

**GOOD GOVERNANCE AND WATER MANAGEMENT:
BACKGROUND NOTE FOR OAS WORKSHOP ON WATER AND GOVERNANCE:
QUITO, ECUADOR, JUNE 19-20, 2006¹**

EXECUTIVE SUMMARY

The objective of the preparatory workshop on sustainable water management, organized by the OAS, is to identify specific and focused recommendations at the technical level with regards to governance and water management. These technical recommendations will in turn inform the preparations of the First Inter-American Ministerial Meeting on Sustainable Development, due to be take place in Bolivia on October 5-6th, 2006.

In addition to moving the water agenda forward at the technical level, the OAS ministerial meeting is formally mandated to advance good governance, public participation, the inclusion of indigenous groups, and gender equity.

In the context of this mandate, this Note examines briefly different aspects of the relationship between good governance and water management. It further identifies four governance-related recommendations to be discussed and reviewed during the June 2006 Quito meeting, as one aspect of international cooperation within the hemisphere, to be formally adopted at the ministerial meeting:

1. Adopt comparable processes at the hemispheric level in support of public participation;
2. Adopt benchmarks and guidelines in support of institutional transparency;
3. Adopt comparable access to environmental information commitments; and
4. Develop comparable water indicators and other information, to improve on-the-ground decision-making as well as policy challenges, and develop indicators that measure the relationship between good governance and water management.

SECTION ONE:

**GOOD GOVERNANCE AND PUBLIC PARTICIPATION:
PRINCIPLES TO PRACTICE**

Good governance plays a pivotal role in supporting effective policy outcomes. In recent years, a robust empirical foundation in the development, finance and economics area demonstrates that good governance – comprised of such components as institutional transparency and citizen accountability, the rule of law and meaningful public participation – are strongly correlated with higher rates of development, poverty alleviation and prosperity. Conversely, there is clear recognition that bad governance leads to bad development outcomes.

¹ This Note has been prepared by Scott Vaughan of the OAS Department of Sustainable Development, with the assistance of Rosa Trejo. Views expressed in this information note do not necessarily reflect the position of the OAS member countries or the OAS General Secretariat.

² The need to find new approaches to improve water management services is urgent. In the context of MDGs, water contamination is closely linked to bacterial, parasitic, and water-Borne diseases, especially cholera and diarrhea. In the past two years, risks of cholera have increased in many communities in the Americas. PAHO concludes that if poorer populations in the Americas received basic drinking water and sanitation services, morbidity from diarrhea would be reduced by 17 percent per year, while the 300 million people affected yearly from water-related diseases would be reduced

The question addressed by this Note is whether a similar relationship can be found between good governance and effective or positive outcomes related to water management? Analytical work and experience from projects suggest a link between good governance and positive performance in the water sector. Efforts by Global Water Partnership, the UNDP Water Governance Project, the Global Environment Facility, the OAS and other organizations continue to expand this work.

However, the evidence linking good governance with performance towards sustainable water management remains incomplete, for reasons related to the definition of both governance and integrated water management. First, good governance and good institutions remain surprisingly imprecise, and represent a convenient clustering of a long-list of indices. Although considerable progress has been made in defining those common elements of good governance, definitions must take into account local conditions and context-specific circumstances. Indeed, there remains a degree of subjectivity when measuring at the aggregate level “good governance.”

Second, there are few if any quantitative indices capable of measuring specific aspects of sustainable water management. Indeed, although the concept of integrated water resources management (IWRM) is now widely used, as a policy tool, it remains deeply handicapped by a lack of quantitative indicators upon which performance can be measured.

Despite these uncertainties, this brief suggests three ideas to be explored during the June workshop in preparation for the October ministerial meeting:

- (i) Good governance contributes to sustainable water management and realization of the Millennium Development Goals (MDGs). Conversely, it is certain that MDG targets for environmental sustainability and water targets will not be met in conditions in which bad governance exists²;
- (ii) Good governance provides a strong policy foundation in hemispheric cooperation in support of focused, measurable and comparable governance-related objectives. Four specific objectives are suggested in this Note, based on informal consultations with member countries and civil society; and,
- (iii) Empirical evidence needs to be strengthened to measure the cost effectiveness relationship between good governance and sustainable water management outcomes.

Clearly, environmental and water management issues differ, and are more complex than many financial management objectives. While fiscal policies and economic signals tend to have some homogenous characteristics (for example, triggers of inflation, or the effects of current account imbalances), water management tends to be far more heterogeneously, due to the specific characteristics of water basins. Examples of context-specific variables include hydrological functions, ecological characteristics, climatic conditions, regulatory traditions and land tenure issues, disease vectors, industrial clustering and concentrations of contamination, changing agricultural and land-use patterns, demographic changes, the extent of decentralization, as well as ethical and community values that, taken together, combine to present highly complex challenges to water management objectives.

Despite the differences between economic and water governance issues, there are certain lessons from economic governance that are applicable to the water sector. Perhaps the most relevant

relates to institutional transparency, adherence to rule of law, and public disclosure and consultations.

One unambiguous lesson from the Americas is that decisions made in a non-transparent manner related to water issues spark questions of legitimacy. Several countries have witnessed first hand how water sector reforms undertaken in an opaque, non-inclusive or corrupt manner face strident citizen objection, which in turn have had often nation-wide spill-over effects in terms of escalating political opposition.

October 2006 OAS Ministerial Meeting: Opportunity to Advance Good Governance:

Given the lessons of governance, one objective of the June 2006 Quito workshop is to identify water-related good governance benchmarks and regional commitments. The mandate of the June 2006 OAS preparatory workshop is to advance specific recommendations at the technical level, to inform the preparations of the First Inter-American Ministerial Meeting on Sustainable Development. The OAS Ministerial meeting itself will be held in Santa Cruz, Bolivia on October 5-6th, 2006. In addition to addressing water-related issues, the ministerial meeting is mandated to advance good governance, public participation, indigenous communities and gender equity.

Given that mandate, an important policy space exists to advance good governance. Four objectives that are proposed for review during the preparatory process by the OAS Department for Sustainable Development are:

1. Adopt comparable processes in support of public participation;
2. Adopt benchmarks and guidelines for institutional transparency;
3. Adopt regional access to environmental information commitments; and
4. Develop comparable water indicators and other information, to improve on-the-ground decision-making as well as policy challenges, and develop indicators that measure the relationship between good governance and water management. .

Context of Regional Governance Commitments:

International Treaties and Institutions, Hemispheric Strategic Plan and Decentralization

Several opportunities exist to support international cooperation in the area of water governance in the region. First, approximately 70 major freshwater rivers and basins are shared by two or more countries. Since the signing of the first international treaty related to water management between Costa Rica and Nicaragua regarding the San Juan river basin, over 25 formal legal transboundary treaties have been executed in the hemisphere. These are complemented by a larger number of bilateral arrangements and memorandum of understanding between countries.

To support these commitments, a number of international institutions and technical cooperation committees exist in the region. Examples include the International Joint Commission and the Amazon Cooperation Treaty Organization among the eight countries of the wider basin, and the Commission for International Cooperation of the five-countries that manage the La Plata basin, and many others.

Second, OAS member countries have already endorsed at the technical level, through the National Focal Points of member countries, the Strategic Plan for the Americas proposed by the Government of Brazil at various meetings, including the Fifth Inter-American Water Resource

Dialogue, held in Jamaica in October, 2005.³ The strategy calls for the convergence of different water management policies by 2010, and the opportunity exists to begin looking at procedural harmonization in the area of governance, institutional benchmarks for transparency, and commitments to public participation.

Third, all OAS member countries have already made formal political commitments in codifying good governance and public participation, in for example the Democratic Charter and other principles. In addition, the countries of the hemisphere have made commitments to support good governance, transparency and public participation, most recently through the adoption of the Environmental and Compliance Safeguards Policy, adopted by the Inter-American Development Bank in January 2006.⁴ Therefore, the proposed four areas of action do not represent new commitments, but rather the application of standing commitments in the area of water management.

