

# **STREAMS** **OF KNOWLEDGE**



help build capacity

life

time

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In a complex and challenging world people need access to a collective information and knowledge base that can help them to find the best way forward, and prevent them from making the same mistakes that others have made.

Sharing knowledge about experiences from the past makes it easier to devise strategies for the future. It also helps stakeholders to play their roles more effectively and to create the collective commitment to face the challenges of the coming decades. The mission of the global coalition of resource centres in the water and sanitation sector is to help to close the gap on unmet needs by:

- organising Streams of Knowledge,
- achieving equitable access to information,
- focusing knowledge where it can help to build capacity, and
- promoting action learning, whereby people benefit from their own experiences.

This booklet was written by Peter McIntyre, with inputs from the STREAM Sounding Board Group and produced in March 2000 for the launch of the Streams of Knowledge Coalition. The secretariat of the coalition is initially located at IRC.

**IRC International Water and Sanitation Centre**

IRC is an independent, non-profit organization supported by and linked with the Netherlands Government, the United Nations Development Programme, the United Nations Children's Fund, the World Health Organization, the World Bank, and the Water Supply and Sanitation Collaborative Council.

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# Streams of knowledge

The role of water and sanitation  
resource centres  
in closing the gap on unmet needs

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# Introduction

**T**his is an account of how resource centres around the world are playing a crucial role in helping people to secure safe water supplies and effective sanitation in an era of rapid population growth and social change.

In a complex world people need to make informed decisions. They need to know the difference between what works and what does not work. They need to know what other people have tried and who has succeeded and who has failed. They need, in short, access to a collective memory bank and to a knowledge base that helps to keep them on the right track and allows them to learn from both positive and negative experiences.

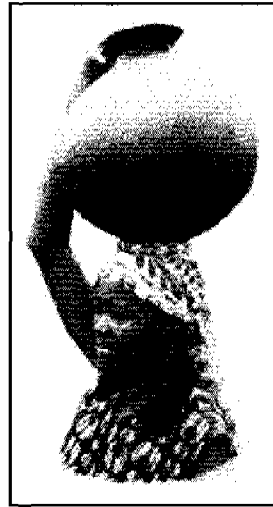
Such bodies do exist. Resource centres that specialise in water and sanitation issues have grown up in almost every part of the world, functioning in different ways and with different backgrounds. They are significant because they have core skills and values which will be badly needed if the global challenge to provide clean water and effective sanitation is to be met.

Resource centres are catalysts for change that can become decisive in increasing the capacity of communities and nations to provide clean water and sanitation. They are centres of excellence which record, remember and learn from past experience, and turn this experience into lessons for the future. They tap pools of data and information and channel them into streams of knowledge flowing where they are most needed. In this way resource centres help to build the capacity of all those whose work is relevant to water and sanitation issues.

Resource centres are also centres of commitment. They encourage policy makers and organisations active on water and sanitation issues to address the critical problems, to make a real difference to people and communities who lack basic necessities. They have a sense of solidarity with such communities.

To play this role and to become better known as focal points for exchanging information, knowledge and ideas, resource centres face a number of challenges. They must develop clear plans to meet their strategic aims, secure their financial bases, and develop the right blend of activities to remain at the cutting edge of developments.

That process will be helped through an international dimension that is now being added. Resource centres are forming a global coalition and regional networks to strengthen each other and to speed up the process of building the capacity of others working on water and sanitation issues.



## **The challenges for water and sanitation**

- ◆ More than one billion people lack adequate water supplies.
- ◆ Almost three billion people lack sanitary toilets.
- ◆ Population growth will add two to three billion people over the next 25 years.
- ◆ The crisis requires efficient water management and effective measures to reduce pollution.
- ◆ Viable long-term strategies are needed to meet increasing demand, especially in low-income urban areas and small towns.
- ◆ Decentralisation gives extra responsibilities to local government and changes the role of central government.
- ◆ The trend towards privatisation requires extra efforts to be made to strengthen the capacity of service providers and local organisations.

The STREAM Project emerged from a Ministerial Conference on Agenda 21 held in Noordwijk in 1994, and from a 25-year review of the work of the Netherlands based IRC. The STREAM Project is funded by the Netherlands Government.

The STREAM Project brought together some of the leading resource centres across the world. At a meeting in Delft, Netherlands, in 1999 they agreed to form a Global Coalition of Resource Centres to play a significant role in building this movement worldwide through international collaboration and through regional networks. A core group has been formed to take this work forward, and some of the regional networks have already started to plan their work.

Organisations that work on water and sanitation issues and wish to broaden their approach will be supported to become resource centres. Networks will help resource centres to validate the quality of their work, improve the relevance of their output and create conditions to exchange good practice. Information about projects that make a difference, and lessons about why they work, will be shared within and across continents on the basis of mutual respect and understanding.

The aim of this booklet is to bring this work to a wider audience, to explain why resource centres can be so significant in closing the gap in water and sanitation provision and to show how their influence will increase through effective networking. It has been commissioned as part of the STREAM project.



*A young woman in Ghana collects safe water from a well build as part of a programme that includes health education and an economic project to make bricks for latrines.*

## Vision 21 - The challenge to turn a vision into reality

**V**ISION 21 pictures the world in the year 2025 when every person has access to safe drinking water, and to adequate sanitation and hygiene.

The Framework for Action outlines ways to get closer to that future, focusing on necessary changes of policy, attitude and approach.

In the vision, people not only have access to basic services, but also help to sustain them and to sustain clean and healthy living environments. Water-related diseases are being conquered while rivers and ground-water resources are getting cleaner. There are social and educational benefits for men, women and children, and visible improvements in people's health, well-being and living environments.

Governments reap economic benefits because they recognise the role of clean water and effective sanitation in alleviating poverty. The cost of meeting basic water, sanitation and hygiene needs is significantly less than the savings in health spending and gains in productivity.

