

Curriculum Vitae

Summary

After qualifying with **B.Sc. Building** in 1975 I gained ten years of conventional civil engineering experience as **Site Engineer** on large multi-disciplinary infrastructure projects in Africa & Middle East. In 1985 I re-qualified with **M.Sc. Tropical Public Health Eng. (Leeds-UK)** leading to 11 years as **WaterAid Country Representative** in **Kenya** ('85-91) and **Zimbabwe** (1991-95).

Since joining WaterAid 35 years ago I have remained fully engaged within the WASH sector ever since. I have also established four NGOs: in Zimbabwe: **Mvuramanzi Trust** (1993) & **Zim AHEAD** (1996); in UK: **Africa AHEAD** (Applied Health Education and Development) (2013) and in South Africa: **Africa AHEAD Associates (AAA)** (2020) for international dissemination of **CHCs**.

My wife, Juliet Waterkeyn (Ph.D.) and I have jointly disseminated the **CHC** model for scaled-up **holistic hygiene behaviour change that encompasses preventative health & sustainable livelihood outcomes that have been internationally validated**. As a direct result of my TA support to MoH in both Rwanda & Zimbabwe there has been national roll-out of the CHC model. Meanwhile there is ongoing dissemination of this low-cost, high-impact approach in many other countries (e.g. Vietnam, Sierra Leone, DRC, Liberia, Uganda, South Africa and recently also in Haiti & USA).

Refer: www.africaahead.com

Since 2003 I have completed a wide range of Evaluations as Team Leader developing Business Plans and National Hygiene & Sanitation Policies & Strategies

DFID in Sierra Leone, DRC, Nigeria, Zimbabwe & Tanzania;

World Bank (in Uganda, Rwanda, Liberia & Zimbabwe)

Country Experience:

Africa:

Kenya, Tanzania, Uganda, Rwanda, DRC, Sierra Leone, Nigeria, Liberia, Zimbabwe, Zambia, Malawi, South Africa, Mozambique, Namibia,

Asia: Vietnam, Indonesia, Bhutan,

Middle East: Iraq, Afghanistan, Saudi Arabia.

Caribbean: Jamaica, Haiti.

AJW CV April 2021

Anthony J Waterkeyn

Work Experience and skills

Africa AHEAD Association (AAA)

Africa AHEAD was established 25 years ago to research & disseminate the Community Health Club (CHC) methodology. This internationally validated Hygiene Behaviour Change model addresses preventative health towards supporting women's empowerment, improved nutrition & poverty reduction outcomes.

During this past global pandemic year of Covid, AAA has run on-line CHC training (using Zoom) that has enabled the CHC approach to be adopted in several new countries. In addition, I have engaged with World Bank to help disseminate the CHC approach within their ongoing WASH programmes across Africa.

African Development Bank Strategic Plan (2017 - 2025)

Rural WASH Expert to review AfDB-funded Rural WASH programmes across 35 countries in Africa; provide recommendations for redesign of programme to achieve improved outputs over next ten years 2017-2025 within context of SDGs. Develop new AfDB RWSSI Strategic Plan 2017-2025.

DFID - 2012 - 2014

Team Leader responsible for Annual, Mid-Term and EOP Reviews of DFID's Rural WASH programmes in Nigeria (2012), DRC (2012) Sierra Leone (2013), Zimbabwe (2013) & Tanzania (2014).

World Bank

WASH Adviser in **Uganda** (2003-2006), **Rwanda** (2007-2011) & **Fragile States: Zimbabwe, Liberia & Sierra Leone** (2009-11). In collaboration with Government Ministries, Donors & NGOs I have been leading the design & implementation of national: *Community-Based Environmental Health Promotion Programmes (CBEHPP)* based on the CHC model of holistic development. In Rwanda the CBEHPP Roadmap was launched in 2010 by MoH. In 2020 the CBEHPP Roadmap expanded our CHC model to include Nutrition + WASH to reduce stunting and achieve the SDGs.

The AU's '**Kigali Action Plan**' calls for CBEHPP to be replicated in fragile states. Over past five years in both **Rwanda & Zimbabwe**, my advocacy efforts have resulted in Policy changes. There is national acceptance that CHCs should be established in every **village & rural institution** in both countries and that all Community Health Workers and Environmental Health Officers should be trained in AA's original CHC methodology.



Nationality

British (Born in UK)

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Qualifications

M. Eng: Tropical Public Health Eng
1984-5 Leeds University, UK

B.Sc. Building Construction Management
1971-74 University of Witwatersrand

Institution Membership

WISA: Water Institute of Southern Africa

CIWEM: Chartered Institution of Water & Environmental Management (UK)

CIQB: Chartered Institute of Building (UK).