OAS Democratic Charter and Promotion of Public Participation:

The hemisphere of the Americas has taken a leadership role in supporting good governance norms and soft-law principles. In 2001, the OAS member countries adopted the OAS Democratic Charter, which, in its commitment to support democratic governance, recognizes the importance of “citizen’s awareness concerning their own countries and thereby achieve meaningful participation in the decision-making process.” The Charter commits all countries in the region to support innovative and creative ways to advance democratic governance, in support of “good governance, sound administration, democratic values, and the strengthening of political institutions and civil society organizations.” (Article 27). The Charter also recognizes more specific notions of good governance, including the importance of transparency and freedom of the press and of expression. Article 4 commits governments to:

Transparency in government activities, probity, responsible public administration on the part of governments, respect for social rights, and freedom of expression and of the press are essential components of the exercise of democracy.

Complementing the Democratic Charter is the Inter-American Strategy for the Promotion of Public Participation in Decision-Making for Sustainable Development (ISP), adopted by all OAS member countries in 2000. Although less visible than the Charter, the ISP sets out far-reaching and innovative principles specifically intended to support public participation, and the dissemination of relevant information for decision-making.

The ISP represents a kind of regional version of the United Nations ECE “Aarhus” Convention that entered into force in October 2001. The Convention, adopted to support Rio Principle 10,

³ The Strategic Plan remains under discussion in the United Nations, following its presentation to the UNEP ROLAC Forum of Ministers in November 2005. With its endorsement of comparability and eventual convergence of water practices, the Strategic Plan offers an opportunity to unbundle specific elements relating to good governance, institutional transparency and public participation, and advance these during the Quito experts’ meeting and formally during the Bolivia Ministerial Meeting.

⁴ Similarly, in January 2006, the Inter-American Development Bank (IDB) adopted its Environment and Compliance Safeguards Policy,” which commits Bank operations to mainstreaming environmental sustainability into lending and other operations, and commits its operations to: “Strengthen good governance by adopting effective environmental management frameworks and transparent governance mechanisms that strengthen institutional capacity building, civil society participation, public access to information, the rule of law, the use of market-based instruments, and policy development.”

contains three pillars: access to information, public participation, and access to justice.⁵ Among the soft-law principles set out in the ISP are commitments by all OAS member countries to:

Proactivity: Public Participation requires that governments and civil society take initiatives, in accordance with their respective roles, to develop their maximum potential and enrich the process of decision-making for sustainable development;

Openness throughout the Process: Inclusive and continuous participation throughout the process of design, implementation, and evaluation of projects, policies, or programs inspires new ideas and expertise, legitimizes decisions, and enriches outcomes. A decision-making process that is open to input at all phases can benefit from adjustments wherever they are needed to respond to new information or circumstances.

Transparency: Productive relationships between civil society and government require that both be more accountable and transparent. Transparency on the part of all concerned parties in a decision-making process facilitates more meaningful participation by ensuring that all motivations and objectives are explicit and that all information vital to the decision is reliable and available in a timely manner.

Realizing the Millennium Development Goals (MDGs) will not be achieved fully by overseas development assistance. Instead, they will require economic growth within countries, particularly to alleviate poverty. In turn, “ingredients” of economic growth are increasingly seen as adhering less to a menu of policy reforms commonly known as the Washington Consensus, and more on strengthening the quality of domestic institutions capable of reducing corruption, improving governance, clarifying property rights and other components of rule of law.

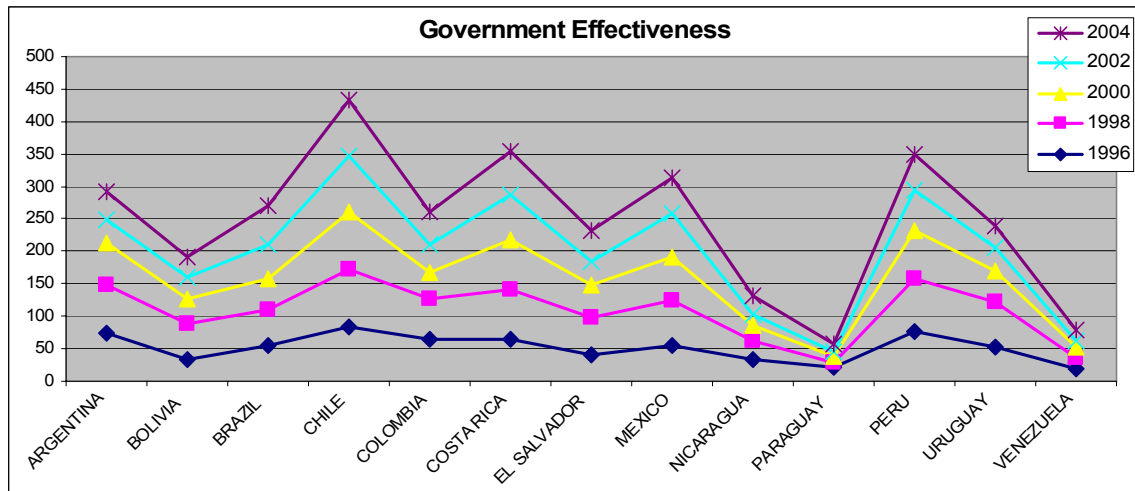
⁵ The UNECE Convention on Access to Information, Public Participation in Decision-Making, and Access to Justice in Environmental Matters has been called by UN Secretary General the “most ambitious venture in environmental democracy undertaken under the auspices of the United Nations [whose] adoption was a remarkable step forward in the development of international law.” See Charles Di Leva, Chief Counsel, World Bank “The Underlying Framework: Principle 10 of the Rio Declaration and the Aarhus Convention.”

**SECTION TWO:
COMPONENTS OF GOOD GOVERNANCE**

The term “good governance” does not have a standard definition. Instead, the term serves as a convenient umbrella for a large number of components, from rule of law to institutional transparency. Each of these terms in themselves represent broad and often ill-defined elements. For instance, rule of law is universally accepted as being an important part of good governance, although how its different elements – supremacy of law, judicial precedent, an independent judiciary, a balance between executive and judicial branches, and other aspects – are weighed is almost always context specific.⁶

Despite the lack of a precise definition, it is accepted that governance refers to legal frameworks and supporting rule of law, including regulatory quality and regulatory burden, transparent institutions, the development of robust data and information for decision-making, predictable processes to support meaningful public participation and citizen accountability procedures. Since governance comprises hundreds of indicators, work by the World Bank, through the *Governance Matters* rankings (Kaufman et al) are the most commonly-used indices of governance and institutional quality. These indices divide governance into six components: (a) voice and external accountability; (b) political stability and lack of violence, crime, and terrorism; (c) government effectiveness; (d) lack of regulatory burdens; (e) rule of law; and (f) control of corruption.⁷

There have been various efforts to measure different governance indices, including measuring government effectiveness generally (Table One) or other indices (see Annex One):



