IRC
International Reference Centre for Community Water Supply and Sanitation

WHO Collaborating Centre

Rijswijk (The Hague), The Netherlands

Annual Report 1982

J.C. van Markenlaan 5, Rijswijk (The Hague)
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The Netherlands

INTERNATIONAL REFERENCE CENTRE FOR COMMUNITY WATER SUPPLY AND SANITATION

IRC is an internationally-operating organization dealing with information and technology support for water and sanitation improvement.

With its partners in developing countries and with United Nations agencies, donor organizations, and Non-Governmental Organizations, IRC assists in the generation, transfer, and application of relevant knowledge. The focus of this cooperation is on the rural and urban-fringe areas where the need for technical assistance is greatest.

IRC's information-oriented programmes include: 1. Information Support and Services; 2. Technology Development and Transfer; 3. Manpower Development and Training; 4. Community Education and Participation; and 5. Programme Planning and Evaluation.

Support is provided by means of publications and training material, seminars and courses, research and demonstration projects, as well as by advisory support to the development of national facilities.

Requests for information on IRC should be addressed to IRC, P.O. Box 5500, 2280 HM Rijswijk, The Netherlands.

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Illustrations throughout this publication are by Dr. L.D.B. Kinabo. They are being used in IRC's Community Education and Participation project in Tanzania.

I. IRC IN 1982

Firm steps in organizational development, successful recruitment of professional staff for essential vacancies and considerable effort to arrive at financing of IRC programmes and activities. These are the keywords for describing general developments at the International Reference Centre for Community Water Supply and Sanitation in the transition year 1982, the first year of full operation as an independent foundation.

As an information-oriented organization, IRC is playing its role in the International Drinking Water Supply and Sanitation Decade by generating and compiling, analysing and making accessible, and disseminating relevant knowledge and experience, technology and methodology. Operating project-wise IRC directly supports national programmes by means of guidance and training material, seminars and courses, in-country pilot work and demonstrations and advisory services. The efforts are directed to rural and urban fringe water supply and sanitation programmes in developing countries.

The Programme on Exchange and Transfer of Information (POETRI), a Decade initiative for technological information support with strong back-up from the World Health Organization, went into its second phase, with the Netherlands' Government coming forward with financial support and some additional funding for country initiatives from external sources. Regional workshops were held in Lima, Peru and Ouagadougou, Upper Volta. Eleven countries have established POETRI national focal points.

Information tools finalized and distributed included the POETRI Reference Manual, Volume I, the Thesaurus and the Directory of Information Sources. The first batches of the Standard Basic Library were dispatched. The World Health Organization confirmed its willingness to cooperate in the further development of POETRI and has offered support through technical advisory services.

Both the POETRI project and IRC's Information Section were strengthened by recruitment of full time professional staff. IRC publications in 1982 included three Technical Papers, eleven free Newsletters and the first Occasional Papers.

On the Community Education and Participation (CEP) front, the socio-education project in Tanzania is now in the stage of training key staff for a new community development service to technical water supply projects.

The Public Standpost Water Supply project fared well after attracting funding from the Netherlands' Directorate General for International Cooperation (DGIS). As a result a new project manager could initiate project activities in four countries where demonstration projects will be the vehicle of information transfer.

Funding for the Slow Sand Filtration project was extended till the end of 1983. The project is in

its third and last phase: the transfer of information on slow sand filtration as an effective, low-cost and easy to maintain water purification process among developing countries.

A more detailed description of IRC projects in 1982 is given in Chapter II. Chapter III contains more information on IRC's status, scope and organization. The last chapter highlights the planned 1983 activities as approved by IRC's Governing Board.

Tunaweza kufanya nini pampu ikivunjika ? Je, kuna mahali pengine tunaweza kupata maji mpaka pampu hii itakapotengenezwa ?

II IRC PROGRAMMES AND PROJECTS

1. INFORMATION

1.1. Programme On Exchange and Transfer of Information (POETRI)

The POETRI Programme is an initiative developed in cooperation with WHO, in the context of the International Drinking Water Supply and Sanitation Decade. Following recommendations at the UN Water Conference, the Programme has been designed to assist developing countries in the establishment and strengthening of systems providing technological information support to their community water supply and sanitation programmes.

Funding of the central POETRI activities for the period March 1982 - February 1985 (Phase II) was obtained from the Directorate General for International Cooperation (DGIS) of the Netherlands' Ministry of Foreign Affairs. Based on this positive development, the recruitment of a full-time POETRI manager could be finalized, with Mr. Toon van Dam starting on 1st November, 1982.

Despite the reorientation of POETRI to match reduced funding levels, various meaningful activities were carried out to help strengthen national information systems and services in support of national water supply and sanitation programmes, with back-up from regional centres.

In May 1982 consultations were held with the Pan American Centre for Sanitary Engineering and Environmental Sciences (CEPIS) in Lima, Peru for the coordination of POETRI Phase II activities in Latin America. An agreement was signed under which CEPIS, with financial support from IRC, will provide technical assistance for the participating countries Argentina, Columbia, Ecuador, Peru and Jamaica.

CEPIS coordinated these POETRI activities with appropriate linking to the regional information network on environmental health "Repidisca".

The Latin American POETRI experiences also featured at the regional workshop for West and Central Africa in June. This meeting was organized in cooperation with the Comité Inter-africain d'Etudes Hydrauliques (CIEH), Upper Volta, with representatives of eleven African countries and five regional organisations attending. As a result the necessary basis for starting up the country-level activities was created. This was followed by a joint CIEH/IRC identification mission to a number of West African countries in November. In Mali, Niger, Senegal, Togo and Upper Volta the national governments in 1982, officially designated a POETRI national focal point. A two-month consultancy focused on information support needs in Kenya and the United Republic of Tanzania. Eleven developing countries are now actively participating to improve their information handling and processing capabilities for direct support of rural water and sanitation programmes.

Out of the many activities for tool development necessary for effective information exchange, the following may be mentioned:

- The comprehensive POETRI Reference Manual Volume I was revised and finalized for publication in loose-leaf format. The manual was mainly written by ASLIB Consultancy Services of London, under the joint sponsorship of UNESCO and the Netherlands Government. Following its publication in August 1982, an initial 155 copies were distributed and demand from users and institutions in developing countries is rapidly growing. A French translation is being printed.
- The Thesaurus of selected terms in water supply and sanitation prepared in collaboration with the Water Research Centre (UK) was finalized. During 1982 over 40 copies were distributed to a selected number of professionals. This source of controlled vocabulary for information exchange was well received. It is proving useful in promoting international compatibility in information handling and documentation on water supply and sanitation.
  CEFIGRE (the International Training Centre for Water Resources Management, France) completed a French edition of the Thesaurus in December 1982. This French edition was printed in December, and is presently being distributed.
- The Directory of Information Sources in Water Supply and Sanitation was completed and distributed selectively to obtain necessary results of a first field testing. The Directory, listing 220 institutes, was made available to support the initial circulation of the new "Waterlines"-journal, produced for the Water Decade by IT Publications Ltd. (United Kingdom). With UNEP/Infoterra, consultations were held concerning validation and cross-checking.
- The content of the Standard Basic Library was also finalized. It consists of the 40 most relevant books, manuals and other volumes covering the various subject areas in water supply and sanitation. Several organizations have made selected books available without cost or at a nominal charge only. So far, 15 sets have been distributed to national and regional focal points.

