

Japan International Cooperation Agency

**Thematic Evaluation
on
JICA's Co-operation
on
Water and Poverty in Africa

Final Report**

March 2003

KRI International Corp

PVE
JR
03-14

Japan International Cooperation Agency

**Thematic Evaluation
on
JICA's Co-operation
on
Water and Poverty in Africa

Final Report**

March 2003

KRI International Corp.

This report is made up based on data/information in November - December 2002 when the field survey was conducted.

The opinions represented on this report is belong to evaluation study team, which do not represent the JICA's ones.

PREFACE

Due to Japan's protracted economic stagnation and severe fiscal situation, ODA has been expected to enhance its effectiveness and efficiency. Regarding to the situation, the evaluation has been increasing the importance to improve the quality of ODA projects because the study of evaluation extracted useful recommendation and lessons learned for the new project formulation and implementation of on-gong projects by exposing strength and constraints having respective projects.

Japan International Cooperation Agency (JICA), the main implementing agency for Japan's ODA, has commissioned experienced experts and consultants to conduct evaluation survey based on their broad outlook and neutral view points in order to improve quality and enhance subjectivity of evaluation. Especially, in FY1999, JICA established "Third-Party Evaluation" in its evaluation system. In conducting the thematic evaluation on "Water and Poverty in Africa", JICA entrusted its implementation to external research institute.

The theme, "Water and Poverty in Africa", is chosen based upon the assumption that "safe and sustainable water supply" plays the important role as the entry-point of various development projects toward poverty reduction in Africa. This evaluation aims to extract recommendations and lessons learned for effective way of cooperation for safe and sustainable water supply in Africa through the post evaluation on JICA's past cooperation in water-related.

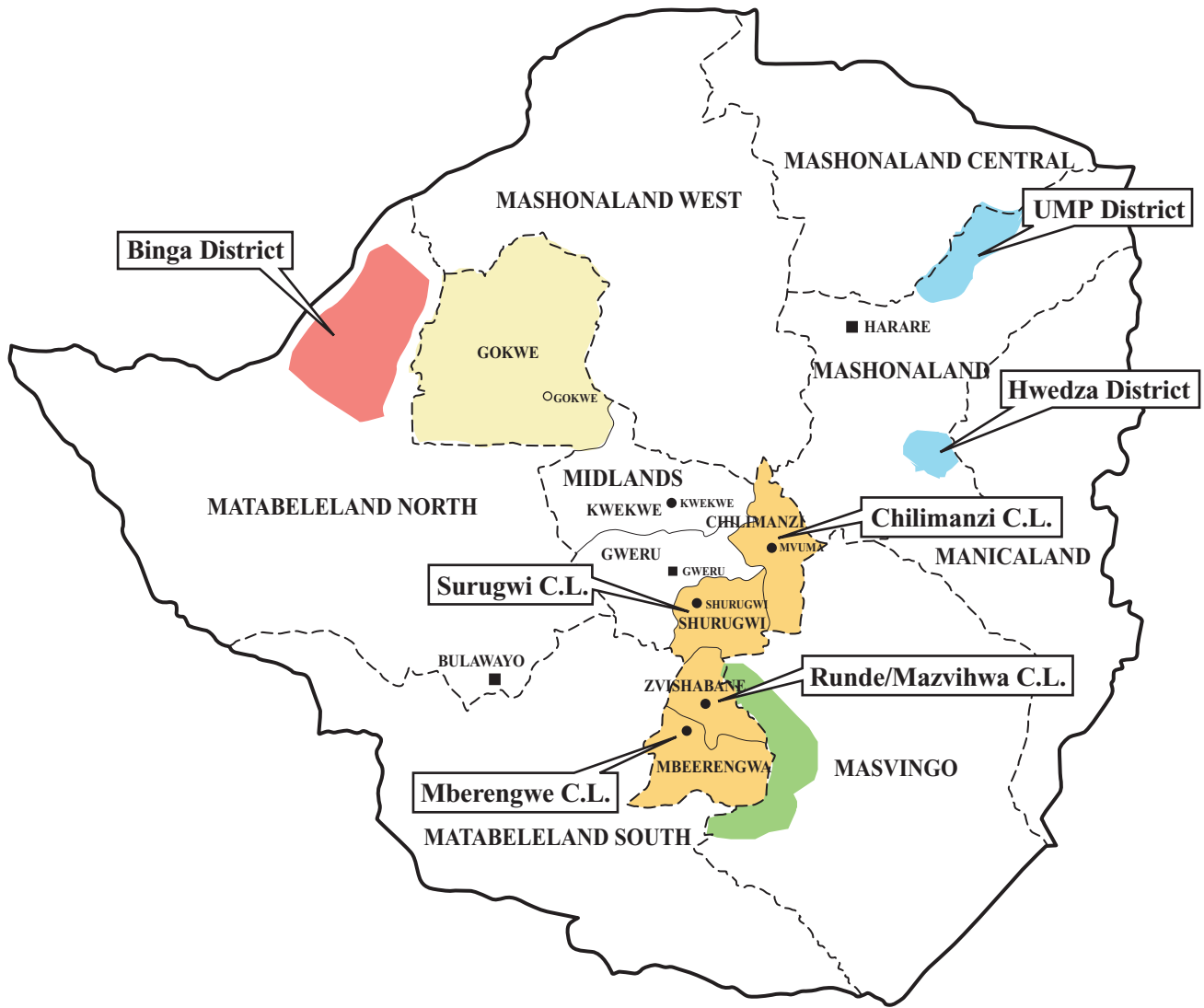
The study was consisted of document review and field survey with advice of Prof. Shuhei Shimada of Graduate School of Kyoto University, and Prof. Masahiro Murakami of Kochi University of Technology, who were experts in regional studies in Africa and water-related issues respectively.

