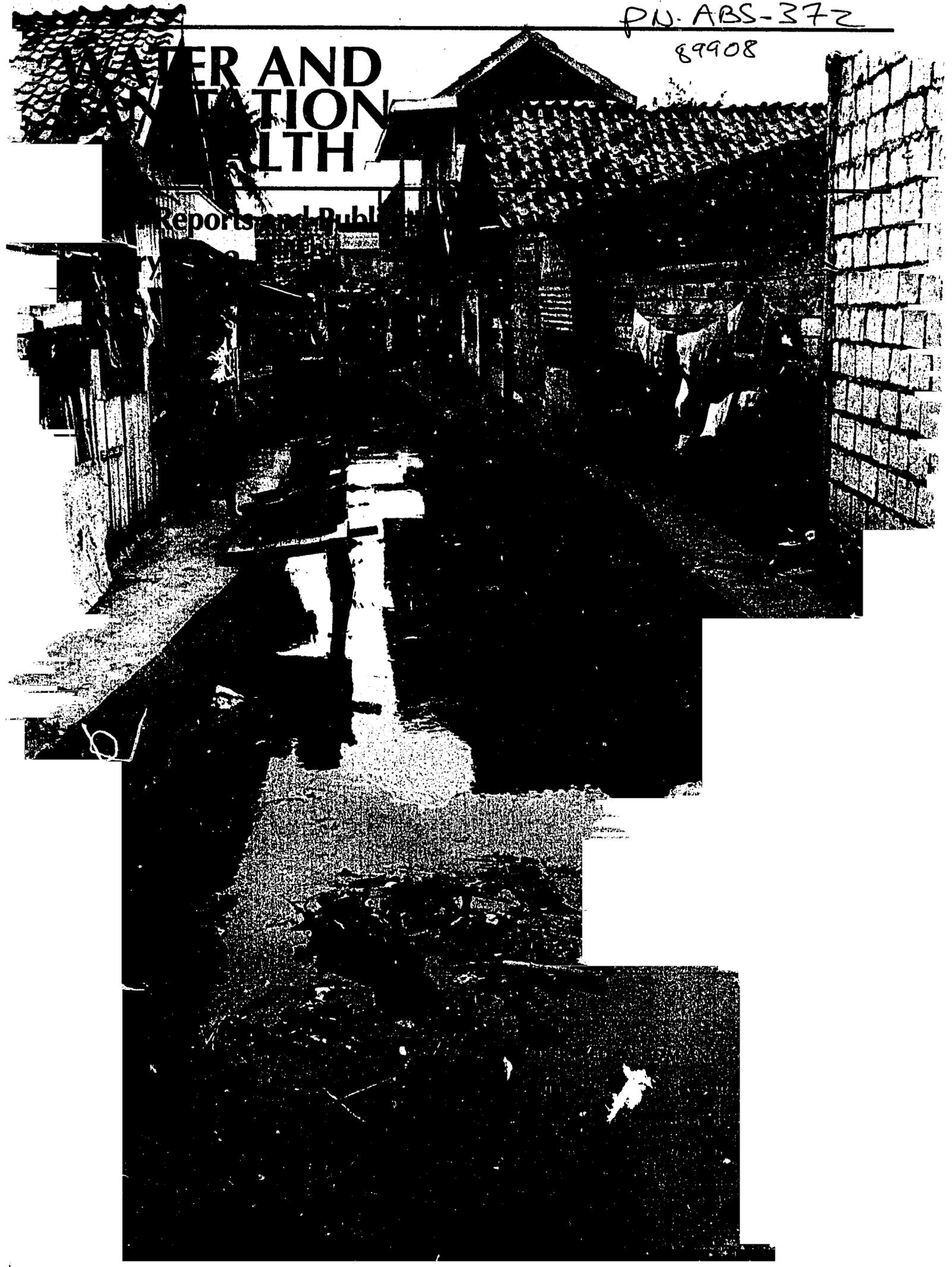


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# WATER AND SANITATION HEALTH

Reports and Publications



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# WATER AND SANITATION FOR HEALTH PROJECT

## Reports and Publications

January 1992

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Cumulative List of WASH I, II, and III Reports  
and  
Special WASH Publications

Water and Sanitation for Health Project  
Contract No. DPE-5973-Z-00-8081-00, Project No. 836-1249  
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## NOTE TO THE READER

This comprehensive list of WASH reports and publications is being published concurrently with WASH Progress Report 14. While the Progress Report covers all reports and all technical assistance activities of the current WASH Project, the present report covers only the reports and publications. It should meet the needs of most organizations and individuals. WASH has instituted this dual-publication approach to conserve resources. (If this report does not meet your needs, you may request the longer Progress Report from the WASH Operations Center.)

The WASH Project publishes a periodical bulletin called "WASH Update" to provide current information about WASH activities and reports. This comes out three or four times per year and is available on request.

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# WASH TECHNICAL AND FIELD REPORTS

The following is a comprehensive list of WASH Technical and Field Reports arranged numerically. The Technical Reports are listed first. Each citation includes the title, author, date of publication, and availability in translation. Indices of reports by subject and author may be found on pages 23 and 30, respectively.

