



## Network for Cost-effective Technologies in Water Supply

### The Development of a Vibrant International Knowledge Network

#### FACT BOX

Established	1992
Goal	Facilitate the provision of safe water and sanitation to the poor and deprived through the promotion of sustainable technologies that are affordable and responsive to the needs of the users.
Partners	SDC, WSP, UNICEF, Skat Foundation, Danida, WSSCC, WaterAid, Sida, Department of Water and Forestry (South Africa), IRC (Netherlands), Directorate of Water Development (Uganda), Federal Ministry of Water Resources and Rural Development (Nigeria), Ministry of Rural development (India).
Budget and Donors	2,200,000 USD over 3 years. Main donors are DGIS, SDC, Danida, Sida, UNICEF, and Norwegian Trust Fund. Revenue is also generated from selling services to projects and private sector.
Tools for Knowledge Sharing	Publications, newsletters, Internet site, electronic discussion list, e-conferences, workshops, management meetings, Q & A service, training and backstopping services, field assignments.
Countries	World-wide; current focus on Africa

## Key Events in the Development of the Network

1981 - 1990	<ul style="list-style-type: none"> <li>■ UN International Drinking Water Supply and Sanitation Decade (IDWSSD).</li> <li>■ Intensive development of public domain handpumps occurs.</li> </ul>
1992	<ul style="list-style-type: none"> <li>■ International Handpump Workshop in Kakamega (Kenya) mandates the formation of HTN, the "Handpump Technology Network".</li> </ul>
•	<ul style="list-style-type: none"> <li>■ Peter Wurzel (UNICEF Pakistan) is chosen to chair the new HTN steering committee (4 persons); Erich Baumann (SKAT, later Skat Foundation) establishes an executive secretariat for the new network.</li> </ul>
1996	<ul style="list-style-type: none"> <li>■ Chair of the HTN steering committee passes from Peter Wurzel to Rupert Talbot (UNICEF India), reflecting a continued network focus on Asia.</li> </ul>
1997	<ul style="list-style-type: none"> <li>■ HTN Workshop in Mangochi, Malawi. Over 150 participants from 40 countries attend and endorse the need for (and activities of) the network.</li> </ul>
•	<ul style="list-style-type: none"> <li>■ HTN envisages a broader remit and revises the qualifier to "Network for cost effective technologies in water supply and sanitation"; the HTN acronym is retained.</li> </ul>
•	<ul style="list-style-type: none"> <li>■ The steering committee is expanded to 16 members.</li> </ul>
2000	<ul style="list-style-type: none"> <li>■ HTN Forum in Hyderabad, India (200 delegates, 38 countries).</li> </ul>
•	<ul style="list-style-type: none"> <li>■ Retaining a global membership, HTN focuses on rural water issues in Africa.</li> </ul>
2001	<ul style="list-style-type: none"> <li>■ HTN steering committee chair passes to Piers Cross (WSP Africa).</li> </ul>
•	<ul style="list-style-type: none"> <li>■ The HTN acronym remains unchanged but the qualifier is revised to "Network for cost effective technologies in water supply".</li> </ul>
2002	<ul style="list-style-type: none"> <li>■ A new thrust for the network is drafted – activities would be broadened to encompass more rural water issues while maintaining traditional network activities.</li> </ul>
•	<ul style="list-style-type: none"> <li>■ The first regional chapter of HTN is established by a dedicated group of members in South Africa.</li> </ul>
2003	<ul style="list-style-type: none"> <li>■ HTN Forum in Durban, South Africa (240 delegates, 37 countries).</li> </ul>
	<ul style="list-style-type: none"> <li>■ The new, broader thematic vision and identity for the network is shared with the membership. At the Forum, a new name is also mooted (RWSN – rural water supply network) and an action plan 2003 - 2005 is drafted. Members endorse the new African focus.</li> </ul>

## Formation and History

The role of RWSN/HTN was originally to maintain momentum built up during the UN International Drinking Water Supply and Sanitation Decade (IDWSSD) 1981-1990 concerning improved access to safe drinking water for rural populations in the South. The network initially focused on community-based, handpump-related issues, promoting global co-ordination and collaboration between governments, external support agencies and other sector agencies.