JICA would like to feedback the recommendations and lessons learned lead by the evaluation study to the formulation and implementation of water related projects considering poverty reduction in Africa.

In the end, I would like to express our sincere gratitude to all the people who have cooperated with this evaluation study.

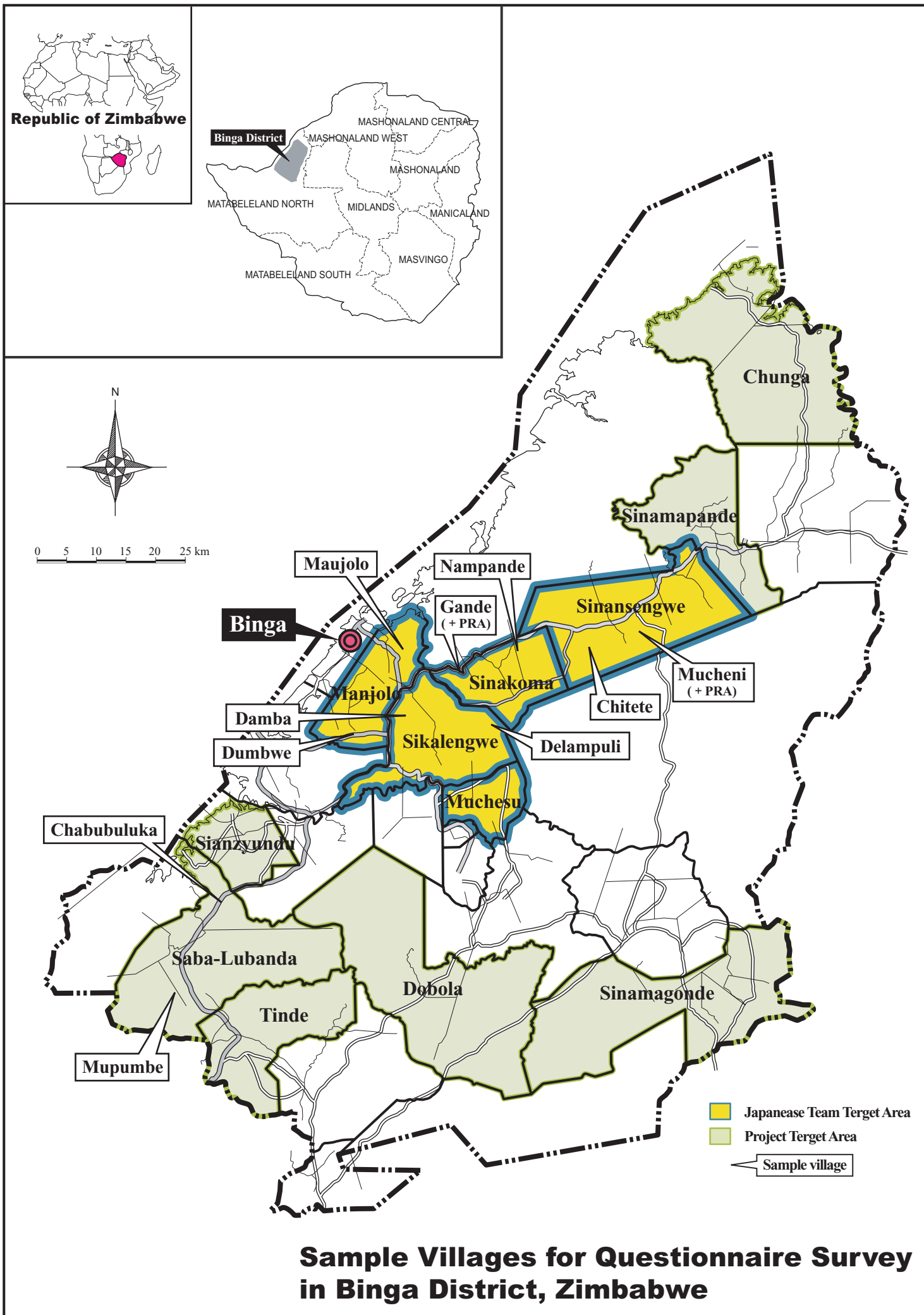
March 2003

Yasuo Matsui, Vice President
Japan International Cooperation Agency



- Rural water supply development Project (F/S)
- Rural water supply development Project (Phase I,II)
- Rural water supply development Project (Phase II)
- Rural water supply development Project (Phase III)
- Rural water supply project in Binga district

