id21 insights 67 • June 2007

id21 insights

research findings for development policymakers and practitioners

New directions for water governance

Water governance is a significant feature of international development policymaking. There is an increasing consensus on the need for improved water governance to achieve the Millennium Development Goals.

People in Nkayi district, Matabeleland, Zimbabwe, discuss access to a hand-dug well, which is mostly used for garden watering. This is a drought-prone area and access to water is largely governed by strong social traditions, rather than formal rules. *Frances Cleaver, 2005*

A series of international summit meetings, most recently the Fourth World Water Forum in Mexico in 2006, have agreed key principles of governance that shape water policy and management. These principles include the need for integrated water resource management, increased participation of all water users (especially women) in financing and management, and a larger role for the private sector.

These principles represent a shift in international consensus about water governance, from:

- state provision of water services to regulated market provision
- centrally administered management to user-based management
- service-oriented management to resource-centred management.

However, such policies have been criticised for being underpinned by narrowly neo-liberal economic principles, dominated by technical and managerial concerns, and informed by limited methodologies and empirical data. Non-governmental organisations and campaigning groups have questioned the pro-privatisation focus, the neglect of ecological concerns, and equity issues.

Challenging the consensus

The recent 'Water Governance: Challenging the Consensus' seminar series aimed to bring together academics and practitioners to critically explore key themes in water governance. It was funded by the UK Economic and Social Research Council and jointly organised by the University of Bradford and the Overseas Development Institute (both in the UK) and the World Wildlife Fund.

Despite many case studies of 'good practice', there has been a lack of enquiry and understanding as to how governance actually works in relation to water, and how to achieve equitable outcomes. This edition of *id21 insights* presents research that moves beyond the principles of good governance to improve our understanding of how governance works in practice.

The complexity of water governance

Water governance is complex, with many forms and contexts. **Tom le Quesne's** article considers the issue of scale: to what level is governance best devolved for optimal water management arrangements? **Tom Slaymaker** and **Peter Newborne** discuss the composite nature of rights. This helps us to understand mechanisms for governing water access and allocations, such as the right to basic minimum amounts of water. These mechanisms are shaped by wider rights and resources in society, with different outcomes for different people.

Linden Vincent explains how participatory institutions are not a simple solution to water governance problems: they are shaped by wider issues within a society, such as power relations.

Faustin Maganga argues that governance arrangements should draw on customary laws. **Rose Osinde** and **Mandy Turner** ask us to focus less on high profile 'water wars' and more on local conflicts over water resources. In doing so, we see that water governance is embedded in power relations that often lead to the unequal distribution of other resources (such as land and technology).

Robin Todd and **Alexia Haysom** use contrasting case studies of local water tariffs to show that governance encompasses a huge diversity of arrangements in different contexts. Although they focus on local governance arrangements, these profitability concerns have implications for wider processes of water sustainability and access.

Further research and action

These articles illustrate some of the breadth and complexity of water

Contents

Bruce Lankford from the University of East Anglia, UK, provided academic advice for this issue.
B.Lankford@uea.ac.uk

governance, but cannot cover all the issues. We summarise the main areas for further work:

Expanding the definition of governance
Water governance is more than just good government. It works through networks and relationships between government, the public, private and voluntary sectors, community groups and citizens themselves. The contribution of these different partners is essential for meeting the water targets in the Millennium Development Goals.

Support at the interface
Water governance involves dynamic political processes of power and negotiation, particularly between service providers and users. The agreed principles of good governance must be balanced with context-specific initiatives. There is a particular need to work at the 'messy middle' between national policymaking and local practices.

Making water governance work for poor people
There is a continuing need to understand how to improve water access for poor people. Single solutions are unlikely to be effective: increasing the influence of poor people in water governance requires a range of inter-related interventions.