The network was created in response to recommendations made at an international handpump workshop sponsored by the Water and Sanitation Program in 1992. The workshop aimed to further the development and increase acceptance of public domain handpumps mounted on community-managed, communal water points as a way of reducing safe drinking water shortages in rural communities in the South.

As perceptions evolved amongst the donor community concerning the best way to improve access to services, RWSN/HTN responded by adjusting its focus and identity to suit. At the same time, it sought to build upon the comparative advantage that it had started off with and then enhanced by performing well in a very clearly defined area of need. This apparent contradiction - of staying focussed yet embracing more - is reflected in the increasing regularity of discussion concerning the name and thrust of RWSN/HTN as it continues to mature.

RWSN/HTN now counts over 500 individual and institutional members. Its most clearly identifiable strength lies in the provision of technical and managerial support for national rural water supply programmes in the South, where such programmes are primarily based on the adoption of low-cost technologies for sustainable groundwater use.



## Vision, Objectives and Guiding Principles

Developing and promoting cost-efficient technologies to serve the poor are critical components of strategies to meet the Millennium Development Goals. RWSN/HTN

- aims to alleviate poverty and improve the living conditions of rural poor through improved access to safe water.
- believes that access to basic water and sanitation services is a fundamental right and is essential for human development and poverty reduction.
- aims to facilitate the provision of safe water to the poor through the promotion of sustainable technologies that are affordable and responsive to the needs of the users.
- works to achieve these aims in partnership, through networking & alliance building.
- aspires to be a catalyst for capacity building, mutual learning, knowledge sharing and the documentation of experiences.

## Management

### Network Structure

RWSN/HTN counts approximately 500 individual and institutional members; including governmental agencies, multilateral organisations, bilateral donors, NGOs, the private sector, research and development groups, inspection agencies and individuals. Membership is open to all. The figure below portrays the structure for self-governance that RWSN/HTN has adopted:

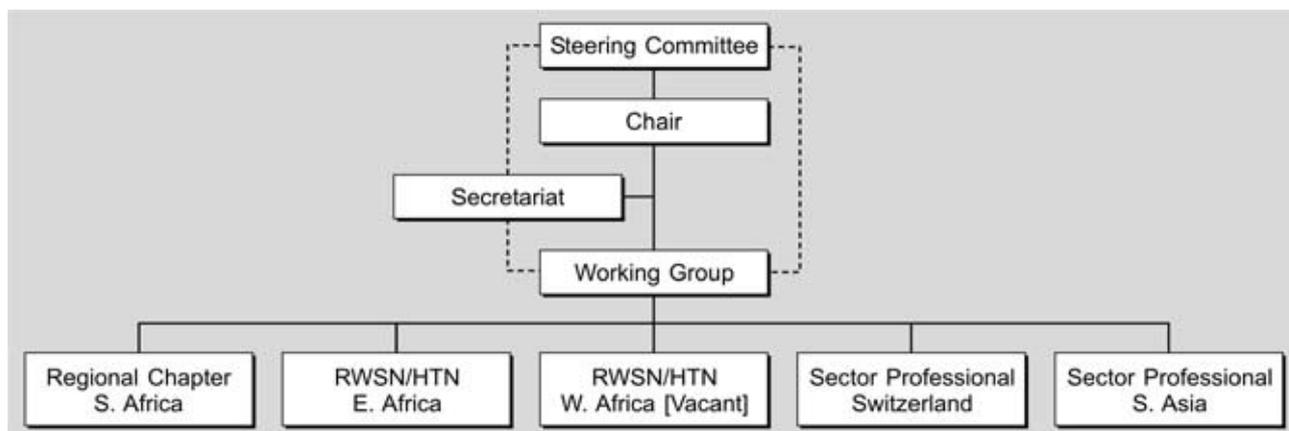
### Roles of the Partners

The network core is represented by the steering committee, which was founded by a small task group in 1992. All key decisions affecting the governance and activities of the network are managed by the steering committee. This group has evolved and refined its own composition, changing chair and membership as appropriate. It is currently made up of committed bilateral donors (RWSN/HTN's principal sources of funding), strategically important governmental departments, and influential international development

organisations. RWSN/HTN's three most influential implementing agencies are represented - Skat Foundation, UNICEF and the Africa Section of the World Bank's Water & Sanitation Programme. The original founders of the network have always remained active at committee level. The size of the committee is not formally regulated and remained at four seats until 1997, when it was enlarged by invitation to the present sixteen.