## Technical Reports

- TR 1 *Triocide Questions and Answers.*** November 1980. Prepared by Peter J. Kolsky.
- TR 2 *Possible Disinfection of Oral Rehydration Solutions.*** November 1980. Prepared by Raymond B. Isely, Richard Cash, and Lincoln Chen.
- TR 3 *Training of Rural Community Development Workers in Health Education, with Special Reference to Water Supply Protection and Use/Maintenance of Sanitation Facilities.*** March 1981. Prepared by Guy Steuart and Carla Rull.
- TR 4 *Evaluation Methods for Community Rural Water Supply and Sanitation Projects in Developing Countries: A Synthesis of Available Information.*** March 1981. Prepared by Robert J. Struba.
- TR 5 *The Choice of Health Status Indicators to Evaluate Water and Sanitation Projects in North Cameroon: A Synthesis of Available Information.*** April 1981. Prepared by Robert J. Struba and Raymond B. Isely. Also available in French.
- TR 6 *Women, Water, and the Decade.*** Presented at the International Affairs Session of the American Water Works Association, St. Louis, Missouri, June 9, 1981. June 1981. Prepared by Mary L. Elmendorf.
- TR 7 *Facilitation of Community Organization: An Approach to Water and Sanitation Programs in Developing Countries.*** June 1981. Prepared by Raymond B. Isely.
- TR 8 *Intégration de l'Approvisionnement en Eau et de l'Assainissement du Milieu dans les Programmes de Soins Primaires.*** October 1981. Prepared by Raymond B. Isely, John Tomaro, and John Paul. Available in French only.
- TR 9 *Toward an Asia Bureau Water and Sanitation Policy Statement.*** September 1981. Prepared by James F. Thomson.
- TR 10 *Social and Economic Preconditions for Water Supply and Sanitation Programs.*** September 1981. Prepared by Dennis B. Warner.
- TR 11 *The Role of Women as Participants and Beneficiaries in Water Supply and Sanitation Programs.*** December 1981. Prepared by Raymond B. Isely and Mary L. Elmendorf. Also available in French and Spanish.
- TR 12 *Measuring and Evaluating Diarrhea and Malabsorption in Association with Village WS&S.*** (Guatemala). December 1981. Prepared by Branko Cvjetanovic, Lincoln Chen, Richard Kronmal, Charles Rohde, Robert Suskind, Robert J. Struba, and Kenneth McElroy.
- TR 13 *Participants Manual for Sessions on WS&S: USAID Workshop on Primary Health Care in Africa.*** February 1982. Prepared by Raymond B. Isely, Craig R. Hafner, Daniel A. Okun, Morris A. Shiffman, Thomas Talbert, and Marjorie L. Kupper.
- TR 14 *WS&S in Rural Development: Proceedings of a Conference for Private and Voluntary Organizations, December 1-4, 1981.*** December 1981. Prepared by WASH Staff.
- TR 15 *Application of Health Education to Water Supply and Sanitation Projects in Africa: A Discussion Paper.*** October 1982. Prepared by Raymond B. Isely and Kathleen A. Parker.
- TR 16 *Relating Improvements in Water Supply and Sanitation to Nutritional Status.*** October 1982. Prepared by Raymond B. Isely.

- TR 17 *Water and Sanitation-Related Health Constraints on Women's Contributions to the Economic Development of Communities*. October 1982. Prepared by Mary L. Elmendorf and Raymond B. Isely.
- TR 18 *Community Participation and Women's Role in Water Supply and Sanitation in Developing Countries: A Three-Part Bibliography by Author, Subject, and Country*. November 1982. Prepared by Ellen Kendall.
- TR 19 *Africa Bureau Domestic Water and Sanitation Strategy Statement*. January 1983. Prepared by John B. Tomaro and Raymond B. Isely.
- TR 20 *Human Resource Development Planning: Guidelines for the Water Supply and Sanitation Sector*. July 1988. Prepared by J. E. S. Lawrence and J. B. Tomaro.
- TR 21 *Women's Roles in Water and Sanitation in Developing Countries: A Four-Part Bibliography by Author, Subject, Phase of Development, and Country*. February 1984. Prepared by Alice J. Smith.
- TR 22 *Human Resource Development: A Selected and Annotated Bibliography for Use in the Water Supply and Sanitation Sector*. February 1984. Prepared by Vernon Razak.
- TR 23 *Hydropneumatic Pump System Development*. April 1984. Prepared by Yaron M. Sternberg and Jonathan French.
- TR 24 *Pretesting and Revising Visual Materials for Water Supply and Sanitation Programs*. September 1984. Prepared by Lamar Cox, Ralph Wileman, and Raymond B. Isely.
- TR 25 *A Workshop Design for Latrine Construction: A Training Guide*. June 1984. Prepared by Maria LeClere and Keith Sherer. Also available in French and Spanish.
- TR 26 *A Workshop Design for Handpump Installation and Maintenance: A Training Guide*. June 1984. Prepared by P. Alan Pashkevich and Claudia Liebler. Also available in French and Spanish.
- TR 27 *A Workshop Design for Rainwater Roof Catchment Systems: A Training Guide*. June 1984. Prepared by Daniel B. Edwards, Kent Keller, and David I. Yohalem. Also available in French and Spanish.
- TR 28 *A Workshop Design for Spring Capping: A Training Guide*. September 1984. Prepared by Wilma Gormley, David R. Goff, and Carl R. Johnson. Also available in French and Spanish.
- TR 29 *Surface Water Treatment for Communities in Developing Countries*. September 1984. Prepared by Daniel A. Okun and Christopher Schulz.
- TR 30 *Developing and Using Audio-Visual Materials in Water Supply and Sanitation Programs*. October 1984. Prepared by Barry Karlin and Raymond B. Isely.
- TR 31 *Linking Water Supply and Sanitation to Oral Rehydration Therapy in the Control of Diarrheal Diseases*. July 1985. Prepared by Raymond B. Isely.
- TR 32 *A Facilitator Guide for Conducting a Team Planning Meeting*. December 1985. Prepared by Wilma Gormley and Fred Rosensweig.
- TR 32S *Guide for Conducting a Debriefing, Supplement to a Facilitator Guide for Conducting a Team Planning Meeting*. July 1988. Prepared by Fred Rosensweig.
- TR 33 *A Workshop Design for Community Participation, Volume I—Starting Work with Communities, and Volume II—Planning and Implementing Sustainable Projects*. December 1988. Prepared by Raymond B. Isley and David I. Yohalem.
- TR 34 *A Workshop Design for Well Improvement: Protecting Open Wells*. May 1988. Prepared by Maria Nagorski, Charles S. Pineo, Scott Loomis, and Oscar Larrea. Also available in French and Spanish.
- TR 35 *Assessment of the Operations and Maintenance Component of Water Supply Projects*. June 1986. Prepared by James K. Jordan, Peter Buijs, and Alan S. Wyatt.
- TR 36 *Water Supply and Sanitation in the Health Sector in the Asia Region: Information Needs and Program Priorities*. February 1986. Prepared by John Briscoe.

