



I R C

International Water and Sanitation Centre

WHO Collaborating Centre

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IRC INTERNATIONAL WATER AND SANITATION CENTRE

IRC is an independent, non-profit organization. It is supported by and linked with the Netherlands Government, UNDP, UNICEF, the World Bank and WHO. For the latter it acts as a Collaborating Centre for Community Water Supply and Sanitation.

The centre aims at change towards more people-oriented water and environmental sanitation programmes. It aspires to achieve this through the generation, communication and application of information on priority issues, and increasingly, through capacity building for support services and information management at country level in collaboration with resource centres and partner institutions.

All activities evolve in partnership with government and non-government organizations in developing countries, United Nations, bilateral donors, and development banks.

Emphasis in programme activities is on community-based approaches in rural and peri-urban water supply and sanitation systems and water resources management. They include community management, hygiene promotion, gender issues, monitoring, finance and operation and maintenance. Effective communication is emphasized at all levels.

The multi-disciplinary staff provides support to activities at field level through research, training and briefing, evaluation and advisory services, publications, documentation services and advocacy.

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ANNUAL REPORT 1994

IRC
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*Cover photo: Indonesian Holy Water Dance at IRC's 25th Anniversary Celebration.
Photo: Foto Thuring BV, The Hague*

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Foreword

The Ministerial Conference on Drinking Water and Environmental Sanitation held in Noordwijk, the Netherlands in March 1994 recognized the urgency of resolving the imminent water crisis facing our planet. It was an opportunity for leaders to demonstrate and reassure their people that they had not forgotten their commitments at Rio towards sustainable development of drinking water and environmental sanitation services for all. It was reiterated that business as usual is not enough. Our resources - people, water and finances - must be used more effectively and efficiently if we are to win the race against explosive population growth and diminishing water resources.

The conference recognized that water is a people's business, which implies that the water and sanitation sector must centre its programming around the people it aims to serve. Links must be created between holistic national water supply and sanitation policies on the one hand, and needs, desires and opportunities at the community level on the other. To achieve that, changes are needed - at both government and community level. Behaviour must change on the part of all those involved in the development of water supply and sanitation services and water resources management, starting with a change in approach on the part of governments on how to deal with real partnerships. This was eminently expressed in the first chapter of the Action Programme of the Ministerial Conference: "Decisions need to be made in partnership and based on dialogue about the needs and attitudes of the communities, and on what they can manage, maintain and pay for. Behaviour at political and government level, as well as in the water supply and sanitation sector, must change as required." Gradually this will enable a dialogue, creating the possibility for behavioural change on the part of users in terms of hygiene and responsibility for cost sharing and systems maintenance. In turn, sector improvements will have an opportunity to become sustainable.

To foster this process a different way of programming is required. In programming 'the root of all good' is effective communication. Effective communication includes, and should be the basis for listening and two-way dialogue, advocacy, social mobilization and participation. The right mix of communication mechanisms is an essential condition towards sustainable water and sanitation for all. *Political advocacy* is crucial to convince national governments of the importance of providing access to water and sanitation services to all of their citizens. *Social mobilization* can help support implementation of water and sanitation services that will benefit communities, be they rural or urban, through self-reliant and sustainable efforts, and, most importantly, *dialogue* among men and women in stakeholders groups will ensure that the services provided contain the necessary components to guarantee sustainability and user satisfaction.

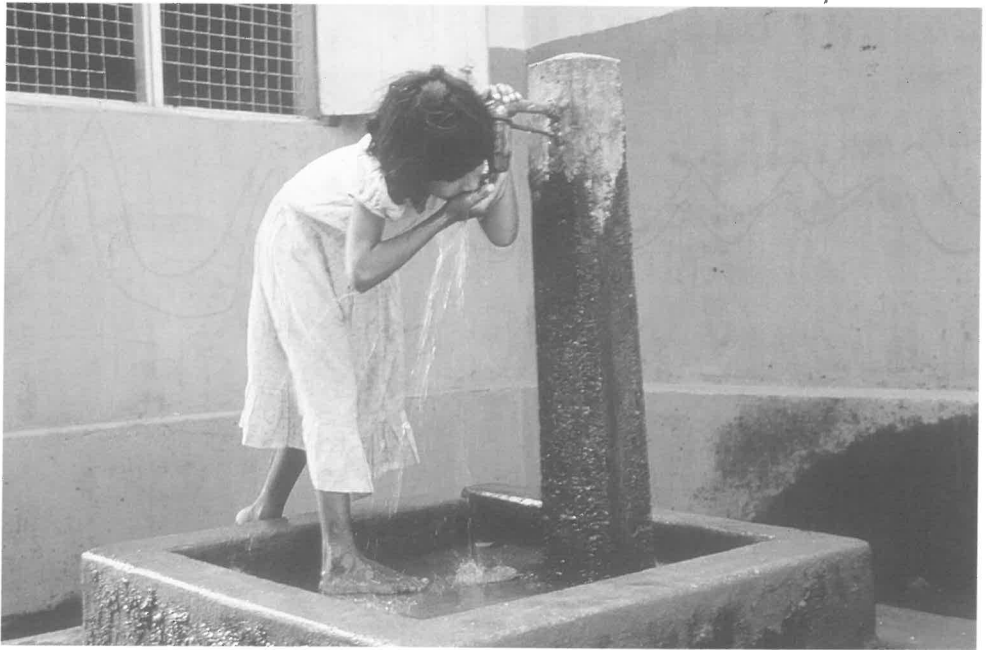
Proper capacities at all levels concerned are a prerequisite for both the change towards a people orientation and the holistic approach required. To facilitate this new way of working, the infrastructures already in place must make the necessary adjustments. This may require awareness raising; training; reorganization; or new ways of programming,

decision making and implementing programmes and projects. Through working together communities, governments, institutions, NGOs, the private sector and other partners, will perceive the benefits of working together towards a common goal. Training on how to deal with people, and on how to communicate, needs to be integrated into capacity development programmes.

With capacities available, communities involved, and the political level recognizing the importance of water as a priority, resource mobilization will have a larger chance of being effective at both government and community levels. Communities will be in a position to protect their water sources and manage and maintain their water systems themselves. Effective cost sharing and community financing systems can be implemented, thus supplementing and making optimal use of external support.

It is now time to make the political commitments made at the Ministerial Conference operational, to strengthen the recognition that the orientation towards people's needs and aspirations are an indispensable starting point, and to develop capacities for the required changes at all levels. It is now time to make water and sanitation for all a real world priority.

J.M.G. van Damme
Director



Girl at Tap. Photo: IRC, The Hague

Country Support in 1994





Introduction

Since its establishment, IRC's work has centred around information generation and exchange. Increasingly the centre has become more involved in substantive sector issues, particularly the social issues such as community management, hygiene promotion, gender issues and community-based technologies. IRC has always directed itself towards the effective implementation of sector policies, and acts as a bridge between these policies and sector programmes in the field. IRC's strong field orientation and the programmes and mechanisms with which it works make the centre particularly well-suited to do this.

As mentioned in the foreword, the people-orientation being espoused by the sector requires changes in approach and behaviour of those involved in water supply and sanitation programmes. Without effective communication, social mobilization and participation, these changes cannot be brought about. Without these changes, water supply and sanitation services will not have a sustainable future.

In view of the need for these changes, IRC reviewed and fine-tuned its mandate during the course of 1994, reaffirming its intention of *putting people first* in development of sustainable water supply and environmental sanitation facilities. IRC's corporate goal is in harmony with the strategies concerning these issues in the sector. The centre aims at change for more people-oriented water and environmental sanitation programmes. Accordingly, capacity building for support services and information management at country level, in collaboration with resource centres and partner institutions is gaining emphasis.

Aside from the renewed commitment to people-oriented approaches and partnerships, there is a critical need for protection of our water resources. The activities in which IRC was involved in 1994 clearly demonstrate its commitment to all of these trends. For the Ministerial Conference IRC played a key preparatory role, and for the OECD/DAC Meeting on Water Resources Management, IRC prepared a paper outlining the efforts of external support agencies in the area of water resources management.

A four-year community management project for DGIS further reflects IRC's commitments, as does its new work on programming for communication, mobilization and participation. Work on gender issues continued with the publication of three regional field guides on implementing gender approaches in water supply projects. Hygiene promotion continued through new publications and a training course, and operation and maintenance work produced a training manual on which a course will be based in 1995. Research continued on pre-treatment and multi-stage filtration technologies, and information management activities continued on behalf of both the Water Supply and Sanitation Collaborative Council, and the Netherlands Ministry of Housing, Spatial Planning and the Environment. The growth of the *IRC Newsletter* into a sector newsletter with the new name *Water Newsletter*, now the vehicle for news from the Collaborative Council, is an example of IRC's partnership orientation. Development of activities related to school sanitation, urban issues, and water resources management were emphasized and will be strengthened in years to come.

1. Research

Background

IRC has been involved in research for many years, and recently these activities have grown to be an increasingly large part of the centre's work. By focusing on sector priorities, the research, which is basically field-oriented, links the policy and concepts regarding water supply and environmental sanitation issues, with their practical application in the field. The selection of topics for research is determined together with partners, and directed at the sector problems which can best benefit from IRC's expertise. Much of the research is carried out by or with partners in the field and each of the research topics are supported in varying degrees by desk research. The primary purpose of this work is to generate knowledge, but it also has a significant learning component. The research carried out by IRC and the exchange of the knowledge gained are the basis for the centre's collaborative efforts with its partners. Exchange also occurs continuously through training courses, advisory missions and publications.

Research activities in the field are usually funded by external support agencies (ESAs), and are, for the most part, *integrated*, including technical, social and environmental aspects. They aim to support national organizations in developing countries to develop and test community-based implementation strategies for water supply and sanitation programmes. Desk studies tend to deal with areas where new knowledge is needed to meet demands from the field, or to bring together scattered knowledge and experience. They lead to field projects which incorporate hands-on experience, and often have a publication as a by-product.

GENDER ISSUES

The involvement of women in drinking water supply and environmental hygiene programmes is no longer a novelty, but the form their participation takes continues to evolve. While women's knowledge, needs and resources were neglected when men made the decisions, at times men felt neglected and tended to withdraw when women became involved in training and management. This withdrawal placed an additional burden on the women. The need is now recognized for an improved balance between the roles of men and women through a gender strategy which divides work, influence

and benefits more equally, to the benefit of both the people and the programmes they are involved in.

It became clear that practical guidelines were necessary on how to make the participation of women more visible and improve their decision-making roles in planning and implementation. With funding from the DGIS Spearhead Programme for Women, three workshops were held in 1993 to produce region-specific field guides. The guides were to be written by the participants, and would contain recommendations and strategies for a gender approach, to ensure that roles of both men and women, and the changes therein, would be addressed. The workshops were held in Sri Lanka for Asia, in Kenya for Africa, and in Colombia for Latin America. During 1994 the guidelines, written by and based on the experiences of the participants, were published in the Occasional Paper Series. *Together for Water and Sanitation: tools to apply a gender approach* was the product from the Sri Lanka workshop. *Working with Women and Men on Water and Sanitation* and *Mejor Cuando es de a Dos: el género en los proyectos de agua y saneamiento* were produced by the Kenya and Colombia workshop respectively. Subsequent to the workshops, the local facilitators and IRC staff met to draw lessons learned from their experience, with an eye on future workshops. The product of their discussions is the paper *Lessons Learned on How to Implement a Workshop on Gender in Water and Sanitation Projects*.

Since 1991 IRC, together with PROWESS, has been producing the annual abstract journal *Woman, Water, Sanitation*. From 1994 through 1996 publication is ensured through funding from UNICEF and the UNDP-World Bank Water and Sanitation Program. The journal is unique in that it is entirely devoted to gender in the water supply and sanitation sector. It contains, among others, abstracts of recently published and unpublished documents and audio-visual materials, with emphasis on work by developing country nationals. Each issue also contains a state-of-the-art report on one specific subject. This year's state-of-the-art was devoted to sanitation.

As a member of the Water Supply and Sanitation Collaborative Council's Working Group on Gender Issues, IRC contributing a chapter on training to the Group's two gender issues sourcebooks, one for water and sanitation projects and one for policy level. Staff members presented a paper on men and women, water and waste and attended gender workshops; and invitations were received to participate in gender activities at the 4th World Conference on Women in Beijing, China in 1995 (see Annexes IV and V).

HYGIENE AND BEHAVIOURAL CHANGE

Background

Only through the hygienic use of new facilities can improved water supply and sanitation systems result in the health benefits for which they are designed. This implies that approaches must be developed which bring about changes in human behaviour. To do this, it is not enough to know how people behave; we must also know why.

The study of hygiene behaviour also provides information about how diseases are spread. Water and sanitation-related diseases account for a high proportion of deaths and illness in rural and peri-urban communities. To help people protect themselves and their children, the multiple links between human behaviour and disease transmission must be understood and recognized.

