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ZIMBABWE PRIVATE SECTOR HOUSING PROGRAM MONITORING AND EVALUATION SYSTEM

DATA COLLECTION PLAN

Prepared for

Ministry of Public Construction and National Housing
Government of Zimbabwe

and

United States Agency for International Development/Zimbabwe

Prepared by

PADCO, Inc.

and

Plan Inc. P/L

November 1994

FINAL REPORT

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MONITORING AND EVALUATION SYSTEM
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Prepared for
Government of Zimbabwe
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Harare, Zimbabwe

Prepared by

PADCO, Inc.
1012 N Street, NW
Washington, DC 20001

and

Plan Inc. P/L
P.O. Box UA467
Union Avenue
Harare, Zimbabwe

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ABSTRACT

Planning and Development Collaborative International (PADCO, Inc.) provided technical assistance to the Government of Zimbabwe (GOZ) and the United States Agency for International Development (USAID) Zimbabwe to: (1) develop a Monitoring and Evaluation (M&E) System with a data collection plan for the Zimbabwe Private Sector Housing Program (PSHP), and (2) test and refine that System by collecting and analyzing baseline data. The consultancy produced two documents:

- The attached document, *Data Collection Plan*, which serves as the key reference for implementing the M&E System; and
- The companion volume, *Baseline Survey and Findings*, which contains results from the baseline data collection of the M&E System.

The *Data Collection Plan* focuses upon M&E indicators, whose calculation is based on secondary data sources; and supplemental primary data collection. M&E indicators are defined, explained, and related to Program outputs and targets. The *Plan* presents detailed worksheets and a collection schedule for each indicator. Regarding primary data collection, the *Plan* proposes and justifies three areas of investigation: household incomes and expenditures, low-income households' participation in the housing market, and small-scale private contractors. The consultancy proposes and develops survey instruments for each of these three areas. The *Plan* additionally offers a management plan for the M&E System, suggests uses of the results produced by the System, and shows how M&E system activities relate to other PSHP monitoring efforts.

PREFACE

Planning and Development Collaborative International (PADCO, Inc.), under contract with the United States Agency for International Development (USAID) Zimbabwe, provided technical assistance to the Government of Zimbabwe (GOZ) Ministry of Public Construction and National Housing (MPCNH) and USAID/Zimbabwe to: (1) develop a Monitoring and Evaluation (M&E) System for the Zimbabwe Private Sector Housing Program (PSHP), and (2) test and refine that System by collecting and analyzing baseline data. PADCO, in association with Plan Inc. P/L, produced two documents:

- *Data Collection Plan*, the present document, which serves as the key reference for implementing the M&E System; and
- *Baseline Survey and Findings*, which contains results from the baseline data collection of the M&E System.

The consultancy began in May 1994, and conducted field work in Zimbabwe in June-August 1994, focusing on the urban centers of Harare, Bulawayo, Mutare and Bindura. The team produced final reports in November 1994. The PADCO team, supported by PADCO's Washington, D.C. office staff, and Plan Inc.'s staff in Harare, consisted of the following persons:

Robert Kehew	Team Leader
Lee Baker	Senior Urban Planning and Policy Specialist
Colleen Butcher	Social Scientist Specialist
Andrew Chataika	Housing Finance Specialist
Clever Ndlovu	Research Assistant

The PADCO Team worked under the direction of Dr. Michael Enders, USAID Regional Housing and Urban Development Officer; and with the guidance and support of Dr. Thomas Chiramba, USAID/Zimbabwe. Mr. M. Makuwe served as liaison with the MPCNH. We would like to express our appreciation to those persons, as well as the many officials of USAID; the MPCNH and other ministries of the GOZ; the local authorities of Harare, Bulawayo, Mutare and Bindura; and other persons who provided time and advice, as well as access to the information required to produce these reports.

EXECUTIVE SUMMARY

INTRODUCTION

The United States Agency for International Development (USAID) signed an agreement with the Government of Zimbabwe (GOZ) in August 1992 for a five-year Private Sector Housing Program (PSHP). The PSHP calls for US$ 50 million in Housing Guaranty (HG) loans, US$ 25 million in cash grants, and US$ 2.68 million for technical assistance. The Program's primary objective is to put in place a housing delivery system that will ensure the steady production of shelter solutions affordable to the poor.

This report represents the key implementation document for the PSHP Monitoring and Evaluation System, including the data collection plan. This document reflects conclusions reached and reviewed with the GOZ and USAID/Zimbabwe during a two-phase assignment. During Phase I, based in part on field research, the team drafted the preliminary data collection plan. During Phase II, the consultancy tested and refined that plan in the field by collecting and analyzing baseline data. (For survey results, see the companion volume to this document, *Baseline Survey and Findings*.)

The team concluded that primary data collection is not necessary to monitor the Program output and sectoral impact indicators. Data that can be gathered from secondary sources are of acceptable quality and availability for this purpose. The team, however, recommends that supplemental primary data collection is warranted as a part of the Monitoring and Evaluation System.

This Executive Summary highlights the team's principal recommendations regarding secondary and primary data collection, as well as preliminary proposals for a management plan to ensure the successful implementation of the PSHP Monitoring and Evaluation System. The main text additionally presents the assumptions behind the System, shows how secondary and primary data collection and analysis should be coordinated with other Program and USAID Mission activities, and suggests uses for the information generated by the System.

COLLECTION OF SECONDARY DATA

For the purposes of secondary data collection, the PSHP indicators are grouped into three modules reflecting the principal components of USAID/Zimbabwe's PSHP:

- Land Development;
- Low-income Shelter Financing; and
- Construction and Building Materials.

Tables ES-1, ES-2, and ES-3 describe the selected set of indicators on the basis of the three principal Program components, respectively. Worksheets for the calculation of each indicator are found in the main text.

COLLECTION OF PRIMARY DATA

While data from secondary sources are of acceptable quality and availability to calculate the Monitoring and Evaluation System indicators, special purpose primary data collection is also warranted. Three main areas of supplemental primary data collection are proposed as follows:

- *Urban Household Income/Expenditure Surveys* to periodically measure the median household incomes in PSHP urban areas;
- *Household Special Purpose Rapid Appraisal Surveys* to gauge low-income household entry into and participation in the PSHP, including user satisfaction; and
- *Supply-Side Interviews* to measure the constraints faced by small-scale, private contractors to participation in the PSHP.

MANAGEMENT PLAN

The design of the PSHP Monitoring and Evaluation System will only be as successful as the management plan instituted for its implementation. This report recommends an *explicit, formalized, and simple* management plan that strives to minimize the demand on GOZ and USAID/Zimbabwe staff time. The proposed management plan contains five key elements:

- Participating counterpart institutions must be fully briefed, knowledgeable, and in agreement with the System's broad objectives and operating procedures.
- Routine PSHP reporting to the Ministry of Public Construction and National Housing (MPCNH) and to USAID/Zimbabwe by the participating institutions (e.g., local authorities) should include as many of the System's data requirements as possible.
- Reach agreement with the MPCNH, whereby this institution is designated as the eventual repository of data, as well as the coordinating agency with responsibility for collating and reporting the data. This designation should be accompanied by a program of long-term technical assistance to the Ministry.
- As an interim measure, USAID/Zimbabwe should designate and contract a PSHP Monitoring and Evaluation Specialist who will have ultimate responsibility for the periodic collection, analysis, and write-up of all required reports. This person will also attempt to lay the groundwork in the MPCNH for its eventual direct oversight of the System. This assignment should not require more than one or two person-months of professional time per year.
- Primary data collection should be treated as part of the overall monitoring and evaluation responsibility that the Ministry would exercise. In the interim, the PSHP Monitoring and Evaluation Specialist would be responsible for the success of supplemental primary data collection.

Table ES 1: Monitoring and Evaluation System — Zimbabwe Private Sector Housing Program
Land Development Module

NAME OF INDICATOR	DEFINITION	OUTPUT/TARGET	RATIONALE FOR COLLECTION	MEASURE	GEOGRAPHICAL COVERAGE	FREQUENCY OF DATA COLLECTION	BASE YEAR	SOURCE(S)
1. **Number of Low-Income Serviced Stands**	Number of stands that are serviced and sold or ready for sale to families of less-than-median income: (i) total per year, (ii) Program-related	Additional 45,400 serviced stands made available for low-income families over life of Program	Measures HG impact on global stand production	Number of stands serviced and ready for transfer	All PSHP centers (4 municipalities for base year)	Quarterly	1992 for base year; thereafter fiscal year (July 1-June 30)	Participating local authorities and private contractors
2. **Price of Low-Income Serviced Stand**	Price of an unsubsidized serviced stand that meets current minimum standards where the primary/bulk infrastructure is in close proximity to the site and where the terrain of the site is not extraordinarily constrained: (i) total price, (ii) price per square meter	Average price of a habitable stand (stand plus wet block plus slab) reduced by 47% to Z$9,600 (1992 Z$) (progress toward target reflected in part by indicator)	Increased affordability of minimum stand requirements	Stand selling price and cost	All PSHP centers (4 municipalities for base year)	Annually	1992 for base year; thereafter fiscal year (July 1-June 30)	Private contractors and local authorities
3. **Permits and Title Delays**	The median length in months to obtain approvals, permits, and titles for a medium-sized (50-200 unit) residential subdivision in an area on the urban fringe where residential development is permitted	Reduction by 25% from baseline levels, to 30 months average delay	Indicates problems in administrative systems and procedures	Estimated time to get approvals, permits, and title (in months)	Harare, Bulawayo, Mutare, and Bindura	Annually for critical elements (planning/subdivision and SGs approvals); other approvals to be collected biannually	1992 for base year; thereafter fiscal year (July 1-June 30)	Private developers; and local authority acting as developer

Table ES 2: Monitoring and Evaluation System — Zimbabwe Private Sector Housing Program Low-Income Shelter Finance

NAME OF INDICATOR	DEFINITION	OUTPUT/TARGET	RATIONALE FOR COLLECTION	MEASURE	GEOGRAPHICAL COVERAGE	FREQUENCY OF DATA COLLECTION	BASE YEAR	SOURCE(S)
1. Number of Low-Income Mortgages	Number of mortgages that are extended by financial institutions to households of less-than-median income: (i) total per year, (ii) Program-related	Additional 43,200 low-income mortgages over life of Program	Measure HG performance	Number of approved building society mortgages	All PSHP centers (4 municipalities for base year)	Quarterly	FY1992	Participating building societies
2. Mortgage-to-Deposit Difference	Average percentage difference between interest rates on mortgages in both commercial and government financial institutions and the interest rate on one-year deposits in the commercial banking system	Increase to -3, an improvement of 15 percentage points over baseline conditions	Indicates costs, profits, and subsidies in housing loans	Difference between mortgage rate and one-year deposit rate	National	Annually	FY1992	Reserve Bank of Zimbabwe (RBZ), Building Societies, and National Housing Fund (NHF)
3. Credit-to-Value Ratio	Ratio of mortgage loans for housing to total investment in housing (in both the formal and informal sectors)	No target proposed	Indicates the extent to which formal housing finance is used	Ratio of mortgage loans to housing investment	Harare, Bulawayo	Annually	FY1992	Certificates of Occupation from Bulawayo Architectural Division and Harare Department of Works; real estate agents; Form BS4 from building societies

Table ES 3: Monitoring and Evaluation System — Zimbabwe Private Sector Housing Program
Construction and Building Materials Module

NAME OF INDICATOR	DEFINITION	OUTPUT/TARGET	RATIONALE FOR COLLECTION	MEASURE	GEOGRAPHICAL COVERAGE	FREQUENCY OF DATA COLLECTION	BASE YEAR	SOURCE(S)
1. Construction and Infrastructure-Related Employment	Number of jobs that are generated by low-income stand- and super-structure-related construction: (i) total per year, (ii) Program-related	5,000 construction-related jobs created over life of the Program	Measure HG performance	Jobs generated from stand, superstructure, and allied service and industrial production, where one "job" is assumed to equal one person-year of employment	All PSHP centers (4 municipalities for base year)	Quarterly	1992 for base year; thereafter fiscal year (July 1-June 30)	Participating building societies, local authorities, and private contractors
2. Construction Price and Cost	Present price and cost in constant Z$ (labor, materials, infrastructure within stand) of a 4-room finished house, built to current minimum superstructure and infrastructure standards: (1) total cost; (2) cost per sq. meter	Construction costs decreased by up to 10% in 1992 prices	Indicates increased affordability of minimum superstructure standards, improved construction techniques, and alternative materials	Similar units currently under construction or from bills of quantities	National urban average based on Harare plus 3 other urban centers	Annually	1992 for base year; thereafter fiscal year (July 1-June 30)	Private builders, local authorities, and MPCNH; in future, CSO Building Materials Price Index
3. Formal Low-Income Housing Production	Total number of new, single-family, semi-detached and flats approved per year by local authorities (Certificate of Occupation) in areas defined as high density	Volume of low-income houses increased by 10% per annum	Accelerated reduction in housing need	Production of approved units	All PSHP centers (4 municipalities for base year)	Quarterly	1992 for base year; thereafter fiscal year (July 1-June 30)	Certificates of Occupation from participating local authorities
4. Down-Market Penetration	Ratio of lowest-priced (unsubsidized) formal dwelling unit produced by private sector (not less than 2% of annual housing production) and the median annual household income	Reducing from base year levels to 1.9	Indicates ability of private sector to provide affordable housing for low-income households	Price of lowest-priced formal sector dwelling unit and median annual household income	Harare, Bulawayo, Mutare, and Bindura	Annually	1992 for base year; thereafter fiscal year (July 1-June 30)	Private builders
5. Price-to-Income Ratio: (i) House super-structure, (ii) Household dwelling unit	(i) Ratio of the median price of house super-structure and the median annual household income; (ii) Ratio of the median price of a household dwelling unit and the median annual household income	No targets proposed	Indicates general affordability of housing	Median price and median annual household income	Harare and Bulawayo	Every two years	1992 for base year; thereafter fiscal year (July 1-June 30)	Planning documents supplemented with interviews; real estate agents; socioeconomic surveys; newspapers

INTRODUCTION

The United States Agency for International Development (USAID) signed an agreement with the Government of Zimbabwe (GOZ) in August 1992 for a five-year Private Sector Housing Program (PSHP). The Program includes a Housing Guaranty (HG) loan, cash transfers, and technical assistance. The Program's basic objective is to put in place a system that will ensure the steady production of shelter solutions affordable to the poor. The PSHP will improve the land delivery system, expand the mortgage financing system, and strengthen the construction industry.

In 1994, USAID/Zimbabwe retained Planning and Development Collaborative International (PADCO, Inc.) to develop and begin to implement a Monitoring and Evaluation System for the Zimbabwe PSHP. Establishing this System is called for in the first year of Program implementation.[1] The core of the System as set forth in the Terms of Reference (see Appendix A) is a set of "indicators." These indicators track Program progress towards realizing direct outputs, as well as achieving less direct impacts on the shelter sector as a whole. Besides their primary use for Program administrators, the indicator values collected will also help GOZ officials formulate policy and monitor the shelter sector.

This document, the *Data Collection Plan*, represents the key implementation document of the PSHP Monitoring and Evaluation System. As per the Terms of Reference, it contains recommendations for both secondary and primary data collection. The document reflects the results of a two-phase assignment. During Phase I, which extended from May 23 to July 1, 1994, the consultancy developed the preliminary data collection plan (see Appendix B for persons interviewed during Phase I). During Phase II, which lasted from July 18 to August 5, 1994, the team tested and refined that plan in the field by collecting and analyzing baseline data. As per the Terms of Reference, this initial round of data collection consisted exclusively of secondary data gathering. (Results of that survey are presented in the companion volume to this document, *Baseline Survey and Findings*.) Both the GOZ and USAID/Zimbabwe have had a chance to comment upon earlier drafts of the two documents produced by the consultancy.

To provide administrators with a comprehensive framework for monitoring and evaluation, the draft plan shows how tracking the set of PSHP Monitoring and Evaluation System indicators relates to other Program monitoring activities. Related activities include monitoring Program conditions and covenants, as well as the financial activities of key Program participants. While this framework is provided, developing those other monitoring activities is outside the scope of work of this assignment.

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[1] See *PSHP Project Paper*, p. 82; also pp. 92-4.

The *Data Collection Plan* proceeds as follows:

Chapter 1 presents the design and logic of the Monitoring and Evaluation System as it relates to the PSHP,

Chapter 2 defines and describes the methodology for collecting the PSHP monitoring and evaluation indicators,

Chapter 3 proposes some supplemental primary data collection,

Chapter 4 provides managerial details of the System,

Chapter 5 discusses how System outputs can be used as an effective management tool, and

Chapter 6 offers some considerations for other Program and Mission activities that relate to the PSHP Monitoring and Evaluation System.

CHAPTER 1
FRAMEWORK FOR MONITORING AND EVALUATION SYSTEM

The USAID/Zimbabwe Private Sector Housing Program (PSHP) is a complex, multi-year activity, channeling US$ 77.68 million worth of inputs via USAID, as well as counterpart contributions, and involving various public and private sector players in Zimbabwe. Monitoring and evaluation are essential management tools to help administer such a complex Program. *Monitoring* assists managers in tracking program or project progress towards set goals, and ensuring that program activities benefit the target group as much as possible. *Evaluation* is mainly used to help in the selection and design of future projects.

