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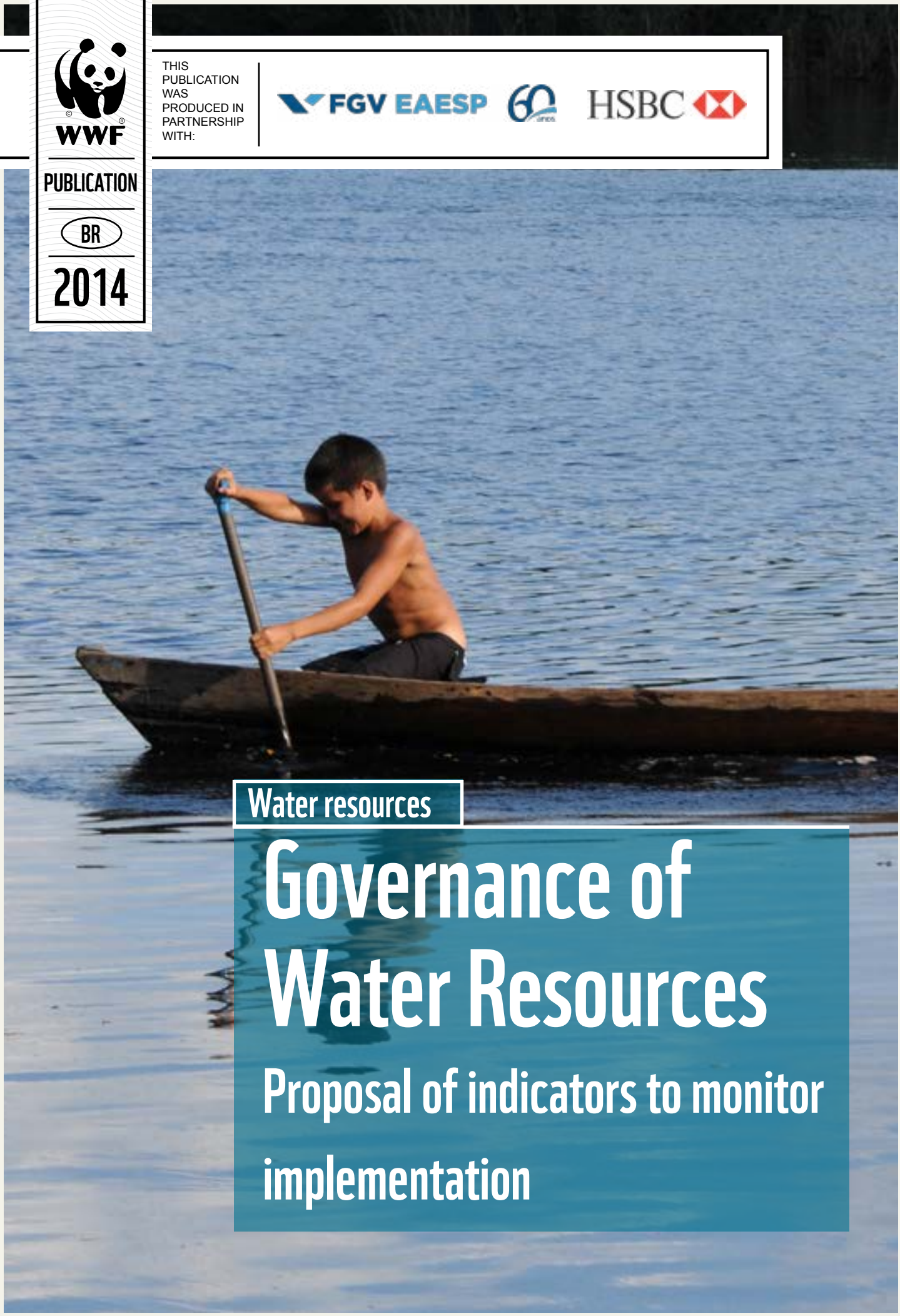

Water resources

Governance of Water Resources

Proposal of indicators to monitor implementation

WWF-BRAZIL

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SPECIAL TRIBUTE

We dedicate this publication to Ninon Machado de Faria Leme Franco (in memoriam) from the Ipanema Institute, who dedicated a large part of her life to the management and conservation of water.

We would like to thank Samuel Roiphe Barreto for coordinating the WWF-Brazil Water for Life Programme between 2001 and 2011 and for his significant contribution to this project.

CONTENTS

LIST OF ABBREVIATIONS

ANA	National Water Agency (Agência Nacional de Águas)
ANEEL	National Agency for Electric Energy (Agência Nacional de Energia Elétrica)
CBH	Water Basin Committees (Comitês de Bacias Hidrográficas)
CERH	State Water Resources Council (Conselho Estadual de Recursos Hídricos)
CFURH	Financial Compensation for the Use of Water Resources (Compensação Financeira pela Utilização de Recursos Hídricos)
CNI	National Industry Confederation (Confederação Nacional da Indústria)
CNRH	National Water Resources Council (Conselho Nacional de Recursos Hídricos)
COGERH	Water Resources Management Company (Companhia de Gestão dos Recursos Hídricos)
CTIL	Technical Council for Legal and Institutional Affairs (Câmara Técnica de Assuntos Legais e Institucionais)
FGV-SP	Getúlio Vargas Foundation – São Paulo (Fundação Getúlio Vargas)
FIEMG	Minas Gerais Industry Federation (Federação das Indústrias do Estado de Minas Gerais)
GTAI	Working Group in Support of the National Water Resources Implementation (Grupo de Trabalho de Acompanhamento da Implementação Nacional de Recursos Hídricos)
IGAM	Mining Institute of Water Management (Instituto Mineiro de Gestão das Águas)
MMA	Ministry of the Environment (Ministério do Meio Ambiente)
MME	Ministry of Mines and Energy (Ministério de Minas e Energia)
PCJ	Piracicaba, Capivari and Jundiaí River Basins Consortium (Consórcio de Bacias dos Rios Piracicaba, Capivari e Jundiaí)
SEGREH	State System of Water Resources Management (Sistema Estadual de Gerenciamento de Recursos Hídricos)
SIAPREH	Monitoring and Evaluation System for the Implementation of Water Resources Policy (Sistema de Acompanhamento e Avaliação da Implementação da Política de Recursos Hídricos)
SINGREH	National Water Resource Management System (Sistema Nacional de Gerenciamento de Recursos Hídricos)
SMA	State Environment Secretary (Secretaria de Estado do Meio Ambiente)
SRHU	Department of Water Resources and Urban Environments (Secretaria de Recursos Hídricos e Ambiente Urbano)
SUS	Universal Healthcare Programme (Sistema Único de Saúde)
UFABC	Federal University of ABC (Universidade Federal do ABC)
USP	University of São Paulo (Universidade de São Paulo)

1. FOREWORD
WWF-BRAZIL

The creation and implementation of the National Water Resource Management System (SINGREH)[1] has involved the efforts of thousands of Brazilians who believed that by participating in public policy, society can develop the governance required in order to achieve the system's objectives.

A result of discussions on the environment that led to the recognition that specific systems for the management of water resources are required, the SINGREH brought with it the hope that water could be used in a better way, ensuring its use in productive processes, its supply for human consumption and the maintenance of the environmental services that depend on it.

However, almost two decades after it was founded and despite the progess made through the formation of hundreds of collective bodies and the implementation of a range of planned management tools, the management of the SINGREH still needs to be consolidated in order to make further advances in the direction that was initially proposed.

As part of its mission to contribute to the conservation and good use of natural resources, WWF-Brazil recognises the SINGREH as the most appropriate vehicle through which water resources can be managed, as it brings together the principles of participation, integration and decentralisation. All of these factors are essential in managing public assets with a high economic value.

In light of this, WWF-Brazil supports initiatives aimed at reinforcing the SINGREH, as demonstrated by the range of actions developed over recent decades and the organisation's encouragement of a reflection on which new practices may contribute to improved implementation of this system.

