

**PRE/CAP: PREFEASIBILITY STUDIES
IN EAST AND SOUTHERN AFRICA**

Phase I Report

WASH Field Report No. 381
October 1992

**WATER AND
SANITATION for
HEALTH
PROJECT**

Sponsored by the U.S. Agency for International Development
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Phase I Report

Prepared for the Regional Economic Development Services Office
East and Southern Africa, Nairobi (REDSO), and
the Bureau for Research and Development, Office of Health,
U.S. Agency for International Development under WASH Task No. 393

by

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ACRONYMS

“BANK”	The World Bank, or the International Bank for Reconstruction and Development
CDSS	Country Development Strategy Statement
PRE/CAP	Bureau for Private Enterprise, Office of Capital Projects, USAID, Washington
REDSO/ESA	Regional Economic Development Services Office, East and Southern Africa (Nairobi)
RFP	Request for proposal
TDP	Trade Development Program, U.S. Government
TPM	Team planning meeting
USAID or A.I.D.	United States Agency for International Development
W&S	Water and sanitation

EXECUTIVE SUMMARY

In late 1991, REDSO/ESA¹ began an initiative to identify capital projects in the water and sanitation (W&S) sector, among others, and to suggest possible uses for a special appropriation of \$650 million under study by the Congress. The WASH Project was asked to assist and created a Study Team to (a) establish entry and selection criteria for potential projects, (b) identify a number of sector projects underway or planned which meet the entrance criteria, and (c) develop a strategy for marketing the capital projects concept to USAID missions and host countries. The task has been divided into an initial phase, for which this report is the final product, and a second, field-study phase to follow when appropriate.

The Study Team established the following entrance standards as criteria for consideration of projects:

- Projects must fall within the water supply, wastewater, solid waste, or hazardous waste areas.
- Projects must be of a magnitude of at least \$10 million.
- Projects should be located in countries where USAID has active and reasonably large programs.
- Projects must appear to meet economic, developmental, USAID, and U.S. impact criteria.
- Engineering studies should be in progress or begin during (calendar year 1993) with expected completion within four years.

The projects finally selected should require U.S. funding in an aggregate amount between \$50 and \$100 million.

Contacts made with a number of USAID, World Bank, and Trade Development Program (TDP) officials served to identify seven potential projects in six countries which meet the basic entrance criteria. These are, in order of the Study Team's estimated ranking and without taking into account mission strategies or priorities at this stage:

¹ The Regional Economic Development Services Office for East and Southern Africa, U.S. Agency for International Development. (This office is based in Nairobi, Kenya.)

<i>Country</i>	<i>Project</i>	<i>US Impact</i>
Zambia	Expansion of Lusaka water supply	good
Zimbabwe	Bulawayo reservoir system connection	good
Botswana	350 km water pipeline from north	good
Kenya	Water supply/treatment for coastal area	good
Uganda	Water supply for 60 towns/cities	fair
Tanzania	Water supply for 9 cities	fair
Kenya	Completion of Norwegian water project	fair/poor

The categories of criteria, in greater detail, to be applied in measuring projects during Phase II, the field phase, are (1) project-specific criteria, (2) development impact criteria, (3) project suitability to mission strategy and capability, and (4) the potential for the U.S. sourcing of goods and services.

The Study Team is aware of the severe pressures under which most USAID missions are currently operating. Thus, it is highly desirable that new projects satisfy more than one of a mission's strategic objectives, such as the improvement of health or the environment, and be consonant with overall mission objectives in this area. REDSO/ESA will need to market the capital projects concept to the missions in the region. Subsequently, the Study Team, with or under the close guidance of mission officials, will contact World Bank field officers, host government departments, and other donors to develop more detailed project information.

In conclusion, there appears to be considerable World Bank and donor activity in the water and sanitation sector in the East and Southern Africa region. A number of the prospective projects identified appear to be conceptually within mission country strategies, although none of the Country Development Strategy Statements studied make specific reference to W&S sector projects. The degree to which the projects meet mission strategic objectives and are within mission capabilities must be ascertained in Phase II. The prospective projects appear to offer interesting possibilities for U.S. procurement, which is important to PRE/CAP² under the conditions of the appropriation legislation, and have been graded accordingly.

The Study Team recommends that:

1. Phase II of this study involving a carefully planned series of country visits should be initiated pursuant to the plan set forth in Appendix B at the earliest appropriate time, to be determined by REDSO/ESA and WASH.
2. A copy of this report should be forwarded by REDSO/ESA to USAID missions in countries under consideration.
3. Missions should be asked to comment and advise on the selection criteria set forth and the marketing criteria set forth in this report.