The active centre of the committee is composed of around a dozen committed individuals. This committee invites observers and key partners (such as influential participants of the network, potential partners, working group coordinators) to participate in its deliberations as deemed appropriate.

The steering committee meets formally approximately once each year; the frequency is left open to capitalise on opportunities to combine the meetings with other international events. The proceedings of committee meetings are not purposefully circulated to the membership, although their circulation is not restricted





The executive power to implement the recommendations of the steering committee is vested in a working group, first set up in 2000 and made up of the network's three main implementing agencies. The composition of this working group is decided by the steering committee.

Since the members of this working group are based in different countries and institutions, they meet bilaterally or collectively on an informal basis whenever they are able to do so. As exchanges do not take place with sufficient frequency for the group to speak with one voice, working group initiatives tend to result from the personal drive of more active group members. Normal operational contacts between working group members are maintained through direct correspondence and via the secretariat.

The secretariat carries out routine administrative duties and acts as the information and coordination hub for the network. It also functions as a catalyst to ensure that the recommendations of the steering committee are enacted.

The network adopts an open, inclusive approach to membership. Any organisation or individual interested in the vision and mission statements of the network is free to join and to make contributions. There are no membership fees or registration formalities calling for adherence to RWSN/HTN objectives. This inclusive approach ensures a wide diversity of member profiles and a rich quality of debate from multiple perspectives. However, it also poses particular difficulties when attempting to assess the true membership of RWSN/HTN (currently approximated to the size of its mailing list), or when trying to gauge the membership's level of commitment towards RWSN/HTN's vision and objectives.

There is currently one national network chapter in South Africa, founded in 2002. The members of this chapter include pump manufacturers, public sector and civil society sector professionals. It is financially independent from the rest of the network. Its foundation is based on the commitment of a small core group of people (as was RWSN/HTN initially) and firm institutional support from the South African Department of Water Affairs and Forestry.

In terms of the division of tasks conducted by RWSN/HTN, the work plans of the three main implementing agencies have historically been made independently, with the secretariat and the annual steering committee meetings providing the conduits for ensuring coordinated action. There is minimal collective accountability in this arrangement, and the involvement of mainstream members is nominal - indicating that

RWSN/HTN does not really function as a true network but rather operates as a number of separate projects. The donors behind specific grants require tailored reporting, which also tends to reinforce the character of the network as a series of discrete technical projects running in parallel and not as a single entity.

A significant shift in this operational framework occurred at the Durban Forum in 2003, when the first attempt to define a work plan for the network (and to allocate roles for its implementation) was developed. Additionally, this work plan (originally drafted by the steering committee and subsequently developed by the secretariat and key network members) was reviewed, refined and endorsed – all in consultation with a substantial assembly of the network's membership.

Looking outward to the water sector as a whole, RWSN/HTN has some links with other existing networks such as the Water Supply and Sanitation Collaborative Council and Streams of Knowledge, though these are mainly informal through overlapping membership.