A feasibility study for an integrated data base to support information services within the POETRI network was carried out. The first results of this study show that only on a long term basis such initiatives might be developed successfully, after the manually operated information exchange facilities of POETRI have become effective in the various national and regional focal points. A draft proposal for external funding was compiled by a joint WRC/IRC working group. Further action on presenting a detailed proposal is in preparation and will be carried out in the forthcoming months.

1.2. Information Services

Successful staff recruitment for IRC's Information Section has brought this supporting group to its full strength. In April 1982, the vacant post of documentalist was filled with the appointment of Mrs. Lia van de Kruit. The new Information Manager Mr. Dick de Jong took up his post in September.

IRC publications * brought to finalization in 1982 were:
Technical papers:
* POETRI Reference Manual, Volume I (TP16)
* Guidelines on Health Aspects of Plumbing (TP19)
* Practical Solutions in Drinking Water Supply and Wastes Disposal for Developing Countries (TP20)

Occasional Papers:
* Status Report on Community Education and Participation
* Low-cost On-site Sanitation Options
* A Groundwater Primer, co-published with the Dutch National Institute for Water Supply

As a result of continuing demand the following IRC publications had to be reprinted:
* Handpumps for Use in Drinking Water Supplies in Developing Countries (TP10)
* Slow Sand Filtration for Community Water Supply in Developing Countries, a Design and Construction Manual (TP11)
* Participation and Education in Community Water Supply and Sanitation Programmes (revised and updated) (TP12)

Eleven newsletters were produced and distributed in 1982 in a total number of 4,000 per issue, in English and French. In addition IRC was also contracted to edit and publish four issues of the quarterly newsletter for the Panel of Experts on Environmental Management for Vector Control (PEEM). This PEEM Newsletter is distributed by the PEEM Secretariat at WHO, Geneva.

Also written, printed and distributed were two brochures "What can we do for you?" (introducing IRC to fellow non-governmental organizations) and a Spanish-language version of a Slow Sand Filtration brochure. IRC also prepared an extensive report on the DGIS-funded Buba-Tombali water project in Guinea-Bissau.

A total of 3,100 IRC publications were distributed in 1982.

* See Annex 1

Apart from these in-house information activities, IRC's work was also represented to the outside world on numerous occasions. IRC was invited to be on the Water and Sanitation Panel of the London-based Intermediate Technology Development Group. Other IRC representations during the year 1982 included: the Mazingira '82 Exhibition held in conjunction with the UNEP Session of a Special Character in Nairobi, Kenya and the meeting of the Panel of Experts on Environmental Management for Vector Control (PEEM) in Nairobi, the latter reiterating interest to make use of IRC's experience in its further development.

IRC's experience as a WHO Collaborating Centre also featured in the report on "Establishment of a Regional Network of National Institutes for Environmental Sciences", from the June consultation in Dakar, Senegal, sponsored by the WHO Regional Office for Africa in Brazzaville, Congo.

During the congress of the International Water Supply Association in Zürich, Switzerland, IRC participated in a panel on resource allocation for the Decade.

A thorough reorganization took place in the IRC library and documentation unit. The first major task completed was the unification of existing catalogues. This formed the basis for an extensive stock and quality check. At the end of 1982 the total number of library holdings stood at 6,000 volumes and 240 periodicals. Also in 1982 uniform cataloguing of the holdings based on international standards was introduced. For systematic storage of documents, as well as accession lists and current awareness bulletins, the IRC library classification has been developed.

IRC continued to operate its enquiry service by handling information requests from third parties. Services included literature research, the preparation and supply of reference lists and supply of photocopies. In addition, this service supported IRC staff with relevant information for their activities such as the preparation of publications, field work, reference and referral work.

From December on an extra library assistant, Mr. Gé Konings, joined IRC for one year, so that now three specialists are working to make IRC's knowledge base better accessible in order to improve world-wide information exchange.

IRC's information operation and especially the mailing list has been earmarked as the number one priority for automation. A two-month's consultancy on overall automation requirements resulted in the recommendation to procure a micro-computer with a link-up possibility with a larger configuration later on for the administration, project management and documentation tasks.

2. TECHNOLOGY

2.1. Handpumps* for Rural Water Supply

In many developing countries, handpumps are an essential element in providing a convenient and safe supply of water to rural village communities. Handpumps installed on wells and boreholes are intended to cater to one of the basic needs - perhaps the first need in many cases - of the villagers: a convenient supply of safe water for drinking and domestic use.

However, serious problems affect the use of handpumps in rural water supply programmes. Pumps frequently break down, at an unacceptably high rate, and remain unrepaired for long periods of time because adequate provisions for maintenance are often lacking.

In 1982, as in the preceding years, IRC's programme work on handpumps was directed at helping to clarify the basic criteria for the use of handpumps in rural water supply programmes. Handpump design improvement is considered, as well as maintenance systems, use of newly developed materials (e.g. plastic), and local manufacture of pumps.

IRC continued to utilize its extensive information base regarding handpumps to service the specific information requirements of many organizations and institutions in some 35 countries involved in rural water supply programmes and projects. These included national water supply agencies and public health departments, UN Organizations, and bilateral donor agencies, field project staff and manufacturers and suppliers of handpumps.

IRC further contributed to the UNDP/World Bank Project for Testing and Technology Development of Handpumps (INT/81/026), with information exchange work and documentation support. IRC also participated in the Project Advisory Panel (steering group**).

The study of handpump maintenance systems was intensified, with the invaluable assistance of Mr. Raymond Janssens who was seconded by UNICEF to work at IRC for a month as a consultant. His work contributed to a much improved version of the draft document: "Guide for Organizing Handpump Maintenance Systems". The Guide summarizes experience and technical information from over twenty countries.

IRC assisted USAID in the appraisal of its Handpump Programme, participating in field missions to Sri Lanka, the Philippines, Indonesia, Honduras and the Dominican Republic. The assignment also included an inspection of USAID-sponsored handpump testing work at CA Testing and Research (U.K.) and Georgia Institute of Technology (U.S.A.).

* The term "handpump" is used because hand-operated pumps are by far the most common in rural water supply. However, the programme also covers foot-operated pumps, and wind and solar power for pumping.

**The Advisory Panel comprises senior staff of UNICEF (Chairman), UNDP, World Bank, UNEP, IRC, USAID, IDRC, and CA Testing and Research (U.K.).

IRC's "International Catalogue of Handpumps and Manufacturers/Suppliers of Handpumps" was revised using feedback from manufacturers, and information from numerous expert sources. The Catalogue, under restricted circulation, proved to be useful as a ready source of reference and technical data on pre-selected handpumps.

