DANISH INSTITUTE FOR INTERNATIONAL STUDIES
STRANDGADE 56 •1401 Copenhagen K
+45 32 69 87 87 • diis@diis.dk • www.diis.dk

DIIS Brief

Water reform
– implications for rural poor people's access to water

Claus Aagaard and Helle Munk Ravnborg

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Many countries are currently in a process of water reform, often motivated by increasing and a changing composition – and strength – of demands for fresh water. In many countries this reform process has been met with opposition from all political corners, including traditional water users such as large scale farmers and civil society organizations such as indigenous movements and environmental groups.

This brief summarizes some of the common features of the current wave of water reform and discusses the potential implications for rural poor people's access to water. The brief concludes that while water reform is certainly needed, its poverty impacts depend upon their detailed contents and – not least – how they are administered. This ultimately depends upon the relative strength of the various political and economic actors and interests. This represents an important challenge to national water administrations and to the donor organizations supporting them.

Helle Munk Ravnborg, PhD, Senior Researcher and Claus Aagaard, Research Assistant, Poverty and environment, Danish Institute for International Studies.

Introduction

Many countries are currently in a process of water reform. Typically, this reform entails both a policy reform and a reform of the legal and administrative water rights framework. Among the countries which have undergone significant water sector reform during the last couple of decades are Chile (1981 and 2004), Mexico (1992 and 2004), Uganda (1995), Ghana (1996), South Africa (1998), Vietnam (1999), Kenya (2002), and Bangladesh, Nicaragua, Peru, Tanzania and Zambia where the water reform is under preparation and negotiation (for more detailed description of the contents of some these country-specific reform processes, please see http://www.diis.dk/sw25948.asp).

With the notable exception of Chile where water resources have been entirely privatized and can be freely bought, sold, mortgaged and transferred like any other piece of real estate, many of these water reform processes share important common features. These common features and their implications for rural poor people's access to water is the topic of this DIIS brief.

Common features of current water reform

Shifting the allocation of water – a motivating concern

In most cases, the water reform process is motivated by concerns with the allocation of water. Particularly many developing countries are currently experiencing a radical change in the composition of water demands. Urban populations in need of both drinking water and sanitation are growing; industrial demands for water as well as demands for hydropower are increasing. Many places also witness a changing composition of agricultural water demands with increasing water demands for production of high-value crops such as flowers and vegetables. Finally, the need to ensure sufficient quantities and quality of water to uphold important environmental functions is increasingly being recognized.

These emerging demands tend to be put forward by stakeholders that hold more power, economic potential and electoral relevance for politicians than the hitherto dominating water users. Many governments are thus faced with the challenge to identify ways to shift water out of traditional uses.

This concern with the allocation of water has to a notable extent replaced the concern with water development. In many developing countries it represents a situation of lack of public investments e.g. for water storage, rather than a situation of all water development options being exhausted.

Bringing water under state control

The water reforms take place in a context where countries have typically operated with a formal (though not always clear in practice) distinction between *public water* (such as water in permanent rivers and lakes), and *private water* (such as ground water brought to the surface on private land, springs on private land and small streams passing through private land).

Typically, access to such private waters and often also to public waters has been established through combinations of riparian rights, prior use rights, and customary rights as well as through economic, social and political relations. Particularly in the multi-ethnic context characterizing many developing countries, these systems of more or less formalized water rights, often drawing on different legal systems, tend to be overlapping. Furthermore, they tend not to provide sufficient security neither for investment, e.g. in urban water supply or for hydro-power generation, nor for the poor.

In most countries, the first step towards enabling a reallocation of water in response to shifting demands and priorities has been to bring water under state ownership or control. This has happened by declaring water a national patrimony or property and by vesting the control over all water resources in e.g. the president or minister. This implies the abolishment of the concept of private waters and the creation of a single water administration agency responsible for issuing water use rights. Based on hydrological assessments and planning, this potentially allows the water administration not only to allocate and control water use and quality, but also charge for water services (see below!), protect investments and other user interests, and finally to transfer water rights through legal mechanisms.

Decentralization of water administration

In line with the second Dublin principle (see box 1), the water reform process in many countries entails efforts to decentralize day-to-day water administration as well as water development from central authorities to lower levels such as river basin or catchment authorities or administrative units such as provincial or district governments. Overall planning and regulation of water use, however, tend to remain with the central authorities. Some countries have made it a formal requirement to establish river basin boards or water user groups. Such groups, however, have highly varying mandates, ranging from serving as consultative bodies for the water administration to holding real decision-making power.

Box 1
1992 Dublin principles

1. *Fresh water is a finite and vulnerable resource, essential to sustain life, development and the environment*

   Since water sustains life, the effective management of water resources demands a holistic approach, linking social and economic development with the protection of natural ecosystems. Effective management links land and water uses across the whole of a catchment area or groundwater aquifer.

2. *Water development and management should be based on a participatory approach, involving users, planners and policy-makers at all levels*

   The participatory approach involves raising awareness of the importance of water among policy-makers and the general public. It means that decisions are taken at the lowest appropriate level, with full public consultation and the involvement of users in the planning and implementation of water projects.

