

Journal of Comparative Social Welfare

Special Issue on “Comparative experiences in the provision of water and sanitation services: challenges and opportunities for achieving universal access”

Edited by

Dr José Esteban Castro, Newcastle University

Dr Léo Heller, Federal University of Minas Gerais, Brazil

Dr Mark Drakeford, University of Cardiff

Overview article

Systemic conditions affecting the universalisation of water and sanitation services: a sociological exploration.

José Esteban Castro
Senior Lecturer in Sociology
School of Geography, Politics, and Sociology, Newcastle University, UK

Introduction

Providing universal and reliable access to life-sustaining water and sanitation services (WSS) remains an unfulfilled promise for a very large share of the human population at the beginning of the twentieth-first century. An analysis of the main factors underpinning the protracted failure to sustainably universalise the access to basic WSS casts shadows on the feasibility of current efforts by the international community, such as the Millennium Development Goals. We adopt a critical perspective towards the mainstream WSS policies that have been implemented worldwide since the 1980s, which not only have failed to deliver the expected results but have also set in motion processes whose **inertial** forces will continue to shape the way WSS are organized in many countries. We are strongly critical of these policies but keep a constructive and positive approach because we are persuaded that the heterogeneous and often fragmented forces defending the principles of universalism and social justice in relation to water and life-sustaining water services are making substantial progress. However, the fact remains that achieving the universalisation of WSS (and other essential services) will require significant changes in the prevailing socio-economic, policy-institutional, and political arrangements, and the evidence suggests that these changes are slow and may not take place in time to meet the targets where it matters most. There is little reason for complacency.

We examine first the current global trends in the expansion of WSS coverage, including recent forecasts about the results that can be expected if these trends remain unchanged. Then, we discuss what we termed the “systemic conditions” affecting the provision of WSS, which are factors and processes largely external to the specific problems of these services. We pay particular attention to structural social inequalities affecting the access to WSS, which uncovers the problematic character of official WSS statistics. Then the article looks at systemic conditions in the public policy dimension, with emphasis on the impact of mainstream WSS policies. We conclude by adding our voice to existing demands for the adoption of integrated approaches to the organization of WSS that bring together the techno-scientific and socio-political aspects, with particular focus on the need to preserve and consolidate the principles of universalism and substantive democracy.

Current trends

When the Millennium Development Goals (MDGs) were adopted in the year 2000 it was estimated that around 1.1 billion people, 17 per cent of the world population, lacked access to safe drinking water while around 2.4 billion, or 40 per cent, had no access to adequate sanitation (EC, 2002a,b). The targets set in the MDGs aim at halving the proportion of the world population without access to these services by 2015 (UN, 2000, 2002a). From a certain perspective, it can be argued that these targets are significantly more conservative than the objectives set by the international community in the 1980s UN Water Decade, when the aim had been to provide universal access to essential volumes of safe drinking water worldwide by 1990 (UN, 1980; UNDP, 1990). Those targets were not achieved, but more worryingly the available evidence shows that in the current

circumstances even the more limited MDGs may be also unattainable. This is an extremely serious situation given that recent reports on the progress made towards the MDGs suggest that it is unlikely that the global target for sanitation will be met and that some regions will also fail to attain the drinking water target (WHO-UNICEF, 2006: 6; WHO, 2005: 27, 71). As shown in Table 1, predictions based on the interpolation of current trends suggest that not only the MDGs for WSS may not be reached but actually regions such as Sub Saharan Africa will experience a significant increase in the absolute number of unserved people.

Table 1 -

The figures in Table 1 also suggest that even if the MDGs were attained globally, that is, if the proportion of the unserved global population is reduced by half by 2015, this may hide the fact that there exist significant inequalities between and within regions as represented in the table by the fact that the bulk of the expected improvement will take place in Eastern and Southern Asia. In fact, it has been argued that the overall MDG for water and sanitation could be met if just two countries, China and India, achieve their goals, while the very slow progress in Sub-Saharan Africa will not affect the overall result (UNMP, 2005: 21). From another angle, if we focus on the qualitative aspects, it is clear that the figures often used to report progress need to be carefully scrutinized. For instance, although according to some reports Brazil had already achieved its MDG target for drinking water coverage in 2004 and Mexico would have also met its MDG sanitation target in the same year (see Table 2), as the articles by Heller and Jiménez Cisneros & Torregrosa in this issue show, the actual situation in these countries is far worse than the quantitative indicators alone would suggest.