² USAID Bureau for Private Enterprise, Office of Capital Projects.

Chapter 1

BACKGROUND AND PURPOSE

In late 1991, the Regional Economic Development Services Office East and Southern Africa (REDSO/ESA) began an initiative to identify infrastructure projects in water and sanitation, transportation, and telecommunications in East and Southern Africa. The purpose was for REDSO to prepare suggestions for possible uses of a \$650 million appropriation of capital project funds being considered by the Congress. To this end, REDSO/ESA requested that the WASH Project establish selection criteria and identify a few water, sanitation, and solid waste disposal projects with an aggregate cost of between \$50 and \$100 million.

Title III, Section 302 of H.R. 4996 states, *inter alia*, that projects to be financed in developing countries, or those in transition to market economies, must meet sound development criteria as established by the OECD's Development Assistance Committee, and that the Capital Projects Office should identify opportunities for the participation of U.S. suppliers of goods or services in financed projects to the maximum extent possible.

The WASH scope of work called for a consulting team to identify and qualify three to five projects in as many countries. The task was to be performed in two phases. The first phase, for which this report is the final product, would:

- Identify a number of water, sanitation, or solid waste projects which are underway or in the planning stage in which USAID might wish to participate.
- Drawing on existing sources, establish criteria for USAID participation that meet the requirements of H.R. 4996, the Capital Projects Office, the Africa Bureau, REDSO/ESA, the affected USAID missions, and the affected countries.
- Develop a strategy for marketing the capital projects concept to the potential host countries and missions in the region.
- Develop a work plan to cover the field work to be accomplished in Phase II of the task, at the appropriate time.

WASH will initiate Phase II when requested; however, the task is linked to a large degree to the progress of the capital project funding appropriation through the Congress.

While the level of effort provided for project qualification in Phase II will not permit the preparation of complete prefeasibility studies, a full description of each project, its timing, and its qualification within the criteria developed herein will be prepared and submitted by the team.

Chapter 2

METHODOLOGY FOR PHASE I

Phase I involved the design of criteria, assembling an initial list of capital projects that appear to meet the criteria, and preparation of a plan for qualifying several of the listed projects in Phase II.

Phase I proceeded as follows. The team met with Robert Rose of REDSO/ESA and Robert Braden of PRE/CAP USAID/W, two of the three primary clients identified during the team planning meeting (TPM) organized by WASH. The TPM provided the opportunity for the team to interact with the clients to define the purpose and desired outputs collectively. The two-day TPM ended with a presentation to a group including senior USAID officers from PRE/CAP, Housing, and the Africa Bureau. The presentation focused on the purpose and objectives of the task, methodology, and the final products to be produced in Phase I.

Additional information regarding projects which are planned or underway was obtained through interviews with officials in the World Bank, U.S. Trade Development Office, and other offices within USAID. The degree of detail obtained depended upon the availability of those contacted and the status of the project. Several projects are still in the concept stage.

The team developed entrance and selection criteria for REDSO/ESA by drawing upon the experience of its members, from documentation provided by USAID, and through further consultations with the client. The strategy for presenting and marketing the program to USAID missions, other donors, and host governments was designed, taking into account the limitations and sensitivities of the parties to the extent possible.

The scope and work plan for Phase II were developed, based on the team's ability to make an informed assessment of the projects to be studied. However, due to the time and cost constraints imposed, Phase II project studies will fall short of being full-fledged prefeasibility studies. The studies will be sufficiently detailed to permit the missions, Africa Bureau, REDSO/ESA, and PRE/CAP to reach a decision to participate and for the subsequent preparation of the RFP eliciting the U.S. engineering or construction community's response. (Final feasibility studies may be required, or in some cases, may exist in satisfactory form.)

Chapter 3

PROJECT SELECTION CRITERIA

To date the team has identified a limited number of potential water and sanitation sector projects in East and Southern Africa which appear to meet size and time requirements. However, the team has developed a fairly detailed list of project criteria to be employed during Phase II in qualifying the potential projects. Measurement of the criteria set forth below, quantitatively or subjectively, should be helpful in identifying trade-offs between one project or another.

The criteria are organized into five categories:

- Basic entrance standards
- Project-specific criteria
- Development impact criteria
- Criteria of importance to USAID missions and other USAID offices
- U.S. economic impact criteria

3.1 Basic Entrance Standards

Any project must meet these basic criteria to be included in the list for possible further study.

