

CLARISSA BROCKLEHURST
Water Supply and Sanitation Specialist

48 Lorne Avenue
Ottawa, Ontario
Canada K1R 7G7

clarissa.brocklehurst@gmail.com

Landline: +1613 695 2433

Mobile: +1 613 240 2431



KEY QUALIFICATIONS

I am a water supply and sanitation specialist with experience in setting the direction of large-scale programmes, direct management of projects and programmes, and facilitating policy debate. My experience also includes research, data analysis and documentation of experience. In my recent post at UNICEF, I provided leadership to a large-scale programme (\$350 million annually), and also played a role in development of strategy and advocacy for the global water supply and sanitation sector. In the urban water supply and sanitation sector I have advised governments on water and sanitation sector reform, planned and implemented water supply and sanitation facilities for poor communities, and advised on the design of private sector participation in utility management to benefit the poor.

WORK EXPERIENCE

2011 – present *Independent Consultant*, based in Ottawa, Canada

Assignments include:

- Senior Advisor on the Sanitation and Water for All (SWA) Secretariat, supporting the growth of the partnership, supporting design of ministerial dialogues during the biennial SWA High Level Meetings in 2012 and 2014 and the Ministerial Meeting in 2016, and supporting SWA advocacy to UN Member States on WASH in the Sustainable Development Goals
- For the World Bank Water and Sanitation Program in South Asia, documentation of WSP's engagement in rural sanitation in South Asia between 2002 and 2014. This was a long-term review of WSP's work in rural sanitation in India, Pakistan and Bangladesh which culminated in a comprehensive regional report and a specific report on WSP's experiences in India, including recommendations for WSP's next five year plan for scaling up rural sanitation.
- For the World Bank, supporting the Greater Harare Water and Sanitation Master Plan, specifically on options for low-cost sanitation; documenting the Water and Sanitation Program's interventions in rural sanitation in South Asia over the period 2000 to 2012
- For WHO and UNICEF, authoring the 2012 Joint Monitoring Program report on progress against the water and sanitation MDG targets, and advising on the 2014 and 2015 reports
- For the Water and Sanitation Program of the World Bank, support to the Working Group on post-2015 Sanitation Monitoring
- For WHO, support to formulation of proposals for post-2015 water, sanitation and hygiene monitoring
- For WHO, support to the team preparing the 2012 and 2014 Global Assessment and Analysis of Sanitation and Water (GLAAS)
- Documentation of the urban WASH interventions undertaken by UNICEF as a response to the 2008 cholera epidemic in Zimbabwe, and preparation of inputs to government urban WASH policy based on the lessons learned.

February 2014 – present *Adjunct Professor*, Department of Environmental Sciences and Engineering, Gillings School of Global Public Health and *Affiliated Adjunct Faculty Member*, The Water Institute The University of North Carolina at Chapel Hill

August 2012 to May 2013 *"Making Scarce Water Work for All" Research Fellow*, Global Research Institute, University of North Carolina; research into decision making for WASH investments and the role of Finance Ministries in sub-Saharan African countries

2007 – 2011 *Chief of Water, Sanitation and Hygiene (WASH)*, UNICEF, New York, USA

In my this senior position at UNICEF, I led the team that advises and provides technical support at global and regional level and to the 100 country-level WASH programmes run by UNICEF that make up a global programme investing approximately \$350 million annually. I served as UNICEF's focal point for knowledge and exchange on WASH; I also oversaw the development of policy and strategy for the sector, working closely with other UNICEF colleagues in health, nutrition and education. I maintained advocacy links with all major development agencies, academic institutions and NGOs active in this field. Highlights of my time at UNICEF included:

- I maintained a leadership role for UNICEF in the new Sanitation and Water for All (SWA) partnership, and led the team that planned and implemented the first High Level Meeting of SWA in Washington in April 2010
- I co-led the team that runs the Joint Monitoring Program, which is mandated by the UN to monitor progress against the water and sanitation MDG targets.
- I was an active fundraiser for UNICEF's WASH programming, maintaining relationships with all major donors, plus foundations and the network of UNICEF national committees
- I represented UNICEF on a number of boards and advisory groups, including UN Water, WSSCC, RWSN, SWA and the World Bank Water and Sanitation Program Governing Council; in many cases I took on leadership roles on these groups

2001 – 2007 *Independent Consultant*, based in Ottawa, Canada

Working for a variety of clients, including the Water and Sanitation Program (WSP), the government of Nepal, the Canadian International Development Agency (CIDA), Building Partnerships for Development (BPD) and the World Bank on issues related to water sector policy and services to the urban and rural poor.

Assignments included:

- Acting as Lead Consultant on a project to increase consumer voice in the urban water sector in Kenya through the use of Citizen Report Cards
- Assisting WSP-South Asia to provide advice to the Delhi water utility on strategies and policy to improve services to the urban poor, including ways to make planned management contracts in two operational zones pro-poor
- Preparing, facilitating and writing the summary report for a BPD initiative on local management models used by NGOs to provide water supply and sanitation for the urban poor
- Preparing a report on small town sanitation in Latin America for the World Bank, including lessons learned from experience in the United States,
- Advising the Government of Nepal and the Asian Development Bank on the design of services to the poor for the water utility in Kathmandu,
- Carrying out social assessments in Lusaka, Zambia, and advising the government on issues in service provision to low-income peri-urban areas of the city,
- Preparing a case study of urban water sector reform in Senegal for the World Bank which examined the context of reform and the outcomes, particularly for the poor,
- Evaluating a rural water supply program in Tibet for CIDA,
- Managing a WSP project to build capacity of civil society organisations and consumer associations in Africa to participate in urban water sector reform,
- Support to WaterAid to carry out a workshop on Private Sector Participation in the water sector in Dar Es Salaam, Tanzania.

1999 to 2001 *Senior Urban Water and Sanitation Specialist*, World Bank Water and Sanitation Program (WSP), Regional Office for South Asia, Delhi

Managed the regional urban program of the WSP in South Asia, including providing inputs to programs in specific countries and overall supervision at a regional level. Identified and carried out research, including pilot projects, and prepared documentation both for internal use and for publication.

Specific responsibilities included:

- Managing a research initiative to examine how the public-private partnerships can serve the poor in the South Asian context, and preparing a set of publications for municipal managers, including an issues paper, case studies and a poverty analysis of tariff structures in the region
- initiating and supervising three studies of the poor in order to provide inputs for the analysis of a PPP in Kathmandu, Nepal;
- Providing capacity building in issues related to urban water sector reform to municipal managers and NGOs in countries in the region and internationally
- Supervising a pilot project in the town of Bharatpur, India, to test an approach to overall environmental sanitation planning at a municipal level
- Participating in supervision and planning missions for a rural water supply project in India and an urban water sector reform project in Nepal
- Co-ordinating research into supply chains for rural water supply-related goods and services in South Asia

1997 - 1999 *Bangladesh Country Representative, WaterAid*, Dhaka, Bangladesh

Responsible for operation of the Bangladesh country office, including developing partnerships with local NGOs, supporting an existing rural water supply and sanitation programme, and establishing a new and successful urban programme in the slums of Dhaka.

Responsibilities include:

- identification of suitable NGO partners, and support to their proposal development
- providing NGO partners with guidance, advice and training in the use of participatory methods for baseline data collection, project planning, needs assessment, implementation, monitoring and hygiene education
- development of new hygiene education materials and methods (different rural and urban versions), and their introduction to partners
- research into and development of innovative, appropriate urban water supply and sanitation technology
- developing a sound understanding of the institutional problems of urban water supply, and incorporating activities such as lobbying of government agencies into WaterAid's programme
- ongoing monitoring of projects, advising partners on improvements and linking them with support within Bangladesh and from overseas
- establishment of revolving funds for credit based water supply and sanitation projects in urban areas, and supervision of their use by partners
- scaling up the programme from one rural NGO partner to three, and from one urban partner to twelve. The WaterAid programme in Bangladesh has since attracted £15 million in funding from DFID.