Key skills

- Lead EoP Evaluations &, Annual & Mid-Term Reviews of Rural WASH (DFID – Nigeria, Sierra Leone, Zimbabwe & Tanzania (2012-14)
- **Business Case** for WASH (DFID-DRC)
- Capacity Building / Strengthening of Government Institutions (MoH in Uganda, Rwanda & Zimbabwe)
- Developing National Roadmaps for Hygiene Behaviour Change and Sanitation (Vietnam, Rwanda, Zimbabwe & Sierra Leone)
- Fragile State WB-WSP Advisor (Sierra Leone, Liberia, DRC, Rwanda & Zim)
- National WASH Policy & Strategy Advisor (Zimbabwe, Rwanda, Uganda, Vietnam, Indonesia, Sierra Leone)
- Programme Implementation (Zimbabwe, Zambia, Kenya, Rwanda, South Africa, DRC and Uganda)
- NGO establishment & support (UK, SA, Rwanda & Zimbabwe)
- Rural & urban WASH Self- Supply:- Upgraded Family Wells and CHCs
- Regional cross-learning and best-practice dissemination.

WORK EXPERIENCE TO-DATE

CEO of Africa AHEAD-UK (2016 – 2019). **Director of Advocacy, Africa AHEAD** Association (2020 to present) with ongoing networking and proposal writing with AfB, World Bank, CAWST, DfID, Unicef and Vitol foundation to raise funds for the dissemination of best practice in the WASH Sector through introduction of Community Health Clubs. Over 3 million people in the past 20 years have benefitted from consultancy and advocacy that I have been initiating through evaluation and recommendations to NGOs, Agencies and Government.

Canada: Evaluation of CAWST and Advisor to Rural WASH in Pakistan (COWATER). **2017-18**

Malawi, Rwanda & DRC: Evaluation of AfDB Rural WASH 2016-2018

Contracted by **NIRAS** to Review past 5 years of Rural WASH programmes across Africa (visiting DRC, Malawi & Rwanda for on-site investigation); prepare Annual Reports & Strategic Operational Plan for AfDB to support Rural WASH in Africa to 2025.

Zimbabwe: UNICEF (ESARO) + SKAT Aug-Nov 2015; SELF-SUPPLY STUDY

Team Leader in Zimbabwe for Study of Upgraded Family Well programme to demonstrate replicability across SSA.

Tanzania: DFID Sep - Oct 2014

Team Leader (TL) for End-of-Project (EOP) Report (Phase I, 2012-14: National Rural WASH Programme); prepare Scoping Study to evaluate DFID's past performance (under Phase I:). Also analyse Business Case for Phase II (2014-19) where DFID is providing GBP 150 million funding support over next five years).

Zimbabwe: DFID 1ST AR Apr-May 2013

Team Leader for first AR of DFID funded WASH programme being implemented through UNICEF. Revise Log-frame.

Sierra Leone: DFID / MoHS Feb-Mar 2013

Appraise UNICEF's five year CLTS. Advise MoH on changes needed to achieve sustained behaviour change (i.e. 'Total Sanitation & ODF) and improved holistic health, gender & socio-economic outcomes.

Rwanda: Gates Foundation 2012 -15

Support MoH to implement **Community Health Clubs** (as pioneered by Africa AHEAD) in all 15,000 villages across country. **Gates also funding Health/Socio-economic Impact Evaluation of CHCs.**

Nigeria: DFID Mid-term Review Aug 2012

Team Leader appointed for the Mid-Term Review of national SHAWN programme (Sanitation, Hygiene And Water in Nigeria).

DRC: DFID May-July 2012

Specialist WASH Adviser to help develop **Business Case** for significant increase in funding to the Urban WASH sector.

Namibia: IWRM CuveWaters GIZ Project

Jan-Dec 2011

Provide TA for IWRM pilot WS project in northern Namibia & introduce CHCs to National WASH programme (MAWF).

Nigeria: DFID / Mott MacDonald 2010

Education Sector Support Programme in Nigeria (ESSPIN); Provide TA for improved WASH infrastructure development at rural & urban schools in Lagos & Kwara States.

South Africa: DANIDA 2007-2010

As Director of AfricaAHEAD, provide support to GoSA / Danida WASH programmes for sustainable livelihoods for the vulnerable poor through implementation of CHC projects in eThekweni & Umzimkhulu in KZN and informal settlements in Cape Town.

Indonesia: Canadian Red Cross 2009

Post Tsunami WatSan Projects in Aceh

Evaluation of all EH/WatSan interventions by the Canadian IRC and partners in Aceh and Nias Island (Sumatra, Indonesia) five years after the devastation caused by the Tsunami on 26 Dec 2004.