Table 2 -

From another perspective, the fact that the debate about the MDGs is overwhelmingly concentrated on developing countries obscures the still significant problems facing developed countries in this area. These include the gigantic cost of replacing ageing urban WSS infrastructures, limited or shrinking drinking water sources affected by climate change or pollution, and the challenges posed by old and emergent water-related diseases (WHO-Europe, 2006; EUWATER, 2005). Also, although in most of Europe universally available safe drinking water and sanitation have been a reality since the 1960s, 16 per cent of the European population (140 million people) still lacks in-house drinking water, 10 per cent (85 million) does not have access to improved sanitation, and 5 per cent (41 million) lacks safe drinking water (WHO-Europe 2006: 4-5). The bulk of the problem affects the countries of Central and Eastern Europe, where over half of the rural population lacks access to safe WSS. It should not be surprising that large European

regions are affected by “an epidemic of morbidity from water-related diseases” including viral Hepatitis A, Shigella bloody diarrhoea, enterohaemorrhagic Escherichia coli infection, and typhoid fever (UNECE 2007).

Nevertheless, richer areas in Europe are also facing challenging obstacles to maintain universality in the access to WSS. For instance, in England and Wales a very high proportion of households (between 15 and 20 percent of the total according to different estimates) are failing to pay their water bill (Fitch and Price, 2002: 9-11, 35; DEFRA, 2004; Fitch 2006; CCW, 2006). Following the government’s criteria to calculate the affordability of basic services, some authors have estimated that between 2 and 4 million households in England and Wales are living in “water poverty” (Klein, 2003; UKP, 2003; OFWAT, 2004: 14-19; NCC, 2005). Representatives of the UK water and sanitation utilities have accepted that ultimately abating household “water debt”, which in 2005-2006 amounted to about 500 million Sterling Pounds (CCW, 2006) and casts shadows on the future of the privatized companies, “requires a national policy on poverty and affordability [... which is] something that only government can address” (Water UK, 2005: 7).

The UK example illuminates several important aspects that are often downplayed or even disregarded in the WSS policy literature, in particular the impact of systemic conditions external to WSS such as the structural social inequalities that affect the access to basic services. To this we turn next.

The systemic conditions: structural inequalities

We refer here to systemic conditions that are mostly external to the dynamics of WSS but that shape, constrain, and even determine how these services are organized. Some of these conditions have been conventionally taken into account in the management of WSS, such as hydro-geological (e.g. access to suitable water sources, impact of geographical characteristics on infrastructure and technology, etc.), economic-financial (e.g. the financial viability of networked WSS in the face of urban and population growth and rising quality standards), or demo-geographic (e.g. population density, spatial urbanization patterns, etc.) conditions. Broadly speaking, as illustrated in the article by Saurí and colleagues on Spain, the traditional approach to the challenges and opportunities presented by these systemic conditions has been predominantly technological, which is largely the result of the dominant role historically played by the techno-sciences in water management. Increasingly, though, not only there is a recognition that even such dimensions as the hydrogeological cannot be reduced to merely techno-scientific factors (e.g. owing to the intrinsic difficulties in separating “natural” from “anthropogenic” drivers of such processes as desertification, depletion of underground water sources, and notably pollution of water bodies), but also a number of dimensions previously excluded from consideration are now receiving closer attention in the planning and organization of WSS. Among these, it is worth highlighting the increasing relevance of the socio-political, cultural, and ecological dimensions in the planning and management of water and water-related services. Owing to space

restrictions we will only concentrate here on key systemic conditions in the socio-political dimension.

For instance, an expert group in charge of monitoring the MDGs has argued that some of the major obstacles and constraints facing the achievement of the goals are political and institutional, while financial and technical factors are also important in their analysis (UNMP, 2005: 26-32). They point at the lack of political commitment towards WSS showed by many governments in developing countries, the insufficient allocation of financial resources, the slow pace of reform, and the fact that these services are often the object of political manipulation by powerful actors. The report also highlights both the patchy and weak institutional framework characterizing WSS in many countries and the fact that existing institutions are often dysfunctional, which weakens the possibility for designing and implementing reforms. The authors go on to point out that in many developing countries the financial constraints are paramount, as neither the government has the resources to fund the provision of WSS nor have the households the capacity to pay for their actual cost (Id.).

All these obstacles are certainly factors that help explaining the slow progress or even regression that can be detected in many countries regarding access to WSS, and a wealth of recent research provides strong support for these arguments (just to mention a few recent examples, see for instance GWP, 2003; UN-Habitat, 2003, 2006; Castro, 2004; Hall et. al. 2004). However, in our perspective there are two fundamental aspects that are often disregarded in the specialized policy literature. Firstly, taking the UNMP (2005) report as an example, the analysis tends to fall short of addressing the structural processes and conditions of which the obstacles identified, such as lack of political will, weak institutions, or poverty, are the manifestation. Secondly, the specialized WSS policy literature fails to criticise the mainstream policies implemented in WSS worldwide since the late 1980s. These policies have centred the effort on the commercialization and even commodification of WSS¹, and have not only failed to deliver the expected improvements but may also have a significant impact on reinforcing existing structural social inequalities and diverting energies and resources away from where they are most need. Let us briefly examine next the first aspect, as we consider the second in the next section.