Hygiene Promotion

Lending its expertise to the Netherlands Embassy in Cairo, *Egypt*, IRC conducted two successive advisory missions for DGIS concerning the development of hygiene education activities in the Fayoum Drinking Water and Sanitation Project in the Fayoum Governorate. As a result of findings in the first mission a partnership approach was proposed incorporating user involvement, hygiene education and gender awareness. The second mission, which included a two-day workshop, yielded a proposal for a four-year hygiene education pilot project and another for a three-year pilot project combining hygiene education with the introduction and implementation of improved on-site sanitation.

Next to advisory support, training is another mechanism to promote the importance of hygiene. For the second consecutive year the course *Promotion of Hygiene Behaviour Related to Water Supply and Sanitation* was offered at IRC. The course has now become a regular part of the IRC course curriculum.

Publications on hygiene included *The Use of Structured Observations in the Study of Health Behaviour*, published in the Occasional Paper Series, and the translation of the Technical Paper *Just Stir Gently: the way to mix hygiene education with water supply and sanitation* into French as *L'Union fait... la santé! Intégrer l'éducation à l'hygiène aux programmes d'eau et d'assainissement*. (see Annex III).

School Sanitation

The school environment can play an important role in altering children's basic behaviour and imparting knowledge. It is precisely that which makes the establishment of a methodology for the development of school sanitation and hygiene education, tailored to the specific conditions and cultural backgrounds of a country or region, so important.

Activities to review and assess the status of school sanitation, which began with support from WHO, SIDA, SDC and PAHO in Latin America in 1992, were set forth in Africa and Asia in 1994. To streamline the review process, a checklist was developed to be used for country reviews and monitoring of ongoing school sanitation programmes. In Africa studies were carried out in *Kenya* and *Ghana*. In Latin America, CINARA has developed detailed action plans for school sanitation activities in *Colombia*. IRC assisted with assessing the objectives and strategies, and has provided information on school initiatives in other countries. In Asia studies were carried out in *Nepal* and *India*. The Nepalese NGO Women and Environment had begun a review at the end of the year. Information is being exchanged with Asian partner organizations to initiate additional school sanitation activities in the region.



School children in a Madras government school queue up for water.

Photo: Sargu, Madras, India

In India, together with the national voluntary organization PREPARE, an assessment was made of the water supply and sanitation situation in a number of government and private schools. During the assessments teachers and students identified problems and solutions through using techniques such as mapping. Discussions were held with government institutions and NGOs to identify the actors working on school sanitation issues in Madras, and a proposal was prepared to improve the school sanitation situation in and around the city. The proposal is a part of a larger comprehensive school health programme. Parallel to the preparation of the proposal, a meeting on promotion of sanitation in communities through schools was organized by IRC and PREPARE. Experiences in working with water supply and sanitation issues in poor urban communities were shared, and organizations were stimulated to become involved in hygiene education activities.

COMMUNITY FINANCING

Community financing, through user payment for services, is being increasingly promoted as a means of achieving the goal of safe water and sanitation on a sustainable basis. But asking users to make a larger contribution to the costs of improving services involves far more than new financing mechanisms alone. A closer and much more equal relationship will be needed between communities and agencies, and solutions must be worked out in accordance with local conditions and within a framework of partnership.

During the year a publication on the application of micro-credit schemes in water supply and sanitation projects was prepared by an IRC staff member together with a consultant. The publication is based on a review of some 80 documents the subject. It will be published at the beginning of 1995 in French, and will also be translated into English.

OPERATION AND MAINTENANCE

There is a growing need for governments, donors and NGOs to improve the performance of their investments as well as to sustain benefits for the communities concerned. Proper operation and maintenance of water supply and sanitation systems is one of the most important factors contributing to long-term sustainability and consequently to further successful sector development.

It appears that the management of operation and maintenance lends itself very well to training. For the past few years, in the context of

its membership in the Water Supply and Sanitation Collaborative Council's Working Group on Operation and Maintenance, IRC has been active in the production of a successful training course package on the subject. It aims to contribute to improved management of operation and maintenance in rural drinking water supply and sanitation. The package, completed with financial assistance from WHO, underwent intensive field testing and revision in 1993, and the final version was made available this year. A training course based on the package is being planned for West Africa next year.

In Harare, *Zimbabwe* IRC assisted in a workshop on O&M, which was sponsored by WHO and attended by representatives of health ministries from 12 countries of Anglophone Africa. A similar workshop will be facilitated by IRC and CREPA in 1995 in Ouagadougou, Burkina Faso for 12 Francophone African countries.

Work continued on an Occasional Paper entitled *Making Your Water Supply Work*, which was near completion at the end of the year, and a new publication on linking technology choice with operation and maintenance was started.

URBAN WATER SUPPLY AND SANITATION

Between 1990 and 2030 the global population will grow by about 3.7 billion. Ninety percent of this increase will be in developing countries, and of this, ninety percent will be in urban areas. Municipal authorities in developing countries are thus being faced with unparalleled urban growth, which is leading to an increasing number of people without access to services. Not only is the capacity of the existing systems stretched to the limit, their functioning is also deteriorating due to problems in management and inability to finance operation and maintenance or system augmentation. The result of this situation is most pressing in the low-income areas, where conventional approaches are often inappropriate. Urban settings offer different challenges than rural areas, not only as a result of the number of people to be serviced but also because of the integrated nature of all basic infrastructure services.

Research indicates that women in urban areas remain more directly affected by a lack of adequate service levels than men. For example, they often engage in income-generating activities, which must be interrupted by the necessity to collect water during limited hours of delivery or supply. Participatory evaluations conducted with UEBM in *Honduras* and earlier research with IDEAS in *Peru* have

confirmed this, indicating that the high degree of people's participation in Latin America requires participatory strategies with a strong gender component. New approaches are being tried out in many countries, not only in technology, but also in management procedures, cost recovery and community relations.

In general, approaches to urban water and sanitation are poorly documented and not available for replication or adaption elsewhere. Focusing on social and organizational aspects, IRC has documented experiences on this subject, including a community-based sanitation project in Baldia, Pakistan. At the end of the year a publication describing experiences in operation and maintenance in low-income urban areas in India and Thailand was near completion. The publication is the result of a five-year project with IHS in the Netherlands which investigated operation and maintenance requirements for sanitation options in low-income urban areas of these two countries.

A large part of the urban population lives in informal settlements, which are usually illegal and therefore excluded from basic urban infrastructure services. Governments are gradually accepting the fact that legalizing and upgrading these areas offers the best solution for improving the living conditions of such a large part of the population.

In *Kenya* UNCHS (Habitat) has been developing a new methodology to be used in the preparation of informal and low-income settlement improvement projects. The computerized approach, called Visual Settlement Planning (ViSP), is based on aerial photography, satellite images, and other similar techniques. By scanning the images into a computer, images of a given area are generated which can be used as a basis for legalization procedures and can also be used to visualize alternative options for the provision of infrastructure services such as roads, water points and sanitation blocks. IRC carried out a socio-economic and infrastructure survey for Habitat as part of the field testing of this new methodology in the Kwa Rhoda Settlement in the city of Nakuru. The purpose was to test how the materials developed can be used to work with the community to enhance their involvement in planning for infrastructure improvements, and to gain insight into the problems experienced with present infrastructure conditions.



Social worker discusses community improvements with water committee members in Kibera, Kenya. Photo: M. Wegelin-Schuringa, IRC

Other advisory and research activities concerning urban water supply and sanitation included an appraisal mission, on invitation of KfW, of its project on urban sanitation which is carried out by HUDCO in India, and a field survey in Kibera, Kenya focusing on latrines, and taking into account water supply, drainage, solid waste and access.

In an effort to determine the best way to approach the urban issue, a catalogue of case studies is currently being compiled on community-based approaches to urban water supply and sanitation. A collection of articles and other literature in English, Spanish, Portuguese and French is being prepared for the same purpose.

INTEGRATION OF TECHNOLOGY

Background

IRC's approach includes a focus on social aspects ('software') such as behavioural change and community management, but certainly recognizes technology ('hardware') as an important aspect of the overall approach to water supply and sanitation. From a people orientation point of view, integration of these and other aspects are essential for the success of sector projects and programmes. This integration is characteristic of all of IRC's activities. Using approaches adapted to the local setting and providing national and local staff with hands-on experience allows projects of a more technical nature, after having proven successful, to be implemented on a larger scale with integration of the necessary software aspects.

Pre-Treatment

The Pre-Treatment Methods for Rural Water Supply (PRET) project aims to optimize rural water supply treatment through a combination of slow sand filtration and coarse media filtration. The project began in 1988 in *Colombia*, with funding from DGIS. CINARA (Centro Inter-Regional de Abastecimiento y Remoción de Agua), at that time a working group at the University of Valle in Cali, has been IRC's partner since the project's implementation. Results of the first research phase, which ended in 1993, have demonstrated the possibility for wide-scale application of slow sand filtration in combination with pre-treatment.

The second phase, made possible with additional funding from DGIS, will continue through December 1995. It will concentrate on technical and economic optimization of the most promising of the pre-treatment technologies identified thus far, updating of preliminary guidelines for the use of coarse media filtration, and the review of potential application of pre-treatment systems to optimize conventional water treatment processes. Guidelines being developed in the project will enable practitioners to establish appropriate combinations of filtration to cope with the hygiene risk and the load of suspended solids in the raw water sources.

The project has caused an important upheaval in the international attitude towards multi-stage filtration, which can treat lightly to heavily polluted water sources. Project results are meeting with a lot of interest and have been presented in several fora including meetings in Latin America, Europe and China, while in Colombia

itself, active promotion of the pre-treatment work by CINARA has resulted in a decision by a township in the region to install a combination of five slow sand filtration/pre-treatment plants rather than compact chemical plants as originally planned.

The project also creates a great opportunity for capacity building: to date one CINARA engineer has obtained his MSc and another five are presently doing their MSc research in the project.

Transfer of Multi-Stage Filtration

A strong aspect of IRC's field orientation is imparting knowledge in those involved in projects through learning by doing. An excellent example of this 'development and demonstration' approach is the Transfer of Slow Sand Filtration in Colombia (TRANSCOL) project. The project, funded by DGIS, was initiated in 1989 by CINARA and IRC under a bilateral agreement between the Colombian and Netherlands Governments.

Over the past several years low-cost drinking water treatment by slow sand filtration has been introduced and accepted in the Valle and Cauca regions. The success of the approach and the promising research results on pre-treatment led CINARA and IRC to establish regional working groups to implement two development and demonstration projects on multi-stage filtration in each of eight other regions in Colombia. The working groups will also act as advisory groups for water supply development in their region.

Now, five years after the project's inception, community-managed multi-stage filtration systems have been installed in 16 villages. In another three work is continuing. Characteristic of the project are a multidisciplinary team approach, the use of innovative participatory techniques for both technical and social aspects, and the replication of the technology in other projects in the region. The project meets with very good response in all regions. Each scheme has a community support group, and it appears that the transfer project owes its success to a combination of capacity building and learning at the local level. Collaboration with other Latin American countries is being considered.

COMMUNITY MANAGEMENT

At the end of 1993, with support from DGIS, a four-year action research project on community management began. The project

assists communities and agencies in six developing countries to assess and enhance self-reliant management of their improved rural water supply systems. Partners are PAID in *Cameroon*, CINARA in *Colombia*, Agua del Pueblo in *Guatemala*, NETWAS in *Kenya*, NEWAH in *Nepal*, and the Aga Khan Rural Support Programme in *Pakistan*.

In October and November a six-week workshop was held at IRC during which teams from the collaborating institutions developed a joint framework for the participatory action research of community management of rural water supply and sanitation in their communities. State-of-the-art country studies revealed the status of community-managed rural water supply in each country, and guidelines were established on the basis of which country plans for 1995 were made. Next steps in the short term include selection of the action research communities, regional workshops on methods and tools, and problem identification and appraisal with the selected communities.

An international advisory group has been established to support the execution of the project. Its role is to monitor and advise on project planning and implementation, and to support the dissemination of research findings. The group met for the first time parallel to the workshop, to review the project's first inception report and to comment on action research designs for the collaborating institutions, and their annual work plans.

Latin America

In southern *Honduras*, the Ministry of Health (SANAA) has been implementing water supply and sanitation services in 46 communities in the rural Choluteca region with help from a local consultant. Together with the Ministry of Public Health (UNEPAR) in western *Guatemala*, 113 water supply systems are being constructed in Quetzaltenango as part of a similar project. IRC has been involved in these projects since 1992. In both projects hygiene education and community management continued to be prime priorities, as they are key tools for proper functioning and adequate use of water. Training modules for hygiene education and community management developed over previous years were elaborated and field tested, and their implementation was begun.

With the three years of funding provided by KfW, the project in Guatemala, which ended this year, produced not only a set of training materials, but a skilled project team at UNEPAR, which is

ready to set up a Community Education Unit. The unit will carry out learning activities at community level with the aim of producing training materials and to develop extension workers' ('promotores') skills in working with communities. This implies a transfer of knowledge, skills and products to other water projects carried out by UNEPAR in different parts of Guatemala.

In Honduras the project will end in June 1995. The training materials are currently being finalized, and a national workshop to promote elaboration of training materials and development of participatory strategies is tentatively scheduled for summer of 1995.