Location Map of Rural Water Supply Project in Zimbabwe





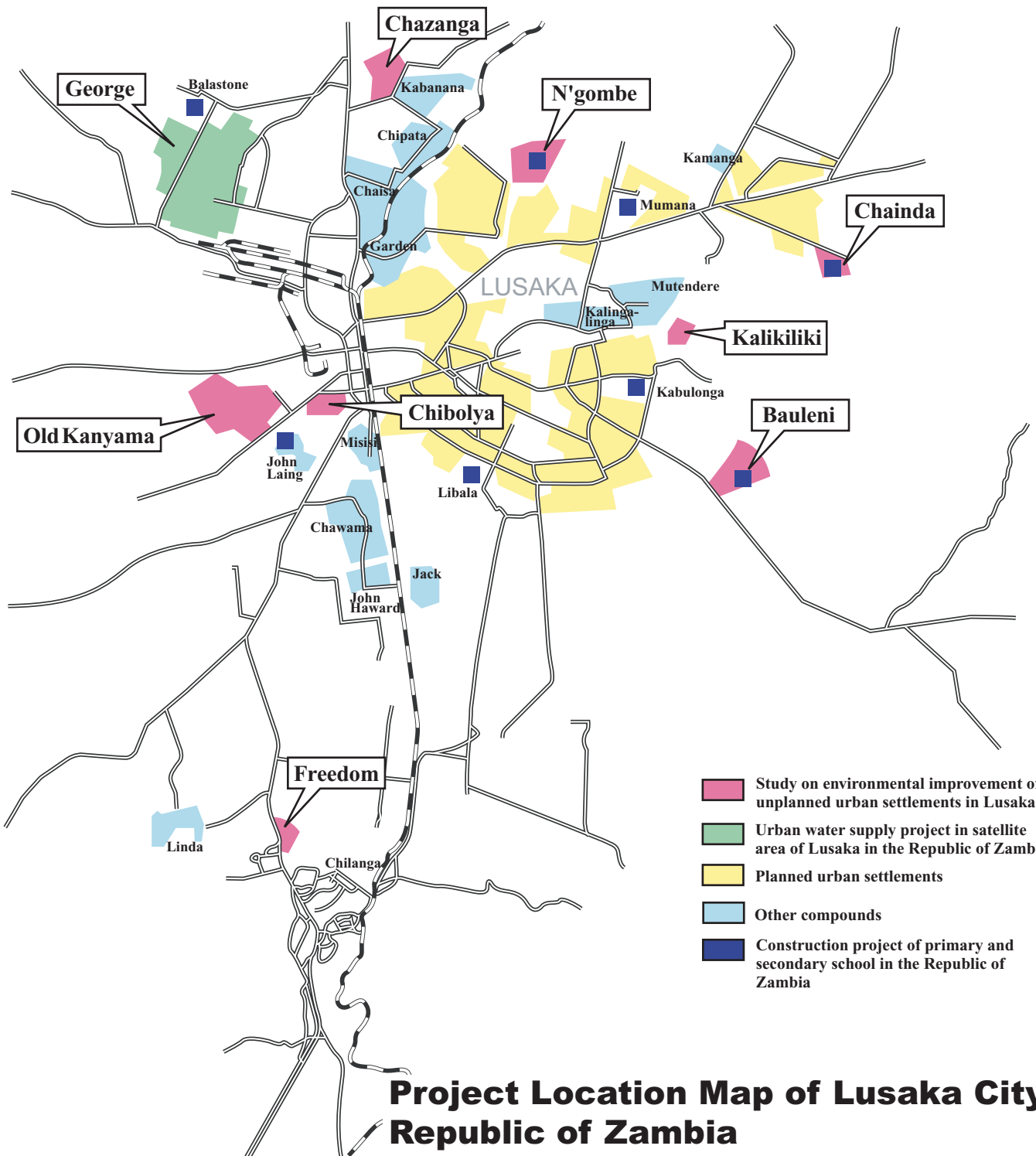
Republic of Zambia



Lusaka City



0 1 2 3 4 5 km



- Study on environmental improvement of unplanned urban settlements in Lusaka
- Urban water supply project in satellite area of Lusaka in the Republic of Zambia
- Planned urban settlements
- Other compounds
- Construction project of primary and secondary school in the Republic of Zambia

Project Location Map of Lusaka City, Republic of Zambia

Zimbabwe



Photo1 Borehole in Damba



Photo2 Borehole in Gande



Photo3 Borehole in Delampuli



Photo4 Washing Slab in Delampuli



Photo5 Shallow Well along the River, Dumbwe



Photo6 Shallow Well, Dumbwe



Photo7 PRA in Gande



Photo8 PRA in Mucheni

Zambia



Photo1 Communal Tap in George



Photo2 Communal Tap in George



Photo3 Communal Tap by PHC,
George School



Photo4 Communal Tap by JICA Study,
Bauleni



Photo5 Public Toilet by GCEP, George



Photo6 PRA in Bauleni



Photo7 PRA in Gorge Area 5



Photo8 Well-being ranking in George
Proper

List of Abbreviation

ABO	:	Area Based Organisation
AREX	:	Agricultural Research and Extension
BHN	:	Basic Human Needs
CBM	:	Community Based Management
CBO	:	Community Based Organisation
DDF	:	District Development Fund (Zimbabwe)
DfID	:	Department for International Development
DWD	:	Department of Water Development