- TR 37 *Guidelines for Institutional Assessment: Water and Wastewater Institutions*. February 1988. Prepared by Donald E. Cullivan, Bruce Tippet, Daniel B. Edwards, Fred Rosensweig, and James McCaffery. Also available in French, Spanish, and Arabic.
- TR 38 *Cost-Effective Approaches to the Control of Dracunculiasis*. September 1986. Prepared by John E. Paul, Raymond B. Isely, and Gary M. Ginsberg.
- TR 40 *Framework and Guidelines for CARE Water Supply and Sanitation Projects*. June 1986. Prepared by Raymond B. Isely, Scott Faiia, John Ashworth, Richard Z. Donovan, and James T. Thomson.
- TR 41 *Facilitator Guide for Conducting a Project Start-Up Workshop*. March 1988. Prepared by Daniel B. Edwards and John J. Pettit.
- TR 42 *The Selection of Drilling Rigs for Rural Water Supply*. April 1988. Prepared by Ralph E. Preble and Philip Roark.
- TR 43 *The Value of Water Supply and Sanitation in Development: An Assessment of Health-Related Interventions*. September 1987. Prepared by Daniel A. Okun. Also available in French and Spanish.
- TR 44 *Community Participation in Water Supply Projects as a Stimulus to Primary Health Care: Lessons Learned from A.I.D.-Supported and Other Projects in Indonesia and Togo*. May 1987. Prepared by Eugenia Eng, John Briscoe, and Anne Cunningham.
- TR 45 *Water Vending and Development: Lessons from Two Countries*. May 1988. Prepared by Dale Whittington, Donald T. Lauria, Daniel A. Okun, and Mu Xinming.
- TR 48 *Estimating Operations and Maintenance Costs for Water Supply Systems in Developing Countries*. January 1989. Prepared by James K. Jordan and Alan Wyatt.
- TR 49 *Managing Institutional Development Projects: Water and Sanitation Sector*. May 1988. Prepared by Daniel B. Edwards. Also available in French and Spanish.
- TR 50 *Workshop on Guinea Worm Control at the Community Level: A Training Guide*. January 1988. Prepared by William Brieger and Fred Rosensweig. Also available in French.
- TR 51 *Adding Guinea Worm Control Components: Guidelines for Water and Sanitation Projects*. May 1988. Prepared by Agma Prins and May Yacoob. Also available in French.
- TR 52 *New Participatory Frameworks for the Design and Management of Sustainable Water Supply and Sanitation Projects*. November 1987. Prepared by Paula Donnelly-Roark. Available in French and Spanish.
- TR 53 *Guidelines for Conducting a Financial Management Assessment of Water Authorities*. October 1990. Prepared by Sally S. Johnson.
- TR 54 *Guidelines for Cost Management in Water and Sanitation Institutions*. June 1990. Prepared by Ronald W. Johnson.
- TR 55 *What Makes Hygiene Education Successful? Experience from Togo, Sri Lanka, and Yemen and Its Relevance for Project Design*. September 1988. Prepared by Barbara Pillsbury, May Yacoob, and Peter Bourne. Also available in French, Spanish, and Arabic.
- TR 56 *Alternatives for Capital Financing of Water Supply and Sanitation*. December 1991. Prepared by James S. McCullough.
- TR 57 *Approaches for Private Sector Involvement in Rural Water Supply Systems*. April 1989. Prepared by Jonathan Hodgkin, Philip Roark, and Alfred Waldstein.
- TR 59 *Training Guide for a Management Development Program in Water and Sanitation Institutions*. July 1989. Prepared by Daniel B. Edwards and Edward Salt.
- TR 60 *A Training Guide on Hygiene Education*. March 1990. Prepared by Graeme Frelick and Sarah Fry.
- TR 61 *Pump Selection: A Field Guide for Developing Countries*. January 1989. Prepared by Richard McGowan and Jonathan Hodgkin.