A monitoring and evaluation system must closely correspond to the project which it tracks. Therefore, below: (1) the PSHP is first described without referring to the Monitoring and Evaluation System. Then (2) the Monitoring and Evaluation System is presented and tied back in to the PSHP.

1.1 PSHP COMPONENTS

The purpose of the Zimbabwe Private Sector Housing Program (PSHP) is to increase low-income household access to affordable shelter in urban areas on a sustainable basis.

To achieve this purpose, the PSHP, like any other program or project, can be described as transforming *inputs* by means of *processes*, into desired *outputs* and *impacts*. Inputs can be financial (e.g., grant or credit), material, and/or human resources. The physical outputs are not the final objective of the project, but rather a means to achieve a certain set of impacts. Some impacts will occur at the level of the target population, whereas other impacts are more sector-wide.

The PSHP has three main components, each with its corresponding inputs, processes, outputs, and impacts[2] (see Table 1.1).

Under the **Land Development** component, USAID provides US$ 25 million of a total US$ 50 million Housing Guaranty (HG) loan, to which the GOZ makes a counter deposit of the equivalent in local currency of US$ 25 million. This counter deposit, along with the local currency equivalent of US$ 25 million from the GOZ budget, are passed to the Ministry of Public Construction and National Housing (MPCNH). This Ministry then on-lends these funds to Local Authorities via the National Housing Fund (NHF). Local Authorities borrow these resources on a revolving basis to service stands, providing an additional 45,400 stands over the life of the Program to low-income families. As a further Program impact, the average cost of a habitable stand will be reduced by 47% in constant dollars.

[2] The sources of outputs and impacts are discussed in more detail below.

Table 1.1: Components of USAID Zimbabwe Private Sector Housing Program

Component	Input[a]	Process[b]	Output[c]	Impact[c]
Land Development	US$ 25 million HG loan (USAID) Equivalent of US$ 25 M counter deposit (GOZ); equivalent of US$ 25 M from budget (GOZ)	The MPCNH lends funds to Local Authorities via National Housing Fund for low-income stand development.	An additional 45,400 serviced stands made available over life of Program for low-income households.	Average cost of a habitable stand reduced by 47% in constant dollars. Reduction in permits and title delays by 25%, to 30 months average delays.
Low-Income Shelter Financing	US$ 47.5 M HG loan/grant (USAID) Equivalent of US$ 47.5 M[d] counter deposit (GOZ) Equivalent of US$ 47.5 M (Bldg. Societies)	Funds are blended to make available equivalent of US$ 95 million for low-income mortgage financing.	Financing for approximately 43,200 low-income mortgages.	Private sector role in low-income housing finance expanded. Improvement in mortgage-to-deposit difference by 15 percentage points, to -3.
Construction and Building Materials	Foreign exchange (listed above) sold on inter-bank market to support foreign currency exchange system (USAID); US$ 2.68 M technical assistance grant (USAID)	Private sector imports shelter-related goods & materials. Training & technical assistance improves private and public sector performance.	An additional 5,000 construction and infrastructure-related jobs created over life of Program.[e]	Volume of low-income houses produced increased 10% per annum.[e] Ratio of lowest-priced formal dwelling unit produced by private sector to median annual household income reduced to 1.9.[e] Construction costs decreased by up to 10% in constant dollars.

NOTES:
[a]Contributions by the GOZ and Zimbabwe building societies will be in the local currency equivalent to US dollars.
[b]Policy discussion and reform, not listed separately, represent another process leading to outputs and impacts.
[c]Outputs and impacts generally represent improvements from base year (1992) conditions.
[d]GOZ also transfers the local equivalent currency of US$ 2.5 million to USAID Management Trust Fund.
[e]Represents output/impact of more than one Program component.

As part of the **Low-Income Shelter Financing** component, USAID provides US$ 47.5 million (part HG loan, part grant) to the GOZ. The GOZ then provides a counter deposit equivalent in local currency to US$ 47.5 million; these funds are channeled to building societies. (The GOZ provides the local currency equivalent of another US$ 2.5 million to an interest-bearing Trust Fund administered by USAID.) Building societies must match these funds with the equivalent of at least US$ 47.5 million borrowed commercially. They then blend these funds, making the equivalent of at least US$ 95 million available for low-income mortgage loans. These funds represent about 43,200 low-income mortgages. PSHP-related policy dialogue is also expected to help improve the mortgage-to-deposit difference by 15 percentage points, from -18 in 1992 to -3 by end-of-Program.

Under the **Construction and Building Materials** component, the foreign exchange provided through USAID (detailed above) is sold on the inter-bank market to support the newly liberalized, market-based foreign currency exchange system. Under the current, liberalized system, construction and building materials firms can freely obtain foreign currency in the marketplace to purchase needed spare parts and plant equipment. An additional US$ 2.68 million in technical assistance will also help improve public and private sector performance. As a result, building construction costs are expected to decrease by up to 10 percent in real terms by the end of the Program.

The Program as a whole will have three other outputs/impacts, in addition to those described above. Together, the PSHP's Land Development and Shelter Financing components are projected to generate the equivalent of an additional 5,000 full-time private sector jobs in the construction, infrastructure, and allied services and industries. The PSHP will help reduce the down-market penetration ratio (ratio of lowest-price formal dwelling unit produced by the private sector to median annual household income) from 1992 levels to 1.9 — the average ratio for countries in Zimbabwe's income group. Finally, the PSHP is projected to help increase the volume of low-income houses produced per year by 10 percent. (To simplify presentation, these Program-wide outputs/impacts are listed under the Construction and Building Materials Program component in Table 1.1.)

The outputs and impacts of the PSHP mentioned above are the focus of the indicators which form the core of the Monitoring and Evaluation System. That System is described below.

1.2 MONITORING AND EVALUATION SYSTEM FRAMEWORK

The discussion in this section places all monitoring activities related to the Zimbabwe Private Sector Housing Program into one overarching framework. A discussion of (1) system design criteria and (2) types of monitoring leads up to (3) presentation of the Monitoring and Evaluation System framework itself. Then (4) System users are defined. Finally, (5) the Monitoring and Evaluation System indicators are briefly defined and tied back to the planned outputs and impacts of the Private Sector Housing Program.

1.2.1 System Design Criteria

The PSHP Monitoring and Evaluation System seeks to:

- Provide a **useful**, timely flow of information to system users. The information flow corresponds to administrators' changing needs as the project cycle advances. Indicators track Program progress towards stated outcomes and targets, provide early warnings of potential problems, satisfy reporting requirements, and assist in the planning of future projects. The System is management-oriented, and is not an academic exercise.
- Be **parsimonious** in its data collection. While the flow of data captures all important aspects of Program performance, no more and no less than the necessary information is gathered. Data quality is adequate to all needs, but not excessive. Secondary data are used where possible; primary data collection is employed where absolutely necessary.
- Offer an **integrative** view of the Program. For example, analysis of financial data is linked to monitoring of physical outputs.
- **Institutionalize** data collection and analysis, establishing periodic, regular information flows among the Inter-Ministerial Committee, housing policy decision-makers in the GOZ, and USAID/Zimbabwe.

1.2.2 Types of Monitoring and Evaluation Included in Framework

To fulfill the above design criteria, several complementary types of monitoring and evaluation activity are included in the framework.[3] Experience has shown that no one single type of monitoring is sufficient for project or program management. For example, implementation monitoring can tell administrators whether or not project inputs are delivered on time, but not whether end products are meeting with consumer acceptance. The three types of monitoring incorporated in the PSHP System focus on different project features, as follows:

- *Implementation monitoring* focuses on the use of inputs (were contractors hired, was financing available) and outputs (how many houses have been built).
- *Impact monitoring* estimates the impacts which the project has produced on the social and economic conditions of participating households, as well as upon the wider shelter sector.
- *Process monitoring* provides feedback to management on the efficiency and effectiveness of the project delivery system. It is concerned with how the project is perceived by, and actually operates at the level of, the intended beneficiaries. It also examines communication and organizational links among the implementing agencies, as well as between implementors and beneficiaries.

A fundamental building-block of the PSHP Monitoring and Evaluation System is the housing "indicator" — a quantifiable, policy-sensitive measure of a key shelter variable. Much as body temperature or pulse rate serves as a quantifiable indicator of health to a

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[3] The following adapted from Bamberger, Michael; and Hewitt, Eleanor, *Monitoring and Evaluating Urban Development Programs*, The World Bank, Washington, D.C., 1986; pp. 139-140.

doctor, a shelter indicator lets administrators measure those vital statistics that are relevant to a project or program. Indicators may be either project-specific or sector-wide. Thus, an indicator may be an example of either implementation or impact monitoring.

1.2.3 Framework for the PSHP Monitoring and Evaluation System

USAID/Zimbabwe, in consultation with USAID REDSO/ESA/UID, identified a set of indicators for the PSHP Monitoring and Evaluation System. Developing and refining that set of indicators, as well as supplemental primary data collection, served as the focus of the present assignment.

To provide Program administrators with a comprehensive framework for monitoring and evaluation, Table 1.2 shows how the work done by this consultancy relates to other PSHP monitoring activities, and the type of monitoring that each System component represents.[4] The PSHP Monitoring and Evaluation Indicators form the subject of Chapter 2, while supplemental primary data collection is treated in Chapter 3. Agencies responsible for managing the System are identified in Chapter 4. Use of System outputs is discussed in Chapter 5. While the other two monitoring activities included in Table 1.2 are outside the scope of work of this consultancy, some general considerations are offered in Chapter 6.

1.2.4 Users of Monitoring and Evaluation System

The primary users of information produced by the Monitoring and Evaluation System will be members of the GOZ's Inter-Ministerial Committee for the PSHP, MPCNH staff, local authorities, and the GOZ/USAID/Zimbabwe PSHP Program management team. Committee members include the Permanent Secretaries in the Ministries of Finance (MOF), Public Construction and National Housing (MPCNH), Local Government, Rural and Urban Development (MLGRUD); as well as representatives from the Reserve Bank and USAID. According to the *Project Paper*:

> *The responsibility for balancing the specific and focused indicators [generated by the Monitoring and Evaluation System] against the competing demands for flexibility and adaptation should rest with the Inter-Ministerial Committee...Its core monitoring task should be to gauge reactions of Committee members to program outputs and impacts, and feed their reactions back into improving performance (p. 93).*

Secondary System users in the GOZ will include shelter sector policy-makers. They will benefit particularly from those indicators that treat the shelter sector as a whole (i.e., the shelter sector impact indicators). This information will be freely available to all interested GOZ entities.

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[4] NOTE: The *Project Paper* additionally calls for two external evaluations of the Program — one at mid-term and one at end-of-Program. Because those evaluations are "external" they are not included in the Monitoring and Evaluation System framework. System activities and outputs will, however, serve as inputs into those external evaluations (see Chapter 4).

Table 1.2: PSHP Monitoring and Evaluation System Framework

Component of System	Type of Monitoring and Evaluation
PSHP Monitoring and Evaluation Indicators	Implementation/Impact
Supplemental Primary Data Collection	Impact/Progress
Conditions and Covenants Monitoring	Implementation
Financial/Physical Performance Monitoring (MPCNH, Local Authorities, Building Societies)	Implementation

Note: **Shaded area** indicates primary focus of this assignment.

Secondary users of the System within USAID include the USAID/Zimbabwe Mission, USAID/Washington Bureau for Africa, Office of Environment and Urban Programs (G/ENV/UP), and REDSO/ESA/UID.

1.2.5 Monitoring and Evaluation Indicators

All Monitoring and Evaluation System indicators correspond to elements of the Private Sector Housing Program. Those indicators are shown in Table 1.3, grouped by PSHP Program component. Table 1.3 also shows whether indicators measure a specific Program output, or a Program impact on the wider shelter sector.[5] The relation of the indicators to the PSHP's planned outputs and impacts presented earlier is as follows (by Program component).

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[5] The Terms of Reference originally listed 12 Monitoring and Evaluation System indicators, as well as some end-of-Program outputs and targets. Of those 12 indicators, six were developed specifically for the PSHP, while six were selected from a set of 20 or so housing and urban development indicators developed by the USAID Office of Housing and Urban Programs (now G/ENV/UP). Several of those indicators originated in turn from the Housing Indicators Program, a joint program of the World Bank and the United Nations Centre for Human Settlements (Habitat).

The original set of indicators, outputs, and targets were developed, tested, and refined during Phases I and II of the assignment. The consultancy reviewed its findings with the GOZ and USAID/Zimbabwe. Table 1.3, as well as the rest of the *Data Collection Plan*, reflects the revised set of indicators, outputs, and targets.

Table 1.3: MONITORING AND EVALUATION SYSTEM INDICATORS

PSHP PROGRAM COMPONENT	PSHP OUTPUT INDICATORS	SHELTER SECTOR IMPACT INDICATORS	
		PSHP Impact Indicators	USAID Housing & Urban Development Indicators
Land Development System	• Number of low-income serviced stands	• Price of low-income serviced stand	• Permits & title delays
Low-Income Shelter Financing	• Number of low-income mortgages		• Mortgage-to-deposit difference • Credit-to-value ratio
Construction and Building Materials	• Construction and infrastructure-related employment*	• Construction price and cost • Formal low-income housing production*	• Down-market penetration* • Price-to-income ratio*

NOTE:
*Indicator measures output/impact of more than one Program component.

1.2.5.1 Land Development

- The *Number of low-income serviced stands* indicator measures progress towards servicing 45,400 affordable stands, a Program output.
- The *Price of low-income serviced stand* indicator reflects (in part) progress toward a targeted 47 percent reduction in real terms of the average cost of a habitable stand (i.e., stand with wet block and slab), a targeted Program impact.
- The *Permits and Title Delays* indicator tracks the time required to obtain approvals, permits, and titles for a new residential subdivision, toward a targeted 25 percent reduction from baseline conditions (to 30 months average delays).

1.2.5.2 Low-Income Shelter Financing

- The *Number of low-income mortgages* indicator measures progress toward financing about 43,200 low-income mortgages, a Program output.
- The *Mortgage-to-deposit difference* indicator tracks progress toward achieving a ratio of mortgage loan interest rates to interest rates obtainable on one-year CDs of -3 — an improvement of 15 percentage points from baseline conditions.
- The *Credit-to-value ratio* indicator shows the availability of mortgage finance for housing investment.

1.2.5.3 Construction and Building Materials[6]

- The *Construction and infrastructure-related employment* indicator gauges success at creating the equivalent of 5,000 full-time jobs, a Program output.
- The *Construction price and cost* indicator captures movement toward the targeted 10 percent reduction in real terms in building construction costs, a targeted Program impact.
- The *Formal low-income housing production* indicator gauges movement toward a 10 percent increase in volume of yearly low-income housing production, a targeted Program impact.
- The *Down-market penetration* indicator demonstrates reductions in the cost of low-income housing relative to median annual household income, toward the average for countries of Zimbabwe's income group (1.9), a targeted Program impact.
- The *Price-to-income ratio* indicator compares the median price of housing to the median household income.

Definitions of, and methodologies for, the collection of the Monitoring and Evaluation System indicators are presented in the following Chapter.

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[6] In addition to the five construction and building materials indicators included in the PSHP Monitoring and Evaluation System, the MPCNH has also noted the importance of the monitoring of building materials' prices. The monitoring of those prices was not included in the Terms of Reference of this consultancy. Some monitoring of those prices is currently undertaken by the Central Statistical Office, with results published in the *Quarterly Digest of Statistics*. The need for further monitoring of building materials' prices could be a topic of discussion between the GOZ and USAID/Zimbabwe.

CHAPTER 2
INDICATOR DESCRIPTION AND METHODOLOGY FOR COLLECTION

For ease of understanding and implementation of data collection, this Chapter describes, primarily in tabular format, the indicators that have been included in the USAID/Zimbabwe PSHP Monitoring and Evaluation System and proposes a methodology for their periodic measurement. Reflecting the principal components of the PSHP, these indicators have been grouped into three modules (see also Table 1.3). The three modules are:

- *Land Development Module* - measures quantitative and qualitative aspects of the delivery of low-cost serviced stands;
- *Low-Income Shelter Financing Module* - measures the number, extent of usage, and interest rates of housing mortgages.
- *Construction and Building Materials Module* - measures outputs, costs, and the affordability of current minimum housing standards.

Below are presented: (1) descriptions of indicators, and (2) methodologies, in the form of worksheets, for their calculation.[7]

2.1 DESCRIPTIONS OF INDICATORS

Tables 2.1, 2.2, and 2.3 summarize the selected indicators, organized by module. The tables show, for each indicator:

- *Name of Indicator*,
- *Definition of the Indicator* - adds specificity and focuses the collection of data and intermediate values related to an indicator,
- *Output/Target* - represents the goals to meet or exceed by the end of the Program,
- *Rationale* - is the reason or motivation for selecting a particular indicator for measurement,
- *Measure* - briefly describes how a particular indicator will be calculated (see the following Section 2.2 for a detailed methodology for quantifying each indicator),
- *Geographic Coverage* - indicates the urban area(s) for which an indicator will be measured,
- *Frequency of Data Collection* - gives the periodicity for which the indicator will be measured,

[7] An example of use of worksheets is provided in Appendix B of *Zimbabwe PSHP Monitoring and Evaluation System Baseline Survey and Findings*.