HUZA	:	Human Settlements in Zimbabwe
IRWSSP	:	Integrated Rural Water Supply and Sanitation Programme (Zimbabwe)
JICA	:	Japan International Cooperation Agency
LCC	:	Lusaka City Council
LDHMT	:	Lusaka District Health Management Team
LWSC	:	Lusaka Water and Sewage Company
MFED	:	Ministry of Finance and Economic Development (Zimbabwe)
MLGNH	:	Ministry of Local Government and National Housing (Zimbabwe)
MRRWD	:	Ministry of Rural Resource and Water Development (Zimbabwe)
NAC	:	National Action Committee (Zimbabwe)
NCU	:	National Coordination Unit (Zimbabwe)
NGO	:	Non-Governmental Organisation
ODA	:	Official Development Assistance
PDM	:	Project/Program Design Matrix
PHC	:	Primary Health Care
PLM	:	Program Approach Logic Model
RDC	:	Rural District Council (Zimbabwe)
RDC	:	Resident Development Committee (Zambia)
PRA	:	Participatory Rural Appraisal
SCF	:	Save the Children Fund
SIDA	:	Swedish International Development Cooperation Agency
TICAD	:	Tokyo International Conference on African Development
UNDP	:	United Nations Development Program
UNICEF	:	United Nations Children's Fund
USAID	:	United States Agency for International Development
WRAP	:	Water Resource Management Programme (Zambia)
ZINWA	:	Zimbabwe National Water Authority
UPND	:	United Party for National Development (Zambia)

Table of Contents

Location Map

Photos (Zimbabwe/Zambia)