**TR 62 Tech Pack: Steps for Implementing Rural Water Supply and Sanitation Projects.** August 1990. Prepared by May Yacoub and Philip Roark. Also available in Spanish.

**TR 63 Guidelines for Maintenance Management in Water and Sanitation Utilities in Developing Countries.** June 1989. Prepared by Alan Wyatt.

**TR 64 Evaluation Guidelines for Community-Based Water and Sanitation Projects.** May 1990. Prepared by Philip Roark.

**TR 65 Strategies for Linking Water and Sanitation Programs to Child Survival.** September 1990. Prepared by Emmanuel Joseph, Sarah Fry, Sumana Brahmam, and Janice Burns.

**TR 66 Health Benefits from Improvements in Water Supply and Sanitation: Survey and Analysis of the Literature on Selected Diseases.** July 1990. Prepared by Steven A. Esrey, Leslie Roberts, James B. Potash, and Clive Shiff.

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**TR 69 Selection and Role of Long-Term Advisors.** March 1991. Prepared by James McCaffrey.

**TR 70 Evaluation Guidelines for Training in Water and Sanitation.** April 1991. Prepared by Lee Jennings, Steven D. Joyce, and Richard Middleton.

**TR 73 A Workshop Design for the Training of Trainers.** June 1991. Prepared by Graeme Frelick.

**TR 75 Cost-of-Illness Methodologies for Water-Related Diseases in Developing Countries.** October 1991. Prepared by John E. Paul and Josephine A. Mauskopf.

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**FR 1 Socio-Cultural & Economic Characteristics of Conditions in Ancash and La Libertad, Peru: Questions to be Considered in an Evaluation of CARE-Sponsored Water, Sewage and Health Projects.** November 1980. Prepared by Charlotte D. Miller.

**FR 2 Review of A.I.D. Rural Potable Water Programs—Haiti.** January 1981. Prepared by James Arbuthnot.

**FR 3 Feasibility of Local Manufacture of the A.I.D. Hand-Operated Water Pump, and Other Technology Appropriate for Rural Water Supply Programs in the Philippines.** April 1979. Prepared by Phillip W. Potts, Robert Knight, and Yaron M. Sternberg.

**FR 4 Tunisia—Aspects of Well Drilling. Rural Potable Water Project—Report on a Field Trip.** January 1981. Prepared by Michael Glaze.

**FR 5 Dominican Republic Consultations on the Health Sector Loan II.** Report of a Field Trip. January 1981. Prepared by Dennis B. Warner.

**FR 6 Report on the Peru Rural Water Systems and Environmental Sanitation Project.** January 1981. Prepared by Harold Shipman.

**FR 7 Tanzania—A National Environmental Sanitation Education Master Plan, A Preliminary Review.** February 1981. Prepared by Dennis B. Warner and Kenneth Woolf.

**FR 8 Tanzania—Health and Environmental Monitoring Project (HEMP): Recommendations for Project Paper Design Team.** March 1981. Prepared by Dennis B. Warner and Kenneth Woolf.

**FR 9 Contaminación Ambiental en Ecuador.** March 1981. Prepared by Paul C. Dreyer. Available in Spanish only.

**FR 10 Lebanon—Technical Recommendations for Wastewater Treatment Demonstration (Pilot) Plants for Lebanon.** March 1981. Prepared by A.A. Kalinske.