Table 2.1: Monitoring and Evaluation System — Zimbabwe Private Sector Housing Program Land Development Module

NAME OF INDICATOR	DEFINITION	OUTPUT/TARGET	RATIONALE FOR COLLECTION	MEASURE	GEOGRAPHICAL COVERAGE	FREQUENCY OF DATA COLLECTION	BASE YEAR	SOURCE(S)
1. Number of Low-Income Serviced Stands	Number of stands that are serviced and sold or ready for sale to families of less-than-median income: (i) total per year, (ii) Program-related	Additional 45,400 serviced stands made available for low-income families over life of Program	Measures HG impact on global stand production	Number of stands serviced and ready for transfer	All PSHP centers (4 municipalities for base year)	Quarterly	1992 for base year; thereafter fiscal year (July 1-June 30)	Participating local authorities and private contractors
2. Price of Low-Income Serviced Stand	Price of an unsubsidized serviced stand that meets current minimum standards where the primary/bulk infra-structure is in close proximity to the site and where the terrain of the site is not extraordinarily constrained: (i) total price, (ii) price per square meter	Average price of a habitable stand (stand plus wet block plus slab) reduced by 47% to Z$9,600 (1992 Z$) (progress toward target reflected in part by indicator)	Increased affordability of minimum stand requirements	Stand selling price and cost	All PSHP centers (4 municipalities for base year)	Annually	1992 for base year; thereafter fiscal year (July 1-June 30)	Private contractors and local authorities
3. Permits and Title Delays	The median length in months to obtain approvals, permits, and titles for a medium-sized (50-200 unit) residential subdivision in an area on the urban fringe where residential development is permitted	Reduction by 25% from baseline levels, to 30 months average delay	Indicates problems in administrative systems and procedures	Estimated time to get approvals, permits, and title (in months)	Harare, Bulawayo, Mutare, and Bindura	Annually for critical elements (planning/subdivision and SGs approvals); other approvals to be collected biannually	1992 for base year; thereafter fiscal year (July 1-June 30)	Private developers; and local authority acting as developer

Table 2.2: Monitoring and Evaluation System — Zimbabwe Private Sector Housing Program Low-Income Shelter Finance

NAME OF INDICATOR	DEFINITION	OUTPUT/TARGET	RATIONALE FOR COLLECTION	MEASURE	GEOGRAPHICAL COVERAGE	FREQUENCY OF DATA COLLECTION	BASE YEAR	SOURCE(S)
1. Number of Low-Income Mortgages	Number of mortgages that are extended by financial institutions to households of less-than-median income: (i) total per year, (ii) Program-related	Additional 43,200 low-income mortgages over life of Program	Measure HG performance	Number of approved building society mortgages	All PSHP centers (4 municipalities for base year)	Quarterly	FY1992	Participating building societies
2. Mortgage-to-Deposit Difference	Average percentage difference between interest rates on mortgages in both commercial and government financial institutions and the interest rate on one-year deposits in the commercial banking system	Increase to -3, an improvement of 15 percentage points over baseline conditions	Indicates costs, profits, and subsidies in housing loans	Difference between mortgage rate and one-year deposit rate	National	Annually	FY1992	Reserve Bank of Zimbabwe (RBZ), Building Societies, and National Housing Fund (NHF)
3. Credit-to-Value Ratio	Ratio of mortgage loans for housing to total investment in housing (in both the formal and informal sectors)	No target proposed	Indicates the extent to which formal housing finance is used	Ratio of mortgage loans to housing investment	Harare, Bulawayo	Annually	FY1992	Certificates of Occupation from Bulawayo Architectural Division and Harare Department of Works; real estate agents; Form BS4 from building societies

Table 2.3: Monitoring and Evaluation System — Zimbabwe Private Sector Housing Program Construction and Building Materials Module

NAME OF INDICATOR	DEFINITION	OUTPUT/TARGET	RATIONALE FOR COLLECTION	MEASURE	GEOGRAPHICAL COVERAGE	FREQUENCY OF DATA COLLECTION	BASE YEAR	SOURCE(S)
1. Construction and Infrastructure-Related Employment	Number of jobs that are generated by low-income stand- and super-structure-related construction: (i) total per year, (ii) Program-related	5,000 construction-related jobs created over life of the Program	Measure HG performance	Jobs generated from stand, superstructure, and allied service and industrial production, where one "job" is assumed to equal one person-year of employment	All PSHP centers (4 municipalities for base year)	Quarterly	1992 for base year; thereafter fiscal year (July 1-June 30)	Participating building societies, local authorities, and private contractors
2. Construction Price and Cost	Present price and cost in constant Z$ (labor, materials, infrastructure within stand) of a 4-room finished house, built to current minimum superstructure and infrastructure standards: (1) total cost; (2) cost per sq. meter	Construction costs decreased by up to 10% in 1992 prices	Indicates increased affordability of minimum superstructure standards, improved construction techniques, and alternative materials	Similar units currently under construction or from bills of quantities	National urban average based on Harare plus 3 other urban centers	Annually	1992 for base year; thereafter fiscal year (July 1-June 30)	Private builders, local authorities, and MPCNH; in future, CSO Building Materials Price Index
3. Formal Low-Income Housing Production	Total number of new, single-family, semi-detached and flats approved per year by local authorities (Certificate of Occupation) in areas defined as high density	Volume of low-income houses increased by 10% per annum	Accelerated reduction in housing need	Production of approved units	All PSHP centers (4 municipalities for base year)	Quarterly	1992 for base year; thereafter fiscal year (July 1-June 30)	Certificates of Occupation from participating local authorities
4. Down-Market Penetration	Ratio of lowest-priced (unsubsidized) formal dwelling unit produced by private sector (not less than 2% of annual housing production) and the median annual household income	Reducing from base year levels to 1.9	Indicates ability of private sector to provide affordable housing for low-income households	Price of lowest-priced formal sector dwelling unit and median annual household income	Harare, Bulawayo, Mutare, and Bindura	Annually	1992 for base year; thereafter fiscal year (July 1-June 30)	Private builders
5. Price-to-Income Ratio: (i) House super-structure, (ii) Household dwelling unit	(i) Ratio of the median price of house super-structure and the median annual household income; (ii) Ratio of the median price of a household dwelling unit and the median annual household	No targets proposed	Indicates general affordability of housing	Median price and median annual household income	Harare and Bulawayo	Every two years	1992 for base year; thereafter fiscal year (July 1-June 30)	Planning documents supplemented with interviews; real estate agents; socioeconomic

- *Base Year* - gives the year for which the baseline data will be collected, and
- *Source(s)* - lists the source(s) from where the data will be collected.

For a more detailed description and discussion of each indicator, see Appendix D.

Based on interviews and sample data collected, the consultancy concluded that the quality of secondary data collected was adequate to arrive at acceptable baseline indicator values. Additional primary data collection was not required to calculate baseline indicator values.[8]

2.2 METHOD OF CALCULATION (WORKSHEETS)

The worksheets included in this section define how each indicator is to be measured. For the PSHP-specific output indicators (the first indicator indicated in Tables 2.1, 2.2, and 2.3, respectively), the indicator is measured from quarterly reports that will be submitted to USAID/Zimbabwe by the participating counterpart institutions. For the more involved and/or qualitative indicators (e.g., the time required to obtain permit approval), more than one intermediate value and/or data source is often required. In this latter case, the provided worksheets present a step-by-step method to calculate the baseline value for each indicator.

[8] See, however, Chapter Three of this document for a discussion of the need for supplemental primary data collection to satisfy other PSHP monitoring and evaluation requirements. See Chapter 1 of *Baseline Survey and Findings* for a discussion of median annual household income — an intermediate value for calculating two System indicators.

Data Collection Worksheet:
LAND DEVELOPMENT INDICATORS

Indicator #1	:	**NUMBER OF LOW-INCOME SERVICED STANDS (Output)**
Definition	:	Number of stands that are serviced and sold or ready for sale to households of less-than-median income: (i) total per year, (ii) Program-related.
Intermediate Values	:	None.
Method of Calculation	:	Quarterly reports from participating local authorities.

Data Collection Worksheet:
LAND DEVELOPMENT INDICATORS

Indicator #2 : PRICE OF LOW-INCOME SERVICED STAND

Definition : Price of an unsubsidized serviced stand that meets current minimum standards where the primary/bulk infrastructure is in close proximity to the site and where the terrain of the site is not extraordinarily constrained.

Intermediate Values : None.

Method of Calculation :

The price of low-income serviced stands can be calculated as follows:

* collect stand selling price and size from local authorities or private contractors or developers and details of cost recovery. Where possible, use actual project costs and/or reports to Council which give a detailed breakdown and justification of selling price and size of stand. Actual project costs should be broken down as:

- unimproved land value
- town planning services (preparing base maps, layout, lodging fees, and approvals)
- cadastral survey (including lodging fees)
- engineering design and approval fees
- local roads and storm water drainage
- on-site sewerage
- on-site water reticulation
- any off-site infrastructure costs charged to the project
- prorated salaries of senior project staff (town clerk, treasurer, engineer, Director of Housing and Community Services)
- interest charges on bridging capital

* provide the total number of stands within the serviced area to give a unit cost (noting average stand size)

* for future years, make tracking of actual project implementation costs mandatory in financial accounting system. Also, introduce a Resident Engineers' Project Completion Report/Audit on all PSHP project sites. The project audits should specify:

- design estimated costs
- tender costs
- actual project costs with justification on cost overruns

Data Collection Worksheet:
LAND DEVELOPMENT INDICATORS

Indicator #3 : PERMITS AND TITLE DELAYS

Definition : The median length in months to obtain approvals, permits, and titles for a new medium-sized (50-200 unit) residential subdivision in an area on the urban fringe where residential development is permitted.

Intermediate Values : None.

Method of Calculation :

Permit approval times should be collected separately with respect to:

(i) private development; and
(ii) development undertaken by the local authority.

The average time for both types of development is computed in the following manner:

1. Confirm that permit steps outlined in Figure 1 (attached) still hold.

2. Gather values for each of the four layers of approvals[a] (in months) from local authority and central government registers. Supplement these values by tracking actual data for PSHP projects through the approvals registries and individual stand files kept by the local authorities.

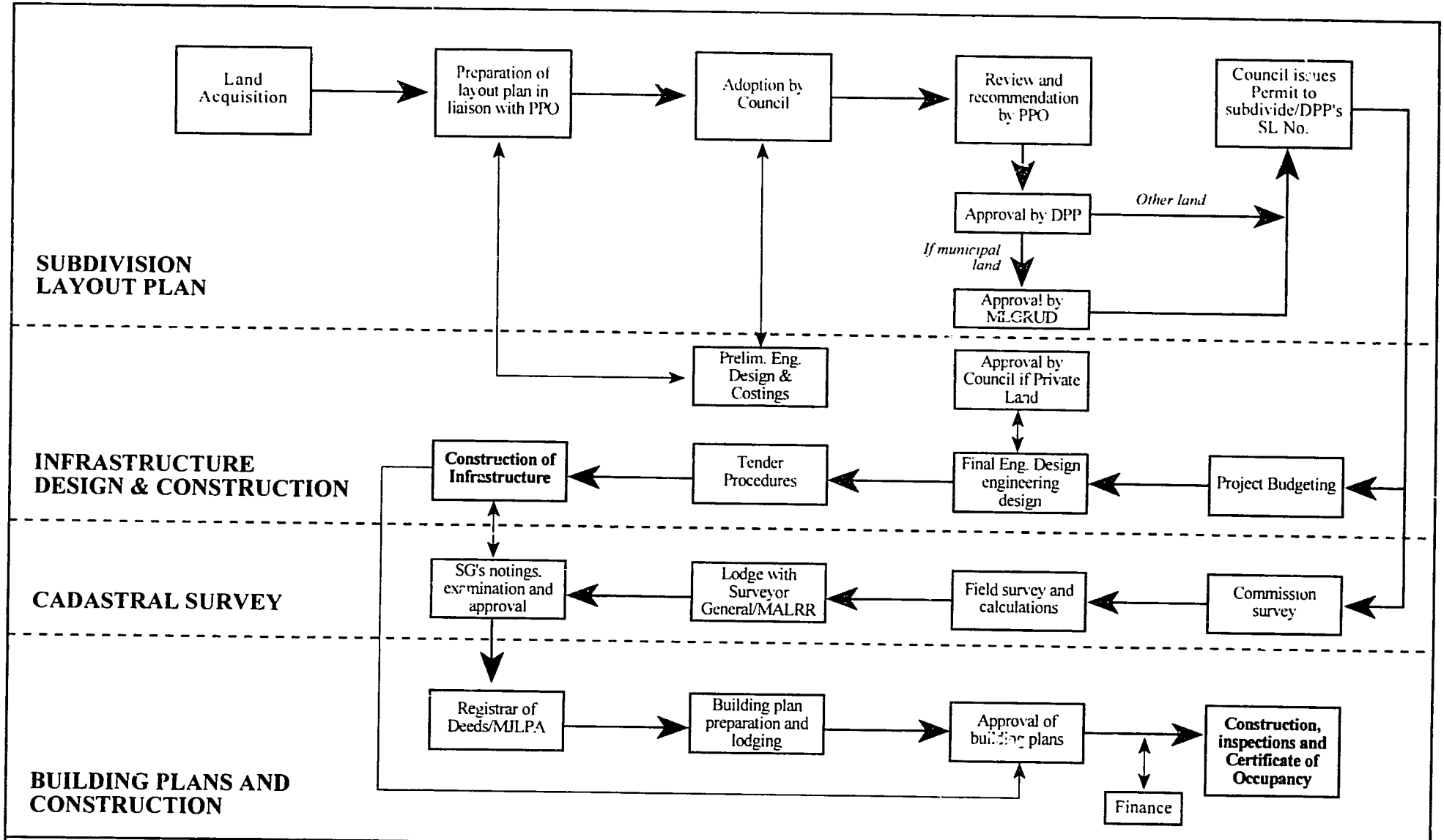
3. In case of private sector developments, cross-check these projects with private sector specialists (e.g., planning consultants and land surveyors), based on their actual project experiences and in-house registers/files.

4. Ideally, the analysis would focus on low-cost residential projects. Where approval times for low-cost residential projects are not specifically available, the estimates should be with respect to any type of residential development, if possible, comprising at least 50 stands.

5. Take the average value of all approvals by both public and private developers to derive the final indicator value.

[a]In addition to these four levels, land acquisition times should be collected where applicable, but log times separately and do not add into the final overall indicator value.

Figure 1
Permitting and Titling Approval Process*



NOTES:
DPP = Director of Physical Planning, MLGRUD
PPO = Provincial Planning Officer, DPP/MLGRUD
MALRR - Ministry of Agric., Lands & Rural Resettlement
MJLPA = Ministry of Justice, Legal & Parliamentary Affairs
MLGRUD = Ministry of Local Govt. Rural & Urban Development
SG = Surveyor General

Indicates desired end-points of development process

* For private or public sector residential developers within a municipal area. (Assumes land is already in ownership of the developer and is appropriately zoned.)

Data Collection Worksheet:
LOW-INCOME SHELTER FINANCING INDICATORS

Indicator #1	:	**NUMBER OF LOW-INCOME MORTGAGES (Output)**
Definition	:	Number of mortgages that are extended by financial institutions using Program-mobilized funds, to households of less-than-median income: (i) total year per, (ii) Program-related.
Intermediate Values	:	None.
Method of Calculation	:	Quarterly reports from participating building societies — part of the Program reporting system requirements.

Data Collection Worksheet:
LOW-INCOME SHELTER FINANCING INDICATORS

Indicator #2 : MORTGAGE-TO-DEPOSIT DIFFERENCE

Definition : Average percentage difference between interest rates on mortgages in both commercial and government financial institutions, and the interest rate on one-year deposits in the commercial banking system.

Intermediate Values : Mortgage Rate (a)

12-Month Negotiable Certificate of Deposit (b)

Method of Calculation :

Values for the two intermediate variables can be estimated as follows:

* the 12-month negotiable certificate of deposit can be obtained from the Monthly Bulletin of the Reserve Bank of Zimbabwe (RBZ).

* mortgages/information can be obtained from the building societies' Form BS4 and from the National Housing Fund for rates on government mortgages.

The percentage difference between the average mortgage rate and the 12-month CD can be calculated by simply:

$$b - a$$

Data Collection Worksheet:
LOW-INCOME SHELTER FINANCING INDICATORS

Indicator #3 : **CREDIT-TO-VALUE RATIO** (page 1 of 2)

Definition : Ratio of mortgage loans for housing to total investment in housing (in both the formal and informal sectors).