The Vision is a good one. The tough task is to make sure that it becomes science fact rather than science fiction.

Part of what has to change is the political will and commitment. A commitment to achieving progress in the provision of clean water and effective sanitation has to move up the political agenda. Political decision makers need to see a solution to these problems as a social necessity in its own right, and to understand failure as a limiting factor on human and economic development. Decision makers should see meeting these needs as critically important to achieving their strategic aims in health, the environment and the economy and regard the provision of clean water and effective sanitation as part of the essential infrastructure of a successful society.

Even when the political will has been mobilised the gap between those who have and don't have clean water and sanitation is not going to be closed simply through an injection of donor funds. Universal coverage on the basis of existing practice implies massive increases in current levels of spending. It is unlikely that these sums will be made available, and even if money was available for wells, pipes and latrines, there are not enough skilled people in the right place working in the right way to make the best use of such a huge investment. A simple expansion of resources would not result in an equivalent gain in effective coverage.

Too often, success is measured by the number of new schemes started, the amount of money spent or the number of households added to the

### The Essence of World Water Vision 21

Vision 21 argues for

- ◆ a holistic approach that acknowledges hygiene, water and sanitation as human rights and that relates them to human development, eliminating poverty and integrating the management of water resources.
- ◆ building the capacity of people in communities to take action, applying technologies that respond to their needs.
- ◆ Committed and compassionate leadership so that authorities support households to manage hygiene, water and sanitation and are accountable to users.
- ◆ Sustained dialogue and collaboration so that professionals combine technical expertise with an ability to work with users, politicians and with professionals working on health, education, the environment, community development or food.



CREPA training catalogue outlining courses for 1999.

system. However, in the longer term the number of systems that fail and the number of households that drop out of the system are probably more significant. Real political success can be measured by the number of schemes that are still working efficiently and effectively in five or ten years time. Nor can failures be easily ignored. When communities are expected to pay directly for services, satisfaction levels become critical, since no community is going to pay for a system that does not meet its needs. If the flow of revenue is cut off, political decision makers want to know why. When people are expected to pay then ineffectual providers will be confronted with the cost of failure.

This suggests that gaps in services can only be closed by using knowledge and resources more effectively. There is a need for constructive alliances between policy makers, technical experts and the people who use water and sanitation services. The social aims of politicians, and the desire of populations for environmental protection, health, and clean water need to line up. In short, capacity must be built, so that society is up to the job.

## Increasing capacity – what does it mean?

There are three main areas where capacity needs to be built:

1. The institutional and legal framework: decentralisation and the move to a mixed private and public sector provision implies changes to the legal framework to allow the private sector to operate and to recover costs.
2. Organisational strengthening: supply and service organisations have to become more responsive to local government and community based organisations and to work with professionals from related sectors.
3. Human resources, professionals and others within organisations: professionals need a participatory way of working and access to regular training. Politicians need support. Rapid environmental and social change puts communities under pressure. Involving women in decisions means that systems are better used and more sustainable.

Strengthening capacity building therefore involves a range of activities:

- ◆ improving the policy and legal framework for the delivery of water and sanitation services,
- ◆ strengthening the ability of organisations, including community and water user associations to respond to demand,
- ◆ conducting relevant research, learning from experience and spreading best practices,
- ◆ involving others who share a broader developmental approach,
- ◆ developing human resources through education and training,
- ◆ strengthening managerial systems within organisations,
- ◆ increasing resources available to the sector, in particular financial resources.



## The role of resource centres in meeting the challenge

**A** resource centre is a place where information and key skills are brought together to support activities which will strengthen the provision of water and sanitation services. The centre is typically a single organisation working at national and regional level, but it may also develop a network of organisations, which have practical and theoretical strengths and are outward looking and willing to share knowledge and skills. Resource centres are places where the lessons of the sector have been learned and remembered, and where those lessons inform and influence current practice. Independent resource centres facilitate streams of knowledge, and can identify and share best practices. They are, in short, centres of excellence. Once there is a critical mass of effective resource centres working at national level in a region, a regional network of such centres will strengthen the work of each and the combined work of all.

Resource centres play an significant role in increasing capacity in the sector, not because they have an instant solution to problems, but because they reflect the complexities of the problems.

### What qualities does an effective Resource Centre have?

Resource centres grow from a variety of backgrounds and traditions. They do not all look or act the same. They have different strengths and weaknesses, and each is in a process of change. Any list of essential characteristics of resource centres must therefore be provisional and temporary. However, building on the experience of resource centres in many parts of the world, we can define a resource centre in terms of its aims and role. A resource centre:

- ◆ provides a focus of excellence and expertise relevant to tackling problems in the sector;
- ◆ learns from its own experiences and those of others, and promotes the active sharing of that knowledge and experience;
- ◆ anticipates change and helps others to adjust their approach and interventions to changing needs and circumstances.

The resource centre mainly plays a facilitator role. It may be involved in



## Building capacity and sustainability in Southern Africa

The Institute of Water and Sanitation Development (IWSD) was established in 1988 as part of the global ITN program. It developed from the Training Centre for Water and Sanitation, in the University of Zimbabwe. IWSD became an NGO in 1993 to increase its independence.

IWSD backs sustainable development of water resources and waste management in Zimbabwe and Southern Africa. In particular, the Institute addresses issues that prevent the poor from accessing services or which hinder sustainability.

The IWSD aims to play a catalytic and bonding role with the focus on capacity building. Training, research and information dissemination is aimed at creating the right policy environment for the delivery of water and sanitation services. IWSD provides:

- ◆ a research base,
- ◆ an advocacy platform for water and sanitation,
- ◆ training in water resources management,
- ◆ consultancy support for sector agencies,
- ◆ a strong documentation institution for Zimbabwe and the region.