The unprecedented water crisis that the south east of Brazil faced in 2014 is an indication of the extent to which the management of water has been neglected, not just in Latin America's largest mega-city but in the majority of the country's state capitals. Society needs to assume an essential role and demand concrete action in order to improve the management of water resources, guarantee the country's water security and ensure both economic and social development. A Water Obervatory could provide the transparency required to enable Brazil to move towards responsible sustainability and guarantee access to water for its citizens, for economic activities and for natural ecosystems.

This publication is another contribution from WWF-Brazil for this purpose and was created with the support of the HSBC Water Programme.

Maria Cecília Wey de Brito, *Secretary General of WWF-Brazil. Master of Environmental Sciences and graduate of Agronomy Engineering from the Luiz de Queiroz School of Agriculture at the University of São Paulo.*

[1] Sistema Nacional de Gerenciamento dos Recursos Hídricos in Portuguese.

2. FOREWORD
GETÚLIO VARGAS FOUNDATION

Brazilian public policy has been through some significant transformations since the democratic process was reintroduced to the country. The 1988 Constitution proposed five institutional parameters that changed the face of Brazil's traditional state, namely:

1) The universalisation of access to policy, making this the right of every citizen and not simply a benefit provided by those in power.

2) An increase in the scope of the constitution, expanding the rights of citizens and including environmental issues, such as those relating to water resources.

3) The reformulation of federalism including the decentralisation of policy, particularly in terms of implementation, forms of cooperation, partnership and intergovernmental induction. In the case of the latter, more power was given to the federal government in relation to states, and to a greater extent municipalities, through the distribution of resources, training and the definition of general legislation.

4) An emphasis on the professionalisation of public administration, mainly through staff selection processes and career structures, paving the way for more technical and less patrimonialist forms of management.

5) The democratisation of governmental decisions through the formation of means of social participation at the various stages of public policy.

This institutional upheaval has led to important results over the last 25 years, increasing social inclusion and the power that citizens have to affect governmental decisions. However, there have also been problems along the way; insufficient funding to back the universalisation process, the predominance of some sectors on the public agenda, difficulties in decentralising and federally coordinating policy, the fragility of state bureaucracy across a range of areas (above all at subnational level) and faults in the democratisation process, from the limited ability of some groups to attract participation to the low capacity to mobilize the electorate to participate in the available forums.

A range of measures has been taken in order to solve these problems, in particular the creation of what have become known as Public Policy Systems (Abrucio & Franzese, 2013). These systems were recommended for Brazil's universal healthcare programme (SUS), and they are now used in a range of other areas, such as the public welfare and education systems (currently in implementation). This institutional innovation establishes a systemic logic for each sector, which involves the definition of plans, relationships between federal bodies and interaction with wider society.

In the area of the environment, one of the most important areas was coordinated with the National Water Resource Management System (SINGREH), which was created in 1997. The aim of this publication is to study the governance of this sector. The management of water is essential in any society for a range of reasons; it is important as a part of peoples' diet and their general health, and it is used in economic activities and in energy generation. In short, it is one of the central elements of life. In Brazil, however, as a result of the (mistaken) belief in the infinite supply of this asset and the fact that for centuries it has frequently been misused by both public and private entities, matters relating to water were often relegated to the background.

With the redemocratisation process, social movements, state and federal bureaucrats in technical areas related to water use, academics, politicians and some actors in the private sector started to fight for an overall change in the sector involving the same topics included in the 1988 Constitution as described above. It is noteworthy that a more systemic form of water management first emerged at a subnational level. The formation of River Basin Committees was a great institutional innovation that combined decentralisation, social participation, financing and intergovernmental links between the state and society.

The SINGREH represents significant institutional progress and has brought improvements to the management of the system. However, many of its promises have still not been delivered, particularly because in reality the institutionality that was proposed has still not become completely effective. Some key elements, such as the participative process, decentralisation and intergovernmental coordination have produced substandard results. In the case of the first, because the average citizen still needs to be mobilised within the process and the different sectors involved do not have an equal chance to operate within the system. In the case of the second, because of the enormous heterogeneity of the states, the fragility of subnational bureaucracy (above all at a local level) and the lack of adequate incentives for municipalities to get involved. In the case of the third because the strengthening of the state's instruments, particularly with the creation of the National Water Agency (ANA), provided improvements in policy that were not quite sufficient, above all in terms of federal coordination and the specific type of management that each region requires.

Some other issues were not adequately dealt with by the original model used for the SINGREH. Cross-sector interaction and the need for wider policies related to governmental training (particularly at municipal level) were not included in the original legislation. In addition, Law No. 9,433/97 was not clear on how the system should be managed as it did not describe how methods, targets, follow-up and monitoring, indicators, evaluation and institutional learning should be used to move forward from formulation to implementation.

This omission needs to be resolved, as the process of improving the SINGREH is guided by democratically constructed and regulated results.

The challenge faced by this study was to perform a diagnostic of the SINGREH 15 years after it was created and propose institutional changes leading to its improvement. A result of the partnership between WWF-Brazil and FGV-SP, this study involved extensive research including analysis of specialist literature, legislation and a variety of interviews with strategic actors. The results obtained were then discussed in workshops in order to develop a five-dimensional tool to be used within a systemic management matrix monitored using a measurement tool and indicators. With the completion of this process, it was recommended that a Water Management Observatory be created in line with international trends in the monitoring of public policy.

It is expected that the ideas presented in this document will generate debate around the improvement of the SINGREH. This system needs to be reformulated with fresh impetus so that its original objectives can be met in full: to provide a water management process that is inclusive, democratic, sustainable, federally coordinated and that is able to provide better results that are evaluated and improved on a constant basis.

Fernando Abrucio, *Doctor of Political Science at the University of São Paulo (USP) and professor at the Getúlio Vargas Foundation, São Paulo (FGV-SP).*

3. INTRODUCTION

This study is a contribution to the reinforcement of the National Water Resource Management System (SINGREH) through the proposal of tools aimed at the monitoring of this system's management.

It aims to assist in the development of a system that will monitor the ability of states to provide quality governance of the country's water resources and to connect with and mobilise other state and social actors involved in this process.