Intermediate Values : There are two intermediate values needed to estimate this ratio:

Total Mortgage Loans for Housing (a)

Total Investment in Housing (b)

Method of Calculation :

The total investment in housing, including both new construction and improvements, can be estimated from Certificates of Occupancy issued by the Department of Works of the City of Harare as follows: *(continued on next page)*

Data Collection Worksheet:
LOW-INCOME SHELTER FINANCING INDICATORS

Indicator #3 : CREDIT-TO-VALUE RATIO (page 2 of 2)

Method of Calculation (continued) :

Type	Price Range of Houses (A)	No. of C. of O.'s (B)	Investment in Housing (AxB)
Squatter[a]			
Hostels			
Low-Cost/ High Density[b]			
2-room			
4-room			
extended			
Flats			
High-Cost/ Low/Medium Density (detached & semi-detached)			
Institutional			
Total			

[a] Estimates for this housing type based on socioeconomic studies and data from local authorities.
[b] Includes tangwenas.

Source: Variable A - Real estate agents and/or local authorities; Variable B - Local authorities.

The amount of mortgages for housing, new and improvements, can be estimated by adding mortgages from the building societies' Form BS4, the number of employer loans recorded in the Deeds Office, and mortgages extended by the National Housing Fund (NHF).

The ratio of mortgages to total investment in housing can be calculated by:

a/b

Data Collection Worksheet:
CONSTRUCTION AND BUILDING MATERIALS INDICATORS

Indicator #1 : **CONSTRUCTION AND INFRASTRUCTURE-RELATED EMPLOYMENT (Low-Income Housing) (Output)**

Definition : Number of person-years of employment generated annually by formal sector, low-income superstructure construction and infrastructure provision, and their multiplier effect on allied services and industries: (i) total per year, (ii) Program-related.

Intermediate Values :

The calculation of this indicator involves three intermediate values (see pp. 73 -74 of PSHP *Project Paper*, August 1992):

Infrastructure Employment (a) =

$$\frac{\text{20\% of total infrastructure costs attributable to labor}}{\text{Average yearly wage rate}}$$

Superstructure Employment (b) =

$$\frac{\text{33\% of total superstructure costs attributable to labor}}{\text{Average yearly wage rate}}$$

Multiplier Effect (c) =

$$\frac{\text{Total person-years of superstructure employment}}{\text{1.6 (person-years generated in allied services and industries)}}$$

Method of Calculation :

Total employment in person-years is equal to:

$$a + b + c$$

Data Collection Worksheet:
CONSTRUCTION AND BUILDING MATERIALS INDICATORS

Indicator #2 : CONSTRUCTION PRICE AND COST

Definition : The present price and cost in constant Z$ (labor, materials, infrastructure within stand boundary) of a four-room finished house built to current minimum superstructure and infrastructure standards: (i) total cost, (ii) per square meter.

Intermediate Values : There are two intermediate values required to calculate this indicator:

Average cost of a 4-room finished house in 1992 constant Z$ (a)[a]

Average area of a 4-room finished house (b)

Method of Calculation :

Construction costs can be obtained as follows:

* query local authorities on the number of four-room units which have been costed in a particular year and constructed within a 12-month period.

* collect costs from respective builder.

The total cost per square meter of a four-room unit can be calculated as follows:

$$\text{Cost } (Z\$/m2) = a/b$$

[a] For deflator values, see Table 6, Consumer Price Index, Quarterly Digest of Statistics, CSO; and upcoming CSO Building Materials Price Index.

Data Collection Worksheet:
CONSTRUCTION AND BUILDING MATERIALS INDICATORS

Indicator #3 : FORMAL LOW-INCOME HOUSING PRODUCTION

Definition : Total **gross** new construction per year of single-family, semi-detached, and flats completed (e.g., certificate of occupancy) and in areas defined by local authorities as high density.

Intermediate Values : None

Method of Calculation :

Construction of new units in high density areas (assumes low-income households) can be determined from quarterly reports from participating local authorities. If there is no register of Certificates of Occupancy (e g., Bindura currently), look at the file of Inspection Forms and/or interview the Building Inspector; supplement with documentation from MPCNH and local authorities.

Data Collection Worksheet:
CONSTRUCTION AND BUILDING MATERIALS INDICATORS

Indicator #4 : DOWN-MARKET PENETRATION

Definition : Ratio of the lowest-priced (unsubsidized) formal dwelling unit produced by the private sector (not less than two percent of annual housing production) and the median annual household income.

Intermediate Values : Lowest-Priced Formal Private Sector Dwelling Unit (a)

Median Annual Household Income (b)

Method of Calculation :

The two intermediate values can be estimated as follows:

* collect the selling prices of low-cost dwelling units from private builders and developers.

* use USAID/Zimbabwe's derived estimate for median annual household income (base year).

The Down Market Penetration Ratio can then be estimated as follows:

a/b

Data Collection Worksheet:
CONSTRUCTION AND BUILDING MATERIALS INDICATORS

Indicator #5 : **PRICE-TO-INCOME RATIO: (i) House superstructure, (ii) Household dwelling unit** (page 1 of 3)

Definition : (i) Ratio of the median price of a house superstructure and the median annual household income, and (ii) Ratio of the median price of a household dwelling unit and the median annual household income.

Intermediate Values :

Median Price (Z$) = a

Median Annual Household Income (Z$) = b

Method of Calculation :

The following table estimates median price.

Data Collection Worksheet:
CONSTRUCTION AND BUILDING MATERIALS INDICATORS

Indicator #5 : PRICE-TO-INCOME RATIO (page 2 of 3)

Method of Calculation (continued) :

Type	% of Stock (A)	Price Range of Super-structures (B)	No. of Dwellings (C)	Price Range of DU's (B/C)	Weight Factor (AxC)	% of DU's[a]
Squatter						
Hostels						
Low-Cost/ High Density[b]						
2-room						
4-room						
extended						
Flats						
High-Cost/ Low/Medium Density (detached & semi-detached)						
Institutional						
Total	100%				W	100%

[a] = 100xAxC/W
[b] Includes tangwenas

NOTE: Number of dwelling units is equal to number of households per house, up to total number of rooms per house. Source: Steve Mayo, IBRD, telephone conversation, August 1994.

Source: *Volume IV, Housing Indicators Program*, UNCHS and the WB (p.13); Variable A - Master plans and other planning documents; Variable B - Real estate agents and/or local authorities; Variable C - Socioeconomic studies.

Data Collection Worksheet:
CONSTRUCTION AND BUILDING MATERIALS INDICATORS

Indicator #5 : PRICE-TO-INCOME RATIO (page 3 of 3)

Method of Calculation (continued) :

(i) House superstructure price

A median superstructure price can be estimated in a variation of the formula that appears on p. 13 of the above citation:

$$a(\text{median}) = a^1(\text{median}) + \frac{(50\% - \%U^1)}{\%U(\text{median})} [R(\text{median})]$$

where a(median) is the median superstructure price, a^1(median) is the value of the cheapest superstructure of the same type as the median unit (column B), $\%U^1$ is the percentage of superstructure in categories (types) below the one where the median superstructure is, %U(median) is the percentage of superstructures in the same category as the median superstructure, and R(median) is the range of values in the category where the median superstructure is.

(ii) Household dwelling unit price

A median household dwelling price can be estimated from the formula that appears on p. 13 of the above citation:

$$a(\text{median}) = a^1(\text{median}) + \frac{(50\% - \%U^1)}{\%U(\text{median})} [R(\text{median})]$$

where a(median) is the median housing price, a^1(median) is the value of the cheapest unit of the same type as the median unit, $\%U^1$ is the percentage of units in categories below the one where the median dwelling is, %U(median) is the percentage of units in the same category as the median unit, and R(median) is the range of values in the category where the median unit is.

(iii) Price-to-income ratios

The ratio of median price to median household income for either (i) or (ii) is calculated as follows:

$$a(\text{median})/b$$

CHAPTER 3
SUPPLEMENTAL PRIMARY DATA COLLECTION

3.1 BACKGROUND

As discussed earlier, the consultancy concluded that primary data collection will not be necessary to monitor the indicators that form the core of the Monitoring and Evaluation System.[9] However, supplemental primary data collection would be warranted for the following additional purposes:

- The Monitoring and Evaluation System, while it will quantify Program-related conditions, will not provide much additional qualitative insight as to why an indicator value might be changing and what overall impact that change might have on the Program.
- The indicators used in the System primarily reflect performance of the key agencies during Program implementation and overall sectoral impacts. No direct information concerning the impact of the Program on, for example, the levels of well-being of low-income households or the constraints facing participating small-scale contractors will emerge. Collection of primary data on selected areas would serve to better inform ongoing Program review.

3.2 PROPOSED AREAS OF SUPPLEMENTARY PRIMARY DATA COLLECTION

Three main areas of primary data collection are proposed to supplement the Monitoring and Evaluation System:

- Household incomes and expenditures;
- Low-income households' entry into and participation in the housing market, including user satisfaction; and
- Constraints facing small-scale private contractors working with the beneficiaries of aided self-help housing projects.

The rationale, objectives, scope, timing, sample frame, and survey instruments for carrying out these data collection exercises are described in further detail below.

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[9] Task G of the Terms of Reference for developing a monitoring and evaluation system states that:

> *The contractor will determine which indicators can be effectively measured only through primary data collection and will recommend strategies for their collection.*

3.3 URBAN HOUSEHOLD INCOME/EXPENDITURE SURVEY

3.3.1 Rationale/Objectives

The periodic undertaking of an urban household income and expenditure survey will serve:

(i) To Estimate the Urban Median Household Income. Median household income is an important variable for Program implementation. A condition of HG loans is that beneficiaries should earn at or below the urban median household income. Based on a detailed household income and expenditure survey conducted in 1992 by USAID/Zimbabwe, the urban median household income has been adjusted to Z$ 1,004 per month in 1994. Additionally, two of the PSHP indicators use the median household income in their computation.

Median household incomes are currently available from the Central Statistical Office (CSO) and are used by local authorities. An Incomes Consumption and Expenditure (ICE) Survey is conducted by the CSO every five years. However, published results currently trail the field survey by up to four years. Projections made from four year-old data are difficult during a period of economic flux such as Zimbabwe is now experiencing. Also, projections tend to rely heavily on changes in formal sector wages, which do not reflect changes in income experienced by the self-employed and in informal sector households (an estimated 30 percent of all lower-income urban households). Updating the estimated median income by means of primary data collection and analysis, rather than via an estimated adjustment, will become increasingly desirable over time.

(ii) To Analyze the Income Spread of Program Beneficiaries. A household income/ expenditure survey would also make possible analysis of the spread of USAID Program beneficiaries. PSHP indicators will quantify the total number of median-income and below households to benefit from the Program, but not to which income percentile bracket the Program is directly reaching. An income expenditure survey would also quantify the number of households *not* being reached by the Program, and usefully focus discussion concerning more targeted Government policy options for the poorest (rental, capital subsidies, site and service, etc).

(iii) To Stimulate Discussion on Alternative Stand Allocation Mechanisms. The scope of the income expenditure surveys could be usefully linked to a detailed analysis of the housing waiting lists maintained by local authorities. While the lists have provided a useful first screening in the allocation of stands during past decades, improvement in the mechanism is possible. Analysis of the income groups represented on the waiting lists would open the way for more focused policy discussion concerning alternative land allocation mechanisms.

Analysis would include a closer study of the auctioning of stands which the City of Mutare recently introduced — a process which USAID has followed with interest.[10]

3.3.2 Scope

It is proposed that two USAID-initiated urban household income/expenditure surveys be conducted through the life of the Program, covering selected PSHP urban centers.

3.3.3 Timing

The two surveys should precede and serve as inputs to the mid-term and end-of-Program (EOP) evaluations, respectively (see Table 4.2 in Chapter 4).

3.3.4 Sample Frame

Two proportional, randomly sampled groups drawn from Harare plus three other PSHP centers: (1) urban households living in low- and high-density areas, and (2) households representative of USAID Program participants and nonparticipants. A tolerable error of five percent would be reasonable in the sampling. It is proposed that a maximum of 2,000 *households* (representing a lower number of stands) would be enumerated in all. Given the multiple occupancy of stands, particularly in Harare, stands should be randomly selected and then all households occupying the stand (owners and lodgers) would be enumerated. Thus, both *households* and *stands* would be randomly surveyed, permitting more accurate analysis of results.[11]

3.3.5 Survey Instruments

Two survey instruments would be used in conjunction with each other:

(i) A concise, administered questionnaire seeking household information on:
- numbers, gender, and ages of head of households and members;
- major and supplemental sources of income (e.g., wages, lodgers);
- main and supplemental economic activities (e.g., employed in construction industry, hawking);
- estimated incomes of all family members and regularity of income;
- estimated expenditures on major items and savings; and

(ii) Tracking of daily household expenditures using self-administered record books (assistance and supervision provided by outside enumerators). Expenditures should be kept for a minimum of 30 days and the effects of the time of year be

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[10] See also *Constraints on the Development and Successful Operation of Housing Cooperatives in Zimbabwe*, Abt Associates Inc., May 1994.

[11] Dr. Marja Hoek-Smit, telephone conversation, June 1994.

considered in the analysis (for example, seasonal incomes from agricultural activities being undertaken at the rural home, quarterly school fee payments). The expenditures record books provide a reliable cross-check of responses given in the concurrently administered questionnaire.[12]

3.4 HOUSEHOLD SPECIAL PURPOSE RAPID APPRAISAL SURVEYS

3.4.1 Rationale/Objectives

Rapid appraisal surveys would serve:

(i) To Provide Rapid Feedback from Beneficiaries. The rapid appraisal surveys would provide an in-depth view of beneficiary satisfaction or dissatisfaction with the Program, and attitudes towards the housing policy changes that have recently occurred and are called for throughout the life of the Program (reduced stand sizes, reduced school sites, etc).

(ii) To Provide Focused Studies of Particular Issues. During the interviews held with public and private sector suppliers of housing during Phase I of the present consultancy, a number of conflicting opinions concerning beneficiary participation in the PSHP were expressed. For example, the Central Africa Building Society and the Bulawayo City Council believe that the current front-end charges plus five percent deposit make entry into the housing market prohibitive for first-time, low-income buyers. On the other hand, the Zimbabwe Building Society working with G.S. Developments believe that the demand for homeownership is so strong that even the poorest of families would be able to raise an even higher ten percent deposit.

Rapid appraisal surveys could be undertaken on an as-needed basis to probe these types of issues in more depth. Rapid surveys can provide qualitative views on beneficiaries/ potential beneficiaries themselves as a means of supplementing required Program evaluations. The results of the surveys will provide additional information to policy-makers from the end-users' point of view.

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[12] This type of survey instrument was successfully applied in Epworth in 1987, as part of an income/expenditure survey carried out by the MLGRUD with technical assistance from the CSO. The CSO traditionally uses daily record books as part of its five-year national household income/expenditure surveys.

CSO procedures make a point of supporting participating households in completing the record books. A trained enumerator assists about 10 households for a period of at least 30 days (preferably 60 days). At the start of the exercise, the enumerator explains the methodology to the households and attempts to allay any fears they might have. Often families volunteer one of their older, secondary school-age children to be responsible for maintaining the book on behalf of all family members. The enumerator checks each record book at least every two to three days and separately interviews male and female family members, thus overcoming the tendency on the part of spouses to keep each other in the dark regarding actual incomes and expenditures. One advantage of this survey technique is that, because it is self-administered, families take a genuine interest in the exercise. Secondly, keeping a daily record of small expenditures typical of low-income families is much more accurate than single questionnaires that attempt to determine a monthly (sometimes weekly) expenditure figure.

3.4.2 Scope

It is proposed that a USAID-sponsored rapid appraisal urban low-income household survey be undertaken once during the life of the Program, covering selected PSHP urban centers. The rapid appraisal could cover other centers as well, to gain broad-based responses to particular issues. Other surveys could be undertaken as needed. The proposed PSHP Monitoring and Evaluation Specialist would initially have responsibility for managing these rapid surveys, with responsibility passing to the MPCNH when it has the capacity to successfully play such a role (see Section 4.1, Management Considerations).

3.4.3 Timing

Once during life of Program — six months prior to undertaking the PSHP's mid-term external evaluation (see Table 4.2).

3.4.4 Sample Frame

A clustered sample of low-income urban households representing PSHP Program participants and non-participants. In the case of non-participants, the households should still be eligible for participation at the time of the survey. In June 1994 the grounds for participation in the PSHP are:

- incomes equal to or less than Z$ 1004 per month as of June 1994; and
- do not currently own a house.

Clustering would be on the basis of neighborhoods of similar characteristics for size and type of houses, infrastructure levels, stand sizes, etc. Small samples of households would still maintain high reliability of results because of the initial inherent similarity of their housing environments.

3.4.5 Survey Instruments

Rapid appraisal makes use of a variety of information gathering tools used in conjunction with each other. The most appropriate instruments for carrying out household special purpose surveys would be:

(i) Open-ended, semi-structured interviews with key informants, for example, local authority Housing Officers and Township Administrators, local political and traditional leaders, and headmasters of schools. The interviews are aimed at establishing points for further discussion with residents themselves, how to sample and select discussants, as well as general questions about the housing environment that are to be probed in the discussions with residents.