1. Projects must fall within the water supply, wastewater, solid waste, or hazardous waste areas.
2. Projects should be at least \$10 million in size. Given this consideration, projects will probably be in, or related to, an urban utility. A single project involving similar works for a number of population centers will also be considered.
3. The project should be located in a country in which USAID has an active and reasonably large program.
4. The project must, on the surface, meet economic, developmental, USAID, and U.S. impact criteria shown below.
5. The project should be one which could begin, or at least final engineering studies begin, during calendar year 1993, with expected completion within four years.

3.2 Project-Specific Criteria

Project-specific criteria include those used to determine the technical, financial, and institutional feasibility of a project, its subsequent operation and maintenance, and other general considerations.

1. Technical criteria include (a) technical feasibility, (b) the use of appropriate technology, (c) the availability of technical support, and (d) the existence of supporting engineering studies.
2. Financial criteria include (a) the project's estimated revenue-generating capacity, operational costs, and cash flow, and (b) an estimate of the need and amount of continued budget support following completion.
3. Institutional criteria include (a) an assessment of the strength, capacity, and quality of the utility or agency which would be responsible for the operation of the completed project, (b) determination of the existence of trained staff to operate the project, and (c) an estimate of identified training needs, if any.
4. Other project specific criteria for study and comment are (a) the impact of the existing body of regulation on the project, (b) whether or not the project lends itself to eventual privatization, and (c) whether the project lends itself to innovative financial/ownership structuring such as "build, operate, and transfer."

3.3 Development Impact Criteria

The team viewed these criteria from the national, sectoral, and project-level perspective.

1. At the national level, the project should (a) be in conformance with national development plan priorities, (b) have a short-term positive impact on international accounts and be within overall debt ceiling, and (c) have a positive impact on unemployment.
2. At the sectoral level, the project should (a) fit within the sector development plan, if one exists, (b) fill a perceived need which might not otherwise be met, and (c) possibly assist in leveraging planning or policy reforms, and regulatory reform when privatization is a possibility.
3. At the project level, the criteria call for (a) a positive economic and social benefit-to-cost ratio, (b) positive social impacts on the role of women, community health, and quality of life, and (c) a beneficiary population of a size consonant with the size of the project.
4. In addition, the project should conform with established environmental standards.

3.4 Criteria of Importance to USAID Missions and Other USAID Offices

Each project will be reviewed to determine its conformance with legislation and enunciated USAID policies mission country strategies. Another consideration is minimizing or alleviating the administrative burden on the mission as far as possible. Criteria include:

1. The host country's adherence to established norms of human and civil rights, its progress toward free and open markets, and its progress toward an open and democratic society;
2. The degree to which the proposed project fits within sectoral priorities and development objectives set forth in the mission's Country Development Strategy Statement;
3. Whether or not project management can be handled within current mission staffing levels, and whether or not the mission has technical oversight capacity;
4. The degree to which funding for the project complements the impact of currently funded mission activities; and
5. The degree to which the project furthers other mission objectives, e.g., policy reform.

3.5 U.S. Economic Impact Criteria

The capital projects legislation is clear in its intent that projects financed under the program generate the maximum possible purchase of U.S.-sourced goods and services. In addition, where there are multiple funding sources, USAID participation provides an opportunity to generate U.S. procurement in excess of the amount provided from USAID (leverage).

Projects will be judged on the following issues:

1. The percentage of dollars spent for procurement of U.S. goods and services, and potential additional amounts that may be leveraged by funding from other sources;
2. The degree to which U.S. procurement is controllable;
3. The potential for follow-on procurement from the United States including spare parts, management fees for U.S. operators, or additional purchases or engineering or consulting work; and
4. The possibility that the project might lead to other opportunities for U.S. interests in the form of parallel or expansion projects in the future.

Chapter 4

POTENTIAL PROJECTS

The team has identified seven projects in the water and sanitation sector in Botswana, Kenya (2), Tanzania, Uganda, Zambia, and Zimbabwe. The projects differ in their stages of development, from the concept stage to those with engineering studies underway or completed. One is a discontinued but largely complete water project originally financed by the Norwegians.

The six countries were selected because they each have projects which appear to be suitable for further study. A number of countries, such as Rwanda, Burundi, and Swaziland, were not considered due to their size and the unlikely possibility of unearthing a W&S project of the minimum size. Water projects in Malawi's two major cities have recently been completed. While the Bank was enthusiastic about possibilities in newly opened Ethiopia, conditions there are still sufficiently uncertain to preclude consideration. Also, Bank staff were not aware of specific projects in the water sector. The team explored the possibility of programs in South Africa with USAID Housing and Urban Development officers, but the current focus of that program on black township development through nongovernmental organizations appears to preclude consideration of a large capital project at this time.