In this connection, even in wealthy countries where the techno-infrastructure, institutional, and managerial aspects are well advanced and the financial viability of the services seems to be guaranteed, the impact of structural social inequalities often precludes a significant proportion of the population from reliable and regular access to WSS. Understandably, the situation is much worse in poorer countries. There are several key factors that are often interwoven in complex combinations, including economic,

¹ I distinguish here between commercialization and commodification of WSS. The first refers to the introduction of commercial principles in the organization of WSS, for instance in the running of public WSS utilities to enhance their overall performance and financial viability. Commodification of WSS refers to the specific case of converting these services into privately owned profit-making activities. In both cases, but particularly in the latter, the traditional concept of “public good” associated with WSS tends to be replaced by the concept of “private good” or “commodity”. We briefly discuss this aspect in the final section.

gender, age, and ethnic inequalities (Webb and Iskandarani, 1998; Swyngedouw et. al., 2002; Laurie et. al., 2002; Swyngedouw, 2004; Laurie, 2007). For instance, regarding the latter, a recent study on the problems affecting the access to WSS by the Aymara indigenous community in La Paz-El Alto, Bolivia, conceptualized the ethnically-grounded structural inequalities embedded in the city's WSS system as "water racism" (Crespo Flores, 2007). These structural inequalities are often obscured in the aggregated statistics. For instance, according to the MDG report cited above Israel is represented as having achieved 100 percent coverage for water and sanitation already in 1990 and has maintained this level in 2004 (WHO-UNICEF, 2006: 33). However, studies focusing on the situation of the Arab population in Israel, which constitutes about 18 percent of the country's total, suggest that they have access to much lower per capita volumes while the price they pay for that water is several times higher than for the Israeli population (Isaac, 1997; see also Libiszewsky, 1995 and Oxfam-PWA, 2006 regarding the situation in the occupied Palestinian territories). Further reports of ethnic-based inequalities concern the situation of non-white minorities in the US (Bath et. al, 1998; Berry, 1998; see also Whiteford and Cortez-Lara, 2005), another country that formally reports universal coverage for WSS (WHO-UNICEF, 2006: 38). Of course, a more complex analysis of structural inequalities in the access to WSS would examine how ethnically-grounded exclusion is intertwined with gender, age and, crucially, class-based asymmetries, but this is beyond the scope of this paper.

Therefore, solving the techno-infrastructurel, managerial, institutional and financial aspects of WSS is a necessary condition but it is not sufficient to achieve the universalisation of these services nor even the more modest target set by the MDGs. Although from a critical social science perspective the connection between structural social inequalities and service access constitutes a crucial observable, in conventional WSS practices informed by prevailing techno-scientific and managerial approaches the connection is generally overlooked or considered as intractable. A paradigmatic example of this problem are the mainstream WSS policies that have been implemented worldwide since the 1980s, which we consider in the next section.

The systemic conditions: mainstream WSS public policy

Moving now to the second aspect, we take advantage of the existing gaps in the specialized WSS literature that fails to criticise the mainstream WSS policies promoted worldwide since the 1980s to highlight another set of systemic conditions that merit close consideration. These conditions are also factors and processes that are mostly external to the specific running of WSS but have a significant influence in the way WSS are increasingly organized worldwide. In particular, we argue, these policies and the inertial forces they have unleashed have become one of the key obstacles for meeting the MDGs for WSS. The global promotion of these policies is part and parcel of the process of economic globalization, and it has less to do with solving the specific problems affecting WSS services than with the pervasive intrusion of the "market-driven politics" characteristic of the political project of neoliberal globalization into ever wider spheres of social life (Leys, 2001). Mainstream WSS policies have been critically examined in

greater detail elsewhere (e.g. Budds and McGranahan, 2003; Hukka and Katko, 2003; Bakker, 2004; Castro 2004, 2007a,b; Hall, 2002, 2004; Swyngedouw, 2005; Brown, 2007; Laurie, 2007), so we limit our analysis to some of their basic traits and, particularly, to what we call the inertial forces unleashed by these policies. In particular, we focus here on two aspects that are core elements of mainstream WSS policy: a) the reversal of the values of universalism in the access to essential public services, and b) the attempt to transform the provision of essential public services into a commercial enterprise, and preferably into one that is privately run and profit oriented. As conventional shorthand, we call this neoliberal WSS policy reforms.