(ii) Direct field observations and measurements of use of space about and within the house, general condition of roads and levels of car ownership, use of space within school sites, etc.

(iii) A series of focus group discussions with owner-occupiers, spouses, and lodgers. Ideally each group should consist of approximately eight people and discussion would be led by an interviewer following an open-ended set of discussion points, in some cases cross-checking the findings of an indicator or the findings of the direct field observations or statements made by key informants. Separate group discussions would be undertaken for owner-occupiers, spouses, and lodgers to permit a focus on specific issues as well as a freedom of discussion within the group.[13]

3.5 SUPPLY-SIDE SMALL-SCALE PRIVATE CONTRACTORS SURVEY

3.5.1 Rationale/Objectives

A survey of small-scale private contractors would serve:

(i) To Assess The Responsiveness of Small-Scale Contractors to Participating in the PSHP. The PSHP stresses the involvement of the private sector in the delivery of affordable low cost housing. The primary vehicles for achieving this involvement are through the building societies acting as conduit for mortgage finance, and through "levelling the playing field" in terms of the approvals and costs facing private and public sector developers. The 1988 end-of-Program evaluation of a previous Zimbabwe HG program found that the majority of beneficiaries hired informal sector contractors to build their houses. This is likely to be the preferred mode of construction for the duration of the PSHP. Small-scale contractors are likely to emerge as a further strong element of private sector involvement in the sector.

The pilot Zimbabwe Contractors Assistance Program that was run by USAID/Zimbabwe has made some inroads in upgrading the project management skills of local small-scale contractors. It would be useful to monitor the overall responsiveness of small-scale contractors to participating in the PSHP, and in identifying particular problems they face in dealing with beneficiaries and in obtaining building plan and other approvals.[14]

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[13] Focus groups have proven to be a useful technique to cut to the heart of housing needs, aspirations, and attitudes about services, standards and similar issues. Focus group discussions were successfully used on a 1992 USAID/Zimbabwe household study to complement individual household survey data.

As part of a recent study of squatter settlements carried out for USAID/Zimbabwe, the use of focus group discussions proved problematic. In this specific study, the authors found that problems arose with focus groups due to a number of factors, e.g., squatters had been severely harassed by the authorities and so group discussions rapidly disintegrated into sessions where the participants' only interest was to gain support on their behalf. The authors of the study of squatter settlements are also of the opinion that focus groups work best when there exists the opportunity to preselect fairly homogeneous groups — for example, all female-headed households, community leaders, stable and long-established families, etc. In the recent squatter study, the authors found a dearth of existing empirical data on any of the informal settlements, thus making the selection of homogeneous groups impossible. For this reason, the authors fell back on using individual household surveys. Had time permitted, the consulting team would have tried to use focus groups again after analyzing the questionnaire data.

[14] The two most frequent problems cited by builders interviewed for the 1988 HG Evaluation concerned lack of materials at the municipal stores and the irregularity of payments owed by beneficiaries.

(ii) Cross-Check Source for Shelter Sector Indicators. Two PSHP indicators[15] require inputs on construction costs of minimum standard houses. Interviews with small-scale builders would provide useful insights into initiatives being taken to reduce construction costs and areas of resistance from their clients (including Program beneficiaries).

3.5.2 Scope

It is proposed that at least one USAID-initiated supply-side interview with small-scale contractors be undertaken during the life of the Program, covering selected PSHP urban centers. The interviews will provide information related to the functioning of the small-scale construction sector, the impact of regulations and local authority inspectorates on the performance of the private sector, and the responsiveness of the private sector to changes in the demand for housing and associated construction costs.

3.5.3 Timing

Once during life of Program — six months before undertaking the PSHP's mid-term external evaluation (see Table 4.2).

3.5.4 Sample Frame

A random sample of small-scale contractors involved in low-cost house construction in Harare and two to three other PSHP centers. A total sample size of approximately 50 contractors is envisaged.

3.5.5 Survey Instruments

The survey instrument would be semi-structured interviews with individual small-scale contractors making use of open-ended questionnaires ("issues" checklists). Information to be obtained from the survey would focus on building design and materials usage, project financing, procurement of materials, organization of construction, volume of work, effects of regulatory procedures, constraints, etc.

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[15] Construction Price and Cost, and Down-Market Penetration.

CHAPTER 4
MANAGEMENT PLAN

4.1 MANAGEMENT CONSIDERATIONS

This Chapter recommends an *explicit* and *formalized* management plan whose objective is to ensure the successful implementation of the PSHP Monitoring and Evaluation System. Since the System will track only the key Program indicators, the management plan will also be kept as *simple* as possible in order to minimize the demand on USAID/Zimbabwe and GOZ staff time.

Historically, donor-initiated monitoring and evaluation systems have often foundered due to their excess complexity and/or the lack of clear lines of responsibility for their management and implementation. Furthermore, these systems, which are normally donor-sponsored, run the risk of being ignored by host governments or of collapsing at the end of a program's life if they are unacceptable to and/or not integrated into the operations of the host governments. The proposed management plan for the PSHP Monitoring and Evaluation System tries to avoid those pitfalls.

The following section outlines a five-step plan to establish and manage the periodic collection and analysis of indicators selected to measure the performance of the PSHP.

First, ensure that the PSHP participating counterpart institutions (building societies, local authorities, MPCNH) are "on board" for the Monitoring and Evaluation System — that they are fully briefed, knowledgeable, and in agreement with the broad objectives and operating procedures of the Monitoring and Evaluation System. To the extent possible, formalize this understanding by including the description of the Monitoring and Evaluation System within standard USAID Housing Guaranty (HG) program agreements, or by entering into a separate Memorandum of Understanding (MOU) with the participating counterpart institutions that sets out the creation of the Monitoring and Evaluation System.

Second, include as many of the data requirements for the Monitoring and Evaluation System within the normal PSHP reporting that the participating institutions (e.g., local authorities) will routinely make to the MPCNH and to USAID/Zimbabwe. Certainly the specific PSHP output indicators of jobs generated, stands serviced, mortgages extended, as well as other data, such as low-income stand and superstructure costs, total mortgage loans, and mortgage interest rates, etc., can be incorporated into this type of normal reporting.

Third, reach agreement with the MPCNH whereby this institution is designated as the repository of data, as well as the coordinating agency with responsibility for collating and reporting the data. This institutional arrangement will go a long way to ensuring that the Ministry plays an active role in the Monitoring and Evaluation System and uses it for its own internal policy analyses. At the present time, however, it is unlikely that the Ministry has the capacity or capabilities to carry out such a repository role. Therefore, the consulting team recommends a program of long-term technical assistance to provide the capacity to the

Ministry and to train the staff in how data can be used for policy analysis. Assuming the Mission sees the merit in this proposal, it will presumably take about one year to bring such an institutional support contract on stream.

Fourth, as an interim measure to ensure the immediate implementation of the Monitoring and Evaluation System, USAID/Zimbabwe should designate and contract a local consultant who will serve as a PSHP Monitoring and Evaluation Specialist reporting to the Mission's Housing Division. This individual will be responsible for initial implementation of the proposed Monitoring and Evaluation System. To the extent possible, he/she will attempt to lay the groundwork in the Ministry for its direct oversight of the collection and analysis of the data that will be used to calculate the PSHP indicators. However, during this interim period, the designated person should be ultimately responsible for seeing that all data are collected and that the indicator reports are prepared in accordance with the reporting schedules established by USAID/Zimbabwe, the USAID/Washington Africa Bureau, and the Office of Environment and Urban Programs (G/ENV/UP). It is envisaged that this assignment should not require more than one to two person-months of professional time during this one year interim period. The PSHP Monitoring and Evaluation Specialist would liaise with and ensure a smooth transition to the MPCNH, during startup of the proposed institutional support contract.

Finally, treat the carrying out of supplemental primary data collection, where appropriate to measure PSHP performance, as part of the overall monitoring and evaluation responsibility that the Ministry would exercise. Specific primary data collection initiatives, whether the proposed household income survey, rapid appraisal surveys, etc., should be scoped, budgeted, and carried out under the auspices of the Ministry. Where appropriate, a local consultant(s), or a combined team of foreign and local consultants could be contracted to provide training to the Ministry in the specific techniques and methodologies employed in these surveys. In the interim, the PSHP Monitoring and Evaluation Specialist would have responsibility for monitoring and ensuring the success of supplemental primary data collection exercises.

4.2 DATA COLLECTION SCHEDULE

The data collection schedule for the Monitoring and Evaluation System indicators is presented in Table 4.1. As discussed above, collecting data according to this schedule will be the responsibility of the MPCNH and, in the interim, the Monitoring and Evaluation Specialist.

4.3 TIMELINE FOR PSHP MONITORING AND EVALUATION SYSTEM ACTIVITIES

The timeline for the PSHP Monitoring and Evaluation System is presented in Table 4.2. This Table is arranged according to System elements, as was presented in Table 1.2.

Table 4.1: Monitoring and Evaluation System — Zimbabwe Private Sector Housing Program Management Plan

NAME OF INDICATOR	DATA REQUIREMENTS	SOURCE/PROVIDER	FREQUENCY OF DATA COLLECTION
LAND DEVELOPMENT MODULE			
1. Low-Income Serviced Stands	Number of low-income stands serviced	Participating local authorities	Quarterly
2. Price of Low-Income Serviced Stand	Price of unsubsidized low-income serviced stand	Local authorities and private contractors/developers	Annually
3. Permits and Title Delays	Time in months to obtain approvals, permits, and titles	Local authority and central government registers, cross-checked with private sector experience	Annually for critical approvals, with others to be collected biannually
LOW-INCOME SHELTER FINANCE MODULE			
1. Number of Low-Income Mortgages	Number of mortgages extended by building societies	Participating building societies	Quarterly
2. Mortgage-to-Deposit Difference	Average mortgage rate and interest rate for 12-month negotiable certificate of deposit (NCDs)	Reserve Bank of Zimbabwe (RBZ), Form BS4 from building societies and National Housing Fund (NHF)	Annually
3. Credit-to-Value Ratio	Total mortgage loans for housing and total investment in housing (see Data Collection Worksheet for description of Intermediate Values)	Certificates of Occupation from Bulawayo Architectural Division and Harare Department of Works; real estate agents; Form BS4 from building societies	Annually
CONSTRUCTION AND BUILDING MATERIALS MODULE			
1. Construction and Infrastructure-Related Employment	Total labor costs for PSHP-specific stand and superstructure development plus multiplier effect on allied services and industries; monthly wage rates	Participating building societies, local authorities and private contractors	Quarterly
2. Construction Price and Cost	Superstructure costs for minimum standard four-room house	Private builders, local authorities, and MPCNH	Annually
3. Formal Low-Income Housing Production	Total new low-income housing production	Certificates of Occupation from participating local authorities	Quarterly
4. Down-Market Penetration	Lowest priced, privately produced unit available in the market and the median annual household income	Private builders/developers and USAID/Zimbabwe and/or primary sources for median household income	Annually
5. Price-to-Income Ratio	Median price and median annual household income (see Data Collection Worksheet for description of Intermediate Values)	Local authority planning documents supplemented with interviews; real estate agents; socioeconomic surveys	Every two years

Table 4.2: Timeline of Monitoring and Evaluation System Activities

COMPONENT OF M&E SYSTEM[1]	YEAR OF PROGRAM (ILLUSTRATIVE) 1			2			3			4		
PSHP MONITORING AND EVALUATION INDICATORS												
Baseline Year Design	•											
Secondary Data Collection												
• *Local authority quarterly reports*[2]		•	• •	• •	• •	• •	• •	• •	• •	• •	• •	•
• *Building society quarterly reports*[2]		•	• •	• •	• •	• •	• ○	• •	• •	• •	• •	•
• *Additional data collection and analysis*	•			•			•			•		•
Supplemental Primary Data Collection												
• *Household income/expenditure survey*						•						•
• *Special purpose rapid appraisal survey*						•						
• *Supply-side small-scale contractors survey*						•						
Reports to Interministerial Committee[3]		•		•			•			•		•
CONDITIONS AND COVENANTS MONITORING	*Tranche 1* •			*Tranche 2* •					*Tranche 3* •			
EXTERNAL EVALUATIONS							•					•

NOTES:

[1] = See Table 1.2

[2] = Also a component of "Financial/Physical Performance Monitoring shown in Table 1.2

[3] = Also to USAID/Washington Office of Environment and Urban Programs

Regarding the PSHP Monitoring and Evaluation indicators, secondary data will be requested on a quarterly basis from participating building societies and local authorities, via their ongoing financial/physical reporting requirements. As shown, some additional secondary data collection efforts will be necessary on a yearly basis.

These collection activities will serve as the basis for the annual preparation of Monitoring and Evaluation System reports. Those reports will be submitted to the GOZ Inter-Ministerial Committee charged with Program monitoring and other interested parties. Those reports should: review Program outputs, analyze Program impacts on the wider shelter sector, offer Program implementation and policy recommendations, and satisfy USAID G/ENV/UP reporting requirements.

Half a year before a mid-Program external evaluation is conducted (shown in Table 4.2 as year 3 of Program), three supplemental primary data collection efforts should be undertaken. Those three studies are: a household income/expenditures survey, a special purpose rapid appraisal survey, and a supply-side small-scale contractors survey. Those three studies will serve as inputs into both the mid-Program external evaluation, as well as that year's annual Monitoring and Evaluation System report.

As shown in Table 4.2, conditions and covenants monitoring will be ongoing, with particular attention paid before release of the Program tranches.

CHAPTER 5
USE OF THE INDICATORS

This Chapter suggests ways for System users to constructively apply the indicator values generated by the PSHP Monitoring and Evaluation System. Indicator values can be used to:

- Track Program progress towards meeting outputs and targets. Quantify, demonstrate, and consolidate Program achievements.
- Give early warning to Program administrators of emerging problems in Program implementation, through periodic secondary and primary data collection and analysis. For example, the System will report which municipalities are not servicing stands, have not been able to sell stands once developed, or where Program beneficiaries have incurred high rates of default. A comparison of performance between municipalities will highlight where the Program is and is not working.
- Based on an early warning of problems, the System will allow Program administrators to hone in on and analyze issues on an as-needed basis, through supplemental primary data collection and analysis.
- Provide useful inputs into external Program evaluations, the design of Program extensions and/or new housing and urban development projects.
- Strengthen arguments for change in shelter sector policy and procedures. For example, analysis of the permit approval times indicator will show that delays prevalent in Zimbabwe compare unfavorably to other countries. The System will also show significant differences in permit delays between different municipalities. Such comparisons will highlight the need for streamlining processes, and can form the basis for policy dialogue, op-ed articles, etc., and will facilitate dialogue among key actors in the shelter sector.
- Help local authorities focus on a goal of increasing net housing stock (both total and low-income) in their jurisdictions.
- Form a database of shelter sector conditions. The baseline values collected will partially satisfy GOZ needs for an indicator-based report on the housing sector, to be completed for the United Nations-sponsored Habitat II Conference in 1996.
- Satisfy statutory requirements. The System will provide administrators with acceptable estimates of median household income, a key implementation variable. Reports will also fulfill administrative reporting requirements.

CHAPTER 6
OTHER MONITORING CONSIDERATIONS

This Chapter offers some recommendations for monitoring and evaluation activities that are outside the main focus of this assignment. This coordination is necessary to avoid duplicating efforts.

Sections 6.1 and 6.2 cover activities that are within the PSHP Monitoring and Evaluation System framework (see Table 1.2) but outside this specific assignments' scope of work. Recommendations for Financial/Physical Performance monitoring and Conditions and Covenants monitoring are respectively presented. Finally, Section 6.3 addresses the relation of the PSHP Monitoring and Evaluation System to other Program and Mission activities.

6.1 FINANCIAL/PHYSICAL PERFORMANCE MONITORING

6.1.1 Land Development System

USAID/Zimbabwe has prepared two sets of terms of reference that relate to the land development component of the PSHP. Under the terms of reference to prepare a Financial Reporting System, eligible expenditures by central government ministries and local authorities will be reported; under the terms of reference to develop a Program Delivery Plan, the format for quarterly progress reports from local authorities to USAID will be prepared.

Regarding these assignments, the present consultancy recommends the following:

Recommendation. The reporting mechanisms established between participating local authorities and USAID should include, to the extent possible, the data requirements presented in Chapter 2 of this report (see worksheets). Data required from local authorities are summarized in Table 6.1.

Recommendation. The reporting mechanisms set up between participating local authorities and USAID include some socioeconomic information on program beneficiaries, in addition to their household income levels. The "Social Feasibility Analysis of the Zimbabwe PSHP," in Annex III of the *Project Paper*, recommends monitoring participation of women-headed households and the elderly in the Program (p. 17). It is more cost-effective to collect this information periodically via the local authorities, then through supplementary primary data collection.