2.2. Slow Sand Filtration

IRC is working closely with a number of developing countries in the Slow Sand Filtration Project. This project aims to promote the wider application of slow sand filtration through research, the implementation of village demonstration plants and also by the publication of handbooks based on the results of field trials. The technical aspects of the demonstration project are balanced in a larger framework which includes financial and administrative organization, and community education and participation.

Funding for the SSF project was extended by the Netherlands' Government (DGIS) till the end of 1983. In July 1982 Mr. Jan Teun Visscher joined IRC as the new SSF project manager, succeeding Mr. Han Heijnen. The project is in its third and last phase: the dissemination of experience and the transfer of knowledge among developing countries. During the second phase of the project which ended in 1982, experiences at the various village demonstration plants have shown the effectiveness of slow sand filtration as a simple and reliable purification technique that is able to produce safe drinking water at low costs.

The sites in Colombia, Sudan, India, Jamaica, Thailand and Kenya represent a variety of climatic conditions and cultural settings. The communities in these demonstration villages have been involved in the planning, construction and operation of the schemes. This integrated approach, which also includes an extensive health education component, is required in order to increase community involvement. This greatly enhances the continuous operation of the water supply system.

To further promote the application of SSF an English language brochure was produced in 1982, and distributed through the IRC Newsletter network. Later in the year this brochure was translated into Spanish and distributed in Latin America. The final reports of Phase II from India and Thailand were reviewed. Practical observations and recommendations based on experiences in the demonstration phase are presented in the report of the international appraisal meeting on SSF in collaboration with NEERI, India (IRC Bulletin 16).

To facilitate the training of slow sand filtration plant operators chosen from the community, a draft manual "Guidelines for operation and maintenance of slow sand filtration plants in rural areas" has been prepared, together with a trainer's guide illustrating methods to implement training.

The first of the seminars in the third phase - the dissemination of results and experiences - was held in Bafoussam, Cameroon. In July the Instituto Nacional de Salud hosted an international SSF seminar in Neiva, Colombia. These seminars provided an excellent opportunity for information exchange between engineers (involved in planning and implementation of water supply and sanitation processes) and social scientists (active in the field of health education and community participation). The 52 participants in Colombia strongly urged that drinking water supply, sanitation and health education should be regarded as indispensable components and therefore be planned and implemented in conjunction.

During 1982 the following institutions and agencies were participating in the SSF project, either as project management or as project coordination agency:
Asian Institute of Technology, Bangkok, Thailand;
Provincial Waterworks Authority, Bangkok, Thailand;
National Environmental Engineering Research Institute, Nagpur, India;
University of Khartoum, Khartoum, Sudan;
National Administration for Water, Khartoum, Sudan;
University of Nairobi, Civil Engineering Department, Nairobi, Kenya;
Ministry of Health, Public Health Department, Nairobi, Kenya;
Instituto Nacional de Salud, Division of Basic Rural Sanitation, Bogota, Colombia;
National Water Commission, Kingston, Jamaica.

2.3. Public Standpost Water Supplies

For many people in a large number of developing countries, drinking water supply from public standposts will be the best feasible water supply system for a long time to come. IRC's work on this subject started a few years ago with a study carried out for the World Bank, resulting in two publications:
Public Standpost Water Supplies (Technical Paper 13), and Public Standpost Water Supplies, a Design Manual (Technical Paper 14).

The information generated in the first phase of the project formed the basis for the development of a proposal for a multi-country demonstration project. Consultations on the funding of the project were finalized successfully in July 1982. Funding was secured for the execution of the project in four countries, Indonesia, Malawi, Sri Lanka and Zambia, for a period of two years.

During 1982 information was exchanged with numerous organizations worldwide, which led to the establishment of a considerable knowledge base on various aspects of Public Standpost Water Supplies. A draft literature review has been prepared and it is planned to develop this into a selected and annotated bibliography.

A new project manager Mr. Michael Seager was recruited for the further development of this multi-country project.

The general objective of the project is to develop appropriate strategies, methods and techniques for the planning, implementation and management of community water supply systems that include a considerable number of public standposts. The methodology of the project promotes active participation by the population in all stages of the local projects and is directed to repetitive application of the generated knowledge in large-scale investment projects.

Demonstration projects are being set-up at selected sites in rural and urban fringe areas in the participating countries, with special attention being given to the integration of the various technical, organizational, economic and socio-cultural aspects of the project in particular.

2.4. Rainwater Harvesting

IRC, in 1982, continued to promote the consideration of the potential of rainwater harvesting for drinking water supply in view of the pressing need for adequate supplies of water in many arid and semi-arid areas.

The activities in this period consisted mainly of the revision and upgrading of the "knowledge synthesis" document on rainwater harvesting for domestic water supply. An increasing number of requests for information on the utilization of rainwater for drinking water supply purposes were received. Links with the related UNEP project were maintained.

2.5. Modular Designs

Many developing countries face the task to build numerous small systems in their rural water supply plans to achieve Decade targets. In a programme approach of rural water supply planning and implementation, modules have a great potential to facilitate the work in design and construction. By developing standard designs of technical components, standard procedures and modular learning material, technicians and community workers can be trained in a relatively short time.

An on-going activity of IRC is the preparation of a Type Designs manual which would serve as reference document in promoting the modular approach. This work includes collection of material used by developing countries water agencies, review of the material, preparation of drawings and appropriate text and criteria.

The programme approach for modular designs had been the main theme of a regional seminar held by the Government of Indonesia in Jakarta and IRC in October 1980. This meeting was instrumental in promoting a current national rural towns programme aiming at providing some three thousand small schemes all over Indonesia. An IRC study of standard treatment plants for the Government of Indonesia was given follow-up in 1982 in the building of proto-type plants constructed in local workshops and using local materials. A first evaluation of modular designs, revealing the simple operation, dependability and cost-saving is expected to promote their wider application.

2.6. Drinking Water Quality/Disinfection

IRC's main activity in 1982 in this subject area was in relation to the upcoming revision of the 1971 WHO International Standards for Drinking Water. For this purpose IRC participated in the Bangkok WHO inter-regional meeting on drinking water quality surveillance for rural community supplies in November 1982. This meeting produced recommendations for the finalisation of guidelines for rural areas in developing countries, which would be added to the new WHO Guidelines for Drinking Water Quality. Also in November a short-term consultancy was provided to the WHO European regional working group meeting on rural water supply at Stevenage, United Kingdom. Groundwater protection and simple disinfection for rural water supplies were among the recommendations for follow-up activity.

In view of the problems related to a continuous supply of disinfectants necessary for providing safe drinking water, a proposal on on-site hypochlorite generation was prepared. Activities were undertaken to procure (patents) literature and manufacturers pamphlets. Agreement was reached with the National Sanitation Foundation, Ann Arbor, Michigan USA for collaboration in further developing a project to promote the local preparation of hypochlorite for disinfesction. Indentification of potential users in developing countries was started.