The need to strengthen the role of supporting agencies towards behavioural change and community empowerment led to UNICEF's organization of two regional training workshops for their officers and local counterparts. The first workshop took place in El Boquete Chiriqui Region, *Panama*, and the second in San Salvador, *El Salvador*. IRC facilitated both of these workshops on hygiene education and community monitoring, and supported inputs on hygiene education and behavioural change.

Africa

In *Zambia* a national workshop on community management of water supply and sanitation projects was organized by the Department of Water Affairs and co-facilitated by IRC, as follow up to the now completed Piped Supplies for Small Communities project. The workshop reviewed experiences to further develop policies and strategies to reach long-term sustainability of small community water supplies.

Community Self-Improvements

In rural and low-income settlements outside the mainstream of ESA and government support, communities often spend their scarce resources ineffectively in attempts to improve their water supply and sanitation conditions. By helping these communities to help themselves in making appropriate and affordable improvements, cost effectiveness and sustainability can be ensured.

Over the past few years IRC has developed a resource book and a training manual on community self-improvements (COSI), which will be the basis for country-specific catalogues of appropriate technical solutions. Further, a need has been recognized for a manual emphasizing environmental aspects of COSI. For this purpose case studies are being reviewed for relevant experiences.

The COSI methodology is already integrated in the sanitation development component of the TRANSCOL project in Colombia and prospective activities are being discussed with Sarvodaya in Sri Lanka and IDEAS in Peru.

PARTICIPATORY TECHNIQUES

In keeping with the demand-driven, people-oriented approach necessary to ensure sustainable development, participation must be an integral part of every project and programme. The community must be actively involved in decision-making processes towards commonly agreed objectives. However, it is not enough to merely involve the community in their water and sanitation programme. The proper strategy, attitudes and communication mechanisms must be developed to *allow* the community to become equal partners in the programme. This can be achieved through using the proper participatory techniques.

IRC continues to develop and apply participatory techniques while building upon experiences and ideas of others, and an internal reader compiled in 1993 has been expanded with additional participatory techniques and approaches. Staff participated in a market fair held at GTZ headquarters in Germany, at which several organizations presented tools and techniques they had developed. For the meeting IRC prepared a booklet entitled *Group Techniques for Water and Sanitation Issues*, which explained participatory techniques for community assessments, village mapping and discussing water committee responsibilities.

In addition to publications on action learning and group processes published in 1993, at the end of the year, three field guides on gender which emphasized participatory methods were completed (see earlier section on Gender Issues).

IEC - INFORMATION, EDUCATION, COMMUNICATION

At its meeting in Rabat, Morocco in 1993 the Collaborative Council gave IRC the mandate to take responsibility for the Working Groups on IEC and on Information Management under the common title Information and Communication. On a day to day basis these issues are dealt with in separate action programmes, with IEC focusing on improved programming through communication, mobilization and participation, as well as the development of mechanisms to implement communication activities at country level. The project

addresses the need for change in the sector towards basing its programming more on the needs, desires and opportunities at the community level. This requires changes in approach and behaviour, including in the roles of the respective partners, and emphasis on capacity building.

In response to the mandate, IRC received funds provided by DGIS from the Council Secretariat to set forth this work on IEC. In the context of establishing a communication strategy for the sector, preparatory work started to initiate IEC activities in West Africa. **Guinea Bissau** was chosen as the focus of the pilot projects because of the active participation of its Minister of Water in the Working Group and the interest of UNICEF to make this approach an important link in its ongoing activities in that country.

The first activities in Guinea Bissau are nearing implementation. A preliminary analysis of the water supply and sanitation situation was conducted. IRC also assisted in the development of a collaborative planning strategy to enhance communication. These activities were spread over two missions, one at the end of 1993 and one in May 1994. Both included one-day workshops organized by the Ministry of Information and UNICEF, at which the plans for a communication strategy were presented, and views on coordination mechanisms for inter-sector IEC activities were discussed. The recommendations coming from the two missions have resulted in specific activities envisaged to start early in 1995.

2. Publications

Background

The knowledge generated and experience gained through IRC's research activities and its advisory work often result in publications for sector use. The IRC publication series is comprised of four types of documents, and the centre also produces three periodicals. The Technical Paper Series contains texts concerning highly relevant subjects, which are targeted at a wide audience. Books in this series generally deal with the integration of social and technical issues such as hygiene education in water supply and sanitation projects, or community-oriented approaches. The Occasional Paper Series deals with more specific areas of IRC's work - subjects requiring quick, low-key production for selected target groups. Recent subjects include pre-treatment alternatives, community management, and gender issues. The Training Series comprises practical information and knowledge for use in training various groups, such as how to care for a water supply, and the Reference Series is comprised of directories, inventories, thesauri and other information tools.

Cooperation on new issues with other agencies and institutions is another source of publications. These are generally joint publications, which are not classified in the IRC series.

A new publications manager is currently revising the publication policy and streamlining the publication procedures so that IRC will be able to better meet the sector's information needs. Expansion of the publication series is being investigated.

NEW PUBLICATIONS*

Research activities resulted in publications devoted to the following sector issues:

Gender Issues

As a result of a demand for practical guidelines on how to make the participation of women more visible and improve their decision-making roles in planning and implementation, gender workshops were held in Asia, Latin America and Africa in 1993. A series of three manuals based on the workshops were published this year.

* For abstracts of new publications, see Annex III.

Together for Water and Sanitation: tools to apply a gender approach. The Asian Experience

Working with Women and Men on Water and Sanitation. An African Field Guide

Mejor Cuando es de a Dos: El Género en los Proyectos de Agua y Saneamiento. Guía de Campo (Better When Done Together: gender in water supply and sanitation projects. A Field Guide)

Health and Hygiene The Occasional Paper *The Use of Structured Observations in the Study of Health Behaviour* provides detailed guidelines for the use of structured observations in health/hygiene behaviour assessments.

Water Resources Management *Towards Better Water Resources Management. A Catalogue of Policies and Strategies of External Support Agencies* describes the policies, strategies and experiences of 26 bilateral and multilateral external support agencies with respect to water resources management.

Information Management *Organizing Local Documentation Services for the Water Supply and Sanitation Sector* is a Reference Series publication which provides guidelines including detailed information on management issues, resource requirements, technical operations, and information products and services.

PERIODICALS

Abstract Journal *Woman, Water, Sanitation: Annual Abstract Journal* is an annual state-of-the-art review on women's roles in improving water supply, sanitation and hygiene. It contains a summary and abstracts of selected books, reports, and audio-visual materials grouped into several subject areas, a resources list, addresses and an index. The 1994 issue was devoted to sanitation.

Highlights *Highlights* is a bi-monthly current awareness service offered by the Documentation Unit. Since 1990 it has been providing subscribers with a selection of news items and contents pages from over 250 journals, newsletters and other sources related to water, sanitation and environment, as well as a listing of forthcoming events, training courses and new publications. *Highlights* is an affordable option for those who do not have ready access to the large selection of journals and periodicals available to those working in the sector.

Newsletter

1994 was a year of transition for the *Water Newsletter* (formerly *IRC Newsletter*). During its first 25 years as an important source of information on water supply and sanitation, the IRC Newsletter gradually developed into a sector newsletter. To reflect this development, the name was changed this year to *Water Newsletter*. The importance of the newsletter as a sector newsletter is evidenced by the decision of the Water Supply and Sanitation Collaborative Council in 1993 to use it as a vehicle to spread news about its activities. Over 7000 subscribers world-wide now receive the *Water Newsletter*, which is published ten times per year in English and five times in French.

The newsletter spreads information about new developments and trends, experiences from the field, publications, courses and events. The first issue with its new face and name was dedicated to the outcome of the Ministerial Conference on Drinking Water and Environmental Sanitation held in the Netherlands in March. Other theme issues featured affordability and training, sustainability, and gender issues.

TRANSLATIONS

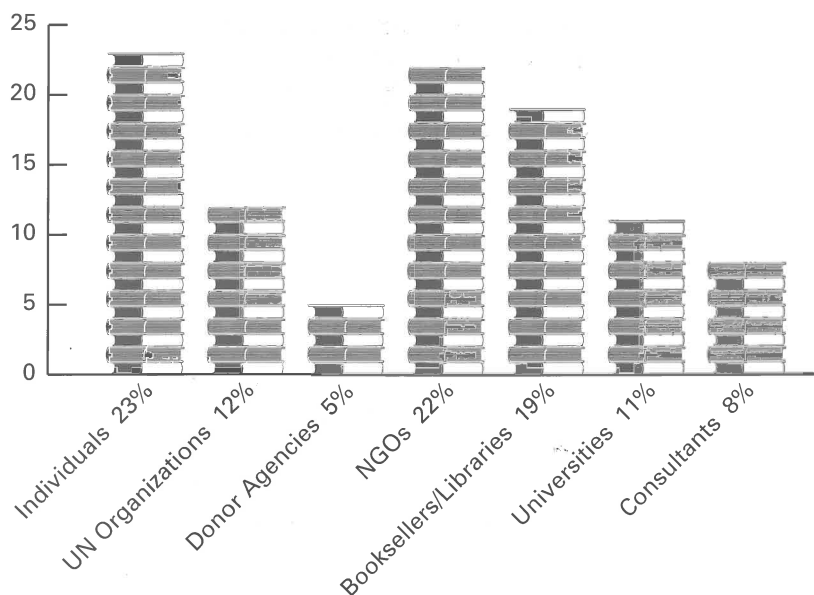
Increasingly IRC publications are translated into other languages for local use. These translations are most often funded by donor organizations or by NGOs in developing countries.

The Technical Paper *Just Stir Gently. The way to mix hygiene education with water supply and sanitation*, by Marieke Boot, was translated into French (*La Union fait... la santé. Intégrer l'éducation à l'hygiène aux programmes d'eau et d'assainissement*), with funding from SDC and UNICEF Mali.

Communication in the Water Supply and Sanitation Sector: a resource booklet by Eirah Gorre-Dale, Dick de Jong and Jack Ling was translated into Portuguese (*Comunicação no setor de Água e Saneamento: um livro de referência*) by IRC for disseminating IEC information in Lusophone Africa.

SALES

More than 6000 publications were distributed upon request to clients all over the world, with individuals and NGOs forming the largest number of clients. Sales amounted to approximately dfl 140,000*. Best sellers this year were *L'Union fait..... la santé. Intégrer l'éducation à l'hygiène aux programmes d'eau et d'assainissement*; *Community Management Today. The Role of Communities in Management of Improved Water Supply Systems*; and *Just Stir Gently. The Way to Mix Hygiene Education with Water Supply and Sanitation*.



* US\$ 1.00 in 1994 = approx dfl 1.74

3. Documentation Services

Background

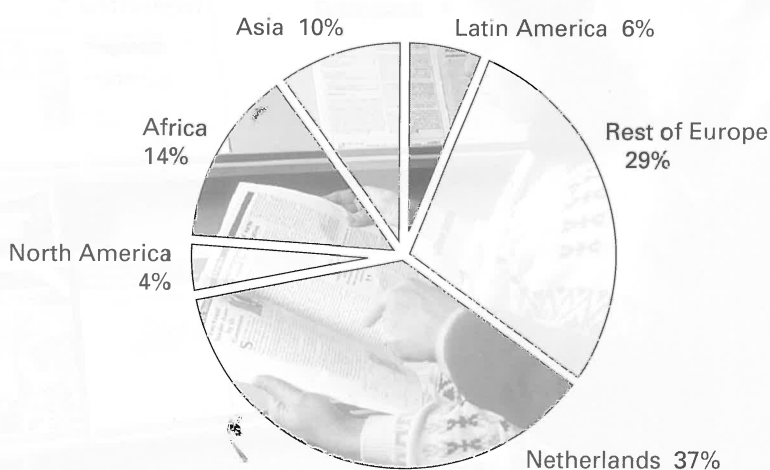
In the 25 years that IRC been in existence, up-to-date information has always been of crucial importance to its work. Over the years the documentation unit has increased its efforts to help colleagues in the sector to keep abreast of the latest developments concerning water supply, sanitation and the environment.

EXTERNAL INFORMATION SERVICES

The wealth of published and unpublished information concerning the various aspects of water supply, sanitation and environment is widespread. Selecting the best of this information and making it accessible is a growing task which necessitates tapping hundreds of sources internationally.

IRC's efforts over the years have resulted not only in a collection of over 10,000 current publications and unpublished project reports, but also videos, slides, and educational materials. The Documentation Unit also has access to databases on CD-ROM and to those available from commercial database hosts such as ESA/IRS and ORBIT.