Table 1 gives an idea of the relative populations of the countries in the region, per capita income, the level of urbanization in 1965 and 1990, and the population of the capital city as a percent of all urban population and as a percent of the country's total population. The countries in which projects have been selected for considerations appear in capital letters.

The projects the team identified during Phase I are described below. They appear to meet the basic entry criteria. Whether and to what degree they meet selection criteria can be determined only by a field assessment and thorough review of USAID strategy and program for each country.

4.1 Botswana

The project identified involves construction of a water transport pipeline to the capital city, Gaborone (population approximately 120,000), from an area presently undefined about 350 km to the north. The project would require construction of a dam (or dams) and reservoir(s). The source could be either the Palone or Maklautsi rivers near the Lipokolo Hills southeast of Francistown, or the Shasi or Tati rivers along the border with Zimbabwe.

The project is included in a comprehensive water master plan recently completed by a consortium of Australian and European consulting firms.

This project might be divided into immediate and longer-term phases. A substantial aquifer is located about 250 km from Gaborone. Some irrigated farming has been taking place in the

Table 1

Selected Basic Indicators—East and Southern Africa

Country	Population (millions)	GNP/CAP \$ 1990	% Urban		Capital City Pop. % of Total Population	
			1965	1990	% of Total Urban Pop.	% of Total Population
BOTSWANA	1.3	2040	4	28	38	10
Burundi	5.4	210	2	6	82	5
Ethiopia	51.2	120	8	13	29	4
KENYA	24.2	370	9	24	26	6
Lesotha	1.8	530	6	20	17	4
Malawi	8.5	200	5	12	31	4
Madagascar	11.7	240	12	25	23	6
Mauritius	1.1	2250	37	41	36	15
Mozambique	15.7	80	5	27	38	10
Namibia	1.8	—	17	28	30	8
Rwanda	7.1	310	3	8	54	4
Somalia	7.8	120	20	36	25	9
Sudan	25.1	—	13	22	35	8
TANZANIA	24.5	110	5	33	21	7
UGANDA	16.3	220	7	10	41	4
ZAMBIA	8.1	420	23	50	24	12
ZIMBABWE	9.8	640	14	28	34	17

Source: *World Development Report, 1992*. Development and the Environment, World Development Indicators.

area for a number of years. A study is in process, or is to take place shortly, to determine the extent of this aquifer and to determine whether or not there is sufficient water to constitute a viable water source for a "first stage" of the overall project.

Botswana has one of the highest rates of population growth in the region (3.6 percent per annum), and there has been a dramatic increase in urban population over the 25-year period (see Table 1). Thus, it is important to assure Gaborone's water supply over the medium- to long-term, given the annual rainfall of the area of only a few inches.

This project offers a major opportunity for U.S. firms in the engineering design, or design and construction activities. The project itself would require a very significant amount of medium- to large-diameter iron or steel pipe and a number of pumping stations. A substantial number of pieces of capital equipment would be required for transporting and laying the pipe as well as for earthmoving connected with the construction of the dam. On the surface, common labor excepted, a fairly high percentage of total cost might be represented by U.S.-origin procurement. It would be important, however, to negotiate duty exemption for U.S.-sourced equipment and supplies, as SADCC members (especially South Africa) or LOME III suppliers would otherwise have a distinct advantage.

4.2 Kenya

Two projects are under consideration. The first involves both water supply and treatment on the Mombasa coast. The second involves water supply to Kenya's smaller cities.

Kenya's Indian Ocean coast between Mombasa and Malindi, about 110 km, has approximately 35 resort hotels. These hotels, as tourist destinations, now account for about 50 percent of Kenya's tourist revenues, the country's largest foreign exchange earner. Degradation of the coastal ecosystem is a major concern, and wastewater treatment, clustered to accommodate the centers of population along the coast, has been recommended for study and possible implementation.

The southeast coast also lacks a reserve of water sufficient to serve its permanent and tourist population. The possibility of building a water collection and pipeline system from an area near Voi, between Nairobi and Mombasa, is being considered.

The World Bank approved a \$40 million engineering credit for Kenya in May 1992, and the team understands that both coastal wastewater treatment and additional water supply are being or will be studied in the near future. For this report, both wastewater treatment and additional water supply for the Mombasa coast are considered as a single potential project.