Wherever possible technical support addresses issues and tasks with broader implications for policy and strategy towards sustainable use of water resources in southern Africa. Training includes a strong component of community management. IWSD set up a series of courses at the request of the Town Engineers Forum of Zimbabwe for people with few qualifications running water and wastewater treatment plants.

Historically, the IWSD focused on primary water supplies for rural and small communities and appropriate sanitary systems. Today, its emphasis has broadened to include urban water supply and wastewater disposal, water resources management, catchment planning and management. Diploma courses cover designing and managing systems for urban areas.

The IWSD makes information available freely to students and in a newsletter. It is active in networks, and has a collaborative programme with other ITN centres in Africa. This is designed to promote a free flow of information between in Africa, to help solve problems, using local resources and taking into account local conditions, cultural traditions and socio-economic requirements.

Following an evaluation in 1996 the IWSD underlined its independence and moved off the University site. The evaluation identified a dilemma faced by all resource centres: how to serve as a national resource centre while competing in the consulting market place.



*IWSD Training has a focus on community management, and addresses gender issues. Picture: Madeleen Wegelin*

action based research, or take the initiative in collecting and disseminating information, but success is judged on how it helps others to respond to changing circumstances. Different resource centres may take different routes to providing this service, and may emphasise different core skills. Significantly, this definition excludes organisations whose only purpose is their own survival. A consultancy firm, may help others to succeed, but judges its success by its ability to survive in the market place. A resource centre needs sufficient income to survive, but judges success by how far it helps organisations and, ultimately, communities meet future needs. It has a sense of mission and commitment.

Some activities are central to the work of resource centres and most already undertake or plan to develop work in this area.

### **Independent centres of excellence**

Some resource centres — for example CINARA in Colombia and TREND in Ghana — began life as academic departments of Universities and learned how to apply research in practice. Some, including the ITN centres in Africa and in the Philippines, began as training organisations and decided that support should not stop at the classroom door. IRC began as a reference centre that learned in practice that information is only useful in conjunction with local capacity building and joint learning. However they began, resource centres have developed a level of expertise and performance that makes other organisations look to them for information, advice, leadership, research or training. By having high standards themselves they encourage others to do the same. They are also reflective, looking at their own performance critically. Resource centres promote the concept that it is always possible to improve and to find ways of doing things better. They are often deeply involved in setting the policy framework within which the water and sanitation services operate. As a centre of excellence they are also equipped to teach others. For all their networking skills, resource centres maintain an independent role, so that they can offer objective, independent, and unbiased judgement.

### **Information management, memory store and knowledge base**

There is a distinction between data, information, knowledge and wisdom. Data by itself is not useful. When correctly packaged it can become useful information. Those who use it can acquire knowledge, and with experience, a reflective attitude and a learning approach, wisdom may follow. Resource centres focus on opportunities to generate knowledge, and they can do this because they themselves are capable of learning.

### **Documentation and Information Services**

Many centres are strengthening their documentation and information dissemination services.

- ◆ SEUF in Kerala, India, with support from the IRC, analysed its information sources, trained staff in cataloguing techniques, prepared a user needs survey, created a periodicals database and prepared guidelines for documentation and dissemination.
- ◆ The IWSD in Zimbabwe recently developed its library service, information services, Internet capacity, publications and dissemination strategy.

Resource centres have an important advocacy role. Some centres were advocating community participation and a gender approach before they knew how to do it. It was important to popularise the idea among decision-makers and it posed a challenge for the next round of action based research.

The documentation and dissemination role is essential to promote approaches based on evidence of effectiveness. By drawing out the lessons from successful (and less successful) programmes, resource centres are able to suggest minimum conditions for success, and to direct resources and funding towards areas which have been shown to be effective and away from initiatives which seem to fail.

Resource centres have access to research results, which they analyse and make available for others. They repackage data to promote information and to help organisations to remain up-to-date and to gain knowledge. Information is also used to inform training and research. In this way resource centres play a vital role in keeping the sector memory alive. Resource centres adopt a demand responsive approach, anticipating future information needs in the sector.

They also ensure that the right information is disseminated to the right target groups. Information is fed into training programmes so that technical and non technical staff benefit from the latest research, and policy-makers receive information that enables them to make informed decisions.

Community based organisations, too, need relevant information at the right time. It is known, for example, that the greatest progress can be

## **How resource centres use information to build capacity in the sector**

Sector resource centres are recognised for their support to capacity building efforts in the water and sanitation sector. Access to unbiased information is one of the most crucial ingredients to enable informed decision making and sustained development.

- ◆ Sector resource centres focus on collecting and analysing data and disseminating information to strengthen capacity in the water and sanitation sector.
- ◆ Sector resource centres conduct applied research to better understand sector problems, generate new knowledge, influence policy and develop strategies for intervention.
- ◆ Information is packaged in a user-friendly manner appropriate for a range of users.
- ◆ Resource centres help organisations and individuals to access the information they need.
- ◆ As part of a global network, resource centres access a range of specialised information.

made in reducing water borne infections if a programme of hygiene education is introduced together with a new water supply. A resource centre will therefore take the lead in ensuring that, for example, school health education programmes have relevant information in a usable form at the right time, to coincide with a piped water system, a new well, or new pit latrines.

Currently, information held by resource centres is usually provided without cost, as there is not an established market for information. As the pressure for sustainability and efficiency grows, demand for good quality information is likely to grow with it. Information will be seen as having an economic value when it can be seen to lead to benefits of sustainability.

### Research

Many resource centres have a background as research organisations. Their experience helps them to ensure that research projects are action orientated and that they answer relevant and important questions. By managing information, resource centres identify gaps in knowledge and therefore generate the questions to motivate the next stage of research. A survey of resource centres carried out for the STREAM project identified a key difference between this approach and the traditional approach of some academic university departments, where the research role may be detached from the practical challenges of the sector.