Frances Cleaver and **Tom Franks**
Bradford Centre for International Development, Bradford BD7 1DP, UK
f.d.cleaver@bradford.ac.uk **T** +44 (0)1274 233967
t.r.franks@bradford.ac.uk **T** +44 (0)1274 235272

See also
Papers from the 'Water Governance: Challenging the Consensus' series can be found at:
http://splash.bradford.ac.uk/home

Water governance and poverty: a framework for analysis

Defining water governance
Rogers and Hall, in their work for the Global Water Partnership in 2003, define water governance as 'the range of political, social, economic and administrative systems that are in place to develop and manage water resources, and the delivery of water services, at different levels of society'. We build on this by adding concepts of power and agency: we see water governance as 'the system of actors, resources, mechanisms and processes which mediate society's access to water'.

This definition helps to distinguish between governance, government and management, a distinction sometimes blurred in the literature. Government represents the formal structures through which the state orders its affairs, including its water affairs. Management comprises the actual processes by which water resources are allocated and delivered. Both government and management form part of the wider system of governance which mediates peoples' access to water.

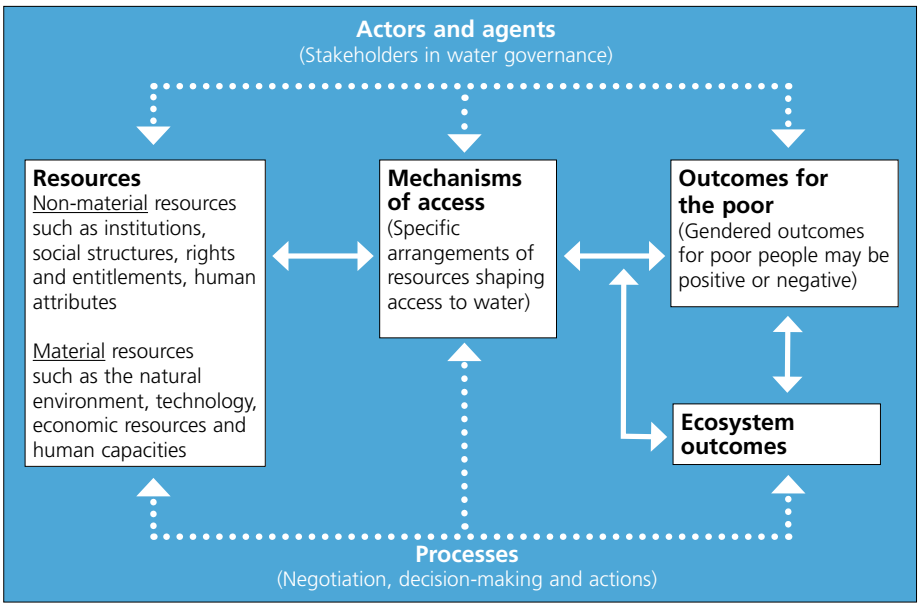
An analytical framework
Drawing on these concepts, we have developed an analytical framework to help understand how arrangements for water governance are shaped and how they impact on poor people.

This framework helps us to understand water governance as multi-layered, multi-dimensional and dynamic. There are no simple widely applicable arrangements of optimal governance that will always yield fair outcomes. Rather, we see a rich diversity of context-specific arrangements shaped by wider processes in society. One key challenge is assessing how much these arrangements are likely to increase equity and sustainability in water access.

The ideas and underlying links expressed in this framework are discussed at length in a forthcoming paper (an earlier draft is referenced below). We also discuss how the framework can be applied in practice. This edition of *id21 insights* provides examples of how different categories of resources (for example rights or financial resources) are drawn on to develop specific mechanisms of access, with variable outcomes for different groups of people.

Water Governance and Poverty: A Framework for Analysis, BCID Research Paper No.13, Frances Cleaver and Tom Franks, 2005 (PDF)
www.brad.ac.uk/acad/bcid/research/papers/ResearchPaper13CleaverFranks.pdf

Effective water governance, TEC Background Paper No 7, Global Water Partnership, by Peter Rogers and Alan W. Hall, 2003 (PDF)
www.gwpforum.org/gwp/library/TEC%207.pdf207.pdf



Customary laws for managing water resources

Current water governance reforms in most southern African countries focus on the legal systems for regulating water use. However, these countries have pluralistic legal systems, which include statutory laws, the customary laws of different ethnic groups and Islamic law.