As argued in the articles on Finland, France and Spain featured in this edition, at some point during the twentieth century it became accepted in developed countries that the provision of essential goods and services such as WSS should be independent of users' ability to pay and be considered a community responsibility and a state duty. In some cases, this required a radical transformation in the practices that since the eighteenth century had been based on the assumption that WSS and other services were private goods available only to those who could afford to pay for them. In England, for instance, this was a difficult process and the universalization of WSS took several decades punctuated by social and political struggles until it finally happened at some point during the 1960s (Hassan, 1998; Ward, 1997; Milward, 1991; Mukhopadhyay, 1975; Laski et al., 1935). Roughly similar processes, characterized by a very high diversity in institutional forms took place elsewhere in Europe (Juuti et. al., 2006; Pezon, 2000; Goubert 1986) and the US (Melosi, 2000; Ogle, 1999; Warner, 1987; Schultz and McShane, 1978). In turn, these experiences were replicated in a diversity of forms in developing countries, particularly in those integrated to the world market since the late nineteenth century such as Brazil and Mexico (Aboites Aguilar, 1998; Rezende and Heller, 2002).

Tightly interwoven with the practical development of these policies in the field, a conceptual debate was taking place which led to the development of principles such as the defence of the "public interest" (notably in the actions of the US Supreme Court in relation to the regulation of public services) or the categorization of essential goods and services as "public goods", a particular expression of "market failure" identified by welfare economists. These trends were reaffirmed in the aftermath of World War II with the consolidation of the principles of social citizenship, whereby the access to essential goods and services such as WSS became enshrined as universal rights. Although these concepts, and the policies derived from them, were always contested by free-market liberals, they came to provide a solid framework for public policy in the field of essential public services during the twentieth century, and it was within this framework that the actual universalisation of WSS took place in the developed world. As illustrated by Heller in his article on Brazil, these trends strongly influenced the development of WSS in developing countries, although in practice and with very few notable exceptions the universalisation of access was never achieved. Overall, the main actor in the process became the public sector, and particularly regional and local authorities.

In this connection, mainstream WSS policies since the 1980s have been predicated on the need to reverse and cancel these core principles, with disregard for the historical evidence showing that these principles informed the actual universalisation of these services. For instance, some authors promoting mainstream WSS policies have argued that there is no particular reason why water should be categorized as a public good that has to be excluded from the market (Roth, 1988: 240-2; Triche, 1990: 4). Others contend that “the argument in favour of direct public provision of [urban water supply] has traditionally been based on the false assumption that it is a public good” (Nickson, 1996: 25). World Bank documents state that the public would have been misled into believing that WSS are “a ‘public service’ or even a ‘social good’” (WSP-PPIAF, 2002: 8-10).

These initiatives to remove the values of universalism and replace them by individualistic market values is complemented with an attempt to transform the provision of essential public services such as WSS into commercial ventures or, if possible, into fully privatized profit-making utilities. Thus, in the 1990s leading World Bank WSS experts were arguing for “complete privatization of water assets” and the creation of “unregulated private monopolies” to solve the WSS crisis in developing countries (Brook Cowen and Cowen, 1998: 22-3; see also World Bank, 1998; Savedoff and Spiller, 1999). As we know, these policies have failed to achieve the expected results, and even the World Bank has recognized that “private sector or NGO participation in health, education, and infrastructure is not without problems –especially in reaching poor people” (World Bank, 2003: 10-11). In some aspects, these policies reproduced or even reinforced existing systemic conditions affecting WSS, such as the lack of meaningful citizen involvement despite the rhetoric of user or stakeholder participation that has become a key element in current WSS policy programs. This is particularly true in developing countries, but it can also be detected in developed countries. In the extreme, the absence of channels for adequate citizen involvement (or the actual denial of the right to be involved) has been responsible for bitter confrontations in many cases involving the implementation of mainstream WSS reforms, which has led to the collapse of private concessions, violence, and political crisis as it happened for instance in Cochabamba, Bolivia in the year 2000. Although the weakness of even absence of adequate legislation and regulatory frameworks has been a recurrent problem, it has been often worsened because some countries have reformed the legislation (e.g. water laws) to facilitate the implementation of mainstream WSS policies in ways that showed little regard for such considerations as ecological sustainability (e.g. water resources conservation) or accountability (e.g. mechanisms to protect citizens’ rights in their role as users of WSS). A clear pattern in the implementation of mainstream WSS policies has been the absence of any regulatory structures and institutions, while little attention was paid to local capacity building in the public sector to strengthen institutional capabilities for regulation and control (Castro, 2004).