### **Statutes, Operational Guidelines, Strategy**

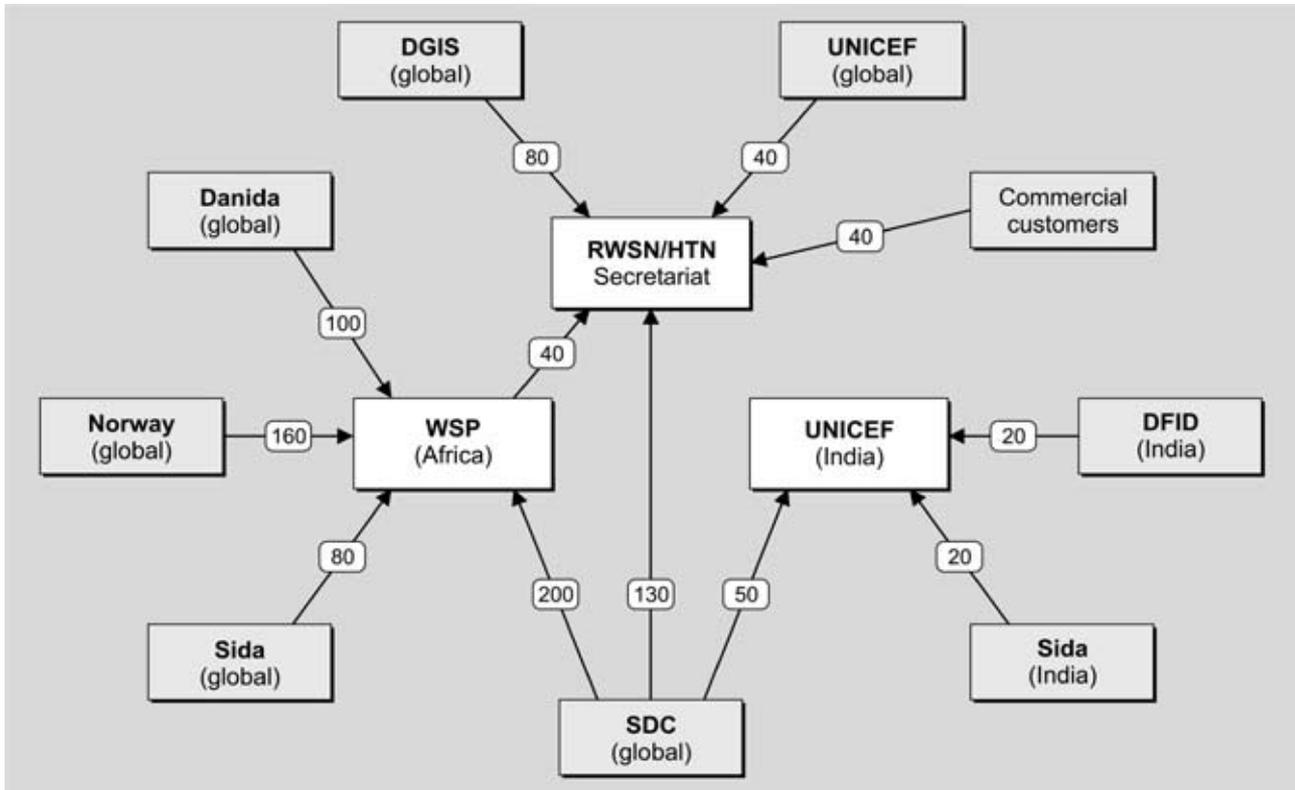
The network itself is not legally registered. Its secretariat is hosted by Skat Foundation, a legally registered charitable foundation under Swiss law and based in St. Gallen, Switzerland.

There are no formal statutes or procedures governing general membership of the network. Steering committee membership is by nomination through an existing member, followed by a collective review of the proposal; successful proposals lead to formal invitations. The procedure for refreshing steering committee membership is informal; members are initially appointed for two years and this tenure may be renewed without limitations. The steering committee elects its own chair; there are no statutes regulating the tenure of this office.

The regulations governing the roles and responsibilities of the different parts of the management structure are rudimentary. Although steering committee meetings are formal events and participants review the minutes before they are accepted, these documents are not generally interpreted as proxies for formal statutes.

The overall strategy and vision of the network is defined by the steering committee; stewardship of the strategy and vision is conducted by the secretariat. The strategy and vision are shared with the membership using the communications media that are described later in this paper.

The following figure is a graphical representation of the financial flows that sustain the network:



(Figures refer to approximate annual amounts in thousands of US dollars)

Since operational planning was historically fragmented between the main implementing partners of the network, the Durban Forum set an important precedent by doubling as a „General Assembly“ for the network - attempting to chart a clear operational plan for the network, with the active participation of its membership.

### Funding

The network's financial flows are complex. The network does not have a single unified budget; each of the three implementing agencies balances its own books for RWSN/HTN activities. This financial independence may contribute to the overall robustness of RWSN/HTN; the financial viability of RWSN/HTN is only threatened when the implementing agencies experience simultaneous financial problems.