Recent research coordinated by the University of Dar es Salaam in Tanzania investigated whether neglecting customary laws has negative consequences for poor people. The research, conducted in South Africa, Zimbabwe and Tanzania, shows:

- Customary laws are often more effective than other water governance systems, especially for poor people.
- Empirical evidence indicates that imposed laws usually overshadow the survival of customary practices. In conflicts between local people and the state, the reality is that imposed legal regimes are authoritative.
- There is a general lack of understanding about customary laws amongst water management practitioners and policymakers in the three countries.

The importance of customary laws
In rural South Africa, customary management structures play an important role in managing water resources and settling disputes over water use. Traditional water governance structures respect the community norms and values that guide and inform how critical water resources are consumed, managed, protected, conserved and used. For example, local responses to water scarcity show high levels of cooperation and well-ordered social activity to maintain and protect resources.

Customary laws are also important for conflict resolution. Evidence from rural South Africa shows that traditional ways to settle disputes can be very effective for disputes about water. This is also recognised by local magistrate courts. However, these traditional means could conflict with the Water Tribunals that were established in the New Water Act.

So far, most water sector reforms have not given sufficient importance to customary laws. This research suggests:

- There is a need to improve our understanding of the strengths of customary water arrangements (whilst recognising their weaknesses, such as gender inequality and the limitations of elected leadership).
- New water governance measures should build upon the strengths of customary water laws and be designed from the 'bottom-up', through consultations with local people.
- It is necessary to improve our understanding of possible negative impacts of new water governance legislation on individual entitlements. For example, water licensing to individuals in South Africa's former homelands may erode the customary rights of those who have no licenses.

Faustin P. Maganga
Institute of Resource Assessment, University of Dar es Salaam, P. O. Box 35097, Dar es Salaam, Tanzania
efh@udsm.ac.tz
T + 255 22 2410144

See also
The case studies and guidelines have been published on the project website:
www.nri.org/waterlaw

The question of scale

At what level should governments manage water?

The question of the appropriate scale or level at which governments should operate has traditionally been important in political and economic discussions. It has also become a key issue within development policy, with policymakers thinking that this determines institutional effectiveness.

Similarly, the scale of governance has become an increasing preoccupation in environmental management. However, many tensions exist between different approaches to scale in environmental management. These tensions are considerable, but not always acknowledged.

Approaches to scale include:

- Within the social sciences, there has been an increasing emphasis on the benefits of accountability and participation that come from decentralised and local management. This includes the management of public services and natural resources.
- In environmental and conservation sciences, the emphasis has been on the need for management at increasingly large scales, so that whole ecosystem processes (such as predator-prey interactions) can continue.
- For economists, a key issue is the minimum efficient scale – if management functions are carried out by institutions on too small a scale, they will be unnecessarily costly.

In response to these tensions, environmental management is typically carried out by a system of multi-tiered institutions, rather than a single institution operating at one scale. This enables each function to be carried out at the appropriate scale. This makes it possible to resolve the tensions between different management scales.

The South African 1998 Water Act

South Africa's 1998 Water Act created management institutions ostensibly based on the 'catchment' scale. The Act established nineteen Catchment Management Associations (CMAs) across South Africa (see diagram below). While based on watershed boundaries, none of these CMAs actually covers a single, complete catchment. In some, several small catchments are combined into one CMA. This prevents the establishment of several small, inefficient institutions. In others (for example the Upper, Middle and Lower Vaal CMAs), the CMA covers only part of a catchment. This prevents the CMA becoming so large that it loses the benefits of accountability and participation.

This multi-tiered system of water management can link with other systems and scales of government and management. Several institutions exist below CMAs, including Water User Associations and Catchment Committees. These represent local water users, such as domestic users and farmers. In addition, South Africa also retained several regulatory functions at the national level, including environmental reserve flows and policies for international and strategic uses of water.