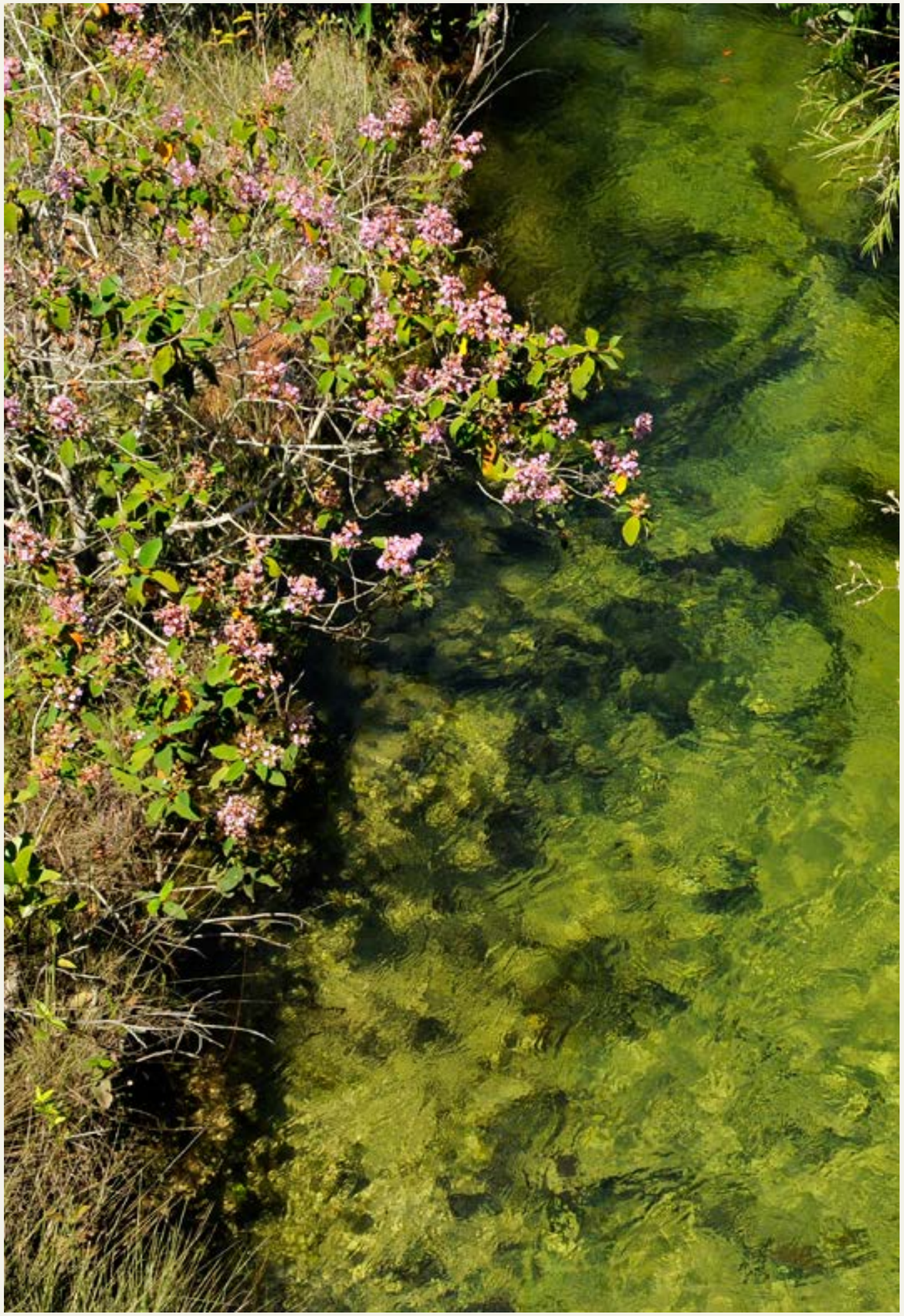
Produced through a process involving nationwide research, governance studies and two workshops guided by the information gathered, the proposals presented represent a starting point from which a deeper understanding may be sought.

In the introduction, information is provided to justify the proposal, explain some of the concepts used and to present the main results obtained from the research carried out by the Getúlio Vargas Foundation (FGV-SP) and WWF-Brazil.

The main text provides a summary of the discussions and proposals that came out of the workshops. For each dimension covered, this includes a description of the relevant concepts, a measurement of the current status, the central issues that should be used to guide the monitoring process and suggestions of indicators that could be employed.

Finally, the participants' conclusions are provided on how the management of the SINGREH should be monitored.

Therefore, the proposals presented should be reflected on by all those engaged in ensuring the SINGREH meets its objective to guarantee water for current and future generations through decentralised, integrated and participative management.



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4. INITIAL CONSIDERATIONS

In order to contribute to the reinforcement of the National Water Resource Management System (SINGREH), WWF-Brazil is offering those engaged in consolidating National Water Management Policy another opportunity to reflect.

This document has been produced by the Getúlio Vargas Foundation (FGV-SP) by WWF-Brazil's request, and its objective is to widen reflection on the management system required in order to ensure the smooth functioning of the SINGREH.

The study is broken down into three parts. The first involves an analysis of health, education, security and welfare management systems. In the second, the theoretical and conceptual foundations of governance are presented. In the third, interviews carried out with 37 relevant actors directly linked to the SINGREH or with significant influence over the system are discussed, providing the conceptual basis of this document. In addition, a model for an indicator measurement tool is proposed.

Discussions were held in two workshops bringing together another set of actors that were identified using a survey and were willing to contribute propsals and suggestions to help achieve the purpose of this study. The workshops led to the development of a measurement tool to analyse the aspects of governance identified by the study and some proposals for the indicators and basis for a monitoring system for the SINGREH.

The aim of the SINGREH, which was created by constitutional resolution and instituted by Law No. 9,433/97, is to guarantee the quality and quanitity of water for current and future generations. This is underpinned by the principles of participation, decentralisation and integration, with the use of institutional attributes and instruments so that the objectives defined in its legal wording can be achieved.

It was established to work as a system, which implies the need for strong links between its different components in order to ensure smooth functioning and a monitoring process to follow its implementation and results, steering it towards its expected performance.

However, this essential monitoring process needs to be improved and reinforced, despite previous efforts the National Water Agency (ANA) with its Situation Report and the attempt to establish a Monitoring and Evaluation System for the Implementation of Water Resources Policy (SIAPREH) by the Department of Water Resources and Urban Environments (SRHU) of the Ministry of Environment (MMA).

The National Water Agency (ANA), by the authority established in Resolution No. 58/2006 by the National Water Resources Council (CNRH), started to develop Brazilian Water Resource Situation Reports. These have been published once a year since 2009 and monitor the situation surrounding water resources on a national scale in terms of quality and quantity, evaluating the development of their management.

The SIAPREH was an attempt to define a set of data and information to be surveyed on a regular basis among bodies working within the SINGREH. Its objective is to systematise information on the activities of the system's members and not to present physical information on river basins, as this is the responsibility of the National Water Resource Information System (SNIRH), instituted by Federal Law No. 9433/97 under the remit of the National Water Agency.

Although the proposal for a monitoring system has been initiated and three reports were published between 2001 and 2006, there is no up-to-date information on the continuity of this monitoring process.

Attempts to generate indicators for this purpose also resulted in an initiative developed by a working group put together by the Technical Council for Legal and Institutional Affairs (CTIL) of the National Water Resource Council. The SIAPREH proposed a resolution creating a permament working group to monitor the implementation of national water resource policy and the SINGREH (GTAI), under the responsibility of the CTIL.

According to the draft that was generated, the GTAI should monitor the implementation of National Water Resource Policy and the SINGREH; define the methodology and evaluation instruments to be used for these activities; monitor and evaluate the implementation of SINGREH and indicate the necessary adjustments; propose resolutions or suggest supplementary studies according to the analysis of the results obtained and present a biannual report on the implementation of National Water Resource Policy and the activities of the SINGREH. For various reasons, the GTAI has still not completed this task.

In 2005, WWF-Brazil sought to contribute to this approach by developing the set of proposals that were presented in the document 'Reflections and Tips' (Reflexões e Dicas para Acompanhar a Implementação dos Sistemas de Gestão de Recursos Hídricos no Brasil on the WWF Brazil website), in an effort to identify how the SINGREH could be implemented. The document, however, did not include any proposal for the method to be used for the monitoring process, but instead listed some possible indicators that could be used to monitor its implementation.

At this time, it was recognised that the conditions required for the SINGREH to develop robust governance and achieve its objectives should be monitored. However, it was generated at a time when there was a lack of managerial experience within the system.

Today, 15 years after the SINGREH was instituted, there are still no governance indicators within the system. In some cases there are indicators for the quality of water and the implementation of management tools, such as the ANA Situation Reports and some other state reports. There is also a lack of systematised monitoring of the SINGREH, mainly in terms of its governance.

Faced with this, WWF-Brazil has started once more to encourage dialogue in order to improve the SINGREH's governance mechanisms, and has included in this document some of the essential components for its development; the related concepts, analyses and proposals.

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5. SOME CONCEPTS USED

Although a range of concepts are used to define the terms involved in monitoring and evaluation processes according to the outlook of each discipline, the following concepts are suggested for the purposes of this report:

- FOLLOW UP – any observation or registration system, whether permanent or at defined regular intervals, used during the whole cycle of implementation, execution and management involved in any intervention, isolated event or series of events.

- EVALUATION – the systematic and objective examination of a project or programme, whether complete or ongoing, including its performance, implementation and results, with the purpose of determining its efficiency, effectiveness, impact, sustainability and the relevance of its objectives (UNICEF, 1990). It also involves determining the value or significance of an activity, policy or programme. It is a judgement that is as systematic and objective as possible (OCDE, 1996).