However, since many of these financial flows are a consequence of RWSN/HTN's operational structure, they are primarily used to implement the autonomous activity plans of RWSN/HTN's main implementing bodies rather than being managed as a coordinated whole.

### Evaluation

RWSN/HTN has never been formally evaluated as a single entity. The institutions that make up the membership have been evaluated during the normal course of events; their separate contributions towards overall network activity have therefore been evaluated as separate blocks. The steering committee has debated the topic of global evaluation, but the necessary funding has been a sticking point. It is worth mentioning that the donors backing the network sit on its management board (the steering committee). Monitoring progress against objectives is conducted by the secretariat, and the corresponding activity and financial reports are reviewed by the steering committee every 3 months.

Since the focus of RWSN/HTN has begun to shift significantly over the last 2 years, the steering committee (2003) commissioned an independent institutional study of the network's current governance and management structures. The findings are still being reviewed and finalised; however, some parts of this document are already drawn from the study's early observations.



## Knowledge Sharing

### Internet

RWSN/HTN has an Internet site ([www.htnweb.com](http://www.htnweb.com)), maintained by the secretariat. All areas of the site are publicly accessible. The site informs visitors about the network's mission and vision, history, membership composition, governance and executive mechanisms, strategy for realising the vision, ongoing activities and its products. Many of the publications produced by the network are available for download via this site.

### Knowledge base

The secretariat maintains a documentation centre and a database of published literature. The activities of RWSN/HTN are documented and added to this knowledge base.

A second database is used to maintain contact details of network members and other resource persons. There are currently around 500 contacts in this database. The main repository of knowledge remains the collective and unparalleled experience of the membership. Access to this knowledge is sustained through strong and often personalised communications backbone between influential champions in strategically important sections of the network.

### Newsletter

The contacts held in the database receive information bulletins relevant to the activities of the network. The distribution of bulletins is event-driven rather than fixed-period.

### Discussion forum

The network maintains a moderated discussion forum (<http://www.jiscmail.ac.uk/lists/HTN.html>). There are currently around 150 subscribed members of this discussion forum. The combination of newsletter and on-line discussion forum represents a powerful tool for disseminating information to the membership and for soliciting open response across continents. Since many members of RWSN/HTN are active in other, related networks, maintaining linkages and sharing ideas with many partners is possible using these two tools.

### Meetings and Seminars

The network organises a major event every 3 years, generally coinciding with major paradigm shifts in development cooperation strategy. These events attract

a large part of the membership – each successive event has been larger than its predecessor, and Durban attracted over 250 participants. The events represent an occasion to share and to learn, to discuss a key topical theme in depth and to further expand the membership. Proceedings of these events are published and made publicly available in print and on the network website.

Additionally, the network is able to organise and document e-conferences. One such conference in 2002 (jointly organised by HTN, WHO and UNICEF in the run up to the Kyoto Forum) attracted 320 subscribers from 50 different countries.

### Question and Answer Service

The secretariat acts as a router or as a technical support desk in response to questions reaching the network – originating from the membership and beyond. The secretariat processes roughly 400 such queries annually. This service is mainly managed by email, fax and telephone.

### Publications

Documentation and knowledge sharing on mission-related activities is a stated aim of RWSN/HTN; the sustained production of publications is a particularly tangible measure of network output. A full range of publications in print and electronic format is available through the secretariat and via the network's website.

Some publications document lessons learned by RWSN/HTN, stating the network's position with respect to key issues and advocating changes in the way that development cooperation is managed in the rural water supply sectors of the South. Issues of concern include sector policy, performance monitoring, operation and maintenance and quality management.

Other publications are the means of distributing global standards that RWSN/HTN has developed and refined based on practical experience. Such landmark standards define the manufacturing specifications of a comprehensive range of public-domain handpumps most commonly encountered in the South, including the Afridev, Malda, U-3M, Tara, Maya-Yaku, Jibon, SWN-80-Walimi, Madagascar Rope Pump and Bush Pump. These specifications are available in print or on CD-ROM and are supplied on demand by the secretariat.