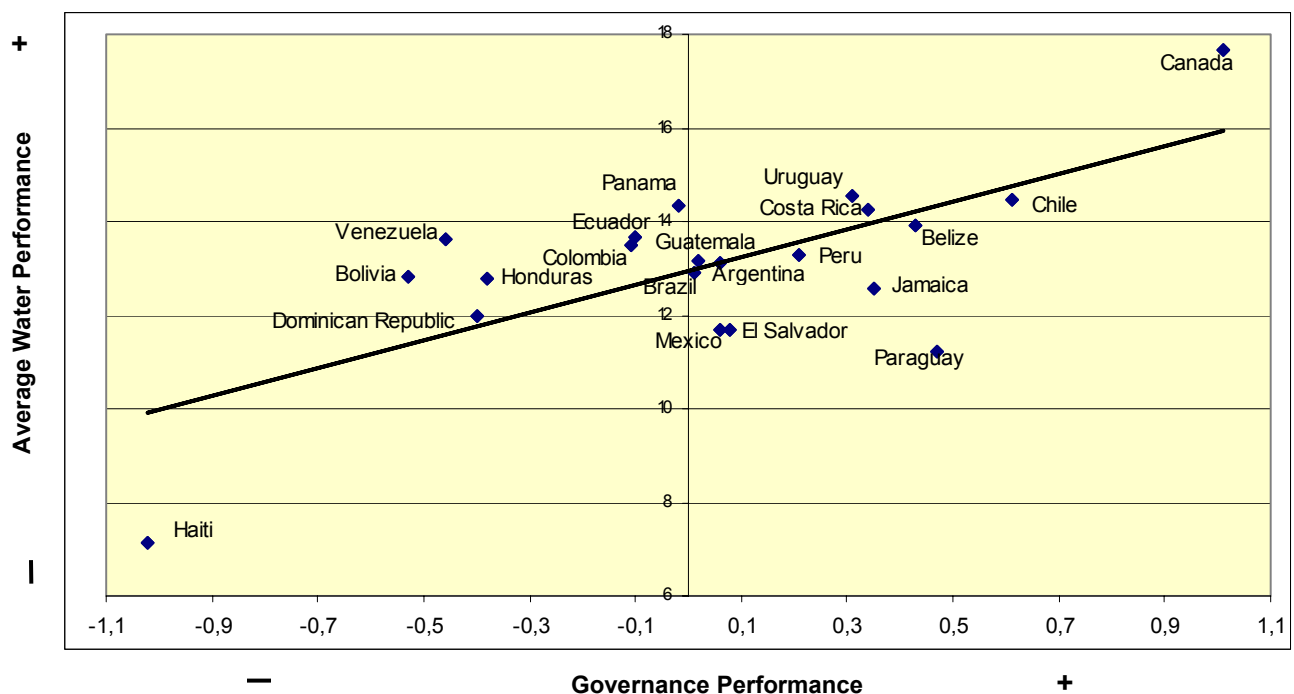
⁶ Enforcement regimes differ among jurisdictions, but include some common elements, including: the detection of illegal water use; non-compliance with water quality standards; prepare technical and education information to assist the public in compliance; install and verify water-metering programs; and report over-use of water; control water withdrawals; enforce court rulings.

⁷ The World Bank indices and Governance Matters reports are similar to approaches of the Transparency International, the Freedom of the Press index of Reporters without Borders, all measure the perception of governance from different constituencies. That is, they respond to how well the rules are adhered to, as opposed to commenting on the quality of the rules themselves. See Rodrik, 2004

As noted above, there has been a wealth of empirical research examining the relationship between good governance and development. A growing body of evidence shows a strong relationship between good governance and rates of economic development and prosperity. What is far less understood is whether this observed relationship is causal and based upon a linear relationship.⁸ That is, does good governance guarantee higher rates of economic development? If so, then this causal relationship would send an unambiguous signal to policy makers about the expected performance benefits that accrue from supporting good governance measures.

Although work has been underway for the past decade describing different attributes that comprise good environmental management, surprisingly little analysis exists which investigates the extent of a relationship between good governance and environmental or water management performance outcomes. For example, can we say with any certainty that countries with effective regulatory regimes will have lower rates of pollution, compared to countries with dysfunctional regulatory regimes? For the water sector, can we say that good governance is more likely to realize performance targets of IWRM, compared to countries with high rates of corruption?

The intuitive answer would suggest a positive relationship. However, the empirical evidence to date showing a robust relationship between good governance and the performance of water management targets does not exist. Analysis by the OAS Department for Sustainable Development, in graph 3 below, provides a stylized summary of the general relationship between good governance (the horizontal axis) and different indices of water management (vertical axis). The upwards sloping pattern suggests a positive correlation between levels of good governance and positive water management indices.

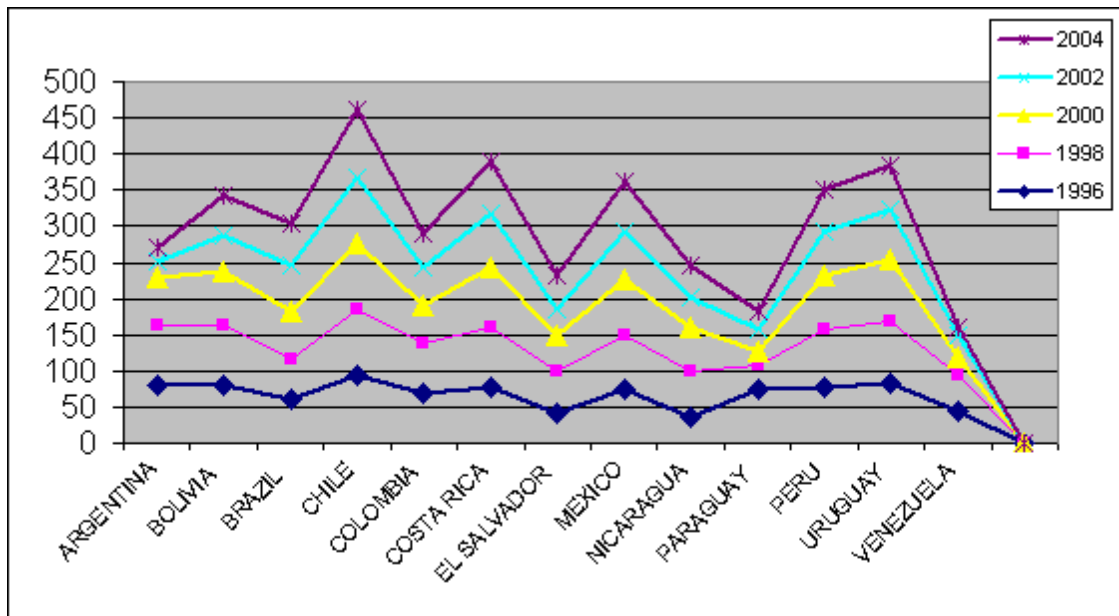


⁸ The more difficult issue for policy-makers is that of causality. That is, higher-quality institutions are as much a result of prosperity as a cause of that prosperity. Clearly, institutions that adhere to principles of good governance but are cash starved because of grossly inadequate budgets, the case for most water institutions in the hemisphere, have a difficult time in achieving positive performance targets. See Dani Rodrik (2004), “Getting Institutions Right”.

Good Institutions and Institutional Transparency

The role of water institutions is central to developing water laws and regulations, water supply schemes, water technologies, regulatory practices, and various water administration policies – including financing schemes and the negotiation of concessions.

As in the general challenge of describing good governance, there is no off-the-shelf or non-contextual way to describe good institutions. What works depends in large measure of local conditions and opportunities, as well as the prevailing political context in which institutions function. However, some indices, such as adherence to rule of law, regulatory burden and quality of enforcement, have been quantified in order to measure trends and compare aspects among countries. The table below, for example, from the World Bank development indices, measures “Regulatory Quality” among several countries of the region:



In looking at different aspects of what components together comprise “good institutions,” the most important component in the economics and finance field is institutional transparency. The rationale for institutional transparency is well established: institutions need to be transparent to general public and make available all relevant information on its strategy, assessments and policy decisions as well as its operational procedures in an open, clear and timely manner.

Openness to public scrutiny is a cornerstone of institutional transparency, whereby internal deliberations, decisions, procurement tendering, notification regarding tariffs and changes in water delivery services, environmental impact assessment and zoning decisions are made available to the public. In addition, institutional transparency entails clear procedures in which any decisions or proposed changes in standards and regulations should be made available to the public through formal notification procedures. In most countries, systems like the Federal Register or Gazette procedures list all pending decisions through a notification system, usually

with the public being alerted two to three months in advance of changes. Institutions also support clear procedures that allow an interested public the right to comment on proposed changes. Therefore, transparent institutions play a direct role in supporting public participation.

However, the most important function of institutional transparency regards corruption. Each year, approximately \$1 trillion is lost in corruption through bribes, according to the World Bank Institute. The indirect costs of corruption are much higher. (Kaufman, 2005).

Although the environmental sector is not generally associated with corruption, work by Transparency International and others identify the water sector – in particular waste water treatment, sanitation services and the delivery of potable water services – as being particularly vulnerable to corruption. Corruption in the water sector includes both large-scale and systemic corruption, including sole-source bidding with graft for large contracts, and petty-corruption including kick-backs to public officials. Examples of corruption in the water sector include rent-seeking – the process by which an individual or firm seeks to gain through manipulation of the economic environment rather than through trade and the production of added wealth – patronage in the procurement of sole-source bids, political interference in the selection of water basins supported by external resources, petty corruption regarding the misreading of water meters, and cash payments for public posts.⁹

Research by Sala-i-Martin and Subramanian (2003) in the economics field show systemically that rent-seeking involving the management of natural resources is especially damaging for the quality of institutions, and the same observation would apply to rent-seeking involving water services institutions.¹⁰ Although data on actual levels of corruption in the water sector remain scarce, it is likely that overall or systemic levels of corruption within governments are likely to be matched by levels of corruption in water services. A Transparency International report of 2005 concludes that corruption in the water sector takes place in virtually all countries.¹¹

There have been various efforts to counter corruption in water services in recent years, and the Bolivia ministerial preparatory process represents an opportunity to catalogue these initiatives and their impact. For example, the Colombia Association of Sanitary and Environmental Engineering (ACODAL) implemented its “Integrity Pact” and “Business Principles Against Bribery,” in order to combat corruption in the water sector, specifically with regards to the awarding of public contracts for procurement can (i) lower the risk of corruption, (ii) increase on-line reporting of procurement, and (iii) add transparency in relief efforts.