- BUREAUCRACY – in the Weberian[1] sense of the word, this is an organisation or organisational structure characterised by specific regulated rules and procedures, the division of responsibilities and specialist work tasks, hierarchical structures and impersonal relations.

- EFFECT – the result of the programme's influence. In terms of time, the objective is located before the programme is started. The effects are the results of the programme's actions and may be intermediate, occurring during the programme, or may be final, remaining after the programme. Effects may be desired, when they are established as objectives, or undesired. (Cunha, 2006).

- EFFECTIVENESS – the relationship between the results and the objective. "It is a measure of the impact or degree to which the objectives have been achieved" (Cohen and Franco, 2004).

- EFFICACY – the relationship between the attainment of targets and time, or in other words, it is the degree to which the project's objectives and targets are met within a determined period of time, without taking into account the costs involved.

- EFFICIENCY – the relationship between cost and benefits, where the minimum total cost is sought for a certain quantity of a product, or the maximum amount of a product for a previously fixed expenditure.

[1] WEBER, Max; Essays in sociology 5th edition, Rio de Janeiro: LTC Editor, 1982.

- IMPACT – the results of the programme that can be attributed exclusively to its actions after eliminating external effects. It is the net result of the programme.

- INDICATOR – a tool that identifies and measures aspects related to a determined concept, phenomenon, problem or result of a real intervention.

- GOAL – this includes the quantitative, temporal and spatial dimensions of the objective.

- MONITORING – the systematic, continuous and permanent follow up of a programme, project or group of actions that generates information on performance, the degree of success, positive and negative aspects and advantages and disadvantages.

- OBJECTIVE – this is the desired situation to be achieved by the end of the programme's implementation through applying resources and carrying out the planned actions (Cohen and France, 2004).

- POLICY – the formulation of proposals with form and status. Policies receive a minimum level of treatment in terms of the definition of targets, objectives and resources. These are transformed into programmes when an implementation strategy is defined and the initial conditions for their implementation are created through an act of authority (Silva, 2002).

- PRODUCT – this is the concrete result of the activities developed by the programme, whether goods or services.

WHAT IS GOVERNANCE?

According to Abrucio and Oliveira, "The concept of governance is linked historically to debates on organisations, particularly companies analysed from a corporate governance perspective, and debates on the reform of the state and its role in relation to society and the market. It can be said that governance involves both administrative management by the state and the capacity to interact with and mobilise actors at a state and social level in order to solve dilemmas related to collective action (...) In summary, public governance is a branch of public administration theory that seeks to align criteria in favour of democratisation with those designed to improve policy performance, upholding that the state has a leading role in resolving collective problems, but that it must do this while interacting with society."

The main points on the public governance agenda are as follows (cf. Abrucio, Morelli & Guimarães, 2011):

1. Increased emphasis on the democratisation of the state, with the government opening up new channels for participation and the expansion of the internet, among others.

2. The search for improved coordination in the government's internal and external activities; the former through matrix structures and shared responsibility and the latter through a network of interconnectivity models and partnerships. Particular attention is given to processes bringing together joint operations between society and the market (public-private partnerships).

3. Improvement of mechanisms enabling the results of public policy evaluations to be absorbed, generating new practices and organisational formats.

4. Valuing and motivating public-sector employees in addition to the required flexibility proposed by new public management reforms in order to guarantee an adequate balance between requirements and responsibilities, leading to the provision of training programmes and motivational tools.

5. Adoption of new parameters within traditional public administration, such as increased empowerment, more balanced functions (coordination), ethics and equity, which would be added to the so-called "Es" of public administration; efficacy, which is the focal point of the Weberian model; efficiency and entrepreneurship, underpinned by managerial vision; and effectiveness (the impact of governmental actions), held up as seminal by the New Public Management approach.

The figure on the following page presents the five dimensions of public governance and emphasises the strong interactions between each of these. This model was the basis used to understand the dynamics of the SINGREH.

PUBLIC GOVERNANCE MODEL

INSTITUTIONAL ENVIRONMENT

- QUALITY OF LEGISLATION
- EFFECTIVENESS OF THE LAW
- QUALITY OF REGULATION

STATE CAPABILITIES

- FINANCIAL RESOURCES
- QUALITY OF BUREAUCRACY
- COORDINATED ACTION OF GOVERNMENTAL AGENCIES

SYSTEM MANAGEMENT TOOLS

- PLANNING
- TARGETS
- MONITORING
- INDICATORS
- EVALUATION OF PUBLIC POLICY

INTERGOVERNMENTAL RELATIONS

- SYSTEMIC LOGIC
- FEDERAL FORUMS
- AUTONOMY OF BODIES
- MECHANISMS TO ENCOURAGE COOPERATION AND COORDINATION
- FLEXIBILITY AND INNOVATION

STATE - SOCIETY INTERACTION

- INTERCONNECTION BETWEEN CONTROLLING BODIES
- PARTICIPATION CHANNELS
- INCLUSION AND PUBLIC EDUCATION

6. CONCLUSIONS FROM THE STUDY BY FGV-SP & WWF-BRAZIL

Between 2001 and 2012, 37 strategic actors working at various levels within the system were interviewed, with this survey being designed in order to seek out a wide range of opinions. This qualitative study produced a diagnostic of the system's critical issues, which are summarised in the chart below:

INSTITUTIONAL LEGAL FRAMEWORK

• The law is innovative to the extent that it creates a management structure that surpasses the territorial boundaries of states and municipalities : river basins.

• The system favours increased awareness among the population on the importance of issues related to water resources.

• The implementation of management tools is still progressing slowly, particularly in the areas of charging and framework.

• The legal framework does not interfere in the control of soil use management.

• It also does not consider the physical diversity and heterogeneity of the different regions of Brazil and does not define incentives to encourage municipalities to participate.

POLICY FINANCING

• Difficulty in implementing charges as a tool to finance committees.

• Resources generated through charges are not sufficient for the management of water resources

• Charging needs to be adjusted to consider regional differences across the country.

• The use of existing resources is hindered by insufficient coordination between different policies and levels of government.

• Difficulties are caused by the bureaucracy associated with creating agencies and their ability to use resources obtained through charges.

• Most committees do not have autonomy in the application of funding.

ROLE OF FEDERAL ENTITIES

Federal government

• The main role is the management of interstate and cross-border river basins.

• The institutionalisation process for committees is still slow and bureaucratic.

• The ANA has taken on a minor role as the government has not been prioritising policy on water resources, even though it has a lot of potential to do so in terms of human resources.

• The ANA could take on the role of promoting training and offering more technical support to states and especially municipalities in their management of water resources.

• The Ministry of the Environment (MMA), via the Secretary of Water Resources (SRHU), is not a very proactive actor in terms of policy and does not coordinate its activities with other related ministries (Ministry of National Integration, Ministry of Cities, Ministry of Mines and Energy).

State governments

• State activities are fairly heterogeneous, only partly reflecting the differences in technical capabilities seen at federal level.

• The changing level of priority given to different state governments demonstrates the extent to which these systems are at the mercy of political change.

• Few studies have developed specific tools to meet the particular needs of each region.

• States do not significantly contribute to integrating municipalities into the system, and there is a lack of material incentives and human resources available for training and to encourage local governments to act.

Municipal governments

• Municipalities are underused in the systems. They could be more engaged through delegation within the areas of grants and supervision.