- FR 11 *Mauritania—Public Health Assessment of Proposed Dams, Water-Related Diseases and Community Water Supplies.* March 1981. Prepared by Emil Malek and David R. Goff.
- FR 12 *Ecuador—Institutional Development for IEOS: Instituto Ecuatoriano de Obras Sanitarias.* March 1981. Prepared by Charles S. Pineo, Henry Van, and Guillermo Orozco. Also available in Spanish.
- FR 13 *Proyecto de Sistema de Entrega de Salud Rural Integrado—Saneamiento Rural. (Ecuador.)* March 1981. Prepared by Gonzalo Medina. Available in Spanish only.
- FR 14 *Targets of Opportunity for WASH: Report of a Reconnaissance Visit to India and Bangladesh, February 20-March 7, 1981.* March 1981. Prepared by Raymond B. Isely.
- FR 15 *Guatemala—XIII Central American Congress of AIDIS, Guatemala City, March 15-20, 1981.* March 1981. Prepared by Charles S. Pineo.
- FR 16 *Indonesia—Rural Sanitation and Manpower Development Project (RSMD).* The Development of Appropriate Technology and the Improvement of Curricula for Training of Sanitarians. March 1981. Prepared by Robert A. Gearheart and Clarence E. Calbert.
- FR 17 *Jordan—Recommended Wastewater Treatment Guidelines for the Hashemite Kingdom of Jordan.* April 1981. Prepared by Harris F. Seidel.
- FR 18 *Coordination of WASH Information Activities and Exchange with International Information Centers, Holland and England, April 5-17, 1981.* April 1981. Prepared by James E. Beverly.
- FR 19 *Village Water Supply and Sanitation in Northeastern Thailand.* July 1981. Prepared by James Arbuthnot and Robert H. Thomas.
- FR 20 *Technical Assistance in the Manufacture and Quality Control of the A.I.D./Battelle Handpump in the Dominican Republic.* June 1981. Prepared by Robert Knight.
- FR 21 *Plan for a Health Education Component for the Health Sector II Bilateral Assistance Project in the Dominican Republic.* July 1981. Prepared by Charles Llewellyn.
- FR 22 *Evaluation of Yemen Water Supply Systems Management Project.* September 1981. Prepared by Martin Lang and Clarence E. Calbert.
- FR 23 *Plan for the Health Impact Evaluation of the Health Sector II Bilateral Assistance Project in the Dominican Republic.* July 1981. Prepared by Paul F. Howard and Robert J. Struba.
- FR 24 *Community Water Supply and Sanitation in Burundi: Report of an Evaluation Team.* October 1981. Prepared by Raymond B. Isely, David R. Goff, and Herbert Blank.
- FR 25 *Water and Sanitation Alternatives for Southern Italy Disaster Relief.* December 1980. Prepared by David R. Goff and Michael A. Kostur.
- FR 26 *Appropriate Technology for Rural Water Supply and Sanitation in El Salvador: A Brief Review and Bibliography.* September 1981. Prepared by Charles S. Pineo.
- FR 27 *Strategy for Implementation and Evaluation of the Togo Rural Wells and Sanitation Project.* October 1981. Prepared by Felix Awantang.
- FR 28 *Rural Sanitation and Manpower Development Project: Appropriate Technology and Information Dissemination. (Indonesia.)* October 1981. Prepared by Robert A. Gearheart.
- FR 29 *Participation in a Workshop on Primary Health Care, August 31-September 3, 1981, Sousse, Tunisia.* November 1981. Prepared by Raymond B. Isely.
- FR 30 *UNICEF/PAHO Joint Workshop on Drinking Water and Sanitation in Rural and Urban Slum Areas—Lima, Peru.* November 17-22, 1980. December 1981. Prepared by Emil T. Chanlett.
- FR 31 *Intensive Session on Water Sanitation and Health Education: A Workshop Held at UNICEF Headquarters, New York, April 22-23, 1981.* December 1981. Prepared by Raymond B. Isely.

- FR 32 *Hydrogeological Reconnaissance of the Yellmare-Tambacara Area of Mali with Reference to the Village Wells Project.* February 1982. Prepared by George Taylor.
- FR 33 *Environmental Health in Egypt: A Sectoral Assessment and Recommendations.* April 1982. Prepared by Dennis B. Warner and David Donaldson.
- FR 34 *A Proposed Action Plan for a National Training Program in the Water Sector for the Hashemite Kingdom of Jordan.* September 1982. Prepared by John H. Austin, Kenneth Woolf, and Walter Pinto-Costa.
- FR 35 *Scope of Work for the Health Outcome Evaluation of the Health Sector II Project in the Dominican Republic.* February 1982. Prepared by Kenneth R. McLeroy.
- FR 36 *Municipal Water Conservation in Jordan: Report of a Seminar.* February 1982. Prepared by James L. Ogilvie.
- FR 37 *Community Water Supply and Sanitation in Sudan.* April 1982. Prepared by Charles G. Chandler, Frank P. Araujo, and Eddy K.C. Lo.
- FR 38 *Recommendations for the Rural Water and Environmental Sanitation Project in Peru.* April 1982. Prepared by Charles S. Pineo and David Donaldson.
- FR 39 *Integration of Health Education in the CARE Water and Sanitation Project in Indonesia.* April 1982. Prepared by David Drucker.
- FR 40 *Para Village Water Supply: Pre-feasibility Report. (Brazil.)* April 1982. Prepared by William M. Turner.
- FR 41 *Testing of the Portable Water Purification and Disinfection Units of the Office of Foreign Disaster Assistance (OFDA).* April 1982. Prepared by WASH Staff.
- FR 42 *Water Supply and Sanitation and Diarrheal Disease Control in the Comprehensive Health Improvement Project—Province Specific (CHIPPS) in Indonesia.* April 1982. Prepared by James T. Thomson.
- FR 43 *Technical Training of Peace Corps Volunteers in Rural Water Supply Systems in Morocco.* May 1982. Prepared by Keith Sherer.
- FR 44 *Evaluation of Practical Training of Sanitation Agents: Sine-Saloum, Senegal Primary Health Care Project.* June 1982. Prepared by Thomas C. Leonhardt and Felix Awantang.
- FR 45 *Training-of-Trainers Workshop for Technical Training in Water Supply and Sanitation.* June 1982. Prepared by James A. Carney and Louise McCoy.
- FR 46 *Proposed Measures for Reducing Costs in Infra-structure and Urbanization Projects for Low Income Housing in Honduras.* June 1982. Prepared by Octavio Cordon. Also available in Spanish.
- FR 47 *Reprogramming of the Rural Sanitation Project in Bolivia.* August 1982. Prepared by Charles S. Stevens.
- FR 48 *Coordination of WASH Information Activities and Exchange with International Information Centers (PAHO/CEPIS-Peru) Trip Report #2.* July 1982. Prepared by James E. Beverly.
- FR 49 *An Assessment of the Method of Training Promoters of the Ecuadorian Institute of Sanitary Works, Ambato, Ecuador, May 17 to June 4, 1982.* July 1982. Prepared by Hortense Dicker.
- FR 50 *Well Drilling Assistance for the Health Sector Loan II Project in the Dominican Republic.* July 1982. Prepared by William M. Turner.
- FR 51 *A Rural Water Supply and Sanitation Training Course for Peace Corps Volunteers in Togo.* July 1982. Prepared by Yolande Mosseau-Gershman.
- FR 52 *Implementation Plan for Unsewered Areas Demonstration Project in Greater Cairo.* September 1982. Prepared by Dennis B. Warner, James Arbuthnot, Leo A. St. Michel, and Richard Sullivan.
- FR 53 *Recommendations for Initial Water and Sanitation Decade Planning Activities in the Central African Republic.* September 1982. Prepared by Dennis B. Warner. Also available in French.
- FR 54 *Philippine Handpump Program.* August 1982. Prepared by Tyler E. Gass and P. Alan Pashkevich.