Public Participation

As noted above, governments of the Americas have formally endorsed soft-law principles for public participation. The challenge is to translate those commitments into clear, comparable and measurable procedures, whereby the public has assured access to information relevant to policy formulation and implementation, and has processes in place for public consultations.

Public participation is especially important for water issues, and has been a critical component of recent GEF-UNEP-OAS international water projects in the hemisphere. (For more information, see www.oas.org/dsd/) In many countries, the management of water is a highly political issue,

⁹ Transparency International: “Corruption in the Water Sector: How to Fight It?”

¹⁰ Sala-i-Martin, X. and A. Subramanian (2003), “Addressing the Curse of Natural Resources: An Illustration from Nigeria,” National Bureau of Economic Research Working Paper Number 9803

¹¹ Tropp and Stalgren, 2005: “Can International Targets Be Met Without Fighting Corruption?”

raising a number of core issues such as the equitable distribution of water, water as a human right, and almost all issues regarding the value, and valuation, of water. Given the complexity of policy choices involved in water management, nearly all decisions comprise tradeoffs in which, where ideally more people will gain as a result of policy choices, very often some groups will also lose.¹² Therefore, ensuring that the matrix of policy options is available to the public, and procedures are in place to collect and comment upon public input, legitimizes policy decisions. Conversely, water decisions made in the absence of public consultations are by definition almost always lacking in legitimacy.

An added benefit of public consultations is that they have been shown to help coordinate inter-ministry or inter-agency consultations within governments themselves, especially between central and state, county and municipal authorities¹³.

When thinking about public participation, it is important to note that there is no single or coherent definition of what constitutes civil society, broadly defined. Many non-governmental organizations have small memberships with specific mandates, and thus speak in the name of a narrow constituency. Other kinds of civil society organizations include labor unions, scientific research centers and investigation centers, cultural associations, religious organizations and less formalized social networks. Broaden the outreach of donor groups to established “professional” groups, to more informal representatives of different segments of society: especially difficult to engage groups in rural areas and small villages.¹⁴

Despite progress, resistance to public participation, access to information (described below), institutional transparency and other components of good governance remains high. Daniel Kauffman, who leads the World Bank’s *Good Governance* initiative, recently concluded that while the analytical foundation for good governance in general continues to strengthen, the actual quality of governance in most countries since 1996 has remained virtually “stagnant.” Similarly, the 2004 UNDP *Report on the Development of Democracy in Latin America* concludes that the translation of citizen interest through the institutions of democracy into public policy is “hindered” because of a variety of reasons, including corruption, the strong influence of the private sector to advance their interests beyond the ability of legislative bodies, and ambiguity within the general population of the Americas regarding democracy.¹⁵

Access to Environmental Information and Freedom of Information¹⁶

Providing access to environmental information is a basic aspect of democratic participation, since it ensures through a clear obligation the ability of individuals to access information¹⁷. However,

¹² See Joseph Stiglitz, “The Role of Participation in Development,” Development Outreach: Special Report, World Bank Institute, Summer 1999,

¹³ National Research Council of the National Academies (2004), *Confronting the Nation’s Water Problems: The Role of Research*, The National Academy Press, Washington, DC

¹⁴ See Thomas Carothers and Marina Ottaway, co-directors of the Democracy and Rule of Law Project at the Carnegie Endowment for International Peace)

¹⁵ One of the conclusions of the UNDP report is that 43 percent of people of Latin America would support an authoritarian regime if it would better their lives. See UN Development Program (2004), *La democracia en América Latina: Hacia una democracia de ciudadanas y ciudadanos*, UNDP, New York

¹⁶ For the first time in its history, the Inter-American Court of Human Rights has heard a case involving the violation of the right of access to government held information. With reference to Article 19 of the UN Universal Declaration of Human Rights, and Article 13 of the American Convention on Human Rights, several groups have brought a case before the Inter-American Court seeking Chile to improve its freedom of information implementation, concerning an environmental case regarding logging in Chile.

despite progress in the past 10 years, most water managers in developing countries continue to lack access to the information they need to ensure safe drinking water and balance a range of other policy challenges.

Access to environmental and human health information has been codified in Rio Principle 10 and is seen as a prerequisite for building bottom-up support to achieve the Millennium Development Goals.¹⁸

Access to environmental information can be seen as one part of a broader commitment to freedom to information. A number of countries in the region have adopted or are in the process of adopting access to information laws of freedom of information laws. These include Mexico, Dominican Republic, Ecuador, Jamaica, Peru, Trinidad and Tobago, the United States and Canada. In addition, a number of countries are currently reviewing within their legislative bodies draft freedom of information bills. These include Argentina, Brazil, Paraguay, Costa Rica and Guatemala.

The first legal instrument at the international level guaranteeing access to environmental information is the Kiev Protocol on Pollutants Release and Transfer Registers, adopted in May 2003. There are other examples of commitments to codify access to information, including within the European Commission (Directive 2003/4/EC) on public access to information, including the World Bank Policy on Disclosure of Information (2002), including the “A Presumption in Favor of Disclosure”, and the World Bank Extractive Industries Review – Extractive Industries Transparency Initiative, and the decisions by the North American Commission for Environmental Cooperation in support of access to environmental information.

Model Procedures for Information Disclosure:

¹⁷ The scope of environmental information varies, but in countries which have specific legislation in support of the disclosure of environmental information, information includes: (a) the state of the elements of the environment, e.g. air, atmosphere, water, soil, land, landscape and natural sites, biological diversity and its components; (b) traditional hazards, related to poverty and lack of development, such as lack of safe water, scant sanitation and waste disposal, indoor air pollution, and a wide spread of disease vectors (e.g. malaria); (c) modern hazards, caused by development that lacks environmental safeguards, such as urban (outdoor) air pollution and exposure to agro-industrial chemicals and waste, including occupational exposure.

¹⁸ Making information about the environment available to the public has been recognized for the past 30 years as essential towards achieving sustainable development. If the public can obtain information on the environment, then the public will be able to better understand the consequences of certain proposals and actions, and to participate more effectively in decision-making processes that affect the environment. Principle 10 of the Rio Declaration, adopted by all countries in 1992 at the UN Conference on Environment and Development, states that