ROLE OF FEDERAL ENTITIES	• The majority of municipalities have very low technical capabilities. • Committees do not have visibility in distant municipalities or larger river basins • Municipalities have the advantage of being able to work with soil management, which is strategic in water management. However, whether through technical insufficiency or lack of political interest in the matter (many city halls are more tied up with real estate groups), local governments do not coordinate soil use with issues relating to water. • There is a need for dialogue between river basin plans and municipal master plans.
RELATIONSHIP BETWEEN ENTITIES	• The management of water resources should involve cooperation between the different levels of government. A certain amount of progress has been made recently, but this is still not significant. • There is almost no dialogue between federal and municipal government in terms of water resources. Dialogue at state level occurs infrequently and only when required. • Experience shows that it is the nature of conflicts that makes cooperation easier or more difficult.
WAYS IN WHICH SOCIETY CAN PARTICIPATE & ACCOUNTABILITY	• The system is excessively bureaucratic, which makes it difficult for civil society organisations to have significant participation. • Participation is defined as education and awareness on the theme, and the important role that wider society has in participatory processes • It is recognised that social participation is important for the system, although this has been weakened for a range of reasons, such as the technical level of some discussions and the wider capacity of some sectors in organising themselves compared to others.

ANA	• It is recognised that the agency is highly important to the system. • The agency has received criticism for its centralised nature. • The role of the ANA is uncertain within some of the sectors in the system, particularly in relation to the SRHU. • There is a detachment between the role of the ANA and River Basin Committees.
IMPORTANCE ON PUBLIC POLICY AGENDA	• Policy on water resources has not been a priority in the country other than at times of extreme climatic events, such as floods and droughts.
POLICY MANAGEMENT (TECHNICAL CAPACITY OF BUREAUCRACY)	• States and municipalities have difficulty dealing with water resource management as a result of the weakness of their workforce. • There is little technical training geared towards policy management. • There is also a need for training in social participation and education.

7. SINGREH'S GOVERNANCE THERMOMETER

The five dimensions of the governance model were initially adopted as benchmarks for discussions on a monitoring tool and indicators as follows:

A. Institutional environment
(effectiveness of the law and the importance of this theme on the public agenda)

B. State capabilities
(financial resources and quality of bureaucracy)

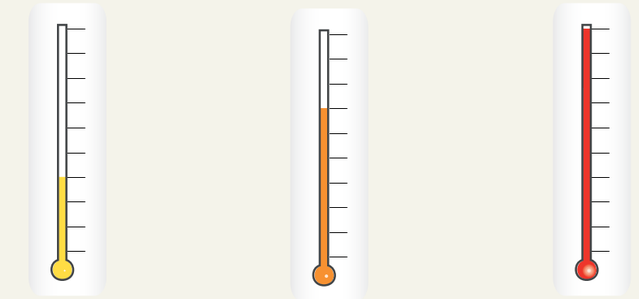
C. Management tools
(planning, goals, monitoring, indicators and evaluation of public policy)

D. Intergovernmental relations
(interconnection in and between different sectors, municipal participation in the system and federal forums)

E. State - society interaction
(training and participation channels)

The data was presented to 31 people, including academics, policy makers, members of non-governmental organisations and activists in the area of water resources, on 24th-25th April, 2013, at the Getúlio Vargas Foundation in São Paulo. The debate that followed led to the development of a monitoring tool to identify the extent to which water resource policy is aligned with the five structural dimensions of the governance system.

The monitoring tool included three stages; basic, intermediate and advanced. The definition of each stage was backed up with arguments to justify each classification.



On 17th-18th September, 2013, another workshop was held in the auditorium at the Department of Water Resources (SRHU/MMA) in Brasília with the objective of widening this discussion. Using the monitoring tool described above, the participants tried to propose a set of indicators and tool to monitor this policy.

The resulting indicators were given three subheadings as follows:

I. Aspect of governance
A brief description of each aspect to be monitored.

II. Thermometer
Evaluation of the stage that each aspect is at and the relevant justification.

III. What needs to be monitored
Important questions that should guide the monitoring process.

A - DIMENSION OF GOVERNANCE: INSTITUTIONAL ENVIRONMENT

A.1 EFFECTIVENESS OF THE LAW

I. ASPECT OF GOVERNANCE

The SINGREH was instituted by Law No. 9,433/1997, preceded by the creation in 1995 of the Ministry of Environment, Water Resources and the Legal Amazon, which is now the MMA. In the same year, the Department of Water Resources was created within the MMA, which is now the SRHU.

The following year, Law No. 9,433/97 of the National Water Resources Council, the highest authority of the SINGREH, was regulated and installed.

In 2000, through Law No. 9,984, the National Water Agency (ANA) was created under a special management regime with administrative and financial autonomy and linked to the MMA. The ANA was instituted with the aim of implementing National Water Resource Policy, integrating the SINGREH.

Decree No. 4,755 of June 2003 redefined the powers of the former SRHU, making it responsible for following up and monitoring the implementation of National Water Resource Policy and assigning it as coordinator of the SINGREH.

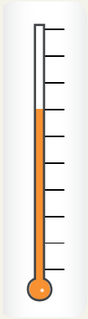
At state level, even before the national legal framework was introduced, various states had already created their own policies for water resources. In fact, the first water resource systems came out of state level. With the enactment of national law, some states revoked their laws and sanctioned others in order to comply with federal law.

For the monitoring of the governance of water resources, it is worth considering that the institutional model should go beyond the requirements of general law for the system and should include renovation and constant legislative improvements, as well as giving an important role to the coordinating authority in order to guarantee the effectiveness of the legal framework.

The idea is that the system should involve not just regulatory framework but above all the constant assembly of a coalition to support its operation.

II. THERMOMETER: INTERMEDIATE STAGE

During classification, it was considered that the institutional environment of the SINGREH is at an intermediate stage, taking into account the obvious progress that this law has made, it defines the economic value of this natural resource, guarantees decentralisation and the participation of society and includes consistent management tools.



On the other hand, it does not explicitly recognise the imbalances resulting from the specificity of different biomes within Brazilian territory and does not provide different institutional arrangements when scaling problems, leading to a difficulty in recognising other forms of organisation and decentralised participation beyond the River Basin Committees.

Another omission is the absence of a clear definition of the role of municipalities, which does not comply with the country's triple federalism. The legislation also fails to define institutional relations within the system itself.

During the implementation stage, it was verified that the progress made by the public administration in the legislation of water resources had still not been absorbed by state administrative and financial regulations. At this time, administrative difficulties had to be faced, such as the use of contingency budgetary funds. The external regulations within which the system is inserted prevent efficient regulation. There are important sectors for the management of water resources that have their own regulation, such as the electricity and environmental sectors.

It was also verified that the SINGREH alone cannot encompass the entire water agenda, particularly the Water Resource Policy objectives for the control and management of adverse critical events (floods and droughts).

Faced with these weaknesses in the system, some of the factors limiting the effectiveness of SINGREH law need to be removed, such as:

• Inflexibility: There is the need to provide different institutional arrangements to match the country's heterogeneity and regulate arrangements being developed in different regions, such as the reservoir management committees in semiarid states.

• Integration: The lack of integration between soil use and water management, addressed through strategies to strengthen the participation of municipalities.

• Command: The lack of command by the MMA in the integration of Water Resource Policy with political sectors directly related to water resource management.

• Connection: The lack of connection and integration with development plans at a national level and between federal, state and municipal government.

A.2 IMPORTANCE OF THE THEME ON THE PUBLIC AGENDA

I. ASPECT OF GOVERNANCE

What is the degree of importance that the theme of water has on the public agenda? What are the most effective tools that can be used to monitor this? Considering that an agenda can be seen as a set of problems within the public debate that should be attended to by a legitimate political authority, this importance should be tracked during the monitoring of SINGREH governance.

WHAT NEEDS TO BE MONITORED

When monitoring the reinforcement of governance in terms of its institutional aspects, it is recommended that the following be observed:

• How is the law being adjusted within different regions?

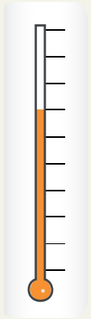
• How is municipality participation in SINGREH boards changing?

• How are the directives and targets of River Basin Plans being incorporated into municipal master plans and vice versa?

• How are the directives and targets of national and state Water Resource Plans being absorbed and incorporated into social and economic development and sectoral plans?

Faced with the existence of various developmental policies that impact the quantitative use and/or quality of water resources, water should be considered to be one of the strategic elements within such policies.