Assistance to Kenya is problematic at this time in view of the internal political situation. The Mombasa coast project is included in the list, nonetheless, because of the size of the project, its importance to Kenya's tourist industry and the inhabitants of the region, and the substantial amount of Bank engineering credit which has already been approved.

This project, involving both water supply and treatment, should prove to be a good opportunity for U.S. procurement, especially if final design of the project is managed by a U.S. firm. The Bank's participation as provider of the engineering credit is an indication of its interest in financing the construction phase, an opportunity to obtain leverage for U.S. procurement.

The World Bank official contacted also mentioned that Norwegian Aid had pulled out of Kenya, leaving water supply projects in Kenya's smaller cities only partially completed. The team includes mention of this in the report as the second potential project in Kenya since completion would improve water supply for about 400,000 people. Completion of these projects by U.S. interests would be a positive, high-profile accomplishment. However, no details were available regarding the status of the Norwegian project when work was discontinued, the cost required to complete the project, or the possibilities for U.S. procurement.

4.3 Tanzania

The project identified in Tanzania involves water supply in Dar Es Salaam and eight other cities. The World Bank is presently funding the services of a consulting firm to identify infrastructure projects in Dar Es Salaam, Arusha, Iborogero, Iringa, Mbeya, Moshi, Mwanza, Tabora, and Tanga. A Bank team is scheduled to visit Tanzania shortly to confer with the consultants, and there is a high probability that a recommendation to rehabilitate and expand the water supply in some or all of these cities will be forthcoming. However, it may be a year before the projects have been specifically identified. The Bank has established an amount of \$50 million, roughly, to fund identified projects.

If water supply were identified as a priority in all nine urban centers, the beneficiary population would be about 4,000,000, or 16 percent of the country's population.

The possibility for U.S. entry into the final stages of study, followed by design and construction, appears to be reasonably good. The field would presumably be open for U.S. procurement to the extent required by projects of this type. However, the modest value of procurement as a percentage of the total project, coupled with the somewhat longer timeframe, suggest that the project be given somewhat lower priority than others identified by the team.

4.4 Uganda

The Uganda project involves the improvement of water supply in some 60 towns and cities with populations over 2,000. The Bank reports that an extensive study has been prepared, and that this project is ready to be organized and started in the relatively near future, now that the rehabilitation project in Kampala has been completed. The Bank has programmed \$30 million for the project.

The team estimates that the completed project would benefit about 1,500,000 people, 9 percent of the country's population. The two drawbacks which the team sees are (1) the dispersed nature of the task with a substantial number of small towns and villages to be covered, and (2) the nature of the project which, as mentioned in the Tanzania report above, does not lend itself to the substantial use of high-value U.S. capital goods or material procurement.

Lastly, the Bank may want to start work on this project before USAID is in a position to commit funds. If so, U.S. commercial "control" of the project is unlikely as other nations' firms would have assumed the dominant position. However, if the project is attractive, a subproject that could be controlled by U.S. interests might be carved out of the overall activity.

4.5 Zambia

A \$40 million water supply and treatment project to rehabilitate the Lusaka system has recently been completed. The project was largely financed by the African Development Bank; project design and management were handled by the U.S. firm, Black and Veatch.

Phase II, an expansion of the Lusaka system, is now contemplated. The U.S. Trade Development Program has approved \$676,500 for a U.S. consulting firm to do the feasibility study for the expansion, estimated to cost \$128 million. It appears that increased water supply, storage capacity, and water treatment capacity are required, in addition to transmission and delivery.

The estimated beneficiary population for the Lusaka project is 900,000, or 12 percent of the country's population. As this project will include heavy construction in addition to an expansion of the delivery and collection systems, there would appear to be a substantial need for U.S.-supplied capital equipment and materials.

The team has awarded the Lusaka project the top score in terms of the threshold criteria. The project's timing, the TDP grant for preparation of the feasibility study by a U.S. firm, and the size and complexity and the project should lead to a sizable percentage of U.S.-sourced procurement. In addition, the Bank has expressed an interest in financing the project, which offers an opportunity for leverage.

4.6 Zimbabwe

Bulawayo, Zimbabwe's second largest city with a population over 430,000 (1986), is suffering severe drought conditions due to lack of rain and insufficient water supply. The long-term solution is construction of a 300 km pipeline to transport water from the Zambezi river.