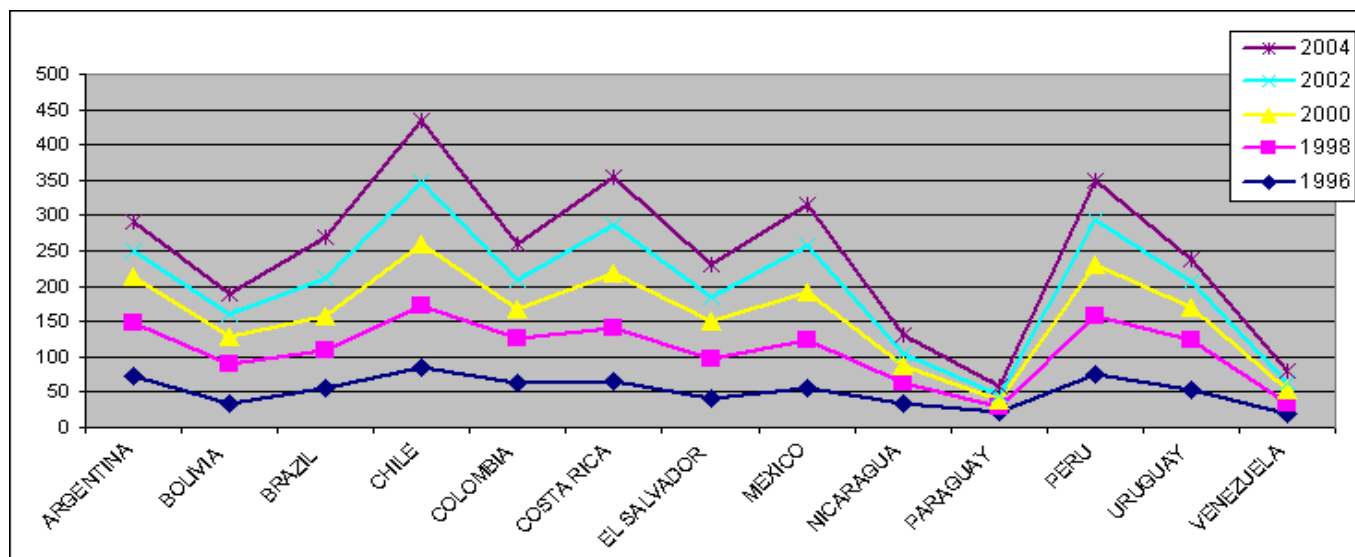
“Environmental issues are best handled with participation of all concerned citizens, at the relevant level. At the national level, each individual shall have appropriate access to information concerning the environment that is held by public authorities, including information on hazardous materials and activities in their communities, and the opportunity to participate in decision-making processes. States shall facilitate and encourage public awareness and participation by making information widely available. Effective access to judicial and administrative proceedings, including redress and remedy, shall be provided.”

There are different administrative examples regarding access to information steps related to environmental information. In all cases, procedures begin with public notification of a proposed administrative decision *prior* to that decision being taken. In most cases, communication is provided 3-4 weeks in advance, of the deadline for when comments and recommendations can be submitted. In addition to written comments, many counties ensure administrative hearings on proposed changes are open to the public, and comments and recommendations submitted during open meetings are part of the formal record.

GOVERNMENT EFFECTIVENESS

Percentile Rank (0-100)

	ARGENTINA	BOLIVIA	BRAZIL	CHILE	COLOMBIA	COSTA RICA	EL SALVADOR	MEXICO	NICARAGUA	PARAGUAY	PERU	URUGUAY	VENEZUELA
1996	73,2	34,6	54,7	84,4	64,2	65,4	40,8	55,9	33	21,2	76,2	53,1	20,1
1998	74,3	54,6	55,7	87,4	62,3	75,4	57,4	68,9	29	8,7	81,5	69,9	14,8
2000	65,1	38,7	47,3	88,2	41,9	76,9	51,1	67,2	24,7	9,1	73,3	45,7	18,8
2002	36,8	32,8	53,7	87,1	41,3	69,2	34,8	65,7	16,9	7,5	62,2	37,3	9,5
2004	42,3	29,8	58,2	87	51	68,3	47,6	56,7	27,4	12	57,1	32,2	15,9

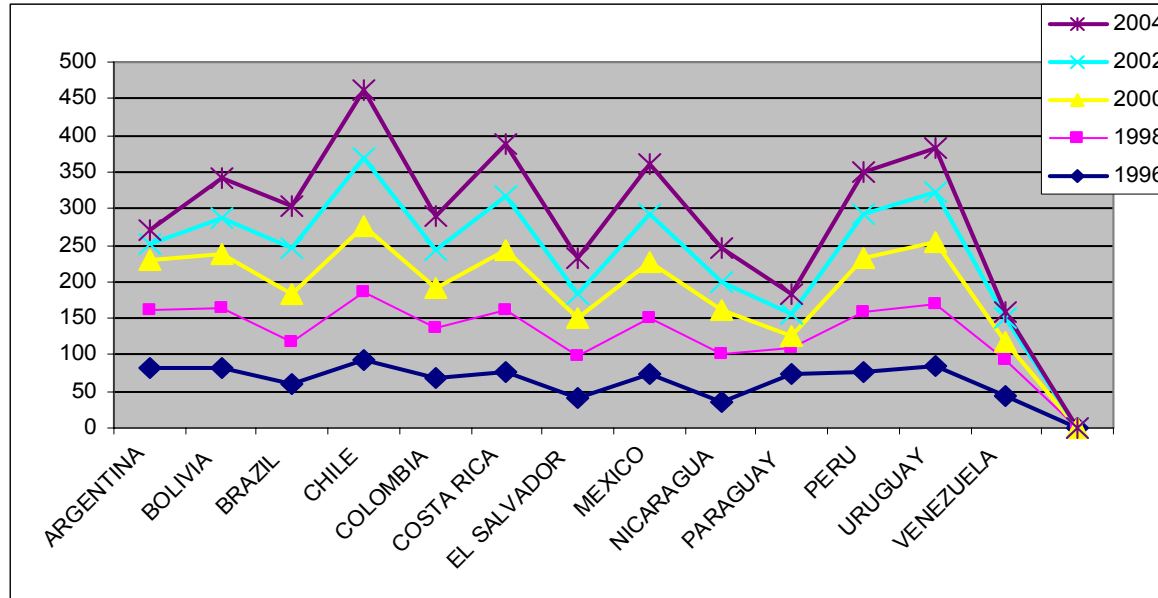


The above chart depicts the percentile rank on each governance indicator. Percentile rank indicates the percentage of countries worldwide that rate below the selected country (subject to margin of error).

REGULATORY QUALITY

Percentile Rank (0-100)

	ARGENTINA	BOLIVIA	BRAZIL	CHILE	COLOMBIA	COSTA RICA	EL SALVADOR	MEXICO	NICARAGUA	PARAGUAY	PERU	URUGUAY	VENEZUELA
1996	81.2	81.2	60.2	93.9	69.6	77.3	40.8	74	36.5	73.5	76.2	84	44.8
1998	81	82.1	57.1	92.4	67.9	83.2	57.4	75.5	64.1	35.3	81.5	84.2	47.8
2000	67.9	75.4	64.7	90.4	52.4	82.4	51.1	76.5	60.4	17.6	73.3	86.6	25.7
2002	20.9	49.5	63.3	90.8	52	74.5	34.8	66.8	39.3	30.6	62.2	67.3	31.6
2004	20.2	53.7	58.1	94.1	47.8	71.4	47.6	68	46.3	25.1	57.1	61.6	9.9



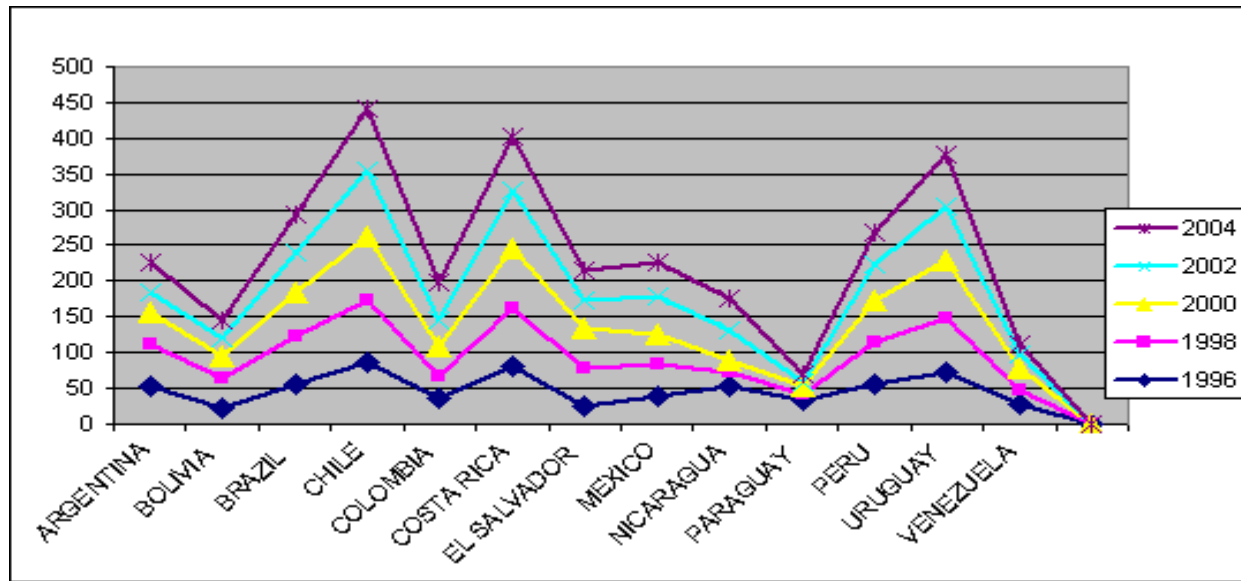
The above chart depicts the percentile rank on each governance indicator.