II. THERMOMETER: INTERMEDIATE STAGE



• Low political prioritisation of the theme of water on Brazilian state agenda.

• The obstructions observed are mainly caused by a lack or insufficiency of coordination, cooperation and communication between federal entities, as they do not prioritise the definition or enactment of a strategic political agenda on the theme of water either horizontally or vertically.

• Interaction between entities within the same sphere and between spheres at all levels needs to be reinforced and continuous. Discussions on water should permeate sectoral policy in a way that is concrete and coordinated.

III. WHAT NEEDS TO BE MONITORED

• The signing of the Pro-Management of Waters Pact by entities within the system as a mechanism to introduce cooperation.

• The holding of regular meetings by the CNRH and state councils presided over by their respective presidents, reflecting the political commitment of their leaders towards the importance of their agendas.

• The registration of the mapping produced during these meetings and the agendas of Water Resource Councils.

• The adoption of Water Resource Plans on sectoral agendas, multiyear plans and their respective budgets.

• The number of municipal programmes aimed at water management relating to; protection, conservation, revitalisation and decontamination of water resources.

B - DIMENSION OF GOVERNANCE: STATE CAPABILITIES

B.1 FINANCIAL RESOURCES

I. ASPECT OF GOVERNANCE

Stable financial foundations and the participation of all three levels of government, to a greater or lesser degree, are required in this process, chiefly federal government, which should have the power to equalise conditions for federal entities and their policies.

Financial resources specifically provided by federal government in order to implement National Water Resource Policy and coordinate the SINGREH are defined in the Annual Budgetary Law and are principally obtained from the following sources:

• A percentage of the financial compensation obtained from the electricity sector (Source 134), which corresponds to 6.75% of the value of electrical energy produced, distributed in the following way:

- 0.75% of the value of energy production relating to payments for the use of water resources by the electricity sector, collected by ANEEL.

- 6% of the value of energy production is distributed between: municipalities (45%), states (45%), the National Fund for Scientific and Technological Development (4%), MME (3%) and MMA (3%).

• Charges for the use of water resources (Source 116) – values collected directly by the ANA from those granted permission to use the Paraíba do Sul, Piracicaba, Capivari and Jundiaí (PCJ), São Francisco and Doce river basins.

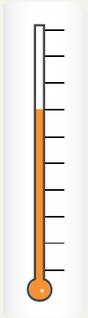
• Financial compensation for the use of water resources for the generation of electricity (CFURH) was instituted by Law No. 7,990/1989. Law No. 9,984/2000 established that the following percentages of financial compensation should be designated for water resource management:

- 3% is designated to the MMA, corresponding to 0.18% of the value of hydroelectric energy generation (including royalties from the Itaipu Dam), and must be invested in the implementation of National Water Resource Policy, the SINGREH and in the management of the National Hydrometeorological Network.

- 0.75% of the value of energy production refers to payment for the use of water resources and must be designated to the MMA for investment into the implementation of National Water Resource Policy and the SINGREH, according to the terms of Article 22 of Law No. 9,433/1997.

State and municipal funding is provided to the water resources sector according to the legislation and norms of each state and locality.

II. THERMOMETER: INTERMEDIATE STAGE



The financing and management of water resources is at an intermediate stage, considering that:

• The existence of CFURH guarantees that 14 states have access to 45% of R$1.6 billion, in varying amounts, which may be used for the financing of the system.

• Some of the municipalities of these states also have access to 45% of the same value.

• Regulatory mechanisms may recommend application within the system.

• The legislation does not guarantee that resources from funds maintain the system's human resources.

• There are differentiated models for the management of resources for the system (such as what the state of Ceará does through the Ceará Water Resources Management Company [COGERH]).

• There is still no differentiated relationship between predominant uses/users in order to develop new mechanisms to sustain the financing of the system.

• It was verified that there is a lack of rules that ensure existing resources are applied within the SINGREH.

III. WHAT NEEDS TO BE MONITORED

• The formation and operation of a support fund for Water Resource Policy.

• The linking of CFURH to the implementation of actions that lead to qualitative and quantitative improvement of the management of water resources.

• The integration and improvement of the management of resources available for the management of water resources.

• Public policy, management tools and their respective sources of financing designated for the implementation of national and state water resource systems.

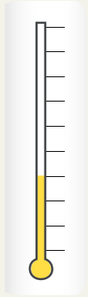
• Proposals in national congress that contribute to increasing resources for the implementation of National Water Resource Policy or minimise the power of lobbies that try to reduce progress that has already been made.

B.2 QUALITY OF BUREAUCRACY

I. ASPECT OF GOVERNANCE

Bureaucracy is defined here as an organisation or organisational structure characterised by specific regulated rules and procedures, division of responsibilities and specialisation of work tasks, hierarchical structures and impersonal relations. Training in bureaucracy at subnational level is essential to the success of public policy systems. These actors are fundamental to ensure good performance by states and municipalities.

II. THERMOMETER: BASIC STAGE



The analysis indicated that in most states the level of training is low (including institutional political knowledge), teams are understaffed, there is an absence of career plans and in some cases there were problems localising the system within administrative structures, hindering the training of permanent technical teams.

III. WHAT NEEDS TO BE MONITORED

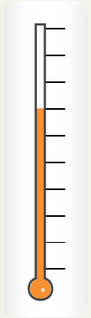
• If the managing authority's technical team is quantitatively and qualitatively sufficient for the stage of progress that the implementation of management tools has reached.

C - DIMENSION OF GOVERNANCE: MANAGEMENT TOOLS

I. ASPECT OF GOVERNANCE

The creation of management based on targets and indicators is essential in a system of public governance. However, for this to occur the logic of the actors operating within the system needs to be changed, reorienting their behaviour to focus on achieving results. In this context, indicators should have a mobilising role that will impact actors intrinsic and extrinsic to the policy.

II. THERMOMETER: INTERMEDIATE STAGE



• Low level of development in the planning process.

• There are different plans for different regions.

• Interconnection with other policies – there are elements of interaction (within and between sectors), and although this is still not fully developed it is being worked on.

• There is no monitoring of the effectiveness of plans.

III. WHAT NEEDS TO BE MONITORED

• The interaction of plans at various levels of government, including multiyear plans and the definition of responsibilities in development and execution (actors).

• The existence of documents (plans and follow-up reports).

• Is there a sectoral plan for the various levels of operation for the policy? (Human resources plan)

• Are plans for the different spheres and sectors connected?

• What is the quality of goals? (Are they feasible?)

• Is there a clear definition of responsibilities in achieving goals?

• Are resources sufficient and with clearly defined sources?

• Is there a monitoring system?

• Is the responsible entity defined by the monitoring and evaluation process?

• Has the regularity at which monitoring should be carried out been defined?

• Is data and information on the actors responsible systematised?

• Is data collection coordinated?

• Availability of financial resources.

• Integration with other public policy and environmental and territorial, energy and agricultural management tools, among others.

D. DIMENSION OF GOVERNANCE: INTERGOVERNMENTAL RELATIONS

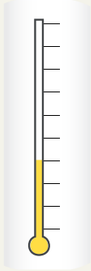
D.1 INTER AND INTRASECTORAL INTERACTION

I. ASPECT OF GOVERNANCE

The development of intrasectoral interaction is key to the success of policies, and in many cases, this is the same for intersectoral interactions. Discussions about water should permeate sectoral policy in a concrete and interactive way.

When designing systems, committees should integrate the planning of water resources with sectoral plans, and according to their sphere of activity, with national or state plans.

II. THERMOMETER: BASIC STAGE



It was verified that there is a lack of interaction between ministries and between subnational departments. The intergovernmental logic of the federation (within its three spheres of activity: federal, state and municipal) and the entities that are part of the SINGREH (in their spheres of activity: national, state and river basin-level) present obstructions in their channels of operation, vertically,

III. WHAT NEEDS TO BE MONITORED

• Interaction between sectoral policy and definition of common goals.