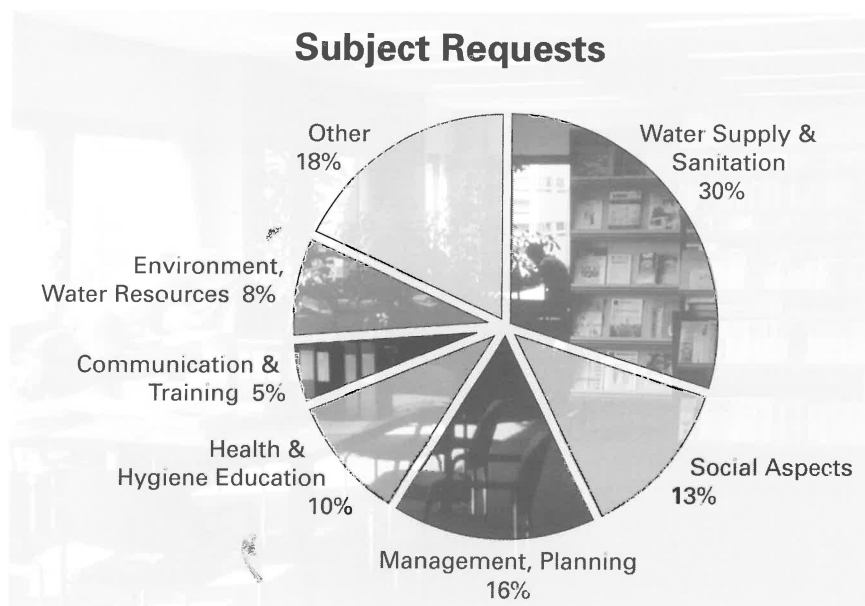
Regional Distribution of Clients



Over 350 requests for information from all over the world were handled during the year. Figures show that, unlike in years past, NGOs now form the largest group of clients. For the participants in IRC's increasingly popular training and briefing programmes, use of the library is an essential aspect of their programme.

The Documentation Unit offers two types of tailored information services. SDI (Selective Dissemination of Information) provides bi-monthly overviews of new literature acquired by IRC, on a subscription basis, on subjects, regions or countries of the subscriber's choice.

Literature searches are performed for clients upon request. These searches result in a reference list on a specific water supply and sanitation-related subject with or without limits as to time, region, and/or language. Literature searches can be done in IRC's database IRCDOC, external databases, and CD-ROM. It is possible to extend the reference lists to literature reports, providing a state-of-the-art summary on the chosen subject. Nearly 100 literature searches were performed for clients during the course of the year.



Since 1990 another important service for IRC clients is the current awareness bulletin *Highlights*. It provides subscribers with a selection of news items and contents pages from over 250 journals, newsletters and other sources related to water, sanitation and environment, as well as a listing of forthcoming events, training courses and new publications.

DOCUMENTATION SUPPORT

In 1994 the documentation unit focused on quality management. Improvement of existing services and development of new ones were extensively discussed by documentation unit staff during a special meeting this year. In an attempt to improve the library's efficiency, a student from the Hague Library School did his final project on the quality of the library's services. This resulted in a Quality Manual. The manual is the first step on the way to achieving a quality system. A start was made with the preparation of quality audits to verify library procedures, i.e. comparing the execution of tasks to the procedures in the Quality Manual. These will result in quality records (reports of the quality audit) which indicate the achievement of the required quality and the effective operation of the quality system.

In an effort to make the library's materials more accessible, the registration in IRCDOC and the rearrangement of the large collection of (school) health education materials produced in developing countries was undertaken. This was done by two students from the Amsterdam College of Arts, who completed their work with a much appreciated exhibition of the most striking examples from the collection. It is intended to consolidate this work in the coming years.

4. Training and Briefing Programmes

Background

The broad and in-depth knowledge of IRC's multidisciplinary staff, its extensive Documentation Unit, supported by continuous contact with the field, offer a solid background for training. Training courses in different forms have been offered by IRC since 1986. All are based on the premise that each participant is unique and possesses valuable knowledge and experience that should be shared, and that the value of the training activity is its applicability and integration in the working situation.

BRIEFING PROGRAMMES

The five-day *standard briefing programmes* are job-oriented, and prepare participants who have relatively little experience in the sector for a new assignment abroad. Five- to fifteen-day, subject-oriented *tailor-made briefing programmes* are intended for experienced national-level and senior staff, who are involved in planning, management, evaluation and strategy development. For those who do not have the time to follow a tailor-made programme, IRC's documentation unit staff, as well as staff resource persons, can provide the guidance and information needed during an *intensive briefing programme* lasting two to three days.

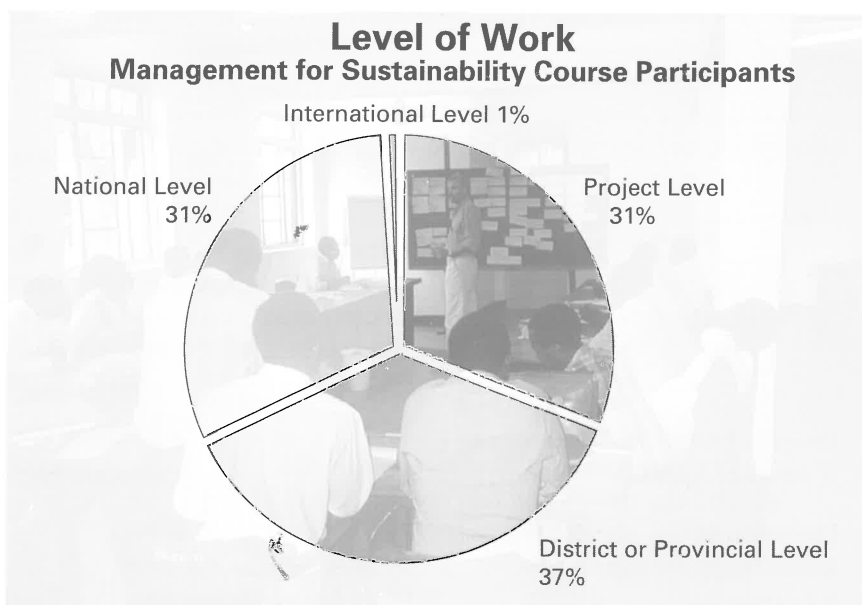


Gender issues and the gender perspective continued to be an integral part of all of IRC's briefing programmes. Collaboration with the VENA Centre for Women and Autonomy, as in the past, made two briefing programmes possible which offered the participant an extra three days for personal reflection on the gender perspective of their future assignments.

Twenty-four participants took part in briefing programmes during the year. Remarkable is that despite the programmes' short duration, 25% of the participants took the effort to come to the Netherlands from abroad. Some of the sponsors included the Aga Khan Rural Support Foundation, DGIS, NORAD, ODA, and SNV.

SHORT TRAINING COURSES

IRC offers in-depth training courses on key sector issues with partners at both IRC and in developing countries. The courses, which generally last three weeks, are tailored to the professional backgrounds of the participants. A common characteristic in all these courses is that the participants' experience and knowledge play an important role throughout the course and in the development of a plan for the improvement of their own professional situation.



At IRC

Management for Sustainability in Water Supply and Sanitation Programmes completed its sixth successful year. The course focuses on the improvement of management skills regarding planning, implementation and maintenance of sustainable water and sanitation systems. After the course, participants will have better insight into what they can do to ensure the long-term sustainability of their projects. The Management for Development Foundation (MDF) in the Netherlands has been IRC's partner since the introduction of the course. The course, which was originally three weeks long, has been lengthened by a half week to allow participants extra time to use the Documentation Unit.

A relatively new course, *Promotion of Hygiene Behaviour Related to Water Supply and Sanitation* entered its second year. Participants analyze their programme's existing situation with respect to hygiene education, look into planning and implementation processes at village level, and work on an individual assignment such as adapting a work plan or developing a monitoring system.

After a tailor-made information management course met with success in 1993, *Issues for Information Management, a Practical Approach* was developed into its current form. It is geared towards developing country staff and aims to develop practical skills necessary for the development and management of an effective sector documentation units and the development of information products and services.

1994 Courses at a Glance

<i>Course</i>	<i>Location</i>	<i>Partner</i>	<i>Language</i>
Management for Sustainability	IRC	MDF	English
	Kenya	NETWAS	English
	Cameroon	PAID/WA	English
	Burkina Faso	IPD/OAS	French
	Colombia	CINARA	Spanish
	India	NRTC, ODA	English
Issues in Information Management: A Practical Approach	IRC		English
Promotion of Hygiene Behaviour Related to Water Supply and Sanitation	IRC		English

Developing Countries

Advantages of offering courses in developing countries are that the participants feel more at ease in their own environment, and that courses offered at country level present the opportunity for participants from the same region to give more attention to region-specific problems and strategies. It also solves the problem of prohibitive travel costs. The first 'off-shore' *Management for Sustainability* course was offered in 1991 in **Burkina Faso**, in collaboration with the the Pan-African Institute for Development (PAID). The growing demand for local training has provided an exciting challenge to IRC's training team ever since.

1994 was no exception. Collaboration with partner institutions made it possible to offer courses in three new places during the year. In Nairobi, **Kenya** IRC organized *Management for Sustainability* together with the newly independent NETWAS for participants from Eastern and Southern Africa. The course is part of the process of developing NETWAS into a resource centre for the region. In September, the same course was offered in collaboration with CINARA in Cali, **Colombia**. The course was offered exclusively for people involved with the CINARA/IRC TRANSCOL project and will be open to a wider public in future. This was followed by another *Management for Sustainability* course in Maharashtra, **India**, in partnership with the Nashik Research and Training Centre and with support from the British ODA. This course was limited to Maharashtra Government staff. The possibility of opening the course participation to a wider public is being considered by ODA.

The courses with PAID continued as in the past, in Burkina Faso with its centre IPD/AOS in the French language, and in **Cameroon** with its West Africa office, PAID/WA, in English. IRC is gradually reducing its inputs and transferring the responsibilities of the course to PAID, as part of a capacity-building process.

A total of 126 people participated in training courses this year, of which 76 in developing countries and 50 at IRC.

Training Development

All of IRC's courses have resulted from a recognition of sector needs for training in pertinent issues, and new courses and briefing programmes continue to be added. A course on operation and maintenance was developed in cooperation with EIER in Burkina Faso and is planned for April 1995. With the same institute and with

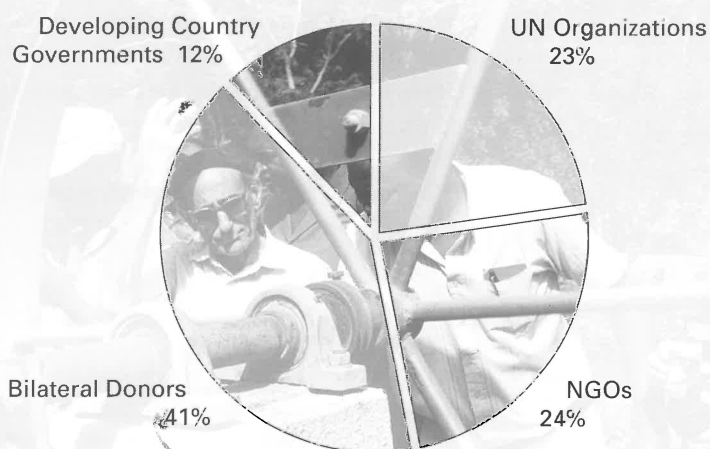
IPD/AOS the possibility is being investigated of offering the course *Promotion of Hygiene Behaviour Related to Water Supply and Sanitation* in the French language.

A valuable by-product of course development are the readers compiled on various subjects. These offer readily accessible, up-to-date information on specific subjects for use in the Documentation Unit. Readers on sanitation and on water and sanitation in emergencies were added to the collection this year, which already included subjects such as project management, technology choice, water resources management, and hygiene education.

Curricula are adjusted and the courses fine-tuned on the basis of evaluations completed by the participants both at the end of every course and six months thereafter. This ensures that the courses are suited to participants' needs and keep up with sector developments.

To keep their own skills up to par, IRC staff participated in a 'training for trainers' course. The course aimed to develop the training skills of staff acting as resource persons in the various short courses and briefing programmes. The course provided staff with a greater variety of tools and techniques which could be directly applied.

Agencies Sponsoring Course Participants



LECTURES AND PRESENTATIONS

Lectures and presentations are another way to share knowledge and experiences. On invitation IRC staff members lecture for predominantly Netherlands-based organizations including the Royal Tropical Institute (KIT), IHE, IHS, Technical University of Delft, and the Agricultural University of Wageningen. IRC was also invited to lecture at a new IHE/TU Delft post-graduate course on low-cost water supply and environmental sanitation at CINARA in Cali, Colombia. Lecture topics this year included water-borne diseases; handpumps; water harvesting; institutional development; planning and development of water and sanitation projects; alternatives for drinking water supply systems selection, design, operation and maintenance; slow sand filtration and pretreatment; desalination; defluoridation; and sustainable resources management.

5. *Advisory Support Services*

Background

Aside from experienced staff and a large collection of information, IRC has a wide network of contacts world-wide. In its advisory work it uses these to the benefit of a growing number of donors, governments and agencies throughout the sector. At the same time, IRC's advisory services generate new information which it can share and disseminate to improve sector development. Successful experiences and approaches are thus made available to a wider audience and lessons learned are used to develop new approaches and methodologies to apply in the field.

The nature of the services varies from preparation of project proposals and facilitation of workshops, to project appraisals and evaluations. The success of IRC's advisory support lies in the emphasis on a participatory approach. For example, it has become clear that the chance that recommendations emerging from an evaluation or monitoring mission will indeed be adopted, is greater when project staff are involved in the exercise.