A consultancy agreement with Mr. H. Mann, a British public health chemist, resulted in a draft manual on practical disinfection. This manual will serve as reference document in project development on disinfection and low-cost water quality control.

2.7. Technology Centres

Together with the African Regional Centre for Technology (ARCT) in Dakar, Senegal, a joint project proposal has been developed for field demonstration and training units of low-cost water and sanitation systems. The project aims at information dissemination of viable technologies through demonstration models in three sub-regional centres (Sahel, West Africa, East Africa). ARCT with IRC assistance will be approaching donor agencies for funding.

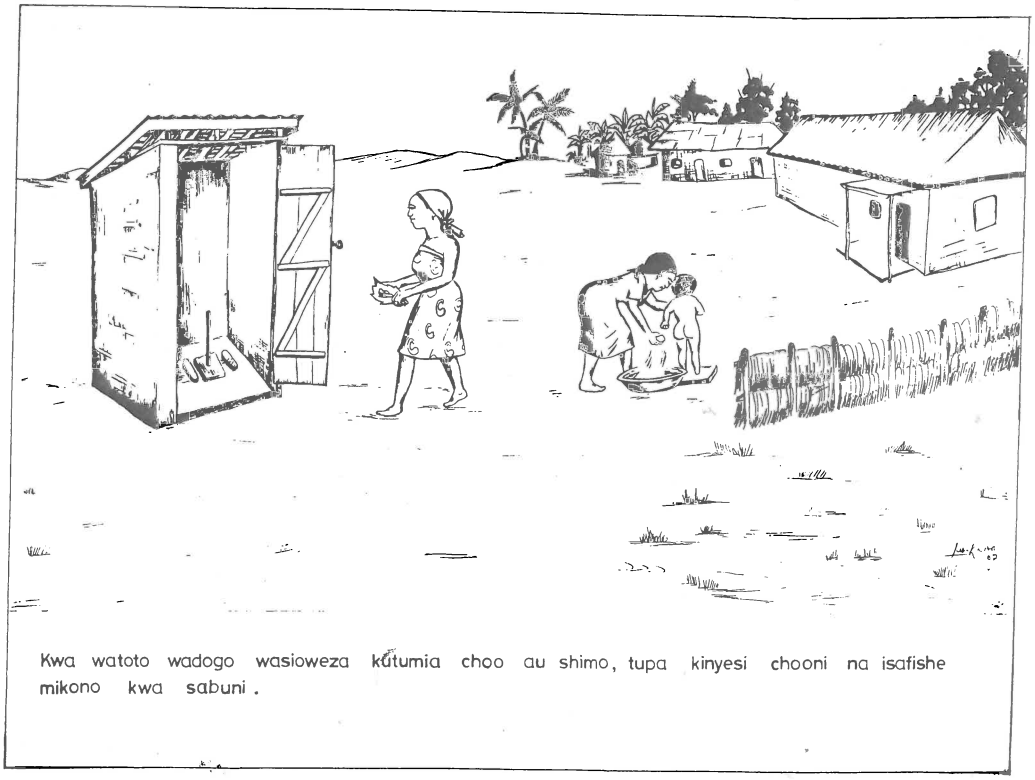
2.8. Sanitation

The major activity during this period was the distribution of the IRC Occasional Paper "Low-cost On-site Sanitation Options", as background material for seminars. Voluntary agencies also use this overview of options in the field of sanitation underlining the need for an integrated programme for improved water supply for their field workers.

2.9. Kampong Improvement Programme

This project, which involves both technical assistance and financial aid (soft loan) from the Netherlands' Directorate General for International Cooperation (DGIS), aims at improving the living conditions in underserved semi-urban areas in Bogor, Tangerang, Bekasi and Cirebon. At

this stage, the improvements relate mainly to accessibility, drainage, water supply and waste disposal. IRC is involved in the project through the project's evaluator/supervisor, Mr. Robert Brasseur. He went to Indonesia twice, paying special attention to the transfer of knowledge, to ways and means to increase the self-reliance of local authorities and to the participation of the kampong population in the preparation and implementation of the improvements as well as in the operation and maintenance of the facilities.



Kwa watoto wadogo wasioweza kutumia choo au shimo, tupa kinyesi chooni na isafishe mikono kwa sabuni.

3. MANPOWER DEVELOPMENT AND TRAINING

During 1982 the MDT Programme has been mainly concerned with three issues:
- consolidation of the Manpower Development Programme (MDP) in Indonesia;
- further development of the multi-country Project for the Development of National Training Delivery Systems (NTDS);
- strengthening of links with agencies involved in Human Resources Development for the Water Decade.

3.1. Manpower Development Programme (MDP) - Indonesia

Early in 1982 a redefinition of tasks and responsibilities of the IRC Advisory Team on the one hand and the consultants on the other was made in the MDP Indonesia project, sponsored by the Netherlands' Government. The main task of the Advisory Team has been to assist and advise the Indonesian staff involved in the execution of MDP. In the field of manpower forecasting, rough estimates were made to support Decade targets. As a better tool for the estimation of training needs a "simplified guide to manpower classification" was developed. Support was given to the programming of a rapidly increasing number of training courses for urban water supply which presently also include training for the IKK programme (Ibukota Kecamatan Kecamatan - water supply for approximately 3,500 Sub-district Principal Towns). The number of trainees amounts to 750 in 1982-1983 and will rise to about 2000 in 1983-1984. Special attention was given to the training of trainers for whom two courses were set up in 1982 and to the production of training manuals. The Team produced a manual on training of trainers and one on pipelaying and was involved in reviewing manuals produced by consultants.

The IRC Advisory Team has assisted in the development of the training capacity at regional level. It has been involved in the training of the regional manpower development assistants, in assisting in the setting up of training courses, including the design and cost estimates of training facilities, as well as monitoring and evaluation of training courses, including performance evaluation.

During this year, IRC reconsidered its role in MDP. The main reason for this was that the project had passed the pioneering stage in which innovative inputs such as IRC's were needed. Eventually it was decided to terminate IRC's involvement in the MDP Advisory Team early in 1983, but the Indonesian authorities have asked IRC to continue supporting MDP and to help set up a Training Reference Centre.

3.2. National Training Delivery Systems

The Eastern Caribbean project terminated its first phase in December 1981, with the establishment of a sectoral training delivery system for ten countries. During 1982 the project in Sri Lanka and MDP-Indonesia have benefitted from the Caribbean experience.

In Sri Lanka the collaboration among the National Water Supply and Drainage Board, consultants of the National Institute of Business Management and the UK Industrial Training Service Ltd. (ITS) resulted in a manpower study and training plan. A draft project proposal for follow-up is under discussion with USAID for funding. In September 1982 IRC provided consultancy services through ITS for a pilot study concerning maintenance problems and made recommendations for action on training for the water supply board.

As a support to WHO's initiative in Human Resources Development, IRC hosted in September a Human Resources Development workshop attended by several specialists from UN agencies and water authorities from the various IRC assisted projects in developing countries. Participants underscored the need for more and better guidelines for HRD management and planning, as well as the need for an international seminar to promote the exchange of experience and for the compilation of a catalogue of selected training material.