The South African Government is exploring governance by addressing scale and institutional coverage. By establishing multi-tiered structures, the South African Water Act is trying to respond to the competing factors that influence the appropriate scale for managing water. Although enacted in 1998, policymakers wisely envisaged a phased implementation. It is therefore too early to form a definite assessment of whether the arrangements are working. However, there are some important implications to consider:

- Contrary to some thinking in water management, the boundaries for management institutions should not simply be based on catchment boundaries.
- Implementation has already raised debates over the relationship and distribution of management functions between central institutions, CMAs and local institutions.

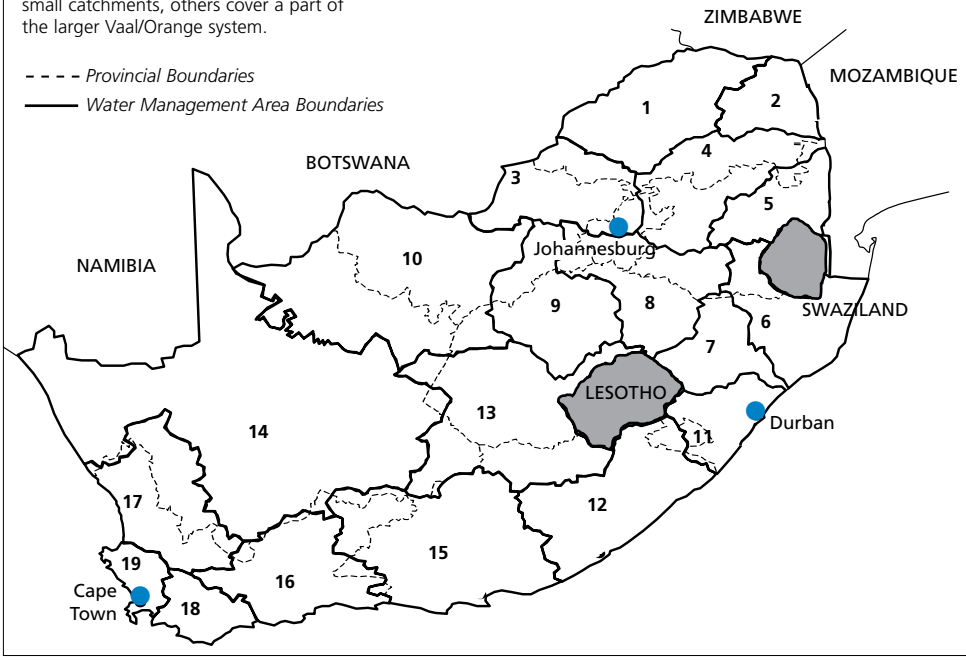
Tom Le Quesne
WWF-UK, Panda House, Weyside Park, Godalming GU7 1XR, UK
tlequesne@wwf.org.uk
T +44 (0)1483 412054

See also
The analysis of Multi-tiered Natural Resource Management Institutions, Doctor of Philosophy thesis, University of Oxford, by Tom Le Quesne, 2005

Catchment and Water Management Areas under the 1998 Water Act

The 19 Water Management Areas established in South Africa will each be administered by a multi-stakeholder forum, a Catchment Management Authority. Although based on catchment boundaries, none of the Water Management Areas precisely matches a single catchment. Some combine several small catchments, others cover a part of the larger Vaal/Orange system.

1 Limpopo
2 Luvuvhu and Letaba
3 Crocodile (West) and Marico
4 Olifants
5 Inkomati
6 Usutu to Mhlatuze
7 Thukela
8 Upper Vaal
9 Middle Vaal
10 Lower Vaal
11 Mvoti to Umzimkulu
12 Mzimvubu to Keiskamma
13 Upper Orange
14 Lower Orange
15 Fish to Tsitsikamma
16 Gouritz
17 Olifants/Doorn
18 Breede
19 Berg



Source: Department of Water Affairs and Forestry, South Africa

What do you think?

Please write and tell us your views about the issues raised in id21 insights. And what topics would you like to read about?

Email insights@ids.ac.uk with your ideas.

Subscribe to id21 insights

If you would like to subscribe to id21 insights for free please email insights@ids.ac.uk with your name and address.