Table 6.1: Data Required Quarterly from Local Authorities Participating in PSHP

INDICATOR	DATA REQUIRED[1]
LAND DEVELOPMENT	
1. Number of Low-Income Serviced Stands	• Number of stands serviced, by location, size of stand, and funding source(s) • Number of stands sold by location, size of stand, and funding source(s)
2. Price of Low-Income Serviced Stand	• Cost per stand sold, by location, size of stand and funding source(s)
3. Permits and Title Delays	• Stage of progress in approving PSHP estates, with time (in months) from beginning of process
CONSTRUCTION AND BUILDING MATERIALS	
1. Construction Price and Cost	• Price and cost of dwelling units built by local authority, with number of rooms, and total plinth area (sq. meters)
2. Formal Low-Income Housing Production/House Price-to-Income Ratio (Note: Gross housing production minus housing demolition yields net housing production.)	**A. Gross Housing Production**

	2BR	4BR	Extended	Hostels/Flats
A.1 High density areas (formal sector)				
A.1.1 GOZ				
A.1.2 Local authority				
A.1.3 Private sector				
A.1.4 PSHP				
A.2 Medium/low density areas (formal sector)				
A.3 Unauthorized/informal housing				
A.3.1 Tangwenas				
A.3.2 Other				
TOTAL				

B. Housing Demolition

	2BR	4BR	Extended	Hostels/Flats
B.1 High density areas (formal sector)				
B.2 Medium/low density areas (formal sector)				
B.3 Unauthorized/informal housing				
TOTAL				

[1] NOTE: Unless otherwise noted, "Data Required" applies to all activities in municipality, not just those related to PSHP.

Recommendation. The outlines of the periodic reports submitted by local authorities to USAID should cover not just key financial conditions, but should also encourage implementors to analyze such data together with physical progress and beneficiary acceptance of the Program. The reports should cover at least the following aspects of the Program:[16]

- comparison of actual progress with the original estimated schedule of implementation;
- actual or contemplated major deviations from the original plans or schedules and reasons for these deviations;
- conditions that could significantly affect construction and procurement schedules and/or the cost of the project;
- most recent cost estimates, commitments, and expenditures, and the availability of funds to meet the cost of the project; and
- any community development activities undertaken, or efforts to gather feedback from program beneficiaries.

Recommendation. The reporting system should allow the Program management team to distinguish and finance only those portions of subdivisions which will be affordable to low-income households. The MPCNH's 1992 circular encourages layouts which provide for a mix of stand sizes, an important socioeconomic consideration. However, bankrolling parts of such layouts through the Program and the NHF could be problematic if the costs associated with affordable stands cannot be accurately distinguished from those related to other stands. HG programs in other countries (e.g., Jamaica) have successfully financed the low-income portions of mixed developments through such a mechanism.

6.1.2 Low-Income Shelter Financing

USAID/Zimbabwe has established the terms and conditions of grants for low-income mortgage financing through the Zimbabwe PSHF. These terms establish a quarterly reporting mechanism between participating financial institutions and USAID, and note some report contents. These terms may be amended. The consultancy offers the following recommendations.

Recommendation. The participating financial institutions' quarterly reports should include, to the extent possible, the data requirements presented in Chapter 2 of this report (see worksheets). Data required include intermediate values for the following indicators: low-income mortgages, construction and infrastructure-related employment, credit-to-value ratio, and mortgage-to-deposit difference.

Recommendation. The reporting mechanisms set up between participating local authorities and USAID should include some socioeconomic information on program beneficiaries in addition to household income levels (e.g., number of women-headed

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[16] Adapted from Bamberger, Michael; and Hewitt, Eleanor; *Monitoring and Evaluating Urban Development Programs*, The World Bank, 1986; p. 216.

households and elderly participants). For discussion, see the second Recommendation presented in this Chapter.

Recommendation. The *Planning and Procedures Manual*, prepared for the Zimbabwe Building Society and USAID/Zimbabwe by John Heamon, should be reviewed for possible application to other participating financial institutions.

6.2 CONDITIONS AND COVENANTS MONITORING

The PSHP *Project Paper* clearly specifies the conditionality and covenants tied to Program disbursements, as well as GOZ reporting responsibilities. No changes are considered necessary.

6.3 OTHER PROGRAM AND MISSION ACTIVITIES

Discussed below is the relation of the PSHP Monitoring and Evaluation System to: (1) the PSHP Program Delivery Plan, and (2) the Mission-wide CPSP Program Impact Indicators.

6.3.1 PSHP Program Delivery Plan

USAID/Zimbabwe has elaborated terms of reference for the preparation of a Program Delivery Plan for the PSHP. Under those terms, the contractor will prepare a Program Investment Plan by Local Authorities, as well as a Program Disbursement Schedule. This consultancy recommends the following:

Recommendation. The contractor preparing the Program Investment Plan and Disbursement Schedule should review and incorporate recommendations regarding final outputs and targets for the Monitoring and Evaluation System provided in this document.

6.3.2 CPSP Program Impact Indicators

Table 6.2 shows the relation of the USAID Country Program Strategic Plan (CPSP) Program Impact Indicators to the PSHP Monitoring and Evaluation System indicators. Of the total of 15 CPSP indicators that correspond to the shelter sector, five coincide with PSHP indicators. Targets for those indicators have already been set, or will be proposed by this consultancy during Monitoring System implementation.

Eight other CPSP indicators correspond to the Conditions and Covenants element of the PSHP Monitoring and Evaluation System, which is outside the scope of this consultancy.

Finally, two other CPSP indicators are not explicitly covered by the PSHP Monitoring and Evaluation System. At the discretion of PSHP Program management, however, Program goals that correspond to those indicators may be set, and progress towards those goals may be charted via financial/physical performance monitoring.

Table 6.2: Comparison of CPSP Program Indicators with Monitoring and Evaluation System

CPSP Program Impact Indicators in Shelter Sector				Component of Monitoring and Evaluation System	
Indicator	**From**	**To**	**Source**	**Monitoring and Evaluation Indicators**	**Other**
Number of serviced plots for low-income households (annually)	5,500 in 1992	(X) in 1998	MPCNH	Number of low-income serviced stands (output)	
Number of mortgages granted to low-income households	(X)% in 1992	(X)% in 1998	Survey of Banking Institution	Number of low-income mortgages	
Land registration coverage	(X)% in 1994	(X)% in 1998	PSHP	Land registration coverage (deleted from System)	
Real interest rates for housing finance (%)	Negative interest rates for low-income shelter in 1992	Positive rates for low-income shelter in 1998	Association of Building Societies	Mortgage-to-Deposit ratio	
Average real cost of a min. unit (Z$)	Z$ 18,000 in 1992	Z$ 9,600 in 1997 (constant 1992 value)	MPCNH	Construction price and cost	
Minimum plot size (sq. meter)	300 (sq. meters) in 1992	150 (sq. meters) in 1993	PSHP		Conditions and Covenants Monitoring (P.P., p.63)
Number of const./bldg. materials on free import	5 in 1992	(X) in 1994	PSHP		Conditions and Covenants Monitoring (P.P., p.53)
Regulations governing building society deposit, interest, and surplus fund rates are lifted	Regulations remain	Regulations lifted	PSHP		Conditions and Covenants Monitoring (P.P., p.55-59)
Minimum Housing size	4 rooms with wet core in 1992	wet core and one room slab	PSHP		Conditions and Covenants Monitoring (P.P., p.64)

Table 6.2: Comparison of CPSP Program Indicators with Monitoring and Evaluation System (cont'd.)

CPSP Program Impact Indicators in Shelter Sector				Component of Monitoring and Evaluation System	
Indicator	**From**	**To**	**Source**	**Monitoring and Evaluation Indicators**	**Other**
Residential access road standards reduced from tarred surface to compacted gravel	Tarred surface in 1992	Compacted gravel	PSHP		Conditions and Covenants Monitoring (P.P., p.64)
Minimum size of school sites reduced by 15%	No in 1992	Yes in 1993	PSHP		Conditions and Covenants Monitoring (P.P., p.64)
Off-site infrastructure costs are treated equally for public and private housing developments	Private sector bears full cost of off-site infrastructure in 1992. Public sector can amortize cost in rates received	Public and private sector treated equally	PSHP		Conditions and Covenants Monitoring (P.P., p.65)
Standards for water and sewerage system reduced	No in 1992	Yes	PSHP		Conditions and Covenants Monitoring (P.P., p.65)
% of total homes owned by blacks	(X)% in 1992	(X)% in 1998	PSHP, MPCNH, Census		Proposed to include in financial/ physical performance monitoring
% of total homes owned by black women	(X)% in 1992	(X)% in 1998	1992 Census Data, follow-up survey		Proposed to include in financial/ physical performance monitoring

Sources: USAID, *Zimbabwe Country Program Strategic Plan*, Annexes, 7/1993
USAID, *Project Paper*

APPENDICES

TERMS OF REFERENCE

DEVELOPMENT OF A
MONITORING AND EVALUATION SYSTEM FOR
ZIMBABWE PRIVATE SECTOR HOUSING PROGRAM

Background

On August 31, 1992, the United States Agency for International Development (USAID) signed an agreement with the Government of Zimbabwe (GOZ) for a five year US$ 77.68 million Private Sector Housing Program (PSHP). This is a multi-faceted program that seeks to remove policy constraints and other obstacles in the construction, land development and housing finance sectors to the provision of low-cost housing. The removal of policy constraints is expected to lead to increased levels of home ownership by low income households in Zimbabwe's urban centers.

Of the US $77.68 million in the PSHP, $25 million will consist of cash transfers, $50 million will be in the form of Housing Guaranty (HG) loans and $2.68 million will be used for technical assistance. The program's basic objective is to put in place, through sectoral policy reforms, financial aid and technical assistance, a system that will ensure the steady production of low-cost shelter solutions. The US dollar resources will be used to achieve policy changes that will strengthen the construction industry, improve the land delivery system and expand the mortgage financing system.

The US Dollar Program funds will support the foreign exchange needs of the building materials manufacturers, the housing construction industry, the land surveying profession and the building societies for the importation of spare parts, plant equipment, computers and professional tools. The US Dollar resources will also generate local currency counter deposits that will be directed by the GOZ toward three key aspects of the housing production and delivery system. The equivalent of US $25 million in local currency funds will be matched with monies from the National Housing Fund to finance the development and servicing of low cost housing plots by local authorities. The equivalent of another US $47.5 million, along with an equal amount that the building societies will borrow commercially, will be channelled into the housing finance system for low cost housing mortgages.

The PSHP requires a monitoring and evaluation system to serve two related objectives. First, it must track progress toward meeting the program purposes, i.e., toward achieving the end of program status (EOPS). Second, it must measure the broader impact of the program on the shelter sector. The objective of this contract will be to develop, test and modify a monitoring and evaluation system to meet program needs. The test will collect data that will serve as the baseline for future evaluations.

Program Purpose and EOPS: The program purpose is to increase low income household access to affordable shelter in urban areas through policy reforms.[1] While the PSHP will generate local currency counter deposit funds for capital financing for plot development and house construction, the program will achieve its purpose through significant policy reform in the housing sector. These reforms will have a direct impact on the availability and cost of housing for low-income families. Achievement of the purpose will be evident from the following conditions (EOPS) at the end of the implementation period:

Increased availability of serviced plots affordable by low income households as a result of reduced development standards;

Reduced cost of a minimum standard housing unit;

Increased availability of mortgage financing for low income households;

Decreased construction costs as a result of increased efficiency and capacity in the construction and building materials industries;

Increased employment in the construction sector; and

Increased output in the housing sector.

The monitoring and evaluation system will specify empirical, quantified measures for each of these conditions, procedures for collecting the requisite data, and recommendations for the periodicity of collection.

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[1] For more detail, see: USAID/Zimbabwe, Zimbabwe Private Sector Housing Program (613-0235 & 613-0236), August 1992.

HG Performance Indicators: In addition to the above measures, USAID will assess the broader impact of the program in the shelter sector. To achieve this, it will utilize a subset of the indicators contained in the "management information reporting system," which has been developed by the USAID Office of Housing and Urban Programs for world wide application.[2] Six indicators have been selected by USAID/Harare as appropriate measures of improvement in the Zimbabwe housing sector. (See Chart 1).

Two indicators, **Permits Delay** and **Land Registration Coverage** measure changes in the institutional framework for housing development, particularly the land delivery system, which is a major focus of the PSHP.

Two indicators, **Mortgage to Deposit Difference** and **Credit to Value Ratio**, measure changes in the housing finance system, a second focus of the program.

Two indicators measure changes related to private developers' ability to produce low cost housing; these are **Down Market Penetration** and **House Price to Income Ratio**.

The quantitative measures of these indicators is not a conceptually difficult matter. What may be difficult is the availability of the data, or the ease with which the required data could be generated.

[2] Detailed rationale can be found in: PADCO Inc., Management Information Reporting System, Prepared for USAID Office of Housing and Urban Programs, September 1992.

CHART 1: SECTOR PERFORMANCE INDICATORS		
INDICATOR	RATIONALE	MEASUREMENT
INSTITUTIONAL FRAMEWORK		
Permits Delay	Indicates problems in administrative procedures	Med. months to get permits for medium sized development on urban fringe
Land Registration Coverage	Indicates govt. ability to provide secure tenure and assure financial benefits	Portion of an urban area covered by land registration system
HOUSING FINANCE		
Mortgage to Deposit Difference	Indicates costs, profits and subsidies in housing loans	Mortgage interest rate less average one-year deposit rate
Credit to Value Ratio	Indicates extent to which formal housing finance is used	Ratio of total mortgage loans to total housing investment, including informal
PRIVATE SECTOR HOUSING		
Down Market Penetration	Indicates ability of private sector to serve lower income households	Ratio of lowest market-priced, formal dwelling to med. annual household income
House Price to Income Ratio	Indicates general affordability of housing	Med. market price of dwelling to med. annual household income

Article I -- Title

Monitoring and Evaluation System for Zimbabwe Private Sector Housing Program.

Article II -- Objective

The objective of this contract is to design and test an evaluation and monitoring system for the Zimbabwe Private Sector Housing Program that will enable USAID to track and measure both its progress in meeting specific program purposes and its wider impact on the shelter sector. The contractor will test and modify the system as appropriate by collecting and analyzing data for the project baseline.

Article III -- Statement of Work

To achieve the objective of this consultancy, as described above, the Contractor will provide staff and support resources as required to accomplish the following tasks:

Task A: The contractor will undertake a review in its home office of potential secondary sources of data available from USAID offices in Washington, World Bank Headquarters (especially data from the Zimbabwe survey under its Housing Indicators Project and Urban Sector Studies), and other sources. The contractor will prepare a preliminary data schedule indicating the items required, or alternative possibilities, for measuring each of the Program EOPS and HG Performance Indicators.

Task B: The contractor will meet with appropriate private sector organizations in Zimbabwe to discuss the availability of relevant data and published reports. These will include, inter alia:

Private building societies;
Merchant Banks;
University of Zimbabwe;
Professional organizations, such as CZI, ZNCC, CIFOZ, and ZBCA.

Task C: The contractor will meet with appropriate government of Zimbabwe (GOZ) officials to discuss the availability of relevant data and published reports. These will include, inter alia:

Central Office of Statistics;
Registrar of Banks;
Reserve Bank of Zimbabwe;
Ministry of Public Construction and National Housing;
National Housing Fund;
Ministry of Local Government;
Department of the Surveyor-General.

Task D: The contractor will meet with donors that work in the shelter and urban development sectors, in particular the World Bank, to determine whether they are engaged in or plan similar data collection and program monitoring activities.

Task E: The contractor will prepare a brief summary of the secondary sources of data obtained in tasks A through D, assessing the extent to which the indicators can be measured and tracked over time through such sources.

Task F: The contractor will examine the records of selected local governments to determine the extent to which they can provide the basic data for various indicators. This review will be conducted in the two largest cities, Harare and Bulawayo, and in a set of smaller cities to be determined in conjunction with the project officer. The contractor will prepare a brief discussion memo summarizing the availability of data at the local level.

Task G: The contractor will determine which indicators can be effectively measured only through primary data collection and will recommend strategies for their collection. These might include inter alia:

Household surveys to estimate income, housing expenses, housing quality and services, and other relevant measures. The proposals will include recommendations for sample sizes, locations for the surveys, and other methodological issues;

Collection of primary data from public records at the national or local government levels;

Collection of primary data from the records of private organizations, such as professional or business organizations, building societies, etc.; and,

Structured individual or group interviews with relevant public and private sector actors in the housing development and production industries.

Task H: Based on the above, the contractor will develop a preliminary data collection plan containing the following elements:

1. A set of charts and supporting narrative of potential measures for each of the EOPS and HG performance indicators. The chart(s) will show, where appropriate, inter alia: alternative measures for the same indicator, noting the advantages and disadvantages of each; their sources; items which can serve dual purposes; frequency of collection.

2. A set of illustrative tables showing the data items proposed for collection, their geographic coverage, and proposed presentation and analytical use.

3. Recommendations for which local authorities to include for primary data collection.

4. Recommendations, if appropriate, for the conduct of household surveys, including urban areas to include, sample sizes, data elements required, and frequency of collection.