3.3. Training materials

In community water supply and sanitation, available knowledge and experience has world-wide potential and relevance. However, for many engineers and others involved in water supply and sanitation programmes, its accessibility is seriously lacking. Without special and persistent efforts, the transfer and dissemination of knowledge would remain very imperfect and cause the impact of knowledge development projects, studies and field experience to be very limited.

In 1982, IRC increased its efforts for knowledge transfer and dissemination, using manuals, guides, technical reports and reference abstracts as tools. There is also a growing demand for instructional materials and training aids, of which the specific requirements and format were surveyed in more detail. In this area, IRC is developing extensive collaboration with organisations and institutes that are active in knowledge dissemination.

Several of the draft training modules were provided to organizations for use in training seminars and courses: "Rainwater Harvesting for Drinking Water Supply", "Groundwater Exploration", "Water Source Selection" and "Water Pumping for Rural Water Supply". In this way, the modules were tested and validated through actual use. A variety of training materials such as diagrams, flip-over sheets, and slide presentations were investigated.

With the World Bank, discussions were started about possible cooperation between IRC and the Bank's Interregional Project "Information and Training Programme in Low-Cost Water Supply and Sanitation".

4. COMMUNITY EDUCATION AND PARTICIPATION (CEP)

Community Education and Participation (CEP) is receiving considerable attention, and activities in this field are being initiated or strengthened in a large number of countries. However, enthusiasm for a participatory approach has been generated faster than progress is made in understanding how to go about implementing the approach; in particular how to re-orientate the work of implementing agencies towards increased participation of local communities.

4.1. CEP multi-country

Funding of the CEP project in seven African countries beyond the appraisal phase did not materialize. IRC had previously organized appraisal missions to a number of countries. In addition to summing up past and present CEP experiences there, these missions also assessed the potential for the development of a country (demonstration) project on Community Education and Participation in support of community water supply and sanitation. Further to these appraisal studies, proposals were drafted for the development of CEP country projects in Cameroon, Kenya, Malawi, Togo, Upper Volta, Zambia and Zimbabwe. Consultations started with the European Development Fund regarding the funding of this multi-country project.

In 1982 special attention was given to the development of an appropriate method for Basic Health and Environmental Sanitation Education based on a participatory approach. This has resulted in a sub-project aiming at the development of a guideline on participatory hygiene education and the collection of relevant education and training materials.

4.2. CEP Tanzania

The project in Tanzania is in an advanced stage and functions as a pilot project for other country projects in Africa. The project aims at the development of a CEP component in the national rural water supply and sanitation programme. Development and field testing of a prototype of a new community development service are in their final stage. This research and development work is carried out by a Tanzanian Project Manager, delegated to the project by the Prime Minister's Office. IRC advised on the design of the field work, including the preparation of a scenario for the production of educational material by local artists, the training of the field workers and the translation of the field experiences into policy recommendations. Much attention was given to the decentralization of operation and maintenance and in relation to this, to the training of local caretakers.

Substantive progress has been made regarding the formulation of a national policy and the coordination of the efforts of various external support agencies in this field in Tanzania. National agencies are watching this development with keen interest. Specific advice and support were also given to the regional shallow wells projects in Shinyanga and Morogoro.

4.3. Other CEP projects

To promote an overview of what UN agencies and non-governmental organizations are doing in CEP in water and sanitation IRC prepared and distributed in early 1982 the IRC Occasional Paper "Status Report on Community Education and Participation; Activities and Recommendations". This report is based on the findings of the first CEP Advisory Group Meeting, held at IRC late 1981.

A draft "Guideline for the Development of a National Support Programme on Community Education and Participation" was prepared by Dr. Anne Whyte (University of Toronto) and IRC consultant Drs. Christine van Wijk. A review of this document was organized by WHO and the final publication is expected in the first half of 1983. A translation of the draft document into French was prepared by Water and Sanitation for Health Project (WASH).

A translation of selected CEP materials from Colombia was prepared by Dr. Anne Whyte and will be published by IRC as an Occasional Paper.

To collect information on who is doing what, where and how in the field of CEP for water and sanitation, a mail survey was organized in collaboration with the USAID-funded WASH project. The aim is to prepare a Directory of Sources on Information on CEP as an instrument to promote the exchange of information and sharing of knowledge and experiences in this field.

Presentations were given by IRC's consultants Dr. Alastair White and Drs. Christine van Wijk, amongst other occasions, at the International Institute for Hydraulic Environmental Engineering-WHO Short Course on Water Pollution Monitoring and Management in Delft, Netherlands, and at the Nordic Seminar on Human Resources Development in Oslo, Norway.

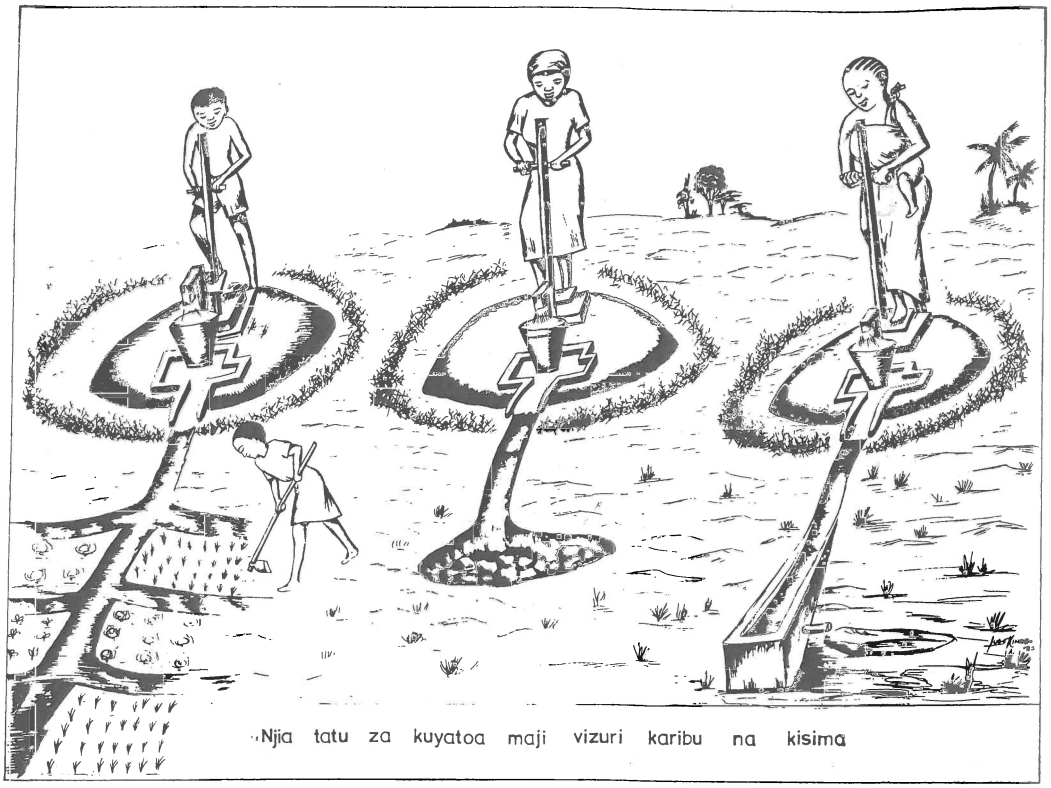
5. PROGRAMME PLANNING AND EVALUATION

In support of the goals of the Decade, experience needs to be evaluated as a basis for better planning of water supply and sanitation programmes. This IRC project deals with procedural aspects (how to plan, how to evaluate) and substantial aspects (what to plan, what to evaluate). It aims to provide information and technological support such as: evaluation studies, workshops, courses and programme development. Consultations were held with organizations in a number of countries regarding their possible participation in this project, especially workshops on evaluation methodology in these countries.