Bhutan: SNV Nov/Dec 2008

Evaluate existing WASH programmes; provide TA to MoH (PH Eng.Div) & develop menu of appropriate low-cost sanitation technology options for their national programmes in Bhutan.

Vietnam PEM Consult (DANIDA) 2008

Hygiene & Sanitation TA in support of RWSS National Target Programme (NTP II). Following MoH/ Danish Embassy request, I returned for repeat missions to Vietnam to introduce CHC methodology. Evaluation (2011) indicates significant success of CHC approach in reducing disease and achieving behaviour change; **MoH is now scaling up the new CHC approach nationally.**

Uganda: DFID - Hallewelle 2007 Conceive & develop detailed Programme, Budget & Log Frames for Water & Sanitation funding support (2008-2012) by DFID through Uganda's SWAP; represented DFID at Annual Joint Sector Reviews for RWSS.

Rwanda (2007-2011) & Fragile States: Zimbabwe, Liberia & Sierra Leone (2009-11).

In collaboration with Government Ministries, Donors & NGOs I have been leading the design & implementation of national:

Community-Based Environmental Health Promotion Programmes (**CBEHPP**) based on the CHC model of holistic development, which has resulted in almost 15,000 CHCs starting up in every village in Rwanda. The Roadmap that I conceived and had approved by Ministry of Health has now been updated and the programme is the cornerstone of public health in Rwanda, being combined with Nutrition and extended across many sectors.

Indonesia WSP / DHV 2006 – 2007 Contracted for extended missions of support to ISSDP (Indonesian Sanitation Sector Development Programme) to evaluate existing strategies & develop a new National Strategy for Pro-Poor, Community-Based Sanitation. Supported Advocacy & Capacity Building aspects of national programme.

Ghana. RWSN - AFRICA July 2005 – Dec. 2006 RURAL WATER SUPPLY NETWORK

Steering-Committee **Coordinator for Self-Supply**. RWSN hosted 5-day Seminar in Accra, Ghana (27-30 November 2006) with over 300 participants from across Africa to highlight Self Supply (i.e. Upgraded Family Wells from Zimbabwe) as Best Practice.

Uganda WSP (DFID funded) 2003-2005

Full-time CTA to the MoH, Water (DWD) & MoF. Programme components, funded by **DFID**, included:-

- (i) **National Coordination of WASH**
- (ii) **Capacity Building of the MoH's EHD;**
- (iii) **Develop a national E H Policy;**
- (iv) **Improve data collection and establish MIS of Hygiene and Sanitation at central and district levels;**
- (v) **Promote Best Practices in WASH in order to provide opportunities to scale up and replicate the programme.**

Substantial progress made in all five components resulting in revision to Poverty Eradication Action Plan (PEAP) in 2005 together with the MoH's Health Sector Strategic Plan (HSSP II) 2005-2010.

Iraq ARC June - August 2003

Recruited by the **American Refugee Committee (ARC)** to implement emergency WASH programmes in Amarah province (between Basra and Baghdad). Established local office for ARC, recruited Iraqi engineers and administrators & initiated 10 Quick Impact Projects at 6 hospitals, 3 small towns and an orphanage soon after fall of regime.

Zimbabwe CARE 2003

As TA developed successful emergency funding proposal (USAID's OFDA) for Masvingo and Midlands hand-pump rehabilitation.

Afghanistan DACAAR (Jan-Feb 2003)

Danish Council for Aid to Afghan Refugees

TA to evaluate Emergency WASH programmes. Advise on deep-setting (>100m) hand-pumps, innovative well-sinking technologies and appropriate options for low-cost rural sanitation.

Jamaica EU –JSIF May – July 2002

Evaluate WASH activities; develop work plans & training for professional staff to improve output & quality of RWSS projects with emphasis placed on Community-Based Construction, Management & Maintenance.

UK DFID 2000 – 2002

Research & Dissemination (KAR Project)

After implementing DFID-funded IRWSS projects as TA in Zimbabwe (1998 -2000) commissioned to undertake R&D of CHC methodology for replication / dissemination to East Africa and beyond (KAR Contract). Dissemination of the CHC approach has subsequently succeeded.

Sierra Leone CARE 2000 - 2002

After advocating for substantial changes to CARE's WatSan programme following my Evaluation I returned for 5 repeat missions to train & develop CARE staff in new WASH approaches including CHCs, Upgraded Family Wells & demand-led, low-cost ecological sanitation.