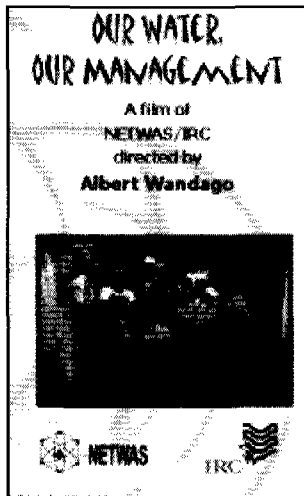


*A flyer to make people aware of services offered at the NETWAS documentation centre.*

### **Reaching the next generation – partners contribute to school sanitation and hygiene education**

Many schools lack clean water and hygienic latrines. IRC and CINARA have worked in collaboration with WHO in seven countries in Latin America to analyse the problems and to identify ways of improving school sanitation and hygiene education. Similar collaborative work has taken place between IRC and CREPA in West Africa.

Recently UNICEF and IRC worked together to develop a School Sanitation Manual with information and guidelines for schools to follow. These guidelines and a new approach will be tested in six countries, involving also NETWAS International in Kenya and NEWAH in Nepal. UNICEF is involving its education section along with its water and environmental sections. The new approach involves baselines studies, workshops at national and international level, an advocacy package and a revised manual.. Country experiences will be documented and lessons will be shared through the Internet. STREAM partners will be involved in this work until 2002.



*Videos is one way of disseminating learning experiences from the MANAGE action research programme by southern partners and IRC.*

Research is essential to develop and adapt the new knowledge that is necessary for capacity building. Sector staff need the opportunity to adapt knowledge generated locally or from other parts of the world to ensure that it matches the local environment. Adopting a learning approach will very much help sector staff to improve their skills and knowledge and to share their experience with others.

Increasingly research is done in collaboration with other organisations so that it can be conducted in more than one place or with more than one kind of community. For example, research may look at the question of cost-recovery for a sanitation scheme in peri-urban and in rural communities, and come up with different answers for different kinds of communities.

Research in the best centres is becoming more practical, increasingly focused on what a community, believes, knows and does. Everything from sustainable water schemes, to use of latrines and the general

## **Building capacity through participatory action research**

Resource centres can support capacity building for water and sanitation services through action research for sustainable development, particularly in a context of decentralisation and the involvement of the private sector.

The Participatory Action Research Programme, known as MANAGE, involved seven teams worldwide – CINARA from Colombia, NETWAS from Kenya, NEWAH from Nepal, SER from Guatemala, WASEP from Pakistan and IRC, from Netherlands.

Between 1994 and 1998 the approach was tested in 22 communities in six countries with a variety of water supply systems and service levels, representing a range of environmental, socio-economic and cultural conditions, and a variety of management systems.

Partners learned valuable lessons about innovative methods and about building management capacity within communities. These have been disseminated through manuals, country videos, training courses for partners, conference presentations and electronic networks.

The project helped centres to become more effective. For example, NETWAS (Network for Water and Sanitation International) was established in 1986 under the auspices of the UNDP/World Bank Water and Sanitation Program in Nairobi, Kenya, as one of the first International Training Centres (ITNs).

Co-operation developed between NETWAS and IRC with joint research and training. NETWAS has grown into a resource centre, providing a mix of activities including training, applied research, advisory and information services.

NETWAS and IRC work in a partnership that lets people make mistakes and learn. Resource centres invest in capacity building for the long term, without expecting immediate returns.

acceptance of basic hygiene measures depends on people taking decisions that they believe will lead to an identifiable benefit. Successful projects allow people to use their existing knowledge and beliefs and help them to acquire the new knowledge they need to achieve their aims.

Research of this kind has to be specific to communities and take into account a number of factors. For example, a village community may have clear lines of leadership and opinion formers. However, the village leadership and the women who collect water may have different ideas about the best sites for wells, or what constitutes acceptable water quality.

Communities growing up in new towns on the edge of cities may lack established structures and decision making process. Research organisations may need to work closely with local Government and with representatives of these new and changing communities.

Research is crucial to the other work of resource centres. The results contribute to the design of training programmes. Once data has been collected and the lessons have been drawn out, research drives new publication and the dissemination of up-to-date information.

## Training

The Task Force on Human Resources Development of the Water and Sanitation Collaborative Council in 1997 identified lack of consistent advice for training as a problem. Human resource development in the water and sanitation sector is crucial to capacity building, organisational development and building an environment for sustainable development.

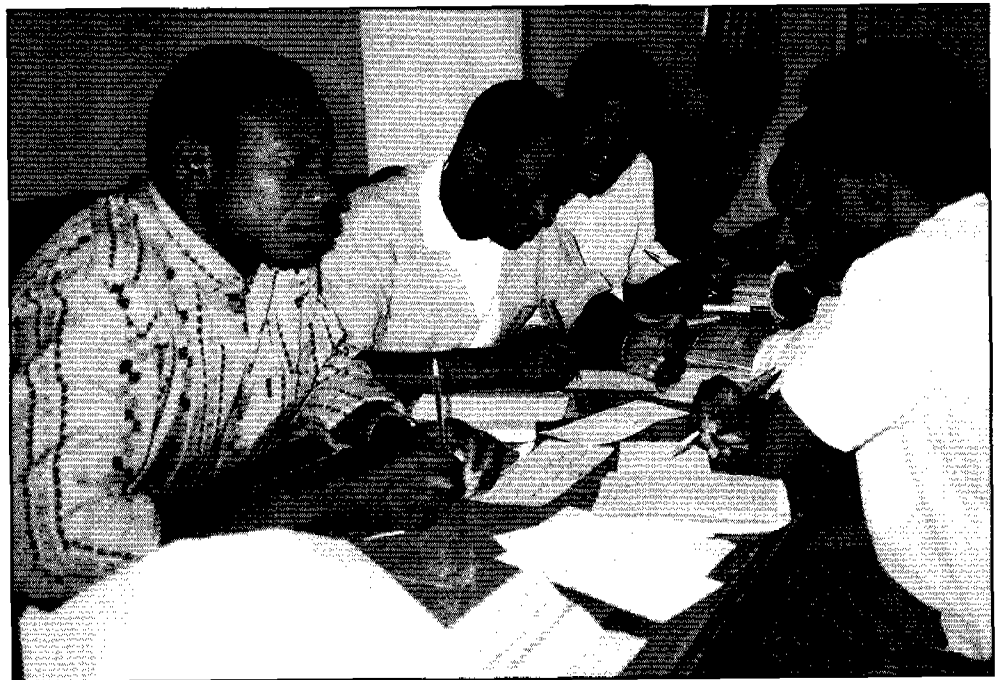
### **Training builds working relationships with partners**