Future topics include

- ***Cities and climate change***
- ***Island economies***
- ***Maternal health***
- ***Teachers***

'Rethinking the management of agricultural water' by Peter P. Mollinga

Read this article online

www.id21.org/insights/insights67/art08.html

Money matters

Financially sustainable water supplies in rural Tanzania

Only 45 percent of public water points in central Tanzania are functioning. Research in the Dodoma and Singida regions shows that poor financial management often undermines the sustainable use of water.

As a result, village water points are frequently abandoned because there are no savings available to pay for simple maintenance.

Many public water points in the two regions are managed by Village Water Committees (VWC). However, revenue collection improved significantly in villages that introduced a private operator (PO) to manage water points. The research shows:

- The PO model originated as a community driven process. The first observed PO was invited by villagers to operate the village water scheme because the community was frustrated with the poor service levels achieved under VWCs.
- POs have financial incentives to deliver water to a community; they can keep surplus revenue from water sales, after giving an agreed sum to the village water fund for maintenance and capital expenditure. POs have generated record savings in the village water funds.
- Communities have benefited from an improved water provision service. They are also more able to cope with technical failures in water points.

It is important to regulate POs to avoid profiteering, which is already evident in some villages. Metering the volume of water sold is essential to balance the incentives of POs and the interests of users. This process is notably absent from the Dodoma and Singida regions, either by external agents or by the villagers themselves. This issue must be addressed to ensure that POs do not overcharge villagers for their services.

Rural Tanzania desperately needs sustainable water supplies. In the regions studied, POs represent an innovative and practical improvement to the financial management and service supply of public water points. However, their accompanying disadvantages must be recognised and addressed.

Alexia Haysom
33 Charnley Drive, Chapel Allerton, Leeds, LS7 4ST, UK
alexia.haysom@environment-agency.gov.uk

See also
The Technical Annex for the Jack Wright Memorial Trust, by Alexia Haysom, September 2006 (unpublished)
Copies are available from the author on request.

Recovering the costs of rural water supply

Community initiatives in Nigeria

Inadequate water supply and poor sanitation are serious problems for rural communities in Cross River State, southern Nigeria. Concern Universal works with these communities to strengthen their capacity to manage water and sanitation facilities.

Community members with repaired boreholes in Iyamayong, Obubra Local Government Area of Cross River State in Nigeria
Robin Todd, 2006

Surveys such as the 2006 Core Welfare Indicators Questionnaire Survey show that only 14 percent of rural households have access to safe water sources; only 24 percent have access to safe sanitation facilities. These are among the lowest figures in southern Nigeria, and may be due to a historic lack of investment by the federal and state governments.

The role of non-governmental organisations in water governance is to facilitate community-led initiatives that promote self reliance and equal access. This is important in areas where communities do not trust governments to protect their interests, or fulfil their role as service providers and regulators.

Since 2001, Concern Universal has worked on projects in Cross River State to increase the role of communities in governing rural water supply and sanitation. Concern Universal has developed a model characterised by:

- designing community-based management structures around existing local institutions. For example, Age-Grade systems help to ensure fair access. However, some traditional rulers take an active role in management, which can reinforce existing inequalities and patterns of resource control.
- total community self-reliance for borehole operations and maintenance. Concern Universal trained and equipped men and women from each community to repair and maintain hand-pumps. This achieved encouraging results, with almost 90 percent of surveyed water points fully functional more than twelve months after project completion.
- sustainable low-cost solutions. Concern Universal encouraged protecting natural springs (using a new method developed by Concern Universal's partner GRADO) and repairing existing hand-pump boreholes instead of drilling new boreholes.

Cost-recovery systems

To deliver effective services, water governance requires inter-related systems operated by many sections of society. If these services are to be maintained, governance arrangements must provide for cost recovery. Cost recovery systems designed by communities are most effective, enabling communities to sustain existing facilities while still allowing widespread access to safe water.