- FR 55 *Night Soil Disposal and Effluent Reuse in Maseru. (Lesotho.)* September 1982. Prepared by Daniel A. Okun and John Briscoe.
- FR 56 *Selection of Alternatives to Gravity Flow Systems for Rural Communities: A Workshop to Train Guatemalan Engineers in Pumping Technology.* September 1982. Prepared by Daniel B. Edwards.
- FR 57 *Evaluation of Level III-A Pilot Water System in the Philippines.* September 1981. Prepared by Emmett F. Lowry.
- FR 58 *Environmental Sanitation Master Plan for Training and Education in Tanzania.* September 1982. Prepared by Robert A. Gearheart, John Briscoe, and Eugenia Eng.
- FR 59 *Implementación al Proyecto. Santa Elena Meals for Millions, Ecuador.* December 1982. Prepared by Victor E. Aguayo. Available in Spanish only.
- FR 60 *Second Training-of-Trainers Workshop for Technology Transfer in Water Supply and Sanitation.* November 1982. Prepared by James A. Carney and Fred Rosensweig.
- FR 61 *In-Service Technical Training and Program Review of Peace Corps Volunteers in Rural Water Supply Systems in Morocco.* November 1982. Prepared by Keith Sherer.
- FR 62 *Training of Trainers for SANRU-86 Health Project, Kinshasa, Zaire, July 13-August 13, 1982.* September 1982. Prepared by Jocelyn Carlson.
- FR 63 *A Workshop for the Design of Low Cost Water Systems in Ecuador.* November 1982. Prepared by Donald T. Lauria.
- FR 64 *Coordination of WASH Information Activities and Exchange with International Information Centers, Trip Report #3, Asia.* December 1982. Prepared by James E. Beverly.
- FR 65 *Feasibility of Rural Groundwater Development in Honduras.* December 1982. Prepared by William M. Turner.
- FR 66 *Water and Waste Needs of Metropolitan Beirut and Surrounding Areas.* December 1982. Prepared by Robert H. Thomas, Robert J. Kachinsky, and Max S. Clark.
- FR 67 *Organization of a Colloquium on Rural Water Supply and Sanitation, Kasserine, Tunisia. November 23-26, 1982.* January 1983. Prepared by Fred Rosensweig and Raymond B. Isely.
- FR 68 *A Workshop for the Provincial Waterworks Authority of Thailand: Team Building for Management, November 1-5, 1982.* January 1983. Prepared by Daniel B. Edwards.
- FR 69 *Diagnosis and Recommendations for Rural Water and Sanitation Systems in Honduras.* January 1983. Prepared by Charles S. Pineo and Henry Van.
- FR 70 *Training of Indian Health Service Engineers and Sanitarians as Trainers for the Peace Corps: Workshop Report and Trainer Guidelines.* February 1983. Prepared by Wilma Gormley.
- FR 71 *Evaluation of Foster Parents Plan's Water Supply and Sanitation Projects in Yogyakarta, Indonesia.* February 1983. Prepared by Shirley Buzzard and Robert A. Gearheart.
- FR 72 *Formulation of National Water Supply and Sanitation Strategies in the Central African Republic.* March 1983. Prepared by Rifat Barokas, Pierre R. Leger, Dennis B. Warner, and Thomas C. Leonhardt. Also available in French.
- FR 73 *Training in Spring Capping for Field Agents in Zaire.* March 1983. Prepared by David R. Goff.
- FR 74 *Emergency Water Supply Assistance During Floods in Ecuador, December 1982—January 1983.* March 1983. Prepared by Fred Reiff.
- FR 75 *Formulation of the CARE Multi-Year Plan for Water Supply and Sanitation in Came. on.* March 1983. Prepared by John B. Tomaro and Elizabeth Heilman.
- FR 76 *A Technical Managerial Review of A.I.D. Handpump Programs Including Those in Sri Lanka, the Philippines, the Dominican Republic and Honduras.* March 1983. Prepared by David Donaldson.
- FR 77 *Seminar on Rural Water Supply and Sanitation for Private and Voluntary Agencies in Haiti.* March 1983. Prepared by David I. Yohalem.