Uganda - DANIDA Jul – Sept 2000

As TA, evaluate and give recommendations to the Ugandan Ministries of **Health, Water & Education** on an effective and achievable way forward towards addressing the desperate shortfall in Primary School WASH facilities in all rural areas of Uganda. Report eventually adopted by Ministry of Education & UNICEF.

Ethiopia: SIDA / FINIDA / UNICEF 1998

Specialist WASH Adviser to evaluate & advise on existing RWSS programmes. Introduced the Upgraded Family Well concept from Zim, arranged workshops and constructed demonstration UFWs.

Zimbabwe - DFID Jan '98 – Dec 2000

Three-years CTA on IRWSS programme in **Tsholotsho & Gutu** districts. CHCs were pioneered by ZimAHEAD as part of this joint DFID-funded programme. Also introduced low-cost toilet design options in soft Kalahari sand conditions for schools and households; developed user-friendly deep hand-pump technologies for VLMM.

'Poverty, Health, & Environment; placing Environmental Health on Countries' Development Agendas'

Joint UN Agency Paper 2008 signed up to by 19 Development Agencies including World Bank, EU, WaterAid, WHO, UNDP, DFID, DANIDA et al.

Successful impact of CHCs in Tsholotsho project for achieving low-cost, high- impact sustainable hygiene behaviour change and improved sanitation is singled out under Best Practice.

Zimbabwe DANIDA Jan '96 – Dec '97 IRWSS Programme

After having established Mvuramanzi Trust & completing 11 years with WaterAid I began work as a Consultant while at same time engaged in launching **ZimAHEAD**. For two-years I was CTA overseeing DANIDA's extensive WASH programme in three districts: Chivu, Zvishavani and Hwange. DANIDA subsequently provided significant funding to ZimAHEAD in order to implement a three-year CHC programme across 23 Wards of Makoni District in Manicaland (1998-2000).

Zimbabwe WaterAid 1991 – 1995

Country Representative

Initially seconded as CTA to Blair Research Laboratories in Harare (where innovative technologies like VIP latrine & user friendly hand-pumps were developed). Later, at request of WaterAid's Founding Director, David Collett, I established a new indigenous NGO, **Mvuramanzi Trust**, in order to scale up the Upgraded Family Well concept.

As CEO & Founder of **Mvuramanzi Trust**, my responsibilities included liaising with senior Ministry officials; obtaining legal status; sourcing funds from donors; recruitment of staff, establishment of premises, purchase of vehicles and office equipment, administration of the organisation as well as management of all implementation and research projects. Within just four years, from its launch in January 1993 to December 1996, the Trust supported the construction of over **17,000 Upgraded Family Wells** and over **8,000 household latrines** across Zimbabwe. There are now estimated to be over 250,000 UFWs in existence across Zimbabwe (2015).

During the 1991/92 drought, **DFID** engaged WaterAid to implement the **Bikita Emergency Drought Relief Programme**. As sole WaterAid employee based in Zim, I managed this emergency programme that achieved the construction, within only 9 months, of 179 communal water points (through drilling 73 new bore-holes and deepening 106 community wells). All targets were met or indeed exceeded within the time frame and within the agreed budget. ODI Report:- See "*Response to 1991/92 Drought in Southern Africa*" highlighting the successful Bikita Emergency Drought Relief project that I managed on behalf of DFID

Zambia UNCHS (HABITAT) 1991–1992

CTA responsible for establishing the Peri-Urban Self-Help (PUSH) programme to up-grade the infrastructure of high-density slum areas of Lusaka. Works included the establishment of women's groups in slums to make components for subsidised, low-cost household latrines & work on labour-based roads and storm-water drainage.

Kenya WaterAid 1985 – 1991

Country Representative and TA to **KWAHO (Kenya Water for Health Organisation)**. Supported rapid expansion of this indigenous NGO from < 20 to >120 staff within 6 years. Managed >20 innovative community-based WASH Projects across Kenya that provided a wide range of appropriate safe drinking water options to over **450,000** people. At UNDP ceremony in Delhi, India (1991) to mark end of 'UN Water Decade' KWAHO was singled out for leading the way demonstrating successful implementation of community-driven, women-led WASH programmes.

Zimbabwe: Cementation (UK) 1983-84

Site Engineer for the Darwendale Water-Treatment Project: a water infrastructure project for the city of Harare incorporating 16 kms of tunnel from Lake Manyame to the Morton Jaffrey water-treatment works at Lake Chivero. Responsible as Site Engineer for all concreting works in the underground pumping station, delivery shaft, surface buildings and surge tower.

Zimbabwe Durawall 1982 - 1983

Contract's Manager responsible for the planning, implementation and management of various government funded contracts (following Independence in 1980) for the rapid construction of rural schools using pre-cast concrete building technologies where quality and speed of construction were a pre-requisite.

