Policy still depend very much on the mobilization of driving forces at the basins level, i.e., local stakeholders and communities, since IWRM issues pose some degree of difficulty to be understood by all stakeholders, politicians and decision makers.</p>	<p>Agency (ANA). Also, a massive training program is being provided to prospective actors that will be participating in the several management and decision-making instances.</p>	
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<p>2. Making the Water Resources Policy effective</p> <p><i>Integrating water resources management within and among governmental sectors and with society is still needed by providing:</i></p> <ul style="list-style-type: none"> - articulation and integration of the NWRP with related public policies in as much as possible; - convergence in the public sector planning and actions; - intersectorial water users articulation. <p><u>Rapporteur remarks:</u> Brazil is one of the few countries that produced a National Water Resources Plan, in compliance with the MDG. Some plans were also completed in the sub-national level (States of the Federation) for a few basins, but their recommendations are not yet fully incorporated in annual and pluri-annual governmental budgets and plans of action.</p> <p>The IWRM approach is still to be considered as a tool for strategic planning and action policy at communities level.</p>	<p>2. Implement the National Water Resources Plan</p> <p><i>The proposed action is:</i></p> <ul style="list-style-type: none"> - take into account the recommendations and priorities established in the National and sub-national water resources plans in the formulation of annual and pluri-annual action plans and budgets of the governmental sectors. <p><u>Rapporteur remarks:</u> The National Water Resources Plan (2006) contains a set of recommendations and priorities derived from an extensive and intensive participatory work of stakeholders throughout the country. Priorities were updated in 2011 among which the need for articulation among governmental sectors was emphasized, in the planning and implementation of sectorial plans related to water such as the National Plans for Sanitation, Waste Management, Irrigation, Hydropower, and others.</p> <p>Plans for poverty reduction and promotion of socio-economic development are being implemented and evaluated as highly successful from the society's perspective so far. Sanitation and water supply are defined as priorities.</p>	<p>2. Government offices at the Federal and States and Municipal levels plan and implement their actions considering water as a fundamental factor for the articulation and integration of public policies aiming at sustainable development</p> <p><i>Expectations:</i></p> <ul style="list-style-type: none"> - The National and sub-national as well as river basin water resources plans will have been updated and is yearly taken into account in the short and long term planning of all water related activities at all governmental levels; - sustainable development goals are considered as priorities and are expressed in the governmental plans of action and are being progressively achieved.
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3. Focusing on tools for a good water resources management

Public Sector and Basin Committees should plan their priorities of action in accordance with the Agenda XXI and the National Water Resources Plan and propose implementation strategies taking into account resources and effectiveness of results.

Rapporteur remarks: In accordance with the National Water Resources Policy, the water resources management must be decentralized and participatory, involving the public sector, water users and communities. The *loci* where water resources issues and priorities are discussed are the basin committees, of which some 150 were already installed throughout the country.

Focus on priorities and effectiveness in decision making are still major challenges for most of the basin committees.

3. Prioritize actions bound to producing results at local level at short term

The proposed actions are:

- *Implement water resources management at local level (micro-basins);*
- *establish payment for environmental services;*
- *provide capacity-building for the use of best practices in irrigation and in micro-basin management;*
- *provide technical support and funds to local governments for the implementation of efficient prevention of water related disasters (risk management at basin level);*
- *improve warning systems and emergency management*

Rapporteur remarks: The water resources plans tend to focus on IWRM scenarios and long term expectations. Focusing on short term needs tend to motivate stronger stakeholders participation and more effective water resources management. In this connection the National Water Agency – ANA is producing information and implementing programs, such as the Atlas of Water Availability for Urban Supply, the PRODES Program (river basin water quality recovering)

3. Water security is fully provided in all urban areas, and in the majority of rural communities

Expectations:

- *incentives for water conservation are in place and considered as a major component of public involvement in environmental management and water quality improvement;*
- *civil defense has been improved and is well evaluate by communities;*
- *emergency plans are in place in 100% of vulnerable areas;*
- *human life losses as consequences of water related disasters have been minimized.*

Rapporteur remarks: Payment for environmental services are deemed to be efficient for water conservation as well as for land sliding disasters, whose frequency is increasing in urban and rural areas. Public consciousness and participation is gaining momentum in these subjects. In addition, a new civil protection and defense policy was approved in 2012 aiming at improving risk management. River basins are considered as the planning basis for developing civil defense programs.

	and maps of inundation prone areas to improve risk management by civil defense sectors.	
<p>Other issues considered as challenges in water resources management</p> <ul style="list-style-type: none"> - <i>promoting education for adequate and efficient water use;</i> - <i>increasing consciousness of decision makers and the general public towards critical water issues.</i> 	<p>Other issues considered as priorities in water resources management</p> <ul style="list-style-type: none"> - <i>convert water resources plans in concrete action plans;</i> - <i>promote classification of the main river basins in terms of water quality targets for prevailing uses;</i> - <i>promote optimization of the energy matrix in such a way as to keep multiple purpose uses of the water resources.</i> 	<p>Other expectations for the 2030 scenario</p> <ul style="list-style-type: none"> - <i>land use for urban expansion is planned and controlled at the municipal level with strong social participation;</i>