Percentile rank indicates the percentage of countries worldwide that rate below the selected country (subject to margin of error).

CONTROL OF CURRUPTION

Percentile Rank (0-100)

	ARGENTINA	BOLIVIA	BRAZIL	CHILE	COLOMBIA	COSTA RICA	EL SALVADOR	MEXICO	NICARAGUA	PARAGUAY	PERU	URUGUAY	VENEZUELA
1996	54	22	55,3	86	37,3	80,7	25,3	39,3	52,7	33,3	56	74	28
1998	58,5	42,6	68,3	86,3	29	80,3	54,1	43,7	20,8	7,7	59,6	74,3	18,6
2000	44,6	30,1	59,7	90,3	41,9	84,4	53,8	43,5	16,7	10,8	57,5	79,6	32,8
2002	27	25	55,6	90,8	37,8	80,6	38,8	51	39,8	5,6	50,5	77,6	17,9
2004	42,9	25,1	53,2	88,7	52,2	77,3	43,8	48,8	46,3	12,8	44,8	71,4	14,3



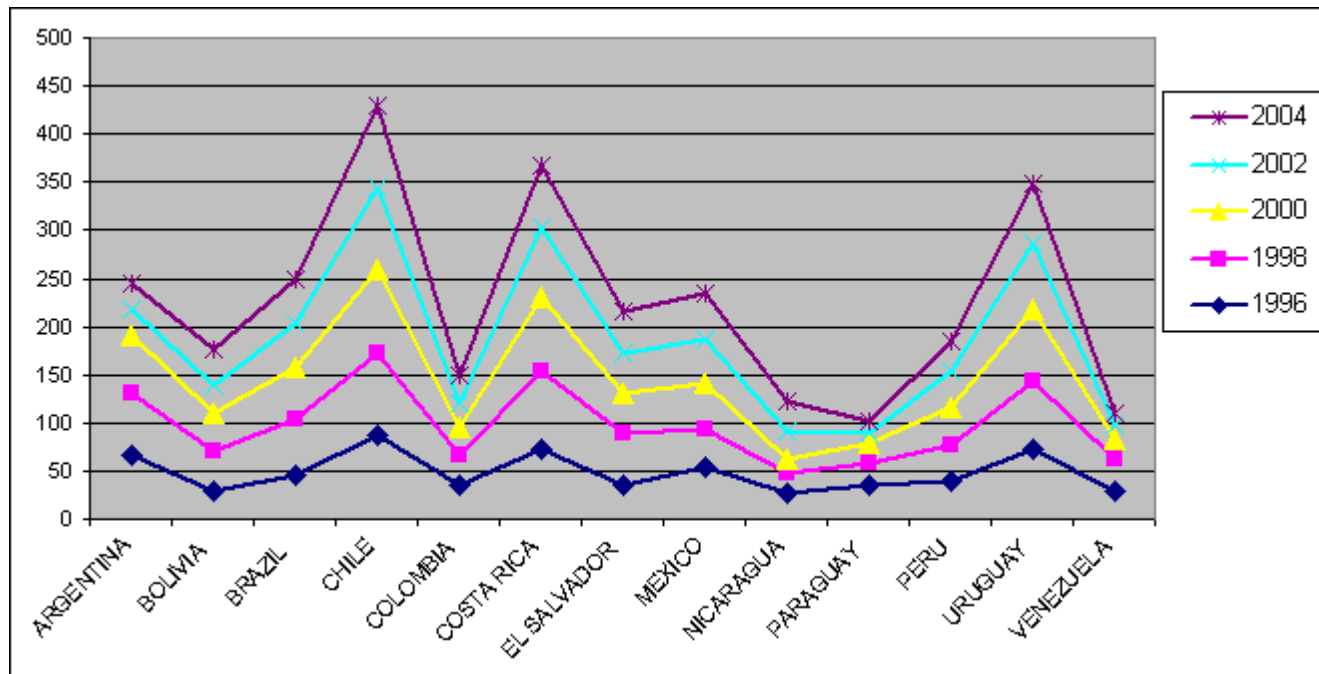
The above chart depicts the percentile rank on each governance indicator.

Percentile rank indicates the percentage of countries worldwide that rate below the selected country (subject to margin of error).

RULE OF LAW

Percentile Rank (0-100)

	ARGENTINA	BOLIVIA	BRAZIL	CHILE	COLOMBIA	COSTA RICA	EL SALVADOR	MEXICO	NICARAGUA	PARAGUAY	PERU	URUGUAY	VENEZUELA
1996	65,7	28,9	46,4	86,7	36,1	73,5	35,5	54,2	27,1	34,3	40,4	72,3	28,9
1998	64,9	41,1	56,8	85,4	30,3	79,5	54,1	40	20	23,8	37,3	70,8	33,5
2000	61	39,6	53,5	86,6	29,9	78,1	41,7	46	15,5	19,8	38,5	74,3	20,9
2002	25,5	30,1	45,9	85,2	24	71,4	41,8	47,4	29,6	11,2	36,7	68,4	13,8
2004	28,5	37,2	46,9	85,5	29,5	65,7	42,5	45,9	30,4	13,5	31,9	61,8	12,6



The above chart depicts the percentile rank on each governance indicator. Percentile rank indicates the percentage of countries worldwide that rate below the selected country (subject to margin of error).

**Indicators of Governance Performance and Water Management
In Latin America**

Index	Governance Index (Knack and Kugler)	Water Access Index	Water and Environment Index	Water Capacity Index	Water Resources Index	Water Use Index	Average of Water Indices
Argentina	0,06	11,9	12,8	15,3	12,4	8,5	13,1
Belize	0,43	14	10,9	15,9	14,9	10,6	13,925
Bolivia	-0,53	14,7	11,4	11,6	13,6	11,4	12,825
Brazil	0,01	14,6	11	12,5	13,5	9,7	12,9
Canada	1,01	20	16,5	18,7	15,5	6,9	17,675
Chile	0,61	18,8	12,1	13,8	13,1	11	14,45
Colombia	-0,11	17	11,5	12,9	12,6	11,6	13,5
Costa Rica	0,34	18	11,3	15,2	12,5	9,8	14,25
Dominican Republic	-0,4	14,3	10,9	15,4	7,3	11,4	11,975
Ecuador	-0,1	14,4	12,3	15,4	12,6	12,4	13,675
El Salvador	0,08	15,6	11	12,6	7,6	9,1	11,7
Guatemala	0,02	16	12	13,8	10,9	6,6	13,175
Haiti	-1,02	6,2	5,8	10,5	6,1	6,5	7,15
Honduras	-0,38	15	10,5	14,2	11,4	9,2	12,775
Jamaica	0,35	17,5	9,5	15	8,2	7,5	12,55
Mexico	0,06	14,5	10,1	14,1	8,1	10,7	11,7
Panama	-0,02	17,6	11,8	13,6	14,3	9,2	14,325
Paraguay	0,47	7,7	10,5	13,2	13,5	11	11,225
Peru	0,21	13,9	10,3	13,9	15	11,3	13,275
Uruguay	0,31	19	10,8	15,6	12,8	8,8	14,55
Venezuela	-0,46	13,7	11,9	14,9	14	10,5	13,625
Correlation		0,53	0,59	0,63	0,46	-0,05	0,69