List of Abbreviations

Summary

Chapter 1	Overview	1-1
1.1	Background	1-1
1.2	Evaluation Framework	1-3
1.2.1	Objectives	1-3
1.2.2	Strategies	1-3
1.2.3	Target Area	1-4
1.2.4	Target Projects/Programmes	1-5
1.2.5	Evaluation Questions	1-5
1.2.6	Evaluation Steps	1-6
1.3	Evaluation Team and Survey Schedule	1-7
1.3.1	Evaluation Team	1-7
1.3.2	Survey Schedule	1-7
1.3.3	List of Interviewees	1-8
Chapter 2	Overview of the Target Countries	2-1
2.1	Zimbabwe	2-1
2.1.1	Socio-economic Conditions	2-1
2.1.2	Poverty Reduction Strategy	2-2
2.1.3	International Assistance	2-3
2.1.4	Development Issues in Water Supply Improvement	2-4
2.2	Zambia	2-5
2.2.1	Socio-economic Conditions	2-5
2.2.2	Poverty Reduction Strategy	2-6
2.2.3	International Assistance	2-7
2.2.4	Development Issues in Water Supply Sector	2-8
Chapter 3	Study Procedures	3-1
3.1	Preparation Work in Japan	3-1
3.1.1	Selection of Target Project /Programme	3-1
3.1.2	Preparation of Evaluation Design	3-6
3.1.3	Data Collection in Japan	3-7
3.2	Field Survey in the Target Countries	3-8
3.2.1	Zimbabwe	3-8
3.2.2	Zambia	3-10
Chapter 4	Overview of the Results	4-1
4.1	Zimbabwe	4-1
4.1.1	Achievements	4-1
4.1.2	Implementation Process	4-3
4.1.3	Sub-Question I: Sustainability of Water Supply Project	4-5
4.1.4	Sub-Question II: Impact on Poverty Reduction	4-9
4.1.5	Sub-Question III: Applicability of Integrated Approaches	4-11

4.2	Zambia	4-12
4.2.1	Achievements	4-13
4.2.2	Implementation Process	4-14
4.2.3	Sub-Question I: Sustainability of Water Supply Projects	4-15
4.2.4	Sub-Question II: Impact on Poverty Reduction	4-20
4.2.5	Sub-Question III: Applicability of Integrated Approaches	4-31
4.3	Comparison of the Studies between Zimbabwe and Zambia	4-32
4.3.1	Poverty in Isolated Rural Areas vs. Urban Poverty	4-32
4.3.2	Conventional Grant Aid vs. Integrated Approach with Different Schemes	4-34

Chapter 5 Conclusion and Recommendations5-1

5.1	Answers to Sub-Questions	5-1
5.1.1	Sub-Question I: Sustainability of Water Supply Projects	5-1
5.1.2	Sub-Question II: Impact on Poverty Reduction	5-3
5.1.3	Sub-Question III: Applicability of Integrated Approaches	5-5
5.2	Answers to Evaluation Questions	5-6
5.3	Recommendations	5-6

List of Tables

Table 2-1	Socio-economic Indicators in Zimbabwe	2-2
Table 2-2	Socio-economic Indicators in Zambia	2-6
Table 3-1	Rural Water Supply Projects Assisted by Japan	3-1
Table 3-2	PLM on Rural Water Supply project in Binga District in Matabeleland, North Province	3-15
Table 3-3	Projects in the Peri-Urban Areas of Lusaka Assisted by Japan	3-3
Table 3-4	PLM on Programme for Improvement of Living Condition in George Compound	3-16
Table 3-5	PDM for Rural Water Supply project in Binga District in Matabeleland, North Province	3-17
Table 3-6	Field Survey Methods (Zimbabwe)	3-6
Table 3-7	PDM for Programme for Improvement of Living Condition in George Compound	3-18
Table 3-8	Field Survey Methods (Zambia)	3-7
Table 3-9	Interview List in Preparatory Work in Japan	3-8
Table 3-10	Population and Number of Households in the Sample Villages	3-9
Table 3-11	Scope of Field Survey	3-12
Table 4-1	Achievements of Binga Rural Water Supply Project	4-36
Table 4-2	Water Sources by Village (Comparison with 1997)	4-2
Table 4-3	The Number of Boreholes and Their Operation Status	4-3
Table 4-4	Conditions of Water Supply Facilities constructed by Japan during the Project Period	4-5
Table 4-5	Occurrence of Water-born Disease by Villages (comparison with 5 years ago)	4-10
Table 4-6	Occurrence of Water-born Disease by Water Sources (comparison with 5 years ago)	4-10
Table 4-7	“Who usually fetch water?” (multiple answers possible)	4-11
Table 4-8	Achievements of Programme for Improvement of Living Conditions for George Complex, Lusaka	4-38
Table 4-9	Types of Water Sources for Potable Water	4-14
Table 4-10	Disease Calendar in the Sample Areas, George and Bauleni	4-20
Table 4-11	Occurrence of Water-born Disease by Water Sources and Areas (comparison with 5 years ago)	4-21
Table 4-12	Contents of Donor Supports to the Programme	4-28