The immediate solution, for which planning is in place, is construction of a pipeline/pumping facility to connect two reservoirs, one of which is now empty, in an effort to optimize supply. (The distance between the two reservoirs is not known to the team.) The Bank estimates the cost of the project to be \$23 million.

Timing could be a problem for inclusion of this project in the USAID list, as the urgency of the situation may require project start-up before USAID is in a position to participate.

If the project does delay, it might be interesting to USAID as a certain amount of heavy equipment, pumps, and heavy pipe will be required from U.S. sources, provided exemption from SADCC import duties has been obtained. Detailed project engineering and design are also required, according to the team's information.

4.7 Prioritization of Identified Projects

The team has made an effort to grade the identified projects against the threshold criteria. Without details from field visits or conversations with those directly involved in planning the projects, this is as far as the team can sensibly take the first phase. It should be emphasized that ranking of projects does *not* reflect an assessment of USAID mission or Africa Bureau priorities or strategy. An assumption has been made that USAID presence is essentially the same in the countries involved.

The grading of these projects is very subjective and may change when Phase II is undertaken. However, the Lusaka water supply and treatment project and the Bulawayo water supply project (if it is not too immediate) stand out at the top of the list.

Table 2

Comparison of Candidate Projects Meeting Entrance Standards
(on a scale of 1 to 10)

<i>Candidate Project</i>	<i>Size</i>	<i>Timing</i>	<i>Beneficiaries</i>	<i>U.S. Content</i>	<i>Total</i>
Lusaka, Zambia	9	8	7	9	33
Bulawayo, Zimbabwe	6	5	8	8	27
Botswana Pipeline	7	6	4	7	24
Kenya Coastal Tourism	7	4	7	6	24
Uganda 60 Towns	6	6	8	3	23
Tanzania 9 Cities	5	5	8	4	22
Kenya Small Cities	3	7	5	3	18

Chapter 5

MARKETING STRATEGY

The projects described in this report provide a *preliminary* indication of the range and type of water, sanitation, and solid waste activities that might be funded in East and Southern Africa. This initial review provides a starting point for further exploration and discussion. However, the extent of USAID involvement in these and similar activities will be a function of:

- The degree to which the activity is perceived as consistent with and supportive of long-term USAID mission strategy
- The extent to which the project is similar to and supportive of current mission activities in water, health, sanitation or environmental areas
- The degree to which USAID/Washington mandates program involvement on the part of the missions
- The extent of other donors' interest and their specific requirements in the procurement potential of a project
- Project timing and structure, and the degree to which USAID involvement may have been precluded by other donor activity

Introduction of capital projects involves a significant shift from traditional USAID priorities. Such projects should be presented positively, demonstrating how they can be integrated into ongoing USAID programs and strategies and not disrupting or derailing other activities and initiatives. Complementarity and effective integration can be achieved in several ways:

- By identifying a mutual sectoral interest, e.g., a sanitation project coupled with a broad-scale environmental initiative;
- By linking the project to policy reform either in the particular sectoral area (such as privatization of water supply coupled with the establishment of an effective regulatory mechanism) or in an unrelated area; and/or
- By positioning the activity as a demonstration project with potential replicability in other sectoral or geographic areas with crossover benefits to current mission strategy.

In presenting project concepts to USAID personnel, it is particularly important that development criteria, as spelled out in Chapter 3, receive prominent attention.

For purposes of this discussion, marketing project possibilities involves three stages (stages 1 and 2 correspond to Phase II of this study):

1. Initial exploratory discussion with USAID mission personnel to test preliminary concepts, gain additional information, and ensure that the project is not in violation of fundamental

mission strategy. The purpose of this stage is to develop mission understanding and to gain mission support for subsequent discussions with the World Bank, other donors, the host country, and access to data and information at mission disposal.

2. Collection of additional information primarily from the World Bank and other donor sources to develop a firmer profile of project content and to define the level and nature of potential U.S. involvement. (These discussions should be carefully coordinated with the missions and include mission personnel to the extent possible.) This process would result in a project profile, an assessment of a project's attractiveness against the selection criteria set forth in this report, and a "go/no go" recommendation to the mission.
3. Active interventions and discussions with other donors, the World Bank, and/or African Development Bank, and with host country officials indicating a prospective degree of U.S. interest and suggested areas or project components for U.S. involvement.