1989 - 1996 *Water Supply and Sanitation/Public Health Engineering Consultant*, Cowater International Inc., Ottawa, Canada

Participation in a variety of projects relating to water supply, sanitation, hygiene education, environment, program planning and project implementation, including the following:

- Project Director on a team contracted to work with the Government of Mozambique to restructure the rural water sector (1996)
- part of a team contracted on a CIDA project to advise the Nicaraguan government on the restructuring of the rural water sector, including making recommendations for institutional re-organization, drafting sector policy and creating draft legislation, standardizing implementation methodologies and re-orienting the sector to demand-driven programming (1995-6);
- Project Manager on a project to prepare Rural Water Supply and Sanitation District Development Plans for World Bank investment in three districts in Sri Lanka. Responsible for designing the institutional structure of a large, ten-year, multi-agency program which would operate in villages and

small towns; assessing the capabilities of implementing agencies (NGOs, the national water board and local government bodies); identifying appropriate technology; making recommendations for the establishment of community revolving funds to support sanitation improvements; conducting field surveys for data collection (1992-93);

- Deputy Project Manager on the World Bank financed Rural Water Supply District Development Plans and Priority Investment Programme for three further districts in Sri Lanka; as a result of this project, Cowater assisted in the establishment, staffing and operationalization of a new national Community Water and Sanitation Program Unit (1991);
- working on water supply and sanitation projects in Alaskan native communities, focusing specifically on native community involvement and community management. These projects were based on the introduction of innovative miniaturized sewage haul systems using low-cost, appropriate technology designed by Cowater. Developed water and sanitation plans for communities, including all aspects of technology choice, costing, operation, management and tariffs (1989-94).

1987 - 1989 *Technical Advisor for Small Sanitation Projects*, CUSO Togo Water Project, Tsévié, Togo

As the engineer responsible for improving sanitation in villages on this CIDA-financed, NGO-implemented water project operating in the maritime region of Togo, I worked on developing appropriate promotion methods, implementation strategies, latrine designs and construction in project villages. This required extensive collaboration with Togolese extension workers and government officials to revise existing designs, to conduct pilot projects, and to select the most suitable construction methods and materials. I acted as Campaign Director to introduce three chosen designs into villages, train village animators and field supervisors, and set up a community based system to plan, finance and manage construction. I was also directly involved in a health and sanitation education project which involved preparation of teaching materials and methodologies used by village extension workers.

EDUCATION

M.A.Sc. Civil Engineering, University of Toronto, 1985

B.A.Sc. Civil Engineering, University of Toronto, 1983

PROFESSIONAL AFFILIATIONS

Registered Professional Engineer in the Province of Ontario

CITIZENSHIP

British and Canadian

SERVICE ON BOARDS AND ADVISORY GROUPS

2011 to present Trustee, **WaterAid UK**

2011 to present Member, **Strategic Advisory Group of the WHO/UNICEF Joint Monitoring Program (JMP) and WHO Global Assessment and Analysis of Sanitation and Water (GLAAS)**

2010 to 2011 UNICEF representative and Chair of High Level Meeting Working Group, **Sanitation and Water for All Steering Committee**

2007- 2011 UNICEF Representative, **UN Water**

2007-2011 Chair, **Rural Water Supply Network**

2011 Coordinator, **UN Water Thematic Priority Area on Water Supply and Basic Sanitation**

2007-2011 Coordinator, **UN Water Sanitation Task Force**

2008 – 2011 Steering Committee Member, **Water Supply and Sanitation Collaborative Council**

2002 – 2007 Vice-Chairperson of the Board of **Watercan**, a Canadian non-governmental organization which supports water and sanitation projects in developing countries