List of Figures

Figure 1-1	Evaluation Steps of the Study	1-6
Figure 2-1	Programme Tree in Environmental Protection in Zimbabwe	2-4
Figure 2-2	Programme Tree in Health and Medical Services in Zambia	2-8
Figure 3-1	Binga Rural Water Supply Project	3-3
Figure 3-2	Programme for Improvement of Living Conditions in George Community	3-5
Figure 4-1	Binga Rural Water Supply Project	4-1
Figure 4-2	Implementation Process of Binga Rural Water Supply Project	4-3
Figure 4-3	Programme for Improvement of Living Conditions for George Complex of Lusaka	4-15
Figure 4-4	Poverty Spiral in Rural Area in Zimbabwe	4-33
Figure 4-5	Poverty Spiral in Urban Area in Zambia	4-33
Figure 4-6	Input and Output of Binga Rural Water Supply Project	4-35
Figure 4-7	Input and Output of Programme for Improvement of Living Conditions for George Complex	4-35

Appendix

Appendix 1:	Minutes of Discussions
Appendix 2:	Schedule of Field Survey
Appendix 3:	Interview List
Appendix 4:	Document List
Appendix 5:	Questionnaires
Appendix 6:	Summary of Questionnaires
Appendix 7:	PRA Guidelines
Appendix 8:	Summary of PRA
Appendix 9:	Evaluation Grid
Appendix 10:	Summary of Survey Outcome

Summary

1. BACKGROUND

The Government of Japan (GOJ) has promoted its official development assistance (ODA) in African countries giving top priority to the water supply sector in order to contribute to addressing basic human needs, improvement of living and hygiene conditions and poverty reduction. GOJ has implemented 1,347 projects¹ in the water supply sector since the year 1974. This is one third of all of Japan's ODA projects. The volume of input of Japan's ODA to the water supply sector in African countries is huge and, at the same time, the effectiveness and impact created by it are also substantial based on the number of beneficiaries and sustainable project operation bodies formulated through Japan's assistance in many of the African countries.

Taking into account the importance of integrated water resources management, Japan International Cooperation Agency (JICA) has promoted water supply projects through integrated and/or sector-wide approaches that include not only facilities construction and procurement of equipment and materials, but also institutional strengthening and capacity building. These approaches are expected to lead to the establishment of a sustainable system of water resources development and a well-organized water supply and management system in target areas.

To prepare for the World Water Forum which was held in March 2003 and TICAD III to be held in October 2003, JICA decided to conduct a thematic evaluation study on "Water and Poverty in Africa" (hereinafter, refer to as the Study) from October 2002 to evaluate their challenges and performances in the water supply sector in African countries and then to clarify the right direction of future collaboration based on the lessons learned.

2. OBJECTIVES AND TARGETS

Through conducting an ex-post evaluation of JICA-supported projects and programs related to water supply development and targeting the poor in African countries, the Study is to: a) review the effectiveness of applying the "integrated approach" and "sector-wide approach" in the water supply sector, and b) obtain the lessons learned and formulate recommendations that could contribute to the improvement of future project formulation and planning activities.

Zambia and Zimbabwe were selected as target countries for the Study. In Zimbabwe, "Binga District Rural Water Supply Project" was selected as the target project. In Zambia,

¹ 1,347 projects include development studies, project-type technical cooperation and grant aid projects.

“Water Supply Project in Satellite Area of Lusaka”, “Lusaka District Primary Health Care Project” and “George Community Empowerment Programme” were considered as an integrated programme because of their correlation and selected as the target programme to be evaluated.

The evaluation questions and the sub-questions of the Study were as follows:

3. EVALUATION QUESTIONS

The evaluation questions and the sub-questions of the Study were as follows:

Evaluation Questions:

In the Sub-Saharan countries, have the integrated approaches and the sector-wide approaches been more effective to realise sustainable safe water supply systems for the poor population when compared with the traditional engineering oriented approaches?

Sub-questions:

- (1) How does an integrated approach and/or sector-wide approach need to be designed and implemented in order to contribute to the “realisation of sustainable safe water supply” in the Sub-Saharan countries more efficiently and effectively?
- (2) How does an integrated approach and/or sector-wide approach need to be designed and implemented in order to ensure that its impacts attain and enhance the overall goals such as improvement of living condition among poor families, poverty reduction etc., regarding water supply projects as entry points of capacity building for community development?
- (3) What are the required or desirable social and economic conditions of recipient country governments and/or communities to ensure that integrated approaches or sector-wide approaches will function effectively for the poor population of an African country?

4. METHODS

The steps used in the Study to evaluate the two different approaches are shown in the following figure.