Water Access Index	<p>This index tries to take into account basic water and sanitation needs while recognizing that water availability for growing food is as important as for domestic and human consumption. There are three components to this index: (1) percentage of the population with access to safe water, (2) percentage of the population with access to sanitation, (3) an index which expresses the degree of access to irrigation by relating the amount of irrigated land, as a proportion of arable land, to internal water resources. However, since in countries with adequate rainfall, access to irrigation is irrelevant, it is first necessary to estimate the need for irrigation. This is done by expressing the internal water resources as runoff in millimeters depth (a corollary of rainfall), and taking a value of 300 mm as implying the limit above which irrigation is not needed. Below this limit, the "need" for irrigation is determined in an approximate way by calculating the internal runoff as a proportion of the limiting value. Then, the degree to which this "need" is met is determined by comparing the ratio of the amount of irrigated land to total crop land to the "need" for irrigation, and expressing the result as an index. For countries above the limit, this part of the calculation is omitted. The idea behind this method of calculation is that countries are rated according to the degree to which they satisfy the need for irrigation. Of course, this is an over-simplification, especially in large countries that have varying climate types within their borders. A higher value indicates greater access. Year: late 1990s to early 2000s Country Coverage: 147</p>
Water and Environment Index	<p>This index tries to capture a number of environmental indicators which reflect on water provision and management and which are included in the Environmental Sustainability Index (ESI) from the World Economic Forum. These indicators cover water quality and 'stress', but also the degree to which water and the environment generally, and related information, are given importance in a country's strategic and regulatory framework. This index is calculated on the basis of an average of five component indices. These are: (1) an index of water quality based on measures of dissolved oxygen concentration, phosphorus concentration, suspended solids, electrical conductivity; (2) an index of water stress based on indices of fertilizer consumption per hectare of arable land, pesticide use per hectare of crop land, industrial organic pollutants per available fresh water, the percentage of country's territory under severe water stress (again the ESI's terminology); (3) an index of regulation and management capacity based on measures of environmental regulatory stringency, environmental regulatory innovation, percent of land area under protected status, the number of sectoral EIA guidelines; (4) an index of informational capacity based on measures of availability of sustainable development information at the national level, environmental strategies and action plans, and the percentage of ESI variables missing from public global data sets; and (5) an index of biodiversity based on the percentage of threatened mammals and birds. For 35 of the 147 countries ESI data were not available; the mean value of the countries that do have data was substituted in these cases. A higher value indicates greater water quality. Year: late 1990s to early 2000s Country Coverage: 147</p>
Water Capacity Index	<p>There are four components to this index: (1) Log GDP per capita (PPP) (US\$). This is the average income per head of population adjusted for the purchasing power of the currency. These data are presented in log form in order to reduce the impact of very high values; (2) under-5 mortality rate</p>

(per 1000 live births). This is a well-established health indicator, and it is one that is closely related to access to clean water; (3) UNDP education index from the Human Development Report 2001; (4) the Gini coefficient. This is a well-known measure of inequality based on the Lorenz curve that gives the distribution of income across the population. Where the Gini coefficient is not reported, the Capacity index is based only on the first three sub-indices. This index tries to capture those socio-economic variables that can impact on access to water or are a reflection of water access and quality. Introducing the Gini coefficient here is an attempt to adjust capacity to enjoy access to clean water by a measure of the unequal distribution of income. A higher value indicates greater capacity. Year: late 1990s to early 2000s Country Coverage: 147

Water Resources Index

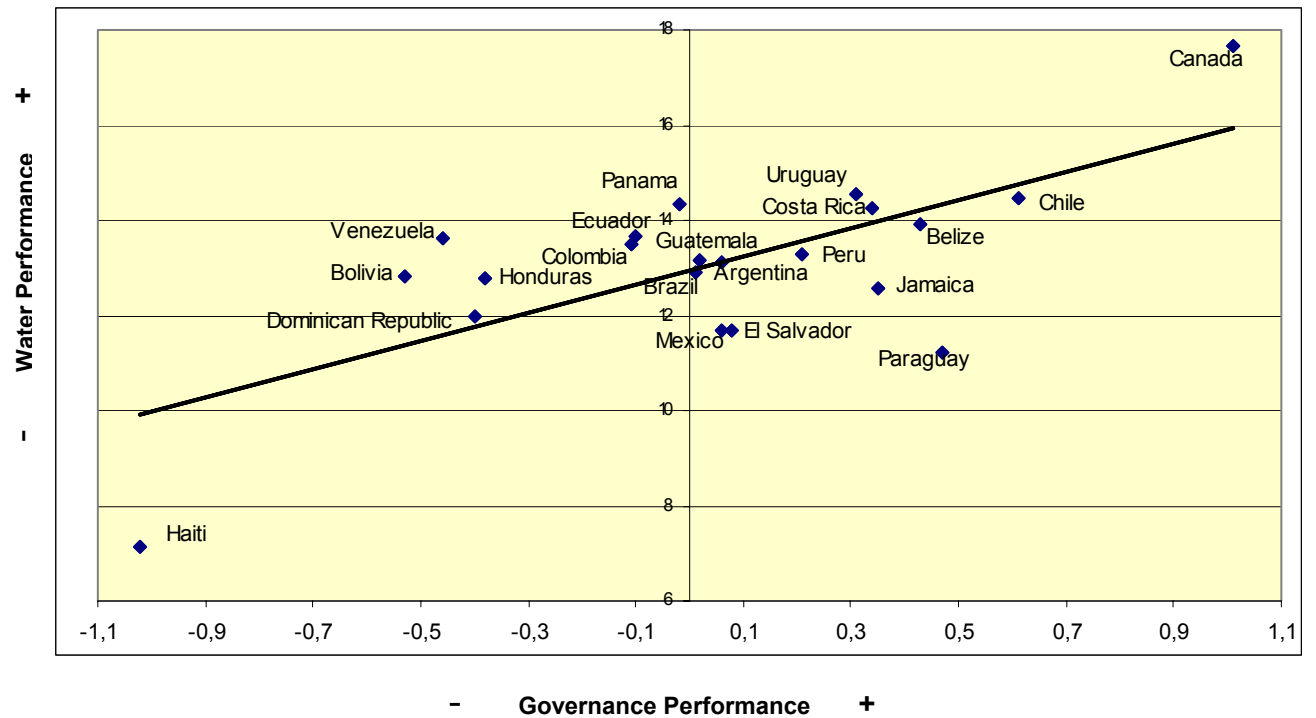
This index combines two separate indices: one of internal water resources and the second of external water inflows. Both are calculated on a log scale to reduce the distortion caused by high values, and expressed on a per capita basis. External water inflow amounts are reduced by 50%; this is an arbitrary factor, but it is an attempt to give reduced weight to external water inflows because these resources are less secure than those generated internally within a country. The resources index is a basic indicator of water availability. A significant additional factor that affects availability is the reliability or variability of the resource; it should be included because the more variable the resource, the smaller is the proportion of the total resource that can actually be used. However, the authors were unable to find an indicator of variability that is available at the national scale, and this factor had to be omitted. A higher value indicates greater resource availability. Year: late 1990s to early 2000s Country Coverage: 147

Water Use Index

This index has three components: (1) domestic water use per capita (m³/cap/yr). This index takes 50 litres per person per day as a reasonable target for developing countries.¹ The authors then construct a two-way index such that countries between 50 and 150 litres (inclusive) = 1. Countries below the minimum have an index calculated such that the lower the value the more they are below the minimum. Countries above the minimum have a lower value on the index the higher they are above 150 litres. This gives some measure of 'excessive' use; (2) industrial water use per capita (m³/cap/yr). Here the proportion of GDP derived from industry is divided by the proportion of water used by industry. The median ratio sets this sub-index at 0.5 with countries above this level scoring higher to a maximum of one and countries below scoring lower to a minimum of zero. The index for country *i* where the above ratio is greater than the median (*M*) is calculated by the formula: $0.5 + 0.5(x_i - M)/(x_{max} - M)$. Countries below *M* have an index number calculated by the formula: $0.5x_i/M$. This gives a crude measure of water use efficiency; (3) agricultural water use per capita (m³/cap/yr). The index is calculated in the same way as for industrial water use. A higher value indicates greater water use. Year: late 1990s to early 2000s Country Coverage: 147

Correlation between Governance Performance and Water Management in Latin America

	Governance Index (Knack and Kugler)	Average of Water Indices
Argentina	0,06	13,1
Belize	0,43	13,925
Bolivia	-0,53	12,825
Brazil	0,01	12,9
Canada	1,01	17,675
Chile	0,61	14,45
Colombia	-0,11	13,5
Costa Rica	0,34	14,25
Dominican Republic	-0,4	11,975
Ecuador	-0,1	13,675
El Salvador	0,08	11,7
Guatemala	0,02	13,175
Haiti	-1,02	7,15
Honduras	-0,38	12,775
Jamaica	0,35	12,55
Mexico	0,06	11,7
Panama	-0,02	14,325
Paraguay	0,47	11,225
Peru	0,21	13,275
Uruguay	0,31	14,55
Venezuela	-0,46	13,625