Nevertheless, despite the significant efforts to privatize WSS during the 1990s, the actual impact of these policies has been rather modest and private water companies today still serve less than 10 per cent of the world population (Hall et. al., 2004: 25; UN-Habitat, 2003: 177, 178). Even in the United States, whose government has been a pioneer in championing mainstream WSS policies, only 15 per cent of the population is served by

private companies and a government-commissioned report suggests that this will continue to be the pattern in that country (NRC, 2002). Developing countries that in the 1990s became the leading experimental field for neoliberal WSS policies, like Argentina where between 1991 and 1999 the proportion of the population served by private WSS utilities raised from 0 to around 70 per cent, have started an accelerated process to place WSS back in public hands as a consequence of the failure of these policies. Similar trends can be identified elsewhere in both developing and developed countries, while several countries have even banned the privatization of WSS at the national level (e.g. Uruguay, Sweden, and The Netherlands). It is not surprising, therefore, that some analysts have argued that the debate on neoliberal WSS policy has been blown out of proportion (Budds and McGranahan, 2003: 88).

However, we believe that there is a danger of playing down the significance of the forces unleashed by mainstream WSS policies since the 1980s, and argue that their impact may have far-reaching negative consequences for years to come independently of the degree of success that they may achieve in fostering the commodification of WSS. In particular, the process of transforming the status of WSS from public or social goods into marketable commodities and cancelling the rights of citizens by reducing their role to mere consumers is taking place independently of the public or private character of the providers. This is because the policy of reform is also implemented in public utilities, which are pressed to reorganize WSS on the basis of commercial principles and adopt market efficiency criteria, abandoning the notion that these services are public goods that must be universally available independently of the ability to pay of individual users. Moreover, despite the rhetoric of change adopted in recent documents, the International Financial Institutions and other mainstream actors continue to push mainstream WSS policies under different forms and names (e.g. public-private or tripartite partnerships), in fact disregarding the lessons learned from the recent experiences. This is clearly suggested by the continued insistence from some quarters that WSS privatization would be the most adequate tool “both to meet the UN’s Millennium Development Goals, [and] to actively contribute towards social justice the world over” (Balen, 2006: 4; see also Gilbert, 2007; World Bank, 2006). This effort to eradicate the principles that WSS are a public or social good can also be identified in the latest UN World Water Report, where domestic water and sanitation services are classified as “private commodities” (UNESCO, 2006: 409), neglecting the fact there is an ongoing global debate on the matter and that other sections of the UN have declared WSS to be a human right rather than a commodity (UN, 2002b; WHO, 2003; see also EUWATER, 2005). Therefore, we believe that the inertial forces unleashed by these policies have become part of the systemic conditions and will continue to shape the organization of WSS in the foreseeable future.

Conclusions

This article has adopted a critical stance towards what we called mainstream WSS policies, because the available evidence suggests that the much cherished goal of universalising life-sustaining water services cannot be achieved unless urgent and radical

changes are introduced. We have argued for the need to develop integrated approaches to WSS that go beyond the traditional technology-centred arrangements that still prevail in this area of activity. When the nature of the needs facing developing countries in relation to water and sanitation services is analysed in depth it becomes clear that even where individual countries may achieve an advanced stage of technological development and WSS coverage this in itself is not a sufficient condition to ensure the adequate attention of the population.

Often, the deficiencies in service management and provision have historical roots, not just derived from economic restrictions but more importantly from the state's failure to properly organize public services in order to address the essential needs of the population. In turn, this state failure is often rooted in socio-political processes that also need to be incorporated into the analysis. For this reason, the implementation of public policy and management models in WSS must consider the existence of systemic conditions, that is, factors and processes that are mostly external to the specific field and internal logic of essential public services but that often determine the conditions under which these services are organized and delivered. Among other key external conditions imposing severe restrictions on and determining public policy in the field we have examined the impact of structural social inequalities and the inertial forces unleashed by mainstream neoliberal reforms in WSS. Against mainstream trends that insist in the commodification of essential WSS as the key solution for the crisis, we argue that the rational analysis of the historical and empirical evidence suggests that success in meeting the MDGs cannot be sustainably achieved without reaffirming the principles of universalism and strong public sector intervention, which must be focused on supporting local authorities and communities.

In this regard, we are persuaded of the need to give centrality to the political dimension for understanding the historical success of past WSS policies, which achieved universal coverage on the basis of principles whereby social rights and the common good were given priority over market interests. These policies and the principles that inspired them were accepted and supported by a wide range of social and political forces, even by sectors that in other respects defended free-market liberalism but recognised that the universal provision of WSS required different arrangements. It is our hypothesis that achieving success in the design and implementation of present and future WSS policies as those required to meet the MDGs can only happen through the amalgamation of a similarly broad and universalistic alliance of social forces that may help to foster a new vision for defending the common good. The process is already taking place, and it is our responsibility to support the existing worldwide initiatives oriented at strengthening local capacities, fostering public-public cooperation and partnership, and consolidating the substantive democratization of the governance and management of water and life-sustaining water services.