- FR 78 *Burundi Community Water Supply and Sanitation Project*. March 1983. Prepared by Felix Awantang.
- FR 79 *Development of a Short-term Plan for Solid Waste Management in Greater Beirut*. March 1983. Prepared by Max S. Clark.
- FR 80 *Comparative Costs of the A.I.D. Type Pump Fabricated in the Dominican Republic and the U.S. Manufactured Moyno-Pump*. April 1983. Prepared by Justin H. Whipple.
- FR 81 *Diagnóstico y Plan de Trabajo para la Construcción de Pozos e Instalación de Bombas Manuales para Agua en Honduras*. June 1983. Prepared by Henry Van. Available in Spanish only.
- FR 82 *Evaluation of the Togo Rural Water Supply Project: Observations of a WASH Participant*. May 1983. Prepared by Raymond B. Isely.
- FR 83 *Evaluation of CARE/Indonesia Water Supply Projects*. May 1983. Prepared by Robert A. Gearheart.
- FR 84 *Evaluation of Health and Social Benefit of Springs Capped for Irrigation, Further Adapted for Domestic Use in Central Tunisia*. May 1983. Prepared by Raymond B. Isely.
- FR 85 *Technical Assistance to Manufacturers of A.I.D. Handpumps and Roboscreens in Honduras: Phase I*. May 1983. Prepared by Ben E. James.
- FR 86 *An Assessment of the Water and Sanitation Sector in the Peace Corps Program: Role of the Office of Program Development*. May 1983. Prepared by John B. Tomaro.
- FR 87 *Testing Training Manuals for Rainwater Roof Catchment and Spring Capping Systems in Workshop for Togoese Development Agents*. June 1983. Prepared by Henry L. Jennings.
- FR 88 *Preliminary Planning for Rural Water Supply Alternatives in Zaire*. June 1983. Prepared by David R. Goff.
- FR 89 *Evaluation of the Feasibility of Manufacturing and Marketing the A.I.D.-Design Handpump and Roboscreen in Peru*. June 1983. Prepared by WASH Staff.
- FR 90 *The Minyambou Community Development Water Project and Water Supply in Irian Jaya, Indonesia*. June 1983. Prepared by Scott Faiia.
- FR 91 *A Workshop on Sanitation in Bakel, Senegal, April 20—May 4, 1983, and an Assessment of Environmental Health Conditions*. June 1983. Prepared by Fred Rosensweig and Thomas Talbot. Also available in French.
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- FR 93 *Latrine Construction Workshops, Las Mata de Forfan, Dominican Republic, April 4-15, 1983, April 25-May 6, 1983*. June 1983. Prepared by Winanne Kreger and Henry Van.
- FR 94 *A Workshop for the National Water Supply and Drainage Board of Sri Lanka, June 6-10, 1983*. August 1983. Prepared by Daniel B. Edwards.
- FR 95 *Sanitation Feasibility for Kanye Village, Botswana*. July 1983. Prepared by Joseph Gadek and Hildegard M. Vanlankveld.
- FR 96 *Water Supply Program of Foster Parents Plan in Haiti*. July 1983. Prepared by Donald T. Lauria.
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- FR 100 *USAID Handpump Program in Tunisia*. September 1983. Prepared by Phillip W. Potts. Also available in French.
- FR 101 *Technical Assistance for Handpump Component of the Health Sector Loan II Project in the Dominican Republic*. January 1984. Prepared by Paul F. Howard and Robert Knight.

- FR 102 *Endurance Tests of Robovalves*. September 1983. Prepared by Yaron M. Sternberg and Robert Knight.
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- FR 105 *Malawi Self-Help Rural Water Supply Program: A Mid-Term Evaluation of the USAID-Financed Project*. November 1983. Prepared by Dennis B. Warner, Raymond B. Isely, John Briscoe, and Craig R. Hafner.
- FR 106 *Evaluation of the CARE Water Supply Program in Kenya*. February 1984. Prepared by David Donaldson.
- FR 107 *Evaluation of the Technical and Community Participation Approach of CARE-Assisted Rural Water Supply Project in Indonesia*. February 1984. Prepared by Robert A. Gearheart and Subiarto Martono.
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**FR 354 *Surface and Groundwater Contamination in Selected Watersheds in Southwestern El Salvador.*** December 1991.  
Prepared by L. Fernando Requena and Becky A. Myton. Also available in Spanish.

# WASH SPECIAL PUBLICATIONS

In addition to Technical and Field Reports, WASH has issued a number of special publications to meet particular needs. These are listed below.