5. A schedule for collecting the data for the baseline.

Task I: Following approval of the monitoring and evaluation plan by the project officer, the contractor will undertake the collection and analysis of those components of the baseline data for the impact evaluation of PSHP which can be readily obtained. The project officer will decide, based on the recommendation of the contractor, which elements can be completed under this task. Completion of this Task will be limited to:

1. The collection of specified data from secondary sources in the government of Zimbabwe, professional organizations, and building societies.

2. The collection and compilation of specified data from local authorities.

The execution of household surveys, which may be included as a component of the monitoring and evaluation, shall not be undertaken during this work.

Article IV -- Reports

The contractor shall prepare a discussion memorandum based on its home office work, as specified in Task III A, which will serve as a basis for initial briefing with the project officer. The contractor will also prepare brief reports as specified under Tasks III E and F to serve as the basis for interim discussions with the Project Officer and others he may designate.

Before departing Zimbabwe, the contractor will prepare a draft final report of its work in which the monitoring and evaluation plan shall be presented in detail, as specified in Task III H. This report shall be a complete presentation of all the work completed under this contract, including analyses of various data sources, strategies for collection, estimates of the feasibility of alternative measures, and logistical issues. The report shall present a specific work plan and schedule for conducting the baseline data collection. Five (5) copies of the report shall be submitted for review and discussion with USAID and for approval of the baseline plan.

Upon completion of the baseline data collection and analysis, the contractor shall prepare two draft final reports. The first shall be a revision of the previously drafted monitoring and evaluation plan, with appropriate modifications made to reflect the experience of collecting the baseline data, in particular with information and guidance relevant to the collection of subsequent rounds of data. The second report shall be a presentation of tabulated results of the baseline data collection effort, including analytical narrative. Within five working days of the receipt of USAID comments on the respective drafts, twenty (20) copies of each shall be submitted in final.

The contractor shall meet with USAID staff and others designated by the Project Officer at least five times during the course of the work: at its inception to receive an orientation briefing; at the completion of Task III E; at the completion of Task III F; at the completion of Task III H to review and receive approval for the baseline data collection plan; and for a final briefing at the completion all work tasks.

Article V -- Relationships and Responsibilities

The contractor will work under the general supervision of USAID/Harare. The responsible USAID official shall be the Regional Housing and Urban Development Officer. USAID/Harare shall be responsible for payment for the services of the contractor. The contractor shall collaborate and coordinate closely with the staff in the Ministry of Public Construction and National Housing, the implementing agency for the PSHP.

Article VI -- Terms of Performance

The assignment is expected to commence on or about February 1, 1994 and to be completed not later than April 30, 1994.

Article VII -- Work Days Ordered

A total of 50 work days of expatriate time is ordered for this assignment for an urban development specialist, who will serve as team leader, and who must be knowledgeable about the land development and permit issuing process and experienced in evaluation design. The work will also require: 45 days of a local social scientist experienced in evaluation design, survey construction, and survey management; 21 days of a local housing finance specialist with experience in the collection and analysis of primary mortgage data; and 20 work days of local research assistants familiar with the shelter sector. USAID/Zimbabwe will assist the Contractor in locating suitable local professionals to conduct this work. Work days for the professional team are estimated as follows:

Work Task	Urban Devel Specialist (Ex-pat)	Housing Finance Specialist (Local)	Social Science Specialist (Local)
A	3	-	-
B	3	3	3
C	3	2	3
D	2	-	-
E	2	2	2
F	10	-	10
G	3	2	3
H	4	2	4
I	10	5	10
Report Prep			
Field	5	5	5
Home	5	-	5
TOTAL WORK DAYS	50	21	45

APPENDIX B

List of Interviews

6 June 1994

M. Enders	USAID/Zimbabwe
T. Chiramba	USAID/Zimbabwe
M. Makuwe	Administrative Officer (MPCNH)
A. Nhekairo	(MPCNH)
I. Mberengwa	Assistant Secretary (Research and Policy) (MPCNH)

7 June 1994

P. Mbiriri	Deputy Director; Dept. of Physical Planning (MLGRUD)
F.T. Chunga	Surveyor-General (MLAND)
R. Chigumete	Assistant Surveyor-General (MLAND)
B. Evans	City Planner; City of Harare
O. Nyamayaro	Programme Co-ordinator (PCMU/MLGRUD)

8 June 1994

Masanzu	Deputy Director; Dept. of Housing and Community Services; City of Harare
T. Mungate	Co-ops Co-ordinator Dept. OHCS
M. Mpofu	Registrar of Banks
Mutamiri	Urban Councils (MLGRUD)
Mangena	Urban Councils (MLGRUD)

9 June 1994

M. Beresford	CABS
T. Galante	GS Development
T.C. Hardy	Mashonaland Holdings
E. Mhoya	Mashonaland Holdings
M. Norman	Stewart Scott Engineers
Ruturi	Beverly Building Society

13 June 1994

Chiwore	Ass. Secretary Urban State Land Office (MLGRUD)
M. Chenga	Brian Colquhoun & Partners
K. Endersen	Brian Colquhoun & Partners
T. Hall	Brian Colquhoun & Partners
R. Hicks	Brian Colquhoun & Partners
Chisepo	City Estate Agents
F.D. Nhema	ZBS

14 June 1994

Moyo	Special Projects; Dept. of Works; City of Harare
Ngwenya	CSO
Mufakose	CSO
C. Magura	Acting Director, CSO
Mahwebo	CSO

15 June 1994

V. Matamisa	Town Clerk; Mutare
C. Ncube	Deputy Town Clerk; Mutare
P. Borerwe	Treasurer; Mutare
R. Machingaidze	Deputy Director; Dept. of Housing; Mutare
A. Chinaka	Housing Officer; Mutare
D. Nyatoti	Deputy Engineer; Mutare
K. Sauramba	Projects Engineer; Mutare
E. Bonga	Chief Town Planning Technician; Mutare

16 June 1994

J.W. Heamon	Volunteer Executive; International Executive Service Corps
W. Garaba	Walter Garaba & Partners Consulting Engineers

17 June 1994

Z.D. Manyika	Provincial Planning Officer (DPP) Matabeleland North Province
A.D. Clough	Acting Principal Land Surveyor: City of Bulawayo
R. Magonya	Senior Town Planning Technician: City of Bulawayo
P.N. Sibanda	Deputy Director: Engineering Services Dept: City of Bulawayo
M.N. Ndlovu	Deputy Town Clerk; City of Bulawayo
N. Ncube	Ass. Director: Housing and Community Services: City of Bulawayo
J.P. Ndlovu	City Treasurer: City of Bulawayo
A. Tiyane	Committee Officer: City of Bulawayo
G. Mlilo	Director of Engineering Services: City of Bulawayo
I.C. Shah	Deputy Director (Building): City of Bulawayo
M. Nyoni	Deputy City Treasurer: City of Bulawayo

21 June 1994

G. Chibongore	Acting Town Engineer: Bindura Town Council
J. Matonhodze	Town Treasurer: Bindura Town Council
J. Gutura	Director of Housing and Community Services: Bindura Town Council
A.S. Nyamapfene	DPP
Maruta	CABS

23 June 1994

K. Munzwa	Executive Director: Housing People of Zimbabwe

APPENDIX B2

APPENDIX C

Selected Bibliography

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APPENDIX D

ZIMBABWE PSHP MONITORING AND EVALUATION SYSTEM ADDITIONAL BACKGROUND ON INDICATORS

A. LAND DEVELOPMENT MODULE

1 NUMBER OF LOW-INCOME SERVICED STANDS

1.1 Purpose

1.1.1 One of the outputs of the PSHP is that:-

An additional 45,000 serviced plots are made available over the ... life of the Program for low-income households.

1.2 Definitions

1.2.1 Old Definition:
Number of plots that are serviced using Program-mobilized funds, that are sold to families of less-than-median income during life of Program.

1.2.2 Proposed New Definition:
Number of stands that are serviced using Program-mobilized funds, that are sold to families of less-than-median income during life of Program. (Zimbabwean nomenclature)

1.3 Geographical Area of Coverage

All PSHP centres.

1.4 Frequency of Data Collection

Quarterly.

1.5 Method of Calculation

Quarterly reports from participating local authorities — part of the Program reporting system requirements.

2 INDICATOR: PRICE OF LOW-INCOME SERVICED STAND

2.1 Definitions

2.1.1 Old Definition

Price of a plot of serviced land that meets current minimum standards.

2.1.2 Proposed New Definition

Price of an unsubsidized serviced stand that meets current minimum standards where the primary/bulk infrastructure is in close proximity to the site and where the terrain of the site is not extraordinarily constrained.

2.1.3 The cost of servicing land will differ from site to site depending on steepness of terrain, local soils, etc. In addition, some local authorities (notably Bindura and in some cases Harare) are including off-site or primary infrastructure costs to the costs of a particular project where the infrastructure is only serving the one project. This tends to increase costs on sites which are some distance away from primary infrastructure or where that off-site infrastructure requires substantial rehabilitation or upgrading.

2.1.4 "Current minimum standards" are defined in Ministry of Public Construction and National Housing's Circular No. 3 of 1992. A variety of stand sizes are detailed, depending on whether detached or attached houses are constructed. This indicator should track the cost of servicing a 150m2 stand with a minimum frontage of 8,5m, as well as a 300m2 stand with 12m frontage.

2.1.5 "Unsubsidized" price is introduced because most local authorities cross-subsidize their own developments by various mechanisms. For example the capital costs of water and sewerage in Harare municipal developments are recovered over ten years through city-wide rates; City of Bulawayo has below market interest rates. Senior project management/engineering design/town planning fees are typically not charged direct to a local authority project. Some municipalities do not charge the land value.

2.2 Geographical Area of Coverage

2.2.1 Baseline year — Harare, Bulawayo, Mutare and Bindura. Thereafter, average from all PSHP centres.

2.3 Base Year

2.3.1 1992 (If not available, use 1993 costs). To date all available sources are with respect the servicing costs of a 300m2 stand (only Bulawayo has costed a 150m2 stand). A pro-rated estimated price for a 150m2 price will have to be used for the baseline year.

2.4 Frequency of Data Collection

2.4.1 Annual.

2.5 Method of Calculation

2.5.1 Collect stand selling prices from local authorities or private developers and details of cost recovery. Where possible use tender prices or breakdown of selling prices put to councils.

2.5.2 Estimate subsidies in case of local authority developments.

2.5.3 Estimate profit element in case of private development.

2.5.4 Calculate average price.

2.5.5 Cross-check with opinions of sample of experts (consulting engineers who have supervised projects; if possible introduce Resident Engineers' Project Completion Report/ Audit on all PSHP project sites that specify:

Design estimated costs
Approved tender costs
Cost overruns

3 INDICATOR : PERMITS AND TITLE (PAT) DELAYS

3.1 Definition

3.1.1 *The medium length in months to obtain approvals, permits and titles for a new medium sized (50-200 unit) residential subdivision in an area on the urban fringe where residential development is permitted.*

3.1.2 The original title of the indicator was "Permits Delay" expressing an *ab initio* negative evaluation. It is proposed that the indicator name be changed to "Permits Approval Times."

3.1.3 "Urban fringe" is defined in the UNCHS/World Bank Indicators Program as *the boundary between the suburban fringe and the less densely settled areas outside of it.* The definition might imply a peri-urban area outside of the municipal area; for the purposes of defining the indicator for the PSHP, it is assumed that the development is within a municipal or town boundary.

3.1.4 In tracking the indicator it is assumed that the land is appropriately zoned for residential development. Inappropriate zoning would require an additional layer of approvals, not included in this exercise.

3.2 Purpose

3.2.1 PATs are on the critical path of any built development project and it is for this reason that it is crucial that they be closely monitored. In order to arrive at the starting points of servicing raw land, securing takeout finance and commencing construction of the superstructure, a number of approvals from public sector agencies must be secured.

3.2.2 For example design of infrastructure cannot be finalized (except at risk) prior to the town planning layout being approved; individual title deeds cannot be transferred to an individual and a mortgage raised prior to survey being approved; building plans cannot be submitted (or will not be accepted by the local authority building inspectorate) prior to subdivision approval being granted.

3.2.3 Figure 1 shows the four layers of approvals required on a typical residential development. The first set of approvals are with respect to the preparation and approval of the layout plan. On the basis of the subdivision plan approval, cadastral survey is undertaken and once again requires approval. Whilst survey is being undertaken, infrastructure designs can be prepared and approved but the infrastructure cannot be constructed prior to survey approval without risk. Once survey is approved mortgage finance can be secured against the property title deeds and the developer or homeowner obtains building plan approval before commencing construction of the house.

3.2.4 Each of the steps in this process is shown as a box in Figure 1. On the top left hand corner of the box is shown the responsible agency for that activity or approval. On the

right hand top corner of the box is a space in which the activity/approval time is to be indicated. The overall PAT is the sum of these of these values.

3.3 Geographical Area of Coverage

3.3.1 Proposed primary area of coverage is Harare. For comparative purposes PATs will also be collected in Bulawayo, Mutare and Bindura.

3.3.2 In common with all Municipalities, development applications within Harare, Bulawayo and Mutare all follow the same approval process. The indicator will therefore reflect local authority specific performance and highlight any bottlenecks typical to all three centres.

3.3.3 Development in Bindura is likely to be on state land. Applications follow a different approval route, indicative of central government performance.

3.4 Base Year

3.4.1 1992 and 1994 (but note that for six months mid-1993 to late 1993, Surveyor General's approval times were dramatically reduced through USAID-funded TA. Delays have subsequently built up again.)

3.4.2 A point to note is that the 1990 Indicators Study carried out by Garaba did cover this indicator but defined "permits" in the narrow sense of building plan approvals. The study covered only two of our proposed layers, viz. title survey and building plan approval.

3.4.3 The UNCHS/World Bank Survey Instrument notes that
"Regulations are slow to change .... In order to better link the regulatory system to the quantitative indicators, data should represent the typical regulatory environment over the past five years."

3.5 Frequency of Data Collection

3.5.1 Annually for critical elements (planning/subdivision approval and SG's approval). Other approvals to be collected biennially.

PATS are currently in the order of 12-24 months. A relatively long interval between collection is required to show any improvements.

3.6 Method of Calculation

3.6.1 Permit approval times should be collected separately with respect to:

(i) a private development; and
(ii) a development undertaken by the local authority; and the average time for both types of development is computed in the following manner.

3.6.2 Confirm that permit approval steps outlined in Figure 1 still hold.

3.6.3 Gather values for each of the four layers of PATS (in months) from local authority and central government registers. Track a sample of actual projects through the approvals registries and individual stand files kept by the authorities.

3.6.4 Cross-check with private sector experts (e.g., planning consultants and land surveyors) based on their actual project experiences. Where there is an unaccountable difference between public and private sector PATs, go with the private sector's estimates.

3.6.5 Where approval times for low cost residential projects are not specifically available, the estimates should be with respect to any type of residential development, if possible, comprising at least 50 stands.

3.6.6 Take the average PAT of all approvals by both public and private developers to derive the final indicator value.

4 SOURCES FOR INTERMEDIATE VALUE - MEDIAN LENGTH OF PATS

4.1 Main Agencies

4.1.1 Subdivision Layout Preparation:
Municipal Town Planner, Planning Consultants or Provincial Planning Office. Verbal inquiry and/or monthly report; Council minutes/adoption)

4.1.2 Layout Approval Stage I:
Provincial Planning office. Verbal inquiry; subdivision register; monthly report.

4.1.3 Layout Approval Stage 2:
Director of Physical Planning and Minister of Local Government, Rural and Urban Development.
Verbal inquiry; monthly report; Ministry's black box (urban Council's Section).
City Council. Register of subdivisions; monthly report.

4.1.4 Commissioning Survey: (only on State Land)
Ministry of Local Government (Urban State Land Office). Verbal Inquiry.

4.1.5 Survey Calculations and Field Survey
Private Land Surveyor
Verbal inquiry

4.1.6 Surveyor General's Approval of General Plan:
Surveyor Generals' office. Verbal inquiry; annual report.

4.1.7 Preparation of Engineering Design of Infrastructure:
Municipal Engineering Services or private consulting engineers. Verbal inquiry.

4.1.8 Approval of Engineering Design
Municipal Director of Works/Engineering Services (or Department of Physical Planning - part of 4.1.3).
Monthly report.

4.1.9 Transfer of Land:
Registration of Deeds. Check property title deeds.

5 SOURCES FOR INTERMEDIATE VALUE - PRICE OF SERVICED STAND

5.1 Main Agencies

Actual tendered and as-built prices from public and private sector experts.

B. LOW - INCOME SHELTER FINANCE MODULE

1 NUMBER OF LOW-INCOME MORTGAGES

1.1 Definition

1.1.1 *Number of mortgages that are extended over the life of the Program by building societies to households of less-than-median income during the life of the Program.*

1.2 Purpose

1.2.1 To measure HG performance.

1.3 Geographical Area of Coverage

1.3.1 All PSHP centres.

1.4 Frequency of Data Collection

1.4.1 Quarterly.

1.5 Sources

1.5.1 Building Society returns to the Registrar of Building Societies.

1.5.2 Part of the Program reporting system requirements.

1.6 Analysis/Comments

1.6.1 Need to compare percentage share of total building society residential mortgages.

1.6.2 Compare total value of USAID mortgages to total low-income mortgages. This will show the amount of funds raised independently by building societies for low-income mortgages.