3. *Women play a central part in the provision, management and safeguarding of water*

   The pivotal role of women as providers and users of water and guardians of the living environment has seldom been reflected in institutional arrangements for the development and management of water resources. Acceptance and implementation of this principle requires positive policies to address women's specific needs and to equip and empower women to participate at all levels in water-resource programmes, including decision-making and implementation in ways defined by them.

4. *Water has an economic value in all its competing uses and should be recognized as an economic good*
   Within this principle, it is vital to recognize first the basic right of all human beings to have access to clean water and sanitation at an affordable price. Past failure to recognize the economic value of water has led to wasteful and environmentally damaging uses of the resource. Managing water as an economic good is an important way of achieving efficient and equitable use, and of encouraging the conservation and protection of water resources.

Source: 1992 Dublin Statement On Water And Sustainable Development available at http://www.wmo.ch/web/homs/documents/english/icwedece.html

Administrative water use rights

Although considered national patrimony, most countries envisage the creation of water rights issued to individuals as well as to private and public enterprises through an administrative procedure performed by a state agency responsible for water resources management as the mechanism for allocating water to specific uses and users.

Such use rights are described as licenses, permits, authorizations or concessions depending on the country and the volume and duration of the water use right. Their duration typically vary from between five or 10 years, e.g. in the case of permits for using water for irrigation in Mexico and Ecuador to periods of up to 40 years for concessions e.g. for the construction of hydro-power dams in South Africa and Mexico.

Apart from duration of the right and the volume of water to be used, an administrative water right tends to specify the kind of use to which water abstraction is permitted; where the water use takes place; the volume and quality of discharge water; and the source to which used water is discharged. Failure to comply with these specifications or conditions as well as in many cases failure to use the water for which the right is obtained may lead to the water right being forfeited.

Water use charges

In recognition of water as an economic good (the fourth among the Dublin principles), many countries are in the process of introducing charges for the use of water subject to water rights. These water use charges may be flat charges, as for uses below a certain threshold volume in Tanzania, or differentiated according to the volume of water used and type of use to which it is put, typically charging more for industrial water use than e.g. for agricultural water use. In other countries, such as Mexico, water resource charges are higher in water-scarce areas in order to reflect the opportunity cost of the resource.

In addition to the water use charge, the payment of an administrative fee may be required to cover the administrative costs associated with the water rights administration.

Exemptions for domestic water use – de minimis exemptions

Some water uses are, however, typically exempted from the requirement to obtain an administrative water right. These exemptions may be given for specific types of activities such as domestic water use, watering of animals or watering of garden crops; the volume of water used, exempting water use below a certain volume; or a combination of both.

Depending on the country, many of rural poor people's water uses fall within the category of uses which are exempted from the need to hold a formal administrative water right. In most countries, this includes the use of water for domestic purposes and also the use of water for watering animals whereas the use of water for irrigation even of small parcels of crops is less frequently exempted. In Uganda, following the introduction of the 1995 Water Statute, only some two hundred water users would require a formal water abstraction right (Hodgson, quoting Garduño), whereas if the proposal for a new water law currently under discussion in Nicaragua is adopted, everybody who wishes to use water for watering crops is required to apply for a formal water right.

Regularizing existing water use

Rather than neglecting existing water uses, most water reform processes aim to regularize existing water uses by bringing them into the administrative water rights regime. Obviously, this poses an enormous challenge, particularly in countries characterized by poor means of communication, limited administrative capacity, and generalized lack of trust towards public institutions.

Implementation challenges

If implemented literally, the water reform as outlined above represents a major shift in the way water is administered. As such it entails administrative challenges to the institutions involved in water administration, including challenges to their administrative capacity as well as to their willingness to embark upon the process, and political challenges as it touches upon issues of rights and conditions of access to such a vital natural resource as water.

Opposition comes from all corners of the political spectrum, ranging from resistance to what is perceived as the commoditization and privatization of water entailed in the system of water rights registration and associated water use charges to the objections from e.g. large-scale irrigation farmers to having to pay for the right to use water and to the abolition of the legal category of private waters. Many countries have witnessed a vivid and heated political debate – and resistance – to the adoption and implementation of the water reform, in some cases succeeding to put a halt to the reform process as has happened in e.g. Peru and Nicaragua.

On top of that comes, of course that water is a difficult resource to administer. In contrast to land, water is a highly mobile and variable resource, both in terms of quantity and quality due to climatic variations and to upstream management.

Thus, even in countries which have formally amended their water law and regulation, there is still a considerable gap between formal and actual water administration.

Implications for the rural poor

Would the rural poor be better served without water reform?

The obvious and only sensible answer to this question is that it depends upon the context. However, with the exception of situations where access to water for the rural poor is secured through strong community-based and egalitarian institutions, holding formally recognized rights to water, the general situation seems to be that the rural poor experience increasingly insecure and inadequate access to water. Among the factors contributing to this situation are that water rights tend to be landownership-based (e.g. as riparian rights or rights to 'private' waters) and the lack of access to conflict resolution mechanisms in cases of conflicts over access to and management of water, i.e. precisely some of the issues which tend to be addressed in the current wave of water reform.