## ***Lessons Learned from the WASH Project: Ten Years of Water and Sanitation Experience in Developing Countries***

A discussion of twenty lessons and principles that WASH staff members and consultants have derived from a decade of experience providing technical assistance to Third World countries in water and sanitation. The lessons and principles comprise a philosophy of development stressing wide participation in decision-making and a multi-disciplinary approach. *Also available in French.*

## ***WASH Technical Notes***

This series is specifically designed to provide succinct information on technical topics for A.I.D. mission and bureau personnel. Technical notes impart a conceptual understanding of the topic and some of the attendant programmatic issues. Short (6 to 8 pages), organized in a user-friendly fashion, and amply illustrated, Technical Notes are made to order for people whose desks are stacked with paper.

### ***Current Technical Notes . . .***

***A Primer on Investigating and Reducing Water Loss in Water Systems in Developing Countries.***

***Disinfection of Rural Community Water Supply Systems in Developing Countries.***

### ***Forthcoming Technical Notes . . .***

***Household Water Disinfection***

***Rapid Behavioral Assessment***

***A Primer on Comparing and Using Cost Data in Water and Sanitation Reports***

## ***WASH Capability Statement***

Describes WASH capabilities and experience in nine areas of expertise with summaries of technical assistance tasks.

## ***Fact Sheet: Quantifying the Health Effects of Water and Sanitation Projects***

One-page summary of a report that examines how water and sanitation interventions affect the morbidity of six water and sanitation-related diseases. Morbidity reductions of 78% for dracunculiasis, 77% for schistosomiasis, 29% for ascariasis, 27% for trachoma, and 26% for diarrhea were found. *Additional fact sheets are in the planning stage.*

## ***The WASH Catalog***

An annotated list by topic of selected WASH reports, manuals, guidelines, and conference papers that deal with issues and problems common to water and sanitation projects in various settings. The Catalog comprises six short pamphlets on the following topics: water supply, sanitation, and health; institutional and human resources development; information and technology transfer; operations, maintenance, and finance; community participation and the role of women; and program and project development.

## ***WASH Progress Report No. 14 (January 1992)***

The current issue of a yearly report providing descriptions of technical assistance tasks, a comprehensive list of WASH Technical and Field Reports, and an introduction discussing current sector trends and new WASH activities. All technical assistance tasks and reports are indexed by subject.

### ***WASH Update***

WASH publishes a periodical bulletin three or four times a year providing current information about WASH technical assistance activities and reports.

### ***WASH Annual Plan***

A summary of WASH activities planned for the current fiscal year. In addition, it contains a review of the preceding fiscal year activities and a description of the WASH planning process.

### ***Information Bulletins from WASH Networks and Data Bases***

The WASH Information Center operates several databases on water and sanitation subspecialties. Periodic bulletins are published as information-sharing activities of two of these networks. These are listed below. (For more information, contact the WASH Information Center.)

***Raindrop.*** Bulletin of the Rainwater Harvesting Information Center, published twice a year.

***Notes from the Peri-Urban Network.*** Bulletin of the Peri-Urban Water and Environmental Sanitation Information Network, *forthcoming*.

In connection with its Guinea Worm Disease Information Network, WASH publishes the French version of "Guinea Worm Wrap-Up" (a newsletter put out by the Centers for Disease Control).

## INDEX OF TECHNICAL AND FIELD REPORTS BY SUBJECT

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## THE WASH PROJECT

With the launching of the United Nations International Drinking Water Supply and Sanitation Decade in 1979, the United States Agency for International Development (A.I.D.) decided to augment and streamline its technical assistance capability in water and sanitation and, in 1980, funded the Water and Sanitation for Health Project (WASH). The funding mechanism was a multi-year, multimillion dollar contract, secured through competitive bidding. The first WASH contract was awarded to a consortium of organizations headed by Camp Dresser & McKee International Inc. (CDM), an international consulting firm specializing in environmental engineering services. Through two other bid proceedings since then, CDM has continued as the prime contractor.

Working under the close direction of A.I.D.'s Bureau for Research and Development, Office of Health, the WASH Project provides technical assistance to A.I.D. missions or bureaus, other U.S. agencies (such as the Peace Corps), host governments, and non-governmental organizations to design, implement, and evaluate water, sanitation, and waste management projects; to troubleshoot ongoing projects; and to conduct disaster relief operations. WASH technical assistance is multidisciplinary, drawing on experts in environmental health, training, finance, epidemiology, anthropology, institutional development, engineering, community organization, environmental management, pollution control, and other subspecialties.

The WASH Information Center serves as a clearinghouse in water and sanitation, providing networking on guinea worm disease, rainwater harvesting, and peri-urban issues as well as technical information back-stopping for most WASH assignments.

*WASH Progress Reports* briefly describe WASH tasks and list all publications. Between issues of the *Progress Report* WASH issues a bulletin called "WASH Update" to inform readers of recent activities. WASH Technical and Field Reports (30 or 40 a year are published) cover mission and bureau technical assistance assignments and proactive tasks such as technical guidelines or background reports on topics of vital interest to the sector. In addition, WASH publishes state-of-the-art *Fact Sheets* and *Technical Notes* to fill gaps in information available to mission and bureau personnel.

For more information about the WASH Project or to request a WASH report, contact the **WASH Operations Center, 1611 North Kent Street, Room 1001, Arlington, VA 22209-2111, USA. Telephone (703) 243-8200; Telex WUI 64552; Cable Address, WASHAID; Fax (703) 243-9004.**



**WATER AND SANITATION  
FOR HEALTH PROJECT**