NETWAS International, based in Kenya, offers regular courses, many of which have been jointly developed and run with partner organisations. These include

- ◆ Gender in Water and Environmental Sanitation, Hygiene Education and Promotion, Monitoring for Effectiveness, and Management for Sustainability (all with IRC),
- ◆ Solid Waste Management (with SANDEC / SKAT),
- ◆ Private Sector Involvement in Water and Environmental Sanitation (with UNDP / WB programme).

Such co-operation contributes to courses tailored to the needs of other countries in the region, including Malawi and South Africa.





*Multi disciplinary training helps professionals to understand other people's problems.*

Training by resource centres ranges from post qualification academic courses, to short courses for people who have day to day responsibility for water or sanitation projects. Some courses are tailor-made for policy makers to show, for example, how water and sanitation issues connect with other goals such as reducing ill health, eradicating poverty and increasing economic activity. Courses share practical experience about low cost and effective schemes. Multi-disciplinary training helps professionals understand other people's problems and encourages different organisations to work together. Training helps community leaders interact with formal organisations, and utility organisations to communicate with communities.

#### *Consultancy work*

Consultancy work can strengthen the technical capacity of a resource centre and keep staff at the cutting edge. Clients include Governments, the main water and sanitation providers, the scientific community, regional and local government and community level bodies. Clients also include NGOs within the country and external support agencies (ESAs). However, there is a danger if consultancy work becomes a main source of income to replace core funding. Resource centres try to avoid taking on routine consultancy work merely to gain an income. The aim is that the client and the centre go through a learning experience.





## **CINARA – human solutions for technical problems**

In 1985, a small working group in a technical department at University of Valle in Colombia began work with IRC, Netherlands, on slow sand filtration (SSF) and pre-treatment systems to purify water. In 1987, as part of the decentralisation process, Colombian mayors took responsibility for improving water supply and sanitation. With little technical support, they tended to choose complex water treatment technology that relied on chemical coagulation. These technologies were impossible to sustain due to a variety of technical, financial and administrative limitations in rural and small urban communities. In 1989, on the basis of good results from SSF and pre-treatment, a joint project of the Colombian and Netherlands Governments called TRANSCOL (Technology Transfer Programme in Water Supply Treatment) was developed using a non-chemical process, known as Multi Stage Filtration.

By 1997, 50 MSF plants were constructed in Colombia producing excellent results at low cost. The systems are managed by community based organisations. Local operators have little formal education but function with minimal outside support.

TRANSCOL became a test bed for capacity building. It emphasised the human element in transferring technology, encouraging people at political, managerial, technical and community levels to work together. Inter-Institutional Regional Working Groups (IRWGs) brought together professionals from key agencies, including the National Health Institute. Professionals learned about technology by using it in a multi-disciplinary setting.

Demonstration projects were designed to show communities and technical staff how the system would work, but concerns and disagreements could not be addressed on this basis. Demonstration projects became learning projects in which problems were solved through dialogue. Technical staff were trained in participatory techniques. Contact was made with formal and informal community leaders, followed up by house visits, focus group meetings, interviews and workshops. Efforts were made to hold meetings at times when women could attend. Today, the project has a more overt gender approach. Creative workshops for team building included painting, music, theatre, modelling and poetry, so that people who were not comfortable in meetings could express opinions, ideas and objections.

CINARA has developed into a resource centre with a regional and global reputation. It is both a Foundation and a University Institute, capable of academic and applied research working with a wide range of people. CINARA is part of a Colombian national sustainability programme. 20 Joint Learning Projects apply lessons from the TRANSCOL programme. The following important ingredients have been identified for success in technology-sharing:

- ◆ the presence of a leading organisation,
- ◆ a decision making platform that involves all stakeholders,
- ◆ a participatory approach to analysing problems with communities and institutions,
- ◆ informed decision-making and an ability to test solutions,
- ◆ participatory evaluation and information exchange.

The full story of TRANSCOL is told in *Technology Transfer in the Water Supply and Sanitation Sector: A Learning Experience from Colombia*, jointly published by IRC and CINARA. CINARA is involved in partnership work in Ecuador, Bolivia, Brazil, Pakistan, Nepal, Great Britain, Switzerland and Guatemala.

## What is the added value of resource centres?

**L**isting the activities of resource centres does not fully explain their role in increasing the capacity of the sector. It is a combination of the range of activities and the way that resource centres approach their work that makes them potentially so effective. There are a number of qualities which the best resource centres possess.

### **A sense of commitment and solidarity**

Professional staff employed at resource centres come from a variety of disciplines but they share a common commitment. Their core expertise may be in engineering, social sciences, research or in communication skills. By working together they gain strength from each other, share their experiences and pool their knowledge. They also remain focused on the overall aim which is to make a difference in closing the gap in

### **Key questions for the future development of resource centres at a national level**

An overview of case studies carried out by the IRC identified a number of major lessons for the development of strong resource centres at country level:

- ◆ the right mix of services,
- ◆ a better match between activities and sector needs, so that environmental sanitation does not lag behind water supply, and urban water management is given a higher priority,
- ◆ a stronger role for capacity building,
- ◆ growth so that centres benefit from interaction between different activities,
- ◆ better management tools and a business plan.
- ◆ performance criteria for outputs and objectives.
- ◆ external evaluation.