References

- Aboites Aguilar, L. (1998). *El agua de la Nación. Una historia política de México (1888-1946)*. Mexico City: Centro de Investigaciones y Estudios Superiores en Antropología Social (CIESAS).
- Bakker, K. J. (2004). *An uncooperative commodity privatizing water in England and Wales*. Oxford: Oxford University Press.
- Balen, M. (2006). *Water for life. The case for private investment and management in developing country water systems*. London: The Globalization Institute.
- Bath, R. C. Tanski, J. M., and R. E. Villarreal. (1998). The failure to provide basic services to the colonias of El Paso County: a case of environmental racism? In D. Camacho (Ed.) *Environmental injustices, political struggles. Race, class and the environment* (pp. 125-137). Durham & London: Duke University Press.
- Berry, K. (1998). Race for water? Native Americans, eurocentrism, and western water policy. In D. Camacho (Ed.) *Environmental injustices, political struggles. Race, class and the environment* (pp. 101-124). Durham & London: Duke University Press.
- Brook Cowen, P. J., and T. Cowen. (1998). Deregulated private water supply: a policy option for developing countries. In *Cato Journal*, 18, 1, pp. 21-41.
- Brown, E. (Ed.) (2007). Special Issue on GATS and development: the case of the water sector. In *Progress in Development Studies* (in press).
- Budds, J. and G. McGranahan. (2003). Are the debates on water privatization missing the point? Experiences from Africa, Asia and Latin America. In *Environment and Urbanization*, 15, 2, pp. 87-113.
- Castro, J. E. (2007a). Poverty and citizenship: Sociological perspectives on water services and public-private participation. *Geoforum* (in press).
- Castro, J. E. (2007b). Private sector participation in water and sanitation services in the context of globalization: is it the right answer to public sector failures? In Ringler, C., A. Biswas, and S. A. Cline, *Globalization, trade, and global change: implications for water and food security* (Springer, in press).
- Castro, J. E. (2004). *Final report, PRINWASS Project*. Oxford: School of geography and the Environment, University of Oxford.
- CCW – Consumer Council for Water. (2006). Rise in consumer debt calls for swift action (News Release). Birmingham: CCW.

Crespo Flores, C. (2007). Water privatization and environmental racism. Symposium, International Journal of Urban and Regional Research (forthcoming).

DEFRA – Department for Environment, Food, and Rural Affairs. (2004). Cross-government review of water affordability report. London: DEFRA.

EC – European Commission. (2002a). EU water initiative: water for Life. Health, Livelihoods, Economic Development, Peace, and Security. Brussels: EC.

EC – European Commission. (2002b). Water Management in Developing Countries: Policy and Priorities for EU Development Cooperation. Communication from the Commission to the Council and the Euro-pean Parliament. Brussels: EC.

EUWATER. (2005). European declaration for a New Water Culture. Saragossa: New Water Culture Foundation - EUWATER Network (<http://www.unizar.es/fnca/euwater>).

Fitch, M. (2006). Fair and Affordable Water. London: UNISON.

Fitch, M. and H. Price. (2002). Water poverty in England and Wales. London: Centre for Utility Consumer Law and Chartered Institute of Environmental Health.

Gilbert, A. (2007). Water for all: how to combine public management with commercial practice for the benefit of the poor? In Urban Studies (in press).

Goubert, J. P. (1986). The conquest of water. The advent of health in the industrial age. Cambridge and Oxford: Polity Press and Basil Blackwell.

GWP – Global Water Partnership. (2003). Effective water governance. Learning from the dialogues. Stockholm: GWP.

Hall, D., K. Lanz, E. Lobina, and R. de la Motte. (2004). International context, Watertime project report. Greenwich: Public Services International Research Unit (PSIRU), University of Greenwich.

Hall, D. (2002). The water multinationals 2002. Financial and other problems. Greenwich: Public Services International Research Unit (PSIRU), University of Greenwich.

Hassan, J. (1998). A history of water in modern England and Wales. Manchester: Manchester University Press.

Hukka, J. J., and T. S. Katko. (2003). Water privatisation revisited: panacea or pancake? International Water and Sanitation Centre Occasional Paper Series 33. Delft: IRC.

Isaac, J. (1997). A sober approach to the water crisis in the Middle East. West Bank: Applied Research Institute-Jerusalem.