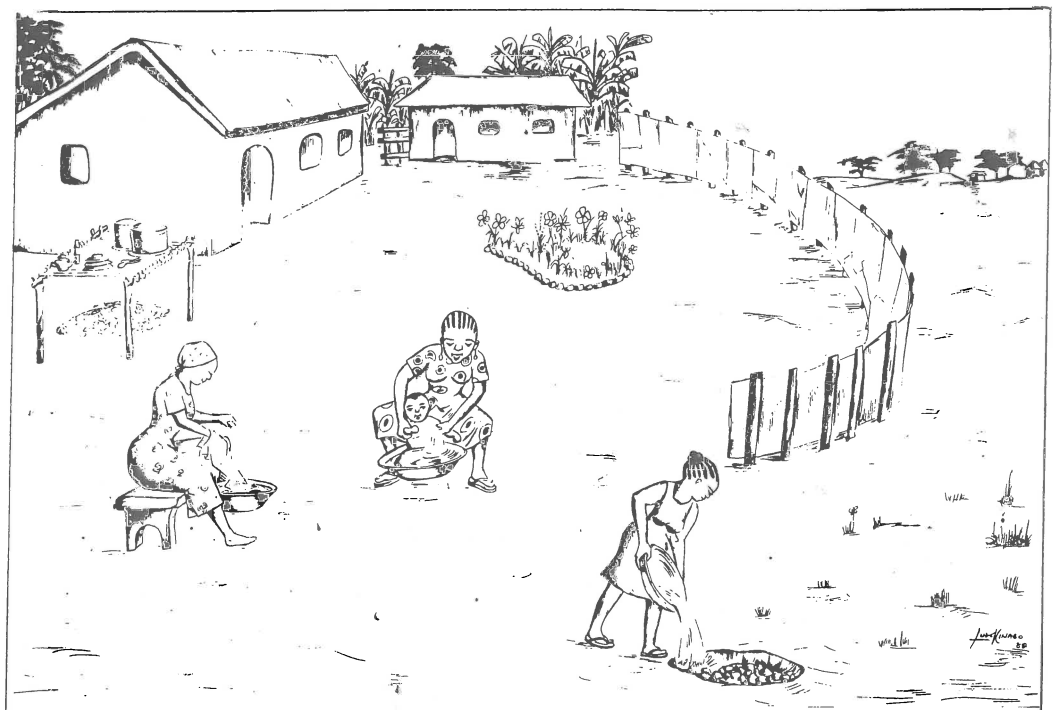
In 1982 a revised version of the "Selected and Annotated Bibliography on Planning and Evaluation for Community Water Supply and Sanitation" was issued. This publication contains a systematic review of selected literature. A start has been made with a glossary of terms relating to planning and evaluation; a list of keywords has been issued for review.

Input was given for the preparation of the Summer Course on Evaluation of Drinking Water and Sanitation Projects, to be held in Amsterdam from June 20 to July 8, 1983. It is being organized by the Royal Tropical Institute in collaboration with WHO, the Ross Institute of the London School of Hygiene and Tropical Medicine and IRC.

Preparations were made for an evaluation mission to the "Volta Noire" rural water supply project in Upper Volta, funded by the Netherlands' Government. A detailed protocol was made based on the concept of integral project evaluation, and two consultants were selected and briefed. The evaluation team was complemented by three staff members of the Direction de l'Hydraulique et de l'Equipement Rural (HER) in Upper Volta.



Njia tatu za kuyatoa maji vizuri karibu na kisima



Kufua na kuoga mara kwa mara huwezeshwa na upatikanaji mzuri wa maji.

III ORGANIZATION OF IRC

1. Status and Institutional Arrangements

Fifteen years ago IRC was officially established on the basis of an agreement between the World Health Organization and the Netherlands' Government. In accordance therewith its activities concern "the advancement and transfer of knowledge and methods"; with an emphasis on support to national programmes for rural and urban fringe water supply and sanitation.

IRC is a non-profit organization incorporated as a Foundation. It operates with a regular budget from the Government of the Netherlands (US$ 600,000 annually) and a contribution from WHO. This is supplemented by extra-budgetary resources provided by funding agencies for specific programmes and projects. In 1982 this amounted to approximately US $ 1.4 million. The international character of IRC is reflected in its Governing Board which is composed of representatives of international organizations (UNDP, UNICEF and World Bank, with WHO as observer) in addition to delegates from the sponsoring Ministries of the Government of the Netherlands (Building, Physical Planning and Environment, and Foreign Affairs/ Development Cooperation (see Annex 2).

IRC also acts as global collaborating centre on Community Water Supply for WHO.

The IRC Advisory Council, which is still in development, will be entirely international, with the major representation from developing countries. The Council assists IRC in the planning of its projects.

IRC staff numbers 26 including professionals in civil and sanitary engineering, social sciences, manpower development and training, as well as information and documentation systems specialists (see Annex 3). External experts are employed on specific assignments, as required.

2. Organizational development

In order to enable IRC to operate effectively in its complex working field, in relation with many partners, and in a decreasing economic environment, a clearer definition of the organization of IRC was regarded as necessary. It was expected that daily management and policy development would benefit from such a process, and also assist in the adequate anticipation of the varying requests for support to IRC.

Against this background an internal organization development survey was undertaken during 1982, guided by Management Consultants Berenschot BV. This led to a clearer definition of IRC's role and a more appropriate structuring of the internal organization, which better suits the new foundation status and the implications thereof. One essential point is that IRC's activities are being organized in the form of projects on the basis of a matrix organization. In this design,

Project Managers and the Information Manager carry direct responsibility for individual project management. Programme Officers have responsibility for the various components of the IRC Programme. A Policy Team consisting of the Director, Programme Officers and the Administrator, is concerned with policy development, programme planning and organizational development.