6 MDG

GOAL 7 Ensure environmental sustainability: water and sanitation

Halve, by 2015, the proportion of people without sustainable access to safe drinking water

Have achieved, by 2020, a significant improvement in the lives of at least 100 million slum dwellers^a

	Population with sustainable access to an improved water source				Urban population with access to improved sanitation	
	Rural (%)		Urban (%)		Urban population with access to improved sanitation (%)	
	1990	2000	1990	2000	1990	2000
Latin America and the Caribbean						
Antigua and Barbuda	..	89	..	95	..	98
Argentina	73	..	97	..	87	..
Bahamas	..	86	..	98	..	100
Barbados	..	100	..	100	..	100
Belize	..	82	..	100	..	71
Bolivia	47	64	91	95	73	86
Brazil	54	53	93	95	82	84
Chile	49	58	98	99	98	96
Colombia	84	70	98	99	96	96
Costa Rica	..	92	..	99	..	89
Cuba	..	77	..	95	..	99
Dominica	..	90	..	100	..	86
Dominican Republic	71	78	92	90	70	70
Ecuador	58	75	82	90	88	92
El Salvador	48	64	88	91	87	89
Grenada	..	93	..	97	..	96
Guatemala	69	88	88	98	82	83
Guyana	..	91	..	98	..	97
Haiti	50	45	59	49	33	50
Honduras	78	81	89	95	88	93
Jamaica	87	85	98	98	99	99
Mexico	52	69	90	95	87	88
Nicaragua	44	59	93	91	97	95
Panama	..	79	..	99	..	99
Paraguay	46	59	80	93	96	94
Peru	42	62	88	87	77	79
Saint Kitts and Nevis	..	..	..	..	..	..
Saint Lucia	..	..	..	..	..	..
St. Vincent & the Grenadines	..	..	..	..	..	..
Suriname	..	50	..	93	..	99
Trinidad and Tobago	..	..	..	..	..	..
Uruguay	..	93	..	98	..	95
Venezuela	..	70	..	85	..	71
Developing countries	..	69	..	92	..	77
Least developed countries	..	55	..	82	..	71
Arab States	..	76	..	94	..	96
East Asia and the Pacific	..	67	..	93	..	73
Latin America and the Caribbean	..	65	..	94	..	86
South Asia	66	81	90	95	52	68
Sub-Saharan Africa	39	44	86	83	75	74
Central & Eastern Europe & CIS	..	82	..	99	..	..
OECD	..	..	..	..	..	..
High-income OECD	..	..	..	..	..	..
High human development	..	..	..	..	..	..
Medium human development	..	73	..	94	..	77
Low human development	47	53	86	83	72	77
High income	..	..	..	..	..	..
Middle income	..	70	..	95	..	82
Low income	..	69	..	90	58	72
World	..	71 ^c	..	95 ^c	..	85 ^c

2 MDG

GOAL 3 Promote gender equality and empower women

Eliminate gender disparity in primary and secondary education, preferably by 2005, and at all levels of education no later than 2015

	Ratio of girls to boys ^a				Ratio of literate females to males (age 15-24) ^b		Female share of non-agricultural wage employment (%)		Seats in parliament held by women (as % of total) ^c	
	In primary education		In secondary education							
	1990-91	2000-01	2000-01	2000-01	1990	2001	1990	2001	1990	2003
Latin America and the Caribbean										
Antigua and Barbuda	..	1.63	2.53	..	..	..	..	..	..	5
Argentina	..	0.96 ^g	1.04 ^g	1.61 ^{t g}	1.00	1.00	37	43	6	31
Bahamas	..	0.93 ^f	0.95 ^f	..	1.02	1.02	49	48	4	20
Barbados	..	0.97	0.98	2.40	1.00	1.00	46	47	4	11
Belize	0.94	0.94	1.05	..	1.01	1.01	37	41	..	7
Bolivia	0.90	0.95	0.93	..	0.93	0.96	35	36	9	19
Brazil	..	0.93 ^g	1.07 ^g	1.28 ^g	1.03	1.03	40	46	5	9
Chile	0.95	0.94 ^g	0.72 ^g	0.89 ^g	1.00	1.00	36	37	..	13
Colombia	1.11	0.96	1.06	1.07	1.01	1.01	40	49	5	12
Costa Rica	0.94	0.93	1.03	1.15	1.01	1.01	37	40	11	35
Cuba	0.93	0.91	1.00	1.11	1.00	1.00	37	38	34	36
Dominica	0.96	0.93	1.09	..	..	..	..	..	10	19
Dominican Republic	..	0.94	1.21	..	1.02	1.02	35	34	8	17
Ecuador	..	0.97	0.99	..	0.99	0.99	37	41	5	16
El Salvador	..	0.93	0.97 ^e	1.23	0.97	0.98	32	31	12	10
Grenada	0.82	0.94	0.47	..	..	..	38 ⁱ	..	..	27
Guatemala	..	0.88	0.88	..	0.82	0.85	37	39 ^k	7	9
Guyana	0.97	0.95 ^f	0.97 ^f	..	1.00	1.00	..	..	37	20
Haiti	0.93	..	..	..	0.96	1.01	40	..	..	4
Honduras	0.99	0.98	..	1.28	1.03	1.04	48	52	10	6
Jamaica	0.99	0.96 ^g	1.02 ^g	1.86 ^g	1.09	1.07	50	46	5	12
Mexico	0.94	0.95 ^g	1.02 ^g	0.96 ^g	0.98	0.99	35	37	12	16
Nicaragua	1.04	0.98	1.15	..	1.01	1.02	..	..	15	21
Panama	0.92	0.93	1.02	1.62 ^f	0.99	0.99	44	42	8	10
Paraguay	0.93	0.94 ^g	1.00 ^g	..	0.99	1.00	41	38	6	3
Peru	..	0.96 ^{t g}	0.92 ^{e g}	0.34 ^{e g}	0.95	0.97	29	35	6	18
Saint Kitts and Nevis	..	0.97	1.08	..	..	..	..	..	7	13
Saint Lucia	0.95	0.90	1.33	0.86 ^e	..	..	..	..	..	11
St. Vincent & the Grenadines	0.97	0.94	1.18	..	..	..	..	..	10	23
Suriname	0.96	0.96	1.13	..	..	..	39	34	8	18
Trinidad and Tobago	0.97	0.95	1.05	1.50	1.00	1.00	36	40	17	19 ^d
Uruguay	0.95	0.94 ^g	1.09 ^g	1.78 ^g	1.01	1.01	42	47	6	12
Venezuela	0.99	0.94	1.15	1.42	1.01	1.01	35	40	10	10
Developing countries	..	..	..	..	0.89	0.91	..	..	..	..
Least developed countries	..	..	..	..	0.72	0.81	..	..	..	..
Arab States	..	..	..	..	0.71	0.83	..	..	..	..
East Asia and the Pacific	..	..	..	..	0.96	0.98	..	..	..	..
Latin America and the Caribbean	..	..	..	..	1.00	1.01	..	..	..	..
South Asia	..	..	..	..	0.72	0.80	..	..	..	..
Sub-Saharan Africa	..	..	..	..	0.80	0.89	..	..	..	..
Central & Eastern Europe & CIS	..	..	..	..	1.00	1.00	..	..	..	..
OECD	..	..	..	..	..	..	..	..	..	..
High-income OECD	..	..	..	..	..	..	..	..	..	..
High human development	..	..	..	..	..	..	..	..	..	..
Medium human development	..	..	..	..	0.91	0.94	..	..	..	..
Low human development	..	..	..	..	0.70	0.81	..	..	..	..
High income	..	..	..	..	..	..	..	..	..	..
Middle income	..	..	..	..	0.95	0.98	..	..	..	..
Low income	..	..	..	..	0.79	0.85	..	..	..	..
World	..	..	..	..	..	..	..	..	..	..