2.2 Water, Sanitation and Hygiene		
Challenges	Priorities	Sustainable Development Goals - 2030
<p>1. Intersectorial integration</p> <p><i>Public sector actions need to be integrated regarding environment, water, sanitation, health, agriculture, soil conservation, climate change and economic policies.</i></p>	<p>1. Prioritize actions bound to producing results at local level at short term</p> <p><i>The proposed actions are:</i></p> <ul style="list-style-type: none"> - <i>focus on areas with low HDI and high water supply and sanitation deficits;</i> - <i>provide technical support and funds to local governments for the implementation of sanitation plans;</i> - <i>promote water supply of at least 40 liters/person/day;</i> 	<p>1. Basic sanitation access provided to all</p> <p><i>Expectations:</i></p> <ul style="list-style-type: none"> - <i>“zero thirst” and “zero hunger” programs accomplished their goals;</i> - <i>waste water collection and treatment is universalized in all urban areas and adequately managed in most rural areas;</i> <p><i>solid wastes fully collected and properly disposed in all urban areas;</i></p> <ul style="list-style-type: none"> - <i>“pollution zero” is well under way;</i>

	<ul style="list-style-type: none"> - eliminate latrines; - adopt measures to eliminate open-air solid wastes dumping; - implement control of agrochemicals use; - implement incentives for BOD reduction at community level; - protect intake areas, especially in intermittent water bodies; - introduce incremental charges for water losses and penalties for pollution of the environment. 	<ul style="list-style-type: none"> - water borne diseases will have been reduced at least by 70%; - soil pollution by agrochemicals will have been reduced by 80%; - HDI and public health indicators reflect improved water, waste treatment and environmental management. <p><u>Rapporteur remarks:</u> “zero thirst” and “zero hunger” are federal programs under implementation now. Their denominations show the level of priority given by the Federal Government to poverty alleviation. “Pollution zero” program is desirable.</p>
<p>2. Financing and increasing access to and good quality of sanitation services</p> <p><i>Public Policies need to be strengthen and funds provided towards:</i></p> <ul style="list-style-type: none"> - financing systems implementation and operation in low-income areas in order to achieve minimally acceptable services and results; - increasing waste water treatment by providing enough treatment plants, not only sewerage pipelines networks; - eradicating water borne diseases; - establishing water productive areas to ascertain water availability for the expansion of urban areas; - planning for the future incorporating 	<p>2. Promote low cost technologies and better sanitation services</p> <p><i>The proposed actions are:</i></p> <ul style="list-style-type: none"> - involve communities in the implementation of low-cost technologies in water supply and waste management and health control. - implement water losses reduction programs; - train local people to act in the social control of the sanitations services; - train local people to act in the surveillance of big polluters; - implement adequate technologies for environmental restoration and ecosystems rehabilitation; 	<p>2. Quality standards of sanitation services implemented</p> <p><i>Expectations:</i></p> <ul style="list-style-type: none"> - good quality public services are extended to all communities; - quality standards guarantee satisfactory water supply and sanitation services; - quality of services is controlled by communities; - service renders are selected by the historical record of good services delivered; - water quality is controlled before and after use; - infrastructure will have been properly designed to cope with climatic changes.

<p><i>climate change;</i></p> <ul style="list-style-type: none"> - <i>promoting private sector participation by means of public-private partnerships (PPPs).</i> 	<ul style="list-style-type: none"> - <i>incorporate climate change resilience in the design of water supply and waste treatment.</i> 	
<p>Other challenges:</p> <ul style="list-style-type: none"> - <i>incorporation of the sustainability principle;</i> - <i>putting policies into practices;</i> - <i>enforcing laws applicable to water, sanitation and health management ;</i> - <i>promoting reuse and efficient water use</i> - <i>adaptation to climate change and extreme events</i> 	<p>Other issues</p> <ul style="list-style-type: none"> - <i>Improve water quality control at the sources;</i> - <i>Improve and control land use around water sources;</i> - <i>finance infrastructure on the basis of land use plans that consider water security;</i> - <i>provide for funds and capacity building for communities living in vulnerable or risky areas, in accordance with the National Protection and Civil Defense System.</i> 	<p>Other expectations for the 2030 scenario</p> <ul style="list-style-type: none"> - <i>Communities do care and act accordingly with respect to water security, including preparedness for extreme events.</i>