3. IRC's Operational Role

With this new organizational structure as a basis, the operational role of IRC is to develop and maintain a knowledge base, to prepare proposals for projects on knowledge transfer and to submit these for funding, to coordinate the implementation of the projects and to evaluate the results. The primary responsibility for the planning and implementation of the country projects is at the country level. The major part of the work is carried out in the countries concerned, in order to ensure that the knowledge generated is in direct support of the development of the sector. IRC's core budget is a generating budget, meant to support the initiation and development of information oriented activities in the form of projects. In principle these projects are financed through external funding by multilateral and/or bilateral donors. Funding of such projects covers a component for country projects, IRC's contribution and a component for TCDC (Technical Cooperation among Developing Countries). Benefitting countries are expected to supply a counterpart contribution for their country programme.

Annex 4 gives a list of countries where IRC projects are being undertaken or carried out.

IV PROGRAMME PLAN 1983

IRC's Programme Plan for 1983 is to a large extent directed towards furthering projects developed over the past years. It was approved by the Governing Board in October 1982. Highlights include:

POETRI

For POETRI the major activity in 1983 is the preparation of project proposals for national information systems and services and getting them funded. In India, 1983 will be a year of further strengthening the NEERI national focal point. In June a national seminar will be held in Nagpur where the national information support services will be one of the three topics of discussion. This meeting will also review the experiences with Slow Sand Filtration and its Community Education Participation requirements.

In Indonesia a detailed proposal for implementation of POETRI activities, based on the earlier convention between the Directorate General of Cipta Karya and IRC, will be finalized. For Thailand actual implementation of activities is expected to start on 1 October 1983, with some local funding being made available pending successful external funding. With the the National Water Supply and Drainage Board in Sri Lanka, a draft proposal is expected to be further developed, with a national workshop on information exchange needs tentatively scheduled for late 1983. In Western and Central Africa POETRI actions will be concentrated in the countries in which the government has already formally designated a national focal point, and in certain cases set aside a budget. For Mali, Niger, Upper Volta, Congo, Senegal and Togo, proposals will be developed early in the year and formal steps to secure external funding to start POETRI activities will follow. All these activities take place under the guidance of the regional focal point CIEH at Ouagadougou, Upper Volta.

For the Latin American network the continuation of CEPIS as Regional Focal Point for POETRI will be safeguarded. In 1983 country specific proposals for POETRI activities are to be submitted by Argentina, Colombia, Costa Rica, and Peru. Jamaica's participation in POETRI Phase II is envisaged, with a draft proposal being developed.

The various tools needed for effective information exchange will be further developed in 1983 if funding can be obtained.

The second meeting of the Task Force on Information Exchange will be held in March in Geneva. This meeting will review the progress on POETRI as well as proposals for its future developments as part of an overall look at options for information exchange.

SLOW SAND FILTRATION

Slow Sand Filtration assistance in 1983 will concentrate on organization of four seminars, scheduled for India and Thailand in June, Jamaica in September and tentatively planned for Kenya/Sudan later in the year. The operation and maintenance manual will be produced and distributed together with a manual for trainers. The existing manual on design and construction of SSF (Technical Paper 11) will be revised.

PUBLIC STANDPOST WATER SUPPLIES

The new project manager for the Public Standpost Water Supplies project will be actively supporting the development of the project in the four participating countries.

In Indonesia the project will be co-ordinated by the Ministry of Public Works with the Directorate of Building Research in Bandung as executing agency. First item on the workplan in Indonesia will be the organization of a workshop to evaluate past and present experiences with public standposts, tentatively scheduled for early 1983. In executing the project much attention will be given to basic health and environmental sanitation education, community participation and financial management.

In Malawi the project will be executed by the Department of Lands, Valuation and Water in close collaboration with the Ministry of Health. In developing the local demonstration schemes emphasis will be put on basic sanitation education, the establishment of tap committees and the training of local caretakers.

In Sri Lanka the project will be executed by the National Water Supply and Drainage Board in collaboration with the Health Education Bureau of the Ministry of Health. Priority items of the workplan are: finalization of demonstration sites and preliminary studies at each, the development of programmes for health education and community involvement and preparing for an evaluation/appraisal workshop on Public Standpost Water Supplies to be held in 1983.

In Zambia the project will be co-ordinated by the Department of Water Affairs. Major components of the workplan are: studies on financial management and operation and maintenance aspects and the development of appropriate technology. Much attention will be given to environmental sanitation education and community participation in all stages of the project.

HANDPUMPS

The 1983 workplan for the handpump project includes the finalization and publication of the "Guide for Organizing of Handpump Maintenance Systems", the development of an assistance package for local manufacture of pumps and preparation of a manual on handpump selection.

MANPOWER DEVELOPMENT AND TRAINING

For the final year of the MDP Indonesia project, advice and services will be rendered to the Ministry of Public Works on manpower development, training and training materials.

COMMUNITY EDUCATION AND PARTICIPATION

Provided external funding is arranged, a start will be made with the execution of country projects in Africa. The workplan also includes the preparation of guidelines on community health education, and finalization of the various publications. In the Tanzanian project, assistance in evaluation of the field work and preparation of the final report will be a major task.

PROGRAMME PLANNING AND EVALUATION

The short term evaluation mission to the Netherlands' Upper Volta rural water supply project will be finalized in March 1983. Other activities will include the preparation of proposals for country projects and their submission for external funding. IRC's contribution to the summer course on evaluation of health impacts of water supply projects at the Royal Tropical Institute in Amsterdam may include a publication of selected course material.

OTHER PROJECTS

Various other projects concentrating on practical generation and transfer of information are being undertaken, such as: standard designs for rural water supplies, rainwater collection, and water disinfection. Several of those will include consultancies and will generate publications in 1983.

Je, haya maji ni safi na yanafaa kunywa ?

ANNEX 1

LIST OF PUBLICATIONS

Technical Papers

* Handpumps for Use in Drinking Water Supplies in Developing Countries, 1978 (TP10) *)**)
* Slow Sand Filtration for Community Water Supply in Developing Countries, A Design and Construction Manual, 1978 (TP11) *)**)
* Participation and Education in Community Water Supply and Sanitation Programmes, A Literature Review, 2nd revised edition 1981 (TP12)
* Public Standpost Water Supplies, 1980 (TP13)
* Public Standpost Water Supplies, a Design and Construction Manual, 1980 (TP14)
* Evaluation for Village Water Supply Planning, 1980 (TP15)
* POETRI Reference Manual, Volume I, 1981 (TP16)
* Community Participation in Water Supply and Sanitation- Concepts, Strategies and Methods, 1981 (TP17)
* Small Community Water Supplies in Developing Countries, Technology of Small Water Supply Systems in Developing Countries, 1981 (TP18)
* Guidelines on Health Aspects of Plumbing, 1982 (TP19)
* Practical Solutions in Drinking Water Supply and Wastes Disposal for Developing Countries, 1982 (TP20)

Bulletins

* Global Workshop on Appropriate Water and Waste Water Technology for Developing Countries, Voorburg, The Netherlands, Report of Proceedings, 1973 (B7)
* Slow Sand Filtration for Community Water Supply in Developing Countries, a Selected and Annotated Bibliography, 1977 (B9)
* Public Standposts for Developing Countries, Proceedings of an International Expert Meeting, Achimota (Accra), Ghana, 1978 (B11)
* Participation and Education in Community Water Supply and Sanitation Programmes, a Selected and Annotated Bibliography, 1979 (B13)
* Community Education and Participation in the IRC Slow Sand Filtration Project, Voorburg, The Netherlands, Report of Proceedings, 1979 (B14)
* Slow Sand Filtration for Community Water Supply in Developing Countries, Report of an International Appraisal Meeting, Nagpur, India, 1981 (B16)
* Report of a Global Seminar on a Modular Approach in Small Water Supply Systems Design, Jakarta, Indonesia, 1981 (B17)

*) also available in French
**) also available in Spanish from: CEPIS, Casilla Postal 4337, Lima 100, Peru.