• Representation of other public sectors that are important in the management of water resources in State Water Resource Committees.

• Participation of water resource managing bodies in other public policy committees with a potential synergistic effect.

• Effective representation of all state systems within the CNRH.

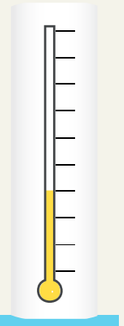
• Monitoring and coordination of the system through an executive body linked to the CNRH and in the form of a board with representation of all of the states.

D.2 PARTICIPATION OF MUNICIPALITIES IN THE SYSTEM

I. ASPECT OF GOVERNANCE

The logic of governmental interrelations within the federal system (in its three spheres of activity; federal, state and municipal) and the members of the SEGREH (in its spheres of activity: national, state and river basin-level) present obstructions in their channels of operation, vertically, horizontally and transversally.

II. THERMOMETER: BASIC STAGE



Municipalities are just starting to participate in water resource committees and they are poorly qualified, as is the case for their activities in soil occupation and use, sanitation and interface with water resource management, where development of municipal laws and plans was not observed.

III. WHAT NEEDS TO BE MONITORED

• The definition of municipality participation in legal management tools.

• Development of a water agenda for municipalities.

• Municipal plans and laws including actions to protect water resources (protection, revitalisation and decontamination).

• The existence of effective actions to protect water resources (preservation, revitalisation and decontamination).

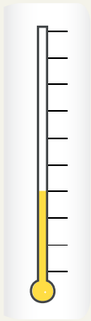
• The incorporation of directives and targets from municipal basic sanitation plans in River Basin Plans.

D.3 - FEDERAL FORUMS

I. ASPECT OF GOVERNANCE

Federal forums should have horizontal and vertical interaction with all levels of government, and should increase the legitimacy of policy, increase federal cooperation and guarantee the flow from formulation to implementation..

II. THERMOMETER: BASIC STAGE



The existence of forums (CNRH, CERH and CBH, as well as other informal forums) represents progress in the structuring of the SINGREH but not in Water Resource Policy in terms of results. The reasons for this include weak institutional interaction, a lack of a defined strategic agenda constructed and agreed upon by these entities and the failure to achieve full institutional representation.

Transnational forums – weak transnational and cross-border management by the country, as a result of differences in structures and legislations between countries and the different stages of implementation of their water resource policies. In addition, on a global scale, the theme of water has been fragmented within the structure of the United Nations, which now treats it as a sectoral issue.

III. WHAT NEEDS TO BE MONITORED

• Effective management actions carried out through interaction/agreements (horizontally and vertically) and produced by participants in the system.

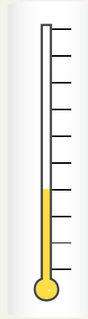
E. DIMENSION OF GOVERNANCE: STATE - SOCIETY INTERACTION

E.1 QUALIFICATON OF PARTICIPATION

I. ASPECT OF GOVERNANCE

Qualified participation is a prerequisite for good governance, which means measures must be adopted to improve the operation of participatory arenas and to encourage the population to act within committees, councils and other bodies related to this area.

II. THERMOMETER: BASIC STAGE



One factor compromising the progress of the implementation of policy through intergovernmental relationships is the skill-level of the people working in these systems, reflected in the lack of understanding of the policy (basis, directives, objectives and tools) and of the SEGREH (its entities, expertise and ways of working).

Another component of the skills required is experience in political debate, taking into account the fact that the system's participatory meetings require more than just technical ability.

Research among participants of collective bodies has shown that one of the largest obstacles to skilled participation has been the quality of the information provided in this area.

III. WHAT NEEDS TO BE MONITORED

• If technical information is being provided in accessible language guaranteeing the participation of everyone in the decision-making process within boards.

• The existence of institutional training campaigns that encourage participation in the system.

• The implementation of projects, actions and deliberations, monitored and evaluated by collective bodies.

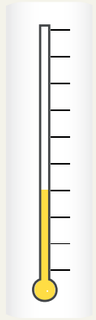
E.2 PARTICIPATION CHANNELS

I. ASPECT OF GOVERNANCE

Governments should develop the capacity to interact with society and to educate the public so that they can improve the social participation process. This is valid not just for the system's "direct users" but also for society as a whole. The ability to have dialogue and negotiate with other sectors of society and with controlling bodies is also an important tool in public governance.

The River Basin Committees are provided for in state and federal legislation and are an integral part of the system. They are participatory in nature, as public bodies, users and members of civil society sit on these boards, with mandates that are alternated on a regular basis. Committee discussions emphasise their participatory nature, although it is important to highlight the little-known fact that legislation attributes these with a deliberative character, which may explain any misunderstanding relating to their function or the absence of the financial resources required to ensure their feasibility.

II. THERMOMETER: BASIC STAGE



Even though participation channels are legally guaranteed, this does not provide any guarantee of their quality or that the results of their management will be achieved.

There is a need for training and increased awareness on the role of citizens in their participation in the system. There is a lack of information and people have not heard of the SINGREH. The participation of society needs to be qualified and the dissemination of information on the SINGREH in mass media needs to be increased.

At an intermediate stage it can be affirmed that the main channel of participation for the SINGREH, the River Basin Committees, are being created and that there are already nearly 200 of these across the whole country. There is currently a discussion surrounding the suitability of legislation in relation to other forms of decentralised participation. There are management tools, however in some cases committees have not managed to monitor or implement them.

National and state committees must also be considered at this stage. The relationships between representatives and those they represent in collective bodies needs developing.

III. WHAT NEEDS TO BE MONITORED

- The need for training in state bureaucracy in order to promote public policy for the management of water resources in a decentralised and participatory way.
- The existence of technical and political training on policy for society and public authority technicians, particularly to increase understanding of participatory processes.
- The provision of information for society in general with technical content translated into language that can be widely understood.
- Effective instruments that increase transparency and social control of national and state water resource systems.
- Strategies to mobilise and widen the range of people that participate directly or indirectly in the management of water resources.
- Social perception of water's strategic importance and its dimensions.
- The participation of wider society in technical councils and working groups in collective bodies proposing themes.
- Mapping of training offers within the system.
- The existence of visual educational material.
- The use of websites, bulletins and visual material, including access to river basins.
- The existence of documents relating to this strategy (River Basin Committees, public authority, NGOs, users).
- The existence of campaigns and the raising of awareness around the theme of water.
- Fulfilment of the legal requirements set by collective bodies.
- The maintenance of technical councils (operability and internal democracy).
- The formation of River Basin Committees with balanced and plural representation. Interaction between representatives and those they represent.
- Continued and permanent participation in processes of elaboration, monitoring and implementation of plans and other management tools.
- The content of committee and council deliberations.

8. SOME PROPOSED INDICATORS

In the final stage of this study, the set of actors that participated proposed some indicators for the governance process so that these could be tested and applied in order to monitor water resource management.

These are presented below:

Dimension of governance	Aspects of governance	What needs to be verified	Suggested indicators	Sources
INSTITUTIONAL ENVIRONMENT	Effectiveness of legislation	The development and legal recognition of adaptations to tools and boards for water resources.	Degree of suitability of the law in terms of the country's differing regions: ( )Totally; ( )Requires adaptation;	Legal regulations by the CNRH and the CERH.
	Importance of theme on the public agenda	If the theme of water and the directives, targets and recommendations of the SINGREH are being incorporated in debates for development policies that have been or are being formulated.	Degree of inclusion of the theme of water (directives, targets and recommendations of the SINGREH) in debates for development policies.	Analysis of agendas and reports from the national and state water resource councils. Analysis of agendas and reports from the main councils on development and infrastructure policy.