2 MORTGAGE-TO-DEPOSIT DIFFERENCE

2.1 Definition

2.1.1 *The average percentage difference between interest rates on mortgages in both commercial and government financial institutions and the interest rate on one-year deposits in the commercial banking system.*

2.2 Purpose

2.2.1 This is a measure of the efficiency and sustainability of housing finance institutions. A negative value for this indicator suggests that lending institutions cannot be sustained for long. A high value suggests that financial institutions are inefficient.

2.3 Geographical Area of Coverage

2.3.1 National.

2.4 Frequency of Data Collection

2.4.1 Semi-Annually.

2.5 Method of Calculation

2.5.1 Two intermediate variables are used in the computation of this indicator:

- the 12-month negotiable certificate of deposit; and
- mortgage rates used by building societies and by the National Housing Fund (Ministry of Public Construction and National Housing).

2.5.2 The percentage difference between the average mortgage rate and the 12-month NCD is calculated as:

12-month NCD - Mortgage rate.

2.6 Sources

2.6.i *12-Month Negotiable Certificate of Deposit:*

2.6.1.1 Reserve Bank of Zimbabwe Monthly Bulletin. This is a monthly bulletin that gives statistics on the whole financial sector. It is published monthly and may be obtained from the Head Economic Research Department Reserve Bank of Zimbabwe.

2.6.1.2 The other source is the CSO Quarterly Digest of Statistics. This publication is not published regularly.

2.6.2 *Mortgage Rate:*

2.6.2.1 As per the 12-month NCDs.

2.6.2.2 To obtain the weighted average, Form BS4 sent to the Registrar of Building Societies on a quarterly basis by building societies will be used.

2.6.2.3 Obtain the value and rates on government mortgages from the NHF/MPCNH. The information is available monthly.

2.6.3 Part of the Program reporting system requirements.

2.7 Sources

2.7.1 Need to compare percentage share of total building society residential mortgages.

2.7.2 Compare total value of USAID mortgages to total low-income mortgages. This will show the amount of funds raised independently by building societies for low-income mortgages.

2.8 Analysis/Comments

2.8.1 Given the distortions in Zimbabwe's financial sector whereby building societies rely on Paid Up Permanent Class C Shares whose interest rate is lower than a One Year NCD, the indicator should be interpreted cautiously. This indicator shows that the housing finance sector is not sustainable for long.

2.8.2 Future analysis should examine the need and effects of segmentation in the financial sector.

2.8.3 Changes in this indicator could reflect the impact of USAID PSHP on the housing finance sector.

3 CREDIT-TO-VALUE RATIO

3.1 Definition

3.1.1 *The ratio of mortgage loans for housing last year to total investment in housing (in both the formal and informal sectors) last year.*

3.2 Purpose

3.2.1 This indicator measures the degree of access of housing consumers to long-term mortgage finance, by assessing the proportion of housing investment made through the use of credit.

3.3 Geographical Area of Coverage

3.3.1 Harare

3.4 Frequency of Data Collection

3.4.1 Annual.

3.5 Method of Calculation

3.5.1 Two intermediate variables are used in the computation of this indicator:

- Total mortgage loans for housing (a)
- Total Investment in housing (b).

3.5.2 The total investment in housing, including both new construction and improvements, can be estimated from Certificates of Occupation for various housing types multiplied by the average of a range of prices for that house type. (Refer to Worksheet in main text).

3.5.3 The amount of mortgages for housing, new and improvements, can be estimated by adding mortgages from the building societies forms BS4, the number of employer loans recorded in the Deeds Office, and mortgages extended by the NHF.

3.5.4 The ratio of mortgages to total investment in housing is then calculated as:

$$a/b$$

3.6 Sources

3.6.1 *Total Investment in Housing:*

3.6.1.1 Housing information issued by the Department of Works in the City of Harare.

3.6.1.2 Price range in housing types can be obtained from real estate agents.

3.6.1.3 The number of shanties can be obtained from the City of Harare's Department of Housing. Only rough estimates of the value of informal units/shanties is possible.

3.6.2 *Mortgages:*

3.6.2.1 Forms BS4 from building societies

3.6.2.2 Deeds Office

3.6.2.3 National Housing Fund, MPCNH

3.6.2.4 CSO Digest of Statistics.

3.7 Analysis/Comments

3.7.1 Analyze the trend in the indicator over time.

3.7.2 This indicator reflects the financial position of building societies and the impact of the USAID grant funds.

3.7.3 Analyze the impact of competition and institutional development in the housing finance sector.

C. CONSTRUCTION AND BUILDING MATERIALS MODULE

1 CONSTRUCTION AND INFRASTRUCTURE - RELATED EMPLOYMENT

1.1 Definition

1.1.1 Old Definition: Number of person-years of construction-related employment that are generated over life of Program by Program-mobilized stand servicing and shelter construction. (1"job" = 1 person-year)

1.1.2 New Definition proposed: Number of person-years of employment generated by Program-mobilized superstructure construction and infrastructure provision, and their multiplier effect on allied services and industries.

1.1.3 The Project Paper reference: "8,000 incremental employment opportunities arising from the accelerated housing construction program and which will be sustained over the five years of program implementation (years 3-7);

1.1.4 In the case of off-site infrastructural works, approximately 20 percent of the total costs are labor based, which, at the average 1991 monthly wage figure of Z$546, equates to approximately 1,500 positions;

1.1.5 In the case of construction of housing superstructures, approximately one-third of the value of contracts is labor based, equating to about 4,000 new employment opportunities.

1.1.6 Multiplier effect employment generated in allied services and industries supporting the construction sector, estimated to be one employment opportunity for each 1.6 positions created by the construction activities (2,500 jobs). Cost/Benefit assessment, pp. 73-4.]

1.2 Purpose

1.2.1 This indicator measures HG performance.

1.3 Geographical Area of Coverage

1.3.1 All PSHP centres.

1.4 Frequency of Data Collection

1.4.1 Quarterly, via quarterly reports from building societies and local authorities.

1.5 Method of Calculation

1.5.1 Three intermediate variables are used in the computation of this indicator:

- Infrastructure employment (a)
- Superstructure employment (b)
- Multiplier effect (c)

1.5.2 Total employment in person-years is equal to:

$$\frac{a+b+c}{12}$$

1.5.3 For details of the computation of each of the intermediate variables, refer to the Worksheet in the main text (Chapter 2).

1.6 Sources

1.6.1 Participating building societies:

1.6.1.1 The "Quarterly/Annual Reports to USAID" from the ZBS and MMS (PA35 in project library) should be extended to other Building Societies and be expanded to include the following summary information:

	Status Report	
	Number	Amount
Distribution by Size of Dwelling Unit Approved of #/$ Mortgage Bonds in Portfolio at End of Quarter		
2BR dwelling units		
3BR dwelling units		
4BR dwelling units		
Flat		

To arrive at stage of completion of these units, pro-rate, assuming 25% completion first quarter, 50% completion second quarter, etc.

1.6.2 Private contractors:

1.6.2.1 Multiplier (Number of person-years per house)

Based on cost schedules and interviews with low-income house builders, both private sector and local authorities. Use a different multiplier for each size of

house. (Currently have breakdowns from Bindura Town Engineer's office, Bulawayo and Ruvimbo Builders.)

1.6.3 Local authorities:

1.6.3.1 Municipalities should submit a Resident Engineers' Project Completion Report/ Audit on all PHSP project sites (see "Price of low-income serviced stands" indicator). This report should include the engineer's estimate of number of person-years of private sector infrastructure employment on the project (outside stand boundaries).

1.7 Analysis/Comments

1.7.1 The number of person-years to date will be compared to the target of 40,000 person-years. (give %)

1.7.2 It will be useful to graph cumulative person-years generated over life-of-project, to see the "lumpiness" of the Program.

1.7.3 Distinguish employment generated by construction versus infrastructure work.

1.7.4 The performance of the various Building Societies in releasing mortgage loans can be compared over time — a useful input for future disbursements, targeted assistance and negotiations.

1.7.5 Construction employment per municipality can be maintained cumulatively and compared to PSHP implementation plan.

1.7.6 The implementation plan may specific some of all of the following: construction employment goals per year, per Building Society, per municipality. Progress towards achieving such goals can and should be tracked by this methodology.

1.7.7 Quarterly reports from Building Societies. Note: The data specified above represents an amendment to the "Terms and Conditions of Grant for Low-Income Mortgage Financing through the USAID-Financed Zimbabwe Private Sector Housing Program" as detailed on p. 5. Such an amendment is provided for under General Provisions, IX, 2 (p. 6).

2 CONSTRUCTION PRICE AND COST

2.1 Definition

2.1.1 Old Definition: The present cost (labor, materials, on-site infrastructure) per square meter of a dwelling unit (built to current minimum superstructure and infrastructure requirements.

2.1.2 New Definition: The present cost (labor, materials, infrastructure within stand boundary) per square meter of a four room finished house, built to current minimum superstructure and infrastructure requirements; in 1992 constant Zimbabwe dollars.

2.1.3 "Finished house" includes plastered interior, without geyser, cement screed floor, door, window and power point; or equivalent. Cost does not include cost of land. Can be private or public construction.

2.1.4 "Four room finished house" selected over "one room with wet core" because the four room option appears the choice of builders who work in low-income housing. Even if the 2RM houses become more popular, some 4RM shelters will probably still be constructed in the future. Actual costs of constructed units are preferred over estimates.

2.2 Purpose

2.2.1 This indicator measures increased affordability of minimum infrastructure standards.

2.3 Geographical Area of Coverage

2.3.1 National urban average based on Harare plus 2 - 3 other urban centres.

2.4 Frequency of Data Collection

2.4.1 Semi-annual or annual.

2.5 Method of Calculation/Sources

2.6 Costs in current Zim Dollars

(i) Query builders, both private and local authorities, on the specifications and costs of the least expensive units they are currently constructing. (Currently have data from Bulawayo, Bindura and Ruvimbo Builders).

(ii) Based on current MPCNH Circulars, describe building to MPCNH. They will prepare a bill of quantities required, then estimate the cost of materials and labor.

(iii) Compare above sources for consistency and average if necessary. Divide by plinth area to arrive at per square meter cost. Average for Harare and two other municipalities.

2.6.1 Deflator value. Quarterly Digest of Statistics, Table 6, Consumer Price Index.

2.6.2 Supplemental. Perhaps the methodology for this indicator should be supplemented periodically by interviews. Builders and NGOs should be interviewed to discuss costs, trends and experiments with new building materials, etc.

2.6.3 To investigate: The forex funds that permit the private sector to buy replacement parts should be tracked and analyzed in the context of this indicator. For example, a quarterly report could give some indication about the use of these funds.

2.7 Supplemental source: The Quarterly Digest of Statistics," Table 13.4 "Building Materials Price Index." While this table is currently weighted for a house that is not low income, discussions are currently going forward between the CSO and others to make the table reflect a low-income house.

2.8 Alternative source/methodology

2.8.1 For Chitingweza, we have seven estimates of the cost to construct a 14.6m one-room-plus-wet-block house. Take the median value and divide to arrive at cost per square meter for a minimum standard house (2RM).

2.9 Future analysis/discussion

2.9.1 Prepare the following graph. Show semi-annual "Construction price and cost" indicator as a stacked line (materials, labor, etc).

2.9.2 Compare cost per square meter of constructed houses with the cost per sqm of the Housing People of Zimbabwe winning design. Also G3 Developments costs for frame construction.

2.9.3 Developers' comments re productivity. See interview with Mashonaland Estates for # of bricks per day.

3 FORMAL LOW-INCOME HOUSING PRODUCTION

3.1 Definition

3.1.1 Old Definition: Total number of dwelling units produced per year by formal sector at current minimum standards.

3.1.2 New Definition: Total net number of new single and semi-detached houses and flats in areas defined by local authorities as high density suburbs, for which certificates of occupation were approved per year. ("Net" equals gross construction minus low-income units demolished.)

3.1.3 Where Certificates of Occupation are not currently used, it is assumed that the house can be occupied when the superstructure is complete to window level.

3.2 Purpose

3.2.1 This indicator measures accelerated reduction in housing need.

3.3 Geographical Area of Coverage

3.3.1 Baseline year: Harare, Bulawayo, Mutare and Bindura.

3.3.2 Future years: All municipalities where the PSHP is active.

3.4 Frequency of Data Collection

3.4.1 Semi-annual or annual.

3.5 Method of Calculation/Sources

3.5.1 Quarterly reports from participating local authorities should report:

(1) Total number (and total cost at completion) of new houses in high-density areas for which certificates of occupation were approved in that quarter.

(2) Number of houses in high-density areas that were demolished that quarter, and their estimated value.

3.5.2 If there is no register of Certificates of Occupation maintained (e.g., Bindura currently), the back-up source is the file of Inspection Forms.

3.6 Supplemental source

3.6.1 Quarterly Digest of Statistics, Table 13.2 "Low Cost Houses and Flats included in Municipal Building Plans Approved" (Note: the footnote to this table, which shows outmoded definition of what is low cost, is actually obsolete. Current definition is left up to the municipality. Proposed definition: houses costing $35,000 or less in 1994, indexed in future years.)

3.7 Analysis

3.7.1 Contrast low-income housing production as a % of total housing construction for same geographic coverage, both in terms of number of units and value. Graph over time as stacked line graphs.

3.7.2 Analyze gross versus net low-income housing production.

3.7.3 Somehow need to break out that portion of low-income housing production which is USAID-mobilized. This would make a nice stacked line graph; however, don't have all national urban data, so it would distort the true picture.

4 DOWN-MARKET PENETRATION

4.1 Definition

4.1.1 Lowest-priced (unsubsidized) formal dwelling unit produced by private sector (not less than 2% of annual housing production) ($US) / Median annual household income

4.1.2 Assumption: does not include price of stand.

4.2 Purpose

4.2.1 This indicator shows the ability of the private sector to provide affordable housing for low-income households.

4.3 Geographical Area of Coverage

4.3.1 Harare compared to other urban. (Note: we are seeing higher in Harare than other centres).

4.4 Frequency of Data Collection

4.4.1 Annual.

4.5 Method of Calculation/Sources

4.5.1 Median annual household income

4.5.1.1 Reference: One reference point is the $Z 800/month, which has been increased by percentages (inflation) by USAID to $Z 1004. Note: I don't have calculation increasing that figure up to 1004.

4.5.1.2 Caveat: Have to use pro-rated estimate that applies to 1994. The $Z 800/month was arrived at through triangulation: U. of Zimbabwe professor working with unpublished CSO household survey data, and Plan, Inc. study for USAID/Zimbabwe.

4.5.2 Lowest-priced (unsubsidized) formal dwelling unit produced by private sector (not less than 2% of annual housing production)

4.5.2.1 Source: private developers. For areas outside of Harare, two to three other municipalities.

4.6 Analysis

4.6.1 Compare to other countries.

4.6.2 Graph.

4.6.3 Harare vs. other urban areas.

4.6.4 Discuss difference from house price-to-income ratio.

5 HOUSE PRICE-TO-INCOME RATIO

5.1 Definition

5.1.1 *Median house price ($US) / Median annual household income ($US)*

5.2 Purpose

5.2.1 This indicator measures the general affordability of housing.

5.3 Geographical Area of Coverage

5.3.1 Base year: Harare, Mutare, Bulawayo and Bindura.

5.3.2 Future years. Municipalities where the PSHP is active.

5.4 Frequency of Data Collection

5.4.1 Every two years starting 1994 (also have 1990 figures available).

5.5 Method of Calculation/Sources

5.5.1 Note of comparison with Garaba methodology: Garaba started to use the methodology adopted below, but did not factor his values by number of dwelling units per type of housing. The World Bank economists later adjusted Garaba's figure to compensate.]

5.5.2 Median house price

The best seems to be gathering the following information:

Type	% of Stock	Price Range of houses	# of Dwelling Units
Squatter			
Low-Cost / High Density			
2 room			
3 room			
4 room			
Block of Flats			
High-Cost / Low Density			
Institutional (where appropriate)			

5.5.3 "Dwelling unit" appears to mean "with separate entrance."
Tangwenas will appear as number of dwellings per stand.
"Institutional" refers to military, police, hospital, prisons, etc.

5.5.4 Sources

5.5.5 % of stock: Master Plans (Bindura) and other planning documents, supplemented by interviews. MPCNH for "Institutional"

5.5.6 Price range of houses: For Harare, private estate sales (see City Estate notes). Elsewhere: Master Plans and opinion of local authorities.

5.5.7 # of dwelling units per house: Socio-economic studies and informed opinion.

5.5.8 Squatter settlements in Harare: City of Harare, Department of ____, "Shanties and Squatters in the Greater Harare Area." Dated March 1994, appears to be monthly.

5.5.9 Median income See notes for Down-Market Penetration.

5.6 Analysis:

5.6.1 Compare to other countries.

5.6.2 Compare evolution: 1990 and 1994.

5.6.3 Compare trends with down-market penetration.