Thus, from a poverty perspective there is ample need for water reform. Much therefore depends upon the more detailed contents of the water reform and, not least, how it is administered. Many issues deserve consideration and have been analyzed e.g. by the authors listed under suggested further readings. Among the issues are:

- the need for formal recognition of sound local community-based water arrangements, e.g. by providing for the allocation of collective rights where water is collectively managed;
- the need to provide financial and technical support for affordable infrastructure development for small-scale rural water uses by women and men
- the identification and amendment of administrative procedures which constrain engagement of the poorest, including registration and exemptions (see discussion below);
- the need to understand the land and water rights interface;
- equal access to conflict resolution, negotiation and compensation for poor and more resourceful users; and
- how to ensure effective representation of the poor and otherwise marginalized stakeholders in water administration.

Here, the issues of registration of existing water use and the definition and administration of *de minimis* uses are discussed.

Registering existing water uses

Registering existing water uses has two aspects. First of all, it entails a process through which existing water users formalize their right to use water which they may have been using for decades. Secondly, seen from the point of view of the water administration, the registration of existing water use provides – if combined with hydrological inventories – an overview of water resources available for new water uses. Consequently, users who fail to have their water use registered and formally sanctioned risk that “their” water may be allocated to other uses.

As already noted, registering existing water use represents an enormous challenge, particularly in the regions of developing countries characterized by poor means of communication and numerous individual water users in at least three ways: In terms of convincing existing water users of the need to formalize their water use; in terms of getting information to existing water users about how to register and formalize their water use; and finally in terms of ensuring sufficient administrative capacity to meaningfully register existing water uses and the associated rights.

Based upon the Mexican experience, Garduño (2005) describes how the deadline for registering and formalizing existing water use had to be consecutively extended from an initial one year period to a total of eight years and that vigorous information campaigns had to be launched in order to ensure a reasonably complete water use register. In contrast, the challenge of ensuring a complete registration of existing water uses was handled less carefully in the case of Chile where the deadline for formalizing the right to existing water use was not extended and the government did not undertake information campaigns about the new requirements following the adoption of a new water code in 1981 and on how to apply for new rights or regularize old ones. Thus, Bauer describes that by the time peasants and their organizations learned of the new procedures, available water rights in many areas had already been granted by the water administration or regularized by those more legally adept (Bauer, 1997).

Thus, to avoid that the registration of existing water uses entails a bias against the rural poor, it is important to ensure that the poor are meaningfully informed about the benefits and procedures for formalizing their rights to water and that they have physical, economic and social access to the water administration agency.

Defining de-minimis exemptions and ensuring water is available for exempted uses

At a first glance, the exemption from the need to apply for a formal water right for the minor uses – the so-called *de-minimis* uses – constitutes a pro-poor element of many countries' water administration since it particularly concerns poor people's water uses. Moreover, seen from an administrative point of view, this exemption is a mere necessity since the administrative burden from having to receive and handle water rights application for all such minor water uses would effectively undermine most water administration agencies.

However, it also contains at least two shortcomings seen from the point of view of the rural poor. First, it is not always clear which uses – even though they qualify as minor uses – are exempted from the need to apply for a formal water right. While water for domestic use, including the watering of a small stock of animals, is almost always included among the exempted minor uses, the watering of crops, even at a minor scale such as a house-

hold vegetable garden, is not. The economic gains typically associated from such minor use of water for irrigation in most cases in the short to medium run will hardly justify the costs associated with application for a formal water right. Yet, for the economy of a rural poor household, such gardens often are tremendously important. Hence, not including crop watering among the exempted minor uses impedes the rural poor from obtaining formal right to agricultural water and thus further contributes to making small-scale farming economically unviable.

Second, the security of access to water for minor uses formally exempted from the need to apply for a water right provided by the water administration is doubtful in most cases. Although being minor uses, the combined volume of water needed to honour these legal claims for water might be considerable in many parts of the developing countries due to the large number of individual users. Thus, if not provided for when assessing the amounts of available water, many areas will face a situation where all available water has been allocated without leaving sufficient water for *de minimis* exempted uses. In such situations of competing claims for the same water source, the water user holding an administrative water rights granted and paid for is likely to stand a better chance of having his or her water right honoured than a user who is legally exempted from holding an administrative water right.

South Africa may show a possible way out of this dilemma. Although only exempting domestic water use which seen from the point of view of the rural poor is too restrictive, the South African Water Act creates a ‘reserve’ for each surface water course that seeks to ensure that sufficient water is available for exempted water use. While not removing the need to support local water management arrangement for distributing such water reserves in a pro-poor manner among the users whose water use is exempted, the establishment of such water reserves for *de minimis* uses and their incorporation into hydrological planning could contribute to ensure that water will be available in the years to come, also to the rural poor.

References and suggested further reading:

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