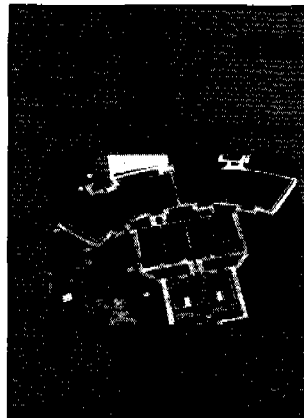
Factors that hinder development include:

- ◆ resource centres find it difficult to sustain activities without minimum core funding,
- ◆ many centres rely on a single major donor; withdrawing support puts stability at risk,
- ◆ lack of a planning means that services and products are insufficiently marketed,
- ◆ lack of sufficient collaborative links with regional and international networks, and limited long-term partnerships.

water and sanitation between the haves and the have-nots. Resource centres develop a culture where the staff are motivated by a desire to maximise their impact rather than maximise their income. There is a sense of solidarity between resource centres and also with communities which ultimately benefit from their intervention, especially those who cannot afford expensive solutions to their problems.

### **A culture of innovation**

Resource centres operate in a culture of innovation, flexibility and learning. They are at the cutting edge of developments, anticipating and responding to change. They rely on high quality communication inside and outside the organisation, so that they advocate new ideas. They are developing mechanisms for quality assurance, with external and internal validation.



*Resource centres operate in a culture of innovation and learning.*

### **Strategic focus, the right mix and long-term goals**

A resource centre needs a strategic focus, balancing its social mission with the need to survive as a business enterprise. A long term vision is needed to achieve innovative methods of funding, given that core funding is decreasing. Resource centres can expect to stabilise their futures as the importance of capacity building is recognised and their success in promoting high quality services is seen to bring results.

Resource centres need the right mix of core activities. Activities such as training and consultancy advice generate income which allows the centres to continue with research, documentation, publishing and advocacy work. This work may be less marketable in the short term, but allows resource centres to address long term sector needs, such as gender issues that lead to greater sustainability.

All resource centres need a business plan, to match their activities with their resources. They need to devote resources to training their own staff, to consolidate their management and marketing skills.

### **A proactive approach**

Resource centres anticipate and respond to the needs of the sector. They take a proactive approach through advocacy to raise awareness and by targeting information where it is needed. One example of this proactive approach is the role resource centres are playing in exploring ways to contribute to Vision 21 and in the implementation of the Framework for Action, to turn the vision into reality.

### Gender – Walk the walk

In their own recruitment policies resource centres reflect the need for change throughout the sector on gender issues so that programmes become more successful and sustainable. They actively recruit women professionals to ensure that innovative solutions embrace a wider perspective, and to demonstrate best practice in their own organisations. In IRC, for example, 21 of the 38 staff are women.

## Resource Centres and Networking

**R**esource centres are organisations whose reason for existence is about learning and sharing to bring about change. They have a natural interest in making links with other organisations, in building alliances and networking. Now these moves are being formalised at an international, regional and national level.

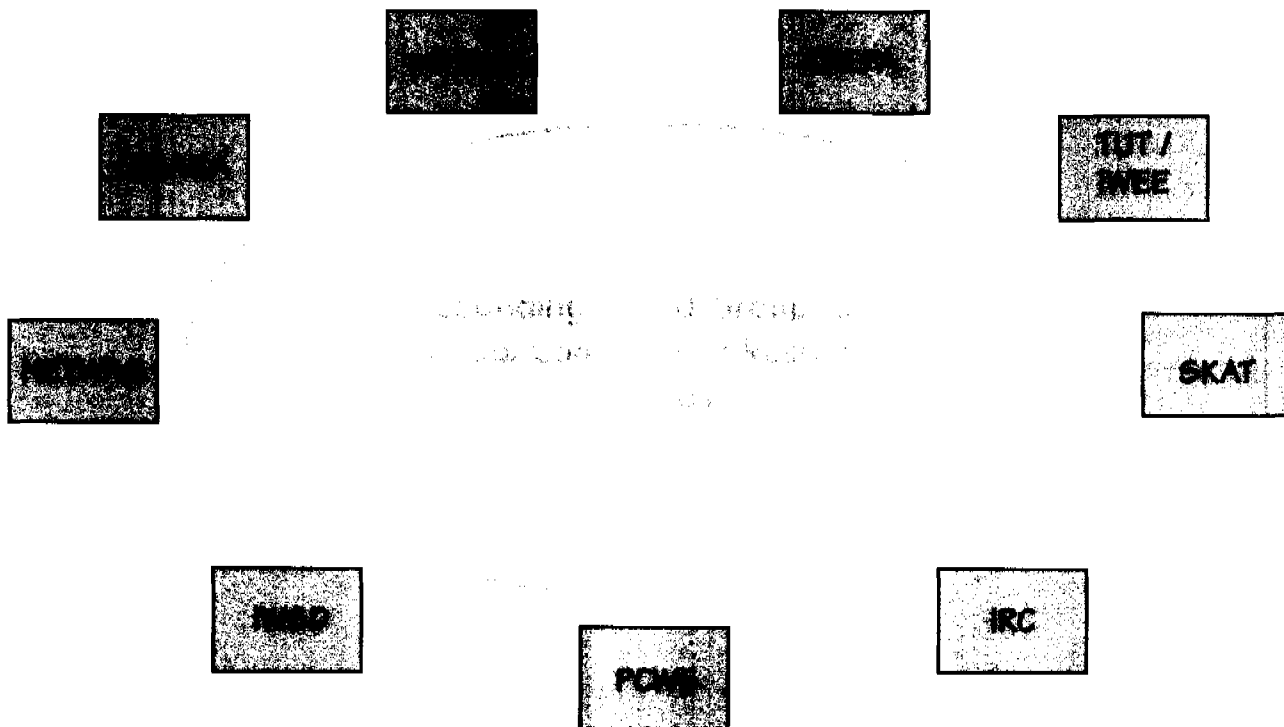
An international Ministerial conference in Noordwijk in 1994 and an evaluation of 25 years of IRC work made recommendations which led to the creation of the Study on Resources and Management (STREAM) funded by the Dutch Government. The STREAM project was asked to:

- ◆ Clarify the concept of resource centres and their experiences;
- ◆ Devise tools to develop resource centres and their management;
- ◆ Establish a core group of resource centres as the hub of a network for the water and sanitation sector;
- ◆ Advocate policy changes that lead towards the financial viability of resource centres and the networks they create
- ◆ Strengthen a number of existing resource centres.

STREAM developed a core group of resource centres around the world, which have been amongst the most active for a long period and which have a wide range of activities. In June 1999 they attended an international workshop *Towards an enhanced role of resource centres in capacity building* in Delft, The Netherlands. The conference made a decision in principle to set up an international network of resource centres to lead this work. The key principle aims were to encourage joint learning, knowledge generation and information exchange. A sounding board group was established to take this work forward and the Dutch based IRC was asked to act as co-ordinator.

A draft set of operating guidelines has been produced for the network, which will take the name *The Global Coalition of Resource Centres*.

## The STREAM Global Sounding Board



*Acronyms used in this booklet are explained on Page 24.*

### **Objectives of The Global Coalition of Resource Centres**

Draft operating guidelines set objectives for the Global Coalition of Resource Centres:

1. To represent the network internationally. A global core group shall provide leadership to the establishment of regional networks and alliances of resource centres.
2. To provide guidance for the development of tools and methods to improve the management of member organisations and increase their effectiveness and impact.
3. To advocate the vital role of resource centres in capacity building.
4. To promote the principles guiding the behaviour of resource centres in providing services to clients.
5. To enhance the image of resource centres by maintaining high standards of competence and professionalism.
6. To ensure that centres are sustainable through strengthening the management of member organisations, in particular by improving the marketing of services and products.

### **Capacity building in Africa**

CREPA started in 1988, and is now an inter-state institution covering 15 countries in West and Central Africa. CREPA has become a reference centre developing and promoting appropriate technologies and participatory approaches in water and sanitation.

CREPA covers training, applied research, demonstration projects and consultancy as well as an information and documentation centre. It develops training modules in partnership with northern and southern institutions.

CREPA is a member of the water and sanitation francophone network in partnership with Office International de L'Eau, Environment Canada and Programme Solidarité Eau.

The coalition will act as a forum to allow the sharing of information and expertise, actively encourage the discussion of issues of mutual concern among member organisations, and maintain dialogue with international funding agencies and funding organisations. Its strategic aim will be to produce leadership to establish a network of national resource centres, each of which will belong to a regional alliance.

One purpose of the coalition is to ensure that members subscribe to core values and standards. To this purpose the draft guidelines include a Code of Conduct emphasising the need for independent judgement and for high standards of competence and professional performance.

The Code ensures that centres uphold the principle of gender equity and undertake to implement a gender perspective into all their activities.

Centres undertake not to accept commissions which affect their independent judgement. They also agree to a common auditing process.

The Coalition will function through occasional meetings, but increasingly through electronic communication. The IRC is already responsible for hosting a web-site and an electronic newsletter which involves other organisations, and this method will be used to make the links between network partners more formal.

### **Regional Alliances**

At the same time as STREAM established a Sounding Board Group it also sketched a possible framework for regional networks, each of which would include a range of countries, broad enough to include a variety of experiences, and close enough to make joint work possible. In a number of regions one resource centre has already agreed to take the lead in forming a regional network.

### **NGO alliance in Northern Africa and the Middle East**

ALMAE is an alliance for water in the Maghreb/Machrek region, focusing mainly on new approaches to water management, emphasising the role of grass roots NGOs in Lebanon, Jordan, Egypt, Mauritania, Algeria, Tunisia and Morocco, where its executive office is based.

A support group of Oxfam, Quebec, Comité Catholique Français pour le Développement, pS-Eau, and the International Secretariat for Water provide assistance.

The co-ordination committee and support group have proposed giving ALMAE a more professional role as a resource centre network.

pS-Eau is facilitating the process on behalf of STREAM. ALMAE and STREAM will investigate building sector support or building up resource centres in Morocco, Tunisia, Algeria and Mauritania.

Not every centre is at a similar stage of development, and some need to strengthen aspects of their work before they cover the broad range of activities most resource centres embrace. A functioning network is one way of accelerating this process. Although the need for face-to-face meetings will continue, the spread of electronic communication makes such networks more viable.