2.3 Water Quality and Wastes		
Challenges	Priorities	Sustainable Development Goals - 2030
<p>1. Public policies improvement</p> <p><i>Present policies need to be improved as regards to:</i></p> <ul style="list-style-type: none"> - <i>increasing and extending the use of clean technologies;</i> - <i>incentivating research on clean technologies and wastes treatment;</i> - <i>promoting water reuses;</i> - <i>using refined water quality indicators that detect agrochemical, hormones and other harmful substances for human health</i> - <i>developing public- private partnerships</i> - <i>law enforcement</i> 	<p>1. Promote continuous discussion of the need for improvement</p> <p><i>The proposed actions are:</i></p> <ul style="list-style-type: none"> - <i>Prepare and disseminate reliable information on the state of the public health, water and environment;</i> - <i>Prepare and disseminate updated information on clean technologies on the most critical issues with respect to health, water and environment management;</i> - <i>prepare and disseminate information about best practices related to the three subjects (health, water and environment);</i> - <i>promote goals to be attained in critical river basins subject to water quality degradation and disasters;</i> - <i>promote powerful economic instruments to stimulate evaluation, innovation, implementation, accountability and law enforcement of cleaner technologies;</i> - <i>promote involvement of politicians, scientists, press and general public in the discussions about sustainable development;</i> - <i>implement mechanisms of follow-up and reporting .</i> 	<p>1. Public policies are integrated and enforced</p> <p><i>Expectations are:</i></p> <ul style="list-style-type: none"> - <i>infrastructure is planned and implemented taking into account clean technologies and best practices in water, waste treatment and environmental management;</i> - <i>waste disposal is controlled and properly managed;</i> - <i>water quality is monitored and controlled throughout the country, including heavy metal, hormones and other harmful substances, where applicable;</i> - <i>water quality shows considerable improvement tanks to public consciousness and law enforcement;</i> - <i>water quality in at least 80 % of bodies in or around urban areas is adequate for all purposes, including recreation.</i>

Chapter 3: WRM Monitoring and reporting issues		
Challenges	Priorities (implications for governments)	Minimum requirements (recommendations)
<p>1. Coordination</p> <p><i>In a federal country with complex governance aspects, advances in water resources management require strong intersectorial and intergovernmental (federal, states and municipal) coordination:</i></p> <ul style="list-style-type: none"> - <i>establishing information flows and agencies/offices involved;</i> - <i>implementing uniform data supplying method;</i> - <i>adopting homogeneous monitoring base lines and time intervals;</i> - <i>establishing indicators that are commonly understood by all agents involved and accepted internationally;</i> - <i>respecting deadlines;</i> - <i>publishing and disseminating reports on time;</i> - <i>establishing follow-up of recommended measures;</i> - <i>assuring that reports are read by decision-makers.</i> <p><u>Rapporteur remarks:</u> The National Water Agency</p>	<p>1. Establish agreements among agencies</p> <p><i>The proposed actions are:</i></p> <ul style="list-style-type: none"> - <i>support strengthening of institutions/agencies/offices involved in WRM;</i> - <i>have responsibilities clearly defined, especially on whom will coordinate the report preparation process, if possible by an administrative act;</i> - <i>promote consensus on design and contents of reports;</i> - <i>recognize multiple authorship;</i> - <i>have coordinating meetings;</i> - <i>establish consensus on information submission deadlines;</i> - <i>circulate drafts and minutes for approval of pertinent chapters prepared by the respective agencies involved;</i> - <i>publish reports on time and timely;</i> - <i>establish networks for following-up recommendations.</i> <p>2. Establish continuous improvement of the report preparation process.</p>	<p>1. Monitoring and reporting on WRM should include at least:</p> <ul style="list-style-type: none"> - <i>reporting advances on Water Law implementation and enforcement at all governmental levels;</i> - <i>reporting on articulation among pertinent public policies;</i> - <i>reporting on water availability and quality; water balances, as well as indicators of water consumption and multiple purpose uses and their social economic impacts;</i> - <i>reporting on critical events and their consequences, including evaluation of measures taken to minimize vulnerability, in articulation with Civil Defense and other agencies;</i> - <i>reporting on climate change monitoring;</i> - <i>budgeting and financial resources allocated to WRM;</i> - <i>critical analysis of the present situation of water resources and WRM.</i> <p><u>Rapporteur remarks:</u> The present set of</p>

<p>has been publishing annual reports on the state of water resources management in Brazil (Relatório de Conjuntura) containing information collected from more than 50 institutions. Besides this, there are several kinds of reports published by governmental offices and NGOs dealing with water related issues and performance of WRM agents.</p>	<ul style="list-style-type: none"> - <i>follow-up on acceptance and evaluation by external stakeholders;</i> - <i>promote dissemination among politicians and decision-makers and press.</i> 	<p>recommendations was based on the contents of ANA's 2012 "Relatório de Conjuntura" which may be considered an example of good practice in WRM in Brazil. Reference: http://arquivos.ana.gov.br/imprensa/arquivos/Conjuntura2012.pdf</p>
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