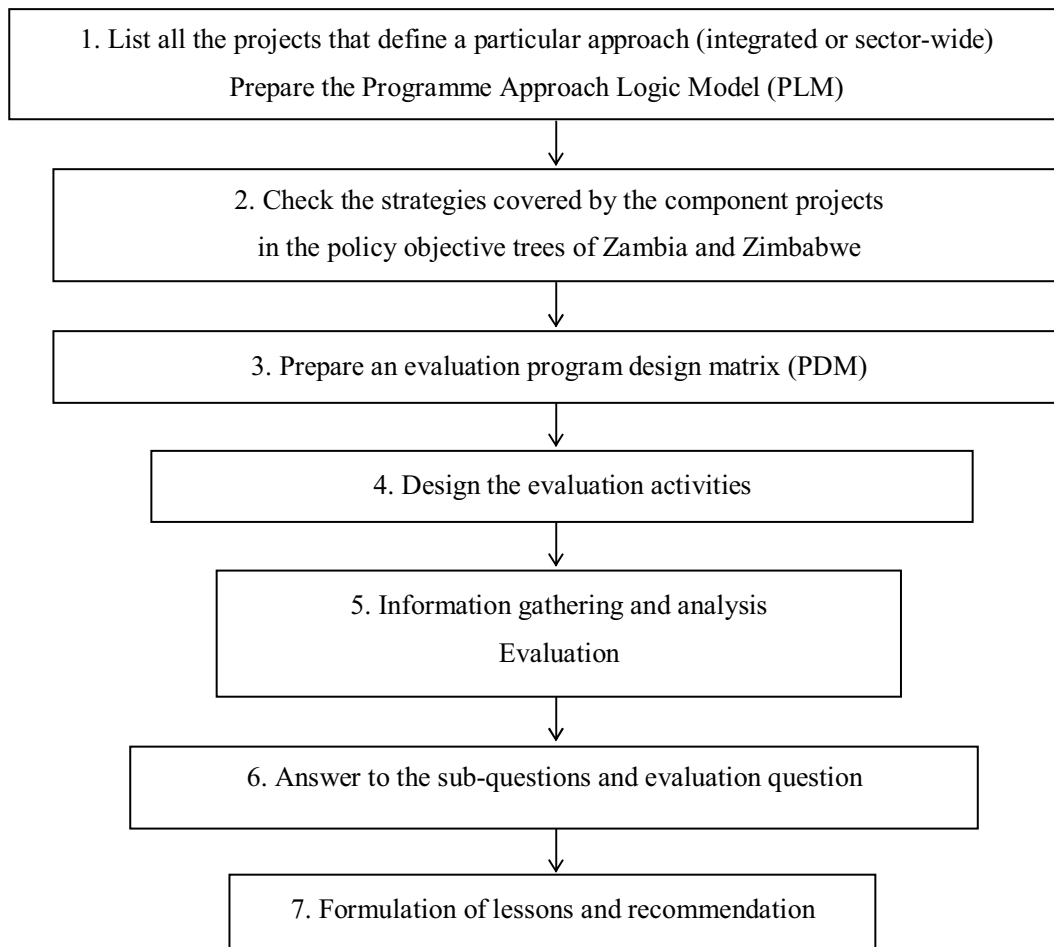


Figure Evaluation Steps Used

5. RESULTS

Sub-Question I: How does an integrated approach and/or sector-wide approach need to be designed and implemented in order to contribute to the “realization of sustainable safe water supply” in the Sub-Saharan countries more efficiently and effectively?

In project designing, it is necessary to focus on technical, financial and institutional sustainability. If advanced technology or equipment are chosen which require difficult skills or expensive spare parts, which are not locally available, lots of difficulties in establishing a sustainable water supply system could be encountered. Empowerment of the communities is also important for securing project sustainability. Capacity building in problem identification, critical thinking and problem solving might be useful at all of the stages of the project cycle: planning, implementation, monitoring/ evaluation and follow-up.

In order to establish a sustainable safe water supply system among the poor in the

Sub-Saharan countries, a sector-wide approach which is comprised of engineering components, institutional components and capacity building components might be more efficient and effective than a traditional engineering-oriented approach. Such sector-wide approaches are expected to include the following activities:

- (1) Conduct a technical survey to understand the socio-economic context, water problems, poverty structure etc. in the target communities in addition to the engineering survey;
- (2) Conduct sensitisation and planning workshops with the community members to discuss and understand the community background, water-problems, needs and potentials and to formulate strategies;
- (3) Formulate basic and detailed plans, which include facility construction, procurement, institutional strengthening and community sensitisation etc., by the experts and obtain community members' consensus;
- (4) Carry out a series of activities; community sensitisation, capacity building, institutional strengthening, maintenance skills training etc.;
- (5) Construct water supply facilities and procure the necessary equipment; and
- (6) Monitor and evaluate the project activities and provide follow-up sessions.