Practices vary between communities. Some introduced household levies for commercial uses, such as moulding blocks or cooking rice for sale. On average, these were equivalent to US$0.40 per household per month. In some places, community funds were used to repair infrastructure breakdowns. People were then charged 'per bucket' for water until the community water and sanitation bank account was replenished. A portion of profits from community-run 'Sanicentres' were also used to repair breakdowns. However, no communities introduced charges 'per-bucket' as a standard cost recovery method.

Concern Universal has identified policy implications for working with communities to manage water supplies:

- 'One size fits all' solutions to cost recovery are not appropriate; systems should be based around normal community practices.
- A community contribution is essential for sustainability, but it is the principle that is important, not the actual method of contribution.
- To be sustainable, cost recovery processes should cover annual operation and maintenance costs.

Robin Todd
Concern Universal, 41 IBB Way, Calabar, Cross River State, Nigeria
robin.todd@concern-universal.org
T +234 87238828

See also
Core Welfare Indicator Questionnaire – Cross River State Summary, National Bureau of Statistics, 2006 (PDF)
www.nigerianstat.gov.ng/Connections/cwiq/Cross%20River.pdf
Annual Report 2005-6, Concern Universal-Nigeria, 2006

Achieving water security

Water security means people have secure rights to use water, including future generations. For poor people, this comes from fair and adequate representation in policymaking processes. They also need improved water technology, and management processes that they can use.

There are many challenges to achieving secure water rights, in which politics, institutions, participation and the role of advisers are central issues.

Challenges to water security

Not everyone agrees about how governance should address contemporary water security issues. In Neuquen, Argentina, a Water User Community group was created to resolve struggles over water availability and river degradation. However, they were forced to reform because appointed representatives did not represent the interests of everyone. For example, there were struggles over which data sets should be used to set governance agendas. This shows that governance evolves through political struggles and negotiation, rather than 'blue print' models.

Institutional practices and models

Many governance models and 'best' practices create new problems, rather than enhancing water security. For example, some irrigation and water supply policies promote privatisation and public-private partnerships. However, by increasing charges, these can actually reduce access to water for poor people and often fail to improve service conditions.

Processes to determine water rights are also often 'top-down', focusing on newly defined, tradable rights. This 'top-down' focus is often at odds with existing land and water rights. For example, after a new Water Code was passed in Chile in 1981, indigenous communities were unaware of the need to register their rights. As a result, these rights were declared 'unused' and reallocated to commercial companies and bigger landlords. Indigenous groups had little chance to regain their rights, greatly reducing their water security. This shows the need for flexibility and monitoring when intervening in new governance approaches, so that changes can be made and impacts mitigated.

Irrigators in Punata, Bolivia, whose water application is supported by good local water governance.
Gerben Gerbrandy, 2006

Participation in new models

To overcome these challenges in building complementary and effective new institutions, governance models to secure water rights should use participatory approaches. In Bolivia, previous projects to improve community irrigation systems often recommended new 'blue-print' models for management organisation, instead of referring to local practices for managing water. They also lacked participatory approaches during design and implementation. Nevertheless, there are ongoing efforts in Bolivia to improve participatory approaches between local government, designers, implementing engineers and farmers, which should improve water rights security for poor people.

The way ahead

Our power to challenge any faulty consensus about water security and governance policies comes through being better advisers. This includes our critical teaching and training, our independent field research and the development of alternative ideas for public action over water. Improving water security requires 'understanding from below' – how different groups manage their water use and how to work with them. This is more important than advocating specific governance and management models lifted from other locations.

Linden Vincent
Irrigation and Water Engineering Group, Wageningen University, P.O. Box 47, 6700AA Wageningen, the Netherlands
Linden.Vincent@wur.nl
T +031 317 484195 **F** +31 317 484759

See also
Politics, Institutions and Participation, Seminar 3 in the 'Water Governance: Challenging the Consensus' seminar series, 2006
www.splash.bradford.ac.uk/projects
Politics, Institutions and Participation in Water Governance, paper from Seminar 5 in the 'Water Governance: Challenging the Consensus' seminar series, by Linden Vincent, 2006
www.splash.bradford.ac.uk/projects
Riego campesino y diseño compartido, Quito: IEP Ediciones, by Z. Gutiérrez, 2006

Water rights for water governance

Opportunities and challenges of regulation in developing countries

Rights and entitlements at the societal level are some of the resources for water governance. Viewing water rights from a legal perspective helps to analyse the policy debate on rights of access to water. There are three principal legal forms of a right to water – a human right, a property right and a contractual right.