Several important principles will guide the manner in which project concepts are identified, developed, and presented:

- Projects will not be discussed with host country officials or other bilateral donors or with in-country officials from the World Bank and/or African Development Bank until they have been reviewed and endorsed as potentially appropriate by USAID officials.
- Project-specific discussions with host country officials will continually stress that the review is preliminary, subject to conformance to rigorous selection criteria, and subject to the availability of funds.
- Particular care will be given to ensuring that discussion of project possibilities under the capital fund does not influence or derail pursuit of mission strategies in other areas.
- As stressed in the criteria, considerable emphasis will be given at the start to identifying the USAID workforce implications. Workforce requirements will become an important and integral part of later recommendations to the mission.
- Where feasible (in most cases), project recommendations emanating from Phase II will be presented in terms of *alternative* approaches and possibilities in order to provide missions with latitude of choice.
- The Phase II report will be organized on a country-by-country basis and will emphasize project possibilities *in the context of mission priorities and strategies*.
- The Phase II report will be drafted and compiled in a manner that ensures mission involvement. A first draft of each country section will be prepared in the field, discussed with mission personnel, and adjusted to reflect mission concerns and interests. The final report will be compiled in Washington from these component pieces.

Chapter 6

CONCLUSIONS AND RECOMMENDATIONS

6.1 Conclusions

Based on a preliminary review of current project activity in water, sanitation, and solid waste in East and Southern Africa, the Study Team has reached the following conclusions:

1. Currently, there is considerable project activity in this region and within this particular sector. Given the nature and intensity of environmental and health problems and the extreme pressures of urbanization, it is likely that project activity in water, sanitation, and solid waste disposal will accelerate.
2. In principle, the prospective projects identified by the Study Team appear to be conceptually consistent with USAID mission priorities and strategies. In reviewing country CDSS documents, the Study Team did not find specific reference to the W&S sector, but the projects under review appear to satisfy general objectives for the improvement of health. In addition, the development criteria identified in Chapter 3 are generally applicable.
3. The potential for generating net additional U.S.-based procurement in connection with these projects appears to be considerable.
4. A set of selection criteria can be compiled and applied that reflects the multiple objectives inherent in the capital projects fund initiative. If carefully presented and applied, the Study Team believes that it is possible to balance USAID mission and U.S. commercial interests in a constructive and complementary manner.

6.2 Recommendations

Recommendations are set forth in priority order:

1. Phase II of this study, involving a carefully planned series of country visits, should be initiated as set forth in Appendix B. Phase II should begin at the earliest appropriate time as determined by REDSO/ESA and WASH.
2. A copy of this report should be forwarded to USAID missions in countries under consideration.
3. To engage their interest and encourage their participation in this process from the start, missions should be asked to comment and advise on the selection criteria and marketing strategy set forth in this report.

Appendix A

SCOPE OF WORK

PRE/CAP: Prefeasibility Studies in East and Southern Africa

Background

In anticipation of funding from the Capital Projects Office of the Bureau for Private Enterprise, the REDSO/ESA of USAID has requested assistance from the WASH Project. The goal of this activity will be to identify potential water/sanitation and solid waste capital development projects in East and Southern Africa. The estimated cost of these projects could range from small (\$10-20 million) to large (\$50-100 million). The consultants will identify and conduct prefeasibility studies for up to three such projects in countries yet to be determined.

Tasks

To effectively implement this activity, it is envisioned that a two phase process will be undertaken, as follows:

Phase I

1. Conduct a two day Team Planning Meeting at WASH with representatives of PRE/CAP and REDSO/ESA.
2. Review background materials and relevant literature.
3. Solicit information from multilateral and bilateral donors active in the sector.
4. Contact USAID missions in the region and solicit their ideas and comments.
5. In collaboration with PRE/CAP, develop specific criteria for selecting projects.
6. Compile a preliminary list of projects.
7. Identify a list of potential projects that merit further study.
8. Prepare a brief report, and make a presentation to REDSO/ESA and PRE/CAP. With REDSO/ESA and PRE/CAP approval, prepare a strategy for approaching potential countries in the region.

Phase II

1. Finalize country visits and obtain mission clearances.

2. Conduct a one day pre-field TPM to go over the objectives of the visits.
3. **Update status of projects identified in Phase I.**
4. **Conduct field planning visit with REDSO/ESA in Nairobi.**
5. Make field visits pursuant to plans agreed with REDSO/ESA.
6. Analyze potential projects against established criteria and select up to three finalists for recommendation.
7. Prepare a report which includes recommendations and up to three qualifying projects as they are measured against the established criteria. The report should also:
 - Explore the general areas of alternative design/construction procedures, i.e., variations from the traditional AID approach such as design/build, turnkey, modular fast-track, construction management, and others;
 - Investigate the possible need for value engineering studies or additional cost-related studies;
 - Evaluate potential opportunities for privatization and for utilization of the various approaches to “build, operate, and transfer” (BOT) an infrastructure project.