Dimension of governance	Aspects of governance	What needs to be verified	Suggested indicators	Sources
STATE CAPABILITIES	Coordinated activities of governmental bodies	Interaction between Water Resource Policy and related municipal policies.	Degree of absorption of the River Basin Committees' directives and targets in municipal master plans (and vice versa).	Comparative analysis of River Basin Plans and municipal master plans.
		Interaction between Water Resource Policy and related sectoral policy.	Degree of absorption of the directives and targets from national and state water resource plans in social and economic development plans and sectoral plans.	Comparative analysis of national and state plans and development plans from related sectors.
		If monitoring and coordination of the system is taking place through an executive body linked to the CNRH in the form of a board with state representation.	Coordinated actions by the system's coordinating body.	Minutes from meetings and the body's monitoring reports.
	Quality of bureaucracy	If the managing body's technical team is quantitatively and qualitatively adequate in terms of the stage of the implementation of management.	Composition of the water resources team for the managing body (quantity and skills level).	Survey performed with managing bodies.

Dimenstions of governance	Aspects of governance	What needs to be verified	Suggested indicators	Sources
STATE CAPABILITIES	Financial resources	If there is a fund being operated for the management of water resources.	Revenues being applied to management via a national water resources fund.	Financial reports.
		If funds from CFURH distributed to states and municipalities are being applied to assets aimed at the management of water resources.	Actions implemented using CFURH resources.	Analysis of the application of CFURH resources in states and municipalities.
		Identification in multiyear plans of the resources that will be designated for water resources and related areas, considering the priority of the respective water resource plans.	Execution/ budgetary execution of resources in multi-year plans for water resources.	Analysis of federal and state multi-year plans.
		Execution of plans.	Resources provided to bodies and sectors (applied)/ planned resources.	Financial reports.

Dimension of governance	Aspects of governance	What needs to be verified	Suggested indicators	Sources
MANAGEMENT TOOLS	Indicators	Existence of indicators that monitor actions.	Provision of indicators in planning.	Analysis of documents: plans and monitoring reports from existing plans.
	Monitoring	Existence of regular monitoring.	% of monitoring actions executed in a predetermined period.	
	Monitoring and evaluation	The effectiveness of monitoring – if the identified needs for correction are being incorporated into plans.	% of recommendations resulting from evaluation being incorporated into plans.	
	Planning	Execution of plans.	Goals implemented / goals planned.	

Dimension of governance	Aspects of governance	What needs to be verified	Suggested indicators	Sources
INTERACTION BETWEEN STATE AND SOCIETY	Qualification of participation	If information provided to participants of boards is being absorbed satisfactorily.	The rate of satisfaction among collective bodies.	Satisfaction surveys.
		Existence of institutional training campaigns that encourage participation in the system.	Quantity of campaigns publicized in the media.	Survey performed with managing bodies and River Basin Committees.
		Implementation of projects, actions and deliberations, monitored and evaluated by collective bodies.	Quantity of projects, actions and deliberations implemented and evaluated.	
	Channels of participation	If participation in the SINGREH's official bodies is effective.	Degree to which legal requirements are fulfilled by collective bodies.	Annual reports of collective bodies.

Dimension of governance	Aspects of governance	What needs to be verified	Suggested indicators	Sources
INTER-GOVERNMENTAL RELATIONS	Inter and intrasectoral interaction	If joint actions between the different sectors have been defined.	Quantity of common targets among the different systems implemented.	Relatórios de Acompanhamento de Planos e programas intersetoriais.
		If participation of other related sectors is effective in defining joint actions.	% representation of other public sectors on the CERH.	Minutes from state council meetings.
		If participation of representatives from the water resources sector is being effective in defining joint actions.	% representatives from water resource managing bodies on the boards for other public policies that are indispensable to water resource management.	Minutes from sectoral council meetings.
	Federative forums	If existing forums are fulfilling their role of creating pacts between their members.	Number of agreements implemented per year.	Council reports.
	Participation of municipalities	The extent to which water agendas are being developed.	Quantity of actions related to water resources developed.	Municipal plans and laws.
		Qualified participation in the management of water resources.	Commitments taken on by municipalities in collective bodies.	Meeting minutes and reports from committees and councils.
		If municipal participation is being regulated by the SINGREH through normative tools.	Legal instruments for the management of the system incorporating municipal participation.	Set of laws and regulations.

The set of indicators proposed here needs to be described in more detail and in terms of the institutional design adopted and the operational capabilities acquired. This more detailed information should include formulas for the calculation of each indicator, how regularly it should be measured and other system components

9. RECOMMENDATIONS FOR A MONITORING SYSTEM

Both the study and the workshops indicated that the most appropriate structure for monitoring the governance of the SINGREH would involve the institution of a water governance observatory.

An “observatory” can be described as an entity or body created to monitor the evolution of a phenomenon, a field of action or a strategic theme, in time and space. In this case, it would be responsible for monitoring the governance of the SINGREH and would be guided by objectives enabling the definition of indicators and the creation of syntheses, contributing to the evaluation and improvement of the SINGREH.

In order to do this, the creation of an independent entity with a permanent technical team would be essential, such as a National Water Resource System Observatory that would be responsible for monitoring governance. This would involve replicating experiences such as that observed in New Zealand, which has independent institutions for supervision, monitoring and reflection on public policy.

The creation of this observatory would be fundamental in the continuous improvement of the governance of the SINGREH, making debate more productive by producing democratised results-centred management, such as that proposed by contemporary public administration, especially by the branch known as public governance, the main theoretical basis of this study.

The constitution of an observatory would require a series of definitions and adjustments, which would include:

a) What is its role and what are the points that should be monitored? What do we want from this observatory?

b) Adhesion of a set of member institutions that would have the task of maintaining the observatory in operation, among others.

c) Definition of a formal institution; organisational model, statute, operational structure and other formalities.

d) Formation of a basic team.

e) Definition of work plan, budget and sources of finance.

f) Formalisation of financing tools with sponsoring bodies.

10. WORKSHOP PARTICIPANTS

		1st WORKSHOP	2nd WORKSHOP
Albano Araujo	TNC – The Nature Conservancy	X	
Adriana Lustosa	SRHU/MMA		X
Ana Cristina Mascarenhas	Odebrecht/EEP	X	
Ângelo José Rodrigues Lima	WWF-Brazil	X	X
Beate Frank	Santa Catarina	X	
Carla Caruso	USP – Research Laboratory	X	
Cleide Pedrosa	Minas Gerais	X	
Daniel Borges Nava	Government of Amazonas	X	
Denise Pena	Lagos São João Consortium		X
Fernando Abrúcio	FGV	X	
Francisco Carlos Bezerra e Silva	Moderator/Relator	X	X
Franklin de Paula Junior	MMA/SRHU	X	X
Glauco Kimura	WWF-Brazil		X
João Bosco Senra	Catavento Projetos	X	
João Lúcio Farias	Cogerh	X	X
José Machado	Ministry of National Integration	X	
Julio Tadeu Kettelhut	SRHU/MMA		X
Jussara Carvalho	SMA Sorocaba		X
Luiz Carlos Fontes	Federal University of Sergipe	X	
Malu Ribeiro	SOS Mata Atlântica	X	
Marco Neves	ANA	X	
Maria Marli Ferreira	Acre	X	X
Marília Melo	IGAM	X	X
Mário Dantas	Fórum Nacional de CBH	X	
Neusa Marcondes	SMA/SP	X	X
Oscar Cordeiro Neto	University of Brasília	X	
Patrícia Boson	FIEMG	X	X
Paulo Paim	Rio Grande do Sul	X	
Pedro Jacobi	PROCAM/IEE/USP	X	
Percy Baptista Soares Neto	CNI	X	
Rodrigo Flecha	ANA	X	
Rosa Maria Mancini	SMA/SP	X	X
Rosana Garjulli	Com Senso CEG		X
Samuel Barreto	WWF-Brazil	X	
Vanessa Elias	UFABC	X	
Vanessa Empinotti	Procam USP		X
Vera Lúcia Teixeira	Médio Paraíba RJ Committee		X
Victoria de Mello Arruda	SEMA Mato Grosso	X	
Viviane Nabinger	Sinos Committee	X	

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