ANNEX 2

GOVERNING BOARD

Mr. P. Santema (chairman), Netherlands Ministry of Public Health and Environmental Protection
Mr. P.J. Verkerk (secretary), Netherlands Ministry of Public Health and Environmental Protection
Mr. D.J. de Geer (treasurer), Netherlands Ministry of Public Health and Environmental Protection
Mr. H. Gajentaan, Netherlands Ministry of Foreign Affairs (Development Co-operation)
Mr. L.P.J. Mazairac, Netherlands Ministry of Foreign Affairs (Development Co-operation)
Dr. P. Lowes, United Nations Development Programme
Dr. M.G. Beyer, United Nations Childrens' Fund
Mr. J.M. Kalbermatten *, International Bank for Reconstruction and Development
Mr. S. Unakul, World Health Organization (observer)

* as of January 1st, 1983: Mr. J. Freedman

ANNEX 3

IRC STAFF IN 1982

Director	
Hans M.G. van Damme	(also acting as Programme Officer Information)
Programme Officers	
T. Kien Tjiook	Water Quality and Treatment; Modular Designs; Water Technology; Training Materials
Ebbo H. Hofkes	Programme Planning and Evaluation; Community Education and Participation; Demonstration Projects
Enric L.P. Hessing	Human Resources Development; Education and Training
Robert E.A.L.E. Brasseur	
Project Managers	
Toon A. van Dam	POETRI project
Han A. Heijnen	Slow Sand Filtration project (until July 1982)
Jan Teun Visscher	Slow Sand Filtration project (from July 1982)
Michael Seager	Public Standpost Water Supplies project (from January 1983)
Information Section	
Dick de Jong	Information Manager
George J. Bedard	Editor
Lia C. van der Kruit	Documentalist
Cor Dietvorst	Assistant Documentalist
Gé Konings	Assistant Documentalist
Hannie Wolsink	Information Assistant
Lia Wahab	Information Assistant
Administration and Finance	
M. Krijn Peterse	Head Administration and Finance
Louise I. Sackman	Mangement Assistant
Hein Bodrij	Staff Assistant
Anneke Groenendal	Project Assistant
Ellen D.F. Konings	Project Assistant
Cynthia Raley	Project Assistant
Marloes L. Ritsema	Project Assistant (until January 1983)
Chantal W.M. Stenfert-Ploum	Project Assistant (starting from January 1983)
Hulda W. de Vries	Project Assistant

Monica A. Zijdemans	Project Assistant

Detachment Manpower Development and Training, Indonesia
Alan L. Spencer

Consultants

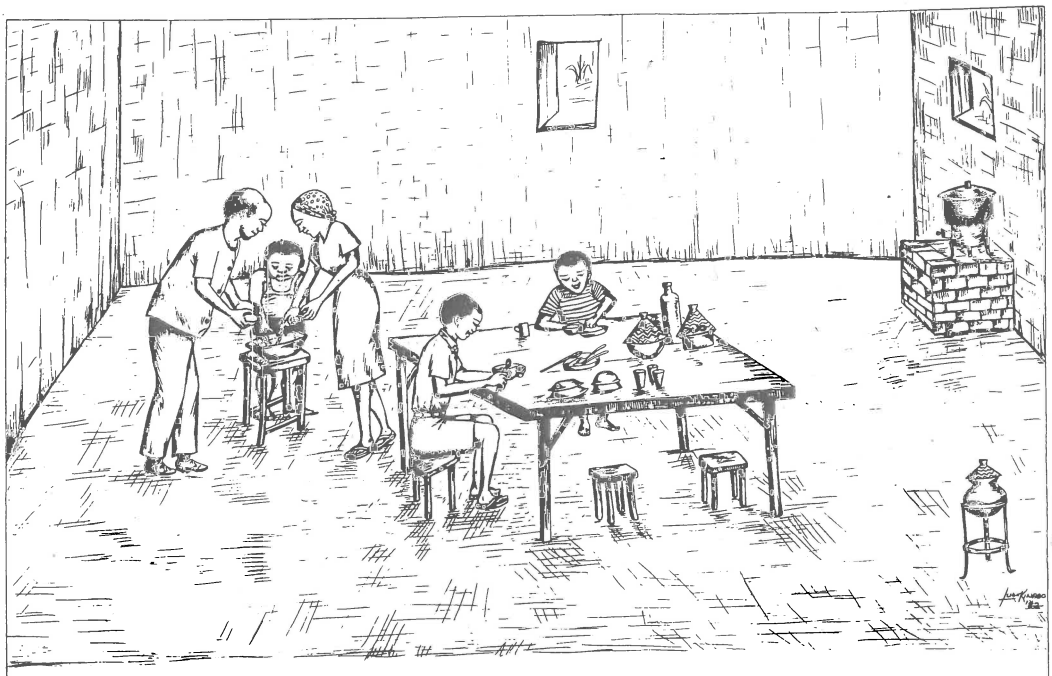
Ms. Christine van Wijk-Sijbesma	Community Education and Participation
Alastair T. White	Community Education and Participation
Ms. Mary Kirimbai	Community Education and Participation
Ms. Lane F. Hoffman	General Consultant
Wouter T. Lincklaen Arriëns	Programme Planning and Evaluation

ANNEX 4

Project/Country Matrix

Countries \ Projects	Slow Sand Filtration	Public Standpost Water Supplies	Manpower Development and Training	Programme on Exchange and Transfer of Information	Community Education and Participation	Technology Development Centre	Programme Planning and Evaluation	Kampong Improvement Programme
Cameroon	●			●				
Kenya	●			●	●			
Malawi		●			●			
Mali				●				
Niger				●				
Senegal				●		●		
Sudan	●							
Tanzania		●	●	●	●			
Togo				●	●			
Upper Volta				●	●		●	
Zambia		●			●			
India	●			●				
Indonesia		●	●	●				●
Sri Lanka		●	●					
Thailand	●			●				
Argentina				●				
Caribbean *			●					
Columbia	●			●	●			
Ecuador				●				
Jamaica				●				
Peru	●			●				

*) Fading out.



Familia yetu yaweza kukingwa na kuungua, mikono michafu, maji machafu na mainzi kwenye chakula .