SPECIAL ADVISORY ACTIVITIES

Ministerial Conference

Upon request of the Netherlands Ministry of Housing, Spatial Planning and the Environment (VROM), IRC contributed its expertise towards the Ministerial Conference on Drinking Water and Environmental Sanitation held in Noordwijk, the Netherlands in March. With and on behalf of VROM and an international steering committee, IRC played an important role in the management and coordination of substance-related preparations, including the preparation of the six background documents for the conference and membership in the steering committee, which developed the conference contents. The purpose of the conference was to trigger follow-up action at policy level to the recommendations contained in the freshwater chapter of UNCED's Agenda 21, and to support improved coordination between government institutions, NGOs and the private sector at the national and international level. The emphasis on 'no business as usual', and the focus on people orientation and partnership as one of the major outcomes of the conference is of particular importance.

Later in the year VROM requested IRC to condense the background papers, as well as other conference material, into a package entitled *Water and Sanitation for All: A World Priority*. The package will contain three booklets - one on advocacy, one containing a state-of-the-art review about the sector, and one containing the conference Action Programme supplemented among others with speeches and statements made during the conference. The work for VROM will be completed early in 1995.

OECD/DAC

At request of the Development Cooperation Department of OECD and with financial support from the Swedish Development Authority (SIDA), IRC prepared a donor profile paper for the OECD/DAC meeting on water resources management held in Paris. The paper, subsequently published in the Reference Series, provides background information on 26 donors and their efforts in relation to water resources management vis a vis the ideas and recommendations from the International Conference on Water and the Environment held in Dublin in 1992. It also contains a summary chapter with trends and developments (see Annex III).

Aral Sea Basin

To address the crisis in the Aral Sea Basin, the World Bank has collaborated with UNDP, UNEP and the five riparian republics (Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan) to develop a comprehensive programme focusing on the sustainable economic development of the region, as well as of the Basin states. The World Bank has established a Panel of Experts which will meet two to three times per year to provide independent advice on specific issues related to the Aral Sea Basin activities. An IRC staff member has been requested to join the panel in a personal capacity, and will contribute by advising on issues concerning community participation and gender in natural resources management in general, and in water supply and sanitation in particular.

EVALUATION AND ADVISORY MISSIONS

AFRICA

Cameroon

Advice on support for twinning on solid waste collection and disposal in Bamenda for the Municipality of Dordrecht, the Netherlands

<i>Cape Verde</i>	Mission to propose structures for technical and operational development of water supply systems at community level in Sao Filipe, on the island of Fogo for KfW
<i>Egypt</i>	Preparation of proposals for hygiene education and user involvement in the second phase of the Fayoum Drinking Water and Sanitation Project, followed up by identification of pilot hygiene education activities in Fayoum Governorate for DGIS
<i>Kenya</i>	Field testing of Visual Settlement Planning (ViSP) methodology for HABITAT's slum upgrading project
<i>Tanzania</i>	Support to socio-economic surveys for slum upgrading project in Dar es Salaam for HABITAT
<i>Zambia</i>	Facilitation of community management workshop, as follow-up to the Piped Water Supplies for Small Communities (PSSC) project for DGIS
<i>Zimbabwe</i>	Facilitation of an operation and maintenance workshop in Harare for WHO

LATIN AMERICA

<i>Colombia</i>	Advice provided for the development of their documentation centre and training of documentation staff for CINARA
<i>El Salvador</i>	Facilitation of workshop on hygiene education and monitoring for UNICEF
<i>Panama</i>	Facilitation of workshop on hygiene education and monitoring for UNICEF

ASIA

<i>India</i>	Appraisal of low-cost sanitation component of a Housing and Urban Development Corporation project for KfW
	Action plan for their documentation centre for Nashik Research and Training Centre
<i>Nepal</i>	Evaluation of Phase 1 and preparation of Phase 2 of the Rural Water Supply and Sanitation Project in Lumbini Zone for FINNIDA

Sri Lanka

Review of the Kandy District Rural Water Supply and Sanitation Project for FINNIDA

Vietnam

Mid-term evaluation of UNICEF-assisted water and sanitation programme for DGIS.

ONGOING ADVISORY SERVICES**India**

IRC has been acting as policy advisor to the joint Indo-Dutch water and sanitation programmes for nine years. The programmes aim to assist the Indian Government to develop new approaches to water and sanitation. The DGIS-supported programmes, in Gujarat, Kerala, Uttar Pradesh, Andhra Pradesh and Karnataka states focus on gender-specific community participation, construction, maintenance and institutional strengthening.

IRC's advisory team, consisting of a sociologist and an engineer, participated in a Netherlands-Assisted Programme (NAP) India meeting in Bangalore, at which water treatment, hygiene education and community management dominated the agenda. The hygiene education component of the programme was discussed at a joint meeting with staff from different projects in India, and subsequently a position paper on hygiene education was prepared.

Assistance was provided to a workshop on slow sand filtration in Ongole, Andhra Pradesh, where 1100 slow sand filtration schemes need improvements. In Kerala, support was provided to the socio-economic unit in writing up their sanitation experience and forward-looking strategy for rural sanitation. At a NAP workshop in Lucknow, Uttar Pradesh, a presentation was made on gender aspects in popular performing arts for communication and development. A team from Uttar Pradesh, Karnataka and IRC is preparing a journal article on the same subject.

A mission took place together with a staff member from IHE and the former Vice Chancellor of Roorkee University in India, to develop a programme for training support to the rural water supply sector. This includes the gradual implementation of the *Management for Sustainability* course by the Gujarat Jal Sera Training Institute, as well as the development of a post-graduate training programme on participatory rural sanitary engineering in India. The development of the *Management for Sustainability* course will follow the same

approach as followed in Maharashtra, where together with staff from the Nashik Research and Training Centre and with support from ODA, a first course was held for Maharashtra Government staff.

Pakistan

Since 1992 IRC has been acting as advisor to the Netherlands Government for its water supply and sanitation project in Pakistan. Next to liaison and consultation with the Local Government and Rural Development Department, UNICEF and the UNDP-World Bank Water and Sanitation Program office in Islamabad, the advisory support focused mainly on the Balochistan Rural Water and Sanitation Project in Quetta. The project was formulated in the context of the World Bank's Strategic Investment Plan for the sector.

The Balochistan Project has now evolved into a full-scale implementation project operating in five districts and branching out into another eight. The development phase of the first two years focused on establishing a strong community involvement and hygiene education component. Communication with and involvement of women is the major challenge in this Islamic society.

In 1994 IRC staff provided backstopping to project team members in particular on hygiene education and gender issues. A field mission was further undertaken to monitor the field programme and provide an issue report for an evaluation planned for 1995. A verbal agreement with DGIS sees IRC's input into Netherlands sector activities in Pakistan lasting into 1996.

6. Resource Centres and Information Management

Background

The success of sector development is largely dependent on professional support services at the national level. Most developing countries do not have the institutional facilities to gather and manage the available knowledge and experience and make it available to a wide audience. IRC is devoted towards contributing to the development of resource centres in developing countries for this purpose. Ideally they should offer a mix of information services and training, and depending on their capacity, ultimately also carry out advisory services, advocacy activities, and research.

RESOURCE CENTRE DEVELOPMENT

IRC has contributed to the development of resource centres in a number of countries. In *Colombia*, CINARA (Centro Inter-Regional de Abastecimiento y Remoción de Agua), at the University of Valle, has become a centre for support to sector development in Latin America, specializing in pre-treatment and multi-stage filtration technology.

CINARA trains staff from institutes dealing with rural water supply in each of the eight 'TRANSCOL' regions. The purpose of the training is to enable villages to add a low-cost multi-filtration treatment system to their self-managed water supply, and to operate, maintain and finance this higher-level service after its construction. CINARA is now also expanding its activities towards information development and sharing (it publishes a bi-monthly water newsletter), and short training courses. In October the IRC's *Management for Sustainability* course was conducted at CINARA in the Spanish language for 13 people involved with the TRANSCOL project in several regions. This course will be continued and will be opened to staff from other organizations, and a course on hygiene education is also being developed, with the help of IRC.

Providing quality training means that participants have access to the documented material they need to properly meet their course requirements. A resource centre must therefore include an up-to-date documentation centre as part of or in close proximity to its training facility. CINARA is currently putting emphasis on strengthening its

documentation centre. An IRC staff member visited CINARA this year to advise on its development. Key points of discussion were the choice of software for its computerized database and training of the documentation staff. Technical information on database systems was obtained from CEPIS in Peru on behalf of CINARA.

In *Kenya* NETWAS is gradually developing as a resource centre for the region. To aid this process IRC has offered support in information management and development, and occupies a seat on the NETWAS advisory board. NETWAS is involved in the community management project mentioned earlier, and the *Management for Sustainability* course was offered jointly with IRC. NETWAS will be taking over the course in future as part of resource centre development activities.

In *India* support to the Nashik Research and Training Centre in Maharashtra State continued as part of a three-year programme. IRC staff prepared an action plan for the development of an up-to-date reference and documentation unit, and with support from ODA, conducted the *Management for Sustainability* course for Maharashtra Government staff.

At the end of the year IRC hosted a meeting of six European partners who call themselves SANAGUA, regarding conditions to be met when successfully supporting or developing resource centres. Among the factors discussed were conditions, selection criteria, guiding principles, service development and provision, and resource mobilization.

INFORMATION MANAGEMENT

Background

Ensuring proper information management is a key aspect in the early stages of resource centre development. The lack of proper information in the right form and at the right time and place has adversely affected the planning of water supply and sanitation programmes at country, regional and global level. It has led to inappropriate policies, inadequate budgeting, inappropriate technologies, poor financial management of operation and maintenance, and many other problems. Effective information management - that is, the capacity to make the most of existing information resources - is essential to optimum performance in water supply and sanitation, and in water resources management.

Although the water sector lags behind other sectors in the development of information management capacities, there is a growing awareness among sector policy makers and managers of a need for improved information provision and of the contribution it can make to sector performance. This importance of quality data and information to sector achievements has been acknowledged by many international and regional meetings since even before the International Water Supply and Sanitation Decade began in 1981. Most recently, Chapter 18 of UNCED's Agenda 21 identified weaknesses in information management in the sector, and suggested activities designed to improve exchange of experiences, dissemination of information, and the development of interactive databases.

Collaborative Council

At its first meeting in Oslo, Norway, in 1991, the Water Supply and Sanitation Collaborative Council established the Working Group on Information Management, with a mandate to develop, on its behalf, strategies and activities to further capacity building in information management in the sector. At its meeting in Rabat, Morocco in 1993, the Council decided on the integration of the Working Groups on Information Management and on IEC - Information, Education, Communication, but the two groups' activities continue to be carried out separately. Most of the information management activities carried out by IRC are done on behalf of the Council.

After the success of a tailor-made training course on information management in 1993, the course *Managing Information Resources in Water Supply and Sanitation* was repeated for middle-level sector managers from Indonesia, Kenya, Sri Lanka and Uganda. For 1995 the course is scheduled for information training specialists, and will be designed so that it can be replicated by the participants in their own regions.

Courses in Asia

In response to the Collaborative Council's request to promote information management, IRC held four one-day information management seminars for sector managers in August and September in Asia. The IRC course *Managing Information Resources in Water Supply and Sanitation*, served as a basis for the seminars, which were designed to promote the awareness of the importance of improving information management in their own institutions. The seminars were conducted in Colombo, **Sri Lanka** with the Sarvodaya

DIVINER project, in Manila, *Philippines* with the ITN Centre-Philippines, in Gandhinagar, *India* with the Gujarat Water Supply and Sewerage Board in Gandhinagar, and in Nashik, India with the Maharashtra Water Supply and Sewerage Board. In Maharashtra the seminar was financially supported by ODA. At each seminar, a panel of local experts from national and international institutions provided support to the IRC trainer.

In support of capacity-building in Maharashtra, the Nashik Research and Training Centre (NRTC), with support from ODA, offered IRC's *Management for Sustainability* course in November. The course is part of a transfer process aimed at training 'development for sustainability' in the region. For the transfer programme to be effective, a reference centre must be established within NRTC to support the information needs of staff in integrated water supply and sanitation. For this purpose, guidance was given to the NRTC for the development of such a centre. An IRC staff member prepared a detailed development action plan which advised among others expansion of the documentation centre to include more publications on software issues (community management, etc.), hiring of qualified staff, adoption of an integrated approach, acquisition of computer facilities, sharing of information resources with other centres in the vicinity, and a system of cost recovery through user charges.

CEE and FSU Countries

The Central and Eastern European Countries and the Former Soviet Union have formed a new challenge for IRC since the end of 1993. These countries seriously lack up-to-date methods of management and operation in a market economy. Years of centralized management, a lack of reinvestment in their water supply and sanitation systems, and dwindling financial resources have left the highly skilled technical staff of these industrialized countries with outdated, poorly functioning systems, which lag far behind their western counterparts. Furthermore, pollution and a lack of sound water resources management practices pose a threat to the quantity and quality of the drinking water.