## Regional Group Facilitators



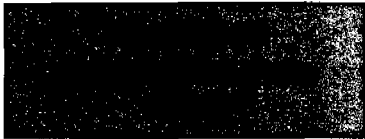
Botswana, Eritrea, Ethiopia,  
Kenya, Lesotho  
Malawi, Mozambique,  
Somalia, South Africa,  
Sudan, Swaziland, Tanzania,  
Uganda, Zambia



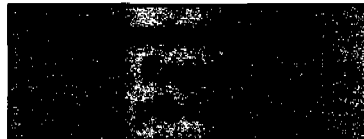
Benin, Burkino Faso, Cameroon,  
Republic of Congo, Cote d'Ivoire,  
Gambia, Ghana,  
Guinea, Guinea-Bissau, Senegal,  
Liberia, Mali, Nigeria,  
Sierra Leone, Togo



Peru, Mexico,  
Venezuela,  
Nicaragua,  
Ecuador,  
Bolivia



Bangladesh, India,  
Myanmar, Nepal,  
Sri Lanka, Thailand,  
Vietnam



Algeria, Lybia,  
Mauritania, Morocco,  
Lebanon, Palestine,  
Jordan



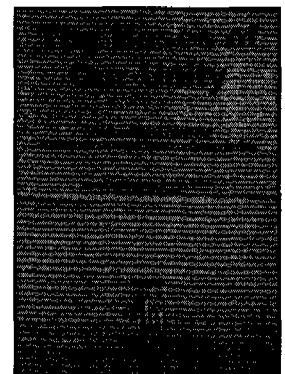
## Asian centres form regional network

Twelve resource centres from eight countries established The Alliance of Asian Resource Centres (AARC). They identified ways to link each centre to the Asian Vision for Water.

Many centres are small but efficient, strong in capacity building, partnerships and resource sharing. Joint work and knowledge sharing will make them more effective. A task force will tackle regional water and sanitation crises.

AARC adopted the Bangkok Declaration of Principles placing the Asian Vision 21 Statement at the core of their work. They adopted a moral, ethical and equitable code of conduct, and agreed to abide by the standards of the Global STREAM Alliance. They plan to raise their profiles, identify training needs and achieve greater financial stability and independence.

The Asian centres are from Vietnam, Myanmar (Burma), India, Bangladesh, Sri Lanka, Nepal, the Philippines and Thailand. The Philippine Centre for Water and Sanitation will co-ordinate the Alliance and has published (below) a report on the consultation workshop.



*By sharing experiences professionals spread the lessons from positive and negative lessons.*



### **Networking resource centres in Africa**

African ITN centres adopted operating guidelines in 1996. Their objectives were:

ITN centres in Africa are:  
CREPA (Burkina Faso),  
NETWAS (Nairobi), NCWSTI  
(South Africa), TREND  
(Ghana) and IWSD (Zimbabwe)

- ◆ to promote a free flow of information between individuals and organisations in Africa,
- ◆ to solve problems using local resources, taking local conditions and cultural traditions into consideration,
- ◆ to provide information, technical advice and assistance, especially to individuals and organisations who lack the means to obtain such services otherwise,
- ◆ to exchange information and co-operate on projects of mutual interest with experts, resource centres and specialised organisations outside ITN Africa,
- ◆ to maintain a computerised database and to evaluate the effectiveness of ITN Africa,
- ◆ to promote efficient and effective means of communication,
- ◆ to act as a resource base for water and sanitation issues.

Networks cannot be imposed, depending on the commitment of members who share a common interest and see real benefits from belonging.



## The way forward

**R**esource centres have the potential to play a significant role in bringing about changes to increase the institutional, organisational and human capacity over the next ten years. However, they will only play that role if they live up to their promises, individually and collectively.

The first condition is that they meet people's expectations for high quality services. The information that centres provide, the analytical role they play in policy debate, the research they undertake, the training that they offer and the advocacy role they take through publications and in other ways must be authoritative and independent and must stand the test of time. Resource centres must have a reliable and proven track record for excellence.

Collectively, the global coalition must strengthen the development of resource centres and give them an effective voice. This means that the secretariat for the global alliance must work efficiently and effectively, supporting resource centres and would-be resource centres to become stronger in the areas where they currently lack experience. Once the alliance is up and running, it must support the centres, rather than becoming an extra duty for resource centres. Networks only thrive and survive when each of the member parties obtains a benefit.

The Coalition will support VISION 21 and in particular the process From Vision to Action. The Coalition believes that there must be a ten-year commitment to capacity building, and plans to become an advocate for that process, and part of the effort of making it happen.

Coalition partners who are part of a global network understand that streams of knowledge flow from springs that originate deep within the earth. They can only play an effective global role by remaining close to the people and their needs and realities. On a global and regional scale the coalition and networks will make full use of information and communication technology to exchange information, ideas and experiences, but national resource centres will continue to develop strong links with local organisations and people.

The global coalition is based on the concept of streams of knowledge. At their best streams are pure, full of movement and reach the parts where they are most needed. The ultimate test of a stream is that people and communities can drink from it and use the waters to survive and develop. That too is the test for resource centres. People have a thirst for knowledge and a need for change. The resource centres must direct their streams of knowledge to meet those needs. ■



## List of Acronyms

ALMEA	Maghreb-Machrek Alliance for Water in Morocco
CFPAS	Centro de Formação Profissional de Aguas y Saneamento
CINARA	Instituto de Investigación y Desarrollo en Agua Potable, Saneamiento Básico y Conservación del Recurso Hídrico
CREPA	Centre Régional pour l'Eau Potable et l'Assainissement
GARNET	Global Applied Research Network
GJTI	Gujarat Jalseva Training Institute
IHE	International Institute for Infrastructural, Hydraulic and Environmental Engineering
IPD-AOS	Institut Pan-Africain pour le développement - Afrique de l'Ouest/Sahel (Panafrikan Institute for Development - West Africa/Sahel)
IRC	International Water and Sanitation Centre
ITN	International Training Network
IWEE	Institute of Water and Environmental Engineering
IWSD	Institute of Water and Sanitation Development
NCWSTI	National Community Water and Sanitation Training Institute
NEDA	Netherlands Development Assistance
NETWAS	Network for Water and Sanitation
NGO	Non-governmental Organisation
pS-Eau	Programme Solidarité Eau
RCs	Resource Centres
SEUF	Socio -Economic Unit Foundation
SKAT	Fachstelle der schweizerischen Entwicklungszusammenarbeit für Technologie-Management (Swiss Centre for Development Cooperation in Technology and Management)
STREAM	Study on Resources and Management
TREND	Training, Research and Networking for Development



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