Juuti, P., T. Katko, and H. Vuorinen (eds.). (2006). Environmental history of water. Global views on community water supply and sanitation. London: International Water Association (IWA) Publishing.

Klein, G. (2003). Life lines: the NCC's agenda for affordable energy, water, and telephone services. London: National Consumer Council.

Laski, H. J., W. I. Jennings, and W. A. Robson (eds.). (1935). A century of municipal progress 1835-1935. London, George Allen & Unwin.

Laurie, N., S. Radcliffe, and R. Andolina. (2002). The new excluded 'indigenous?': The implications of multi-ethnic policies for water reform in Bolivia. In R. Seider (ed.), Multiculturalism in Latin America. Indigenous rights, diversity and democracy (pp. 252-276). Houndmills, Basingstoke and New York: Palgrave-Macmillan.

Laurie, N. (ed.). (2007). Special issue on "Pro-poor' water: past present and future scenarios". In Geoforum (in press).

Leys, C. (2001). Market-driven politics. Neoliberal democracy and the public interest. London: Verso.

Libiszewsky, S. (1995). Water disputes in the Jordan Basin Region and their role in the resolution of the Arab-Israeli conflict, Occasional Paper 15, Environment and Conflicts Project. Zurich: Swiss Peace Foundation.

Melosi, M. V. (2000). The sanitary city: urban infrastructure in America from colonial times to the present (creating the North American landscape). Baltimore: John Hopkins University Press.

Millward, B. (1991). Emergence of gas and water monopolies in nineteenth century Britain: contested markets and public control. In: J. Foreman-Peck (ed.), New perspectives in late Victorian economy: essays in quantitative economic history 1860-1914. London: Cambridge University Press.

Mukhopadhyay, A. K. (1975). The politics of London water. *The London Journal*, 1, 2, pp. 207-226.

NCC - National Consumer Council. (2005). Web page on affordability problems in the privatised WSS sector in England and Wales. London, NCC.

Nickson, A. (1996). Urban water supply: sector review. School of Public Policy, University of Birmingham, Papers in the Role of Government in Adjusting Economies, N 7, Birmingham: University of Birmingham.

NRC - National Research Council – Committee on Privatization of Water Services in the United States. (2002). Privatization of water services in the United States. An assessment of issues and experience. Washington DC: National Academy Press.

OXFAM UK and PWA – Palestinian Water Authority. (2006). Impact of the Current Crisis in the West Bank and Gaza Strip, Survey Report # 28, Water and Sanitation, Hygiene (WaSH) Monitoring Program. Ramallah and Jerusalem: Palestinian Hydrology Group.

NCC – National Consumer Council. (2005). Affordability of Utilities and Minimum Income Seminar Results. London, NCC.

OFWAT – Office of Water Services. (2004). Annual Report 2003-2004. Birmingham: OFWAT.

Ogle, M. (1999). Water supply, waste disposal, and the culture of privatism in the mid-nineteenth-century American city. In *Journal of Urban History*, 25, 3, pp. 321-347.

Pezon C. (2000). *Le Service d'eau potable en France de 1850 à 1995*. Paris: CNAM, Presses du CEREM.

Rezende, S. C., and L. Heller. (2002). *O saneamento no Brasil. Políticas e interfaces*. Belo Horizonte, Minas Gerais: Federal University of Minas Gerais Press.

Roth, G. (1988). *The private provision of public services in developing countries*. Washington, D.C.: The World Bank and Oxford University Press.

Savedoff, W. and P. Spiller. (1999). *Spilled water. Institutional commitment in the provision of water services*. Washington D. C.: Inter American Development Bank (IDB).

Schultz, S. K., and C. McShane. (1978). To engineer the metropolis: sewers, sanitation, and city planning in late-nineteenth century America. In *The Journal of American History*, 65 2, pp. 389-411.

Swyngedouw, E. (2005). Dispossessing H₂O. The contested terrain of water privatisation. In: *Capitalism, Nature, Socialism*, 16, 1, pp. 1-18.

Swyngedouw, E. (2004). *Social power and the urbanization of water. Flows of power*. Oxford: Oxford University Press.

Swyngedouw, E. A., M. Kaïka, and J. E. Castro. (2002). Urban water: a political-ecology perspective. In *Built Environment*, 28, 2, 124-137.

Triche, T. A. (1990). Private participation in the delivery of Guinea's water supply services. Working Papers #47, Infrastructure and Urban Development Programme, World Bank, Washington DC: World Bank.

UKP - United Kingdom Parliament, Select Committee on Environment, Food and Rural Affairs. (2003). Memorandum submitted by the Public Utilities Access Forum. London: UKP.

UN – United Nations. (1980). International Drinking Water Supply and Sanitation Decade: Report of the Secretary General. New York: UN.