Representatives from CEE countries visit the Netherlands to acquaint themselves with the Dutch water sector. Photo: M. Sörensson, IRC

On request of the Netherlands Ministry of Housing, Spatial Planning and the Environment (VROM), IRC carried out an assessment of information needs in the **Czech** and **Slovak Republics**, **Bulgaria** and **Rumania**, to explore how expertise from the Netherlands could be shared with the eastern neighbours. A fact-finding mission was also conducted to **Russia** and **Kyrgyzstan**.

Information gathered since 1993 from missions and desk studies carried out by IRC, a Dutch and a Czech consultant, was supplemented through an exchange of experiences during an exposure visit in October. Representatives from the four countries were introduced to the technical, managerial, financial and environmental infrastructural aspects of the water sector in the Netherlands. A two-day seminar also attended by experts from the EU and the Netherlands presented an occasion to discuss follow-up activities.

The results of the study were being finalized for publication at the end of the year and will be presented to VROM in January.

Papers, Articles and Publications

The information seminar in Colombo, Sri Lanka coincided with the 20th WEDC conference, where two IRC staff members presented a paper entitled "Affordable and Effective Information Management". For those unable to attend the WEDC conference, a package containing a selection of the documents distributed at the information management seminar was prepared. The package included materials from the IRC information management course, and a special issue of the international journal *Information Development*. This issue featured three contributions from IRC staff in its June issue, which was devoted to information management in the water and sanitation sector. Staff articles gave an overview of information in the sector, a profile on IRC, and stressed the need for accessible sector information in the developing countries.

The journal *Waterlines* carried an article by an IRC staff member entitled "Managing Information in the Water and Sanitation Sector" in its July issue, and in the IRC Occasional Paper Series, *Organizing Local Documentation Services for the Water Supply and Sanitation Sector: guidelines* was published (see Annex III).

7. Partners

Background

Programmes oriented towards people and the related spirit of partnership, which is so crucial for the effectiveness of our work in water supply and sanitation, is a driving force behind IRC's activities. IRC sees partnership primarily as the relationship between people in communities and their direct supporters, nurtured by communication, mobilization and participation. No less important, however, is the collaboration that takes place between those working at the national and the international level. Emphasis is not only put on the importance of partnerships in making the best use of skills and resources, but also on their importance as a way of sharing these skills and resources, for example between agencies and communities.

The partners with whom the centre is involved, be they donors, local agencies in the field, or communities, continue to shape its approach to the generation and communication of information. Sharing this information and building upon one another's experiences has resulted in a growing network of mutually beneficial relationships.

In its commitment to a partnership approach, IRC is developing a framework to make the essential link between policy and concepts on the one hand, and actual work in the field on the other. This aims to ensure that all water supply and sanitation projects will be people-oriented, and will involve all stakeholders from the planning stage onward.

At the country level, where IRC places particular emphasis in building relationships, the centre works intensively with ministries, NGOs, UN field offices, and training institutes, and maintains close contact with the field through the advisory role it plays towards local project staff. At the regional and global levels, UN agencies and international donor organizations are important partners, while relationships with international NGOs are playing an increasingly greater role.

The Water Supply and Sanitation Collaborative Council, through its various working groups, is a partner for many IRC activities. With the UN, IRC has for many years been fortunate to be able to take part in the meetings of the UN Interagency Steering Committee for Water Supply and Sanitation as an observer.

Agencies in IRC's Governing Board

The organizations comprising IRC's Governing Board are its most trusted and loyal partners. Since IRC's establishment in 1968, the Netherlands Government has been providing the centre with a basic subsidy towards its programme development. The UN agencies (UNICEF, UNDP, WHO, and the World Bank) and since recently the Water Supply and Sanitation Collaborative Council, provide backing, advice and general support to IRC activities.

Since its foundation, IRC has been a **WHO** Collaborating Centre for Community Water Supply and Sanitation. In 1994 IRC continued its work with WHO largely through the Collaborative Council's Working Group on Operation and Maintenance, completing and field-testing a training package on the same subject. IRC facilitated a WHO workshop on operation and maintenance in Zimbabwe.

Support to one another's activities and reliance on one another's expertise characterizes IRC's partnership with **UNICEF** in various social components of programming. IRC was invited to attend a policy meeting of WES professional staff in Bangalore, India, where communication for behavioural change was an important aspect of the deliberations. UNICEF's support continued for the further definition of the IEC (information, education, communication) concept begun under the aegis of the Collaborative Council, and its initial implementation in West Africa. IRC expertise was requested in facilitating workshops on hygiene education and monitoring in El Salvador and Panama. A collection of hygiene education case studies in Bangladesh, prepared in 1993, was published this year; and *WATERfront* carried an article by IRC staff on motivational factors in changing hygiene behaviour. UNICEF funds the annual abstract journal *Woman, Water, Sanitation*, and continues to sponsor its developing country staff in IRC's training and briefing programmes.

The relationship with **UNDP** and the **World Bank** has been a close one ever since IRC's establishment. UNDP-World Bank Water and Sanitation Program/PROWESS continues to produce the annual abstract journal *Woman, Water, Sanitation* with IRC. Support continued to the UNDP-World Bank Water and Sanitation Program in Pakistan, specifically on hygiene education and gender issues. IRC was invited to attend the UNDP-World Bank Water and Sanitation Program Advisory Group Meeting which took place at the end of the year in the Netherlands.

With the World Bank's ITN (International Training Network) Centres an information management seminar was held in the Philippines, and with the centre at NETWAS in Kenya, the *Management for Sustainability* course was held. Both of these activities took place in the context of capacity-building activities and plans for resource centre development. IRC has been a member of the NETWAS advisory board since 1993. In November IRC attended the World Bank's Water Resources Management Seminar in Washington.

Several years of intensive involvement with the *Water Supply and Sanitation Collaborative Council* through participation in its working groups, has resulted in the Council occupying a seat on IRC's Governing Board. Since the establishment of the Council IRC has chaired the Working Groups on IEC - Information, Education, Communication (which has since evolved into improved programming through communication, social mobilization and participation), and on Information Management, and currently various staff members represent IRC in and attend the meetings of the Working Groups on Operation and Maintenance, Promotion of Sanitation, Gender Issues, and Institutional and Management Options. The Council has chosen the *Water Newsletter*, published by IRC, as the official vehicle to disseminate the news of its activities to the sector.

DGIS (Directorate-General for International Cooperation of the Netherlands Ministry of Foreign Affairs) provides funding for several long-term IRC projects. Currently the pre-treatment and TRANSCOL projects in Colombia and the community management project in six developing countries receive DGIS support. IRC provides DGIS with advice on policy formulation for the joint Indo/Dutch Water and Sanitation Programme in five Indian states, and for the Balochistan Water Supply and Sanitation Project in Pakistan. IRC expertise was sought in an advisory capacity for hygiene education and user involvement the Fayoum Governorate, Egypt, and facilitation of a community management workshop in Zambia, as follow up to the DGIS-financed Piped Water Supplies for Small Communities project, which ended last year.

VROM (Netherlands Ministry of Housing, Spatial Planning and the Environment) requested IRC input for preparations for the Ministerial Conference on Drinking Water Supply and Environmental Sanitation, which was held in March in Noordwijk,

the Netherlands. IRC was member of an international steering committee which was formed to develop the contents of the conference. Currently IRC is preparing revised versions of the background material from the conference combined with keynote addresses, papers and speeches, and the Political Statement and Action Programme, for distribution on a wide scale.

Also on request of VROM, investigations begun in 1993 continued in CEE and FSU countries, to assess how information and experience from the Netherlands can be of benefit to these formerly Communist countries.

Bilateral Donor Organizations

IRC will continue to play a collaborative role in the the ESA community as and when appropriate. Activities with donor organizations now form a significant proportion of IRC's work.

On request of *FINNIDA* IRC conducted a review of two of its water supply and sanitation projects, one in Kandy District, Sri Lanka, and the other in Lumbini Zone, Nepal.

Since 1992 IRC has been active in two *KfW*-funded projects in Latin America: community strategy development for the local water administration UNEPAR in Guatemala, and development of community management and hygiene education components of a programme in Choluteca, Honduras implemented by the national water and sanitation agency SANAA. An appraisal of the low-cost sanitation component of a HUDCO project in India took place early in the year, and later a mission to Cape Verde proposed structures for development of water supply systems at community level.

For *ODA* IRC facilitated the *Management for Sustainability* course with the Nashik Research and Training Centre in Maharashtra, India, for government staff.

At request of the Development Cooperation Department of the *OECD* and with financial support from *SIDA*, IRC prepared a paper on donor involvement in water resources management for the OECD/DAC meeting on water resources management. The paper was subsequently published as a reference catalogue in IRC's Reference Series.

Other Sector Support Institutions

Aga Khan Rural Support Programme, Pakistan	four-year community management project funded by DGIS
Agua del Pueblo, Guatemala	four-year community management project funded by DGIS
Agua para el Pueblo, Honduras	community management and hygiene education
CINARA, Colombia	integration of pre-treatment technology; transfer of multi-stage sand filtration technology; <i>Management for Sustainability</i> course; documentation centre development; four-year community management project funded by DGIS
EIER, Burkina Faso	development of training courses
IHE, Netherlands	lectures on water supply issues
KIT, Netherlands	lectures on health issues
MDF, Netherlands	<i>Management for Sustainability</i> course
NEWAH, Nepal	four-year community management project funded by DGIS
NRTC, India	<i>Management for Sustainability</i> course; documentation centre development
NETWAS, Kenya	resource centre development; <i>Management for Sustainability</i> course; four-year community management project funded by DGIS; community self-improvements
PAID, Cameroon and Burkina Faso	<i>Management for Sustainability</i> course; four year community management project funded by DGIS
SANAA, Honduras	development of community management and hygiene education components of KfW-financed programme in Choluteca
TU Delft, Netherlands	lectures on water supply issues
UNEPAR, Guatemala	community management strategy development
VENA, Netherlands	special <i>Gender Briefing Programmes</i>

8. General Management

Background

Discussions during the year about IRC's corporate goal resulted in fine-tuning of IRC's objectives. The goal of people-oriented water and environmental sanitation programmes was further defined and IRC's demand-driven orientation was strengthened through a regional approach in the structure of its work. An earlier analysis of IRC's approach to its mandate had already led to the division of its work into six mechanisms: research, publications, training, documentation services, advisory services, and advocacy. Staff was being reorganized at the end of the year to streamline these new approaches.

These discussions took place around IRC's 25th anniversary, which was on 16 December 1993, and continued well into 1994 together with celebrations in the form of several projects and activities. On the occasion of the Ministerial Conference on Drinking Water and Environmental Sanitation, IRC hosted an anniversary celebration for its staff, conference participants and special guests. At the celebration, the Globetree Foundation of Sweden presented a performance called "The Blue Wave", in which 26 children from all over the world gave a musical performance and symbolically united water from each of their countries into a common bowl. A book entitled *Water: a Priority for Life: a quarter of a century of caring* was published in November, which reflects IRC's experiences of the past 25 years alongside the developments in the water supply and sanitation sector over the same period. A collection of references, quotes and letters pertaining to IRC and its activities over the years has been made, and analysis of operational issues was well under way at the end of the year.

In preparation of a forward-looking assessment of the centre, an independent, international steering committee was set up to select the evaluation team. Terms of reference for the team were being drafted at the end of the year.



IRC's departing Chairman receives 'uniting water' from a Blue Wave performer.

Photo: Foto Thuring BV, The Hague

Governing Board

The membership of the Governing Board clearly reflects IRC's international character. Each spring and autumn the Board members - from WHO, UNDP, UNICEF, the World Bank, the Water Supply and Sanitation Collaborative Council and the Netherlands Government (Ministry of Housing, Spatial Planning and the Environment (VROM) and Ministry of Foreign Affairs (DGIS)) meet at IRC. Plans and budgets prepared by the centre are presented for approval, and IRC's approach to its mandate is reviewed. In separate meetings financial and administrative matters are reviewed. Specific issues on the Board's agenda this year included the forward-looking assessment of IRC, follow-up to the Ministerial Conference on Drinking Water and Environmental Sanitation, and IRC's activities in the context of the Water Supply and Sanitation Collaborative Council.

Management Team

In the context of IRC's reorganization, the management team was expanded with one additional staff member this year. It now consists of the Director, Administrator, and three Senior Programme Officers.

During its monthly meetings the management team coordinates preparation of the annual plans and budgets submitted to the Governing Board, as well as the longer term plans. Recruitment and new projects are also regular issues. Other items discussed this year included the new organization structure, the forward-looking assessment of IRC, and the Ministerial Conference and its follow-up.

Staff

Over 40 individuals of various nationalities now comprise IRC's staff, of which over half are women. They include planning, public health and sanitary engineers, sociologists, anthropologists, economists, documentalists, a psychologist, social scientist, social demographer, urban planner, geologist, accountant, journalist and information specialist. The staff is supplemented with consultants who carry out short-term assignments. Consultancies this year concerned among others, preparation of papers for the Ministerial Conference on Drinking Water and Environmental Sanitation, preparation of a paper for the OECD/DAC meeting on water resources management, IEC, various advisory missions, and publications on a variety of subjects among which gender issues, health and hygiene, and water resources management.