'Tap end' or 'river end' right?

Debates on water rights tend to focus on water services and the human right of access to water supply at the 'tap end'. However, research by the Overseas Development Institute in the UK on the liberalisation of markets in water services has highlighted that, in many developing countries, domestic regulation of water access is insufficiently developed or absent altogether.

As a result, attempts to 'fast-track' regulation are likely to go badly wrong. Without strong regulation, there is a danger of 'political capture': bias towards people who are wealthier, better educated and politically more powerful.

Policymakers should pay more attention to property rights for water resources at the 'river end'. It is at the water source that competition for water resources in bulk occurs. This is competition between water-using sectors (such as urban users, agriculture and industry) and between water users within each sector. For example, permissions to abstract water from surface and ground water sources are commonly formed as property rights (and may be granted for long periods).

The third legal form of rights is contractual: the right to water under contracts for supply of water services. These exist between a service provider (public or private) and a user, or household of users. The nature of contractual rights and obligations depends on each contract's terms in the specific country or municipal context, including how the rights are regulated.

Regulating 'river end' rights

Existing empirical studies show contrasting approaches to river-end property rights in water. In some instances, many international agencies promote formalised water rights to govern access to water resources. These are centrally administered systems of regulatory rules and procedures to decide between competing claims over water. There are calls from some researchers to register formalised water rights in the same way as land rights, and separated from them. This would promote investment and trading, attract more capital for funding water infrastructure, and encourage the reallocation of water to 'higher economic value' uses (such as irrigation).

However, other researchers favour settling competing claims over water access through negotiation. These processes are dynamic and gradual, often advancing through trial and error. Supporters of this approach caution against the abrupt introduction of formalisation systems into developing countries. These formalised rights are conceived in developed countries, but the capacity to administer and regulate them in developing countries is limited, with greater risk of political capture by powerful interest groups.

Tom Slaymaker and **Peter Newborne**
Overseas Development Institute, 111 Westminster Bridge Road, London, SE1 7JD, UK
p.newborne@odi.org.uk
t.slaymaker@odi.org.uk

Sources
Water and the GATS: Mapping the Trade-Development Interface, Briefing Paper, Overseas Development Institute, October 2005 (PDF)
www.odi.org.uk/wpp/publications_pdfs/BP_Water_GATS.pdf
Right to Water: Legal Forms, Political Channels, Briefing Paper, Overseas Development Institute, July 2004 (PDF)
www.odi.org.uk/wpp/publications_pdfs/BP_ODI_right_to_water.pdf

Competition for water

Are water riots a greater threat than water wars?

There is considerable literature on international water negotiations, but most research ignores local conflicts over water. In fact, violent 'water riots' at local levels are more common than inter-state 'water wars'.

Over the past decade, policy debates have increasingly associated water scarcity with conflict. This is at the international level (conflicts or wars between nations sharing the resource) and at national and local levels (conflicts or tensions over water access and use between different users and sectors). However, water-related conflicts are caused not just by scarcity, but by how access to water is governed.

Flashpoints for local level conflict

Privatising the water supply sector has created significant disputes. Where government agencies are handing over service provision to private water companies, the potential for unequal service provision is high. This is particularly true where regulations to control prices are not in place or inadequately enforced. This causes conflict over unequal access or increased prices. Furthermore, where one company has a monopoly to provide water services, tensions arise with small-scale independent providers.

In Latin America and Africa, the lack of affordable water access for vulnerable groups (such as poor urban people, small farmers, women and girls) has sparked confrontation between local communities and authorities. Even where communities or private water supplies have improved water access, conflicts have sometimes arisen between water managers and those who previously supplied water, such as travelling water vendors. This is due to the lack of sufficient regulation.