UN – United Nations. (2000). Millennium Declaration. New York: UN.

UN – United Nations. (2002a). Key Commitments, Targets and Timetables from the Johannesburg Plan of Implementation. World Summit on Sustainable Development, Johannesburg: UN.

UN – United Nations. (2002b). The right to water (articles 11 and 12 of the International Covenant on Economic, Social, and Cultural Rights). New York: UN.

UNDP – United Nations Development Programme. (1990). The New Delhi Statement: some for all rather than more for some. Global consultation on safe water and sanitation for the 1990s. New Delhi: UNDP and the Government of India.

UNECE – United Nations Economic Commission for Europe. (2007). After historic ratification, European countries meet for the first time to improve water management and curb water-related diseases (Press release, 17 January 2007). Geneva: UNECE.

UNESCO - United Nations Educational, Scientific and Cultural Organization, World Water Assessment Programme. (2006). Water, a Shared Responsibility. The United Nations World Water Report 2. Paris and New York: UNESCO and Berghahn Books.

UN-Habitat – United Nations Human Settlements Programme. (2003). Water and sanitation in the world's cities: local action for global goals. London: Earthscan Publications Ltd.

UN-Habitat – United Nations Human Settlements Programme. (2006). Meeting development goals in small urban centres. Water and sanitation in the world's cities 2006. London: Earthscan Publications Ltd.

UNMP – United Nations Millennium Project Task Force on Water and Sanitation. 2005. Final report on health, dignity and development. What will it take? Stockholm: The Swedish Water House, Stockholm International Water Institute.

Ward, C. (1997). Reflected in water. A crisis of social responsibility. London, Cassell.

Warner, B. (1987). *The private city: Philadelphia in three periods of its growth*. Philadelphia: University of Pennsylvania Press.

Water UK. (2005). *Household Debt in the Water Industry*. A Water UK Briefing Paper. London: Water UK.

Webb, P. and M. Iskandarani. (1998). *Water insecurity and the poor*. Discussion Papers on Development Policy. Bonn: Center for Development Research.

Whiteford, S. and A. Cortez-Lara. (2005). *Good to the last drop*. The political ecology of water and health on the border. In L. Whiteford and S. Whiteford, *Globalization, water, & health. Resource management in times of scarcity* (pp. 231-254). Santa Fe, Ca., and Oxford: School of American Research Press & James Currey.

WHO – World Health Organization (2005), *Health and the Millennium Development Goals*, Geneva: WHO.

WHO – World Health Organization. (2003). *The right to water*. Geneva: WHO.

WHO-Europe – World Health Organization, Regional Office for Europe. (2006). *The Protocol on Water and Health: making a difference*. Rome: WHO-Europe.

WHO-UNICEF – World Health Organization and United Nations Children's Fund. (2006). *Meeting the MDG drinking water and sanitation target: the urban and rural challenge of the decade*. Geneva and New York: WHO-UNICEF.

World Bank (2006), “Privatizing water and sanitation services” (web links) (<http://rru.worldbank.org/PapersLinks/Privatizing-Water-Sanitation-Services>).

World Bank. (2003). *World development report 2004. Making services work for poor people*. Washington D.C.: World Bank and Oxford University Press.

World Bank. (1998). *Facilitating private involvement in infrastructure: an action programme*, Washington D. C.: World Bank.

WSP-PPIAF – Water and Sanitation Program and Public Private Infrastructure Advisory Facility. (2002). *New designs for water and sanitation transactions. Making private sector participation work for the poor*. Washington DC: WSP-PPIAF.

Table 1 – Predicted Changes in the Absolute Number of People (in millions) Without Access to Improved Water and Sanitation by Region between 2005 and 2015

Region	Water	Sanitation
	Population (millions)	Population (millions)
Sub Saharan Africa	+ 47	+ 91
Oceania	+ 1	+ 1
Northern Africa	- 1	- 11
Western Asia	- 5	+ 3
South-eastern Asia	- 5	- 55
Latin America & Caribbean	- 25	- 24
Eastern Asia	- 30	- 157
Southern Asia	- 139	- 69
World Total	- 150	- 221

Source: Elaborated from WHO-UNICEF (2006: 10, 18).

Table 2 - Progress in the Achievement of the Millennium Development Goals for Water and Sanitation (in % of population officially covered)

Country	Reference 1990		2004		2015 (MDG target)	
	Water	Sanitation	Water	Sanitation	Water	Sanitation
Brazil	83	71	90	75	88	80
China	70	23	77	44	79	46
India	70	14	86	33	79	40
Mexico	82	58	97	79	87	71

Source: Elaborated from WHO-UNICEF (2006: 8, 17).