Tanzania - 1981 – 1982

Self-Employed Engineer responsible for the conception, planning, design and construction of the **Ruaha River Lodge** in the Ruaha National Park of Central Tanzania.

Tanzania - 1978 – 1981 - Howard Humphreys Consulting Engineers (UK)

Resident Engineer for *Morogoro Canvas Mill*

& *Industrial Park*: Consulting Engineer's Site Representative responsible for all Civil and Building Works associated with establishing a World Bank funded Industrial Park (roads, drainage, management housing & factories) as well as the construction of the EU funded *Morogoro Canvas Mill*. This contract was executed during a particularly difficult time in Tanzania when the economy had been devastated & all construction materials were scarce following the war to topple Idi Amin in Uganda (April 1979).

Saudi Arabia 1977 – 1978 ICA - Civil Engineering Contractors Belgium Production Engineer on *Sulleyil –Najaran Highway Project* to construct 110 kms of Class-One highway with extensive concrete slope protection through the Empty Quarter desert of Saudi Arabia. Responsible for the management of various site activities including production from two stone crushing plants, an asphalt plant and a large concrete batching plant.

1976 – 1977 Cape to Rio Yacht Race. Sailed as crew on ocean-going yachts from Cape Town to Brazil, the Caribbean, North Atlantic and Mediterranean. I spent a year sailing in Greece. Travelled and worked as a building artisan (bricklayer & carpenter) in Canada and Europe.

South Africa 1975 - 1976

Roberts Construction Ltd.

Graduate Site Engineer on the *Triumpf Fertiliser Plant* and the *Railway Diesel Engine Workshops* in Richards Bay, Zululand, South Africa. Site experience was gained in day-to-day supervision of these two large Building and Civil Engineering Projects. Experience as the Contractor's Procurement Officer or 'Buyer' was also gained.

Publications

- Ministry of Health. Rwanda (2010)** Roadmap for the Community Based Environmental Health Promotion Programme (ed. Waterkeyn A for WSP/World Bank)
- Maksimovski, N & Waterkeyn, A. (2010)** [The Community Health Club Approach in Informal Settlements: Case study from eThekweni municipality, Kwa Zulu Natal, South Africa](#). Water Institute of South Africa, Durban. South Africa
- Waterkeyn, A. (2005)** [Hygiene & Sanitation Strategies in Uganda: How to achieve sustainable behaviour change?](#) 31st Water Engineering & Development Centre Conference: Kampala. Uganda.
- Waterkeyn, A. (2012)** [The Dissemination and Scale up of CHCs](#). Africa AHEAD Side Event. Water and Health Conference University of North Carolina. Presentation.
- Waterkeyn, A. (2013)** [CHCs sparking self supply in Zimbabwe](#). Water and Health Conference. University of North Carolina. Presentation
- Waterkeyn, A. (2014)** [Vision 5 x 5: Scaling up Community Health Clubs](#). Africa AHEAD/Stockholm Environment Institute Side Event. World Water Week, Stockholm.
- Waterkeyn J & Waterkeyn A. (2000)** [Demand Led Sanitation in Zimbabwe](#). Water Engineering & Development Centre: Dhaka, Bangladesh.
- Waterkeyn J & Waterkeyn, A. (2004)** [Taking PHAST the Extra Mile Through Community Health Clubs](#). Water Sanitation Programme – East Africa
- Waterkeyn J. & Waterkeyn A. (2013)** [Creating a culture of health: hygiene behaviour change in community health clubs through knowledge and positive peer pressure](#). *Journal of Water, Sanitation and Hygiene for Development* Vol 3 No 2. 144–155
- Waterkeyn J, Matimati R, Muringaniza A, Chingono A, Ntakarutimana A, Katararwa J, Bigirimana Z, Pantoglou J, Waterkeyn A, Cairncross S. (2019)** [Comparative Assessment of Hygiene Behaviour Change and Cost-effectiveness of Community Health Clubs in Rwanda and Zimbabwe](#). IntechOpen. DOI: 10.5772/intechopen.89995
- Waterkeyn J, Waterkeyn A, Uwingabire F, Pantoglou J, Ntakarutimana A, Mbirira M, Katararwa J, Bigirimana Z., Cairncross S, Carter R. (2020)**. [The value of monitoring data in a process evaluation of hygiene behaviour change in Community Health Clubs to explain findings from a cluster-randomised controlled trial in Rwanda](#). BMC Public Health 20, 98 (2020). <https://doi.org/10.1186/s12889-019-7991-7>