Note: Items listed in **bold** have been added by the Study Team to conform with the suggested work plan (see Appendix B). Reference to the accomplishment of “prefeasibility studies in accordance with established and accepted content” has been eliminated in agreement with REDSO/ESA and PRE/CAP as there is simply insufficient time and resources allocated. Instead, the Study Team will deliver project analyses which, to the degree possible given the information available, will measure the project against the criteria which the team has established, and estimate (1) the beneficiary population and (2) the opportunity for U.S. sourcing of goods and services as carefully as possible. Phase II will also include an estimation of the costs and benefits of each project.

Appendix B

SUGGESTED WORK PLAN—PHASE II

Stark Biddle, Robert Laport, Leo St. Michel

Before official start of Phase II, coordinate field trip with Robert Rose, REDSO/ESA, Nairobi. Update status of the projects identified in the Phase I report through telephone contact with the appropriate parties. Ascertain contact persons in the field from whom detailed information might be obtained for each project, and request that these individuals be alerted that they might receive a visit from the team. Obtain necessary visas for team members.

1. Team Planning Meeting 1 day WASH Project, Arlington

Review status of projects as determined above. Agree on final work plan for Phase II, where the team effort is to be concentrated, and the level of detail to be delivered in the final product. Decide, subject to finalization in Nairobi, if the team will split up to perform field studies, and if so, how.

2. Travel to Nairobi 2 days

3. Organization Meeting 2 days

Coordinate plans and procedures with Bob Rose. Decide on (a) countries and projects to be visited and by whom, and (b) the priorities for making contacts in the various countries, i.e., missions, host governments, other donors and lenders. Update with World Bank, Nairobi.

4. Country and Project Field Visits 8-10 days

Allow a minimum of four full days per country. Brief missions on the overall program and specific projects to be studied. Make contact with World Bank or appropriate field persons involved in each project to obtain latest detailed information. Visit site, or projected project area, for a first-hand view. Prepare draft of project qualification report using the financial, economic, and project impact data available. Measure projects against the criteria selected.

5. Discuss reports with client in Nairobi. Return to U.S.

6. Preparation of Final Report 4 days

Standardize the field reports, incorporate client's observations, and place in final draft form for forwarding to WASH for submission to USAID.

Appendix C

LIST OF PERSONS CONTACTED PHASE I—PROJECT IDENTIFICATION

September 8 through 16, 1992
Robert Laport and Leo St. Michel

1. Pieres Cross
World Bank
202 473 3475
Zimbabwe, Uganda
2. John Blaxall
Program Manager
UNDP-World Bank Water and Sanitation Program
202 473 6817
Southern Africa
3. Imogene Burns
World Bank
202 473 5550
Zambia
4. Richard Beardmore
World Bank
202 473 4153
Tanzania
5. Ebenezer Aikens-Afful
World Bank
202 473 7506
Zimbabwe, Botswana
Malawi, Zambia
6. Steve Weissman
Division Head
World Bank
202 473 4076
East Africa
7. John Richter
Regional Director
Africa & Middle East
U.S. Trade and Development Program
703 875 4357
East and Southern
Africa

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|--|-----------------------------|
| 8. David Leibson
Assistant Director
USAID Housing Bureau
202 663 2545 | East and Southern
Africa |
| 9. Michael Lippe
USAID Housing Bureau
202 663 2545 | Southern Africa |
| 10. John Tomaro
AID/W/R&D/H/HSD
703 875 4523 | African
Development Bank |
| 11. Craig Hafner
WASH Project
703 243 8200 | Africa |
| 12. Phil Roark
WASH Project
703 243 8200 | Botswana, Zambia |
| 13. Joel Kolter
USAID Housing Bureau | |
| 14. Pushkar Brambhatt
USAID, Botswana | Botswana |
| 15. Robert Rose, USAID
REDSO/ESA
Nairobi, Kenya | |
| 17. Fred Zobrist, USAID
Director, PRE/CAP | |
| 16. Robert Braden, USAID
PRE/CAP | |

The following individuals were given as references, but we were not able to contact them during the identification period while we were in the WASH office.

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| 18. Gerhard Tschannerl
World Bank
202 473 4079 | Uganda |
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19. Phyllis Pomerantz
Division Head
World Bank
202 473 7170

Southern Africa

20. Littia Obeng
World Bank
202 473 4551