A recent study conducted for the World Bank's Water and Sanitation Programme, Africa (WSP-AF) in Mukuru slums, Nairobi, found evidence of violence between illegally connected water vendors and metered vendors linked to the water utility. This occurred after the utility introduced a new water supply system within this slum without prior community consultations and involvement. Another study undertaken for UN-HABITAT showed that even pro-poor water governance structures cause tensions if they are ineffective. For example, if local authorities and water utilities fail to provide water supply and sanitation services, this creates tension between them and poor urban people.

Managing local water conflicts

Direct violent conflicts over water are now more likely to occur at the local level than the inter-state level. Deficits in local access and supply are mainly rooted in institutions and political choices governed by unequal power relations. There is still a huge lack of understanding about local level governance. This means that vulnerable groups, which have the weakest rights and no political voice, often lose out to more powerful groups.

To ease these power differentials, it is necessary to develop an effective pro-poor approach to water governance that can have an impact at local levels. This requires acknowledging that, currently, some groups win and others lose. Policy and programme designs should therefore include:

- mapping existing groups and resources (human, technical and financial)
- community consultations about water access and allocation
- conflict-impact assessments and conflict resolution mechanisms
- adequate compensation for communities whose water access is disrupted
- enforcable regulations for privatised water suppliers to control prices, water quality and quantity.

Useful web links

Basin Water Management – International Water Management Institute research theme
www.iwmi.cgiar.org/rthemes/BasinWaterManagement/index.asp

Gender and Water Alliance
www.genderandwater.org

Global Water Partnership
www.gwpforum.org

International Water Association
www.iwahq.org

Public Services International Research Unit
www.psiru.org

United Nations Development Programme: Water Governance Facility
www.watergovernance.org

United Nations Research Institute for Social Development
www.unrisd.org

Water Aid
www.wateraid.org

World Bank – Water Resources Management
www.worldbank.org/water

World Water Council
www.worldwatercouncil.org

Rose Osinde and **Mandy Turner**
Rose Osinde, P.O Box 28767, Nairobi 00200, Kenya
rose.osinde@unhabitat.org or **rosinde@gmail.com**
Mandy Turner, Department of Peace Studies, University of Bradford, BD7 1DP, UK
T +44 (0)1274 234776
mandy.turner@ucl.ac.uk or **m.turner4@bradford.ac.uk**

See also

'Conflict Prevention and Access to Fresh Water in Sub-Saharan Africa', by V. Boege and M. Turner in *Conflict Prevention, Management and Reduction in Africa*, Ministry for Foreign Affairs of Finland: Development Policy Information Unit, edited by J. Buxton, O. Greene and C. Salonius-Pasternak, 2006

An Assessment of the Activities of Small-scale Providers of Water and Sanitation in Nairobi's Informal Settlements, Water and Sanitation Program-Africa Region: WSP-AF commissioned study, by Rose Osinde, 2005

id21 insights is published 10 times a year and is online at **www.id21.org/insights**. Readers may copy or quote from any article, providing the source (*id21 insights*) and author are acknowledged and informed. To subscribe, email **insights@ids.ac.uk** with your name and address. id21's website, **www.id21.org**, offers free access to over 4,000 research highlights on development policy issues including health, natural resources, education and more. To receive email updates, email **id21news@ids.ac.uk** with the words 'subscribe id21news'.

id21
Institute of Development Studies
University of Sussex, Brighton BN1 9RE, UK
T +44 (0)1273 678787 F +44 (0)1273 877335
Email id21@ids.ac.uk

id21 is hosted by IDS and is supported by the Department for International Development. The views expressed in *id21 insights* do not necessarily reflect those of DfID, IDS or any other contributing institution. IDS is a Charitable Company No.877338 limited by guarantee and registered in England. ISSN 1460-4205 © Institute of Development Studies 2007

Editor: **Tim Woods**
Senior Editor: **Louise Daniel**
Editorial and technical support: **id21 team**
Design: **Robert Wheeler**
Printer: **APR Ltd**

Keywords: community initiatives, conflict, customary laws, governance, participation, rights, water, water governance, water security