## Lessons Learnt

The most significant contributions of RWSN/HTN towards its stated mission have occurred in the field of public-domain handpump design and use, where the network promotes technically sound, low-cost technologies that can be permanently anchored in the host environment. The remit of the network stretches well beyond the development and definition of robust, cost-effective water-lifting hardware. From the starting point of a simple water-lifting device, the use of groundwater as a source of drinking water is implied. Given that around 6,000 deaths per day can be largely attributed to the consumption of contaminated drinking water, the potential impact of RWSN/HTN in terms of safeguarding human life is as clear as it is unquantifiable.

In accessing this groundwater, the network also lobbies strongly in favour of drilling techniques and standards that are tailored to suit the lifting devices i.e. the handpump. The potential savings behind such initiatives (allowing scarce public funds to be allocated elsewhere) are hugely significant at national level. Furthermore, the network advocates strongly in favour of local capacity building to ensure the sustainability of development interventions. The implementation of this strategy invariably incorporates private sector development and poverty alleviation.

As an example of RWSN/HTN's impact, pioneering work on standardisation of public domain handpumps has significantly lowered costs through the introduction of competition amongst manufacturers. At global level, annual economic gains that are directly attributable to RWSN/HTN work in standardisation are in the region of USD 50 million.

However, this success has exposed further challenges. In the absence of suitable quality assurance frameworks, quality and reliability have dropped along with pump prices. In addition, the use of lowest cost criteria for procurement on global markets has enabled imported, poor quality products to undermine the domestic manufacturing base by eating into its market share. Adding insult to injury, it is this same manufacturing base that is then called upon for the onerous and unprofitable maintenance and repair of the very pumps that have undermined its capacity to function. It is clear from this example that there is still much that RWSN/HTN can usefully do in its chosen field.

A successful knowledge network that wishes to focus its existing capacity on changing demands over time must continually demonstrate - and aggressively market - its efficiency, relevance and potential. Focussed and successful networks are therefore faced with a challenge; how best to market (future) potential rather than focussing on (past) achievements.

## Outlook

A major preoccupation of RWSN/HTN - despite its many demonstrable successes in the past - is the future focus of the network. It cannot say that it has realised its original vision as yet, and it remains highly capable of adding effective contributions in this regard. However, a constantly evolving environment imposes structural adjustments from time to time, and RWSN/HTN's current configuration is gradually causing disquiet.

Firstly, the network is faced with a practical problem: the dedicated individuals who originally built the network and subsequently played decisive roles in driving it forward are now approaching retirement. There is no formal mechanism for renewing the network's structures of governance and management, and gaps have started to appear as key individuals leave without being replaced.

Additionally, RWSN/HTN depends on development cooperation funding in order to survive - and development cooperation is a competitive and

dynamic sector where the goals are widely shared but where needs far outstrip available resources. While RWSN/HTN's effectiveness in its chosen field is rarely questioned, the perceived efficiency of its impact (at the macro level of development cooperation) has changed over time. Many donors feel that more leverage and sustainable progress has to be achieved in the RWSN/HTN approach.

Faced with the choice of whether to evolve or resist in response to these changes, the 2003 Durban Forum showed that the membership endorses the network's original mission and claims the necessary relevance to continue to work towards its realisation.

Having decided to remain true to its original goals, RWSN/HTN is now faced with the challenge of adapting to its changing circumstances. In terms of thematic focus, it has tried to widen its remit around its core values - thus reflecting shifts in development theory. It is too soon to tell if RWSN/HTN will be able



to perform well in this broader arena; the next Forum (planned for 2005) will be telling in this regard.

In terms of governance and management, RWSN/HTN is investigating new institutional arrangements. The changes being considered include transparent and accountable systems of governance that place more responsibility with the membership for the direction of the network.

Also under consideration is a structural reorganisation to allow RWSN/HTN to respond to the requests of Southern governments in a more direct, 'client-supplier' relationship. This change is RWSN/HTN's response to increasing donor preferences for

providing development cooperation through sector-wide approaches – where development funds are channelled directly into the budgets of Southern governments rather than being routed through projects or programmes.

These key issues have surfaced relatively recently in the history of RWSN/HTN. Its ongoing and projected responses to this changing environment have placed the network in a considerable state of flux and uncertainty – the scale and diversity of the reforms either being discussed or being implemented makes it very difficult to say how successful these reforms will ultimately be.

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