Budget

IRC operated with a total budget of dfl 6,580,000* in 1994. This was comprised of resources of approximately dfl 3,680,000 which were generated by advisory services and research work carried out for bilateral donors in Europe and Scandinavia, and other international organizations in the northern hemisphere, and a core subsidy of dfl 2,100,000 provided annually by the Netherlands Government. Other sources of revenue included approximately dfl 550,000 from training activities, dfl 140,000 from publication sales, and miscellaneous income of nearly dfl 110,000. Expenditures also amounted to dfl 6,580,000, enabling IRC to operate as a non-profit organization. In 1994, dfl 2,390,000 was allocated to direct project costs, dfl 3,110,000 salaries and personnel costs, and dfl 1,080,000 to general operating costs.

Due to a tax return regarding the years 1987-1991 there was an extra-ordinary income of dfl 390,000. This amount will be used for the funding of IRC's renewing activities in water resources management and urban problems and for the replacement and expansion of the computerized information management system.

* US\$ 1.00 in 1994 = approx dfl 1.74

9. *Looking Ahead*

Putting people first requires a demand-driven approach, and accordingly at the end of the year IRC altered its working structure such that an even larger emphasis is placed on signals from and response to needs and demands from the countries and regions. With its people orientation and regional approach as a basis, a focus on social issues will continue through information and communication activities. IRC will continue to serve the sector through the following six mechanisms: research, training, publications, documentation services, advisory services and advocacy.

IRC will enter 1995 with the challenge of strengthening the regionally oriented, demand-driven organization of its work. Keeping up with the changing priorities in the sector is essential for IRC to be able to continue its contributions to sustainable water supply and sanitation and continue its innovative contributions to new issues and opportunities. This implies investments in new areas, for which funds must be available. In view of the prevailing attitudes towards development cooperation, IRC has recognized the necessity to create its own reserves for investment in research on new subjects. The details regarding the establishment of a renewal fund to finance these investments are being discussed.

One of the noticeable changes in the sector is the growing emphasis on the urban situation. After a decade of concentration on rural areas, peri-urban areas are demanding serious attention. IRC, as in the past few years, will continue to expand its work on peri-urban issues, though not at the expense of the continued work in rural areas. In this work, in its expansion into water resources management, and in all its other activities, IRC will set forth its emphasis on the social aspects - gender issues, community management, hygiene behaviour, while integrating these with technology, financial issues, and operation and maintenance. Capacity building and the sector's need for information and communication continue to motivate all activities.

Programming for mobilization and communication activities directed at changes in approach will continue as pilot projects are scheduled to begin. Training programmes will continue to play an important role in IRC's overall programme and will be expanded in the developing countries as part of resource centre development activities. Through advisory services, the centre will continue to

share its expertise with partners, while gathering important information for its research activities.

Publications, as well as information and documentation support will continue to provide the sector with the news it requires. Particularly the publications department will flourish under new management.

As member of several of the Water Supply and Sanitation Collaborative Council's working groups and leader of the Working Group on Information and Communication (formerly IEC - Information, Education, Communication, and Information Management), it will continue contributing its knowledge and expertise on selected issues, in preparation for the Council's meeting in Barbados in October.

On the home front, recruitment will focus on bringing in staff members with expertise in new areas including water resources management and urban issues. Investments in automation will concentrate on developing information networks both internally and externally. IRC will be moving into larger offices in the course of 1996, for which preparations are already under way.

Every day is the beginning of a new era. From the viewpoint of the changes required and occurring at present, the sector seems to be at a crossroads. 1995 may well be the beginning of a new chapter in the sector's history.

ANNEXES

I. Governing Board

Mr. H. Scheltema (Chairman until November)	Former Ambassador
Mr. J.B. Hoekman (Chairman from November)	Former Ambassador
Mr. G.W. Ardon (Secretary)	Head, Water Supply and Environmental Quality Division Directorate-General for Environmental Protection Netherlands Ministry of Housing, Spatial Planning and the Environment
Prof. W.J. Kakebeeke (Treasurer)	Assistant Director-General for International Environmental Cooperation Directorate-General for Environmental Protection Netherlands Ministry of Housing, Spatial Planning and the Environment
Mr. I.M. de Jong (until November)	Director, Directorate Multilateral Development Cooperation and Special Programmes Directorate-General for International Cooperation Netherlands Ministry of Foreign Affairs
Mr. H. Gajentaan (from November)	Director, Directorate Multilateral Development Cooperation and Special Programmes Directorate-General for International Cooperation Netherlands Ministry of Foreign Affairs
Mr. K. Kuiper (until November)	Chief, Sector Programmes, Coordination and Technical Advice Department Directorate-General for International Cooperation Netherlands Ministry of Foreign Affairs
Mr. J.A. Boer (from November)	Head of the Technical Advice Section Special Programmes Coordination and Technical Advice Department Directorate-General for International Cooperation Netherlands Ministry of Foreign Affairs
Mr. F. Hartvelt	Deputy Director Science, Technology and Private Sector Division Division for Global and Interregional Programmes United Nation Development Program
Mr. G. Ghosh	Chief, Water and Environmental Sanitation Section United Nations Children's Fund
Mr. J. Blaxall (until November)	Program Manager UNDP-World Bank Water and Sanitation Program The World Bank
Dr. D.B. Warner	Chief, Rural Environmental Health Unit Division of Operational Support in Environmental Health World Health Organization
Mr. R. Wirasinha	Executive Secretary Water Supply and Sanitation Collaborative Council

II. List of Staff Members

Director

Hans M.G. van Damme *

Research and Advice

Jan Teun Visscher *	Senior Programme Officer Department Head, Programme Activities
Ms. Marieke Boot (until February)	Programme Officer Evaluation, Hygiene Education
Marc Peter Lammerink	Programme Officer Community Management
Michael Seager (until July)	Programme Officer
Ms. Kathleen Shordt (from October)	Programme Officer Monitoring and Evaluation Information, Education, Communication
Jo Smet	Programme Officer Technology Development
Heikki Wihuri (from January)	Programme Officer Urban Issues, Water Resources Management
Ms. Christine van Wijk- Sijbesma	Programme Officer Community Education and Participation, Roles of Women
Ms. Mary Boesveld	Research Officer Community Participation, Participatory Methodologies
François Brikké	Research Officer Economic Issues in Water Supply and Sanitation, Training Development
Ms. Norah Espejo	Research Officer Community Management
Tom de Veer	Research Officer School Sanitation

* Member of Management Team

Ms. Madeleen Wegelin-Schuringa**	Research Officer Urban Water Supply and Sanitation, Community Participation
Ms. Maria Sörensson	Project Research Assistant Social Issues
Ms. Anneke Groenendal	Programme Assistant
Ms. Pocha Horton (until May)	Programme Assistant
Ms. Mallane de Jong (from June)	Programme Assistant
Ms. Mariela Rauwerda (until April)	Programme Assistant
Ms. Eca Zepeda (from October)	Programme Assistant

Information and Training

Han Heijnen *	Senior Programme Officer Department Head, Information Management
Ms. Eveline Bolt	Research Officer Training Development
Ms. Ineke van Hooff	Research Officer Training Development
Marc Vézina (from September)	Research Officer Training Development
Dick de Jong	Public Information Officer
Stephen Parker (from April)	Programme Officer Information Management, Publications Management
Ms. Bettie Westerhof	Senior Documentalist
Nigel Browne	Documentalist
Cor Dietvorst	Documentalist
Lex Kruijt (from January)	Library Assistant
Ms. Maria-Lúcia Borba	Support Officer Information Management

* Member of Management Team

** Ms. Madeleen Wegelin-Schuringa left the Netherlands in September 1993 and continues to work for IRC on a part-time basis in Nairobi, Kenya.

Ms. Nicolette Wildeboer	Public Relations Officer
Ms. Izabel Wimmers	Staff Assistant
Ms. Carmen Tjon Kon Joe	Publications Assistant

Administration and Finance

Rob Jansen*	Administrator
Oskar Barendse	Financial Policy Assistant
Ms. Hilda de Vries	Personnel Officer
Ms. Jennifer Francis	Management Officer
Ms. Loekie Broersma	Special Management Activities
Ms. Hanneke Cusell-Schaap (until October)	Bookkeeper
Ms. Irene van Dieten	Automation Officer
Michel van der Leest	Office Assistant
Ms. Lia Wahab	Receptionist
Ms. Lauren Houttuin	DTP Operator

Mr. T.K. Tjiook serves as Advisor, with particular emphasis on relations with East Asian countries and water quality and treatment issues.

* *Member of Management Team*

III. Publications

Occasional Paper Series

Together for Water and Sanitation: tools to apply a gender approach. The Asian Experience, edited by Eveline Bolt. OP 24, 107 pp.

The manual is part of a series of four - three manuals and a background document, based on gender workshops held in Asia, Latin America and Africa. The workshops were the result of a demand for practical guidelines on how to make the participation of women more visible and improve their decision-making roles in planning and implementation. This manual contains several tools, each dealing with a specific issue such as gender sensitization of project teams and gender-specific investigation of project impacts.

Working with Women and Men on Water and Sanitation. An African Field Guide, edited by Mary Boesveld. OP25, 98 pp.

This manual, the second of three, contains examples and cases from the participants' projects to illustrate how they deal with gender throughout the project cycle.

Mejor Cuando es de a Dos: el género en los proyectos de agua y saneamiento. Guia de Campo (Better When Done Together: gender in water supply and sanitation projects. A Field Guide), edited by Norah Espejo and Ineke van der Pol. OP 26, 74 pp.

This third manual offers a framework to incorporate the gender approach in water and sanitation projects, with checklists and techniques to deal with gender at the community level.

The Use of Structured Observations in the Study of Health Behaviour, by Margaret E. Bentley, Marieke T. Boot, Joel Gittelsohn and Rebecca Y. Stallings. OP 27, 58 pp.

The handbook provides detailed guidelines for the use of structured observations. It is meant to provide a contribution to the methodology of health/hygiene behaviour assessments both for programme workers and academic researchers. Part one pictures the framework in which structured observations are used. Part two covers general research and design issues, and part three provides a step-by-step guide for the use of structured observations.

Reference Series

Organizing Local Documentation Services for the Water Supply and Sanitation Sector, prepared by IRC. RS 9, 97 pp.

The guidelines include detailed information on management issues, resource requirements, technical operations, and information products and services. Includes appendices on how to conduct information surveys, guidance on accommodation and equipment, examples of information products, and a list of basic manuals on library and documentation work.

Towards Better Water Resources Management. A Catalogue of Policies and Strategies of External Support Agencies, prepared by Jan Teun Visscher and Maria Sörensson. RS 10, 208 pp.

Describes the policies and strategies of 26 bilateral and multilateral external support agencies. It serves as a basic source of information for those working in the area of water resources management, particularly those involved in project formulation and proposal preparation. Includes a synthesis of the various ESAs' experiences with their water resources management policies and strategies, and provides a profile on each ESA, which includes information on the status of its policy and strategy, as well as some general information about the organization.

Periodicals

Woman, Water, Sanitation

Compiled by Christine van Wijk-Sijbesma and Ineke van Hooff.
Joint Publication IRC/PROWESS/UNICEF. Annually 1994-1996

Annual state-of-the-art review on women's roles in improving water supply, sanitation and hygiene. Contains a summary and abstracts of selected books, reports, and audio-visual materials grouped into several subject areas, a resources list, addresses and an index. The 1994 issue focuses on sanitation.

Highlights. News on water supply, sanitation and environmental aspects. Compiled by IRC's Documentation Unit. 6 times annually

Contains an edited selection of news items and contents pages from some 250 journals, newsletters and other sources related to the water supply and environment sector.

Water Newsletter (formerly *IRC Newsletter*)

English: 10 times annually, French: 5 times annually

Contains news, trends in the sector, and announcements on selected courses, new publications and events. Also the official vehicle for news from the Water Supply and Sanitation Collaborative Council.

Translations

Just Stir Gently. The way to mix hygiene education with water supply and sanitation, by Marieke Boot, into French (*L'Union fait... la santé. Intégrer l'éducation à l'hygiène aux programmes d'eau et d'assainissement*), TP 29, 192 pp. By Annick Coulon with funding from SDC and UNICEF Mali.

Communication in the Water Supply and Sanitation Sector: a resource booklet by Eirah Gorre-Dale, Dick de Jong and Jack Ling translated into Portuguese (Comunicação no setor de Água e Saneamento : um livro de referência) by Maria-Lúcia Borba, for disseminating IEC information in Lusophone Africa.