PAPERS AND PUBLICATIONS

Brocklehurst C, Slaymaker T (2015) *Continuity in Drinking Water Supply*. PLoS Med 12(10): e1001894.
doi:10.1371/journal.pmed.1001894

Brocklehurst, Clarissa (2014) *Scaling up Rural Sanitation in India*. PLoS Med 11: e1001710.
Clarissa Brocklehurst.

doi:10.1371/journal.pmed.1001710

- Bartram, J., Brocklehurst, C., Fisher, M., Luyendijk, R., Hossain, R., Wardlaw, T., Gordon, B. (2014) *Global Monitoring of Water Supply and Sanitation: History, Methods and Future Challenges*. Int. J. Environ. Res. Public Health
- Brocklehurst, Clarissa. (2013) *Outcomes of a Meeting of Senior Finance Ministry Officials to Discuss Decision-making for WaSH*. Policy Brief for Sanitation and Water for All. University of North Carolina.
- Brocklehurst, C., Malik, M., Sebuya, K., Salama, P. (2012) *Engineering in the Time of Cholera: Overcoming Institutional and Political Challenges to Rebuild Zimbabwe's Water and Sanitation Infrastructure in the Aftermath of the 2008 Cholera Epidemic*. Journal of Water, Sanitation and Hygiene for Development
- Cairncross S, Bartram J, Cumming O, Brocklehurst C (2010) *Hygiene, Sanitation, and Water: What Needs to Be Done?* PLoS Medicine 7(11): Published: November 16, 2010
- Brocklehurst, C. and Bartram, J. (2010). *Swimming upstream: why sanitation, hygiene and water are so important to mothers and their daughters*. Bulletin of the World Health Organization ; vol. 88, no. 7 ; p. 482.
- Wardlaw, T., Salama, P., Brocklehurst, C., Chopra, M., Mason E. (2010) *Diarrhoea: why children are still dying and what can be done*. The Lancet - 13 March 2010 (Vol. 375, Issue 9718, Pages 870-872)
- Connors, G. and Brocklehurst, C., *Connecting the Slums: A Utility's Pro-poor Approach in Bangalore*. WSP-SA, 2006
- Brocklehurst, C., *The Case for Water and Sanitation: Better Water and Sanitation Make Good Fiscal and Economic Sense, and Should be Prominent in PRSPs and Budget Allocations*, WSP-AF, 2006
- Brocklehurst, C., Janssens, J., *Innovative Contracts, Sound Relationships: Urban Water Sector Reform in Senegal*, World Bank, 2004
- Brocklehurst, C., Pandurangi, A. and Ramanathan, L., *Tariff structures in six South Asian cities – do they target subsidies well?* World Bank, 2003
- Brocklehurst, C, Janssens, J. and Kolsky, P. *Designing water pricing policy, tariffs and subsidies to help the poor*, Waterlines, October 2002
- Brocklehurst, C, (ed.), *New Designs for Water and Sanitation Transactions: Making Private Sector Participation Work for the Poor*, WSP/PPIAF 2002
- Brocklehurst, C. *Connecting Private Sector Suppliers to Rural Customers: Promoting Robust Supply Chains for Rural Water and Sanitation Goods and Services*, WSP 2001
- Brocklehurst, C. and Evans, B, *Serving Poor Consumers in South Asian Cities: Private Sector Participation and the Poor in Water and Sanitation*, WSP 2001
- Brocklehurst, C., *Durban Metro Water: Private Sector Partnerships to Serve the Poor*, WSP 2001
- Brocklehurst, C. and Colin, J., *Strategic Sanitation Planning: it's all very well, but...* Waterlines, July 2000
- Zerah, M., Graham Harrison, K., and Brocklehurst C., *The Buenos Aires Concession: the Private Sector Serving the Poor*, WSP 2000
- Colin, J. and Brocklehurst, C., *Urban Environmental Planning: Lessons from Bharatpur*. WSP 2000