The (2), (3) and (4) activities listed above might require much time. However, they will contribute to secure the project sustainability and the project efficiency and effectiveness will be improved. NGOs have good potentials to handle these activities with community members.

Sub-Question II: How does an integrated approach and/or sector-wide approach need to be designed and implemented in order to ensure that its impacts attain and enhance the overall goals such as living condition improvement among poor families, poverty reduction etc. regarding water supply projects as entry points of capacity building for community development?

For the community to take initiatives in planning and implementing various types of community development activities, which were started with water supply as its entry point, community sensitization, problem analysis, project planning, fund raising, human resources development and strengthening of community organizations are essential. Through these activities community members' self-governing capacity would also be enhanced.

It is also important for the central and local governments to define their responsibilities for community development and to render support such as dissemination of technical information and training in order to promote improvement of living conditions initiated from the community.

If each community activity is separately organized, a synergetic effect could not be expected. For both the urban poor and the poor in rural areas, it is more efficient to support groups which are, or will be, engaged in water supply services and poverty reduction activities. The system of cooperation among such groups should be strengthened to enhance the synergetic impact by disseminating information, providing opportunities for information exchange, introduction of successful cases in other areas and providing role models to women's groups through the support from the central and local government, donors and NGOs.

Poor urban areas are sometime illegal settlements, to which local governments have difficulty in rendering support. Therefore, establishment of a long term support system, starting with community sensitization and organization building in collaboration with local NGOs is important for community development activities to expand from water supply issues to improvement of living conditions and poverty alleviation.

In the poor rural areas, the priority is to establish a sustainable water supply system by setting up an O&M system of the water supply facility in the community. This requires continuous support in community sensitization and institutional building. Achievement of a common goal might foster a sense of assurance, confidence and initiative in the community and promote the establishment of a community bond for further development.

Sub-Question III: What are the required or desirable social and economic conditions of recipient country governments and/or communities to ensure that integrated approach or sector-wide approach will function effectively for the poor population of an African country?

In the case that the responsibility of the planning and implementation of development activities is devolved to the local government under the decentralization policy, it might be effective to conduct integrated or sector-wide approaches with the local governments as the counterpart agencies. It will be desirable to start the integrated approach with the local governments which already have a basis of supporting community activities through the experience of working with donors and NGOs and which have the basis of financial and human resources capable of coordinating activities.

Integrated and sector-wide approaches might be introduced to the communities where there are established community leaders or development committees; development issues are already discussed among the people; and some kind of consensus building mechanism is already established.

Development activities can be suffocated or disturbed by the interference of

politicians causing inequitable distribution of benefits to a certain group of people or divisions among the community. On the other hand, local politicians could be the bridge between the community and the government to promote development projects. It is therefore necessary to recognize local politicians as one form of social capital in the community and to take measures within the programme to foster true leadership in local politicians, so that they also can contribute to community development. The programme should provide them with the environment, in which they can foster true leadership to contribute to community development.

Based on the results of the Study, it can be concluded that “the sector-wide approaches of the water supply sector”, which includes the engineering, institutional strengthening and capacity building components, are effective to establish a sustainable safe water supply system for the poor population in the African countries. Compared with the engineering-oriented water supply projects, the sector-wide approaches are more helpful to strengthen the ownership of the community members and to improve the sustainability of the projects.

6. RECOMMENDATIONS

To implement the sector-wide approaches more properly, the following strategies are important at all of the stages of the project including planning, implementation and follow-up:

- (1) understand water-related problems and poverty structure in the target communities;
- (2) establish an operation and maintenance system consisting of community organizations or members; and
- (3) strengthen the supporting system of the central and local government agencies and NGOs.

The donor agencies are required to improve the quality of the planning activities and to strengthen capacity building components for both the community members and the central and local government agencies of the recipient countries.

When community based organisations and the government support system are formed and strengthened through water sector development, an integrated approach addressing basic human needs such as primary education, health, sanitation and income generation could enhance the community’s initiative and willingness towards community development with synergetic effects among different activities.

It is hoped that continuous implementation of community based activities would result in an effective and sustainable impact on poverty reduction and Japan’s development assistance would further contribute to addressing issues of “water and poverty in Africa”.