IV. Meetings, Workshops, Seminars and Symposia

Meeting of the International Steering Committee for the Ministerial Conference on Drinking Water and Environmental Sanitation. The Hague, The Netherlands, 2-4 January

Round Table on Water and Health in Underprivileged Urban Areas. Sophia Antipolis, France, 21-23 February

Meeting of the Water Supply and Sanitation Collaborative Council's Working Group on Promotion of Sanitation. Thun, Switzerland, 1-3 March

Rabat Action Programme Preparatory Meeting. Organized by Water Supply and Sanitation Collaborative Council in The Hague, The Netherlands, 17-18 March

Senior Officials Meeting. Organized by the Netherlands Minister of Housing, Spatial Planning and the Environment and the Minister for Development Cooperation in Noordwijk, The Netherlands 19-20 March

3rd European Question and Answer Workshop. Hosted by TOOL, Amsterdam, The Netherlands, 21-22 March

Ministerial Conference on Drinking Water and Environmental Sanitation. Organized by the Netherlands Minister of Housing, Spatial Planning and the Environment and the Minister for Development Cooperation, Noordwijk, The Netherlands, 21-23 March

Global WES Meeting. Organized by UNICEF in Bangalore, India, 25-30 March

Hygiene Education and Monitoring: an innovative approach. Workshop organized by UNICEF in El Boquete Chiriquí Region, Panama 18-22 April

Hygiene Education and Monitoring: an innovative approach. Workshop organized by UNICEF in San Salvador, El Salvador, 25-29 April

Third World Information Centres in the Netherlands Meeting. Organized by ViiO, Nijmegen, The Netherlands, 26 May

Netherlands-Assisted Programme Meeting. Bangalore, India, 25-28 May

Meeting of the Water Supply and Sanitation Collaborative Council's Working Group on Operation and Maintenance. WHO, Geneva, Switzerland. 31 May - 3 June

Meeting of the Water Supply and Sanitation Collaborative Council's Working Group on Institutional Management Options. Paris, France, 1-2 June

Workshop on Slow-Sand Filtration and Pre-Treatment Technology. Ongole, Andhra Pradesh, India, 31 May - 2 June

Minis Users Group Meeting. Hilversum, The Netherlands, 2 June

Annual Consultation on Low-Cost Water Supply and Sanitation. Organized by FINNIDA in Helsinki, Finland, 8-9 June

Workshop on PAID-WA Institute. Buea, Cameroon, 19-24 June

Aguasán Meeting. Gersau, Switzerland, 27 June - 1 July

URBANET (Netherlands Network for Urban Development) Meeting. DGIS, The Hague, The Netherlands, 30 June

In Local Hands: International Conference on Community-Based Sustainable Development. IIED, London, England, 4-8 July

Workshop on Community Management of Water Supply and Sanitation Projects. Organized by Department of Water Affairs in Livingstone, Zambia, 5-8 July

World Congress on Action Learning and Action Research. University of Bath, Bath, England 6-10 July

NETWAS Planning Workshop. Organized by NETWAS in Machakos, Kenya, 15-18 August

NETWAS Advisory Board Meeting. Organized by NETWAS in Machakos, Kenya, 19 August

Affordable Water Supply and Sanitation. 20th WEDC Conference. Colombo, Sri Lanka, 22-26 August

International Congress: Water: Ecology and Technology. Moscow, FSU, 6-9 September

Advisory Panel Meeting of the Aral Sea Basin Program. The World Bank, Washington DC, USA, 9 September

Conference on Environmental Knowledge Organization and Information Management. Organized by National Slovak ISKO Chapter NISKO, Bratislava, Slovakia, 14-16 September

Meeting of the Interagency Steering Committee for Water Supply and Sanitation. Washington, DC, USA 19-20 September

'Dare to Share' Fair on Participatory Learning Approaches. GTZ, Frankfurt, Germany, 20-21 September

Preparatory Meeting for Governmental Conference in Vienna. DGIS, The Hague, The Netherlands, 22 September

2nd Meeting of the Water Supply and Sanitation Collaborative Council's Working Group on Sanitation. Hilterfingen, Switzerland, 3-5 October

Minis Users Group Meeting. Wageningen, The Netherlands, 4 October

The Hidden Assignment. Seminar on Urban Design Strategies. Netherlands Architectural Institute, Rotterdam, The Netherlands, 5-7 October

Meeting of the Water Supply and Sanitation Collaborative Council. Geneva, Switzerland, 20-22 October

Meeting of the Water Supply and Sanitation Collaborative Council's Working Group on Gender. At UNDP Water Resources Branch, New York, New York, USA, 27-28 October

Study Day on Urban Solid Waste Management. VNG, The Hague, The Netherlands 28 October

UNDP-World Bank Water and Sanitation Program Advisory Group Meeting. DGIS, The Hague, The Netherlands, 7-8 November

Satisfying Future National and Global Water Demands. 8th IWRA World Congress on Water Resources. Cairo, Egypt, 21-25 November

Preparatory Meeting for Meeting on Integrated Rural Water Management. WHO, Geneva, Switzerland, 1-2 December

Water Resources Management Seminar. The World Bank, Washington, DC, USA 13-15 December

SANAGUA Meeting. IRC, The Hague, The Netherlands. 15-16 December

V. Articles, Papers, and Presentations

Articles

"Participatory Tools for Enhancing Local Initiatives", by M.P. Lammerink and G. Prinsen in *Forest, Trees and People Newsletter* no. 23, February 1994

"Learning by Doing to Enhance Local Initiatives" by Marc Lammerink in *RRA Notes* no. 19, special issue on training, February 1994

"Planning for Better Hygiene: The importance and use of motivational factors", by Christine van Wijk and Tineke Murre in *WATERfront*, Special Issue, March 1994

"Managing information in the water and sanitation sector", by J. Stephen Parker in *Waterlines*, vol 13, no 1, July 1994

"Action-learning for water and sanitation", by Maria Sörensson in *PCR Newsletter*, vol 2, no 1, Spring 1994

"Affordable and effective information management", by Han Heijnen and Stephen Parker in *Affordable water supply and sanitation*, Pickford, John, and others, eds. Proceedings of the 20th WEDC Conference in Colombo Sri Lanka, August 1994

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Papers

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"Information and communication for improved water supply and sanitation". Paper by Hans van Damme and Dick de Jong, presented at a two-week exposure visit of senior Indian officials on sector and utility management of water supply in the Netherlands at IHE, Delft, The Netherlands, April

"Men and women, water and waste: Gender aspects in the Dutch water sector". Paper presented by Christine van Wijk at a two-week exposure visit of senior Indian officials on sector and utility management of water supply in the Netherlands at IHE, Delft, The Netherlands, April

"Hygiene promotion of Netherlands-Assisted Programme in the international context". Paper presented by Christine van Wijk at NAP India Meeting, Bangalore, India, May

"Affordable and effective information management". Paper presented by Han Heijnen at 20th WEDC Conference, Colombo, Sri Lanka, August

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"Group techniques for water and sanitation issues". Paper prepared by Norah Espejo and Maria Sörensson for 'Dare to Share' Fair on Participatory Techniques, GTZ, Frankfurt, Germany, September

"Advocacy for water and environmental sanitation". Paper presented by Hans van Damme at the fourth meeting of the Interagency Steering Committee for Water Supply and Sanitation, Washington, DC, USA, September

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"Internationaal Bezoek aan Reinigingsdienst" (International Visit to Sanitation Department). Report of visit of IRC course participants to Municipal Sanitation Department in Rijswijk, The Netherlands, in *Groot Rijswijk*, 17 November 1994

"Slow Sand Filtration - a community-manageable technology to make dirty water bacteria-free". interview with Christine van Wijk on BBC World Service development programme "Future Perfect", 20 July 1994

VI. Country/Project Matrix

This matrix contains a list of countries in which or with whom specific activities were undertaken in 1994 (see also map on page viii and ix), in addition to general information exchange in more than 100 countries.

COUNTRIES	ACTIVITIES									
	Water Technology, Operation and Maintenance	Sanitation Technology	Low-Income Urban Water and Sanitation	Water Resource Management, Environmental Issues	Information Management	Community Management	Health and Hygiene	Gender	IEC - Information, Education, Communication	Financial Management
									Resource Centre Development	Management for Sustainability Course
Africa										
Burkina Faso									1	1
Cameroon	2	2			1				1	1
Cape Verde		2							2	
Egypt	2	2			2	2	3			
Ghana						2	3			
Guinea Bissau		2						1		
Kenya	1	1		1	1	2	3		1	1
Namibia	2						3			
Nigeria								2		
Tanzania	2	2					3			
Zambia	2				2	2	3			
Zimbabwe	2						3			
Asia										
Bangladesh							3			
Bhutan							3			
India		1		1	1	1	1		1	1
Nepal	1				1	2	3			
Pakistan					1	1	1			
Philippines				2			3			
Sri Lanka	2	2	2	2			3			
Vietnam	2	2								

ACTIVITIES (continued)

COUNTRIES	Water Technology, Operation and Maintenance	Sanitation Technology	Low-Income Urban Water and Sanitation	Water Resource Management, Environmental Issues	Information Management	Community Management	Health and Hygiene	Gender	IEC - Information, Education, Communication	Financial Management	Resource Centre Development	Management for Sustainability Course
Eastern Mediterranean												
Jordan				1								
Yemen	1							3				
Latin America												
Bolivia								3				
Brazil								3				
Chile								3				
Colombia	1			1	1					1	1	
Ecuador	2							3				
Guatemala						1	1	3				
Honduras						1	1	3				
Nicaragua								3				
Panama						2	2					
Peru				1				3				
El Salvador						2	2	3				
Venezuela								3				
Central and Eastern European Countries												
Bulgaria	1	1		1								
Czech Republic	1	1		1								
Rumania	1	1		1								
Slovak Republic	1	1		1								
Former Soviet Union												
Kyrgyzstan	2	2		2								
Russia	3	3		3								

1. ongoing collaboration
2. activities of a limited duration
3. other collaboration

VII. List of Abbreviations

CD-ROM	Compact Disc - Read-Only Memory
CEE	Central and Eastern European Countries
CEPIS	Pan-American Centre for Sanitary Engineering and Environmental Sciences (Peru)
CINARA	Centro Inter-Regional de Abastecimiento y Remoción de Agua (Colombia)
COSI	Community Self-Improvements
CREPA	Centre Regional pour l'Eau Potable et l'Assainissement à Faible Coût (Burkina Faso)
DANIDA	Danish International Development Agency
DGIS	Directorate-General for International Cooperation (The Netherlands)
EC	European Community
EIER	Ecole Inter Etats d'Ingenieurs de l'Equipement Rural (Burkina Faso)
ESA	External Support Agency
ESA-IRS	European Space Agency Information Retrieval Service
FINNIDA	Finnish International Development Assistance
FSU	Former Soviet Union
GTZ	German Agency for Technical Cooperation
HUDCO	Housing and Urban Development Corporation (India)
IDEAS	Centro de Investigación, Documentación, Educación, Asesoramiento y Servicios
IEC	Information, Education, Communication
IHS	Institute for Housing Studies (The Netherlands)
IHE	International Institute for Infrastructural, Hydraulic and Environmental Engineering (The Netherlands)
IIED	International Institute for Environment and Development (United Kingdom)
IPD-AOS	Institut Panafricain pour le Developpement, Afrique et l'Ouest et du Sahel (Burkina Faso) (see also PAID)

ISKO	International Society for Knowledge Organization
ITN	International Training Network for Low-Cost Water Supply and Sanitation
IWRA	International Water Resources Association
KfW	Kreditanstalt für Wiederaufbau (Germany)
KIT	Royal Tropical Institute (The Netherlands)
LSHTM	London School of Hygiene and Tropical Medicine
MDF	Management for Development Foundation (The Netherlands)
NAP	Netherlands-Assisted Programme
NEWAH	Nepal Water and Health
NETWAS	Network for Water and Sanitation (Kenya)
NGO	Non-Governmental Organization
NORAD	Norwegian Agency for International Development
NRTC	Nashik Research and Training Centre (India)
O&M	Operation and Maintenance
ODA	Overseas Development Administration (United Kingdom)
OECD/DAC	Organization for Economic Cooperation and Development/ Development Assistance Committee
PAHO	Pan-American Health Organization (Peru)
PAID	Pan African Institute for Development
PAID/WA	Pan African Institute for Development/West Africa (Cameroon)
PROWESS	Promotion of the Role of Women in Water and Environmental Sanitation Services
PRET	Pre-Treatment
PSSC	Piped Water Supplies for Small Communities
SANAA	Servicio Autonomo Nacional de Acueductos Acantarillados (Honduras)
SDC	Swiss Development Corporation
SDI	Selective Dissemination of Information

SIDA	Swedish International Development Authority
SNV	Netherlands Development Organization
TRANSCOL	Transfer of Slow Sand Filtration in Colombia
TU Delft	Technical University of Delft (The Netherlands)
UEBM	Unidad Ejecutora de Barrios Urbanas Marginales (Honduras)
UNCHS	United Nations Council for Human Settlements
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNEPAR	Unidad Ejecutora del Programe de Acueductos Rurales (Guatemala)
UNICEF	United Nations Children's Fund
URBANET	Netherlands Network for Urban Development
VENA	Women and Autonomy Centre (The Netherlands)
VGN	Association of Dutch Municipalities
ViiO	Association for Information and International Development (The Netherlands)
ViSP	Visual Settlement Planning
VROM	Ministry of Housing, Spatial Planning and the Environment (The Netherlands)
WEDC	Water and Waste Engineering for Developing Countries (United Kingdom)
WES	Water and Environmental Sanitation
WHO	World Health Organization

